Start-Up and Service Instructions

CONTENTS

SAFETY CONSIDERATIONS

Centrifugal and screw compressor liquid chillers are designed to provide safe and reliable service when operated within design specifications. When operating this equipment, use good judgment and safety precautions to avoid damage to equipment and property or injury to personnel.

Be sure you understand and follow the procedures and safety precautions contained in the chiller instructions as well as those listed in this guide.

⚠ DANGER

Failure to follow these procedures will result in severe personal injury or death.

ONLY QUALIFIED electrical personnel familiar with the construction and operation of this equipment and the hazards involved should install, adjust, operate, or service this equipment.

READ AND UNDERSTAND this manual and other applicable manuals in their entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or loss of life.

DO NOT install modification kits with power applied to the drive. Disconnect and lock out incoming power before attempting such installation or removal. Failure to observe this precaution could result in severe bodily injury or loss of life.

UNUSED WIRES in conduit must be grounded at both ends to avoid a possible shock hazard caused by induced voltages. Also, if a drive sharing a conduit is being serviced or installed, all drives using this conduit should be disabled to eliminate the possible shock hazard from cross-coupled motor leads. Failure to observe these precautions could result in bodily injury.

DO NOT VENT refrigerant relief valves within a building. Outlet from rupture disc or relief valve must be vented outdoors in accordance with the latest edition of ANSI/ASHRAE 15 (American National Standards Institute/American Society of Heating, Refrigerating, and Air-Conditioning Engineers). The accumulation of refrigerant in an enclosed space can displace oxygen and cause asphyxiation.

PROVIDE adequate ventilation in accordance with ANSI/ASHRAE 15, especially for enclosed and low overhead spaces. Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness, or death. Misuse can be fatal. Vapor is heavier than air and reduces the amount of oxygen available for breathing. Product causes eye and skin irritation. Decomposition products are hazardous.

DO NOT USE OXYGEN to purge lines or to pressurize a chiller for any purpose. Oxygen gas reacts violently with oil, grease, and other common substances.

(Dangers continued in next column.)

⚠DANGER

NEVER EXCEED specified test pressures. VERIFY the allowable test pressure by checking the instruction literature and the design pressures on the equipment nameplate.

DO NOT USE air for leak testing. Use only refrigerant or dry nitrogen.

DO NOT VALVE OFF any safety device.

BE SURE that all pressure relief devices are properly installed and functioning before operating any chiller.

THERE IS A RISK OF INJURY OR DEATH by electrocution. High voltage may be present on the motor leads even though the motor is not running. Open the power supply disconnect before touching motor leads or terminals.

⚠WARNING

Failure to follow these procedures may result in personal injury or death.

DO NOT USE TORCH to remove any component. System contains oil and refrigerant under pressure.

To remove a component, wear protective gloves and goggles and proceed as follows:

a. Shut off electrical power to unit.
b. Recover refrigerant to relieve all pressure from system using both high-pressure and low-pressure ports.
c. Traces of vapor should be displaced with nitrogen and the work area should be well ventilated. Refrigerant in contact with an open flame produces toxic gases.
d. Cut component connection tubing with tubing cutter and remove component from unit. Use a pan to catch any oil that may come out of the lines and as a gage for how much oil to add to the system.
e. Carefully unsweat remaining tubing stubs when necessary. Oil can ignite when exposed to torch flame.

DO NOT work on high-voltage equipment unless you are a qualified electrician.

DO NOT WORK ON electrical components, including control panels, switches, VFD, or oil heater until you are sure ALL POWER IS OFF and no residual voltage can leak from capacitors or solid-state components.

LOCK OPEN AND TAG electrical circuits during servicing. IF WORK IS INTERRUPTED, confirm that all circuits are de-energized before resuming work.

AVOID SPILLING liquid refrigerant on skin or getting it into the eyes. USE SAFETY GOGGLES. Wash any spills from the skin with soap and water. If liquid refrigerant enters the eyes, IMMEDIATELY FLUSH EYES with water and consult a physician.

DO NOT ATTEMPT TO REMOVE fittings, covers, etc., while chiller is under pressure or while chiller is running. Be sure pressure is at 0 psig (0 kPa) before breaking any refrigerant connection.

⚠CAUTION

Failure to follow these procedures may result in personal injury or damage to equipment.

TO AVOID an electric shock hazard, verify that the voltage on the bus capacitors has discharged completely before servicing. Check the DC bus voltage at the power terminal block by measuring between the +DC and -DC terminals, between the +DC terminal and the chassis, and between the -DC terminal and the chassis. The voltage must be zero for all 3 measurements.

THE USER is responsible to conform with all applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

THIS DRIVE contains ESD (electrostatic discharge) sensitive parts and assemblies. Static control precautions are required when installing, testing, servicing or repairing this assembly. Component damage may result if ESD control procedures are not followed. For static control procedures, reference Rockwell publication Guarding Against Electrostatic Damage, or any other applicable ESD protection handbook.

DO NOT alter the setting of any jumper without explicit directions to do so. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

USE OF power correction capacitors on the output of the drive can result in erratic operation of the motor, nuisance tripping, and/or permanent damage to the drive. Remove power correction capacitors before proceeding. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

MOST CODES require that upstream branch circuit protection be provided to protect input power wiring. If fuses are chosen as the protection method, refer to the PowerFlex 755TL Installation Instructions. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

DO NOT route signal and control wiring with power wiring in the same conduit. This can cause interference with drive operation. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

DISTRIBUTION SYSTEM short circuit capacity shall not exceed the rating of the drive. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

DO NOT STEP on refrigerant lines. Broken lines can whip about and release refrigerant, causing personal injury.

DO NOT climb over a chiller. Use platform, catwalk, or staging. Follow safe practices when using ladders.

USE MECHANICAL EQUIPMENT (crane, hoist, etc.) to lift or move inspection covers or other heavy components. Even if components are light, use mechanical equipment when there is a risk of slipping or losing your balance.

BE AWARE that certain automatic start arrangements CAN ENGAGE THE VFD, TOWER FAN, OR PUMPS. Open the disconnect ahead of the VFD, tower fans, or pumps.

USE only repair or replacement parts that meet the code requirements of the original equipment.

PERIODICALLY INSPECT all valves, fittings, and piping for corrosion, rust, leaks, or damage.

DO NOT re-use compressor oil or any oil that has been exposed to the atmosphere. Dispose of oil per local codes and regulations.

DO NOT leave refrigerant system open to air any longer than the actual time required to service the equipment. Seal circuits being serviced and charge with dry nitrogen to prevent oil contamination when timely repairs cannot be completed.

INTRODUCTION

The Carrier VFD option Start-Up and Service Manual is intended for trained and qualified service personnel and is to be used during start-up, operation, and maintenance of Rockwell/Allen-Bradley PF755L drive.

ABBREVIATIONS AND EXPLANATIONS

Frequently used abbreviations in this manual include:

DC — Direct Current
DPI — Drive Peripheral Interface
ENET — Ethernet
HMI — Human Machine Interface
ICVC — International Chiller Visual Controller
IGBT — Insulated Gate Bipolar Transistor
I/O — Inputs/Outputs
IP — Internet Protocol
ISM — Integrated Starter Module
MCB — Main Control Board
MOV — Metal Oxide Varistor
PE — Protective Earthing Conductor
PIC — Product Integrated Control
PWM — Pulse Width Modulation
SIO — Sensor Input/Output
STS — Status
VFD — Variable Frequency Drive

Required Publications

The Carrier VFD option Start-Up and Service Manual must be used with the following manuals:

- Latest version of the PowerFlex Drives with TotalFORCE Control Manuals
- Latest revision of the Start-Up, Operation, and Maintenance Instructions for 19XRV or 23XRV with PIC6 Controls

Getting Assistance from Rockwell Automation

Contact the local Rockwell Automation sales office with any questions or problems relating to the products described in this manual. For technical support on drives, call the HVAC Hotline at 1-440-646-3434 Select Option 3 (Technical Support), then select Option 5 (More Options), Direct Dial Code for PowerFlex 755 drives is 500.

Before calling, have the following information available from the Allen-Bradley data nameplate located inside the enclosure on the right wall. See Fig. 1.

- Allen-Bradley ID or CAT. NO.
- Carrier VFD Code (Carrier Part Number)
- Allen-Bradley serial number

Fig. 1 — Allen Bradley Power Module Data Nameplate

IDENTIFYING DRIVE COMPONENTS

Chiller control schematics and VFD schematics are included in APPENDIX A — WIRING SCHEMATICS.

⚠ WARNING

DC bus capacitors retain hazardous voltages after input power has been disconnected. After disconnecting input power, wait five (5) minutes for the DC bus capacitors to discharge and then check the voltage with a voltmeter rated for the DC bus voltage to ensure the DC bus capacitors are discharged before touching any internal components. Failure to observe this precaution could result in severe bodily injury or loss of life.

An isolated multimeter will be needed to measure DC bus voltage and to make resistance checks. The drive's DC bus capacitors retain hazardous voltages after input power has been disconnected.

Opening the VFD Access Door

⚠ WARNING

Before removing the drive enclosure, open access door and verify that the DC bus voltage has dropped to zero by checking the terminals behind the access door. Failure to observe this precaution could result in severe bodily injury or loss of life.

1. Using recommended screwdriver (6.4 mm [0.25 in.] flat or T20 star), open access door. See Fig. 2.
2. Check to be sure that voltage between DC+ and DC– and from each DC terminal to the chassis is zero before proceeding. See Fig. 3.

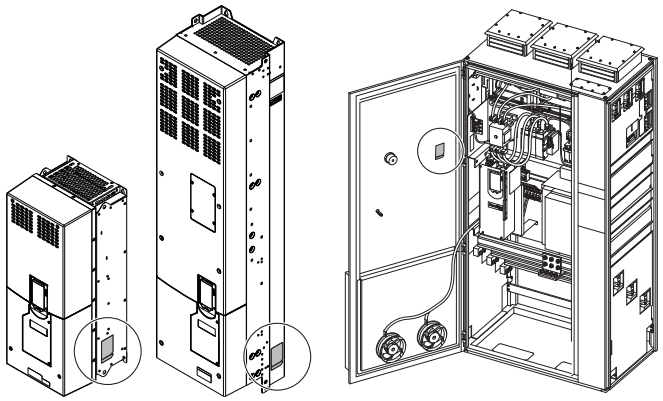


Fig. 2 — Opening Access Door

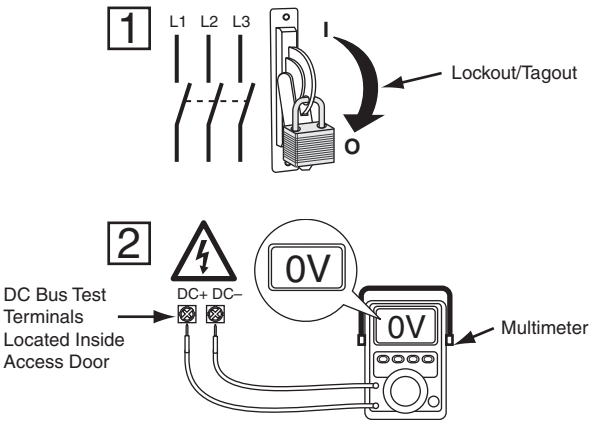


Fig. 3 — Check DC Bus Terminals

Drive Assembly Catalog Number

See Fig. 4 and 5 for examples of the Rockwell Automation Drive Assembly Catalog Number.

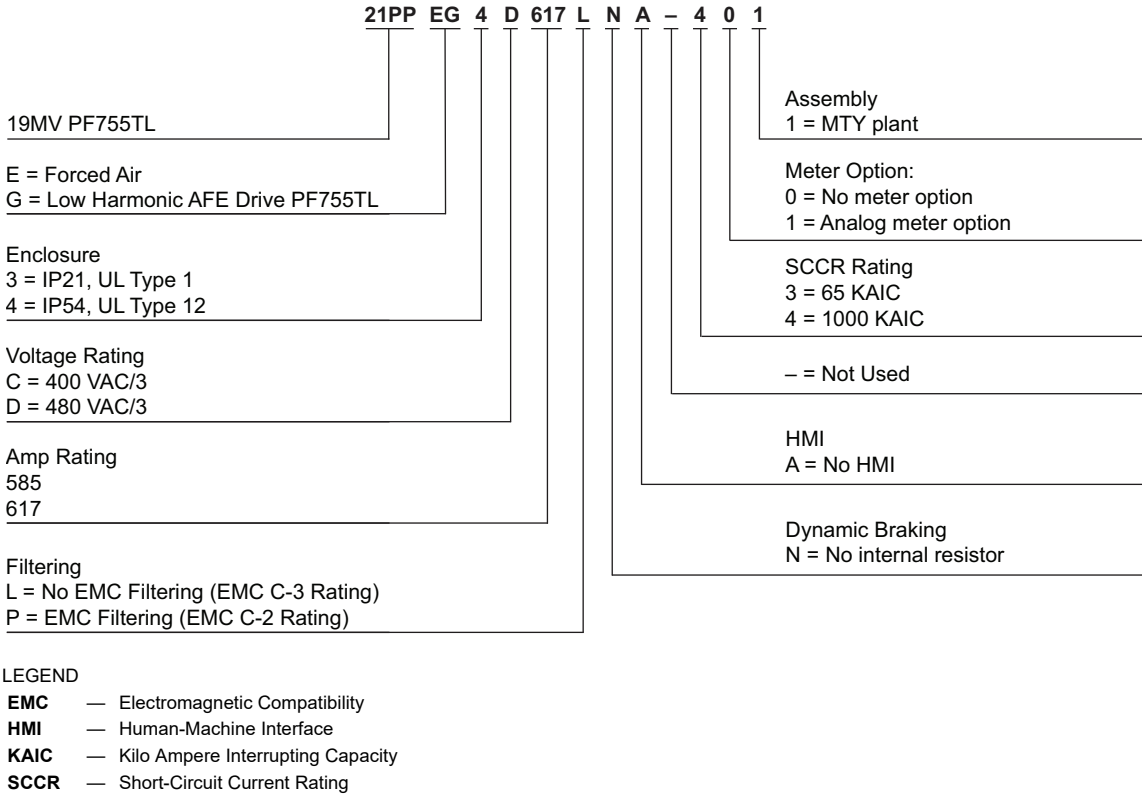


Fig. 4 — Rockwell Automation Drive Assembly Catalog Number Nomenclature: 19MV Units

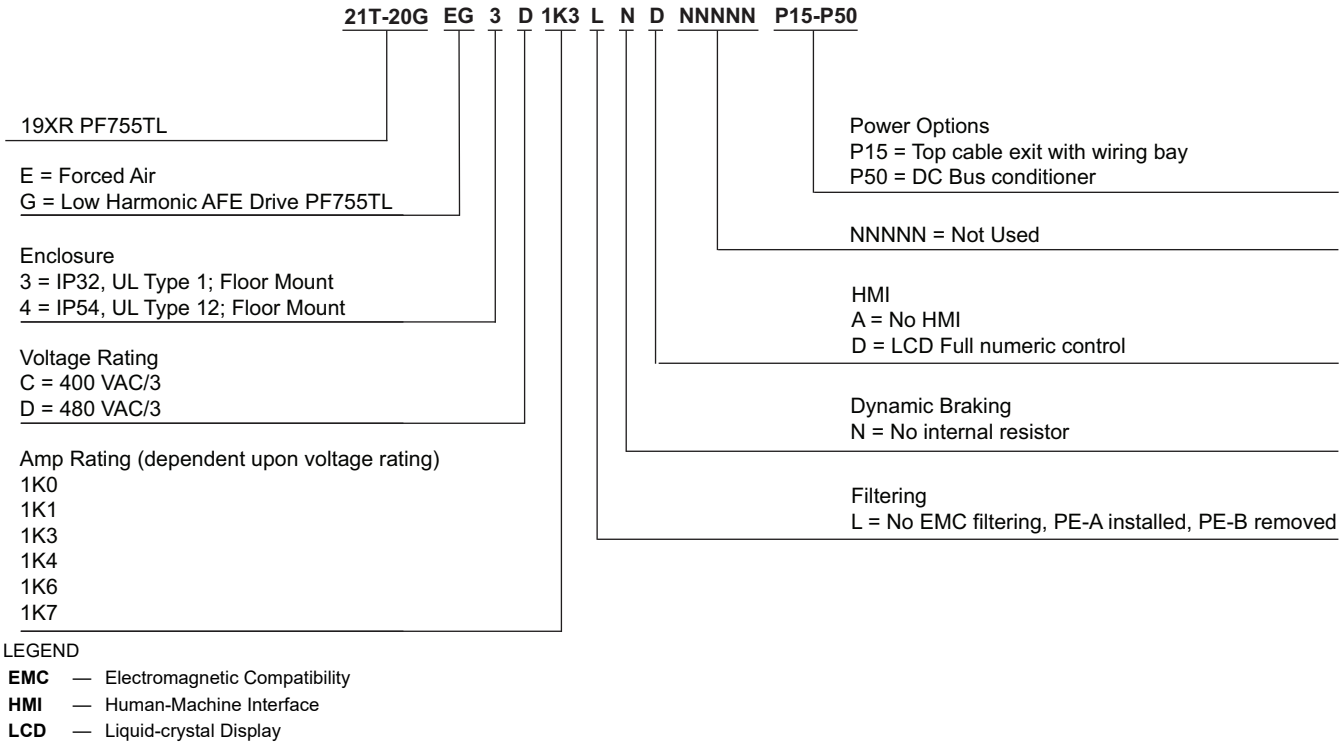


Fig. 5 — Rockwell Automation Drive Assembly Catalog Number Nomenclature: 19XR Units

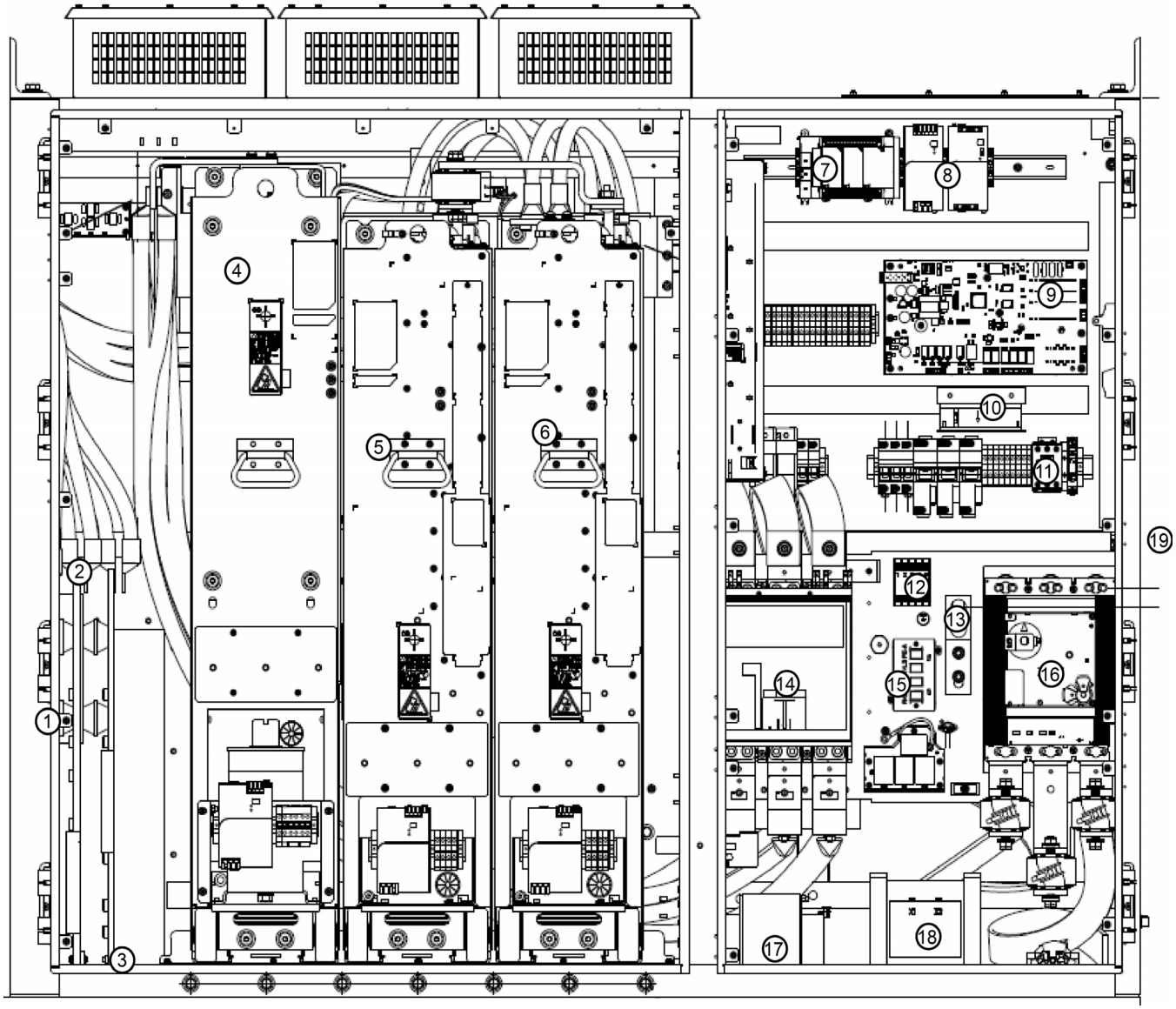
Components and Physical Data

The 19MV chillers use Allen-Bradley PF755TL drive Frame 7. The 19XR6 chillers use freestanding PF755TL drives, typically Frame 9 or larger.

NOTE: For Frame 9 and larger VFD's refer to Rockwell Automation Document 750-TG100C-EN-P for connection points and torque instructions to assemble the VFD.

LAYOUT AND DIMENSIONS FOR 19MV CHILLERS

For Allen-Bradley PF755TL drive layout, see Fig. 6 and 7; dimensions are shown in Fig. 8.



LEGEND

1 — Motor Connections (W, V, U)
2 — Enclosure Ground Stud
3 — Motor Ground Stud (Hidden)
4 — LCL Filter
5 — Converter
6 — Inverter
7 — PLC
8 — Power Supplies
9 — AC Precharge Board
10 — Mixing Fan
11 — AC Precharge Contactor
12 — AC Precharge Time Delay Relay
13 — Ground Lug
14 — Secondary Breaker
15 — ACPC TVSS Module
16 — Primary Breaker
17 — XFR 1.5 kVa
18 — XFR 2 kVa
19 — UPS is installed on back of door (hidden)

Fig. 6 — 19MV Frame 7 PF755TL Drive Components

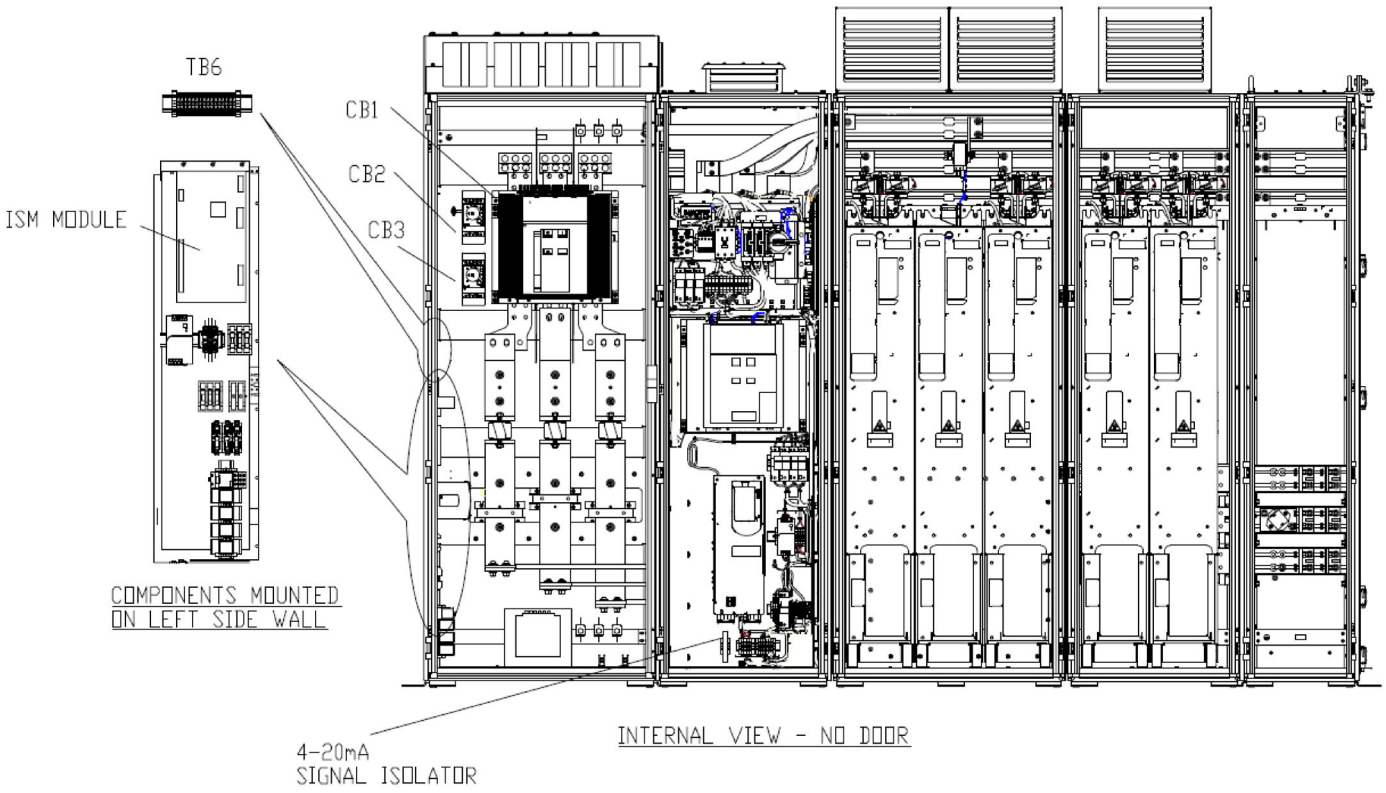
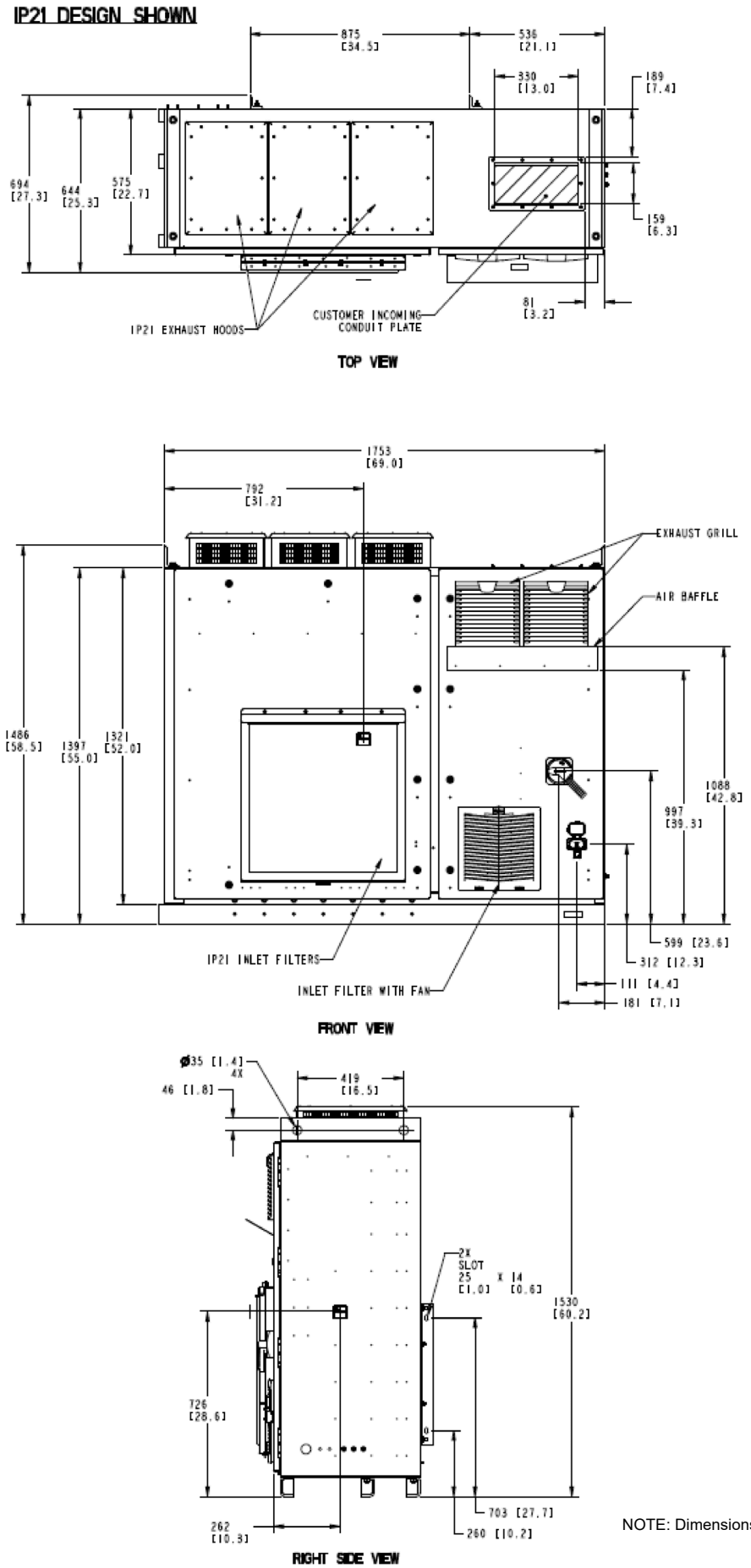


Fig. 7 — 19XR Frame 9 PF755TL Drive Components

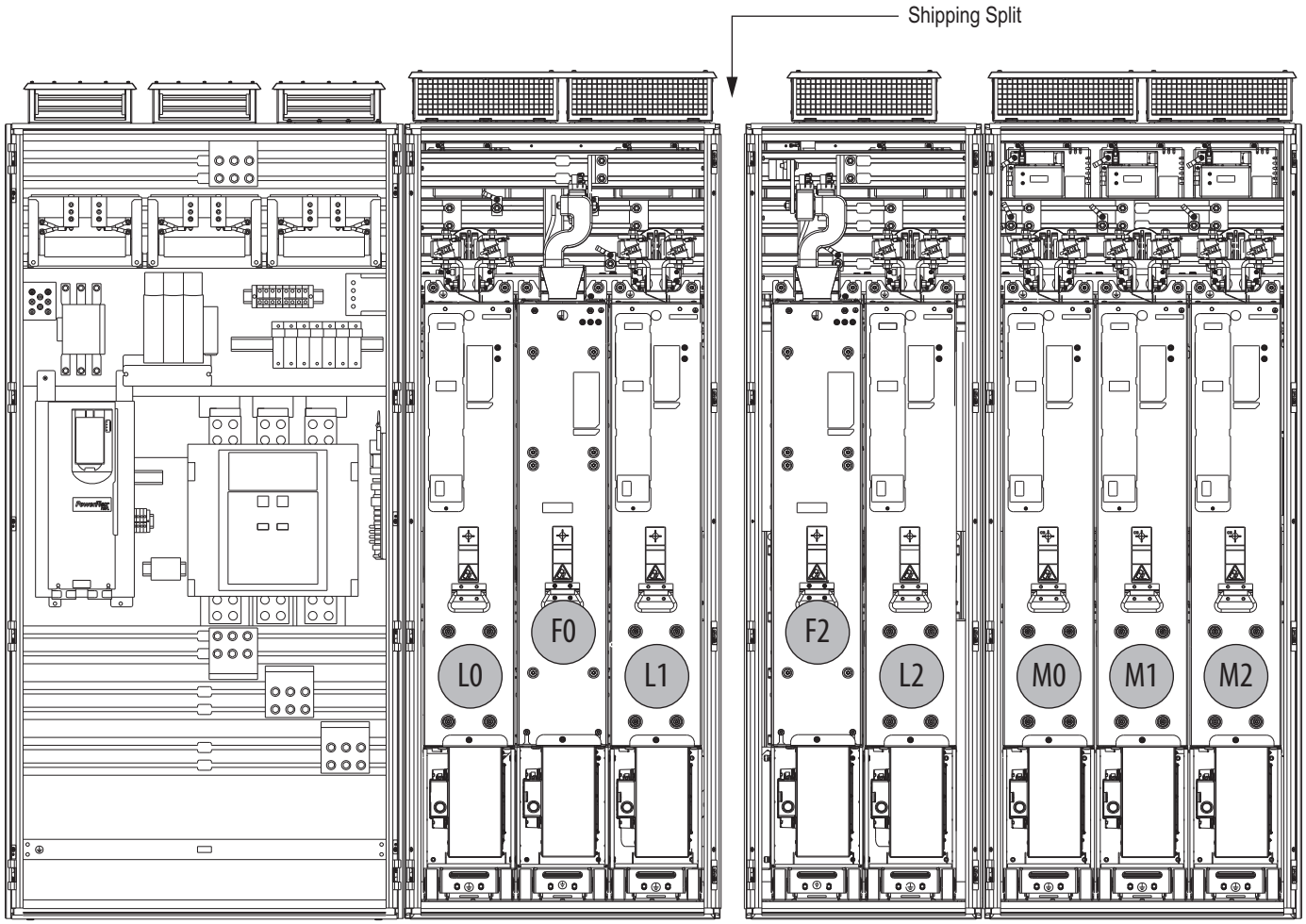


NOTE: Dimensions are in mm [in.]

Fig. 8 — 19MV Enclosure Dimensions — Frame 7

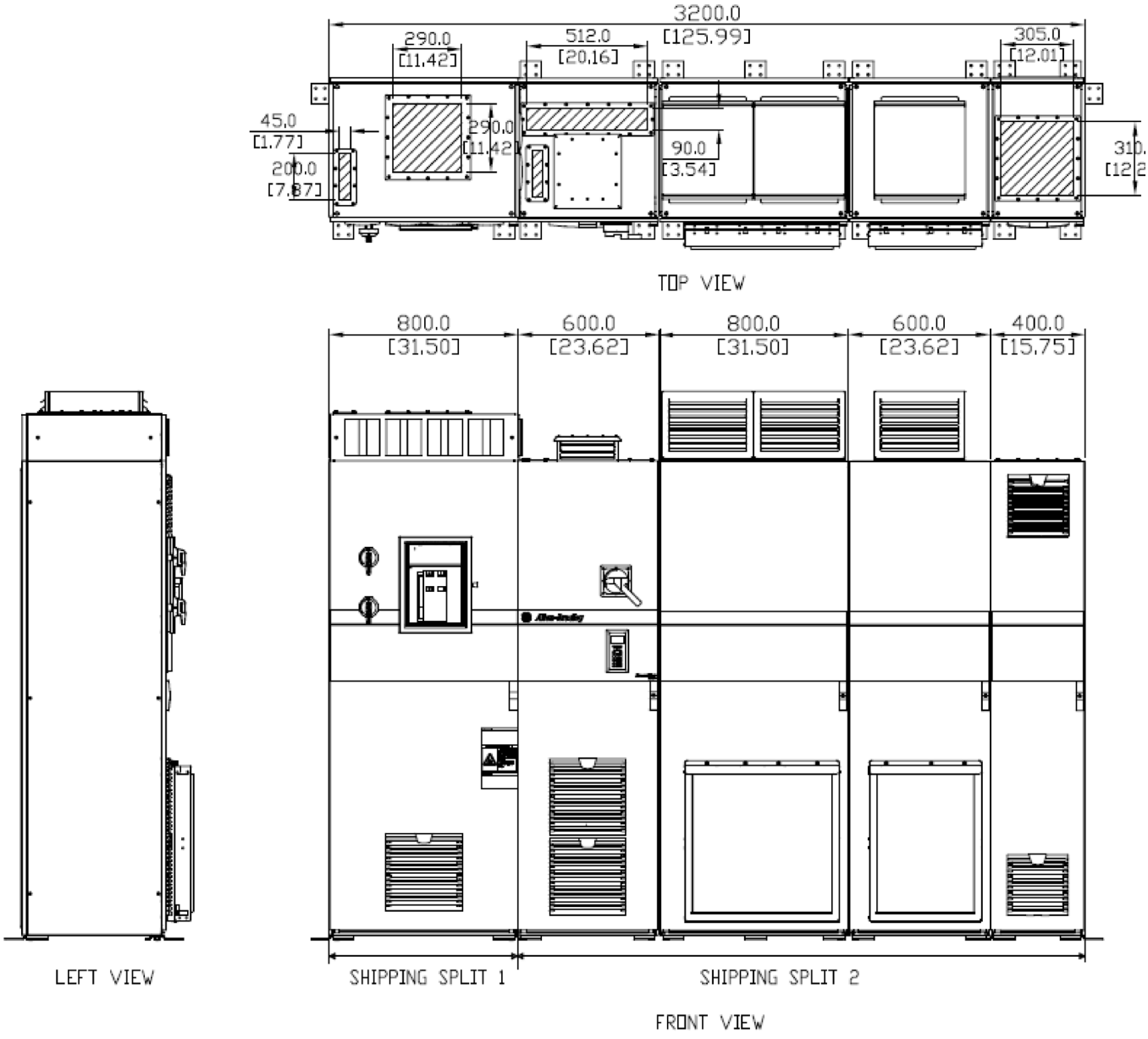
LAYOUT AND DIMENSIONS FOR 19XR6 CHILLERS

For freestanding PF755TL drive layout, see Fig. 9; dimensions are shown in Fig. 10.



MODULE TYPE	REMOVE POSITION NO.	SHIPPING SPLIT SECTION
LCL Filter	F0	Section 1 of 2 (left section)
Line Side Converter	L0, L1	
	L2	Section 2 of 2 (right section)
LCL Filter	F2	
Motor Side Inverter	M0, M1, M2	

Fig. 9 — 19XR Frame 9 PF755TL Layout



NOTE: Dimensions are in mm [in.]

Fig. 10 — 19XR6 Frame 9 Enclosure Dimensions (Typical)

START-UP

⚠ DANGER

Internal components and circuit boards of the drive are live when the drive is connected to incoming power. Coming into contact with this voltage is extremely dangerous and will result in severe personal injury or death.

The motor terminals U, V, W and the DC-link terminals are live when the drive is connected to incoming power, even if the motor is not running.

Do not make any connections when the drive is connected to the incoming power.

After having disconnected the drive, wait until all LEDs have ceased emitting light. Wait 5 more minutes, and check for hazardous voltage with volt meter, before doing any work on drive connections. Do not even open the cover before this time has expired.

Before connecting the drive to the incoming power, make sure that the switchgear enclosure door is closed.

⚠ WARNING

The control I/O-terminals are isolated from the mains potential. However, the relay outputs and other I/O terminals may have a dangerous control voltage present even when the drive is disconnected from incoming power. Coming into contact with this voltage could result in severe personal injury.

⚠ CAUTION

When working with the Connected Components Workbench (CCW), *never* use the Rotate function as the motor will immediately start and severe compressor damage could result.

Alternate Wire Lugs

See Table 1.

Verify Installation

Record the following job information:

1. Job name
2. Job number
3. City
4. State
5. Zip code

Record the following nameplate information:

1. From the Allen-Bradley nameplate (Fig. 1) located inside the VFD enclosure:
   a. Allen-Bradley ID or cat. no.
   b. Allen-Bradley serial number
   c. Carrier part number

NOTE: Additional nameplate data for 19MV is required for VFD control of permanent magnet motor. This is not required for induction motor as used for 19XR6/7.

2. From the machine nameplate (Fig. 11 or 12) located inside the VFD enclosure:
   a. Chiller serial number
   b. Chiller model
   c. Motor rated load amps
   d. Motor nameplate rpm
   e. Motor nameplate kW
   f. Motor nameplate voltage
   g. Inverter PWM (pulse width modulation) frequency
   h. Voltage
3. From the drive module label located on the drive module:
   a. Model or cat. number
   b. Serial number
4. From the HMI control panel screen:
   a. Carrier part number and revision
   b. Software number

Table 1 — Wire Lugs

MODEL	FRAME SIZE	STANDARD LUG	STANDARD LUG CABLE RANGE	ALTERNATE ABB LUG	ALTERNATE LUG CABLE RANGE
19MV	7	140G-M-TLA33	(3) 2/0-400 MCM	140G-M-TLA2A3	2x500-750
19XR6[a]	9	140G-R-TLC63	(6) 1/0-750 MCM	—	—
	10[b]	—	—	—	—

NOTE(S):

a. Standard frame size for 19XR (consult jobsite drawing).
b. Customer connects to extruded bus bar using supplied L-brackets (up to 12 cables per phase).

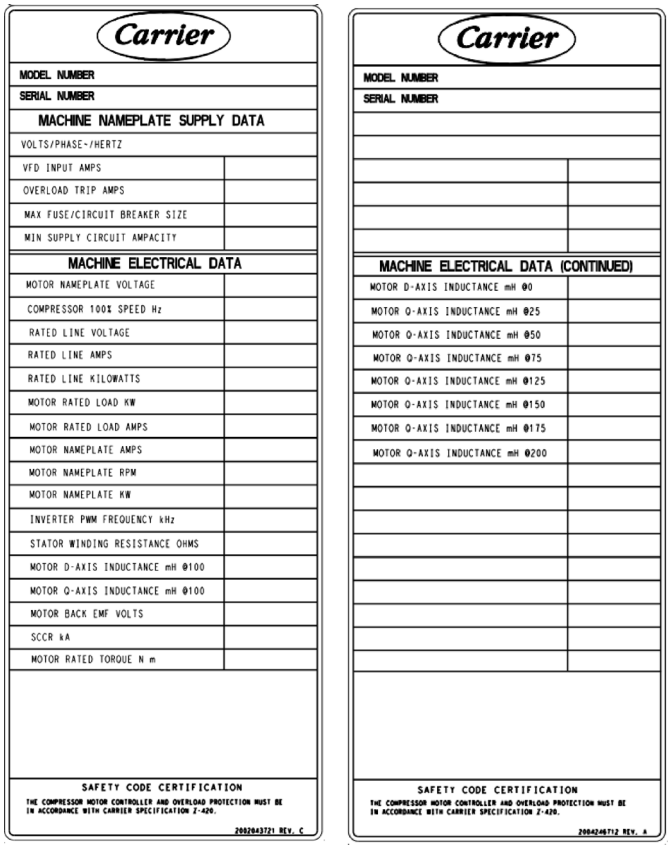


Fig. 11 — 19MV Nameplate

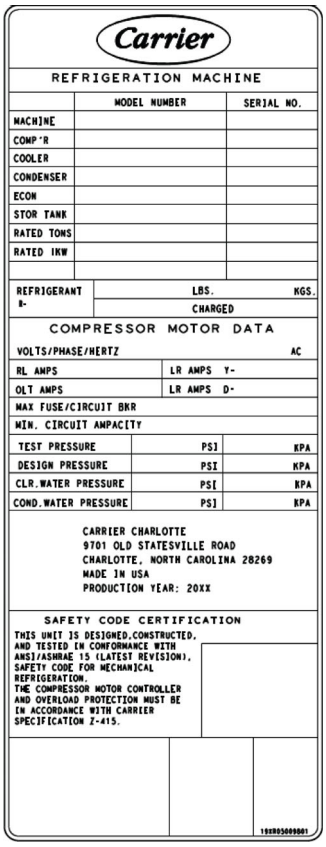


Fig. 12 — 19XR6/7 Nameplate

Configure the VFD

Key configurations required by the VFD are supplied by the HMI through the VFD Gateway. Any configuration changes necessary are made on the HMI screens. A complete set of configurations is transmitted to the VFD each time the controls are powered up.

Table 2 lists parameters displayed on the 19MV Unit Mounted VFD configuration menu. Table 3 shows PIC6 configurations for 19XR6/7 Low Voltage application with freestanding PF755TL.

Table 2 — VFD Configurations (19MV / CFGUMVFD)

PARAMETER	TABLE SETTING
Compressor Speed 100%	Per Nameplate (default 420 Hz)
Motor Nameplate Current	Per Nameplate (default 679 Amps)
Motor Rated Load Current	Per Nameplate (default 200 Amps)
Motor Nameplate Voltage	Per Nameplate (default 460 Volts)
Motor Nameplate RPM	Per Nameplate (default 12600 rpm)
Motor Nameplate KW	Per Nameplate (default 1500 kW)
Skip Frequency 1	Optional (default 30 Hz)
Skip Frequency 2	Optional (default 30 Hz)
Skip Frequency 3	Optional (default 30 Hz)
Skip Frequency Band	Optional (default 0 Hz)
Increase Ramp Time	60 s
Decrease Ramp Time	60 s
Switch Frequency (KHz)	4 kHz (default 5 kHz)
Motor Poles	4
u PM CEMF Vltg	Per Nameplate (417.8 Volts)
u PM Stator Res	Per Nameplate (0.0021)
u PM Ld at 0	Per Nameplate (0.1154)
u PM Ld at 100	Per Nameplate (0.1117)
u PM Lq at 25	Per Nameplate (0.2757)
u PM Lq at 50	Per Nameplate (0.2732)
u PM Lq at 75	Per Nameplate (0.2648)
u PM Lq at 100	Per Nameplate (0.2489)
Single Cycle Dropout	Optional (default Disable)

Table 3 — 19XR6/7 / CONF_ISM[a]

PARAMETER	TABLE SETTING
Communications Timeout	Default 10 s
Starter Type	Set for 3 (Freestanding VFD)
Cycle Dropout	Default Disable
Motor Rated Load Amps	Per Chiller Nameplate
Motor Rated Kilowatts	Only required if KW display (not recommended)
Motor Locked Rotor Trip	Per Chiller Nameplate
Locked Rotor Start Delay	Default 5 cycles
Starter LRA Rating	Value from starter nameplate - Maximum fuse
Motor Rated Line Voltage	Per Chiller Nameplate
Current Imbal Threshold	Default 15%
Voltage Imbal Threshold	Default 5%
Motor Current CT Ratio:1	See VFD (nominal amp to ISM at motor RLA to be approx 4 to 4.5 Amp)
Volt Transformer Ration:1	See VFD
Current Imbal Persist	Default 5 s
Voltage Imbal Persist	Default 5 s
Line Frequency Faulting	Default Disable
Frequency (N=50 Hz, Y=60 Hz)	Per Chiller Nameplate
Ground Fault Protection	Typically disable
Ground Fault Current	Default 15 Amps
Ground Fault Persistence	Default 5 cycles
Ground Fault Start Delay	Default 10 cycles
GF CT Ratio	Default 150
Overvoltage Threshold	Default 115 %
Undervoltage Threshold	Default 85%
Over under Volt Persis	Default 5 s
Under Volt Start Delay	Default 1 s
Under Volt Persist 1	Default 1 s (any line voltage below 75% of Rated Line Voltage)
Under Volt Persist 2	Default 5 s (any line voltage below 80% of Rated Line Voltage)
Under Volt Persist 3	Default 10 (any line voltage below 85% of Rated Line Voltage)
Display ISM Power Info	Disable

NOTE(S):

a. Parameters in *italics* are to be entered or confirmed at start-up. Parameters in **bold** are to be changed only after consultation with service engineering.

Commissioning the Unit

The commission procedure is as follows:

1. If the chiller has been stored outdoors, allow at least 24 hours room temperature stabilization prior to commissioning. Ensure any condensation that occurs as a result of the ambient temperature is allowed to evaporate.
2. Enter parameters in the applicable PIC6 menu screen.
3. Install surge suppression devices if required.
4. Review the power wiring and grounding to ensure that it has been properly connected.
5. Visually examine the inside of the drive enclosure to:
   a. Look for signs of corrosion or moisture residue.
   b. Remove any dirt or debris.
   c. Make sure all vents are clear.
6. Apply power to the drive and take thermal measurements of the capacitor bank and power connections. Do this again before start-up.
7. Measure and record the incoming line voltage. Line-to-line voltages should be balanced within 3% as calculated below:

   Measure voltages phase-to-phase and phase-to-ground.

   Vmax = Maximum measured phase-to-phase voltage
   (A to B, B to C, C to A)

   Vmin = Minimum measured phase-to-phase voltage

   Imbalance Calculation Formula

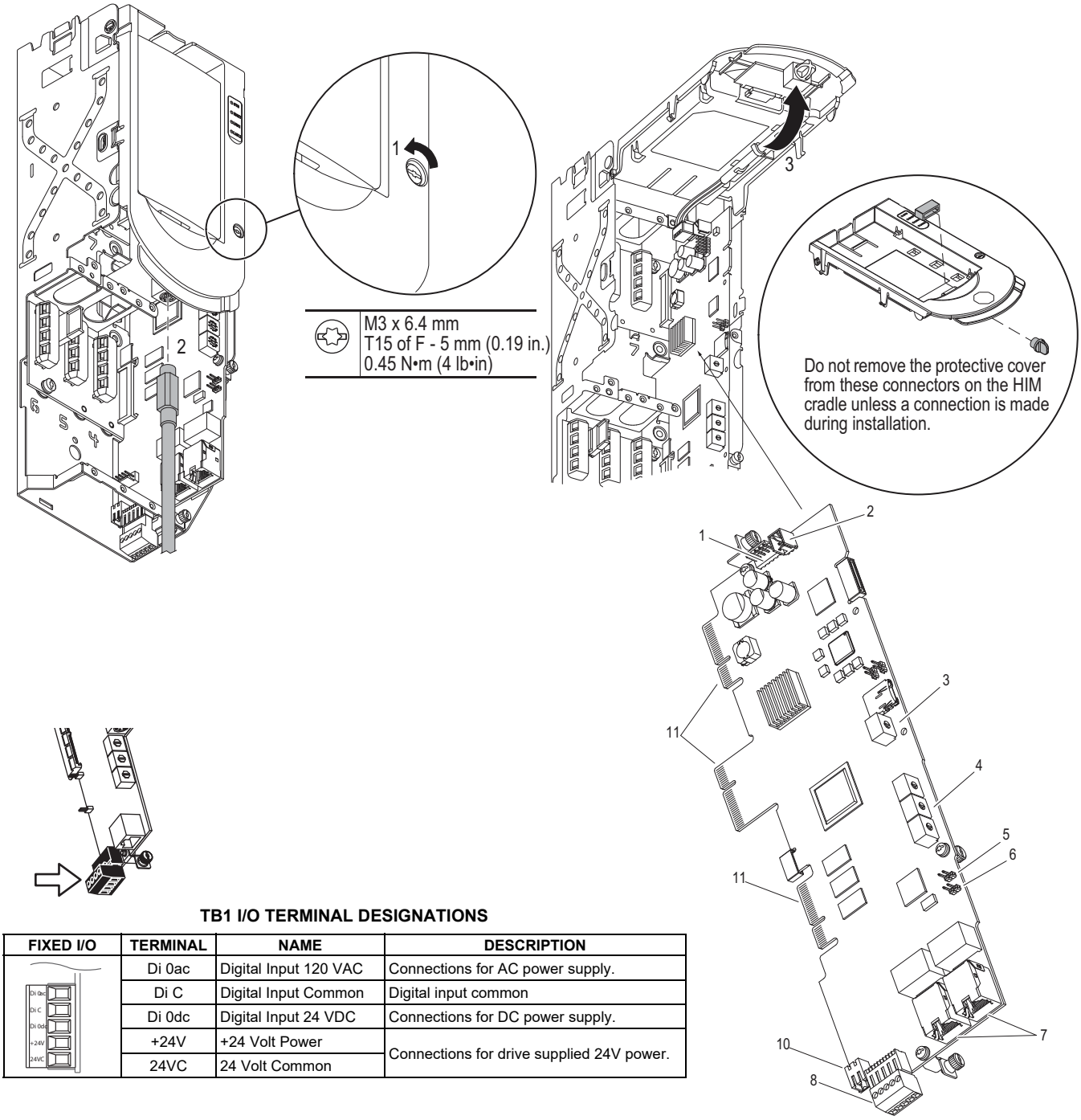
$$Vavg = \frac{(VAB + VBC + VCA)}{3}$$

$$\text{Imbalance \%} = \frac{(Vmax - Vmin) \times 100}{Vavg}$$

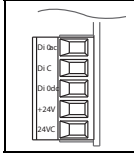
8. Take a final thermal measurement of the capacitor bank and power after finalizing the installation to ensure all connections are good.
9. If a ground fault occurs, then do the following:
   a. Check for a ground in the motor or motor wiring.
   b. Check for damage to wiring insulation and that wiring is dry.
   c. Verify the motor wiring is separated from ground and there is no connection between phases.
   d. Check for failed IGBTs.
10. If an overcurrent fault occurs, then do the following:
   a. Check for excessive load and verify load limit settings on the HMI.
   b. Check motor and wiring insulation.
   c. Check parameter settings in the General VFD menu. Check that the VFD Current Limit is set 1.03x Motor RLA or greater (limited by drive and motor size).

Check Internal Jumpers

On the Main VFD Control board there are 2 jumpers labeled J1 HARDWARE ENABLE and J2 SAFETY ENABLE. J1 should be removed and J2 should be in place. See Fig. 13.



TB1 I/O TERMINAL DESIGNATIONS

FIXED I/O	TERMINAL	NAME	DESCRIPTION
	Di 0ac	Digital Input 120 VAC	Connections for AC power supply.
	Di C	Digital Input Common	Digital input common
	Di 0dc	Digital Input 24 VDC	Connections for DC power supply.
	+24V	+24 Volt Power	Connections for drive supplied 24V power.
	24VC	24 Volt Common	

LEGEND

NO.	NAME	DESCRIPTION
1	HIM (Human Interface Module) Connector	DPI Port 1 (HIM Cradle) connection.
2	Fan Connector	Power supply for internal cooling fan.
3	Control Selector	Rotary switch for setting the programming mode.
4	Embedded Ethernet/IP Address Selectors	Rotary switches for setting lowest octet of Ethernet address (forces address to 192.168.1.xxx).
5	Jumper J2 SAFETY ENABLE	Safety enable jumper. This jumper must be left in place. For additional information, refer to the Check Internal Jumpers section on page 12.
6	Jumper J1 HARDWARE ENABLE	Hardware enable jumper. This jumper must be removed. Note that Allen Bradley replacement boards supplied by Rockwell will be provided with this jumper installed; it must be removed prior to the installation of the main control board. For additional information, refer to the Check Internal Jumpers section on page 12.
7	TB1 – +	I/O terminal block.
8	DPI Port 2	Terminal block connector for mini-DIN cable. This is used for handheld and remote HIM options.
9	Door Switch Connector	Power Supply for the door switch.
10	Edge Connectors	Dielectric grease applied to edge connectors. Do not touch or remove or otherwise contaminate grease. If required edge connector grease applicator kits are available from Rockwell.

Fig. 13 — PF755L Main Control Board

Power Jumper Configuration (Head Line)

PowerFlex 755TL product contains protective MOVs (metal oxide varistors), common mode capacitors, and discharge resistors. To protect against drive damage and/or operational problems these devices must be configured correctly.

FRAME 7 (19MV PRODUCT)

The 19MV units with Frame 7 contain:

- PE-A - MOV on the AC precharge control circuit board
- PE-A1 - MOV on the TVSS (Transient Voltage Surge Suppressor) module
- PE-A2 - Common mode capacitors on the AC common mode filter circuit board
- DR - DC bus conditioner capacitor discharge resistor

See Fig. 14-17. For solidly grounded equipment these are all connected (jumper IN). For any other ground system consult Service Engineering. Default power jumper settings are all connected (jumper IN); jumper OUT is marked with a red X in the figures.

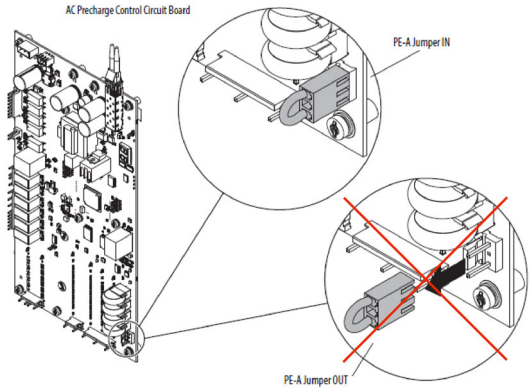


Fig. 14 — 19MV, Frame 7, PE-A MOV on AC Precharge Control Circuit Board

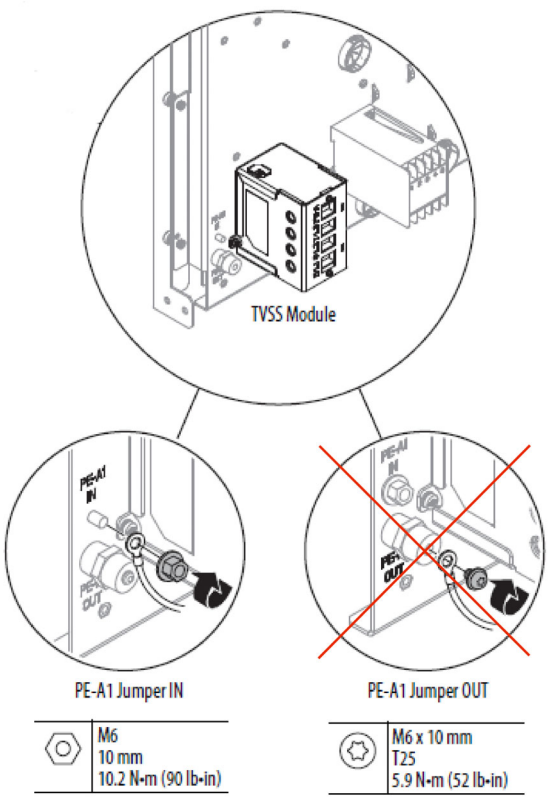


Fig. 15 — 19MV, Frame 7, PE-A1 MOV on TVSS

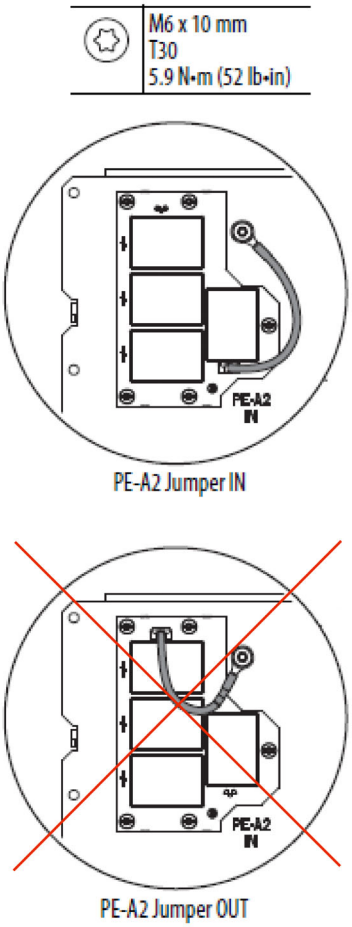


Fig. 16 — 19MV, Frame 7, PE-A2, Capacitors on AC Common Mode Filter Circuit Board

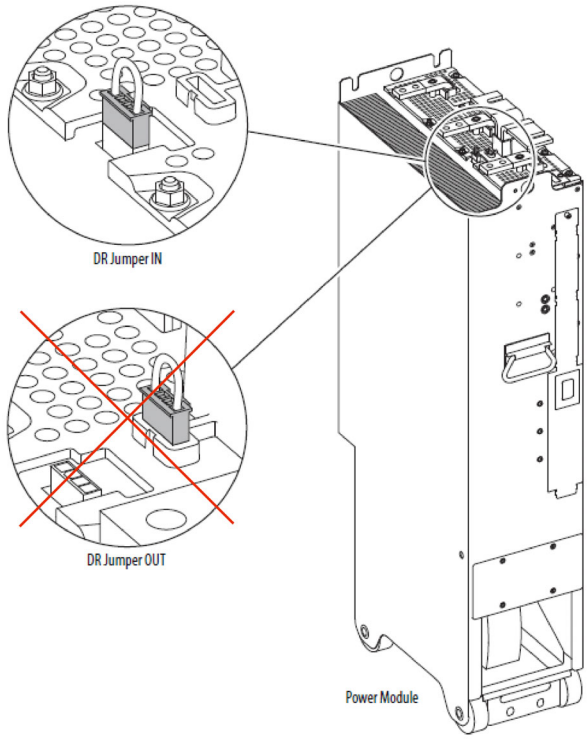


Fig. 17 — 19MV, Frame 7, DC Bus Conditioner Capacitor Discharge Resistor

FRAME 9, 10 AND LARGER (19XR PRODUCT)

The 19XR units with Frame 9, 10, and larger contain:

- PE-A - MOV on the AC precharge control circuit board
- PE-A1 - MOV on the TVSS module
- PE-A2 - Common mode capacitors on the AC common mode filter circuit board
- PE-B1 - Common mode capacitors on the line side and motor side power interface circuit boards.

For solidly grounded equipment PE-A, PE-A1, PE-A2 are all connected (in) and PE-B1 is disconnected (out). This is the default setting for the drive. For high resistance ground system all jumpers are disconnected (out). High resistance ground systems applications are non-standard and should be reviewed with Service Engineering/Technical Service Manager and may affect warranty. See Fig. 18-21.

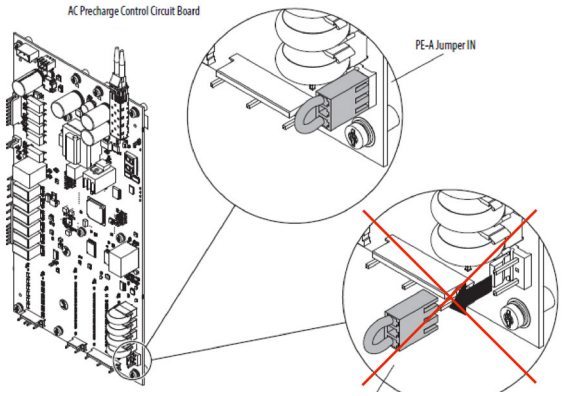


Fig. 18 — 19XR, Frame 9, 10, and Larger, PE-A MOV on AC Precharge Control Circuit Board

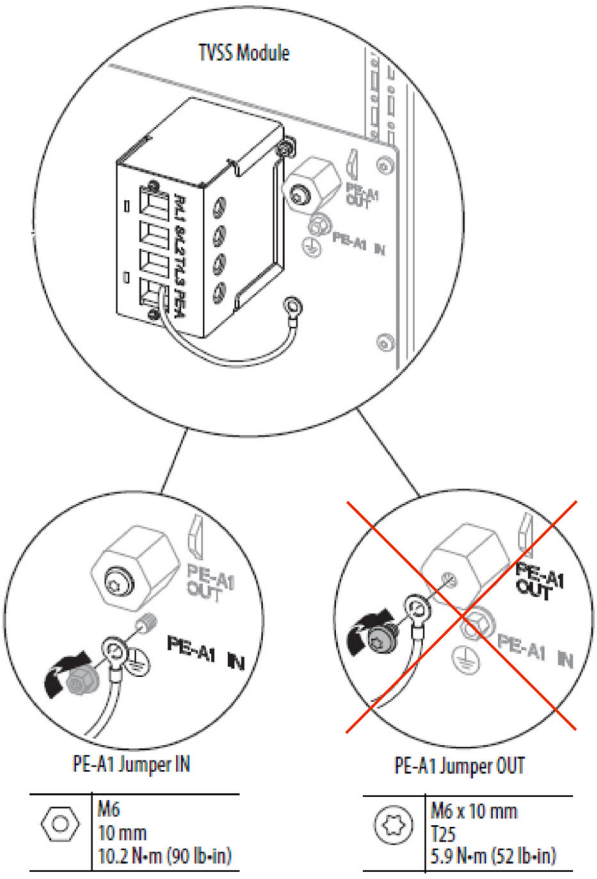


Fig. 19 — 19XR, Frame 9, 10, and Larger, PE-A1 MOV on TVSS

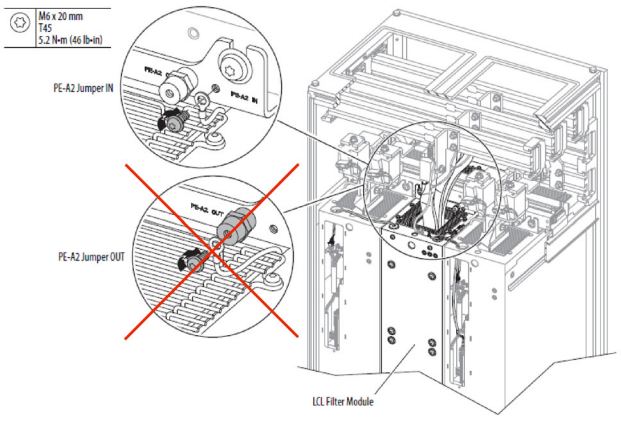


Fig. 20 — 19XR, Frame 9, 10, and Larger, PE-A2, Capacitors on AC Common Mode Filter Circuit Board

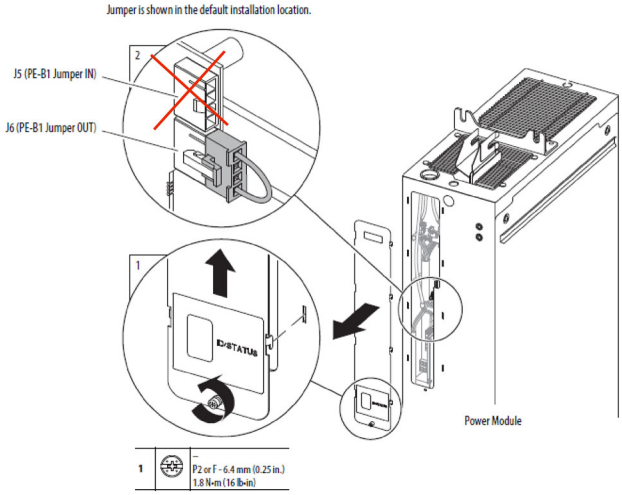


Fig. 21 — 19XR, Frame 9, 10, and Larger, PE-B1, Common Mode Capacitors on Line Side and Motor Side Power Interface Circuit Boards

⚠ WARNING

DC bus capacitors retain hazardous voltages after input power has been disconnected. After disconnecting input power, wait five (5) minutes for the DC bus capacitors to discharge and then check the voltage with a voltmeter to ensure the DC bus capacitors are discharged before touching any internal components. Failure to observe this precaution could result in severe bodily injury or loss of life.

Troubleshooting the Drive

The drive can display 2 kinds of error codes on the HMI called Alert and Alarm codes. These codes signal a problem detected during self-tuning or drive operation.

Note the following differences between Carrier and Allen-Bradley terminology:

- A warning message on the HMI is an ALERT. For freestanding VFDs there is no direct communication between the VFD and the PIC6 so no VFD Alerts are displayed on the HMI.
- VFD Faults/Alarms can be viewed using Rockwell Automation Connected Components Workbench (CCW) program, which can be downloaded from their website.
- A failure resulting in a shutdown is seen as an ALARM on the HMI and as a VFD FAULT when viewed with CCW.

See Tables 4-5 and Fig. 22.

CHILLER ALERT CODES

For unit mount PF755TL drives, an alert condition is indicated by a message on the HMI screen. The drive will continue to operate during the alert condition. Investigate the cause of the alert to ensure it does not lead to a fault condition. The alert code will automatically be cleared from the HMI when the condition causing the alert no longer exists. For freestanding VFDs utilizing ISMs, any alert codes will need to be identified using CCW.

CHILLER ALARM CODES

An alarm condition is indicated by a message on the HMI screen. If an alarm occurs, the drive coasts to stop. The STS (status) light on the drive will turn from green to red or yellow (see Table 4). The detected fault message is maintained on the display.

Table 4 — Drive Status Indicator Descriptions[a,b]

NAME	COLOR	STATE	DESCRIPTION
STS (Status)	Green	Flashing	Drive ready but not running, and no faults are present.
		Steady	Drive running, no faults are present.
	Yellow	Flashing	Drive is not running. A type 2 (non-configurable) alarm condition exists, and the drive cannot be started.
		Steady	Drive is not running, a type 1 alarm condition exists. The drive can be started.
	Red	Flashing	A major fault has occurred. Drive cannot be started until fault condition is cleared.
		Steady	A non-resettable fault has occurred.
	Red/Yellow	Flashing Alternately	A minor fault has occurred. When running, the drive continues to run. System is brought to a stop under system control. Fault must be cleared to continue. Use parameter 950 [Minor Flt Config] to enable. If not enabled, acts like a major fault.
	Green/Red	Flashing Alternately	Drive is flash updating.

NOTE(S):

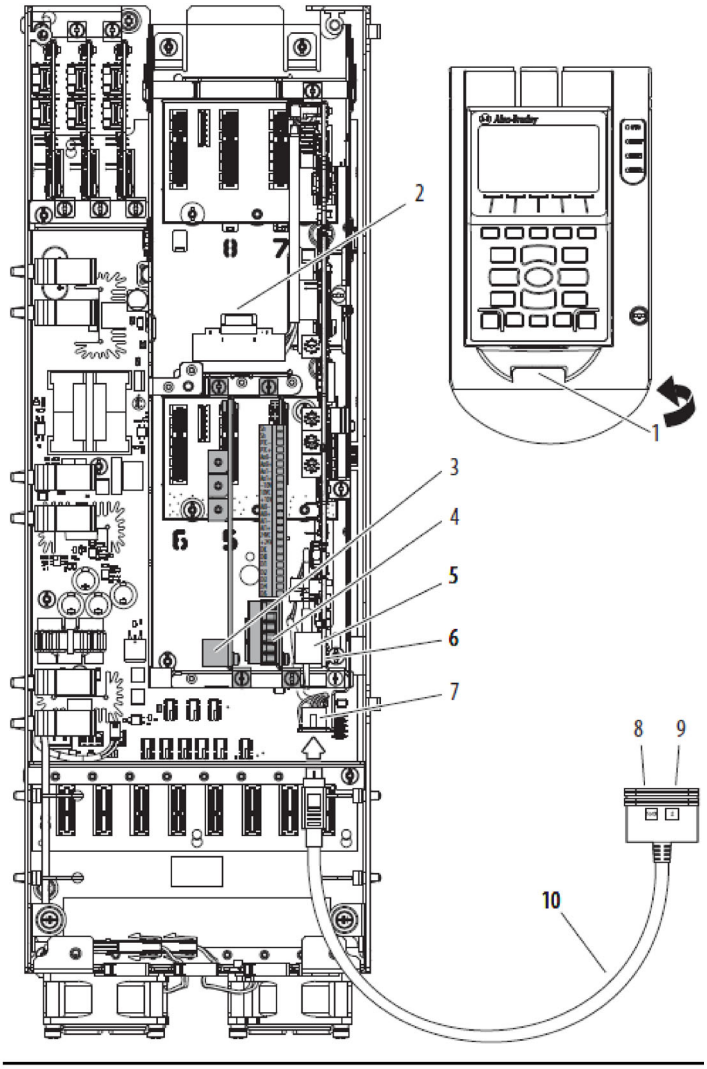
a. A Type 1 alarm indicates that a condition exists. Type 1 alarms are user configurable.
b. A Type 2 alarm indicates that a configuration error exists and the drive cannot be started. Type 2 alarms are not configurable.

Table 5 — Powerflex 755 Fault Code Descriptions and Corrective Actions

VFD FAULT CODE ON VFD HIST SCREEN	ICVC FAULT STATE	PIC6 FAULT STATE	FAULT TYPE	DESCRIPTION	CORRECTIVE ACTION
NONE	206	449		Processor memory fault	Consult VFD manual to resolve generic fault.
0			No Entry		
2	207	439	Auxiliary Input	Input is open.	Check Compressor Discharge High Pressure switch wiring and accuracy. Check for high condenser water temperatures, low water flow, fouled tubes. Check for division plate/gasket bypass. Check for noncondensables in refrigerant.
3	210	425	Power Loss	Line voltage dropout	Temporary loss of voltage. Disable Single Cycle Dropout in VFD_CONF (PIC III)/CFGUMVFD (PIC6) screen.
4	215	429	Undervoltage	Low DC bus voltage	Verify phase-to-phase and phase-to-ground line voltage. VFD Circuit Board malfunction. Contact Carrier Service.
5	205 (166)	430	Overvoltage	High DC bus voltage	Verify phase to phase and phase to ground line voltage. Monitor AC line for high transient voltage conditions.
7	217	434	Motor Overload	An internal electronic overload trip has occurred.	Any phase current > 106% RLA. Can result from significant load side current imbalance when running at full load. Check entering condenser water temperature and water flow rate. Check Motor Rated Load Amps in VFD_CONF (PICIII)/ CFGUMVFD (PIC6) screen.
8	219	444	Heat Sink Overtemp	Heat sink temperature has exceeded maximum operating temperature.	Check that VFD refrigerant isolation valves are open. Check VFD refrigerant cooling orifice and refrigerant strainer. Check for proper VFD cooling fan operation and air flow blockage.
9	219	444	Transistor Overtemp	The output transistors have exceeded maximum operating temperature.	Check that VFD refrigerant isolation valves are open. Check VFD refrigerant cooling orifice and refrigerant strainer. Check for proper VFD cooling fan operation and air flow blockage.
12	286	438	HW Overcurrent	The drive output current has exceeded hardware current limit.	Check for high entering water temperature or low condenser water flow. Check current settings in VFD_CONF (PIC III)/ CFGUMVFD (PIC 6) screen.
13	220	432	Ground Fault	A current path to earth ground greater than 25% of drive rating has occurred.	Check the motor, motor terminals, and external wiring to the drive output terminals for a grounded condition.
14	206	432	Ground Warning	The ground current has exceeded the level set in P467.	—
15	206	449	Load Loss	If this fault appears, there may be a problem with software configuration.	To reset the processor, cycle power to chiller, check VFD_CONF settings and save settings when exiting VFD_CONF (PIC3)/CFGUMVFD (PIC6) configuration screen. Check VFD parameters with Drive Explorer.
17	216	446	The DC bus ripple has exceeded a preset level.	Line Voltage imbalance	Check phase-to-phase and phase-to-ground distribution bus voltage. Increase Line Voltage % Imbalance in VFD_CONF (PIC3)/CFGUMVFD (PIC6) screen.
20	206	449	TorqPrv Spd Band	See VFD Fault Code 15.	See VFD Fault Code 15.
21	225	445	Output PhaseLoss	The current in one or more phases has been lost or remains below a preset level.	Check Motor Current % Imbalance in VFD_CONF (PIC3)/ CFGUMVFD (PIC6) screen.
24	204	442	Decel Inhibit	The drive is not following a commanded deceleration because it is attempting to limit bus voltage.	Verify input voltage is within drive specified limits. Verify system ground impedance follows proper grounding techniques. Disable bus regulation P186 and/or add dynamic brake resistor and/or extend deceleration time P537 and P538.
33	206	449	AuRsts Exhausted	See VFD Fault Code 15.	See VFD Fault Code 15.
36	286	438	SW Overcurrent	The drive output current has exceeded the 1 ms current rating.	Check for excess load, improper DC boost setting, DC brake volts set too high.
38	220	432	Phase U to Gnd	GROUND FAULT	Check wiring between drive and motor. Check motor for grounded phase. Check motor terminals. Replace drive.
39			Phase V to Gnd		
40			Phase W to Gnd		
41	220	449	Phase UV Short	GROUND FAULT	Check wiring between drive and motor. Check motor terminals. Replace drive.
42			Phase VW Short		
43			Phase WU Short		
44	206	432	Phase UNot ToGnd	GROUND FAULT (no LF2 equivalent)	Check wiring between drive and motor. Check motor terminals. Replace drive.
45	206	432	Phase VNot ToGnd		
46	206	432	Phase WNot ToGnd		
55	NONE	444	Ctrl Bd Inverter Overtemp	The temperature sensor on the main control board detected excessive heat.	Check that VFD refrigerant isolation valves are open. Check VFD refrigerant strainer.
61	206	449	Shear Pin 1	See VFD Fault Code 15.	See VFD Fault Code 15.
62	206	449	Shear Pin 2	See VFD Fault Code 15.	See VFD Fault Code 15.
64	206	449	Drive Overload	Drive is overloaded.	Check for high entering water temperature or low condenser water flow. Check current settings in VFD_CONF (PIC3)/ CFGUMVFD (PIC6) screen.
77	206	449	IR Volts Range	See VFD Fault Code 15.	See VFD Fault Code 15.
78	206	449	FluxAmpsRef Rang	See VFD Fault Code 15.	See VFD Fault Code 15.

Table 5 — Powerflex 755 Fault Code Descriptions and Corrective Actions (cont)

VFD FAULT CODE ON VFD HIST SCREEN	ICVC FAULT STATE	PIC6 FAULT STATE	FAULT TYPE	DESCRIPTION	CORRECTIVE ACTION
79	206	449	Excessive Load	Motor did not come up to speed in the allotted time.	Check that guide vanes are closed completely. Check for high entering water temperature or low condenser flow. Repeat Autotune.
80	206	449	AutoTune Aborted	See VFD Fault Code 15.	See VFD Fault Code 15.
87	206	449	IXo VoltageRange	IXo voltage calculated from motor nameplate data is too high.	Re-enter motor nameplate data in VFD_CONF (PIC3)/ CFGUMVFD (PIC6) screen.
91	206	449	Pri VelFdbk Loss	See VFD Fault Code 15.	See VFD Fault Code 15.
93	206	449	HW Enable Check	See VFD Fault Code 15.	See VFD Fault Code 15.
94	206	449	Alt VelFdbk Loss	See VFD Fault Code 15.	See VFD Fault Code 15.
95	206	449	Aux VelFdbk Loss	See VFD Fault Code 15.	See VFD Fault Code 15.
96	206	449	PositionFdbkLoss	See VFD Fault Code 15.	See VFD Fault Code 15.
97	206	449	Auto Tach Switch	See VFD Fault Code 15.	See VFD Fault Code 15.
100	206	451	Parameter Chksum	The checksum read from the board does not match the checksum calculated.	Press ICVC reset (PIC3)/Reset alarm (PIC6). Check VFD_CONF parameters. Cycle power to the drive.
106	284	453	Incompat MCB-PB	The main control board did not recognize the power structure.	Flash with newer Application version software.
107	NONE	451	Replaced MCB-PB	The main control board was moved to a different power structure. Data set to default values.	Press ICVC reset (PIC3)/Reset alarm (PIC6). Check VFD_CONF (PIC3)/CFGUMVFD (PIC6) parameters. Cycle power to the drive.
113	206	451	Tracking DataErr	Internal data error	Press ICVC reset (PIC3)/Reset alarm (PIC6). Cycle power to the drive.
124	206	451	App ID Changed	Application firmware changed.	Verify application version.
141	206	449	Autn Enc Angle	P78 [Encdrlss AngComp] is out of range.	See VFD Fault Code 15.
142	206	449	Autn Spd Rstrct	See VFD Fault Code 15.	See VFD Fault Code 15.
143	206	449	Autotune CurReg	See VFD Fault Code 15.	See VFD Fault Code 15.
144	206	449	Autotune Inertia	See VFD Fault Code 15.	See VFD Fault Code 15.
145	206	449	Autotune Travel	See VFD Fault Code 15.	See VFD Fault Code 15.
168	206	444	HeatSinkUnderTmp	Heatsink temperature sensor is reporting a value below –18.7 C (–1.66 F) or the sensor feedback circuit is open.	Check heat sink temperature sensor. Check heat sink temperature.
210	206	449	HW En Jumper Out	See VFD Fault Code 15.	See VFD Fault Code 15.
211	206	449	Safety Brd Fault	See VFD Fault Code 15.	See VFD Fault Code 15.
213	206	449	Safety Jumper In	See VFD Fault Code 15.	See VFD Fault Code 15.
226	224	448	VFD Comm loss	The device at the port has stopped communicating with the main control board.	Verify that the device is present and functional. Verify network connections. Verify options installed in appropriable ports are seated in the port and secured with mounting screws.
291	206	449	HSFan Lifwe	See VFD Fault Code 15.	See VFD Fault Code 15.
292	206	449	InFan Life	See VFD Fault Code 15.	See VFD Fault Code 15.
293	206	449	MtrBrg Life	See VFD Fault Code 15.	See VFD Fault Code 15.
294	206	449	MtrBrg Lube	See VFD Fault Code 15.	See VFD Fault Code 15.
295	206	449	MachBrg life	See VFD Fault Code 15.	See VFD Fault Code 15.
296	206	449	MachBrg Lube	See VFD Fault Code 15.	See VFD Fault Code 15.
315	206	449	Excess Psn Error	See VFD Fault Code 15.	See VFD Fault Code 15.
351	209	426	In Cur Share L1	There is an input current sharing imbalance between parallel converters in AC line indicated that is greater than 15% of converter rated current.	See VFD Fault Code 15.
352	209	426	In Cur Share L2	There is an input current sharing imbalance between parallel converters in AC line indicated that is greater than 15% of converter rated current.	See VFD Fault Code 15.
353	209	426	In Cur Share L3	There is an input current sharing imbalance between parallel converters in AC line indicated that is greater than 15% of converter rated current.	See VFD Fault Code 15.



LEGEND

1	—	DP1 Port 1 connection on the control-pod-mounted Human Interface Module (HIM). The connection is on the back of the assembly that includes the control-pod-mounted HIM and HIM cradle. This assembly is shown not installed. When this assembly is installed, the DPI Port 1 connection on the HIM connects to the Control Pod at Item 2.
2	—	DPI Port 1 connection on the control pod. The connector this is shown ere is part of the DPI Port 1 connection on the HIM and HIM cradle assembly (Item 1)
3	—	Communication option module (shown installed at Port 5).
4	—	Expansion I/O module (shown installed at Port 4).
5	—	Embedded Ethernet/IP[a] connectors.
6	—	Terminal block TB1 behind Port 0 (the Ethernet/IP) on the main control board.
7	—	DPI Port 2 for handheld HIM connection, remote HIM connection, or a splitter cable (Item 10)
8	—	Splitter cable connection that provides the following: • When the DPI Port 1 connection on the control pod (Item 2) is unused, this splitter cable connection provides a DPI Port 1 connection. • When the DPI Port 1 connection on the control pod (Item 2) is used, this splitter cable connection provides a Port 3 connection.
9	—	Splitter cable connection that provides a handheld HIM connection, or a remote HIIM connection to DPI Port 2
10	—	Splitter cable that connects to DPI Port 2 (Item 7) and provides the connections that are listed in Items 8 and 9

NOTE(S):

a. Third-party trademarks and logos are property of their respective owners.

Fig. 22 — PF755TL Control Pod Assembly

CONNECTED COMPONENTS WORKBENCH (CCW)

To read alarms and faults directly from the drive a Rockwell program called Connected Components Workbench (CCW) is required. CCW can be connected using the Ethernet connection terminated through the door, for safe connection to the drive without disconnecting power. Alternatively, the power can be removed and the Ethernet connection can be made directly to the main control board Ethernet connection.

Carrier recommends CCW version 12 or later for PF755TL chiller applications. This can be downloaded from Rockwell's website.

To connect a computer to CCW via Ethernet, the user has to set the connection IP address to something similar as the drive and same subnet mask. See Fig. 23.

Unless the IP address of the drive is known, it is recommended to observe the actual setting of the dial switches. Base is 192.168.1.XXX (Item 4 on Fig. 13). It is recommended to do a ping test between the drive and the computer prior to starting CCW to ensure that there is zero percent loss between drive and computer. In Fig. 23 the IP address is identified as 192.168.1.19 and the computer IP address is configured for 192.168.1.100.

Fig. 23 — Computer Configuration Example

If using CCW for the first time, follow the steps below.

1. When starting CCW go to Communications drop down and select Configure Drivers. See Fig. 24.

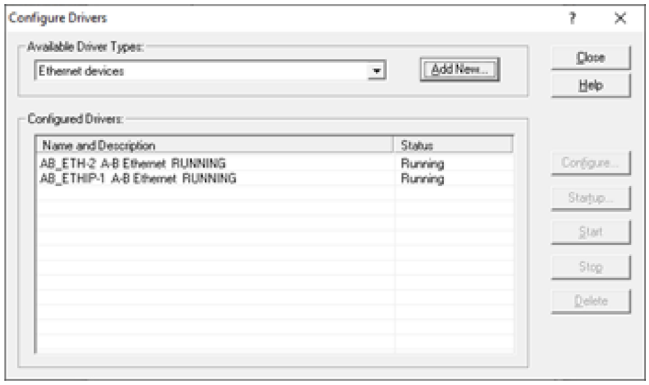


Fig. 24 — Configure Drivers

2. Select "Add New" driver and give it a unique name, then click OK. See Fig. 25.

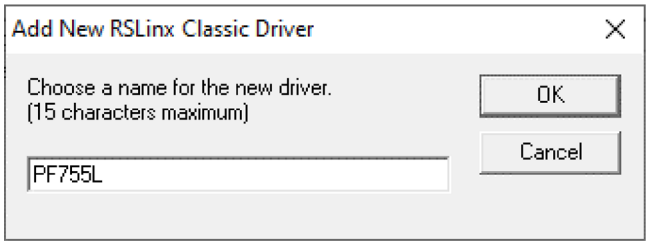


Fig. 25 — Add New Driver

3. Set Host to the same address as the computer IP address. See Fig. 26.

Fig. 26 — Station Mapping

4. Once the communication driver is set up, select Discover in CCW and select the appropriate device. See Fig. 27 and 28.

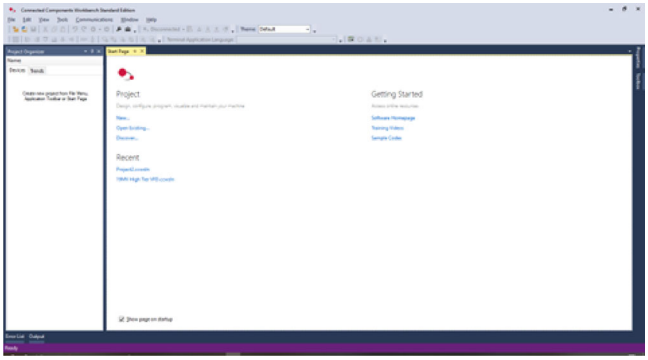


Fig. 27 — CCW Discover Device

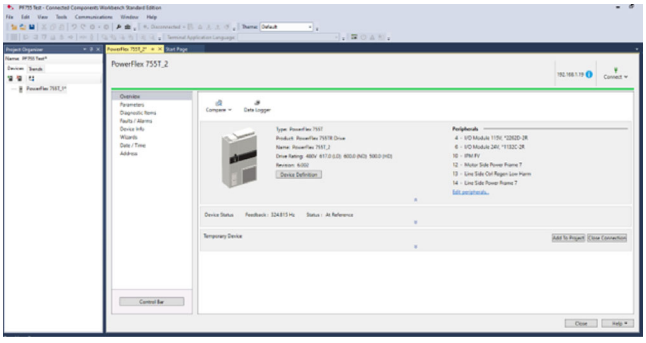


Fig. 28 — CCW Device Example: 19MV Frame 7 PF755TL

5. To see faults, select Faults/Alarms from left side menu. The fault can also be cleared from this menu by selecting “Clear Trip.” See Fig. 29.

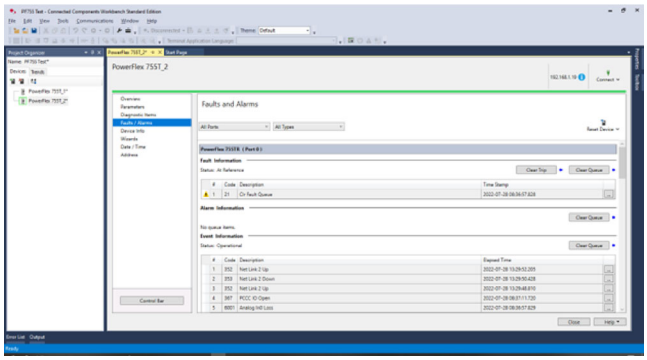


Fig. 29 — CCW Faults and Alarms

TEST EQUIPMENT NEEDED TO TROUBLESHOOT

An isolated multimeter adequately rated for the DC bus voltage will be needed to measure DC bus voltage and to make resistance checks. Note that dedicated troubleshooting test points are not provided.

VERIFY THAT DC BUS CAPACITORS ARE DISCHARGED

The drive’s DC bus capacitors retain hazardous voltages after input power has been disconnected. Perform the following steps before touching any internal components:

1. Turn off and lock out input power. Wait 5 minutes.
2. Verify that there is no voltage at the drive’s input power terminals.
3. Measure the DC bus potential with a voltmeter while standing on a non-conductive surface and wearing insulated gloves (1000-v). Measure the DC bus potential. The voltage between DC+ and DC-, and from each DC terminal to the chassis must be zero before proceeding.
4. Once the drive has been serviced, reapply input power.

MAIN CONTROL BOARD (MCB) COMPONENTS

Figure 30 shows the drive module with the cover removed. To access the control boards, loosen the screw on the face of the keypad mount and swing the keypad mount upward.

The components on the main control board (MCB) are shown in Fig. 31 and 32. As previously indicated insure J1 Enable Jumper is OUT and J2 Safety jumper is IN. The main control board has one digital input 0. This is used as a dedicated hardware enable that are unaffected by drive parameter settings with the ENABLE jumper removed.

NOTE: The new board will come with the ENABLE jumper installed and will have to be removed prior to installation into drive.

If a 19MV unit displays an E-Stop Alarm or No Amp Sensed alarm OR if a 19XR unit displays a high condenser pressure alarm, then the connections of the E-Stop/VFD_LOCK or HPR relays should be checked.

Typical wiring schematics are shown in APPENDIX A — WIRING SCHEMATICS.

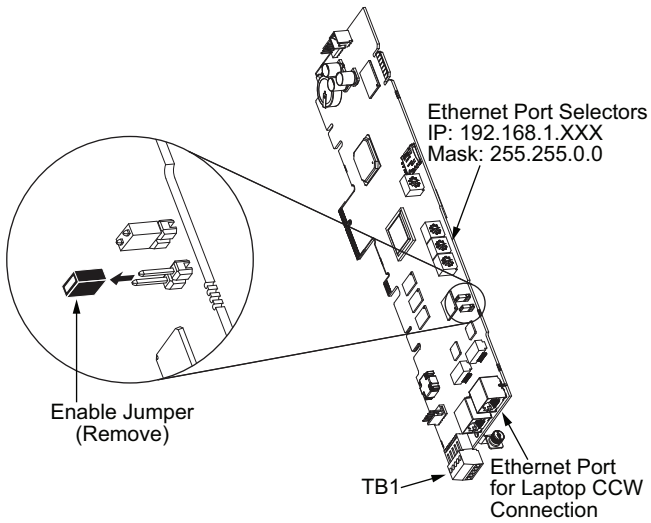


Fig. 30 — Drive Module with Cover Removed

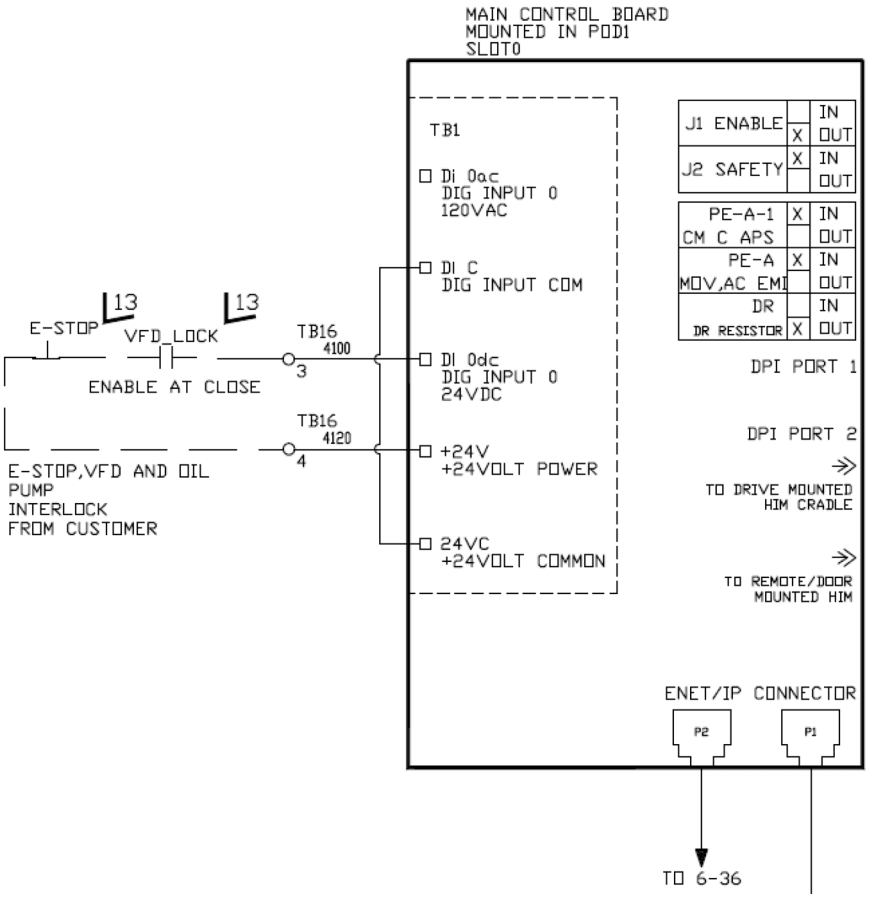


Fig. 31 — 19MV Main Control Board

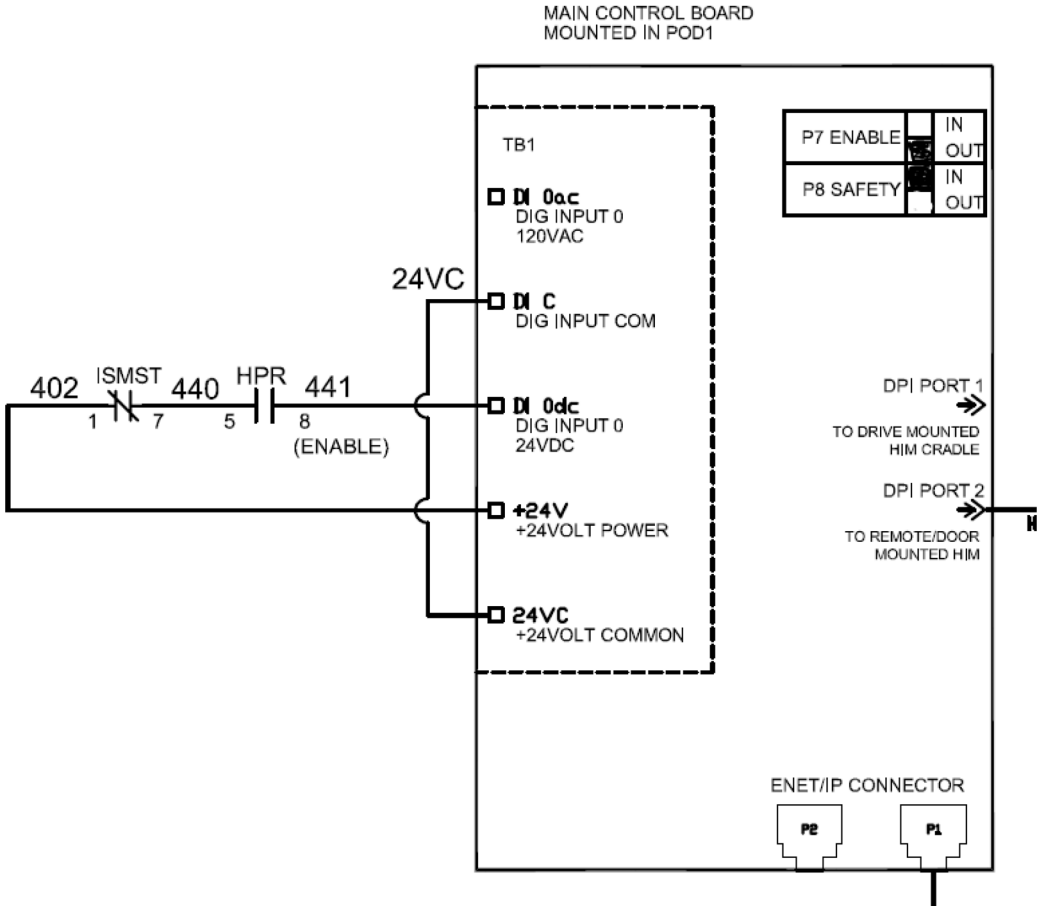


Fig. 32 — 19XR Main Control Board

Fault Codes

The 19MV and 19XR unit mount PF755TL drive communicates with PIC6 using Modbus protocol. If the VFD goes into fault, the actual VFD fault will be displayed on the VFD status screen. See Fig. 33.

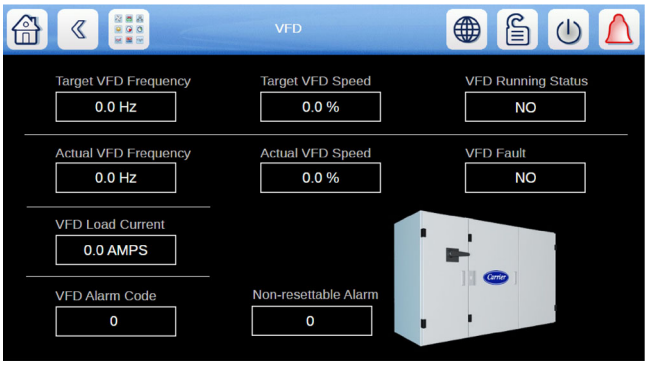


Fig. 33 — VFD Screen

The actual VFD Alarm Code will be displayed in the bottom left. Be sure to collect this code along with the code the PIC6 displays as the current alarm.

The 19XR PF755TL and free-standing drive does not have direct communication with PIC6. Interface between drive and PIC6 is via ISM (integrated starter module). Therefore CCW must be used to find the actual VFD fault in case of VFD shutdown. The PIC6 controller will just display a generic starter fault like Alarm 416 ISM Fault — Starter Fault. For further troubleshooting the actual VFD fault is required. See Fig. 34.

Refer to Rockwell document 750-RD102 for a complete set of VFD alarms and fault code breakdown.

The codes are based on Port assignments:

Port 0: Embedded Ethernet and System Functions

Port 9: Application and Logic

Port 10: Primary Motor Side Inverter Control

Port 11: Secondary Motor Side Inverter Control

Port 12: Motor Side Inverter Power

Port 13: Line Side Converter Control

Port 14: Line Side Converter Power

See Tables 6 and 7.

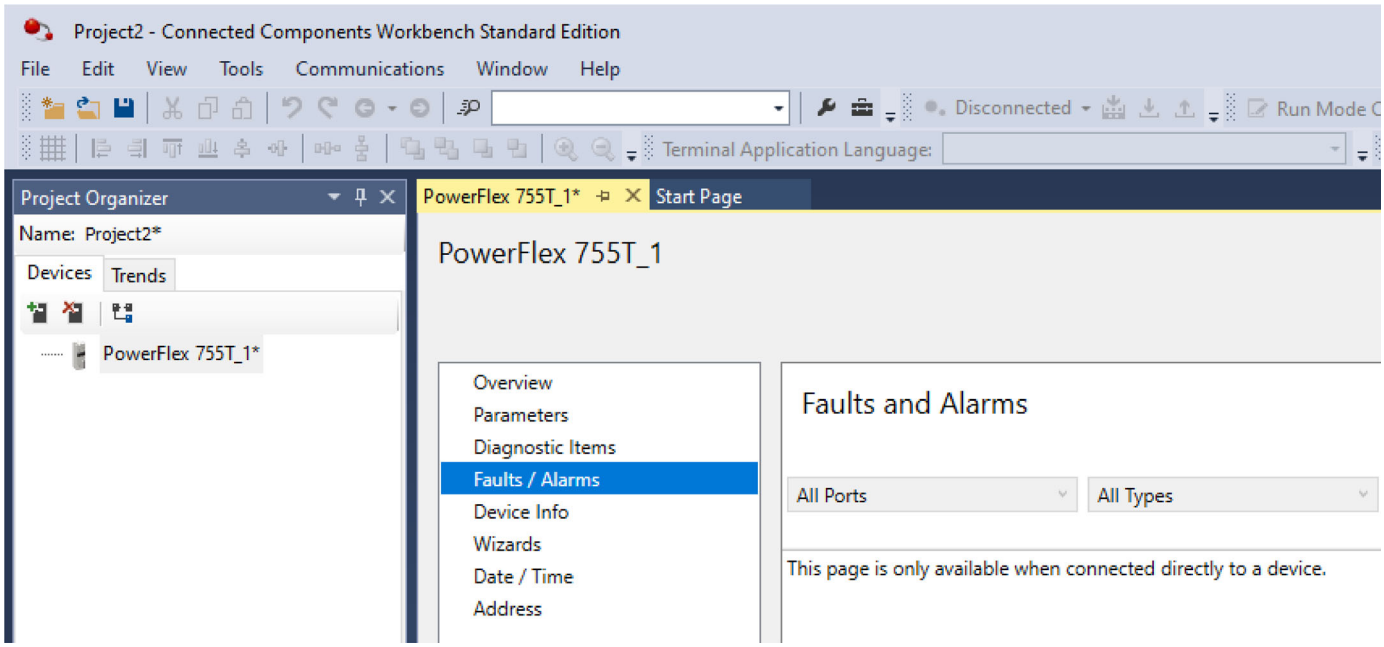


Fig. 34 — VFD Alarm Code

Table 6 — Fault Codes by Number

CODE	NAME
1	Auxiliary Input
2	Sys Default Fail
3	Emerg OVRD Actv
4	Energy Pause Cfg
7	EmergOVRD Actv
8	EmergOVRD Deactv
9	Firmware Started
10	Firmware Stopped
15	AuRsts Exhausted
16	CPU OverTemp Alm
17	CPU OverTemp Flt
18	System Defaulted
21	Clr Fault Queue
22	Clr Alarm Queue
23	Board OT Fault
24	Board OT Alarm
25	Board UT Fault
26	Board UT Alarm
27	Module Defaulted
29	Port 1 Adapter
30	Port 2 Adapter
31	Port 3 Adapter
32	Port 4 Adapter
33	Port 5 Adapter
34	Port 6 Adapter
35	Port 1 DPI Loss
36	Port 2 DPI Loss
37	Port 3 DPI Loss
38	Port 4 DPI Loss
39	Port 5 DPI Loss
40	Port 6 DPI Loss
43	PwrDn NVS Blank
58	PwrDn Data Chksm
60	New Firmware
61	Invalid RTC Time
62	RTC HW Failed
63	Time Change
64	Pwr Cyc Cnt Ovf
65	Time Chg Cnt Ovf
66	PwrDn Backup
67	PwrDn Data Fail
68	PwrDn Sig Fail
69	Cond Data Lost
70	Firmware Update
71	Bipolar Conflict
72	Digin Regen Fail
73	DigIn Cfg B
74	DigIn Cfg C
77	Drive Reset
78	Pod Fan Alarm
80	Drive Faulted
82	Clr Event Queue
83	Clr Excptn Queue
84	MixedCorrProt
86	HW Enbl Jmpr Out
87	Safety Brd Fault
88	Safety Jmpr Out
89	Safety Jumper In
92	SafetyHealth Err
93	SafetyPwrOn Err
94	SafetyPwrOff Err
95	FS Enbl Ch Error
103	Device Timeout
104	Port 4 Cfg
105	Port 5 Cfg
106	Port 6 Cfg
107	Port 7 Cfg
108	Port 8 Cfg
112	Port 12 Cfg
114	Port 14 Cfg
126	Inlet OvrTemp
127	Inlet UdrTemp
128	LC Incomp PFB
129	Prev Maint Reset
131	In Fan Life
132	Pod Fan Life
133	Pwr Rf Fan Life
134	Wrg Bay Fan Life
135	CtrlBay Fan Life
171	No Stop Source
174	TAM Det Not Cfg
175	TAM Cfg Not Det
176	InvldDataSource
180	Invld 2Wire Cfg
200	Image Wtchdg Flt
201	Const Inv Flt
202	Const Chksum Flt
203	Fiber Offline 0
204	Fiber Offline 1
205	Fiber Offline 2
206	Fiber Offline 3
207	Fiber Offline 4
208	Fiber Offline 5
209	Fiber Offline 6
210	Fiber Offline 7
211	Fiber Offline 8
212	Fiber Offline 9
213	Fiber Offline 10
214	Fiber Offline 11
215	Fiber Offline 12
216	Fiber Offline 13
217	Fiber Offline 14
218	Fiber Offline 15
219	Fiber Offline 16
220	Fiber Offline 17
221	Fiber Offline 18
222	Fiber Offline 19
223	Fiber Offline 20
224	Fiber Offline 21
225	HSI Offline 0
226	HSI Offline 1
227	Over Temp Alarm
228	Over Temp Fault
229	Under Temp Alarm
230	Under Temp Fault
231	FdbkMsg Fiber 0
232	FdbkMsg Fiber 1
233	FdbkMsg Fiber 2
234	FdbkMsg Fiber 3
235	FdbkMsg Fiber 4
236	FdbkMsg Fiber 5
237	FdbkMsg Fiber 6
238	FdbkMsg Fiber 7
239	FdbkMsg Fiber 8
240	FdbkMsg Fiber 9
241	FdbkMsg Fiber 10
242	FdbkMsg Fiber 11
243	FdbkMsg Fiber 12
244	FdbkMsg Fiber 13
245	FdbkMsg Fiber 14
246	FdbkMsg Fiber 15
247	FdbkMsg Fiber 16
248	FdbkMsg Fiber 17
249	FdbkMsg Fiber 18
250	FdbkMsg Fiber 19
251	FdbkMsg Fiber 20
252	FdbkMsg Fiber 21
253	Inv U Phase Cur
254	Inv V Phase Cur
255	Inv W Phase Cur
256	Inv U Phase NTC
257	Inv V Phase NTC
258	Inv W Phase NTC
259	Inv DC Bus Range
260	Cnv U Phase Cur
261	Cnv V Phase Cur
262	Cnv W Phase Cur
263	Cnv U Phase NTC
264	Cnv V Phase NTC
265	Cnv W Phase NTC
266	Cnv DC Bus Range
267	Flash Timeout
268	FlashRst Timeout
269	Login Timeout
270	Flash DPI Error
271	NVS Checksum Flt
300	Nvs Lost Config
301	Pfile Create Err
302	Pfile Login Err
303	HSI Offline
304	AFE PreChrg Fail
305	No Sfib Detected
306	HW Not Compatble
307	NVS Read Error
308	New System
309	Fw Update Fail
310	Inv sFib Fbr Cfg
311	Inv Invtr FbrCfg
312	Inv Conv Fbr Cfg
313	Inv CSB Fbr Cfg
314	Inv DCP Fbr Cfg
315	Inv ACP Fbr Cfg
316	Inv MVFB Fbr Cfg
318	Unknown Device
319	DPI Card Wrg Slt
320	Vlt Class Mismth
321	Inv Dev in Cfg
322	Op Mode Mismth
323	Inv FR Id
324	CatalogId NotFnd
325	Inv Conn Opt
326	Prllel Fr Mismth
327	DVDT Fltr Mismth
328	Inv AFE mode
330	No SysId Match
331	Unknow Op Mode
332	SafetyPortCnflct
333	NVS Write Error
334	Inv TAM Config
335	Inv Filtr Config
337	MtrCtrl Mismatch
338	App Mismatch
339	Emb Mismatch
340	Net IO Fault
341	Net Idle Fault
342	Net Msg Fault
344	SafetyInit Error
345	Sec MtrCtrl Chng
346	Invalid DL Cfg
350	Net Link 1 Up
351	Net Link 1 Down
352	Net Link 2 Up
353	Net Link 2 Down
354	Net Dup Address
355	Invalid Net Cfg
356	BOOTP Response
357	DHCP Response
358	DHCP Renew
359	DHCP Rebind
360	DHCP Release
361	Net Sent Reset
362	Net IO Open
363	Net IO Idle
364	Net IO Close
365	Net IO Timeout
366	Net IO Abort
367	PCCC IO Open
368	PCCC IO Close
369	PCCC IO Timeout
370	Msg Ctrl Open
371	Msg Ctrl Close
372	Msg Ctrl Timeout
375	Net Ring Up
376	Net Ring Down
9002	DLX IO Cfg Invld
9003	DLX Checksum
9004	EmbLogic Adapter
9012	TP MtrCtrl Mode
9013	Torque Prove Cflct
9014	TP Encls Config
9015	TP Sec Mtr Ctrl
9016	PID MtrCtrl Port
9048	Sleep Config
9049	Waking
9050	SleepMtrCtrl Cfg
9086	OW TrqLvlTimeout
9087	OW Torq High
9088	Pump Off
9089	PumpJack SecMtr
9090	OW Torq Low
9091	OW MtrCtrl Cflct
10001, 11001	Power Loss
10002, 11002	Mtr Ovrld Alarm
10003, 11003	Motor Overload
10004, 11004	Load Loss
10005, 11005	Input Phase Loss
10007, 11007	TorqPrv Spd Band
10008, 11008	Output PhaseLoss
10009, 11009	Decel Inhibit
10010, 11010	OverSpeed Limit
10011, 11011	BrakeSlippedActv
10012, 11012	BrakeSlippedStop
10014, 11014	Invld DC Bus Ref
10015, 11015	OverFreq Limit
10016, 11016	Phase U to Grnd
10017, 11017	Phase V to Grnd
10018, 11018	Phase W to Grnd
10019, 11019	Phase UV Short
10020, 11020	Phase VW Short
10021, 11021	Phase WU Short
10022, 11022	Phase UNegToGrnd
10023, 11023	Phase VNegToGrnd
10024, 11024	Phase WNegToGrnd
10025, 11025	Shear Pin 1
10026, 11026	Shear Pin 2
10027, 11027	Drive OverLoad
10028, 11028	Drive OverLoad
10029, 11029	Stator Res Range
10030, 11030	FluxAmpsRef Rang
10031, 11031	Excessive Load
10032, 11032	AutoTune Aborted
10033, 11033	Leakage L Range
10034, 11034	StcOffstPulsFail
10035, 11035	StcOffstRtrFail
10038, 11038	Auto Tach Switch
10039, 11039	Start On PowerUp
10040, 11040	Ext Prechrg Err
10041, 11041	PrechargeOpenAlm
10042, 11042	PrechargeOpenFlt
10043, 11043	Autn Enc Angle
10044, 11044	Autn Vel Rstrct
10045, 11045	Autotune CurReg
10046, 11046	Autotune Travel
10047, 11047	No Stop Source
10048, 11048	Accel Limit
10049, 11049	Decel Limit
10050, 11050	PWM Freq Reduced
10051, 11051	CurLimit Reduced
10053, 11053	Pos Over Travel
10054, 11054	Neg Over Travel
10055, 11055	Travel Lim Cflct
10056, 11056	Profiling Active
10057, 11057	Homing Active
10058, 11058	Home Not Set
10059, 11059	Invld Homing Cfg
10060, 11060	Fwd End Limit
10061, 11061	Rev End Limit
10063, 11063	Freq Conflict
10064, 11064	VHz Neg Slope
10065, 11065	VHz Boost Limit
10066, 11066	VHz Curve Incomp
10067, 11067	DynBrake OvrTemp
10068, 11068	MVFB Thrshld Exd
10070, 11070	Fwd Spd Lim Cfg
10071, 11071	Rev Spd Lim Cfg
10072, 11072	PM Offset Cnflct
10073, 11073	IPMSpdEstErr
10075, 11075	DynOffstFail
10076, 11076	Excess Psn Err
10080, 11080	M Ground Warning
10081, 11081	HRG Gnd Warn
10082, 11082	HRG Gnd Warn Lcl
10083, 11083	Fdbk Data Late
10084, 11084	PWM Data Late
10085, 11085	IPM OverCurrent
10086, 11086	PTP Solver Fail
10087, 11087	VRef Solver Fail
10092, 11092	SW OverCurrent
10093, 11093	HW OverCurrent
10094, 11094	Heatsink OvrTemp
10095, 11095	125us Task Ovr
10096, 11096	250us Task Ovr
10097, 11097	1ms Task Ovr
10098, 11098	2ms Task Ovr
10099, 11099	10ms Task Ovr
10100, 11100	100ms Task Ovr
10101, 11101	CntrlTask Wtchdg
10102, 11102	SystmTask Wtchdg
10103, 11103	1ms Task Wtchdg
10104, 11104	2ms Task Wtchdg
10105, 11105	10ms Task Wtchdg
10106, 11106	UnderVoltage
10107, 11107	OverVoltage
10109, 11109	HeatSinkUnderTmp
10110, 11110	Autotune Inertia
10111, 11111	Inv App No Strt
10112, 11112	InvalidLoadRatio
10113, 11113	SlipInvalidRange
10114, 11114	Jnt OverTemp Flt
10115, 11115	Odd Motor Poles
10116, 11116	PriVelFbOpen
10117, 11117	AltVelFbOpen
10118, 11118	Ld00 Fail
10119, 11119	Ld100 Fail
10120, 11120	Lq Fail
10121, 11121	ChgPmpProtActive
10129, 11129	Pred Maint Reset
10130, 11130	MtrSide Started
10131, 11131	MtrSide Stopped
10177, 11177	Mtr Brng Life
10178, 11178	Mtr Lube Life
10179, 11179	Mch Brng Life
10180, 11180	Mch Lube Life
12001	Image Wtchdg Flt
12002	ConstantsMsgInvld
12003	Constants Chksum
12004	NVS Checksum Flt
12005	Power Supply UV
12006	Precharge Fault
12007	MCS CL BayOTmp
12008	MCS Shunt Trip
12009	MCS Aux Mismatch
12010	240VAC Loss Flt
12011	240VAC OV
12012	FDOpen MCSClose
12013	SysPwr OC Fault
12017	Gate Drive Flt
12018	Fiber Offline
12019	SysPwr OV Flt
12020	N24V UV Flt
12022	Pred NVS Error
12023	CtrlMsgWdog Tout
12025	Incom GateDr Flt
12026	Ground Flt
12027	Bus OV Flt
12028	NTC-U Short Flt
12029	NTC-U Open Flt
12030	U OverTemp Flt
12031	U OverTemp Alm
12032	U LowTemp Flt

Table 6 — Fault Codes by Number (cont)

CODE	NAME
12033	U LowTemp Alm
12034	NTC-V Short Flt
12035	NTC-V Open Flt
12036	V OverTemp Flt
12037	V OverTemp Alm
12038	V LowTemp Flt
12039	V LowTemp Alm
12040	NTC-W Short Flt
12041	NTC-W Open Flt
12042	W OverTemp Flt
12043	W OverTemp Alm
12044	W LowTemp Flt
12045	W LowTemp Alm
12046	Jnt OverTemp Flt
12047	Jnt OverTemp Alm
12048	Str Overload Flt
12049	Str Overload Alm
12050	Bus Fuse Harness
12051	Bus PosFuseBlown
12052	Bus NegFuseBlown
12053	DCP MCS Life
12060	Volt Class Flt
12061	Duty Rating Flt
12062	Pwr UnitTyp Flt
12063	DTM ConstCorrFlt
12064	Main Blower Alm
12065	Main Blower Flt
12066	Stir Fan 1 Alarm
12067	Stir Fan 1 Fault
12068	Stir Fan 2 Alarm
12069	Stir Fan 2 Fault
12070	Board OT Alarm
12071	Board OT Fault
12072	Board UT Alarm
12073	Board UT Fault
12074	IntakeAirOT Alrm
12075	IntakeAir OT Flt
12076	IntakeAirUT Alrm
12077	IntakeAir UT Flt
12078	PIB OT Alarm
12079	PIB OT Fault
12080	PIB UT Alarm
12081	PIB UT Fault
12082	Offset Alm
12083	Bus Imbalanc Alm
12084	Bus Imbalanc Flt
12085	PWM Enable Flt
12086	L/R Overtemp
12087	BusCond BayOTmp
12088	Sec Fbk Watchdog
12089	ISO UV
12090	CabAirHiTempRise
12091	CabAirLoTempRise
12092	HS Fan Life
12093	IGBT Life
12094	Bus Cap Life
12095	Stir Fan Life
12096	U Pos IOC Flt
12097	V Pos IOC Flt
12098	W Pos IOC Flt
12099	U Neg IOC Flt
12100	V Neg IOC Flt
12101	W Neg IOC Flt
12102	LocPwr UV Flt
12103	Device Timeout
12104	P24 UV Flt
12107	DC Fuse Open
12108	240VAC Low
12109	240VAC Loss
12110	FDOpen MCSOpen
12126	Pwr Bd Alarm
12127	Pwr Bd Fault
12129	Pred Maint Reset
12131	Flash Timeout
12132	FlashRst Timeout
12133	Login Timeout
12134	Flash DPI Error

CODE	NAME
12136	Mtrside IOC Flt
12137	Pwr Struc Fault
13001	LnSyncLoss Det
13002	LnSyncLoss RTExp
13003	Phase Loss Det
13004	Phase Loss RTExp
13005	PowerLoss Det
13006	PowerLoss RTExp
13007	Line Sag Det
13008	Line Sag RTExp
13009	High df/dt Det
13010	High df/dt RTExp
13011	LineVltgUnbal
13012	LineCurUnbal
13013	AC L12 OvrVltg A
13014	AC L23 OvrVltg A
13015	AC L31 OvrVltg A
13016	AC L12 OvrVltg B
13017	AC L23 OvrVltg B
13018	AC L31 OvrVltg B
13019	AC L12 UndrVltgA
13020	AC L23 UndrVltgA
13021	AC L31 UndrVltgA
13022	AC L12 UndrVltgB
13023	AC L23 UndrVltgB
13024	AC L31 UndrVltgB
13025	AC L12 HiVltg A
13026	AC L23 HiVltg A
13027	AC L31 HiVltg A
13028	AC L12 HiVltg B
13029	AC L23 HiVltg B
13030	AC L31 HiVltg B
13031	AC L12 LoVltg A
13032	AC L23 LoVltg A
13033	AC L31 LoVltg A
13034	AC L12 LoVltg B
13035	AC L23 LoVltg B
13036	AC L31 LoVltg B
13037	AC Line OvrFreqA
13038	AC Line OvrFreqB
13039	AC Ln UndrFreq A
13040	AC Ln UndrFreq B
13041	AC Ln HiFreq A
13042	AC Ln HiFreq B
13043	AC Ln LoFreq A
13044	AC Ln LoFreq B
13046	Heatsink OvrTemp
13047	L Ground Warning
13048	HRG Gnd Warn
13049	HRG Gnd Warn Lcl
13050	Line Phase Rvs
13051	Fdbk Data Late
13052	PWM Data Late
13053	HW OverCurrent
13054	125us Task Ovr
13055	250us Task Ovr
13056	1ms Task Ovr
13057	2ms Task Ovr
13058	10ms Task Ovr
13059	100ms Task Ovr
13060	CntrlTask Wtchdg
13061	SystmTask Wtchdg
13062	1ms Task Wtchdg
13063	2ms Task Wtchdg
13064	10ms Task Wtchdg
13065	SW Bus Low Volt
13066	OverVoltage
13067	Cnv App No Strt
13069	R Overload Flt
13070	R Overload Alm
13071	S Overload Flt
13072	S Overload Alm
13073	T Overload Flt
13074	T Overload Alm
13075	Bus Rate of Rise
13076	LineSide Started
13077	LineSide Stopped

CODE	NAME
13092	SW OverCurrent
13114	Jnt OverTemp Flt
14001	Image Wtchdg Flt
14002	ConstantsMsgIvld
14003	Constants Chksum
14004	NVS Checksum Flt
14005	Power Supply UV
14006	Precharge Fault
14007	MCB CL BayOTmp
14008	MCB Fail To Opn
14009	MCB Aux BayOTmp
14010	240VAC Loss Flt
14011	240VAC OV
14012	FDOpen MCBClose
14013	SysPwr OC Fault
14014	AC Fuse Open
14016	LEM b0 Flt
14017	Gate Drive Flt
14018	Fiber Offline
14019	SysPwr OV Flt
14020	N24V UV Flt
14022	Pred NVS Error
14023	CtrlMsgWdog Tout
14024	CapFailureCfg
14025	Incom GateDr Flt
14026	Ground Flt
14027	Bus OV Flt
14028	NTC-R Short Flt
14029	NTC-R Open Flt
14030	R OverTemp Flt
14031	R OverTemp Alm
14032	R LowTemp Flt
14033	R LowTemp Alm
14034	NTC-S Short Flt
14035	NTC-S Open Flt
14036	S OverTemp Flt
14037	S OverTemp Alm
14038	S LowTemp Flt
14039	S LowTemp Alm
14040	NTC-T Short Flt
14041	NTC-T Open Flt
14042	T OverTemp Flt
14043	T OverTemp Alm
14044	T LowTemp Flt
14045	T LowTemp Alm
14046	Jnt OverTemp Flt
14047	Jnt OverTemp Alm
14048	Hw Conflict Flt
14049	RatingMissingFlt
14050	R Overload Flt
14051	R Overload Alm
14052	S Overload Flt
14053	S Overload Alm
14054	T Overload Flt
14055	T Overload Alm
14056	CapOvrRsncCfg
14060	Volt Class Flt
14061	Duty Rating Flt
14062	Pwr UnitTyp Flt
14063	DTM ConstCorrFlt
14064	Main Blower Alm
14065	Main Blower Flt
14066	Stir Fan 1 Alarm
14067	Stir Fan 1 Fault
14068	Stir Fan 2 Alarm
14069	Stir Fan 2 Fault
14070	Board OT Alarm
14071	Board OT Fault
14072	Board UT Alarm
14073	Board UT Fault
14074	IntakeAirOT Alrm
14075	IntakeAir OT Flt
14076	IntakeAirUT Alrm
14077	IntakeAir UT Flt
14078	PIB OT Alarm
14079	PIB OT Fault
14080	PIB UT Alarm

CODE	NAME
14081	PIB UT Fault
14082	Offset Alm
14083	Bus Imbalanc Alm
14084	Bus Imbalanc Flt
14085	PWM Enable Flt
14086	L/R Overtemp
14087	BusCond BayOTmp
14088	Sec Fbk Watchdog
14089	ISO UV
14090	CabAirHiTempRise
14091	CabAirLoTempRise
14092	HS Fan Life
14093	IGBT Life
14094	Bus Cap Life
14095	Stir Fan Life
14096	R Pos IOC Flt
14097	S Pos IOC Flt
14098	T Pos IOC Flt
14099	R Neg IOC Flt
14100	S Neg IOC Flt
14101	T Neg IOC Flt
14102	LocPwr UV Flt
14103	Device Timeout
14104	P24 UV Flt
14107	DC Fuse Open
14108	240VAC Low
14109	240VAC Loss
14110	FDOpen MCBOpen
14111	InvalidRatingFlt
14112	Capacitor Fault
14113	Fan Ovrtemp Alm
14114	Fan OverTemp Flt
14115	Fan UdrTemp Alm
14116	Fan UdrTemp Flt
14117	CapResonanceAlrm
14118	CapResonance Flt
14119	Reactor OT Fault
14120	PCC Fail To Cls
14121	PCC Fail To Opn
14122	PCC Aux Mismatch
14123	MCB Trip Reset
14124	MCB Overcurrent
14125	LCL FltrCap Life
14126	AC Line Ovr Vltg
14127	ACP MCB Life
14128	ACP PCC Life
14129	Pred Maint Reset
14130	TVSS Open
14131	Flash Timeout
14132	FlashRst Timeout
14133	Login Timeout
14134	Flash DPI Error
14136	Lineside IOC Flt
14142	Prchrg3 Sec
14143	Prchrg30 Sec
nn000	Open Wire
nn000	Enc0 Open Wire
nn000	Ch0 LightSrc Err
nn001	Analog In0 Loss
nn001	Phase Loss
nn001	Enc0 Phase Loss
nn001	Ch0 SigAmp Err
nn001	High Temp
nn002	Analog In1 Loss
nn002	Quadrature Loss
nn002	Enc0 Quad Loss
nn002	Ch0 PsnVal Err
nn002	Over Temp
nn003	Ch0 OverVolt Err
nn003	Comm Watchdog
nn004	Safety Fdbk
nn004	Ch0 UndVolt Err
nn004	Fiber Offline
nn005	Relay0 Life
nn005	STO Fault
nn005	Ch0 OverCur Err
nn006	Relay1 Life

CODE	NAME
nn006	Ch0 Battery Err
nn006	Ext Pwr Loss
nn007	Sys Misconfig
nn008	Critical Flt
nn008	Drive Misconfig
nn009	MP Out Flt
nn009	Ch0 AnalSig Err
nn010	Anlg Cal Chksum
nn010	SS In Flt
nn010	Ch0 IntOfst Err
nn011	PTC Over Temp
nn011	Ch0 DataTabl Err
nn012	PTC ShortCircuit
nn012	Ch0 AnalLim Err
nn013	ATX Voltage Loss
nn013	Ch0 Int I2C Err
nn014	ThermostatOvrTmp
nn014	Ch0 IntChksm Err
nn015	ATEX Safety
nn015	Ch0 PrgmResetErr
nn016	Ch0 CntOvrflwErr
nn017	Ch0 Parity Err
nn018	Ch0 Chksum Err
nn019	Ch0 InvCmd Err
nn020	Ch0 SendSize Err
nn021	Ch0 CmdArgmt Err
nn022	Ch0 InvWrtAdrErr
nn023	Ch0 AccCode Err
nn024	Ch0 FieldSizeErr
nn025	Ch0 Address Err
nn026	Ch0 FieldAcc Err
nn028	Ch0 SiTurnPsnErr
nn029	Ch0 MulTrnPsnErr
nn030	Enc1 Open Wire
nn031	Enc1 Phase Loss
nn032	Enc1 Quad Loss
nn034	Pri VelFdbk Loss
nn035	Alt VelFdbk Loss
nn036	Aux VelFdbk Loss
nn036	Ch0 AnalVal Err
nn037	Pri PsnFdbkLoss
nn037	Ch0 SendCurr Err
nn038	Alt PsnFdbkLoss
nn038	Ch0 EncTemp Err
nn039	Ch0 Speed Err
nn040	Ch0 General Err
nn046	Ch0 LED Curr Err
nn047	Ch0 ExMulTurnErr
nn048	Ch0 PsnCode Err
nn049	Ch0 Config Err
nn050	Ch0 PsnVal Err
nn051	Ch0 SerialComErr
nn052	Ch0 Ext Failure
nn053	Ch0 Temp Exc Err
nn058	Module Defaulted
nn064	Ch0 OutOfRailErr
nn068	Ch0 Read Head 1
nn069	Ch0 Read Head 2
nn070	Ch0 RAM Error
nn071	Ch0 EPROM Error
nn072	Ch0 ROM Error
nn074	Ch0 No Position
nn081	Ch0 Msg Cheksum
nn082	Ch0 Timeout
nn083	Ch0 Comm
nn084	Ch0 Diagnostic
nn085	Ch0 SpplyVltgRng
nn086	HW Enbl Jmpr Out
nn086	Ch0 SC Amplitude
nn087	Ch0 Open Wire
nn088	Safety Jmpr Out
nn088	Ch0 Quad Loss
nn089	Safety Jumper In
nn089	Ch0 Phase Loss
nn090	Ch0 Unsupp Enc
nn092	SafetyHealth Err
nn093	SafetyPwrOn Err

Table 6 — Fault Codes by Number (cont)

CODE	NAME	CODE	NAME	CODE	NAME	CODE	NAME	CODE	NAME
nn094	SafetyPwrOff Err	nn212	Ch1 AnalLim Err	nn237	Ch1 SendCurr Err	nn263	Ch1 EPROM Error	nn304	Ch1 RefPoint Alm
nn100	Ch0 FreqExc Alm	nn213	Ch1 Int I2C Err	nn238	Ch1 EncTemp Err	nn264	Ch1 ROM Error	nn308	Ch1 General Alm
nn101	Ch0 TempExc Alm	nn214	Ch1 IntChksm Err	nn239	Ch1 Speed Err	nn266	Ch1 No Position	nn315	Ch1 Optics Alarm
nn102	Ch0 LightLim Alm	nn215	Ch1 PrgmResetErr	nn240	Ch1 General Err	nn281	Ch1 Msg Cheksum	nn316	Ch1 OutOfRailAlm
nn103	Ch0 Battery Alm	nn216	Ch1 CntOvrflwErr	nn244	Ch1 FieldSizeErr	nn282	Ch1 Timeout	nn412	Hardware Err
nn104	Ch0 RefPoint Alm	nn217	Ch1 Parity Err	nn246	Ch1 LED Curr Err	nn283	Ch1 Comm	nn413	Firmware Err
nn108	Ch0 General Alm	nn218	Ch1 Chksum Err	nn247	Ch1 ExMulTurnErr	nn284	Ch1 Diagnostic	nn416	EncOut Cflct
nn115	Ch0 Optics Alarm	nn219	Ch1 InvCmd Err	nn248	Ch1 PsnCode Err	nn285	Ch1 SpplyVltgRng	nn417	Safety Cflct
nn116	Ch0 OutOfRailAlm	nn220	Ch1 SendSize Err	nn249	Ch1 Config Err	nn286	Ch1 SC Amplitude	nn420	FB0FB1 Cflct
nn200	Ch1 LightSrc Err	nn221	Ch1 CmdArgmt Err	nn250	Ch1 PsnVal Err	nn287	Ch1 Open Wire	nn421	Initializing
nn201	Ch1 SigAmp Err	nn222	Ch1 InvWrtAdrErr	nn251	Ch1 SerialComErr	nn288	Ch1 Quad Loss	nn534	Pri VelFdbk Loss
nn202	Ch1 PsnVal Err	nn223	Ch1 AccCode Err	nn252	Ch1 Ext Failure	nn289	Ch1 Phase Loss	nn535	Alt VelFdbk Loss
nn203	Ch1 OverVolt Err	nn225	Ch1 Address Err	nn253	Ch1 Temp Exc Err	nn290	Ch1 Unsupp Enc	nn536	Aux VelFdbk Loss
nn204	Ch1 UndVolt Err	nn226	Ch1 FieldAcc Err	nn256	Ch1 OutOfRailErr	nn300	Ch1 FreqExc Alm	nn537	Pri PsnFdbkLoss
nn205	Ch1 OverCur Err	nn228	Ch1 SiTurnPsnErr	nn260	Ch1 Read Head 1	nn301	Ch1 TempExc Alm	nn538	Alt PsnFdbkLoss
nn206	Ch1 Battery Err	nn229	Ch1 MulTrnPsnErr	nn261	Ch1 Read Head 2	nn302	Ch1 LightLim Alm	nn999	System Comm Loss
nn209	Ch1 AnalSig Err	nn236	Ch1 AnalVal Err	nn262	Ch1 RAM Error	nn303	Ch1 Battery Alm	nn999	Bkplane Comm
nn210	Ch1 IntOfst Err								

Table 7 — Fault Codes by Port

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	1	Auxiliary Input	Auxiliary Input. The auxiliary fault digital input is open or reset.	Determine where the Auxiliary input function is assigned using parameter 0:115 [DI Aux fault]. Verify that this assigned input is not open or reset.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 4 'PERIF Flts'
0	Resettable Fault	2	Sys Default Fail	System Reset to Defaults Failure. A command to reset parameter defaults has failed. The values of some parameters have not been changed.	Verify an I/O connection is not established to the drive. For example, a PLC is communicating with the drive.	Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	15	AuRsts Exhausted	Auto Restarts Exhausted. The drive unsuccessfully attempted to reset a fault and resume running for the programmed number of tries.	Determine why the Auto Restart function expired. Examine the fault queue for which fault was unable to reset and troubleshoot that fault.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
0	Resettable Fault	17	CPU OverTemp Flt	CPU Over Temperature Fault. The temperature of the main microprocessor (CPU) on the main control board has exceeded the fault threshold (107°C). See Diagnostic item 77 'MPU Temp C' in Port 0.	Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or 750-TD104 for PowerFlex 755TS products. Check whether the control pod fans are functioning properly.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
0	Resettable Fault	18	System Defaulted	System Defaulted. A command to reset parameter defaults on all ports has been executed. See code 27 'Module Defaulted' for reset of a single port.	Normal operation when parameters are defaulted.	Additional Fault Action. Fault opens main circuit breaker: N/A. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	23	Board OT Fault	Control Board Overtemperature Fault. The temperature of the main control board has exceeded the fault threshold, which differs based on product: • The fault threshold is 90°C for PowerFlex 755TR, 755TL, and 755TM products and for 755TS products with the control pod fan on. • The fault threshold is 80°C for PowerFlex 755TS products with the control pod fan off. Possible causes include high ambient temperature and obstructed airflow. The control pod temperature is reported by parameter 0:25 [Ctrl Pod Temp].	Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or 750-TD104 for PowerFlex 755TS products. Check the condition of cabinet air filters.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
0	Resettable Fault	25	Board UT Fault	Control Board Undertemperature Fault. The temperature of the main control board has fallen below the fault temperature (–25°C). Possible causes include low ambient temperature. The control pod temperature is reported by parameter 0:25 [Ctrl Pod Temp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	27	Module Defaulted	Module Defaulted. A command to reset parameter defaults on a single port has been executed. This fault also sets when secure erase has been completed for the product. See code 18 'System Defaulted' for reset of all ports.	Normal operation when parameters are defaulted.	Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	29	Port 1 Adapter	Port 1 Adapter. The DPI communications adapter in Port 1 has a fault. Port 1 is the HIM cradle on the control pod.	See the event queue in Port 1.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 10 'Pt1.3 Flts'.
0	Resettable Fault	30	Port 2 Adapter	Port 2 Adapter. The DPI communications adapter in Port 2 has a fault. Port 2 is usually a HIM or a 1203-USB adapter.	See the event queue in Port 2.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 10 'Pt1.3 Flts'.
0	Resettable Fault	31	Port 3 Adapter	Port 3 Adapter. The DPI communications adapter in Port 3 has a fault. Port 3 is usually a HIM or a 1203-USB adapter.	See the event queue in Port 3.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 10 'Pt1.3 Flts'.
0	Resettable Fault	32	Port 4 Adapter	Port 4 Adapter. The DPI communications adapter in Port 4 has a fault. Port 4 is backplane option slot 4.	See the event queue in Port 4.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 11 'Port 4 Flts'.
0	Resettable Fault	33	Port 5 Adapter	Port 5 Adapter. The DPI communications adapter in Port 5 has a fault. Port 5 is backplane option slot 5.	See the event queue in Port 5.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 12 'Port 5 Flts'.
0	Resettable Fault	34	Port 6 Adapter	Port 6 Adapter. The DPI communications adapter in Port 6 has a fault. Port 6 is backplane option slot 6.	See the event queue in Port 6.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 13 'Port 6 Flts'.
0	Resettable Fault	38	Port 4 DPI Loss	Port 4 DPI Loss. The DPI communications adapter in Port 4 has stopped communicating with main control board. Port 4 is a backplane connection, slot 4.	Verify that the backplane ports are free of debris and mounting screws are secured. Reseat option card. If problem persists, contact technical support.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 11 'Port 4 Flts'.
0	Resettable Fault	39	Port 5 DPI Loss	Port 5 DPI Loss. The DPI communications adapter in Port 4 has stopped communicating with main control board. Port 5 is a backplane connection, slot 5.	Verify that the backplane ports are free of debris and mounting screws are secured. Reseat option card. If problem persists, contact technical support	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 12 'Port 5 Flts'.
0	Resettable Fault	40	Port 6 DPI Loss	Port 6 DPI Loss. The DPI communications adapter in Port 4 has stopped communicating with main control board. Port 6 is a backplane connection, slot 6.	Verify that the backplane ports are free of debris and that mounting screws are secure. Reseat the option module. If the problem persists, contact technical support.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 13 'Port 6 Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	43	PwrDn NVS Blank	Power Down NVS Blank. An internal data error occurred. This fault occurs on power down but is checked for on power-up. If the power down occurs too fast, this fault can occur. If you are using an undersized auxiliary power supply and the last power down was from auxiliary power, this fault can occur.	Reset parameter defaults. This fault occurs on power down but is checked for on power-up. If the power down occurs too fast, this fault can occur. If you are using an undersized auxiliary power supply and last power down was from auxiliary power, this fault can occur. Reload parameters. Ensure the auxiliary power supply is properly sized. See the installation instructions, publication 750-IN100 for PowerFlex 755T or publication 750-IN119 for PowerFlex 755TS products, for requirements. If problem persists, replace main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 13 'Port 6 Flts'.
0	Non-Resettable Fault	58	PwrDn Data Chksm	Power Down Data Checksum. Checksum failed for non-volatile data.	Verify that the auxiliary power supply is sized correctly. If problem persists, replace the main control board. See the hardware service manual, publication 750-TG100 or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. Important: Predictive maintenance and runtime data on the main control board is lost.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	67	PwrDn Data Fail	Power Down Data Failure. The stored power down data has failed to be retrieved 3 or more times. This fault is clearable upon power-up. Faults continue on power-up until the main control board is replaced.	Replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. If a 24V DC auxiliary power supply is used for control power, confirm that the power supply is sized for the drive before main control board replacement.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	72	Digin Regen Fail	Digital Input Regeneration Failure. Digital input signal from a regenerative power supply or third-party bus supply indicates a regeneration fault. This condition is applicable to common bus inverters only.	Determine where the DI Regen OK input function is assigned using parameter 0:116 [DI Regen OK]. Verify that this assigned input is not open or reset.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Ignore.
0	Resettable Fault	86	HW Enbl Jmpr Out	Hardware Enable Jumper Out. A safety option module is present and the hardware enable jumper is removed.	Install the Hardware Enable jumper on the main control board. See the installation instructions, publication 750-IN100 for PowerFlex 755T or publication 750-IN119 for PowerFlex 755TS products, for jumpers location and configurations.	Coast (Motor Side Inverter). Stop (Line Side Converter) . Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	87	Safety Brd Fault	A Safety option module has indicated a fault. Verify that enable jumper is installed. Reset or power cycle drive. • Integrated Safety Functions (20-750-S4): See publication 750-UM005 for more information. • Integrated Safety (20-750-S3): See publication 750-UM004 for more information. • Safe Speed Monitor (20-750-S1): See publication 750-RM001 for more information. • Safe Torque Off (20-750-S): If DC power drops below 17V DC 'Not Enable' is indicated. If voltage drops below 11V DC the module faults. See publication 750-UM002 for more information. • ATEX (20-750-ATEX): Possible hardware damage. The motor to the thermal sensor is shorted. Excessive EMC noise due to improper grounding/shielding. See publication 750-UM003 for more information.	See the event queue or fault status for the safety option module. If the fault persists, reseat the main control board.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	88	Safety Jmpr Out	Safety Jumper Out. Safety jumper is removed and a safety option module is not present.	Install the Safety jumper on the main control board. If you do not intend to use a safety module, install the safety jumper. See the installation instructions, publication 750-IN100 for PowerFlex 755T or publication 750-IN119 for PowerFlex 755TS products, for jumper locations and configurations.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	89	Safety Jumper In	Safety Jumper In. Safety jumper is installed and a safety option module is present.	Remove the Safety jumper on the main control board.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	92	SafetyHealth Err	SafetyHealth Error. Safety jumper is installed with incorrect safety circuit status. This fault indicates a hardware anomaly.	Cycle power. If the fault persists, replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	93	SafetyPwrOn Err	SafetyPwrOn Error. Safety option card is not detected or a 20-750-ATEX option module is present while safety power is OFF (rather than ON). Indicates a hardware anomaly.	Verify that the product configuration. Cycle power. If the fault persists: • Replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. • Replace any option modules. See the option modules installation instructions, publication 750-IN111, for option module installation details.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	94	SafetyPwrOff Err	Safety Power Off Error. Safety option card is detected while safety power is ON (rather than OFF). This fault indicates a hardware anomaly.	Verify the product configuration. Cycle power. If the fault persists: • Replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. • Replace any option modules. See the option module installation instructions, publication 750-IN111, for option module installation details.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	95	FS Enbl Ch Error	FS Enable Channel Error. A functional safety enable channel fault is detected and no safety option is present. This fault indicates a hardware anomaly with the enable circuitry.	Verify configuration. Cycle power. If the fault persists: • Replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. • Replace any option modules. See the option modules installation instructions, publication 750-IN111, for option module installation details.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	128	LC Incomp PFB	Liquid Cooled Incompatible Power Fdbk Bd. An incompatible power feedback board is installed in a liquid-cooled PowerFlex 755TR drive.	Install the correct power feedback board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter) . Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	171	No Stop Source	All Logic Control Sources Disconnected. The last source for a stop command to the motor side inverter has been removed or disconnected. Sources can include a digital input, communication link to a controller, or a HIM.	Connect and configure a source for a stop command.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 4 ‘PERIF Flts’.
0	Resettable Fault	300	Nvs Lost Config	Nonvolatile Storage Config File Lost. The configuration file that is stored in nonvolatile memory is corrupt.	Cycle power and redownload parameters. If fault persists, replace main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Non-Resettable Fault	301	Pfile Create Err	Profile Creation Error. Main control board firmware failed to create a profile for one of the power peripherals.	Cycle power and redownload parameters. If fault persists, replace main control board. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	302	Pfile Login Err	Profile Login Error. One of the power peripherals has attempted to log in with an invalid ID.	Cycle power and redownload parameters. If fault persists, replace main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	303	HSI Offline	HSI Offline. The main control board has lost communication with the fiber interface circuit board. This fault can occur during a firmware update.	Cycle power. If the fault persists, replace main control board and/or fiber interface circuit board. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	304	AFE PreChrg Fail	AFE PreCharge Failure. AC precharge has failed. DC bus voltage has failed to rise to the proper level in the time allotted.	Verify that the connected capacitance is within specification. See the common bus application techniques, publication DRIVES-AT005. Clear fault and reattempt Precharge. Cycle power.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
0	Resettable Fault	305	No Sfib Detected	No SFIB Detected. Main control board firmware failed to connect to the fiber interface circuit board.	Power down and examine the fiber transceiver circuit board edge connections on to the fiber interface circuit board for damage, debris, or other contamination. Reseat all fiber transceiver circuit boards.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	307	NVS Read Error	NVS Read Error. Main control board firmware failed to read non volatile storage memory.	Cycle power. If the fault persists, run a firmware update.	—
0	Non-Resettable Fault	309	Fw Update Fail	Firmware Update Failed. The firmware update for a power peripheral has failed.	Cycle power.	—
0	Non-Resettable Fault	310	Inv sFib Fbr Cfg	Invalid SFIB Fiber Configuration. Main control board firmware has detected an invalid connection to the fiber interface circuit board.	Power down and examine the fiber transceiver circuit board edge connections to the fiber interface circuit board for damage, debris, or other contamination. Reseat all fiber transceiver circuit boards.	—
0	Non-Resettable Fault	311	Inv Invtr FbrCfg	Invalid Inverter Fiber Configuration. Main control board firmware has detected an invalid motor side inverter connection to the fiber interface circuit board.	Power down. Examine the fiber-optic cable connections between the Mn power modules power layer interface (PLI) circuit boards and the fiber interface circuit board for damage. Verify that the Mn PLI fiber-optic cable is inserted into the correct socket on the fiber interface circuit board. See the installation instructions, publication 750-IN100, for information on fiber-optic connections.	—
0	Non-Resettable Fault	312	Inv Conv Fbr Cfg	Invalid Converter Fiber Configuration. Main control board firmware has detected an invalid line side converter connection to the fiber interface circuit board.	Power down. Examine the fiber-optic cable connections between the Ln power modules power layer interface (PLI) circuit boards and the fiber interface circuit board for damage. Verify that the Ln PLI fiber-optic cable is inserted into the correct socket on the fiber interface circuit board. See the installation instructions, publication 750-IN100, for information on fiber-optic connections.	—
0	Non-Resettable Fault	313	Inv CSB Fbr Cfg	Invalid CSB Fiber Configuration. Main control board firmware has detected an invalid current sense board (CSB) fiber-optic connection.	Power down. Examine the fiber-optic cable connections between the LCL filter module current sense circuit boards (CSB) and the Ln power modules power layer interface (PLI) circuit boards for damage. Verify that the CSB fiber-optic cable is inserted into the PDI socket on the Ln PLI circuit boards. See the installation instructions, publication 750-IN100, for information on fiber-optic connections.	—

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Non-Resettable Fault	314	Inv DCP Fbr Cfg	Invalid DCP Fiber Configuration. Main control board firmware has detected an invalid DC precharge fiber connection.	Power down. Examine the fiber-optic cable connections between the DC precharge modules and the Mn power modules power layer interface (PLI) circuit boards for damage. Verify that the DC precharge fiber-optic cable is inserted into the PDI socket on the Mn PLI circuit boards. See the installation instructions, publication 750-IN100, for information on fiber-optic cable connections.	—
0	Non-Resettable Fault	315	Inv ACP Fbr Cfg	Invalid ACP Fiber Configuration. Main control board firmware has detected an invalid AC precharge connection to the fiber interface circuit board.	Power down. Examine the fiber-optic cable connections between the AC precharge module and the fiber interface circuit board for damage. Verify that the AC precharge fiber-optic cable is inserted into the correct socket on the fiber interface circuit board. See the installation instructions, publication 750-IN100, for information on fiber-optic cable connections.	—
0	Non-Resettable Fault	316	Inv MVFB Fbr Cfg	Invalid TAM Fiber Configuration. Main control board firmware has detected an invalid torque accuracy module (TAM) connection to the fiber interface circuit board.	Power down and examine the fiber-optic cable connections between the TAM and the fiber interface circuit board for damage. Verify that the TAM fiber-optic cable is inserted into the correct socket on the fiber interface circuit board. See the installation instructions, publication 750-IN100, for information on fiber-optic connections.	—
0	Non-Resettable Fault	318	Unknown Device	Unknown Device In System. Main control board firmware has detected an unknown backplane option card.	Examine the status indicators on the option cards for errors. Power down and check backplane connections. Reseat option card if needed. Refer to the associated manual of the option card for troubleshooting.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	319	DPI Card Wrg Slt	DPI Card In Wrong Slot. Main control board firmware has detected a DPI backplane option board in a non-DPI backplane option slot. Only the lower slots (4, 5, and 6) support DPI. Backplane option cards that require DPI cannot function in slots 7 and 8.	Power down and examine the placement of backplane option cards in the control pod. Review the slot restrictions in the Installation Instructions.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	320	Vlt Class Mismth	Voltage Class Mismatch. Main control board firmware has detected a voltage class mismatch between power peripherals (power modules, LCL filter modules, or precharge modules). For example, one power peripheral is of the 400/480-v voltage class while the others are 600/690-v.	Power down and examine the voltage class of the power peripherals: torque accuracy module (TAM), AC precharge module (ACP), DC precharge module (DCP), and power modules.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	321	Inv Dev in Cfg	Invalid Device In Configuration. Main control board firmware has detected power peripherals (power modules, LCL filter modules, or precharge modules) that is not a valid peripheral type.	Power down and examine the power peripherals and the fiber-optic cable connections on the fiber interface circuit board.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	322	Op Mode Mismth	Operational Mode Mismatch. Main control board firmware has detected an operational mode mismatch.	Power down and verify that the power mode plugs on the power layer interface (PLI) circuit board are connected properly.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	323	Inv FR Id	Invalid Frame Rating ID. Main control board firmware has detected an invalid frame rating ID.	Contact technical support.	—
0	Non-Resettable Fault	324	CatalogId NotFnd	Catalog ID Not Found. Main control board firmware has failed to find the catalog ID.	Cycle power. Verify fiber-optic cable connections. Update firmware.	—
0	Non-Resettable Fault	325	Inv Conn Opt	Invalid Connected Option. Main control board firmware has detected an invalid LCL filter configuration. The LCL filter module does not match the expected channel assignment.	Power down and verify current sense board (CSB) jumpers are set properly for each channel.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	326	Prllel Fr Mismth	Parallel Frame Mismatch. Main control board firmware has detected an invalid combination of line side converter power modules and LCL filter modules.	Power down and verify that the LCL filter subframes match the converter subframes and the correct filter size is connected to match the power layer interface (PLI) board configuration.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Non-Resettable Fault	327	DVDT Fltr Mismth	DVDT Filter Mismatch. Main control board firmware has detected an invalid combination of motor side inverter power modules with and without dv/dt filters. Either all power modules in the motor side inverter must have dv/dt filters or none of them must have the filters.	Power down. Then correct the configuration.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	328	Inv AFE mode	Invalid AFE Mode. Main control board firmware has detected power modules in the line side converter with dv/dt filters. None of the power modules in the line side converter can have dv/dt filters.	Power down. Then correct the configuration.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	330	No SysId Match	No System ID Match. The system does not recognize the product type.	Power down and verify fiber-optic cable connections.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	331	Unknow Op Mode	Unknown Operational Mode. Unknown Operating Mode was provided by a power layer interface (PLI) circuit board.	Cycle power. If the fault persists, replace power layer interface (PLI) circuit boards one by one. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	334	Inv TAM Config	Invalid TAM Configuration. Main control board firmware has detected a torque accuracy module (TAM) connected to an invalid channel on the fiber interface circuit board.	Power down and examine the fiber-optic connection on the fiber interface circuit board to the torque accuracy module (TAM). See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for information on the fiber transceiver circuit board connections.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	335	Inv Filtr Config	Invalid Filter Configuration. Main control board firmware has detected a current sense board (CSB) connected to an invalid power layer interface (PLI) circuit board. For paralleled converter power modules, the CSB fiber-optic cable connects to the lower numbered Ln module. Example for L0 and L1, the CSB connects to L0.	Power down and correct the fiber-optic cable connections.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	344	SafetyInit Error	Safety Initialization Error. Safety system failed to initialize due to unexpected discrepancy in detected fiber peripherals.	Cycle power and verify fiber-optic cable connections and peripherals. If this fault persists, replace main control board and/or peripherals. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	103	Device Timeout	Device Message Timeout. The main control board has detected that one of the power peripherals (power layer interface board, current sense board, or precharge board) has stopped transmitting messages.	Check status indicators. Verify that all power peripherals are powered. Power down and then check the fiber-optic communication connections. This fault can be issued during some power down sequences.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	200	Image Wtchdg Flt	Image Watchdog Fault. Communication between the main control board and the image buffer in one of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board) has stopped transmitting for 10 milliseconds.	Power down and then check the fiber-optic communication connections.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	201	Const Inv Flt	Constants Message Invalid Fault. The constants header information did not match the content that is expected by the power peripheral (power layer interface board, current sense board, or precharge board).	Cycle power.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	202	Const Chksum Flt	Constants Checksum Fault. The constants download failed the checksum check by the power peripheral (power layer interface board, current sense board, or precharge board).	Cycle power.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	203	Fiber Offline 0	Fiber online to offline 0. The fiber-optic communication link between the main control board and M0 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M0 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	204	Fiber Offline 1	Fiber online to offline 1. The fiber-optic communication link between the main control board and M1 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M1 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	205	Fiber Offline 2	Fiber online to offline 2. The fiber-optic communication link between the main control board and M2 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M2 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	206	Fiber Offline 3	Fiber online to offline 3. The fiber-optic communication link between the main control board and M3 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M3 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	207	Fiber Offline 4	Fiber online to offline 4. The fiber-optic communication link between the main control board and M4 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M4 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	208	Fiber Offline 5	Fiber online to offline 5. The fiber-optic communication link between the main control board and M5 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M5 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	209	Fiber Offline 6	Fiber online to offline 6. The fiber-optic communication link between the main control board and M6 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M6 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	210	Fiber Offline 7	Fiber online to offline 7. The fiber-optic communication link between the main control board and M7 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M7 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	211	Fiber Offline 8	Fiber online to offline 8. The fiber-optic communication link between the main control board and M8 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M8 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	212	Fiber Offline 9	Fiber online to offline 9. The fiber-optic communication link between the main control board and M9 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M9 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	213	Fiber Offline 10	Fiber online to offline 10. The fiber-optic communication link between the main control board and L0 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L0 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	214	Fiber Offline 11	Fiber online to offline 11. The fiber-optic communication link between the main control board and L1 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L1 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	215	Fiber Offline 12	Fiber online to offline 12. The fiber-optic communication link between the main control board and L2 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L2 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	216	Fiber Offline 13	Fiber online to offline 13. The fiber-optic communication link between the main control board and L3 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L3 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	217	Fiber Offline 14	Fiber online to offline 14. The fiber-optic communication link between the main control board and L4 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L4 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	218	Fiber Offline 15	Fiber online to offline 15. The fiber-optic communication link between the main control board and L5 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L5 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	219	Fiber Offline 16	Fiber online to offline 16. The fiber-optic communication link between the main control board and L6 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L6 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	220	Fiber Offline 17	Fiber online to offline 17. The fiber-optic communication link between the main control board and L7 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L7 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	221	Fiber Offline 18	Fiber online to offline 18. The fiber-optic communication link between the main control board and L8 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L8 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	222	Fiber Offline 19	Fiber online to offline 19. The fiber-optic communication link between the main control board and L9 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L9 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	223	Fiber Offline 20	Fiber online to offline 20. The fiber-optic communication link between the main control board and ACPC0 transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and ACP0 for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	224	Fiber Offline 21	Fiber online to offline 21. The fiber-optic communication link between the main control board and the torque accuracy module (TAM) or ACPC1 transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and TAM/ACP1 for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	225	HSI Offline 0	HSI online to offline 0. The fiber interface circuit board has lost communication with the main control board. This fault concerns the fiber-optic cable connections to the motor side inverter. This fault can occur during a firmware update.	Cycle power. If the fault persists, replace the main control board and/or the fiber interface circuit board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	226	HSI Offline 1	HSI online to offline 1. The fiber interface circuit board has lost communication with the main control board. This fault concerns the fiber-optic cable connections to the line side converter. This fault can occur during a firmware update.	Cycle power. If the fault persists replace main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	228	Over Temp Fault	Board OT Fault. The temperature of the fiber interface circuit board (Port 0 Diagnostic item 0:94 [sFIB Board Temp]) has exceeded the Fault Temperature (80°C). Possible causes include high ambient temperature and obstructed airflow.	Check the condition of cabinet air filters and fans. Verify that there is adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	230	Under Temp Fault	Board UT Fault. The temperature of the fiber interface circuit board (FIB) (Port 0 Diagnostic item 0:94 [sFIB Board Temp]) has fallen below the Fault Temperature (–30°C). Possible causes include low ambient temperature.	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	231	FdbkMsg Fiber 0	Feedback Msg Timeout Fiber 0. Transmission of the feedback message from M0 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M0 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	232	FdbkMsg Fiber 1	Feedback Msg Timeout Fiber 1. Transmission of the feedback message from M1 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M1 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	233	FdbkMsg Fiber 2	Feedback Msg Timeout Fiber 2. Transmission of the feedback message from M2 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M2 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	234	FdbkMsg Fiber 3	Feedback Msg Timeout Fiber 3. Transmission of the feedback message from M3 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M3 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	235	FdbkMsg Fiber 4	Feedback Msg Timeout Fiber 4. Transmission of the feedback message from M4 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M4 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	236	FdbkMsg Fiber 5	Feedback Msg Timeout Fiber 5. Transmission of the feedback message from M5 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M5 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	237	FdbkMsg Fiber 6	Feedback Msg Timeout Fiber 6. Transmission of the feedback message from M6 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M6 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	238	FdbkMsg Fiber 7	Feedback Msg Timeout Fiber 7. Transmission of the feedback message from M7 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M7 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	239	FdbkMsg Fiber 8	Feedback Msg Timeout Fiber 8. Transmission of the feedback message from M8 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M8 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	240	FdbkMsg Fiber 9	Feedback Msg Timeout Fiber 9. Transmission of the feedback message from M9 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and M9 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	241	FdbkMsg Fiber 10	Feedback Msg Timeout Fiber 10. Transmission of the feedback message from L0 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L0 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	242	FdbkMsg Fiber 11	Feedback Msg Timeout Fiber 11. Transmission of the feedback message from L1 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L1 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	243	FdbkMsg Fiber 12	Feedback Msg Timeout Fiber 12. Transmission of the feedback message from L2 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L2 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	244	FdbkMsg Fiber 13	Feedback Msg Timeout Fiber 13. Transmission of the feedback message from L3 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L3 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	245	FdbkMsg Fiber 14	Feedback Msg Timeout Fiber 14. Transmission of the feedback message from L4 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L4 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	246	FdbkMsg Fiber 15	Feedback Msg Timeout Fiber 15. Transmission of the feedback message from L5 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L5 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	247	FdbkMsg Fiber 16	Feedback Msg Timeout Fiber 16. Transmission of the feedback message from L6 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L6 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	248	FdbkMsg Fiber 17	Feedback Msg Timeout Fiber 17. Transmission of the feedback message from L7 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L7 PLI for damage. Replace the fiber cable and/or fiber transceiver if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	249	FdbkMsg Fiber 18	Feedback Msg Timeout Fiber 18. Transmission of the feedback message from L8 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L8 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
0	Resettable Fault	250	FdbkMsg Fiber 19	Feedback Msg Timeout Fiber 19. Transmission of the feedback message from L9 PLI transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and L9 PLI for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	251	FdbkMsg Fiber 20	Feedback Msg Timeout Fiber 20. Transmission of the feedback message from ACPC0 transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and ACP0 for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	252	FdbkMsg Fiber 21	Feedback Msg Timeout Fiber 21. Transmission of the feedback message from the torque accuracy module (TAM)/ ACPC1 transitioned from online to offline.	Power down and then check the fiber-optic communication connection between the fiber interface circuit board and TAM/ACP1 for damage. Replace the fiber-optic cable and/or fiber transceiver circuit board if needed. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. See the control pod fiber diagram on the Tables & Graphics tab.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	259	Inv DC Bus Range	Inverter DC Bus Imbalance. A DC bus voltage imbalance has occurred between parallel power modules. The voltage difference has exceeded 50-v for more than 2 minutes. For example, parameter 12:109 [M0 DC BusVoltage] differs from parameter 12:209 [M1 DC BusVoltage] by more than 50-v.	Measure DC Bus of the power modules from the local test points. Power Down and then check DC link fuses and DC bus harnesses of power modules with mismatched DC Bus voltage measurements. If DC Bus voltage measurement differs from parameter value, inspect power module connections and PIB.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Resettable Fault	266	Cnv DC Bus Range	Converter DC Bus Imbalance. A DC bus voltage imbalance has occurred between parallel power modules. The voltage difference has exceeded 50-v for more than 2 minutes. For example, parameter 14:109 [L0 DC BusVoltage] differs from parameter 14:209 [L1 DC BusVoltage] by more than 50-v.	Measure DC Bus of the power modules from the local test points. Power Down and then check DC link fuses and DC bus harnesses of Ln power modules with mismatched DC Bus voltage measurements. If DC Bus voltage measurement differs from parameter value, inspect Ln power module connections and PIB.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
0	Non-Resettable Fault	271	NVS Checksum Flt	Nonvolatile Data Checksum Fault. Checksum failed for non-volatile data.	Cycle power. If the fault persists, replace the fiber-optic interface board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
9	Resettable Fault	9003	DLX Checksum	DeviceLogix Checksum. DeviceLogix storage checksum failed. Data are set to default values.	—	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 6 'DevLgx Flts'.
9	Resettable Fault	9004	EmbLogic Adapter	Embedded Logic Adapter. The DeviceLogix adapter has a fault.	—	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 6 'DevLgx Flts'.
9	Minor Fault	9014	TP Encls Config	Torque Prove Encoderless Configuration. Encoderless TorqProve has been enabled but user has not read and understood application concerns of encoderless operation.	Read the 'Attention' statement in the programming manual publication 750-PM101 relating to the use of encoderless TorqProve.	Coast. Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 9 'TorqPrv Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
9	Minor Fault	9015	TP Sec Mtr Ctrl	Torque Prove Secondary Motor Control Conflict. Torque proving has been enabled but the user has not read and understood the application concerns related to configuration of the secondary motor control port.	Read the 'Attention' statement in the programming manual publication 750-PM101 relating to the use of TorqProve while the secondary motor control port is configured.	Coast. Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 9 'TorqPrv Flts'.
10/11	Resettable Fault	10007 11007	TorqPrv Spd Band	Torque Prove Speed Band. The difference between parameter 10:1914 [VRef Commanded] and parameter 10:1044 [Motor Vel Fb] has exceeded the level in parameter 9:54 [Speed Dev Band] for a time period greater than the time programmed in parameter 9:55 [SpdBand Intgrtr].	Increase parameter 10:906 [System BW] or parameter 9:54 [Speed Dev Band] and parameter 9:55 [SpdBand Intgrtr].	Coast
10/11	Resettable Fault	10010 11010	OverSpeed Limit	OverSpeed Limit. Motor speed has exceeded the limit set by parameter 10:1904 [Overspeed Limit]. For forward motor rotation, this limit is parameter 10:1898 [Vel Limit Pos] + parameter 10:1904 [Overspeed Limit]. For reverse motor rotation, this limit is parameter 10:1899 [Vel Limit Neg] - parameter 10:1904 [Overspeed Limit]. Parameter 10:1042 [Vel Fb Active] determines the motor operating speed.	Increase parameter 10:1904 [Overspeed Limit]. If operating in torque mode, ensure no sudden loss of load. For closed loop, verify encoder configuration and installation.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Non-Resettable Fault	10015 11015	OverFreq Limit	Over Frequency Limit. Output frequency is greater than or equal to 590 Hz or less than or equal to –590 Hz.	Operate the drive within –590 Hz to 590 Hz range.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10016 11016	Phase U to Grnd	Phase U to Ground. A phase to ground fault has been detected between the drive and motor in this phase.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10017 11017	Phase V to Grnd	Phase V to Ground. A phase to ground fault has been detected between the drive and motor in this phase.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10018 11018	Phase W to Grnd	Phase W to Ground. A phase to ground fault has been detected between the drive and motor in this phase.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10019 11019	Phase UV Short	Phase UV Short. Excessive current has been detected between these two output terminals.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10020 11020	Phase VW Short	Phase VW Short. Excessive current has been detected between these two output terminals.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10021 11021	Phase WU Short	Phase WU Short. Excessive current has been detected between these two output terminals.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10022 11022	Phase UNegToGrnd	Phase U Negative To Ground. A phase to ground fault has been detected between the drive and motor in this phase.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10023 11023	Phase VNegToGrnd	Phase V Negative To Ground. A phase to ground fault has been detected between the drive and motor in this phase.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
10/11	Resettable Fault	10024 11024	Phase WNegToGrnd	Phase W Negative To Ground. A phase to ground fault has been detected between the drive and motor in this phase.	Rotate U/T1, V/T2, W/T3 connections. If the problem follows the wire, suspect a field wiring problem. If no change, suspect a problem with the drive.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10028 11028	Drive OverLoad	Drive OverLoad. Parameter 10:357 [Drive OL Count] has exceeded 100%. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow.	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
10/11	Resettable Fault	10029 11029	Stator Res Range	Stator Resistance Range. Parameter 10:910 [Autotune] is set to 2 'Static MtrID' or 3 'Rotate MtrID' and the value for stator resistance in parameter 10:512 [u IM Stator Res] measured by the Autotune function is not in the range of acceptable values.	Verify that the correct motor nameplate data is entered.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10030 11030	FluxAmpsRef Rang	Flux Amps Reference Range. Parameter 10:910 [Autotune] is set to 2 'Static MtrID' or 3 'Rotate MtrID' and the value for flux amps in parameter 10:518 [u Flux Cur Ref] measured by the Autotune function exceeds the value that is programmed in parameter 10:401 [Motor NP Amps].	Verify that the correct motor nameplate data is entered.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10031 11031	Excessive Load	Excessive Load. The motor did not come up to speed in the allotted time during Autotune.	Decrease load on the motor. Uncouple motor. For induction motors, run a static MotorID test. For systems with encoders, perform a Direction test first.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10032 11032	AutoTune Aborted	Autotune Aborted. The Autotune function was interrupted. This interruption was the result of manual cancellation or a fault.	If not intended, ensure no stop signal is issued during an autotune. See parameter 0:604 [M Last Stop Src].	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10033 11033	Leakage L Range	Leakage Inductance Range. Parameter 10:910 [Autotune] is set to 2 'Static MtrID' or 3 'Rotate MtrID' and the voltage that was measured for motor inductive impedance exceeds 25% of the value of parameter 10:400 [Motor NP Volts].	Verify that the correct motor nameplate data is entered.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10034 11034	StcOffstPulsFail	PM Static Offset Pulse Test Failure. PM Pulse Test failed due to IOC overcurrent or pulse test time determined was larger than the maximum allowed pulse test time.	—	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 8 'Fdbk Faults'.
10/11	Resettable Fault	10035 11035	StcOffstRtrFail	PM Static Offset Rotor Test Failure. PM Rotor position not found during the static offset test.	—	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10038 11038	Auto Tach Switch	Auto Tach Switch. Both the primary feedback and alternate feedback devices have failed.	Investigate feedback device failure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 8 'Fdbk Faults'.
10/11	Resettable Fault	10042 11042	PrechargeOpenFlt	Precharge Open Fault. The internal precharge-circuity-bypass relay (for drives) or main contactor (for CBIs) was commanded to open while the drive was running (PWM was active) due to low DC bus voltage. The internal fault latch is automatically cleared when PWM is disabled.	Investigate low DC bus voltage or the reason the drive entered precharge.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10043 11043	Autn Enc Angle	Autotune Encoder Angle. The autotune failed to calculate Parameter 10:521 [u EncLs AngCmp] within range. This can only occur for encoderlesss systems in Induction Flux Vector mode.	Verify motor nameplate data and cable length to the motor are correct. See publication DRIVES-IN001.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10044 11044	Autn Vel Rstrct	Autotune Velocity Restricted. Velocity Command is too low (< 25% base speed) to complete the inertia test. This condition is applicable to induction and permanent magnet motors.	Configure the drive to be allowed to reach at least 25% base speed.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: N/A

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
10/11	Resettable Fault	10045 11045	Autotune CurReg	Autotune Current Regulator. Calculated value for the current regulator integral gain is out of range.	Verify motor nameplate data. Check motor connections. Rerun autotune. If the condition persists, modify the value of parameter 10:450 [VCL CReg Damping] and rerun autotune.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10046 11046	Autotune Travel	Autotune Travel. During an Inertia Test, the position limit value in parameter 10:911 [Autotune Psn Lim] did not allow the drive to reach a suitable velocity.	Increase parameter 10:911 [Autotune Psn Lim]. A value of 0 disables the limit.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10047 11047	No Stop Source	No Stop Source. The last source for a Stop Command has been removed.	Check the configuration and connection of stop commands, such as digital inputs, network connections, and the HIM.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 4 'PERIF Flts'.
10/11	Resettable Fault	10053 11053	Pos Over Travel	Positive Over Travel. The system has exceeded the Positive Overtravel Limit. The switch that feeds the digital input that is selected in parameter 0:184 [DI PHw OvrTrvl] has opened. After the fault is cleared, the drive operates normally.	To clear the fault: • Manually move the motor or load until it is no longer beyond the limit. • Issue a Clear Fault command. You cannot clear the fault until the circuit is closed or the input is energized.	Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10054 11054	Neg Over Travel	Negative Over Travel. The system has exceeded the Negative Overtravel Limit. The switch that feeds the digital input that is selected in parameter 0:185 [DI NHw OvrTrvl] has opened. After the fault is cleared, the drive operates normally.	To clear the fault: • Manually move the motor or load until it is no longer beyond the limit. • Issue a Clear Fault command. You cannot clear the fault until the circuit is closed or the input is energized.	Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Non-Resettable Fault	10055 11055	Travel Lim Cflct	Travel Limit Conflict. Travel limits are in conflict. Both the forward and reverse travel limits indicate that they are simultaneously active. The travel limit digital inputs are meant to be connected to normally closed switch contacts. The digital input status reads an off (0 = False) bit status when the machine is on limit and the switch contact opens. A possible cause for this condition is loss of common power to both the forward and reverse travel limit switches.	If digital limits (hardware signals) are in use, verify that the following forward and reverse digital input pairs are not both off: fwd/rev decel travel limit digital inputs and fwd/rev end stop travel limit digital inputs. If software travel limits are in use, check the state of the fwd/rev travel limit bits in parameter 9:51 [Trq Prove Setup]. These bits read an on (1 = Enabled) bit status when the machine is on limit. Bit 2 'Decel Fwd' and Bit 4 'Decel Rev' cannot be on simultaneously. Similarly, Bit 3 'End Stop Fwd' and Bit 5 'End Stop Rev' cannot be on simultaneously.	Current Limit Stop (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10060 11060	Fwd End Limit	Forward End Limit. The selected digital input for one of the end limit switches, parameter 0:180 [DI FwdEndLimit] or 0:182 [DI RevEndLimit], has detected a falling edge and parameter 10:34 [PsnVelTrq Actv] is not set to 1 'Speed Reg'.	If digital limits (hardware signals) are in use, verify that the digital inputs are connected to normally closed contacts. When the end limit is reached the contacts open.	Current Limit Stop (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 8 'Fdbk Faults'.
10/11	Resettable Fault	10061 11061	Rev End Limit	Reverse End Limit. The selected digital input for one of the end limit switches, parameter 0:180 [DI FwdEndLimit] or 0:182 [DI RevEndLimit], has detected a falling edge and parameter 10:34 [PsnVelTrq Actv] is not set to 1 'Speed Reg'.	If digital limits (hardware signals) are in use, verify that the digital inputs are connected to normally closed contacts. When the end limit is reached the contacts open.	Current Limit Stop (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 8 'Fdbk Faults'.
10/11	Resettable Fault	10073 11073	IPMSpdEstErr	Internal Permanent Magnet Speed Estimate Error. The speed estimator failed to track the high-speed angle and has lost the field orientation of an interior permanent magnet motor. This condition only applies to encoderless flux vector control.	—	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10075 11075	DynOffstFail	PM Dynamic Offset Test Failure. PM Dynamic Offset test failed due to interruption of the test before completion or the motor movement failed to reach the proper amount of rotation during the test. The test is rescheduled when this fault occurs.	Verify parameter 10:407 [Motor Poles] is correct. If failure occurred because of movement limitation, increase 10:587 [PM OfstTst Cur] parameter. If this fails to correct the problem, the load on the motor may be too high or a mechanical brake is applied.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10085 11085	IPM OverCurrent	Internal Permanent Magnet Over Current. The current magnitude has exceeded the trip level set by parameter 10:698 [IPM Max Cur].	Set parameter 10:698 [IPM Max Cur] to 0 only when the drive is set to the VHz or SVC mode.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
10/11	Resettable Fault	10092 11092	SW OverCurrent	Software Over Current. Motor side inverter current has exceeded the 1 ms current rating. This rating is greater than the current rating for 3 seconds and less than the hardware overcurrent fault level. It is typically 200…250% of the drive continuous rating.	Ensure the drive is properly sized for the application. Reduce motor load if possible. If starting into a rotating load, turn on flying start with parameter 10:70 [FlyingStart Mode]. Check the motor and external wiring to the drive output terminals for a shorted condition. Perform an insulation resistance test on the wiring to the motor. Check for devices between the drive and motor such as a contactor that may be changing states while the drive is running. Ensure encoder is functioning properly if used.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 2 'MS Ctrl Flts'.
10/11	Resettable Fault	10093 11093	HW OverCurrent	Hardware Over Current. Output current has exceeded the rating for the product. Possible causes include short circuits in the motor and motor wiring.	Ensure the drive is properly sized for the application. Reduce motor load if possible. If starting into a rotating load, turn on flying start with parameter 10:70 [FlyingStart Mode]. Check the motor and external wiring to the drive output terminals for a shorted condition. Perform an insulation resistance test on the wiring to the motor. Check for devices between the drive and motor such as a contactor that may be changing states while the drive is running. Ensure encoder is functioning properly if used.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10094 11094	Heatsink OvrTemp	Heatsink Over Temperature. The heatsink temperature has exceeded 100% of the drive temperature. Heatsink over temperature occurs between 115…120°C. The exact value is stored in drive firmware. See parameter 10:362 [Heatsink Temp Pct] and/or 10:363 [Heatsink Temp].	Check cabinet filters, heatsink fans, intake air temperatures, and the baffles that can restrict recirculation of heated air. Check the condition of cabinet air filters and fans. Verify adequate airflow and the baffles that help prevent recirculation of heated air.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
10/11	Resettable Fault	10095 11095	125us Task Ovr	125us Task Overrun. The 125-microsecond task has overrun the allotted time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10096 11096	250us Task Ovr	250us Task Overrun. The 250-microsecond task has overrun the allotted time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10097 11097	1ms Task Ovr	1ms Task Overrun. The 1-millisecond task has overrun the allotted time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10098 11098	2ms Task Ovr	2ms Task Overrun. The 2-millisecond task has overrun the allotted time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10099 11099	10ms Task Ovr	10ms Task Overrun. The 10-millisecond task has overrun the allotted time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10100 11100	100ms Task Ovr	100ms Task Overrun. The 100-millisecond task has overrun the allotted time.	Clear faults. If the fault persists, remove any unnecessary Option Cards from the drive. If the fault persists rerun the firmware update and or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
10/11	Resettable Fault	10101 11101	CntrlTask Wtchdg	Control Task Watchdog. The Control task has failed to complete in the allotted amount of time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10102 11102	SystmTask Wtchdg	System Task Watchdog. The System task has failed to complete in the allotted amount of time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10103 11103	1ms Task Wtchdg	1ms Task Watchdog. The 1-millisecond task has failed to complete in the allotted amount of time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10104 11104	2ms Task Wtchdg	2ms Task Watchdog. The 2-millisecond task has failed to complete in the allotted amount of time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10105 11105	10ms Task Wtchdg	10ms Task Watchdog. The 10-millisecond task has failed to complete in the allotted amount of time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10107 11107	OverVoltage	Over Voltage. DC bus voltage exceeded 120% of the peak value of the rated voltage for the product. (Peak value is the AC rated voltage multiplied by √2). Monitor DC bus voltage in parameter 0:3 [DC Bus Volts]. Possible causes include: configuration of line side converter, configuration of DC bus regulator, high inertia loads, and fast decel times.	—	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10109 11109	HeatSinkUnderTmp	Heatsink Under Temperature. Heatsink temperature sensor is reporting a value below –18.7°C. (–1.66°F) or the sensor feedback circuit is open. See parameter 10:362 [Heatsnk Temp Pct] and/or parameter 10:363 [Heatsnk Temp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
10/11	Resettable Fault	10110 11110	Autotune Inertia	Autotune Inertia Out of Range. The motor or total inertia that is determined by the Autotune inertia test function is out of range. This condition only occurs during an inertia test.	Verify motor nameplate data. Rerun inertia Autotune.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Non-Resettable Fault	10111 11111	Inv App No Strt	Inverter Application Not Start. The motor side inverter application failed to start in the DSP.	Cycle power. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10112 11112	InvalidLoadRatio	Invalid Load Ratio. The total system inertia result of the Autotune is less than the value in parameter 10:900 [Motor Inertia], which results in a negative load ratio.	Determine if the value of parameter 10:900 [Motor Inertia] is too high. If possible, uncouple the motor from the load and perform the motor inertia autotune test.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10114 11114	Jnt OverTemp Flt	Junction OverTemp Fault. The transistor Junction Temperature of the power module has exceeded the Fault Temperature (varies by rating). Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow.	Verify motor nameplate data and drive tuning for proper starting torque. Verify that the drive is sized and derated correctly. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
10/11	Resettable Fault	10118 11118	Ld00 Fail	D-Axis Inductance at 0 Pct OutOfRange. Parameter 10:910 [Autotune] is set to 3 'Rotate MtrID' and the value measured by the Autotune procedure for parameter 10:627 [u PM Ld at 0] is not in the range of acceptable values (negative).	Verify motor nameplate data and rerun the rotate motor ID test. If fault continues, obtain the motor datasheet from motor vendor.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10119 11119	Ld100 Fail	D-Axis Inductance at 100 Pct OutOfRange. Parameter 10:910 [Autotune] is set to 3 'Rotate MtrID' and the value measured by the Autotune procedure for parameter 10:629 [u PM Ld at 100] is not in the range of acceptable values (negative).	Verify motor nameplate data and rerun the rotate motor ID test. If fault continues, obtain the motor datasheet from motor vendor.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
10/11	Resettable Fault	10120 11120	Lq Fail	Q-Axis Inductance Out of Range. Parameter 10:910 [Autotune] is set to 3 'Rotate MtrID' and the value measured by the Autotune procedure for parameter 10:637 [u PM Lq at 25], 10:639 [u PM Lq at 50], 10:641 [u PM Lq at 75], 10:643 [u PM Lq at 100], 10:645 [u PM Lq at 125], 10:647 [u PM Lq at 150], 10:649 [u PM Lq at 175], or 10:651 [u PM Lq at 200] is not in the range of acceptable values. This could happen if current fails to rise up or decreases too fast due to abnormal conditions.	Verify motor nameplate data and rerun the rotate motor ID test. If fault continues, obtain the motor datasheet from motor vendor.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12001	Image Wtchdg Flt	Image Watchdog Fault. Communication between the main control board and the image buffer in one of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board) has stopped transmitting for 10 milliseconds.	Power down and then check the fiber-optic communication connections.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12002	ConstantsMsgIvld	Constants Message Invalid Fault. The constants header information did not match the content of the power peripheral (power layer interface board, torque accuracy module, or DC precharge board).	Cycle power.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Non-Resettable Fault	12003	Constants Chksum	Constants Checksum Fault. The constants download failed the checksum test by one of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board).	Cycle power.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Non-Resettable Fault	12004	NVS Checksum Flt	Nonvolatile Data Checksum Fault. Checksum test failed for non-volatile data for the DC precharge board.	Cycle power. If the fault persists, replace the DC precharge board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12005	Power Supply UV	Power Supply Undervoltage. An undervoltage event occurred in the local (internal to the PIB) power supply. A possible cause is the DC bus voltage, which feeds the power supply, has dropped below 400-v DC. This power supply provides power to the power layer interface board or DC precharge board (if present).	Verify DC bus is present on the Mn power module via the hardware testpoints. If so, replace the Mn power interface board (PIB). See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12006	Precharge Fault	Precharge Fault. Main control board firmware did not indicate that bus voltage was good within the specified time period following closure of the precharge contactor.	Check the timing of the rise of the DC bus following precharge.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12007	MCS CL BayOTmp	• MCS Failed to Close or Wiring Bay Overtemp. Two conditions can cause this fault: • Condition 1: The molded case switch (MCS) in the DC precharge has failed to close when commanded. • Condition 2: The temperature in the input bay or entry wiring bay has risen too high. This condition can only cause the fault before the drive or bus supply has completed precharge.	• Condition 1: Inspect the DC precharge module and the thermal sensor harness for the exit wiring bay. Ensure MCS lockout device is not closed. See the Service Manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for details. • Condition 2: Check the enclosure filters and fans. Problems with the baffling between these bay and adjacent bays can be sources of heat.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12008	MCS Shunt Trip	MCS Shunt Trip. The molded case switch (MCS) in the DC precharge has failed to open within the specified time.	Power down. Replace the MCS. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. Then reset the MCS elapsed life parameter.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12009	MCS Aux Mismatch	MCS Aux Mismatch or Wiring Bay Overtemp. Two things conditions can cause this fault: • Condition 1: The auxiliary contact on the molded case switch (MCS) in the DC precharge is not functioning properly. • Condition 2: The temperature in the input bay or entry wiring bay has risen too high. This condition can only cause the fault before the drive or bus supply has completed precharge. Investigate causes for over-temperature in these bays.	Check the circuit breaker. Check the Predictive Maintenance parameters for the MCC. Check the enclosure filters and fans. Check the thermal sensor harness for the input bay or entry wiring bay or bypass jumper. Check the Predictive Maintenance objects for these fans. Check the baffling between these bays and adjacent bays that can be sources of heat. Condition 1: Inspect the DC precharge module and the thermal sensor harness for the exit wiring bay. Condition 2: Check the enclosure filters and fans. Problems with the baffling between these bay and adjacent bays can be sources of heat. See the Service Manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for details on these devices.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12010	240VAC Loss Flt	240 VAC Loss Fault. The 240 VAC supply voltage fell below the specified minimum voltage level of 154 VAC during the pre-charge cycle or while the molded case switch (MCS) is closed. See the corresponding [DCPn PwrSup Vltg] Port 12 parameter.	Verify that the 240 VAC input is within specification. Inspect DCPC module 240 VAC supply fuses and connections. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the system schematics.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12011	240VAC OV	240 VAC Over Voltage. The 240 VAC supply voltage rose above the specified maximum voltage level of 283V AC. See the corresponding [DCPn PwrSup Vltg] Port 12 parameter.	Verify that the 240 VAC input is within specification. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the system schematics.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12012	FDOpen MCSClose	Fused Disconnect Open (MCS Closed). Firmware detected that the fused disconnect was opened when molded case switch (MCS) was open.	Power down and check the wiring in the DC precharge module.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12013	SysPwr OC Fault	SysPwr OC Fault. An over current event occurred in the local (internal to the PIB) power supply. It affects the operation of the positive 24V power supply. The most likely cause is a component failure in the Mn PIB, DCPC, or power module.	Replace failed component. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12017	Gate Drive Flt	Gate Drive Fault. A Gate Drive Board fault has occurred. Possible causes include an internal power supply failure (if the fault occurred before the drive or bus supply was enabled), or an IGBT desaturation (over temperature or over current) event.	Inspect status indicators on power layer interface (PLI) circuit board. Replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12018	Fiber Offline	Fiber Went Offline. The fiber-optic communication link between the fiber interface circuit board and one of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board) transitioned from online to offline.	Clear faults. If the fault persists, power down and then check the fiber-optic communication connections.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12019	SysPwr OV Flt	SysPwr OV Fault. An overvoltage event occurred in the local (internal to the PIB) power supply. It affects the operation of the positive 24V power supply. The most likely cause is component failure.	Inspect status indicators on power layer interface (PLI) circuit board. Replace the Mn power module or PLI. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12020	N24V UV Flt	Neg 24V Undervoltage Fault. An undervoltage event occurred in the local (internal to the PIB) power supply. It affects the operation of the negative 24V power supply. The most likely cause is component failure.	Inspect status indicators on power layer interface (PLI) circuit board. Replace the Mn power module or PLI. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12022	Pred NVS Error	Predictive Maintenance Non-Volatile Storage Error. Data from Electronically Erasable Read Only Memory (EEROM) on the power board or DC precharge board of a power module within the motor side inverter is corrupt.	Cycle power. If the fault persists, replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	—
12	Resettable Fault	12023	CtrlMsgWdog Tout	Control Msg Watchdog Timeout. The watch dog timer for transmission of the control message between the main control board and one of the power peripherals (power layer interface board or torque accuracy module) has timed out.	Power down and then check the fiber-optic communication connections (fiber-optic cables and transceivers). If the fault persists, replace the main control board. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Non-Resettable Fault	12025	Incom GateDr Flt	Incompatible Gate Drive Fault. An incompatible gate drive board is installed.	Inspect status indicators on PLI. Replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12026	Ground Flt	Ground Fault. Power layer interface (PLI) hardware in the power module has detected a ground fault event. Ground current is greater than 25% of the power module rating.	Disconnect motor lead from the inverter. Perform a motor insulation test. Run the inverter with no motor connected. If the inverter faults, replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12027	Bus OV Flt	Bus OV Fault. The DC bus voltage has exceeded the maximum value. Monitor DC bus voltage in parameter 0:3 [DC Bus Volts]. Possible causes include: configuration of line side converter, configuration of DC bus regulator, high inertia loads, and fast decel times.	For regenerative converters, verify the regeneration configuration parameters. For non-regenerative converters, increase decel time or provide a means to dissipate excess energy.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12028	NTC-U Short Flt	NTC-U Short Fault. The heatsink temperature sensor (NTC) for the U (T1) phase of the power module indicates a short circuit (the value has risen above 150°C). The sensor or circuit is faulty. See the corresponding parameter in Port 12 [Mn HeatsinkTempU]	Replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12029	NTC-U Open Flt	NTC-U Open Fault. The heatsink temperature sensor (NTC) for the U (T1) phase of the power module indicates an open circuit (the value has fallen below –40°C). The sensor or circuit is faulty. See the corresponding parameter in Port 12 [Mn HeatsinkTempU]	Replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12030	U OverTemp Flt	Heatsink-U OverTemp Fault. The temperature in the heatsink for the U (T1) phase of the power module has risen above 118°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 12 [Mn HeatsinkTempU]. PowerFlex 755TS drives have only one heatsink temperature sensor. The signal from that sensor feeds the parameters for U, V, and W phases.	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12032	U LowTemp Flt	Heatsink-U LowTemp Fault. The temperature in the heatsink for the U (T1) phase of the power module has fallen below –30°C for a PowerFlex 755TR, 755TL, or 755TM product or –25°C for a PowerFlex 755TS product. The most common cause is an ambient temperature that is too low for operation. See the corresponding parameter in Port 12 [Mn HeatsinkTempU]. PowerFlex 755TS drives have only one heatsink temperature sensor. The signal from that sensor feeds the parameters for U, V, and W phases.	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12034	NTC-V Short Flt	NTC-V Short Fault. The heatsink temperature sensor (NTC) for the V (T2) phase of the power module indicates a short circuit (the value has risen above 150°C). The sensor or circuit is faulty. See the corresponding parameter in Port 12 [Mn HeatsinkTempV].	Replace the Mn power module. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12035	NTC-V Open Flt	NTC-V Open Fault. The heatsink temperature sensor (NTC) for the V (T2) phase of the power module indicates an open circuit (the value has fallen below –40°C). The sensor or circuit is faulty. See the corresponding parameter in Port 12 [Mn HeatsinkTempV].	Replace the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12036	V OverTemp Flt	Heatsink-V OverTemp Fault. The temperature in the heatsink for the V (T2) phase of the power module has risen above 118°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 12 [Mn HeatsinkTempV]. PowerFlex 755TS drives have only one heatsink temperature sensor. The signal from that sensor feeds the parameters for U, V, and W phases.	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12038	V LowTemp Flt	Heatsink-V LowTemp Fault. The temperature in the heatsink for the V (T2) phase of the power module has fallen below –30°C for a PowerFlex 755TR, 755TL, or 755TM product or –25°C for a PowerFlex 755TS product. The most common cause is an ambient temperature that is too low for operation. See the corresponding parameter in Port 12 [Mn HeatsinkTempV]. PowerFlex 755TS drives have only one heatsink temperature sensor. The signal from that sensor feeds the parameters for U, V, and W phases.	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12040	NTC-W Short Flt	NTC-W Short Fault. The heatsink temperature sensor (NTC) for the W (T3) phase of the power module indicates a short circuit (the value has risen above 150°C). The sensor or circuit is faulty. See the corresponding parameter in Port 12 [Mn HeatsinkTempW].	Replace the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12041	NTC-W Open Flt	NTC-W Open Fault. The heatsink temperature sensor (NTC) for the W (T3) phase of the power module indicates an open circuit (the value has fallen below –40°C). The sensor or circuit is faulty. See the corresponding parameter in Port 12 [Mn HeatsinkTempW].	Replace the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12042	W OverTemp Flt	Heatsink-W OverTemp Fault. The temperature in the heatsink for the W (T3) phase of the power module has risen above 118°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 12 [Mn HeatsinkTempW]. PowerFlex 755TS drives have only one heatsink temperature sensor. The signal from that sensor feeds the parameters for U, V, and W phases.	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12044	W LowTemp Flt	Heatsink-V LowTemp Fault. The temperature in the heatsink for the V (T2) phase of the power module has fallen below –30°C for a PowerFlex 755TR, 755TL, or 755TM product or –25°C for a PowerFlex 755TS product. The most common cause is an ambient temperature that is too low for operation. See the corresponding parameter in Port 12 [Mn HeatsinkTempV]. PowerFlex 755TS drives have only one heatsink temperature sensor. The signal from that sensor feeds the parameters for U, V, and W phases.	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12046	Jnt OverTemp Flt	Junction OverTemp Fault. The transistor junction temperature of the power module has exceeded the Fault Temperature which is 155°C for 3.5 sec or 165°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, improper flying start configuration, and obstructed airflow. See the corresponding parameter in Port 12 [Mn IGBT Temp]. Note: This temperature may rise/fall faster than the update rate of the drive.	Verify that the drive is sized and derated correctly. Verify drive configuration for proper starting torque and motor nameplate data.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12048	Str Overload Flt	Stator Overload Fault. The Current Overload Count of the power module has exceeded 100%. Possible causes include loads that require too much torque and current.	Check drive and load sizing. Check mechanical factors that increase the amount of torque and current.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12050	Bus Fuse Harness	Bus Fuse Harness. A DC bus fuse harness is missing or disconnected.	Power down and examine the DC bus fuse harness	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12051	Bus PosFuseBlown	Bus Positive Fuse Blown. The positive DC link fuse has cleared.	Power down. Investigate why the DC link fuse cleared and correct. Replace both DC link fuses. Perform component test procedures. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12052	Bus NegFuseBlown	Bus Negative Fuse Blown. The negative DC link fuse has cleared.	Power down. Replace both DC link fuses. Perform component test procedures. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12060	Volt Class Flt	Voltage Class Fault. The voltage class that is programmed in the power module is incorrect or corrupt.	Cycle power. If the fault persists, replace the PIB board and/or the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12061	Duty Rating Flt	Duty Rating Fault. The duty rating that is programmed in the power module is incorrect or corrupt.	Cycle power. If the fault persists, replace the PIB board and/or the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12062	Pwr UnitTyp Flt	Power Unit Type Fault. The power unit type that is programmed in the power module is incorrect or corrupt.	Cycle power. If the fault persists, replace the PIB board and/or the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12063	DTM ConstCorrFlt	DTM Constants Corrupted Fault. Runtime constants data corruption detected.	Clear the fault. Cycle power. If the fault persists, replace Mn power layer interface (PLI) circuit board. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12065	Main Blower Flt	Main Blower Fault. The Mn heatsink fan is running below the fault threshold speed. For Frame 5 drives: • The threshold is 6460 RPM while the drive is modulating, and 1593 RPM while the drive is not modulating. For Frame 6 products (drives and bus supplies): • The threshold is 6375 RPM while the product is modulating, and 1593 RPM while the product is not modulating. For Frame 7 products: • The threshold is 6375 RPM while the product is modulating, and 4675 RPM while the product is not modulating. For Frame 8…15 products: • The threshold is 1800 RPM while the product is modulating, and 60 RPM while the product is not modulating.	Power down. Replace the Mn heatsink fan. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. Reset the Predictive Maintenance object for heatsink fan elapsed life.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12071	Board OT Fault	Board OT Fault. The temperature of one of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board) has exceeded the fault temperature (80°C). The fault temperature for a PowerFlex 755TS torque accuracy module is 99°C. Possible causes include high ambient temperature and obstructed airflow. See the corresponding parameter in Port 12 [Mn PLI BoardTemp] and/or [DCPn Board Temp].	Check the ambient temperature. Check the condition of cabinet air filters. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12073	Board UT Fault	Board UT Fault. The temperature of one of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board) has fallen below the fault temperature (–30°C). The most likely cause is low ambient temperature. See the corresponding parameter in Port 12 [Mn PLI BoardTemp] and/or [DCPn Board Temp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12075	IntakeAir OT Flt	Intake Air OT Fault. Power module intake air has exceeded the fault temperature (70°C). See the corresponding parameter in Port 12 [Mn Meas Amb Tmp].	Check the ambient temperature. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12077	IntakeAir UT Flt	Intake Air UT Fault. Power module intake air has fallen below the fault temperature (–25°C). See the corresponding parameter in Port 12 [Mn Meas Amb Tmp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12079	PIB OT Fault	PIB OT Fault. The power interface board (PIB) has exceeded the fault temperature (80°C). Possible causes include high ambient temperature and obstructed airflow. See the corresponding parameter in Port 12 [Mn PIB BoardTemp].	Check the ambient temperature. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12081	PIB UT Fault	PIB UT Fault. The power interface board (PIB) has fallen below the fault temperature (–30°C). Possible causes include low ambient temperature and obstructed airflow. See the corresponding parameter in Port 12 [Mn PIB BoardTemp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12084	Bus Imbalanc Flt	Bus Imbalance Fault. The DC bus voltage imbalance between Mn Power modules has exceeded the fault threshold. See the corresponding parameter in Port 12 [Mn DC BusVoltage].	If fault persists, replace the balance resistors, the DC bus capacitor assembly, or Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12085	PWM Enable Flt	PWM Enable w/o DTM Active Fault. Control attempted to modulate before the thermal manager was running.	Cycle power.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12086	L/R Overtemp	L/R Overtemp. An over temperature event has occurred in the parallel inductor or dv/dt filter. High temperature caused the thermal switch to open. Check cabinet filters, heatsink fans, intake air temperatures, and the baffles that help prevent recirculation of heated air. See the corresponding diagnostic item in Port 12 [MnStatusWord] Bit 2 'LR OvrTempSw'.	For the Mn power module with Bit 2 'LR OvrTempSw' set, check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100 for PowerFlex 755T or publication 750-TD104 for PowerFlex 755TS products.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12087	BusCond BayOTmp	Bus Conditioner Fault or Wiring Bay Overtemp. Two conditions can cause this fault: • Condition 1: A bus conditioner is not functioning properly. • Condition 2: High temperature in the optional exit wiring bay can only cause the fault in the last motor side inverter power module. For example, in a Frame 9 drive that is M1, or in a Frame 11 drive that is M3. If the fault occurs in a power module that is not the last motor side inverter power module, the cause must be a bus conditioner. If it occurs in a power module that is part of the line side converter, the cause must be a bus conditioner.	• Condition 1: Inspect the bus conditioners and the thermal sensor harness for the exit wiring bay. See the Hardware Service Manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for details. • Condition 2: Check the enclosure filters and fans. Problems with the baffling between these bays and adjacent bays can be sources of heat.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 'MS Pwr Flts'.
12	Resettable Fault	12088	Sec Fbk Watchdog	Secondary Feedback Watchdog. Transmission of the feedback message (PDI fiber connection on the Mn PLI) from the DC precharge module has timed out.	If the fault persists, power down and then check the fiber-optic communication connections.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
12	Resettable Fault	12096	U Pos IOC Flt	U Pos IOC Fault. The Mn power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the positive side of the U (T1) output phase. Possible causes include short circuits in the motor and motor wiring.	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12097	V Pos IOC Flt	V Pos IOC Fault. The Mn power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the positive side of the V (T2) output phase. Possible causes include short circuits in the motor and motor wiring.	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12098	W Pos IOC Flt	W Pos IOC Fault. The Mn power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the positive side of the W (T3) output phase. Possible causes include short circuits in the motor and motor wiring.	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12099	U Neg IOC Flt	U Neg IOC Fault. The Mn power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the negative side of the U (T1) output phase. Possible causes include short circuits in the motor and motor wiring.	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If the fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12100	V Neg IOC Flt	V Neg IOC Fault. The Mn power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the negative side of the V (T2) output phase. Possible causes include short circuits in the motor and motor wiring.	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If the fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
12	Resettable Fault	12101	W Neg IOC Flt	W Neg IOC Fault. The Mn power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the negative side of the W (T3) output phase. Possible causes include short circuits in the motor and motor wiring.	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If the fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
12	Resettable Fault	12102	LocPwr UV Flt	LocPwr UV Fault. An undervoltage event occurred in the local (internal to the Mn PIB) power supply. It affects the operation of the positive or negative 12V power supply. The most likely cause is component failure.	Replace the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.
12	Resettable Fault	12103	Device Timeout	Device Message Timeout. One of the power peripherals (power layer interface board, torque accuracy module, or DC precharge board) has stopped transmitting messages to the main control board.	Power down and then check the fiber-optic communication connections. Replace fiber-optic cables and/or fiber transceiver circuit boards if damaged. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12104	P24 UV Flt	Pos 24V Undervoltage Fault. An undervoltage event occurred in the local (internal to the PIB) power supply. It affects the operation of the positive 24V power supply. The most likely cause is component failure.	Replace the Mn PIB. If fault persists, replace the Mn power module. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 3 ‘MS Pwr Flts’.
12	Resettable Fault	12107	DC Fuse Open	DC Fuse Open. A DC fuse that connects the input of the Mn power module to the DC bus has opened.	Verify if DC fuse is open or not. If DC fuse is ok, investigate DC fuse harness and tellback signal. If DC fuse is open, investigate why the DC fuse opened. After correction, replace the DC fuse. Perform component test procedures. See the hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure.	Coast (Motor Side Inverter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
12	Resettable Fault	12127	Pwr Bd Fault	Power Board Fault. The power board temperature has exceeded the maximum threshold. This fault is frame-dependent. Catastrophic power structure failure can result if the drive is allowed to modulate in this state.	Verify that the power structure stirring fan is operating. Verify that the pod fan is operating. Verify that the power board wiring harness is connected and seated.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.
12	Resettable Fault	12136	Mtrside IOC Flt	IOC Fault. Motorside hardware has detected an Instantaneous Over Current (IOC).	Disconnect the motor leads at the motor and run the drive. If the fault is not present, suspect a short circuit in the motor. If the fault persists, suspect a short circuit in the motor leads or Mn power module. For closed loop systems, verify feedback functionality. Detune the velocity/position loop bandwidth. If a mechanical brake is installed, verify its functionality.	—
12	Non-Resettable Fault	12137	Pwr Struc Fault	Power Structure Fault. A voltage imbalance has been detected in the DC bus capacitor circuit that indicates a compromised power circuit.	Replace the power board. See hardware service manual, publication 750-TG100 for PowerFlex 755T or publication 750-TG101 for PowerFlex 755TS products, for the replacement procedure. Or, replace the drive.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.
13	Resettable Fault	13002	LnSyncLoss RTExp	Loss of PLL Synchronization Ride Through Timer Expired. The loss of PLL synchronization condition has persisted longer than value in 13:172 [RideThrough Time].	Investigate Line Synch Loss (see code 13001) and adjust 13:172 [RideThroughTime] as needed.	Stop. Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 0 ‘LS Ctrl Flts’.
13	Resettable Fault	13046	Heatsink OvrTemp	Heatsink Over Temperature. The value of parameter 13:233 [Heatsnk Temp] is greater than 118°C for 0.5 seconds.	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop. Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 ‘LS Pwr Flts’.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
13	Resettable Fault	13053	HW OverCurrent	Hardware Over Current. The input current has exceeded the hardware current limit.	Ensure the drive is properly sized for the application. Reduce motor load if possible. If starting into a rotating load, turn on flying start with parameter 10:70 [FlyingStart Mode]. Check the motor and external wiring to the drive output terminals for a shorted condition. Perform an insulation resistance test on the wiring to the motor. Check for devices between the drive and motor such as a contactor that may be changing states while the drive is running.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
13	Resettable Fault	13054	125us Task Ovr	125us Task Overrun. The 125-microsecond task has overrun the allotted time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13055	250us Task Ovr	250us Task Overrun. The 250-microsecond task has overrun the allotted time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13056	1ms Task Ovr	1ms Task Overrun. The 1-millisecond task has overrun the allotted time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13057	2ms Task Ovr	2ms Task Overrun. The 2-millisecond task has overrun the allotted time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13058	10ms Task Ovr	10ms Task Overrun. The 10-millisecond task has overrun the allotted time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13059	100ms Task Ovr	100ms Task Overrun. The 100-millisecond task has overrun the allotted time.	Clear faults. If fault persists, remove any unnecessary Option Cards from the drive. Rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13060	CntrlTask Wtchdg	Control Task Watchdog. The Control task has failed to complete in the allotted amount of time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13061	SystmTask Wtchdg	System Task Watchdog. The System task has failed to complete in the allotted amount of time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13062	1ms Task Wtchdg	1ms Task Watchdog. The 1-millisecond task has failed to complete in the allotted amount of time.	Clear faults. If the fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13063	2ms Task Wtchdg	2ms Task Watchdog. The 2-millisecond task has failed to complete in the allotted amount of time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13064	10ms Task Wtchdg	10ms Task Watchdog. The 10-millisecond task has failed to complete in the allotted amount of time.	Clear faults. If fault persists, rerun firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
13	Resettable Fault	13065	SW Bus Low Volt	Software Bus Low Voltage. An undervoltage condition has occurred. Bus voltage in parameter 0:3 [DC Bus Volts] has fallen below 80% of the peak value of 13:21 [ACLineMemory]. (Peak value is the AC voltage multiplied by √2)	Verify input voltage is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
13	Resettable Fault	13066	OverVoltage	Over Voltage. The DC bus voltage in 0:3 [DC Bus Volts] exceeded 120% of the peak value of the rated voltage for the product. (Peak value is the AC voltage multiplied by √2)	Verify input voltage is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
13	Non-Resettable Fault	13067	Cnv App No Strt	Converter Application Not Start. The line side converter application failed to start in the DSP.	Cycle power. If fault persists, run firmware update and/or replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	— Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
13	Resettable Fault	13069	R Overload Flt	R Overload Fault. Parameter 13:228 [R (L1) OL Count] is greater than or equal to 100%. Possible causes include loads that require too much current and power.	Verify that the drive or bus supply is sized and derated correctly. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
13	Resettable Fault	13071	S Overload Flt	S Overload Fault. Parameter 13:229 [S (L2) OL Count] is greater than or equal to 100%. Possible causes include loads that require too much current and power.	Verify that the drive or bus supply is sized and derated correctly. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
13	Resettable Fault	13073	T Overload Flt	T Overload Fault. Parameter 13:230 [T (L3) OL Count] is greater than or equal to 100%. Possible causes include loads that require too much current and power.	Verify that the drive or bus supply is sized and derated correctly. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
13	Resettable Fault	13075	Bus Rate of Rise	Bus Rate of Rise. Rate of increase in DC bus voltage during precharge is less than expected. Possible causes include a short circuit in the DC bus or too much capacitance is connected to the DC bus. See DRIVES-AT005 for maximum capacitance values.	Power down and examine the electrical characteristics of the DC bus and the equipment that is connected to the DC bus.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
13	Resettable Fault	13092	SW OverCurrent	Software Over Current. Line side converter current has exceeded the 1 ms current rating. This rating is greater than the current rating for 3 seconds and less than the hardware overcurrent fault level. It is typically 200…250% of the drive continuous rating.	Ensure the drive is properly sized for the application. Reduce motor load if possible. If starting into a rotating load, turn on flying start with parameter 10:70 [FlyingStart Mode]. Check the motor and external wiring to the drive output terminals for a shorted condition. Perform an insulation resistance test on the wiring to the motor. Check for devices between the drive and motor such as a contactor that may be changing states while the drive is running.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 0 'LS Ctrl Flts'.
13	Resettable Fault	13114	Jnt OverTemp Flt	Junction OverTemp Fault. The transistor Junction Temperature the power module has exceeded the Fault Temperature (varies by rating). Possible causes include: loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow.	Check drive sizing and derating. Check the condition of cabinet air filters.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14001	Image Wtchdg Flt	Image Watchdog Fault. Communication between the main control board and the image buffer in one of the power peripherals (power layer interface board, current sense board, or AC precharge board) has stopped transmitting for 10 milliseconds.	Power down and then check the fiber-optic communication connections.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14002	ConstantsMsgInvld	Constants Message Invalid Fault. The constants header information did not match the content that one of the power peripherals (power layer interface board, current sense board, or AC precharge board) expected.	Cycle power.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Non-Resettable Fault	14003	Constants Chksum	Constants Checksum Fault. The constants download failed the checksum test by one of the power peripherals (power layer interface board, current sense board, or AC precharge board).	Cycle power.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Non-Resettable Fault	14004	NVS Checksum Flt	Nonvolatile Data Checksum Fault. Checksum test failed for non-volatile data for the current sense board or AC precharge board.	Cycle power. If the fault persists, replace the current sense board or AC precharge board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
14	Resettable Fault	14005	Power Supply UV	Power Supply Undervoltage. An undervoltage event occurred in the local (internal to the PIB) power supply. A possible cause is the DC bus voltage, which feeds the power supply, has dropped below 400 VDC. This power supply provides power to the power layer interface board or DC precharge board (if present).	Verify DC bus is present on the Lx power module via the hardware testpoints. If so, replace the Ln PIB. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14006	Precharge Fault	Precharge Fault. The DC bus voltage was less than the configured threshold 1.5 seconds after precharge was commanded.	Ensure the converter is properly sized for the application. Verify total external bus capacitance does not exceed specification. See publication DRIVES-AT005.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14007	MCB CL BayOTmp	MCB Failed to Close or Wiring Bay Overtemp. Two things can cause this fault: • The main circuit breaker (CB1) in the AC precharge has failed to close when commanded. • The temperature in the input bay or entry wiring bay has risen too high. This condition can only cause the fault before the drive or bus supply has completed precharge. Investigate causes for over-temperature in these bays.	Check the circuit breaker. Check the Predictive Maintenance parameters for the MCC. Check the enclosure filters and fans. Check the thermal sensor harness for the input bay or entry wiring bay or bypass jumper. See the Service Manual, publication 750-TG100, for the replacement procedure. Check the Predictive Maintenance parameters for these fans. Check the baffling between these bays and adjacent bays that can be sources of heat.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14008	MCB Fail To Opn	MCB Failed to Open. Main circuit breaker did not open with 1.5 seconds of being commanded open.	Inspect the functionality of the main circuit breaker. Check feedback signals to ACPC board	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14009	MCB Aux BayOTmp	MCB Aux Mismatch or Wiring Bay Overtemp. Two things can cause this fault: • The auxiliary contact on the main circuit breaker (CB1) in the AC precharge is not functioning properly. • The temperature in the input bay or entry wiring bay has risen too high. This condition can only cause the fault after the drive or bus supply has completed precharge. Investigate causes for over-temperature in these bays.	Check the circuit breaker. Check the enclosure filters and fans. Check the thermal sensor harness for the input bay or entry wiring bay or bypass jumper. Check the baffling between these bays and adjacent bays that can be sources of heat. See the Service Manual, publication 750-TG100, for procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14010	240VAC Loss Flt	240 VAC Loss Fault. The 240 VAC supply voltage fell below the specified minimum voltage level of 154V AC during the pre-charge cycle or while the main circuit breaker (MCB) is closed. See parameters 14:1112 [ACP0 PwrSup Vltg] and/or 14:1122 [ACP1 PwrSup Vltg].	Verify that the 240 VAC input is within specification. If configured with a control transformer: • Inspect connections. • Inspect primary and secondary fuses. • Verify that the primary transformer connections are tapped for the proper input voltage. See the hardware service manual, publication 750-TG100, for the system schematics.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14011	240VAC OV	240 VAC Over Voltage. The 240 VAC supply voltage rose above the specified maximum voltage level (283V AC). See parameters 14:1112 [ACP0 PwrSup Vltg] and/or 14:1122 [ACP1 PwrSup Vltg].	Verify that the 240 VAC input is within specification. If configured with a control transformer, verify that the primary transformer connections are tapped for the proper input voltage. See the hardware service manual, publication 750-TG100, for the system schematics.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14012	FDOpen MCBClose	Fused Disconnect Open (MCB Closed). Fused disconnect (FD1) open detected when the main circuit breaker (MCB) was closed.	Close the fused disconnect. Inspect fused disconnect auxiliary contact to AC precharge board. If fault persists, replace the AC Precharge board. See the hardware service manual, publication 750-TG100, for procedures.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14013	SysPwr OC Fault	SysPwr OC Fault. An over current event occurred in the local (internal to the PIB) power supply. It affects the operation of the positive 24V power supply. The most likely cause is a component failure in the Ln PIB, ACPC, or power module.	Replace failed component.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14014	AC Fuse Open	AC Fuse Open. An AC fuse that connects power to the input of an LCL filter has cleared.	Power down. Verify fuse is cleared. Perform component test procedures. See the hardware service manual, publication 750-TG100. Replace all AC fuses that connect power to the input of the LCL filter.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14016	LEM b0 Flt	LEM Present b0 Fault. Not all LEM current sensors are connected and operating.	Check internal connection harnesses. Replace LEM (Current sensing device) on Frame 8 and higher or the power interface board or replace Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14017	Gate Drive Flt	Gate Drive Fault. A Gate Drive Board fault has occurred. Possible causes include an internal power supply failure (if the fault occurred before the drive or bus supply was enabled), or an IGBT desaturation (over temperature or over current) event.	Inspect status indicators on the power layer interface (PLI) circuit board. Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14018	Fiber Offline	Fiber Went Offline. The fiber-optic communication link between the fiber interface circuit board and one of the power peripherals (power layer interface board, current sense board, or AC precharge board) transitioned from online to offline.	Clear faults. If the fault persists, power down and then check the fiber-optic communication connections. Inspect status indicators on Ln power layer interface (PLI) circuit board.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
14	Resettable Fault	14019	SysPwr OV Flt	SysPwr OV Fault. Frames 7…15: An overvoltage event occurred in the local (internal to the PIB) power supply. It affects the operation of the positive 24V power supply. The most likely cause is component failure. Frames 5 and 6: An overvoltage or undervoltage event occurred in the local power supply. The most likely cause is the 24V DC supply power input is below the –1% power input threshold of 23.76V	Inspect status indicators on Ln power layer interface (PLI) circuit board. Replace the Ln power module or the power interface board (PIB). See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14020	N24V UV Flt	Neg 24V Undervoltage Fault. An undervoltage event occurred in the local (internal to the PIB) power supply. It affects the operation of the negative 24V power supply. The most likely cause is component failure.	Inspect status indicators on Ln power layer interface (PLI) circuit board. Replace the Ln power module or the power interface board (PIB). See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14022	Pred NVS Error	Predictive Maintenance Non-Volatile Storage Error. Data from Electronically Erasable Read Only Memory (EEROM) on the power board or AC precharge board of a power module within the line side converter is corrupt.	Cycle power. If fault persists, replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	N/A (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14023	CtrlMsgWdog Tout	Control Msg Watchdog Timeout. The watchdog timer for transmission of the Control Message between the main control board and one of the power peripherals (power layer interface board or current sense board) has timed-out.	Power down and then check the fiber-optic communication connections. If the fault persists, replace the main control board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
14	Resettable Fault	14024	CapFailureCfg	Capacitor Failure Configuration. The response to the LCL filter capacitor failure condition has been configured as alarm, but the risks to equipment have not been read and understood.	Read the attention statement under the heading Configurable LCL Filter Capacitor Failure Response. See the Troubleshooting section of the programming manual, publication 750-PM101.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14025	Incom GateDr Flt	Incompatible Gate Drive Fault. An incompatible Gate Drive Board is installed.	Inspect the status indicators on Ln power layer interface (PLI) circuit board. Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14026	Ground Flt	Ground Fault. Power layer interface (PLI) hardware in the power module has detected a ground fault event. Ground current is greater than 25% of the power module rating.	—	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14027	Bus OV Flt	Bus OV Fault. The DC bus voltage has exceeded the maximum value. Monitor DC bus voltage in parameter 0:3 [DC Bus Volts]. Possible causes include: configuration of line side converter,. configuration of DC bus regulator, high inertia loads, and fast decel times.	For regenerative converters, verify the regeneration configuration parameters. For non-regenerative converters, increase decel time or provide a means to dissipate excess energy.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14028	NTC-R Short Flt	NTC-R Short Fault. The heatsink temperature sensor (NTC) for the R (L1) phase of the power module indicates a short circuit (the value has risen above 150°C). The sensor or circuit is faulty. See the corresponding parameter in Port 14 [Ln HeatsinkTempR].	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14029	NTC-R Open Flt	NTC-R Open Fault. The heatsink temperature sensor (NTC) for the R (L1) phase of the power module indicates an open circuit (the value has fallen below –40°C). The sensor or circuit is faulty. See the corresponding parameter in Port 14 [Ln HeatsinkTempR].	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14030	R OverTemp Flt	Heatsink-R OverTemp Fault. The temperature in the heatsink for the R (L1) phase of the power module has risen above 118°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 14 [Ln HeatsinkTempR].	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14032	R LowTemp Flt	Heatsink-R LowTemp Fault. The temperature in the heatsink for the R (L1) phase of the power module has fallen below –30°C. The most common cause is an ambient temperature that is too low for operation. See the corresponding parameter in Port 14 [Ln HeatsinkTempR].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14034	NTC-S Short Flt	NTC-S Short Fault. The heatsink temperature sensor (NTC) for the S (L2) phase of the power module indicates a short circuit (the value has risen above 150°C). The sensor or circuit is faulty. See the corresponding parameter in Port 14 [Ln HeatsinkTempS].	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14035	NTC-S Open Flt	NTC-S Open Fault. The heatsink temperature sensor (NTC) for the S (L2) phase of the power module indicates an open circuit (the value has fallen below –40°C). The sensor or circuit is faulty. See the corresponding parameter in Port 14 [Ln HeatsinkTempS].	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14036	S OverTemp Flt	Heatsink-S OverTemp Fault. The temperature in the heatsink for the S (L2) phase of the power module has risen above 118°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 14 [Ln HeatsinkTempS].	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14038	S LowTemp Flt	Heatsink-S LowTemp Fault. The temperature in the heatsink for the S (L2) phase of the power module has fallen below –30°C. The most common cause is an ambient temperature that is too low for operation. See the corresponding parameter in Port 14 [Ln HeatsinkTempS]	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14040	NTC-T Short Flt	NTC-T Short Fault. The heatsink temperature sensor (NTC) for the T (L3) phase of the power module indicates a short circuit (the value has risen above 150°C). The sensor or circuit is faulty. See the corresponding parameter in Port 14 [Ln HeatsinkTempT].	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14041	NTC-T Open Flt	NTC-T Open Fault. The heatsink temperature sensor (NTC) for the T (L3) phase of the power module indicates an open circuit (the value has fallen below –40°C). The sensor or circuit is faulty. See the corresponding parameter in Port 14 [Ln HeatsinkTempT].	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14042	T OverTemp Flt	Heatsink-T OverTemp Fault. The temperature in the heatsink for the T (L3) phase of the power module has risen above 118°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 14 [Ln HeatsinkTempT].	Verify that the drive is sized and derated correctly. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14044	T LowTemp Flt	Heatsink-T LowTemp Fault. The temperature in the heatsink for the T (L3) phase of the power module has fallen below –30°C. The most common cause is an ambient temperature that is too low for operation. See the corresponding parameter in Port 14 [Ln HeatsinkTempT].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14046	Jnt OverTemp Flt	Junction OverTemp Fault. The transistor junction temperature of the power module has exceeded the Fault Temperature which is 155°C for 3.5 sec or 165°C. Possible causes include loads that require too much current and power, improper derating for temperature and altitude, and obstructed airflow. See the corresponding parameter in Port 14 [Ln IGBT Temp] Note: This temperature may rise/fall faster than the update rate of the drive.	Verify that the drive is sized and derated correctly. Verify converter configuration for proper transformer nameplate data and gains.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14048	Hw Conflict Flt	Rating Hardware Conflict Fault. Current sense board (CSB) ID Current rating does not agree with Constants Current rating.	—	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14049	RatingMissingFlt	Rating Missing Fault. The rating plug is not properly installed on the current sense board (CSB).	Power down. Check the installation of the rating plug on the CSB. If fault persists, replace the CSB.]See the hardware service manual, publication 750-TG100, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14050	R Overload Flt	R Overload Fault. The Current Overload Count for the R (L1) phase has exceeded 100%. Possible causes include loads that require too much torque and current.	Check drive and load sizing. Check mechanical factors that increase the amount of torque and current.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14052	S Overload Flt	S Overload Fault. The Current Overload Count for the S (L2) phase has exceeded 100%. Possible causes include loads that require too much torque and current.	Check drive and load sizing. Check mechanical factors that increase the amount of torque and current.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14054	T Overload Flt	T Overload Fault. The Current Overload Count for the T (L3) phase has exceeded 100%. Possible causes include loads that require too much torque and current.	Check drive and load sizing. Check mechanical factors that increase the amount of torque and current.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14056	CapOvrRsncCfg	Capacitor Over Resonance Configuration. The response to the LCL filter capacitor over-resonance condition has been configured as alarm, but the risks to equipment have not been read and understood.	Read the attention statement under the heading Configurable LCL Filter Capacitor Over Resonance Response. See the Troubleshooting section of the programming manual, publication 750-PM101.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14060	Volt Class Flt	Voltage Class Fault. The voltage class that is programmed in the power module is incorrect or corrupt.	Cycle power. If the fault persists, replace the Ln power interface board (PIB) or the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14061	Duty Rating Flt	Duty Rating Fault. The duty rating that is programmed in the power module is incorrect or corrupt.	Cycle power. If the fault persists, replace the Ln power interface board (PIB) or the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14062	Pwr UnitTyp Flt	Power Unit Type Fault. The power unit type that is programmed in the power module is incorrect or corrupt.	Cycle power. If the fault persists, replace the Ln power interface board (PIB) or the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14063	DTM ConstCorrFlt	DTM Constants Corrupted Fault. Runtime Constants data corruption detected.	Clear the fault. If the fault persists, cycle power and/or replace the power layer interface (PLI) circuit board. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14065	Main Blower Flt	Main Blower Fault. The Ln or Fn heatsink fan is running below the fault threshold speed. If the line side converter is not modulating, this fault occurs when the Ln or Fn heatsink fan speed is below 60 RPM. If the line side converter is modulating, this fault occurs when the Ln or Fn heatsink fan speed is below 1800 RPM.	Power down. Replace the Ln or Fn heatsink fan. See the hardware service manual, publication 750-TG100, for the replacement procedure. Reset the Predictive Maintenance object for heatsink fan elapsed life.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 ‘LS Pwr Flts’.
14	Resettable Fault	14067	Stir Fan 1 Fault	Stir Fan 1 Fault. The stirring fan 1 (parameter 14:148 [L0 St Fan 1 Spd]) is running below the fault threshold speed (9350 RPM). Only applicable to Frames 5 and 6.	Investigate slow stirring fan speed. Replace fan power supply board or stirring fan if needed. See the hardware service manual, publication 750-TG100, for the replacement procedure.	—
14	Resettable Fault	14069	Stir Fan 2 Fault	Stir Fan 2 Fault. The stirring fan 2 (parameter 14:149 [L0 St Fan 2 Spd]) is running below the fault threshold speed (9350 RPM). Only applicable to Frames 5 and 6.	Investigate slow stirring fan speed. Replace fan power supply board or stirring fan if needed. See the hardware service manual, publication 750-TG100, for the replacement procedure.	—
14	Resettable Fault	14071	Board OT Fault	Board OT Fault. The temperature of one of the power peripherals (power layer interface board, current sense board, or AC precharge board) has exceeded the fault temperature (80°C). Possible causes include high ambient temperature and obstructed airflow. See the corresponding [Ln PLI BoardTemp], [Fn CSB BoardTemp], and/or [ACPn Board Temp] parameter in Port 14.	Check the ambient temperature. Check the condition of cabinet air filters. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.
14	Resettable Fault	14073	Board UT Fault	Board UT Fault. The temperature of one of the power peripherals (power layer interface board, current sense board, or AC precharge board) has fallen below the fault temperature (–30°C). The most likely cause is low ambient temperature. See the corresponding [Ln PLI BoardTemp], [Fn CSB BoardTemp], and/or [ACPn Board Temp] parameter in Port 14.	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.
14	Resettable Fault	14075	IntakeAir OT Flt	Intake Air OT Fault. Power module intake air has exceeded the fault temperature (70°C). See the corresponding parameter in Port 14 [Ln Meas Amb Tmp].	Check the ambient temperature. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 ‘LS Pwr Flts’.
14	Resettable Fault	14077	IntakeAir UT Flt	Intake Air UT Fault. Power module intake air has fallen below the fault temperature (–25°C). See the corresponding parameter in Port 14 [Ln Meas Amb Tmp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 ‘LS Pwr Flts’.
14	Resettable Fault	14079	PIB OT Fault	PIB OT Fault. The power interface board (PIB) has exceeded the fault temperature (80°C). Possible causes include high ambient temperature and obstructed airflow. See the corresponding parameter in Port 14 [Ln PIB BoardTemp].	Check the ambient temperature. Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.
14	Resettable Fault	14081	PIB UT Fault	PIB UT Fault. The power interface board (PIB) has fallen below the fault temperature (–30°C). Possible causes include low ambient temperature and obstructed airflow. See the corresponding parameter in Port 14 [Ln PIB BoardTemp]	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 ‘Board Faults’.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14084	Bus Imbalanc Flt	Bus Imbalance Fault. The DC bus voltage imbalance between Mn Power modules has exceeded the fault threshold. See the corresponding parameter in Port 12 [Mn DC BusVoltage].	If fault persists replace the balance resistors, the DC bus capacitor assembly, or Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14085	PWM Enable Flt	PWM Enable w/o DTM Active Fault. Control attempted to modulate before the thermal manager was running.	Cycle power.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14086	L/R Overtemp	L/R Overtemp. An over temperature event has occurred in the parallel inductor or dv/dt filter. High temperature caused the thermal switch to open. Check cabinet filters, heatsink fans, intake air temperatures, and the baffles that help prevent recirculation of heated air. See the corresponding diagnostic item in Port 14 [LnStatusWord] Bit 2 'LR OT Swth'.	—	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14087	BusCond BayOTmp	Bus Conditioner Fault or Wiring Bay Overtemp. Two conditions can cause this fault: • Condition 1: A bus conditioner is not functioning properly. • Condition 2: High temperature in the optional exit wiring bay can only cause the fault in the last motor side inverter power module. For example, in a Frame 9 drive that is M1, or in a Frame 11 drive that is M3. If the fault occurs in a power module that is not the last motor side inverter power module, the cause must be a bus conditioner. If it occurs in a power module that is part of the line side converter, the cause must be a bus conditioner.	• Condition 1: Inspect the bus conditioners and the thermal sensor harness for the exit wiring bay. See the Hardware Service Manual, publication 750-TG100. • Condition 2: Check the enclosure filters and fans. Problems with the baffling between these bays and adjacent bays can be sources of heat.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14088	Sec Fbk Watchdog	Secondary Feedback Watchdog. Transmission of the feedback message (PDI fiber-optic cable connection on the Ln power layer interface (PLI) circuit board) from the current sense board (CSB) in the LCL filter has timed out.	If the fault persists, power down and then check the fiber-optic communication connections.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
14	Resettable Fault	14090	CabAirHiTempRise	Cabinet Air High Temperature Rise. The High Temperature Rise function has detected an event when the temperature in the power module has risen higher than expected for the load and ambient temperature. The condition must be present for ten minutes for this alarm to occur. Possible causes include blocked cabinet filters and improper internal airflow.	Check the cabinet filters for blockage. Check to see that internal airflow baffles are properly installed. Check the condition of cabinet air filters and fans. Verify adequate airflow and the baffles that help prevent recirculation of heated air.	—
14	Resettable Fault	14091	CabAirLoTempRise	Cabinet Air Low Temperature Rise. The Low Temperature Rise function has detected an event when the temperature in the power module has failed to rise as expected for the load and ambient temperature. Possible causes include missing cabinet filters or open doors.	Check to see that cabinet air filters are properly installed. Check to see that the cabinet doors are properly closed.	—
14	Resettable Fault	14096	R Pos IOC Flt	R Pos IOC Fault. The Ln power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the positive side of the R (L1) input phase.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14097	S Pos IOC Flt	S Pos IOC Fault. The Ln power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the positive side of the S (L2) input phase.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14098	T Pos IOC Flt	T Pos IOC Fault. The Ln power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the positive side of the T (l3) input phase.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14099	R Neg IOC Flt	R Neg IOC Fault. The Ln power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the negative side of the R (L1) input phase.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14100	S Neg IOC Flt	S Neg IOC Fault. The Ln power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the negative side of the S (L2) input phase.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14101	T Neg IOC Flt	T Neg IOC Fault. The Ln power layer interface (PLI) hardware in the power module has detected an instantaneous over current (IOC) event on the negative side of the T (L3) input phase.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.
14	Resettable Fault	14102	LocPwr UV Flt	LocPwr UV Fault. An undervoltage event occurred in the local (internal to the Ln PIB) power supply. It affects the operation of the positive or negative 12V power supply. The most likely cause is component failure.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14103	Device Timeout	Device Message Timeout. One of the power peripherals (power layer interface board, current sense board, or AC precharge board) has stopped transmitting messages to the main control board.	Power down and then check the fiber-optic communication connections. Replace fiber-optic cables and/or fiber transceiver circuit boards if damaged. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14104	P24 UV Flt	Pos 24V Undervoltage Fault. An undervoltage event occurred in the local (internal to the PIB) power supply. It affects the operation of the positive 24V power supply. The most likely cause is component failure.	Replace the Ln PIB. If fault persists, replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'
14	Resettable Fault	14107	DC Fuse Open	DC Fuse Open. A DC fuse that connects the output of the Ln power module to the DC bus has cleared.	Verify if DC fuse is open or not. If DC fuse is ok, investigate DC fuse harness and tellback signal. If DC fuse is open, investigate why the DC fuse opened. After correction, replace the DC fuse. Perform component test procedures. See the hardware service manual, publication 750-TG100, for procedures.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14111	InvalidRatingFlt	Invalid Rating Fault. The rating plug on the current sense board (CSB) does not match the hardware in the LCL filter.	Replace the CSB or LCL filter module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14112	Capacitor Fault	Capacitor Failure. Filter capacitor voltages or currents have exceeded control limits.	Power down the drive or bus supply. Replace the LCL filter capacitor. See the hardware service manual, publication 750-TG100, for the replacement procedure. Power up the drive or bus supply. Clear the fault: • If the power to a Frame 5 or 6 drive or a Frame 6 bus supply was cycled five times, you must connect a 24V DC auxiliary power supply to power the control circuits. • Note the five-digit code that is generated in parameter 14:1205 [F0 CapFltResCode] and enter it in parameter 14:1206 [F0 CapFltClrCode] to acknowledge that the capacitor was replaced and to clear the fault. Reset the predictive maintenance function for the LCL filter capacitor. Verify proper line side converter configuration and tuning.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14114	Fan OverTemp Flt	Fan Over Temperature Fault. Power module intake air has exceeded the fault temperature (70°C). See the corresponding parameter in Port 14 [Ln Meas Amb Tmp].	Check the condition of cabinet air filters. Verify adequate airflow and the ambient temperature is within specification. See the technical data, publication 750-TD100.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14116	Fan UdrTemp Flt	Fan Under Temperature Fault. Power module intake air has fallen below the fault temperature (–25°C). See the corresponding parameter in Port 14 [Ln Meas Amb Tmp].	Verify that the ambient temperature is within specification. See the technical data, publication 750-TD100.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 7 'Board Faults'.
14	Resettable Fault	14118	CapResonance Flt	Capacitor Over Resonance. The capacitor current in the range of resonant frequencies is greater than the fault threshold.	Review practices for sizing a transformer in publication DRIVES-AT005. If this event occurs while the Line Side Converter is modulating, then the configuration and tuning of the Line Side Converter may be causing the resonance. Consider reducing the bandwidth of voltage and current regulators. See parameters 13:55 [Volt Reg BW], 13:75 [Curr Reg BW]. If this event occurs while the Line Side Converter is not modulating, then equipment that shares the source of AC power may be causing the resonance. Consider changing the power distribution scheme or installing an isolation transformer or line reactor. Also consider using the Energy Pause function to disconnect the Line Side Converter from the AC source when not needed. Power down, then replace the filter capacitor. See the hardware service manual, publication 750-TG100, for the replacement procedure. Then reset the filter capacitor life parameter.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14119	Reactor OT Fault	Reactor Over Temperature Fault. An over temperature event has occurred in the reactor of the LCL filter. High temperature caused the thermal switch to open.	Check cabinet filters, heatsink fans, intake air temperatures, and the baffles that help prevent recirculation of heated air. Check the condition of cabinet air filters and fans. Verify adequate airflow and the baffles that help prevent recirculation of heated air.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14120	PCC Fail To Cls	PCC Failed to Close. The precharge contactor (PCC) did not close within 1.5 seconds of being commanded.	Power down and check the wiring in the AC precharge module. If wiring is correct and fault reoccurs, replace the precharge contactor. See the hardware service manual, publication 750-TG100, for the replacement procedure. Then reset the PCC elapsed life parameter.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14121	PCC Fail To Opn	PCC Failed to Open. The precharge contactor (PCC) did not open with 1.5 seconds of being commanded.	Power down and check the wiring in the AC precharge module. If wiring is correct and fault reoccurs, replace the precharge contactor. See the hardware service manual, publication 750-TG100, for the replacement procedure. Then reset the PCC elapsed life parameter.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.
14	Resettable Fault	14122	PCC Aux Mismatch	PCC Aux Mismatch. The auxiliary contact for the precharge contactor (PCC) is not functioning properly.	Power down and check the wiring in the AC precharge module. If wiring is correct and fault reoccurs, replace the precharge contactor. See the hardware service manual, publication 750-TG100, for the replacement procedure. Then reset the PCC elapsed life parameter.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14123	MCB Trip Reset	MCB Trip Reset. The main circuit breaker (MCB) bell alarm switch (an indication for over current) could not be reset.	Cycle power. If fault persists, replace the CB1 main circuit breaker. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14124	MCB Overcurrent	MCB Overcurrent. The main circuit breaker (MCB) opened due to over current (MCB bell alarm).	—	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: Yes. Fault can automatically reset: No. Emergency override response: Cannot override this fault.
14	Resettable Fault	14126	AC Line Ovr Vltg	AC Line Over Voltage. The voltage of the incoming AC line exceeded the maximum.	Verify input voltage is within specification. See 750-TD100.	Coast (Motor Side Inverter). Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: No. Emergency override response: 0:455 [Emerg Prot OVRD] bit 1 'LS Pwr Flts'.

Table 7 — Fault Codes by Port (cont)

PORT	CONDITION		DISPLAY TEXT	FAULT	ACTION	FAULT ACTION
	TYPE	CODE				
14	Resettable Fault	14136	Lineside IOC Flt	IOC Fault. Lineside hardware in the power module has detected an Instantaneous Over Current (IOC) event.	Replace the Ln power module. See the hardware service manual, publication 750-TG100, for the replacement procedure.	Stop (Line Side Converter). Additional Fault Action. Fault opens main circuit breaker: No. Fault can automatically reset: Yes. Emergency override response: Cannot override this fault.

Checking Power Modules and Motor Input with Input Power Off

Use the following procedure to check the drive's power module circuitry with power off:

1. Turn off and lock out input power. Wait 5 minutes.
2. Verify there is no voltage at the drive's input power terminals.
3. Using a voltmeter, check the DC bus potential as described in the section Verifying That DC Bus Capacitors Are Discharged on page 21 to ensure the DC bus capacitors are discharged.
4. Check all AC line and DC bus fuses.
5. Use a multimeter to check the input diodes and output IGBTs if a fuse is open. See Table 8. Multimeter must have a function to select "Diode Test" mode. See Fig. 35 for Frame 7 power module (19MV) and Fig. 36 for Frame 8-15 power modules (19XR).
6. Reapply input power.

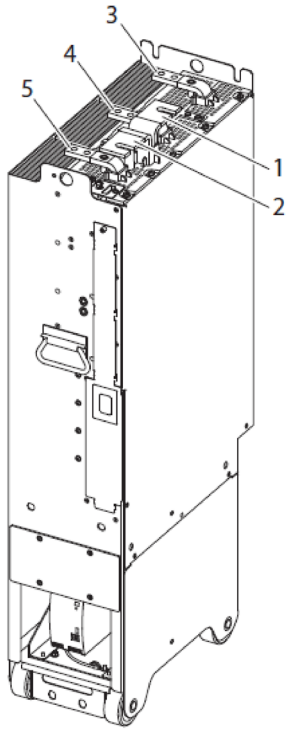
⚠ WARNING

DC bus capacitors retain hazardous voltages after input power has been disconnected. After disconnecting input power, wait five (5) minutes for the DC bus capacitors to discharge and then check the voltage with a voltmeter to ensure the DC bus capacitors are discharged before touching any internal components. Confirm that the DC bus has discharged before performing diode checks. Failure to observe this precaution could result in severe bodily injury or loss of life.

Table 8 — Diode Checks

METER LEAD		METER READING
(+)	(-)	
R	DC+	0.20 to 0.75-v
	DC-	Infinite (OL)
S	DC+	0.20 to 0.75-v
	DC-	Infinite (OL)
T	DC+	0.20 to 0.75-v
	DC-	Infinite (OL)
U	DC+	0.20 to 0.75-v
	DC-	infinite (OL)
V	DC+	0.20 to 0.75-v
	DC-	Infinite (OL)
W	DC+	0.20 to 0.75-v
	DC-	Infinite (OL)
DC+	R	Infinite (OL)
	S	
	T	
	U	
	V	
	W	
DC-	R	0.20 to 0.75-v
	S	
	T	
	U	
	V	
	W	

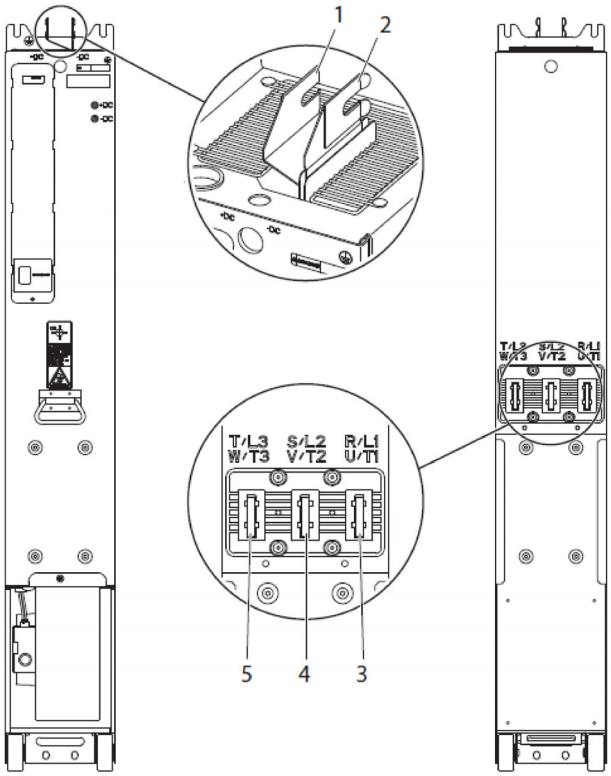
NOTE: Digital meters require a special diode check function because the current sourced by the meter during a normal resistance (Ohms) test is too low to accurately test a diode. Make sure the meter is set to the diode test function. Voltage readings may not be exact as shown in above table, but look for consistency during each of the 4 tests. When performing a test that should return infinity (OL) as shown in above table, you may see a value slowly climbing toward infinity. This is a result of the meter charging a capacitor and is normal.



LEGEND

ID	Connection
1	+DC
2	–DC
3	R/L1, U/T1
4	S/L2, V/T2
5	T/L3, W/T3

Fig. 35 — Frame 7 Power Module



LEGEND

ID	Connection
1	+DC
2	–DC
3	R/L1, U/T1
4	S/L2, V/T2
5	T/L3, W/T3

Fig. 36 — Frame 8-15 Power Module

Servicing the Drive

⚠WARNING

To guard against possible personal injury and/or equipment damage:

1. Inspect all lifting hardware for proper attachment before lifting drive.
2. Do not allow any part of the drive or lifting mechanism to make contact with electrically charged conductors or components.
3. Do not subject the drive to high rates of acceleration or deceleration while transporting to the mounting location or when lifting.

Do not allow personnel or their limbs directly underneath the drive when it is being lifted and mounted.

⚠WARNING

DC bus capacitors retain hazardous voltages after input power has been disconnected. After disconnecting input power, wait five (5) minutes for the DC bus capacitors to discharge and then check the voltage with a voltmeter to ensure the DC bus capacitors are discharged before touching any internal components. Failure to observe this precaution could result in severe bodily injury or loss of life.

Figure 37 illustrates use of a multimeter to check DC bus terminals.

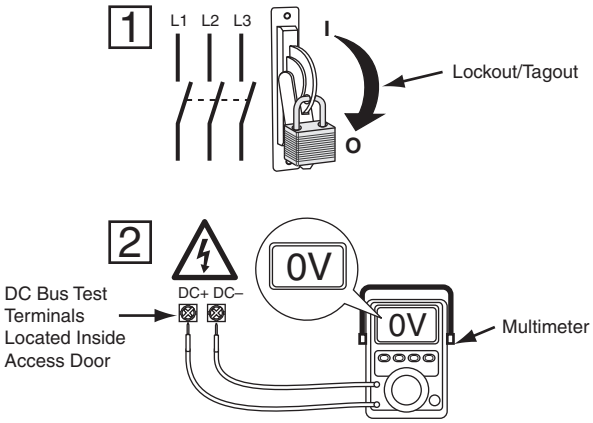


Fig. 37 — Check DC Bus Terminals

RIGGING THE ENCLOSURE

Where overhead room and/or clearance in front of the drive enclosure is insufficient to allow the drive to be safely removed from the enclosure, the entire enclosure may have to be removed from the chiller.

The dimensions and weights specified must be taken into consideration when removing the enclosure. For 19XRV chillers, the total weight for 19MV Frame 7, including drive weight and enclosure, is 1,963 lb (890 kg). The larger drives used for 19XR are supplied in sections and then assembled in the field. Due to the weight of the drives, components will typically be replaced individually rather than lifting the entire drive/drive section. All lifting equipment and lifting components (hooks, bolts, lifts, slings, chains, etc.) must be properly sized and rated to safely lift and hold the weight of the drive and/or drive components while removing.

TYPICAL SERVICE PROCEDURES

Rockwell Automation Publication 750-TG100C-EN-P contains typical component replacements. Chapter 6 covers Frame 7

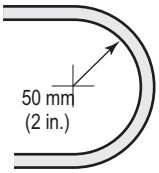
components and later chapters covers larger frames. Refer to this manual for field instructions of typical repairs.

For power module and LCL filter module replacement, special tools are required. Ensure that these tools are available prior to undertaking this type of work. These components are very heavy and the work cannot be completed without access to the appropriate ramp assembly tool.

LCL FILTER MODULE AND POWER MODULE REPLACEMENT

To release the modules, one must disconnect fiber-optic cables. Ensure that cables are not pinched and maintain minimum bend radius per below.

IMPORTANT: Minimum inside bend radius for fiber-optic cable is 2 in. (50 mm). Any bends with a shorter inside radius can permanently damage the fiber-optic cable. Signal attenuation increases as inside bend radius is decreased.



UNIT MOUNT DRIVES (19MV PRODUCT):

If service of main drive components is required a ramp assembly tool is required (Fig. 38). It is recommended that access to a ramp assembly tool is available for every jobsite as this tool is required for removal of the LCL, converter or inverter section of the drive.

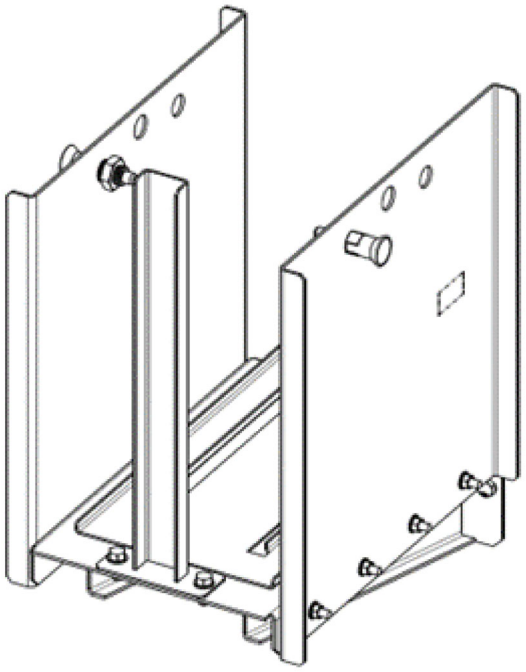


Fig. 38 — PF755TL 19MV Ramp Tool

To access the LCL, converter, or inverter section of a 19MV drive, first the guards in front of the drive enclosure will have to be removed to access the components. Then the top bus bars and DC fuses on top of the drive and any other cables which have to be removed to free up the individual components.

Then install the ramp assembly (Fig. 39). Note that this is a safety device, and that care must be taken to inspect the ramp assembly prior to use and properly attach the ramp to the structure per Fig. 40 or serious bodily injury may occur.

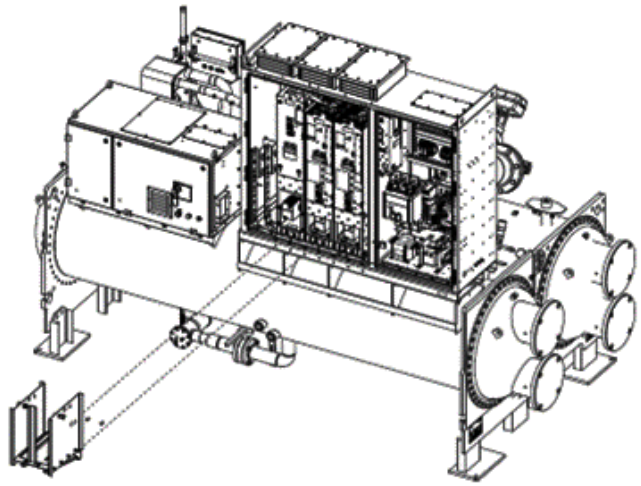


Fig. 39 — Ramp Installation Location

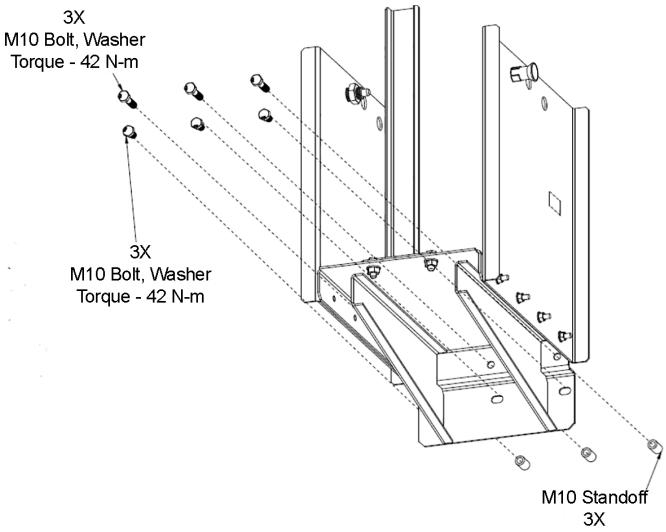


Fig. 40 — Ramp Installation Torques

Upon attachment to the VFD structure the LCL, converter, or converter can slide onto the ramp and thereby provide access to over head rigging. Once component is slide out on the ramp a plunger pin can lock the component in position. See Fig. 41.

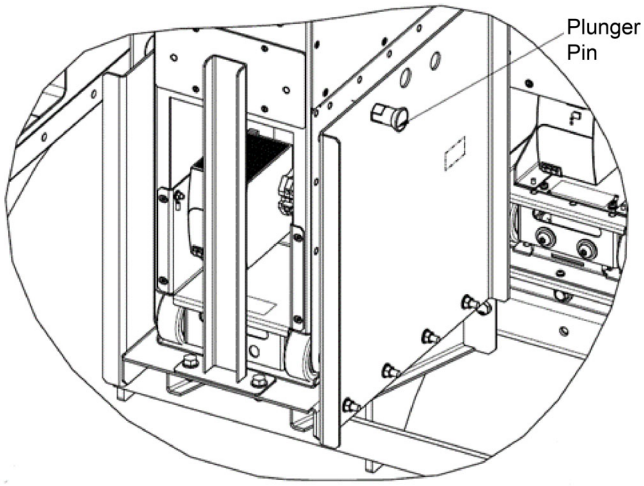


Fig. 41 — Plunger Pins Locking Component in Place

The procedure for removal and installation is the same for all 3 major components. Figure 42 shows access for overhead rigging.

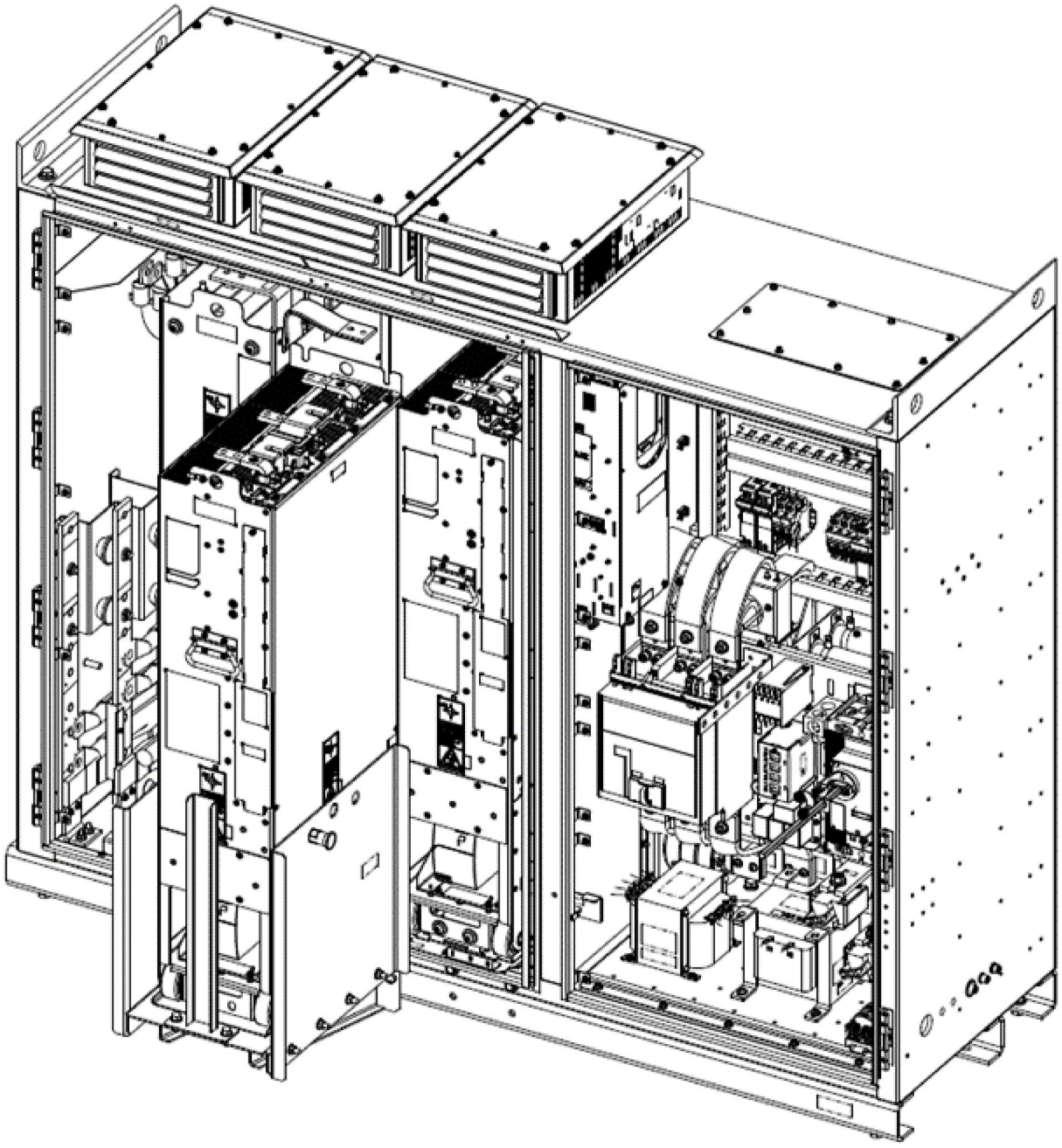


Fig. 42 — Access for Overhead Rigging

FREESTANDING DRIVES (19XR PRODUCT)

For 19XRV Freestanding drives a different tool is used. The same procedure of removing hardware to isolate the LCL, converter, or inverter module is used so the module can slide out and be safely removed from the drive using the PowerFlex 750-Series Service Cart. See Fig. 43.

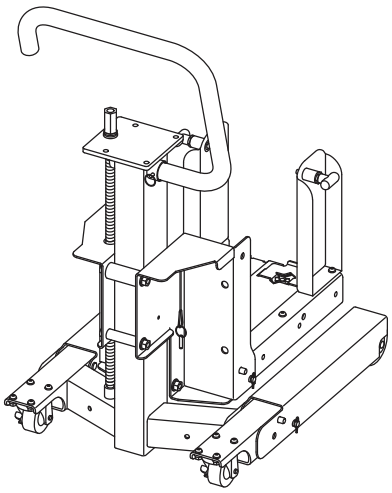


Fig. 43 — Service Cart

Rockwell catalog 750-IN105 contains the service cart requirements based on PF755TL size and needs. It is recommended to ensure that a site has access to a service cart as without it the LCL filter modules and power modules cannot be replaced.

Adequate service clearance in front and to the side of a freestanding PF755TL drive is required. See Fig. 44.

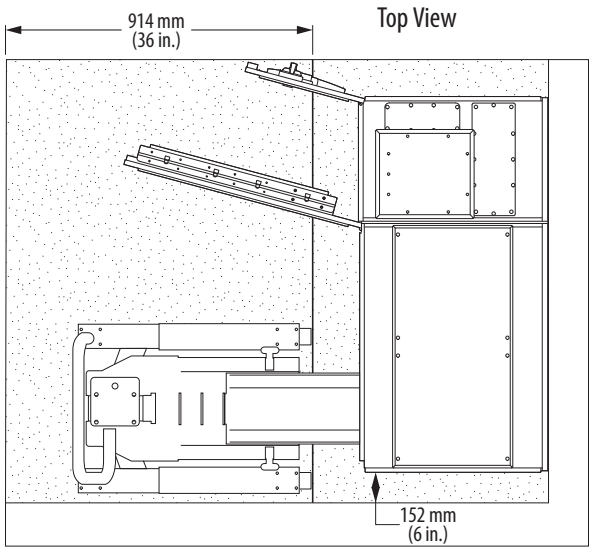


Fig. 44 — Clearance Requirement

Conversion kits for specific PF755TL frame size 8-10 are sold separately. Consult with Rockwell for details.

Follow all safety procedures instructions provided with the Service Cart to remove either the LCL Filter Module, converter module, or inverter module.

The service cart (Fig. 45) can be docked in the cabinet (below filter modules) once use is completed.

Component Weights (without packaging):

	20-750-MI4-xnnnxnnn	20-750-MI1-xnnnxnnn	
Power Module	250 lb (113 kg)	312 lb (142 kg)	
	600 Amp/480-v	740 Amp/480-v	1000–1300Amp/480-v
LCL Filter Modules	385 lb (175 kg)	470 lb (213 kg)	710 lb (322 kg)

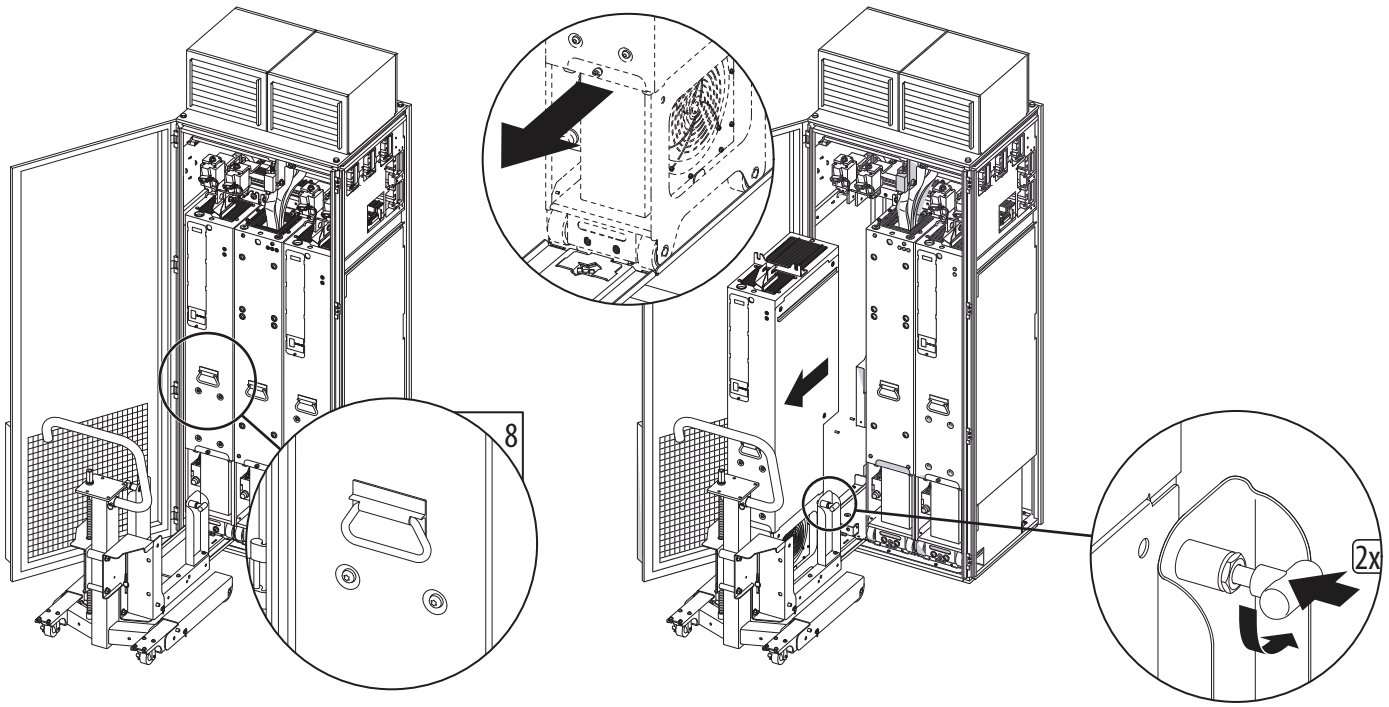


Fig. 45 — Service Cart Use

PREVENTIVE MAINTENANCE

To maximize uptime it is recommended to perform regular preventive maintenance. Annual preventative maintenance includes the following primary tasks:

- Visual inspection of all components accessible from the front of the module
- Resistance checks on power components
- Power-supply voltage level checks
- General cleaning and maintenance
- Tightness checks on all accessible power connections

See Table 9 to understand the maintenance tasks, codes, and descriptions that are detailed in Table 10.

Periodic Inspection

Periodically inspect industrial control equipment. Base inspection intervals on the environmental and operating conditions and adjust the intervals as necessary. An initial inspection within 3 to 4 months after installation is suggested.

Contamination

If inspection reveals that dust, dirt, moisture, or other contamination has reached the control equipment, the cause must be removed. Contamination can indicate an incorrectly selected or ineffective enclosure, unsealed enclosure openings (conduit or other), or incorrect operating procedures. Replace any improperly selected enclosure with one that is suitable for the environmental conditions. Replace any damaged or cracked elastomer seals and repair or replace any other damaged or malfunctioning parts (for example, hinges and fasteners). Dirty, wet, or contaminated control devices must be replaced. Compressed air is not recommended for cleaning because it can displace dirt, dust, or debris into other parts or equipment, or damage delicate parts.

PowerFlex 755T products with XT use dielectric grease to protect critical connections from the effects of corrosive gases. When you disconnect or reconnect a greased connection, always inspect for dust, dirt, conductive debris or other contaminants. If contamination is found, thoroughly clean receiving surfaces and re-apply dielectric grease.

Blowers and Fans: Inspect blowers and fans that are used for forced air cooling. Replace any that have bent, chipped, or missing blades, or if the shaft does not turn freely. Apply power momentarily to check operation. If the unit does not operate, check and replace wiring, fuse, or blower or fan motor as appropriate. Clean or change air filters as recommended in the product manual. Also, clean the fins of heat exchangers so convection cooling is not impaired.

Operating Mechanisms: Check for proper function and freedom from sticking or binding. Replace any broken, deformed, or badly worn parts or assemblies according to individual product renewal parts lists. Check for and re-tighten securely any loose fasteners. Lubricate if specified in individual product instructions.

Contacts: Check contacts for excessive wear and dirt accumulation. Wipe contacts with a soft cloth, if necessary, to remove dirt. Discoloration and slight pitting does not harm contacts. Do not file contacts — this action shortens the life of the contact. Do not use contact spray cleaners because residue on magnet pole faces or in operating mechanisms can cause sticking, and on contacts can interfere with electrical continuity. Replace contacts only after the silver has become badly worn. Always replace contacts in complete sets to avoid misalignment and uneven contact pressure.

Terminals: Loose connections in power circuits can cause overheating that can lead to equipment malfunction or failure. Loose connections in control circuits can cause control malfunctions. Loose bond or ground connections can increase hazards of electrical shock and contribute to electromagnetic interference (EMI). Check the tightness of all terminals and bus bar connections and torque any loose connections properly. Infrared technology can be used to check for hot (high resistance/loose) connections during periodic maintenance. Replace any parts or wiring that is damaged by overheating, and any broken wires or bond straps.

Coils: If a coil is overheated (contains cracked, melted, or burned insulation), it must be replaced. In that event, check for and correct over-voltage or under-voltage conditions, which can cause coil failure. Be sure to clean any residues of melted coil insulation from other parts of the device or replace such parts.

High-Voltage Testing: Do not perform high-voltage insulation resistance and dielectric withstanding voltage tests to check the VFD health. The VFD must be disconnected prior to undertaking any motor tests.

Table 9 — Maintenance Tasks, Codes, and Descriptions

CODE	TASK	DESCRIPTION
I	Inspect	Inspect the component for signs of excessive accumulation of dust, dirt, or external damage, For example, inspect the filters/fan inlet screens for debris that can block the airflow path.
C	Clean	Clean the components that can be reused, specifically the door-mounted air filters and fan inlet screens.
M	Maintain	This type of maintenance task can include an inductance test of line reactors/DC links, or a full test of an isolation transformer, and so on.
R	Replace	This component has reached its mean operational life. Replace the component to decrease the chance of failure. It is likely that components can exceed the designed life in the drive, but component life is dependent on many factors including usage and heat. Use the predictive maintenance parameters to determine a replacement schedule for components in shaded table rows.
Rv	Review	A discussion with Rockwell Automation personnel is recommended to help determine whether any enhancements/changes made to the drive hardware and control could benefit the application.

Table 10 — Recommended Maintenance Schedule for Operation Conditions below 40°C (104°F)

Years			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
MODULE/ ACTIVITY	**COMPONENT**	**PREDICTIVE MAINTENANCE PARAMETERS[a]**																					
Power Modules Frames 7...15	Balance Resistors, Frames 8...15 only (cat. no. SK-RM-INVBRn-F8M)											R									R		
	Insulated Gate Bipolar Transistors (IGBTs)[b]	Port 12/14: 140, 240, 340, 440, 540, 640, 740, 840, 940, 1040																					
	Bus Capacitors (cat. no. SK-RM-ICP1-xnnnxnnn)	Port 12/14: 143, 243, 343, 443, 543, 643, 743, 843, 943, 1043																					
	Power Layer Interface Circuit Board (cat. no. SK-RM-PLI1-F8)														R								
	Power Interface Circuit Board (cat. no. SK-RM-PIBn-xnnnxnnn, SK-RM-PIB4-xnnnxnnn)														R								
	Heatsink Fan (cat. no. SK-RM-INVFAN1-F8, SK-RM-MFAN-F7)	Port 12/14: 136, 236, 336, 436, 536, 636, 736, 836, 936, 1036		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
LCL Filter Modules Frames 7...15	Capacitors (cat. no. SK-RM-LCLCPn-F8M)	Port 14: 1250, 1450, 1550, 1650, 1750, 1850, 1950, 2150																					
	Current Sense Circuit Board (cat. no. SK-RM-CSB1-nnn, SK-RM-CSB-F7)														R								
	AC Common Mode Filter Board, Frames 8...15 only (cat. no. SK-RM-EMCFB1)														R								
	Heatsink Fan (cat. no. SK-RM-INVFAN1-F8, SK-RM-MFAN-F7)	Port 14: 1246, 1346, 1546, 1646, 1746, 1846, 1946, 2146		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
AC Precharge Module Frames 7...15	Time Delay Relay (cat. no. 20-750-MACPC-TDR)													R									R
	AC Precharge Circuit Board (cat. no. 20-750-MACPC-xx), 20-750-MACPC1-xx-F7M)														R								
DC Precharge Module Frames 8...15	DC Precharge Circuit Board (cat. no. SK-RM-DCPC1-xx)														R								
Cabinet (IP21/ IP54) Frames 7...15[c]	Door-Mounted Ventilation Air Filters		C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R
	Roof-Mounted Ventilation Assembly Air Filters		C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R	C/R
	Input Bay Fans Frames 8...15 only	Port 0: 523		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	Power Bay IP54 Roof Fan	Port 0: 533		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	Wiring Bay Fan Frames 8...15 only	Port 0: 543		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	Control Bay Roof Fan Frames 8...15 only	Port 0: 553		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

Table 10 — Recommended Maintenance Schedule for Operation Conditions below 40°C (104°F) (cont)

Years			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
MODULE/ ACTIVITY	**COMPONENT**	**PREDICTIVE MAINTENANCE PARAMETERS[a]**																					
Control Pod Assembly	Printed Circuit Board Fan Frames 7...15 (cat. no. SK-RM-PODFAN1-F8 SK-RM-PODFAN-F7)	Port 0: 513		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	Main Control Circuit Board (cat. no. SK-RM-MCB1-PF755, SK-RM-MCB2-PF755)														R								
	Dual Transceiver Circuit Board Frames 7...15 (cat. no. 20-750-MFTB1-F8)														R								
	Fiber Interface Circuit Board Frames 7...15 (cat. no. SK-RM-FIBn-F8)														R								
	Backplane Circuit Board (cat. no. SK-RM-PODBP1)														R								
	Fiber-optic Cables (cat. no. 20-750-MFOC-nxn)			I	I	I	I	R	I	I	I	I	R	I	I	I	I	R	I	I	I	I	R
Enhancements	Firmware			—	—	Rv	—	—	Rv	—	—	Rv	—	—	Rv	—	—	Rv	—	—	Rv	—	—
	Hardware			—	—	Rv	—	—	Rv	—	—	Rv	—	—	Rv	—	—	Rv	—	—	Rv	—	—
Operational Conditions	Parameters			I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I
	Variables			I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I
	Application Concerns			I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I
Spare Parts	Inventory/Needs			I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I	Rv	I	I

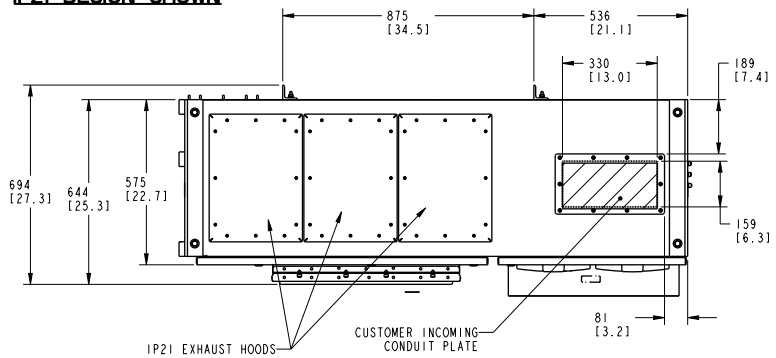
NOTE(S):

a. Predictive maintenance parameters are available in firmware revision 6.xxx and earlier only.
b. Requires power module replacement cat. no. 220-750-MI1-CnnnDnnn, 220-750-MI1-EnnnFnnn, 220-750-MI2-CnnnDnnn, 220-750-MI2-EnnnFnnn, 220-750-MI3-CnnnDnnn, 220-750-MI3-EnnnFnnn, 220-750-MI4-CnnnDnnn, or 220-750-MI4-EnnnFnnn.
c. There are multiple catalog numbers for the various cabinet roof and door vent filters and fans. See the applicable section for a list of specific catalog numbers.

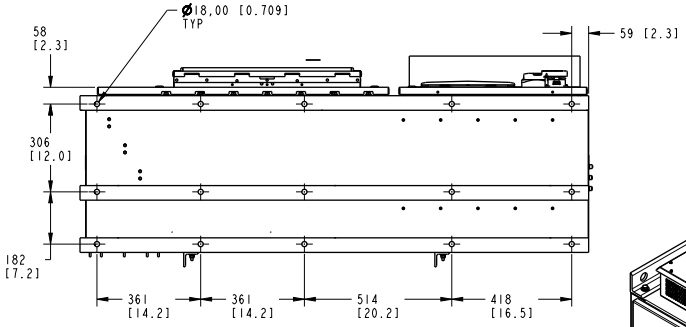
APPENDIX A — WIRING SCHEMATICS

19MV PowerFlex 755TL Layout

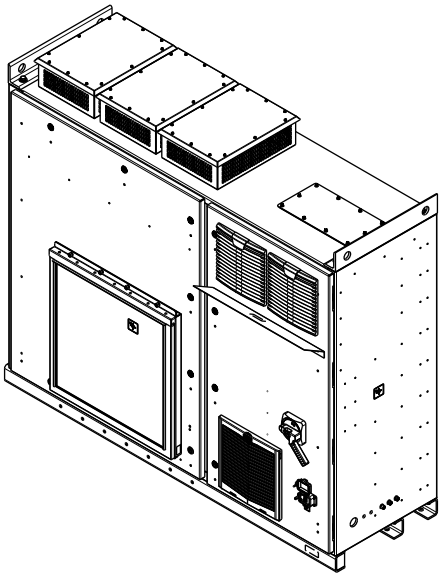
IP21 DESIGN SHOWN



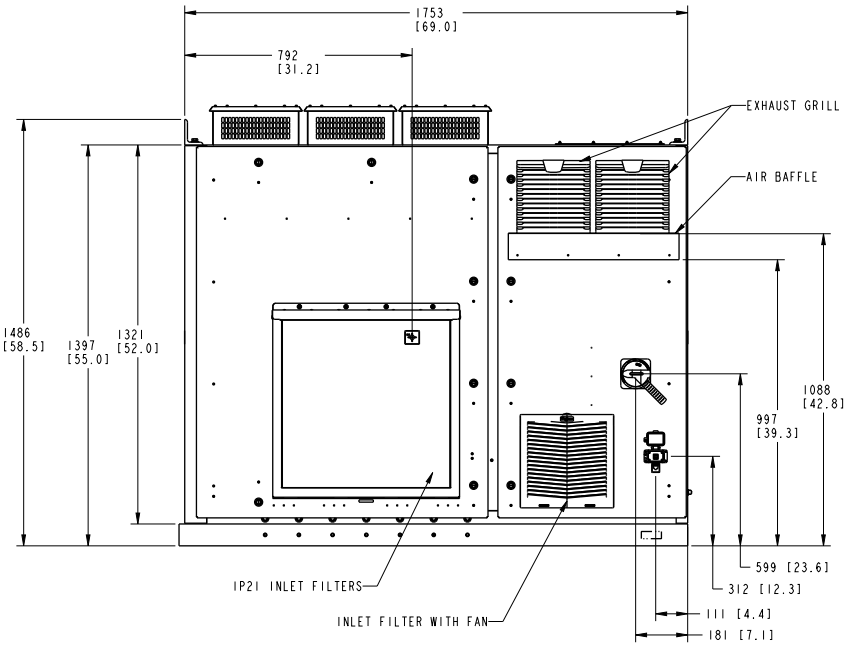
TOP VIEW



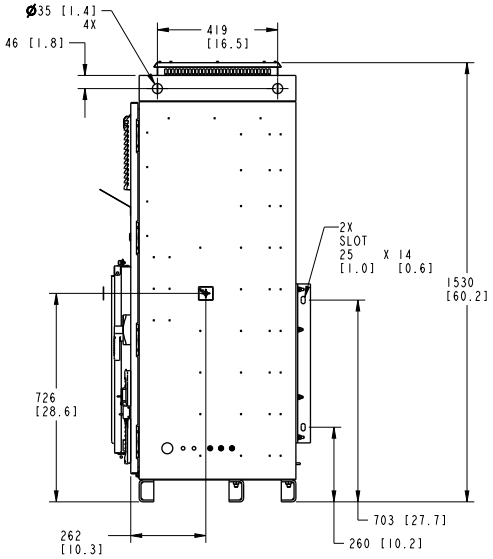
BOTTOM VIEW



ISOMETRIC VIEW



FRONT VIEW



RIGHT SIDE VIEW

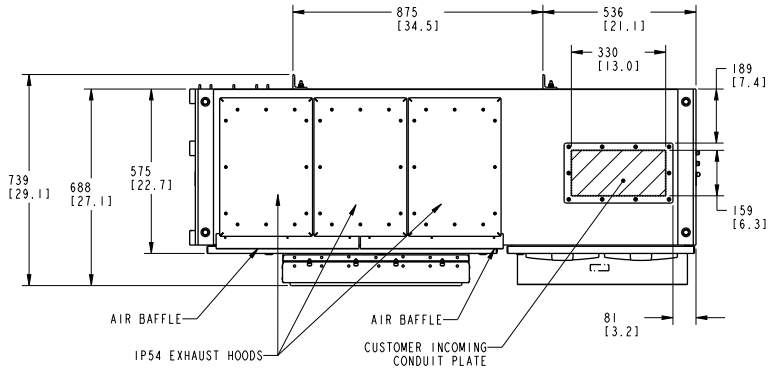
SIZE	DIR	VER
D	10006618385	01

Dimensions are shown in inches [mm].

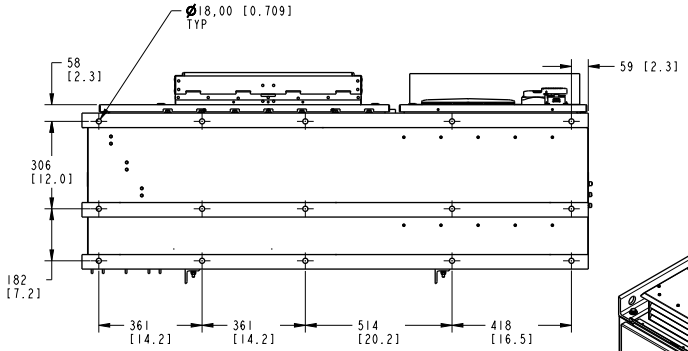
APPENDIX A — WIRING SCHEMATICS (CONT)

19MV PowerFlex 755TL Layout (cont)

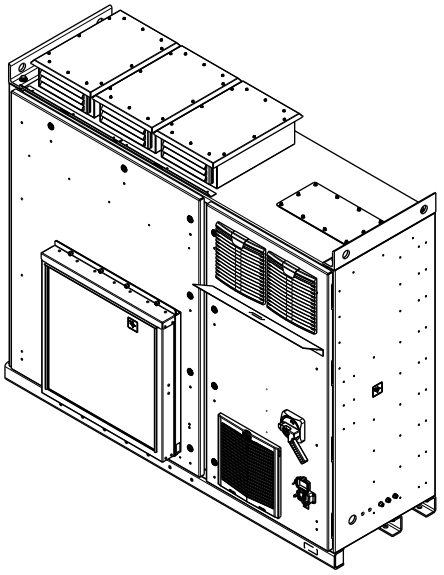
IP54 DESIGN SHOWN



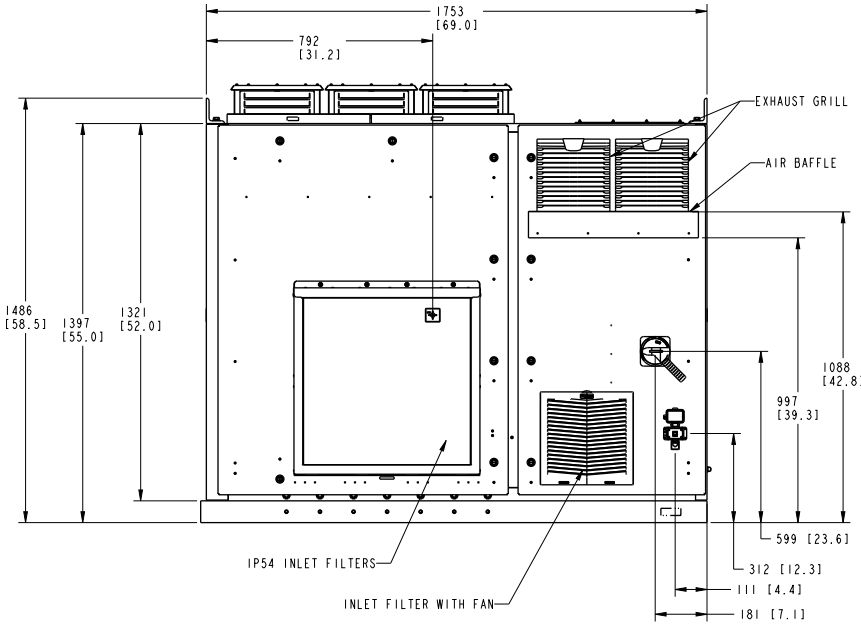
TOP VIEW



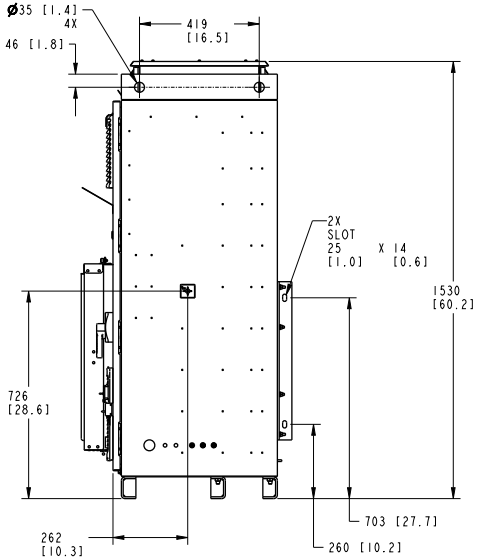
BOTTOM VIEW



ISOMETRIC VIEW



FRONT VIEW



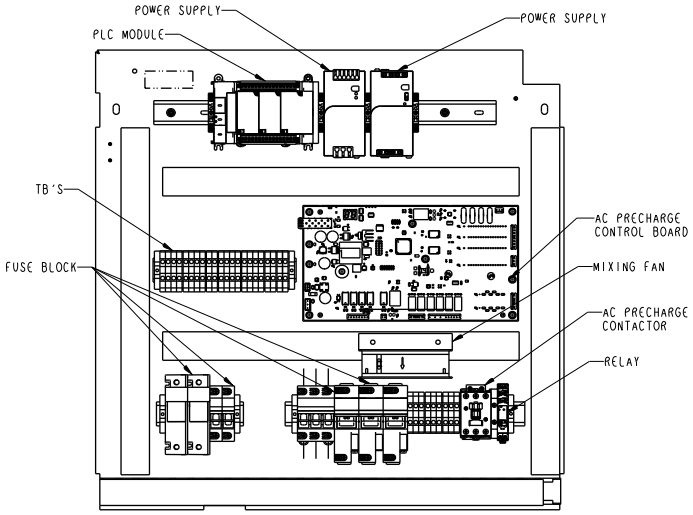
RIGHT SIDE VIEW

SIZE	DIR	VER
D	10006618385	01

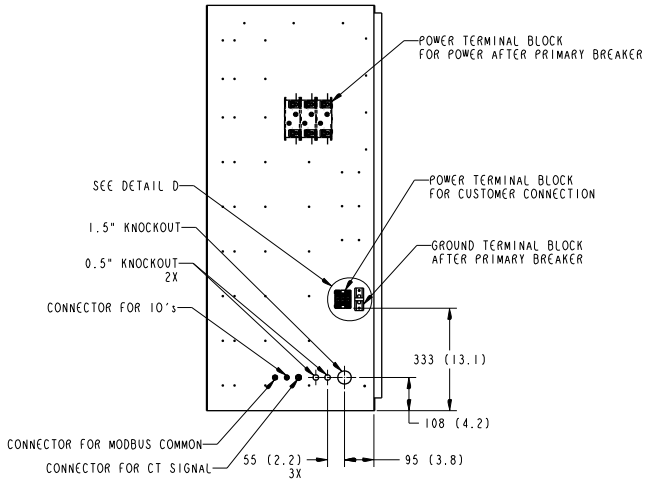
Dimensions are shown in inches [mm].

APPENDIX A — WIRING SCHEMATICS (CONT)

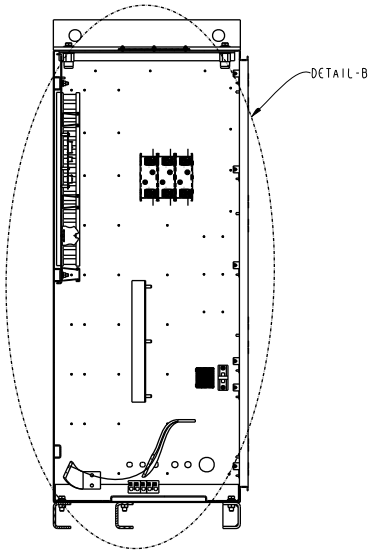
19MV PowerFlex 755TL Layout (cont)



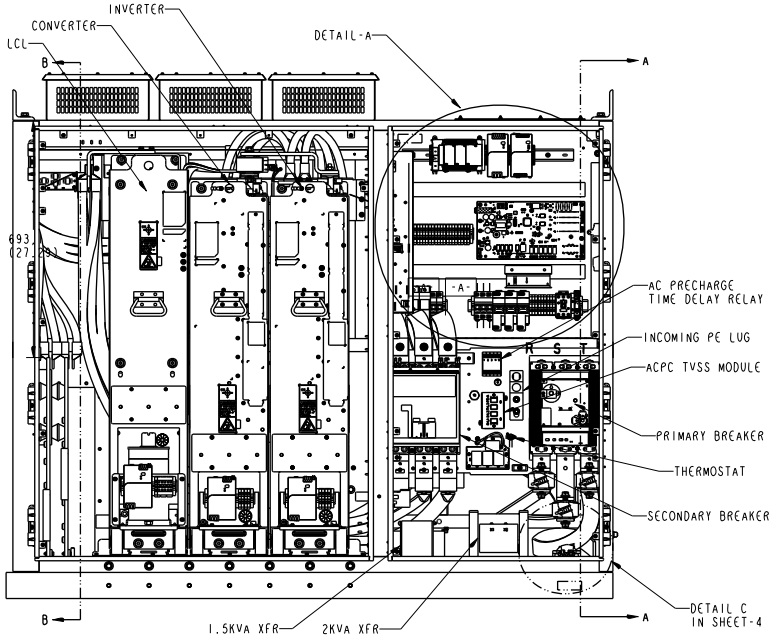
DETAIL- A
CONTROL COMPONENT



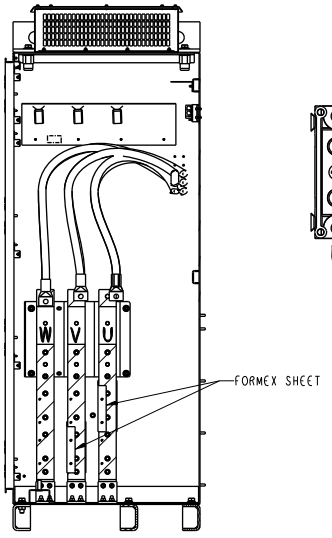
DETAIL- B
CONTROL COMPONENT



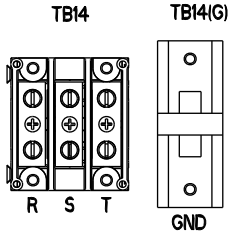
SECTION A-A



FRONT VIEW



SECTION B-B



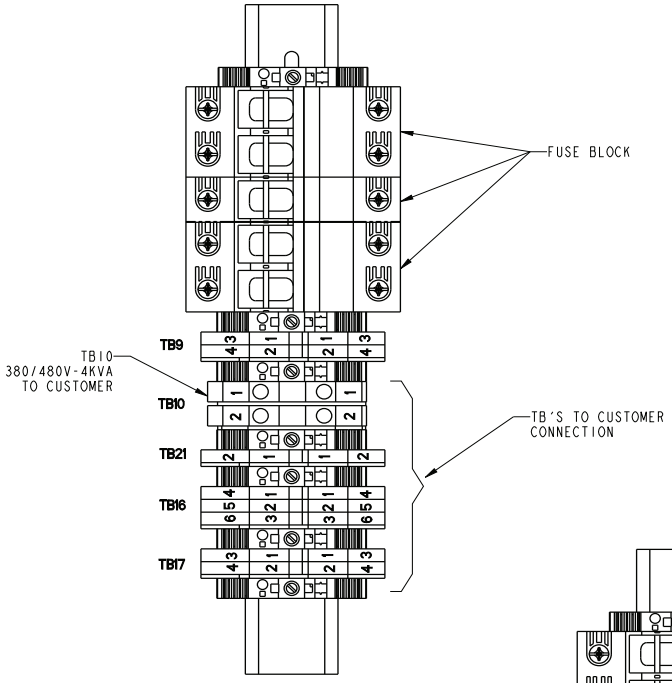
DETAIL- D

SIZE	DWG NO	REV
D	10006618385	01

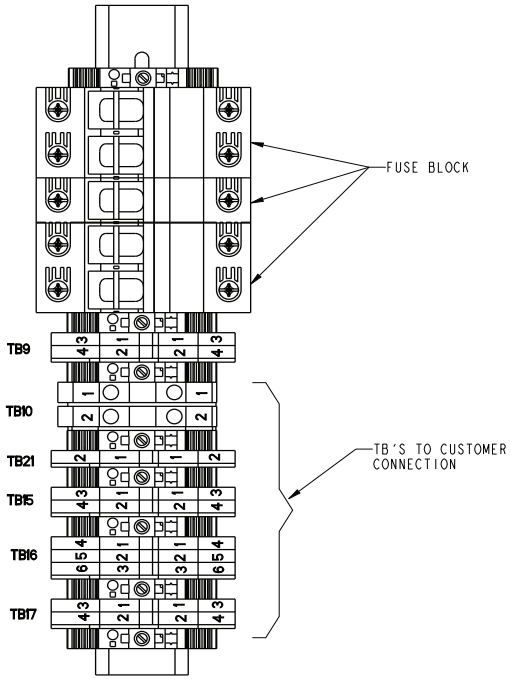
Dimensions are shown in inches [mm].

APPENDIX A — WIRING SCHEMATICS (CONT)

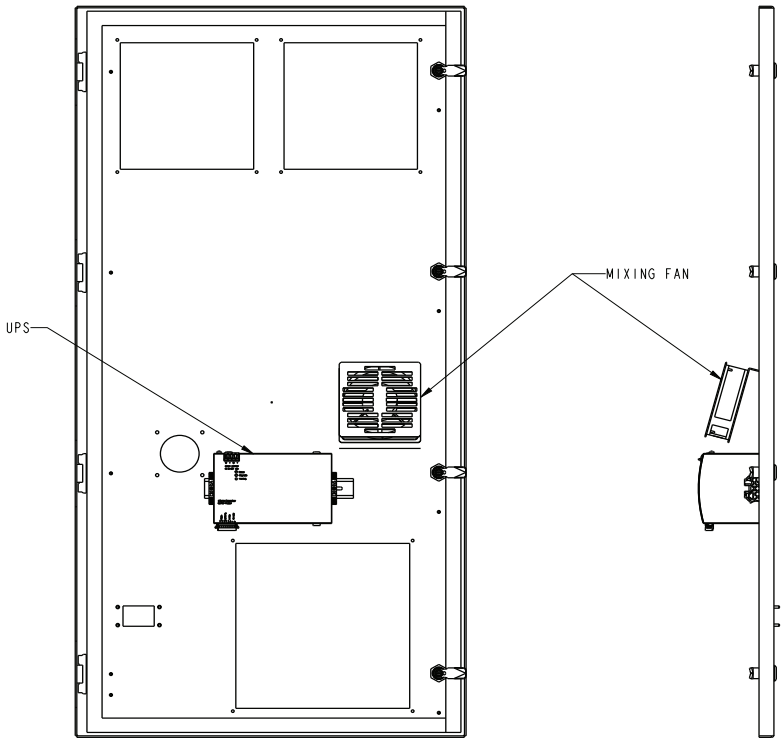
19MV PowerFlex 755TL Layout (cont)



DETAIL- C
CONTROL COMPONENT
NOMETER OPTION



DETAIL- C
CONTROL COMPONENT
METER OPTION



ACPC BAY DOOR REAR VIEW

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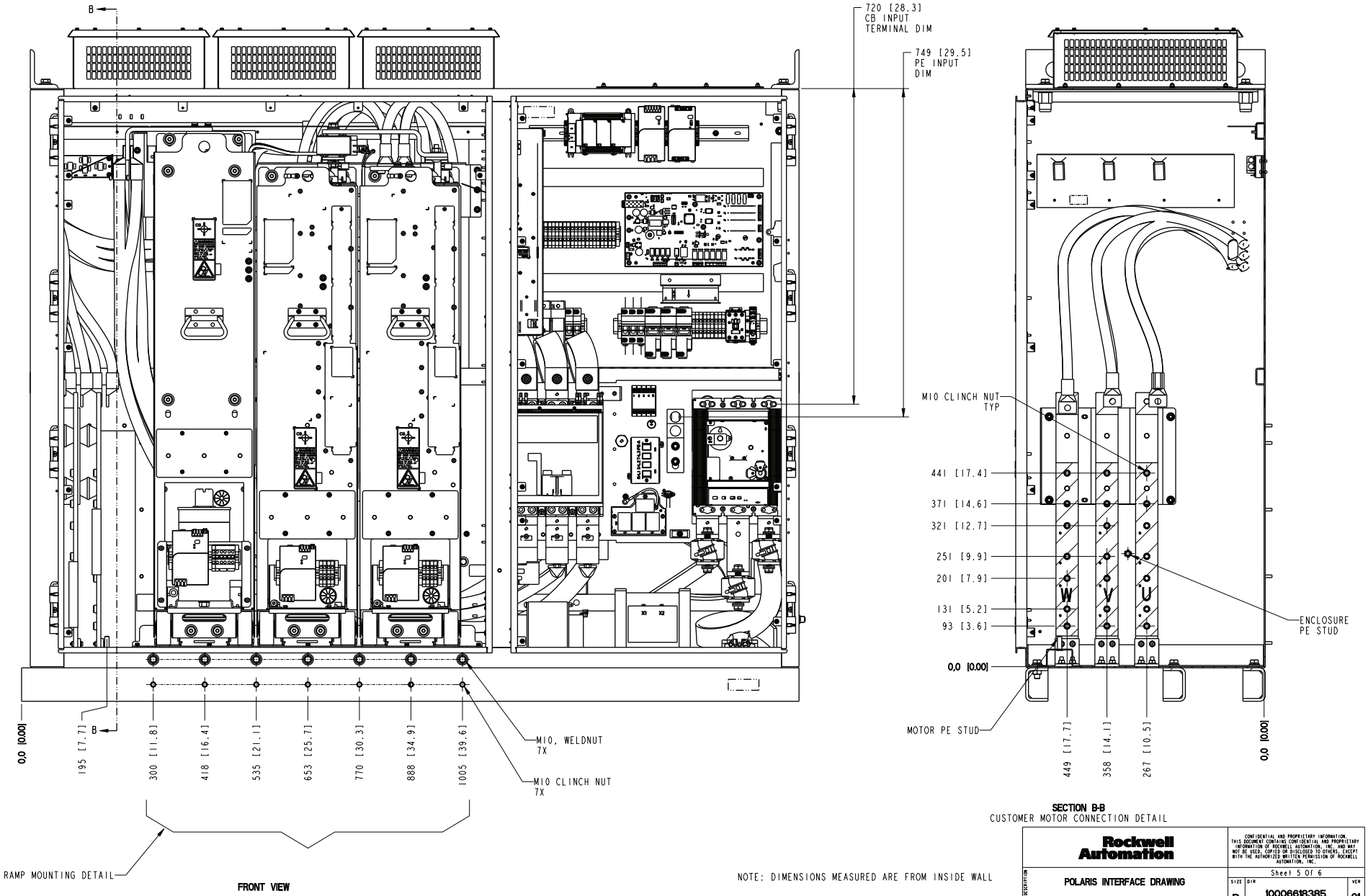
DESCRIPTION: POLARIS INTERFACE DRAWING	Sheet 4 Of 6	SIZE: D / DIR: 10006618385 / VER: 01
DRAWN BY: NMI	DATE: 12-02-2022	

APPENDIX A — WIRING SCHEMATICS (CONT)

19MV PowerFlex 755TL Layout (cont)



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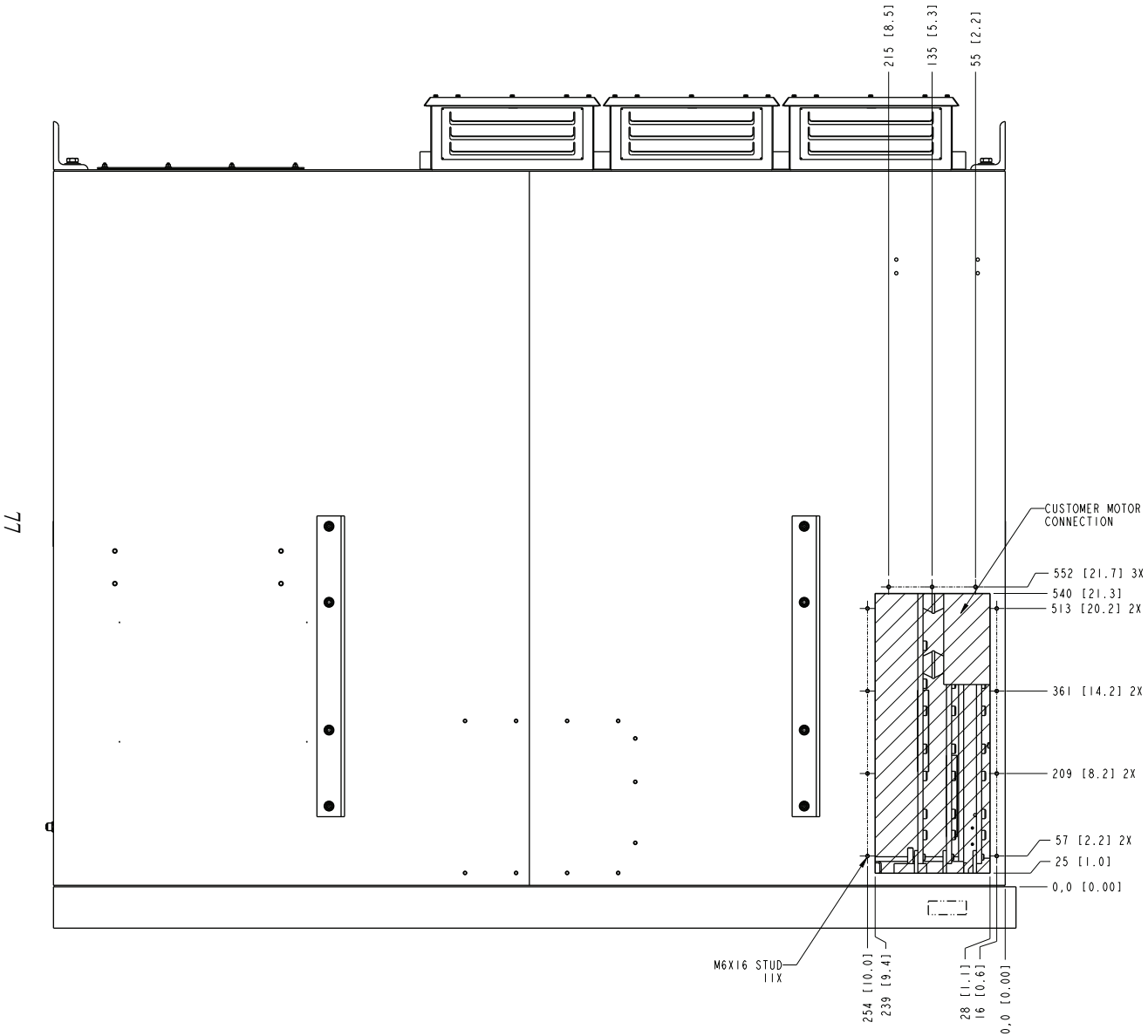
DESCRIPTION: POLARIS INTERFACE DRAWING	Sheet 5 Of 6	
DRAWN BY: NMI / DATE: 12-02-2022	SIZE: D / DWG: 10006618385	VER: 01

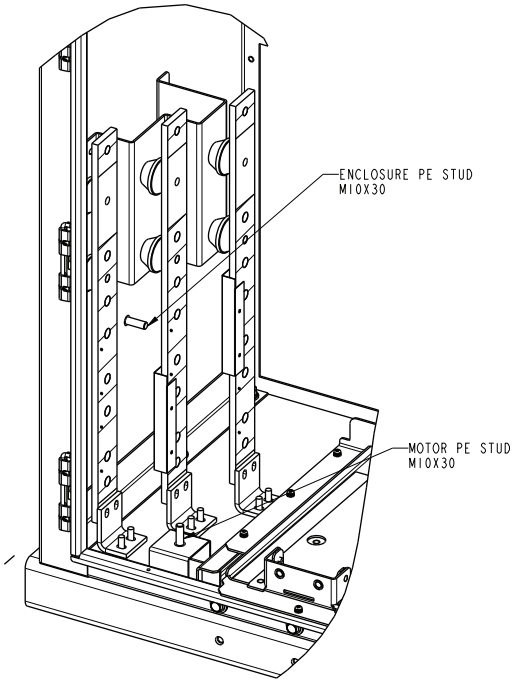
Dimensions are shown in inches [mm].

APPENDIX A — WIRING SCHEMATICS (CONT)

19MV PowerFlex 755TL Layout (cont)



REAR VIEW
CUSTOMER OUTPUT CONNECTION DIMENSIONAL DETAIL



CUSTOMER MOTOR PE CONNECTION

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DESCRIPTION: POLARIS INTERFACE DRAWING	Sheet 6 Of 6	
DRAWN BY: NMI DATE: 12-02-2022	SIZE: D DIR: 10006618385	VER: 01

Dimensions are shown in inches [mm].

APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example

DRAWING STANDARDS:

SYMBOLS:

- REFERS TO NOTE GIVEN BELOW
- ▲ LOW POWER CONTACT
- ARROW INDICATES FUNCTION INCREASE (ALWAYS CLOCKWISE)

4 **DANGER** – THIS EQUIPMENT MAY BE AT LINE VOLTAGE EVEN WHEN NOT IN OPERATION. TO AVOID ELECTRIC SHOCK, DISCONNECT.

5 **CAUTION** – NEVER REMOVE OR INSERT ANY MODULE OR CARD WHILE THE POWER IS ON.

9 REMOVE JUMPER IF ADDITIONAL INTERLOCK IS ADDED.

13 SEPARATELY MOUNTED, SUPPLIED BY OTHERS

14 SEPARATELY MOUNTED, SUPPLIED BY ROCKWELL AUTOMATION

32 MOTOR STABILIZING FIELD, S1 AND S2, IS NOT REQUIRED FOR NORMAL OPERATION. TAPE S1 AND S2 SEPARATELY AND DO NOT USE.

33 DRIVE MOTOR CONNECTIONS AS SHOWN ARE FOR INDICATED ROTATION FACING COMMUTATOR END. FOR OPPOSITE ROTATION, INTERCHANGE A1 AND A2 CONNECTIONS IN MOTOR CONDUIT BOX.

34 TACHOMETER LEADS MUST BE CONNECTED TO GIVE THE INDICATED POLARITY.

35 IF OPPOSITE ROTATION IS DESIRED, CHANGE POLARITY OF THE COSINE SIGNAL BY INTERCHANGING THE COSINE INPUT LEADS.

36 USE TWISTED TWO – CONDUCTOR CABLE. THIS CABLE MUST BE IN A SEPARATE SIGNAL CONDUIT. IT CANNOT BE RUN WITH OTHER CONDUCTORS OR CABLES. USE RELIANCE PART NUMBER 417900-76EAD OR EQUIVALENT. REFER TO FIELD INSTALLATION AND WIRING TABLE ON NEXT SHEET FOR WIRE SPECIFICATIONS.

38 SIGNAL WIRE CABLES WITH THIS NOTE NUMBER CAN BE IN THE SAME SIGNAL CONDUIT. THEY CANNOT BE RUN WITH NON-SIGNAL WIRES. REFER TO FIELD INSTALLATION AND WIRING TABLE ON NEXT SHEET FOR WIRE SPECIFICATIONS.

38-1 REFER TO NOTE 38. THE NUMBER FOLLOWING THE NOTE 38 IDENTIFIES THE CABLES THAT MAY BE GROUPED TOGETHER IN THE SAME SIGNAL CONDUIT. FOR EXAMPLE, CABLES REFERENCED WITH NOTE 38-1 CANNOT BE RUN IN THE SAME SIGNAL CONDUIT WITH NOTE 38-2 CABLES.

40 COAXIAL CABLES WITH THIS NOTE CAN BE IN THE SAME SEPARATE SIGNAL CONDUIT. THEY CANNOT BE RUN WITH OTHER CONDUCTORS OR CABLES. FOR RECOMMENDED CABLE TYPE, REFER TO PRODUCT'S NETWORK MANUAL.

TYPE	CABLE P/N (BELDEN P/N)	CONNECTOR P/N (AMPHENOL P/N)
RG59	417900-148A (9259)	405504-74A (31-212-1005)
RG11	417900-149A (8238)	612293-B (6775)

TERMINATOR 75 OHM
RELIANCE P/N 707204-20A
AMPHENOL P/N 46650-75

41 **DANGER** – DO NOT OPEN DISCONNECT SWITCH WHILE THE MOTOR IS ENERGIZED.

47 RESOLVER WIRES: LOW LEVEL SIGNAL WIRING. MUST BE RUN IN SEPARATE SIGNAL CONDUIT OR TRAY.

BELDEN P/N	NO. OF TWISTED PAIRS		AWG #	RECOMMENDED MAXIMUM DIST. FOR EACH RESOLVER TYPE a> X1	a> X2	a> X5
9730	3		24	1000 FT.	1000 FT.	600 FT.

a> DISTANCES BEYOND THOSE RECOMMENDED MAY REQUIRE ADDITIONAL TUNING. USE RELIANCE CUSTOM PANEL 0-58801

b> MAY ONLY BE RUN IN CONDUIT, PER NEC

c> NOTE: CONNECT CABLE SHIELD TO GROUND AT CABINET ONLY

48 FIBER-OPTIC CABLES WITH THIS NOTE MAY BE RUN WITH ANY LEVEL 1 SIGNAL WIRING. IF NECESSARY THESE CABLES MAY BE RUN WITH ANY LEVEL WIRING. SEE INSTALLATION MANUAL FOR RESTRICTIONS.

52 REFER TO TRANSFORMER NAMEPLATE FOR CONNECTIONS OF PRIMARY LEADS.

53 **DANGER** – TRANSFORMER IS CONNECTED TO LINE VOLTAGE EVEN WHEN THE A-C DISCONNECT IS OPEN.

DATE	BY	APPROVAL
		DESIGN REVIEW
		FOR MANUFACTURING
		AS SHIPPED
		AS COMMISSIONED

99 USER SUPPLIED PROTECTION MUST INCLUDE A DISCONNECTING DEVICE ON THE PRIMARY SIDE OF THE TRANSFORMER. PRIMARY AND SECONDARY WIRE PROTECTION FOR THE ISOLATION TRANSFORMER MUST BE PROVIDED PER NEC.

D MOUNTED ON DOOR.

H MOUNTED ON CABINET HOOD

R MOUNTED ON CONTROL HOUSE ROOF

T MOUNTED ON CABINET TRIM

E EXISTING EQUIPMENT

N NEW EQUIPMENT

USE EXAMP. LOCATION CODES	DESCRIPTION
REM_NS	REMOTE MOUNTED – NOT SUPPLIED BY ROCKWELL AUTOMATION.
REM_S	REMOTE MOUNTED – SUPPLIED BY ROCKWELL AUTOMATION.
REM	REMOTE MOUNTED.
OS_2	MTD. ON OPERATORS STATION No. 2
PB_3	MTD. ON PUSHBUTTON STATION No. 3

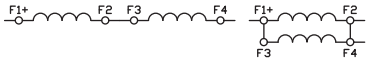
GENERAL NOTES:

1. FOR FURTHER DRIVE INFORMATION ON INSTRUCTION MANUALS, SEE RESPECTIVE SCHEMATIC SECTIONS.
2. – BUILDING GROUND TO BE GROUNDED BY CUSTOMER.
   – SYSTEM ZERO POTENTIAL NODE
   – POWER EQUIPMENT GROUND
   – PANEL (CHASSIS) GROUND
3. THE INTERNAL WIRING SELECTED MEETS OR EXCEEDS NEC, UL, AND CSA. INTERNAL POWER AND CONTROL WIRE HAS INSULATION RATED AT 105°C OR HIGHER.
4. * –INDICATES COMPONENTS SUPPLIED BY OTHERS.
5. (4) INDICATES FIELD INSTALLED WIRES AS WELL AS THE WIRING LEVEL. WHEN ACCOMPANIED WITH THE DESIGNATION (FWC) THE WIRES/CABLE ARE PRE-SUPPLIED AT THE SOURCE CONNECTION BY ROCKWELL FOR CUSTOMER INSTALLATION AT SITE. (FWC) INDICATES FURNISHED WITH CABINET.
6. –INDICATES OUTGOING TERMINAL.
   –INDICATES TERMINAL ON ELECTRONIC ASSEMBLY PRINTED CIRCUIT BOARD (IEA) ETC.
   CR –INDICATES RELAY OR CONTACTOR WITH SUPPRESSOR.
7. COIL AND CONTACT CROSS REFERENCING – NUMBERS ADJACENT TO COIL AND UNDER CONTACT INDICATE SHEET AND LINE NUMBERS.
   –INDICATES SHEET NO. 101.
   101-03 NO 101-03 –INDICATES LINE NO. 03.
   101-03 NC
   NO – INDICATES NORMALLY OPEN CONTACTS
   NC – INDICATES NORMALLY CLOSED CONTACTS

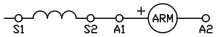
   OFF-PAGE CROSS REFERENCING – NUMBERS ADJACENT TO SOURCE AND DESTINATION SYMBOLS INDICATE SHEET AND LINE NUMBERS.
   FROM 1-24 1-24 –INDICATES LINE NO. 24.
   TO 1-24 –INDICATES SHEET NO. 1.

REV DATE: 5-18-2017

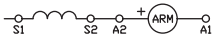
8. WIRE # GENERATION
   11242 –INDICATES WIRE NUMBER.
   –INDICATES SEQUENCE (1,2,, 3 . . . etc.).
   –INDICATES LINE NUMBER 24.
   –INDICATES SHEET NUMBER 11.
   INTERNAL WIRE NUMBERS MAY BE 'FIXED' WITH A LINE AND SEQUENCE, BUT MAY SCHEMATICALLY SHOW A PREFIX.
9. TYPICAL DUAL VOLTAGE MOTOR FIELD CONNECTIONS ARE SHOWN BELOW. CONSULT THE MOTOR MANUFACTURER'S INSTRUCTIONS FOR CORRECT CONNECTIONS.



10. DC MOTOR ROTATION – CONSULT THE MOTOR MANUFACTURER'S INSTRUCTIONS FOR CORRECT CONNECTIONS.
    FOR CCW ROTATION FACING COMMUTATOR END:
    A1 IS POSITIVE
    F1 IS POSITIVE
    FOR CW ROTATION FACING COMMUTATOR END:
    A2 IS POSITIVE
    F1 IS POSITIVE
    FOR CCW ROTATION WITH SERIES FIELD:



    FOR CW ROTATION WITH SERIES FIELD:



    FOR CCW ROTATION WITHOUT SERIES FIELD:

    FOR CW ROTATION WITHOUT SERIES FIELD:

11. AC MOTOR ROTATION – CONSULT THE MOTOR MANUFACTURER'S INSTRUCTIONS FOR CORRECT CONNECTIONS.
    FOR CW ROTATION VIEWED FROM MOTOR SHAFT:
    INVERTER OUTPUT U2 TO T1 (EUROPEAN MARKING U1)
    V2 TO T2 (EUROPEAN MARKING V1)
    W2 TO T3 (EUROPEAN MARKING W1)
    FOR CCW ROTATION VIEWED FROM MOTOR SHAFT:
    INVERTER OUTPUT U2 TO T1 (EUROPEAN MARKING U1)
    V2 TO T3 (EUROPEAN MARKING W1)
    W2 TO T2 (EUROPEAN MARKING V1)

    NOTE: NOT ALL AC MOTOR SUPPLIERS COMPLY WITH THE ABOVE CONVENTIONS.

COMBINATION MOTOR CONTROLLER WITH MOTOR CIRCUIT PROTECTOR

DANGER: To maintain overcurrent, short circuit and ground fault protection, the manufacturer's instructions for selecting current elements and setting the instantaneous-trip circuit breaker must be followed.

AVERTISSEMENTPour assurer une protection continue contre les surintensités, les court-circuits et une mise à la terre accidentelle, il est essentiel de choisir les 'éléments thermiques et de régler le disjoncteur à déclenchement instantané selon la notice technique du fabricant.

Determine motor full load current and motor design type identifier from motor nameplate.

For Design B, C an D motors adjust motor circuit protector to operate at a current setting between ten (10) and thirteen (13) times the full load current. For Design E and N motors adjust motor circuit protector to operate at a current setting between thirteen (13) and seventeen (17) times the full load current.

NOTE: Motor circuit protector is set at minimum current setting when shipped from factory.

DANGER: Tripping of the instantaneous-trip circuit breaker is an indication that a fault current has been interrupted. Current carrying components of the magnetic motor controller should be examined and replaced if damaged, to provide continued protection against a risk of fire or electric shock. If burnout of the current element of an overload relay occurs, the complete overload relay must be replaced. (Refer to NEMA Standards Publication No. ICS 22 titled 'Maintenance of Motor Controllers After a Fault Condition' A also published as NEMA Standard Publication No. ICS 2, Part ICS 2-302.)

AVERTISSEMENTL'ouverture du disjoncteur à déclenchement instantané indique qu'un courant de défaut a été interrompu. Les composants conducteurs de la commande magnétique du moteur doivent être inspectés et remplacés s'ils ont subi des dommages, afin d'assurer une protection continue contre le risque d'incendie et de choc électrique. En cas de défaillance de l'élément thermique d'un relais de surcharge, celui-ci doit être remplacé dans sa totalité.

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Rockwell Automation

GENERAL NOTES FOR POWERFLEX 755TL, LOW HARMONIC FRAME 7 DRIVE DRIVE SCHEMATICS

Drawn by: NBOOPATHI Date: 5/16/2022

Sheet N2 Of N3 Next Sh N3

Size D 10006739261– Ver 02

APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)

FIELD INSTALLATION AND WIRING

CATEGORY	WIRING LEVEL	SUB-GROUP	SIGNAL DEFINITION	SIGNAL EXAMPLES	CABLE TYPE	MINIMUM SPACING IN INCHES BETWEEN LEVELS (STEEL CONDUIT/TRAY) 4S	4	3 3S	2 2S	1	SPACING NOTES
POWER (SEE NOTE 2-C FOR SPACING BELOW)	4	S	AC POWER (> 1000VAC)	2.3KV 3 PHASE AC LINES	PER NEC AND LOCAL CODES	SEE NOTE 7	SEE NOTE 7	SEE NOTE 7	SEE NOTE 7	SEE NOTE 7	1 2 5
			AC POWER (TO 1000VAC)	480V 3 PHASE AC LINES	PER NEC AND LOCAL CODES	SEE NOTE 7	0	3/6	3/12	3/9	
			DC POWER	DC MOTOR ARMATURE	PER NEC AND LOCAL CODES						
			DC POWER	REGULATED DC MOTOR FIELD	PER NEC AND LOCAL CODES						
CONTROL (300V MAX OR 20 AMPS)	3		115VAC/VDC LOGIC	RELAY LOGIC, PLC I/O	PER NEC AND LOCAL CODES	SEE NOTE 7	3/6	0	3/9	1/3	
			115VAC POWER	POWER SUPPLIES, INSTRUMENTS							
		S	24VAC/VDC LOGIC	PLC I/O	PER NEC AND LOCAL CODES						
MEDIUM LEVEL SIGNAL (PROCESS)	2		ANALOG SIGNALS DC SUPPLIES	REF/FEEDBACK SIGNAL, 5 TO 24VDC SUPPLIES	SHIELDED CABLE BELDEN 8770, 9418	SEE NOTE 7	3/12	3/9	0	1/1	2 3 4 5 6
			DIGITAL (LOW SPEED)	TTL							
		S	DIGITAL (HIGH SPEED)	RESOLVER, ENCODER/COUNTER I/O, PULSE TACH FEEDBACK	SHIELDED CABLE BELDEN 9730, 9773, 9892 (SEE USER MANUAL)						
		SHLD	ANALOG SIGNALS	REF/FEEDBACK SIGNALS	SHIELDED CABLE, TWISTED CONDUCTORS BELDEN 8760, 9729						
LOW LEVEL SIGNAL (COMM.)	1		SERIAL COMMUNICATION	RS232, 422 TO TERMINALS, PRINTERS	SHIELDED CABLE RS232-BELDEN 8770,8760 RS422-BELDEN 9729,9730	SEE NOTE 7	3/9	1/3	1/1	0	
		S	PLC SERIAL COMMUNICATION (> 20K BAUD)	PLC REMOTE I/O, PLC DATA HIGHWAY	TWINAXIAL CABLE BELDEN 9463 R-A 1770-CD						
		C	PLC SERIAL COMMUNICATION (> 5MB)	CONTROL NET	RG-6 QUAD SHIELD, COAX CABLE; A-B 1786-RG6 BELDEN 3092A						
		D	CAN COMMUNICATION	DEVICE - NET DRIVE - DRIVE	R-A 1485C-P1-C						
		E	ETHERNET	ETHERNET	R-A 1585						
		F	COMMUNICATION (> 5MB)	CONTROLNET ETHERNET	FIBER OPTIC		N/A	N/A	N/A	N/A	N/A

EXAMPLE: SPACING RELATIONSHIP BETWEEN 480VAC INCOMING LEADS
a. 480VAC LEADS ARE LEVEL 4.
b. 24VDC LEADS ARE LEVEL 3.
c. FOR SEPARATE STEEL CONDUITS, THE CONDUITS ARE TO BE 3 INCHES APART.
d. IN A CABLE TRAY THE TWO GROUPS OF LEADS ARE TO BE 6 INCHES APART.

SHIELDED CABLES RECOMMENDATIONS:

BELDEN	8770	18 AWG - 3 CONDUCTOR SHIELDED
BELDEN	8760	18 AWG - 2 CONDUCTOR SHIELDED
BELDEN	9418	18 AWG - 4 CONDUCTOR SHIELDED
BELDEN	9728	24 AWG - 4 SHIELDED PAIRS (8 COND.)
BELDEN	9729	24 AWG - 2 SHIELDED PAIRS (4 COND.)
BELDEN	9730	24 AWG - 3 SHIELDED PAIRS (6 COND.)
BELDEN	9892	20 AWG - 4 SHIELDED PAIRS (8 COND.)
BELDEN	9773	18 AWG - 3 SHIELDED PAIRS (6 COND.)
BELDEN	9463	75 OHM - TWINAXIAL (2 COND.)

FIELD WIRING INSIDE ROCKWELL ENCLOSURE:

1. CONNECTIONS WILL BE ONLY TO TERMINALS PROVIDED.
2. WIRE LENGTH FROM ENTRY POINT TO TERMINAL BOARD TO BE AS SHORT AS POSSIBLE.
3. SIGNAL WIRE MUST NOT BE LACED OR RUN WITH NON-SIGNAL WIRE AFTER ENTRY INTO THE ENCLOSURE.
4. INCOMING WIRE MUST NOT BE ROUTED IN WIRE CHANNELS OR THROUGH AREAS OF POWER AND CONTROL COMPONENTS AND WIRING.
5. USE LASHING BARS WHEN PROVIDED FOR CUSTOMER CONVENIENCE.

FIELD INSTALLATION GROUNDING GUIDELINES

1. FOR DRIVES INSTALLATION, REFER TO 'WIRING AND 'GROUNDING GUIDELINES', PUBLICATION DRIVES-IN001
2. FOR POWERFLEX SAR INSTALLATION, REFER TO 'POWERFLEX DC 'STANDALONE REGULATOR AND GATE AMPLIFIER USER MANUAL', PUBLICATION 23P-UM001_-EN-P
3. FOR PLC AND I/O INSTALLATION, REFER TO 'INDUSTRIAL AUTOMATION WIRING AND GROUNDING GUIDELINES', PUBLICATION 1770-4.1
4. NEC ARTICLE 250, GROUNDING AND BONDING
5. LOCAL CODE REQUIREMENTS

REV DATE: 04-19-2019

DATE	BY	APPROVAL
		DESIGN REVIEW
		FOR MANUFACTURING
		AS SHIPPED
		AS COMMISSIONED

GENERAL NOTES:

1. STEEL CONDUIT IS RECOMMENDED FOR LEVELS 1 AND 2. FOR AC MOTOR CABLES, SEE NOTE 5.
   ALL CONDUITS CONNECTED TO THE CABINETS SHOULD BE PROPERLY SEALED TO MINIMIZE AIR OR WATER ENTRY INTO THE CABINETS. IF ALUMINUM CONDUIT IS USED.
   A. IT REQUIRES THE SAME MINIMUM SPACING IS USED AS THAT SHOWN FOR CABLE TRAYS.
   OR
   B. INDIVIDUAL STEEL JACKETED (STEEL MESH) CABLES ARE TO BE USED IF THE CONDUIT SPACINGS NEED BE THE SAME AS STEEL CONDUIT.
2. SPACING SHOWN BETWEEN LEVELS IS THE MINIMUM REQUIRED FOR PARALLEL RUNS ≤ 400 FEET. GREATER SPACINGS SHOULD BE USED WHERE POSSIBLE.
3. SHIELDS FOR SHIELDED CABLES MUST BE CONNECTED AT ONE END ONLY. THE OTHER END SHOULD BE CUT BACK AND INSULATED. SHIELDS FOR CABLES FROM A CABINET TO AN EXTERNAL DEVICE MUST BE CONNECTED AT CABINET END. SHIELDS FOR CABLES FROM ONE CABINET TO ANOTHER MUST BE CONNECTED AT THE SOURCE END CABINET. SPLICING OF SHIELDED CABLES, IF ABSOLUTELY NECESSARY, SHOULD BE DONE SUCH THAT SHIELD(S) REMAIN CONTINUOUS AND INSULATED FROM GROUND.
4. NO. 16 AWG WIRE IS THE MINIMUM RECOMMENDED SIZE FOR CONTROL (LEVEL 3). POWER WIRE IS SELECTED BY LOAD, USING 75 DEG C WIRE RATING (LEVELS 4 AND 4S).
5. ARMORED CABLE WITH A PVC OUTER JACKET IS REQUIRED TO PROVIDE THE NECESSARY ELECTRICAL SHIELDING FOR AC MOTOR CABLES CONNECTED TO A PWM INVERTER.
   RECOMMENDATIONS:
   METALLIC ARMOR:
   BEST PERFORMANCE: SHIELDED BELDEN CABLE PER TABLE BELOW, OR CONTINUOUS CORRUGATED ALUMINUM
   ACCEPTABLE PERFORMANCE: INTERLOCKED ALUMINUM, OR INTERLOCKED STEEL
   CONDUCTORS:
   BEST PERFORMANCE: PHASE CONDUCTORS - 3, GROUND CONDUCTORS - 3
   ACCEPTABLE PERFORMANCE: PHASE CONDUCTORS - 3, GROUND CONDUCTORS - 1
   THE CABLE CONNECTOR SELECTED MUST PROVIDE A GOOD ELECTRICAL CONNECTION BETWEEN THE ARMOR AND THE PE GROUND PLANE AT EACH END OF THE CABLE.
   SHIELDED CABLE RECOMMENDATIONS:

BELDEN	29500	#16 AWG
BELDEN	29501	#14 AWG
BELDEN	29502	#12 AWG
BELDEN	29503	#10 AWG
BELDEN	29504	#8 AWG
BELDEN	29505	#6 AWG
BELDEN	29506	#4 AWG
BELDEN	29507	#2 AWG

   DESCRIPTION - 4 CONDUCTOR TINNED COPPER, XLPE INSULATION, 600VRMS MAX, SPECIFICALLY DESIGNED FOR IGBT DRIVE APPLICATIONS. THE SHIELD SHOULD BE CONNECTED TO THE PE GROUND PLANE
6. SEE A-B PUBLICATION AG2.2 FOR ADDITIONAL CONTROLNET COAX CABLE RECOMMENDATIONS.

SPACING NOTES:

1. BOTH OUTGOING & RETURN CURRENT CARRYING CONDUCTORS ARE TO BE PULLED IN THE SAME CONDUIT OR LAYERED ADJACENT IN CABLE TRAY.
2. ROUTE CABLES OF THE FOLLOWING LEVELS AS INDICATED:
   A. LEVELS MUST BE RUN IN SEPARATE CONDUITS OR TRAYS.
   B. INTERMIXING OF LEVELS IS NOT ALLOWED.
   C. SPECIAL LEVELS 4S AND 3S MAY EXIST THAT REQUIRE SPECIFIC WIRES TO BE GROUPED FOR SPECIAL HANDLING.
   NOTE: FOR LEVELS 3 AND 4, THE AMPACITY RATINGS OF CONDUCTORS IN A BUNDLE MAY NOT EXCEED THE DERATING GUIDELINES OF NEC 310.15(C), AND TABLE 310.15(B)(2)a.
   D. LEVELS 1 AND 2 MAY HAVE THEIR RESPECTIVE CIRCUITS (WITHIN A GIVEN LEVEL) PULLED IN THE SAME CONDUIT OR LAYERED ADJACENT IN THE SAME CABLE TRAY.
   NOTE: THE RESPECTIVE CIRCUITS IN A GIVEN BUNDLE MAY EXPERIENCE SOME AMOUNT OF EMI COUPLING. SOME CIRCUIT APPLICATIONS MAY DICTATE SEPARATE SPACING.
3. CONDUCTORS OF LEVELS 1 AND 2 MUST BE SHIELDED WHERE INDICATED PER THE RECOMMENDATIONS OR EQUIVALENT.
4. IN CABLE TRAYS, STEEL SEPARATORS ARE ADVISABLE BETWEEN THE LEVELS.
5. IF CONDUIT IS USED IT IS REQUIRED THAT IT BE CONTINUOUS AND COMPOSED OF MAGNETIC STEEL. (SEE GENERAL NOTE 1 ABOVE)
6. FOR FURTHER INFORMATION ON SPACING OF PLC COMMUNICATION CABLES TO LEVEL 4, SEE R-A PLC INSTALLATION MANUAL.
7. PER NEC ARTICLE 300-3(C)(2) , CONDUCTORS OF CIRCUITS RATED OVER 1000V, NOMINAL, SHALL NOT OCCUPY THE SAME WIRING ENCLOSURE, CABLE, OR RACEWAY WITH CONDUCTORS 1000V NOMINAL OR LESS UNLESS PERMITTED BY NEC 300.3(C)(2)(a) THROUGH 300.3(C)(2)(D).

COIL AND SOLENOID SUPPRESSION:

BEFORE UTILIZING THE CONTROL CIRCUIT POWER AVAILABLE FOR OPERATION OF CUSTOMER SUPPLIED DEVICES, THE COILS OR SOLENOIDS OF SUCH DEVICES MUST BE SUPPRESSED. THE EXTERNAL CONTROL CIRCUIT WIRING MUST BE RUN IN A SEPARATE CONDUIT THAT DOES NOT HAVE VARIABLE SIGNAL VOLTAGES OR POWER CIRCUIT VOLTAGES PRESENT. ELECTRICAL TRANSIENTS MAY CAUSE OCCASIONAL DRIVE MALFUNCTIONING.

REV.	DATE	BY	ECN/CR. NO.

Rockwell Automation

WIRE CLASSIFICATION FOR POWERFLEX 755TL, LOW HARMONIC FRAME 7 DRIVE
DRIVE SCHEMATICS

Drawn by: NBODPATHI Date: 5/16/2022

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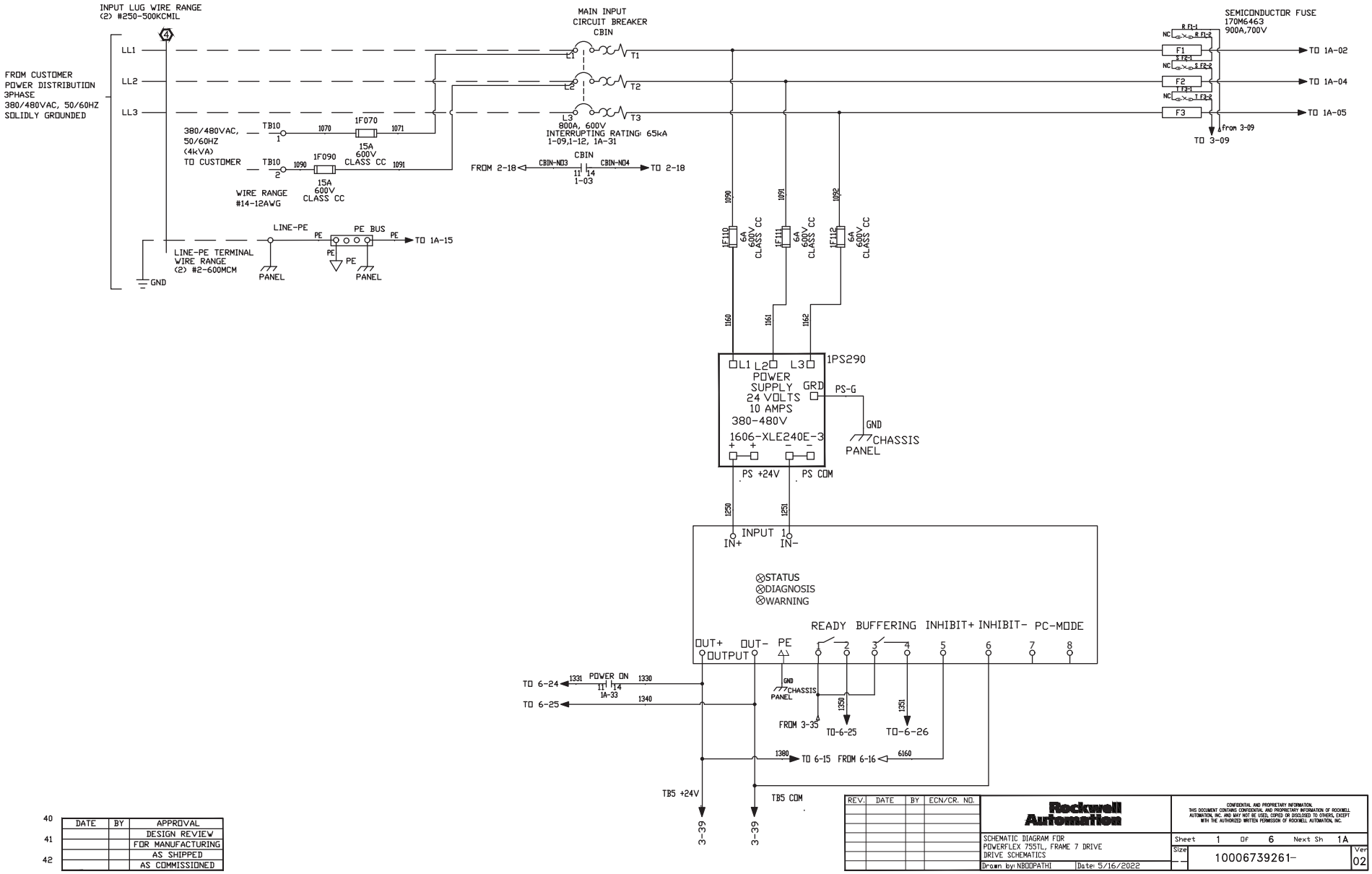
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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40			DESIGN REVIEW
41			FOR MANUFACTURING
42			AS SHIPPED
			AS COMMISSIONED

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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

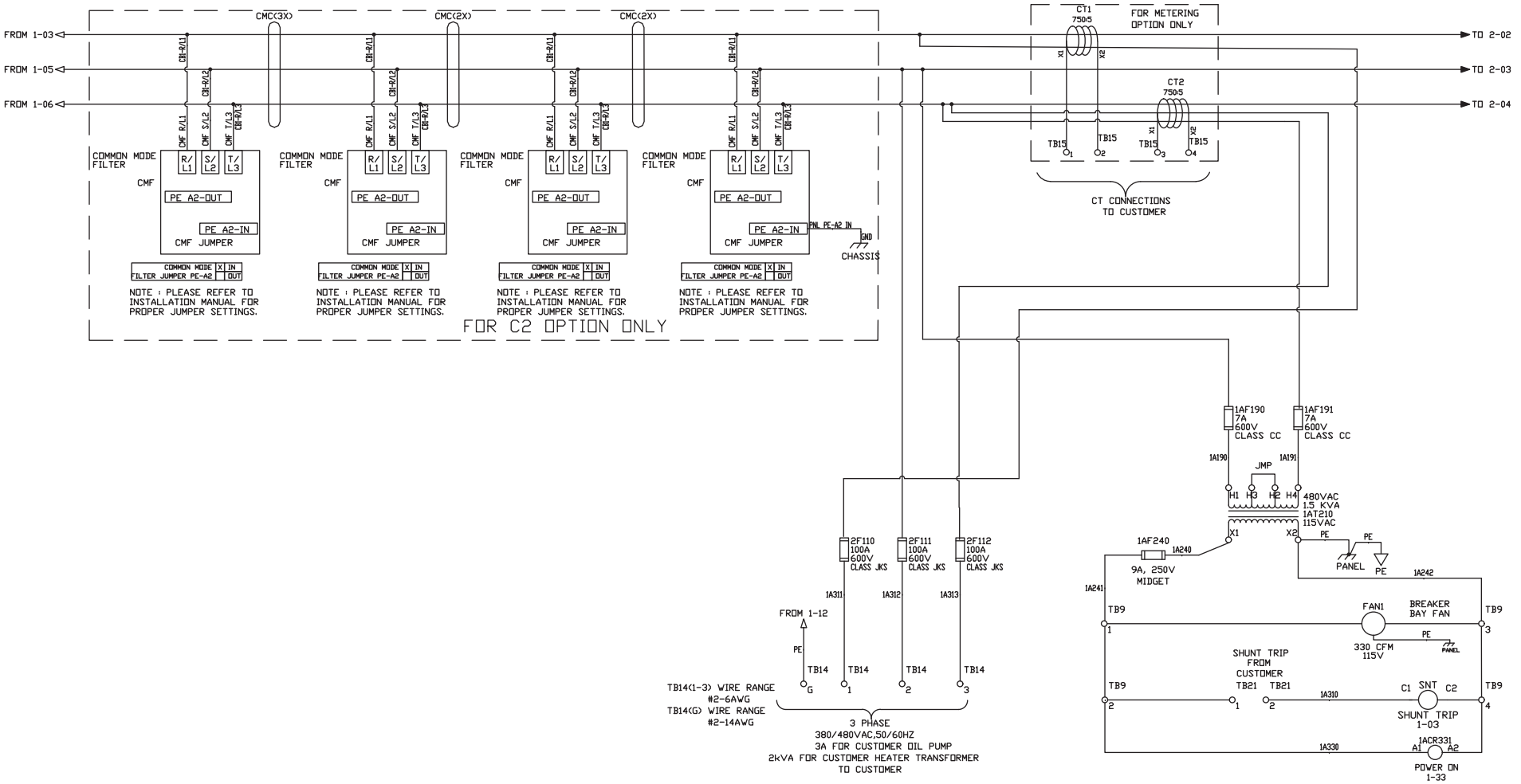
Drawn by: NBOOPATHI Date: 5/16/2022

Sheet 1 Of 6 Next Sh 1A

Size — 10006739261- Ver 02

APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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		AS COMMISSIONED

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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

Drawn by: NBOOPATHI Date: 5/16/2022

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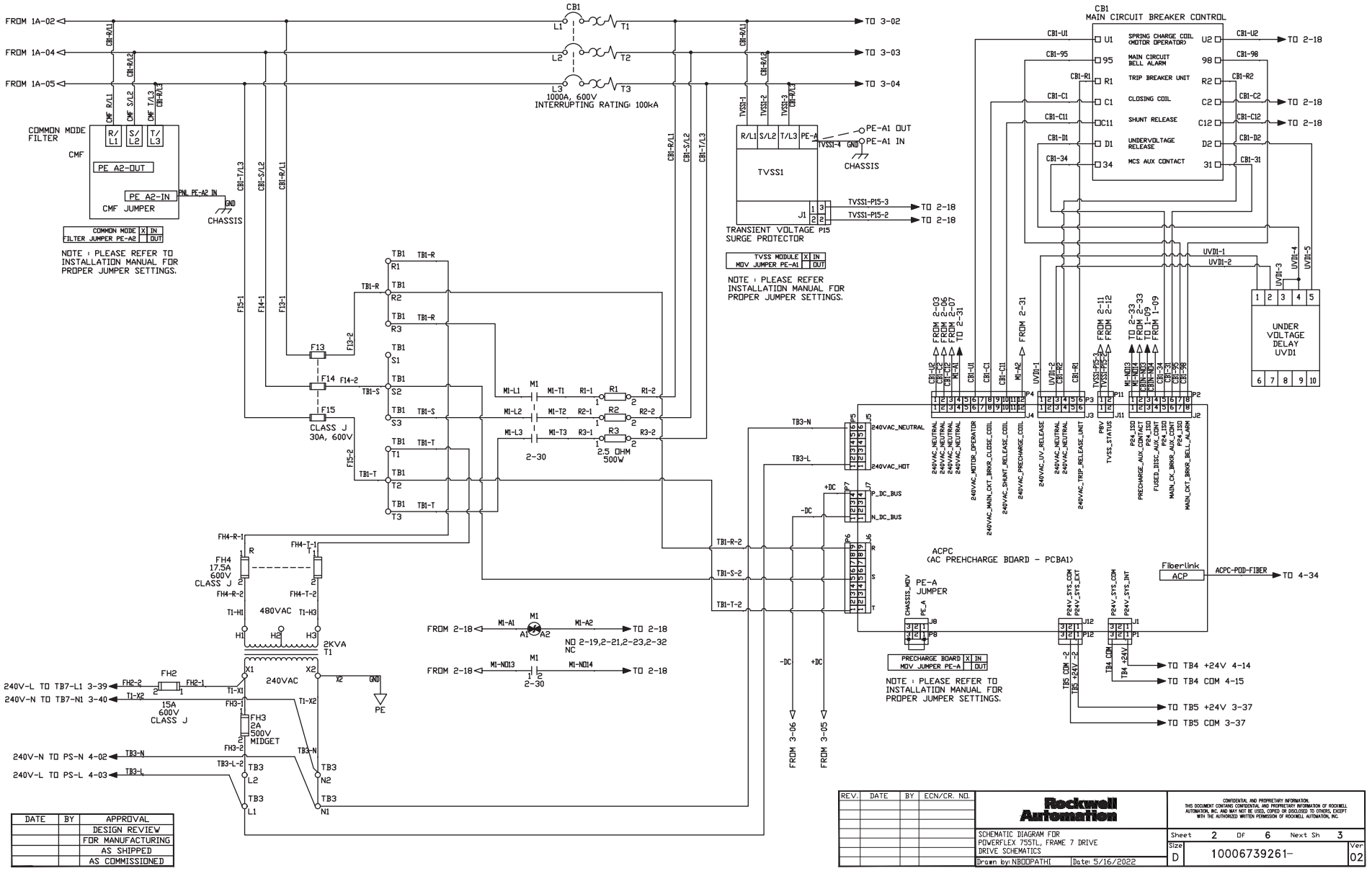
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

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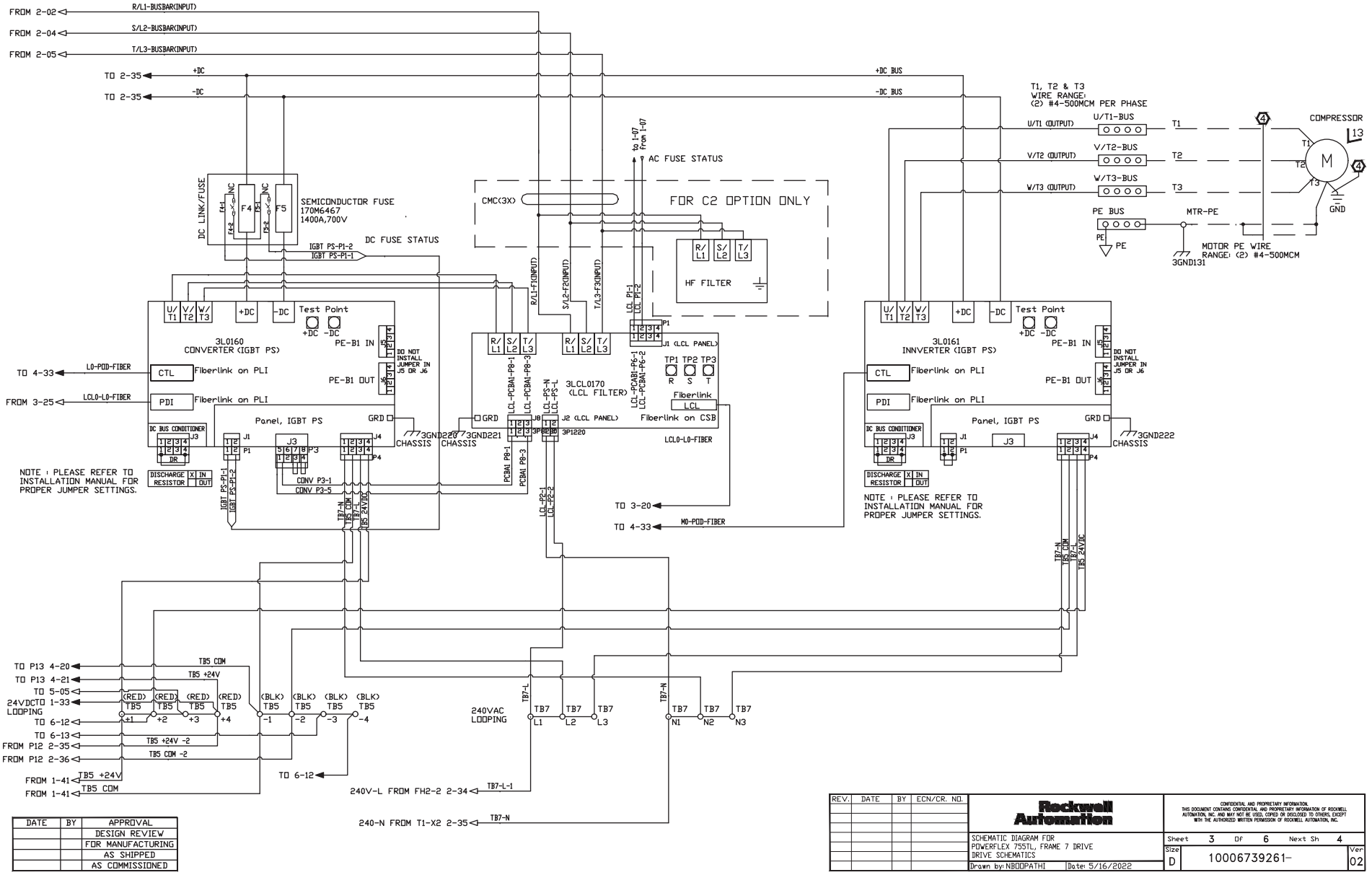
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

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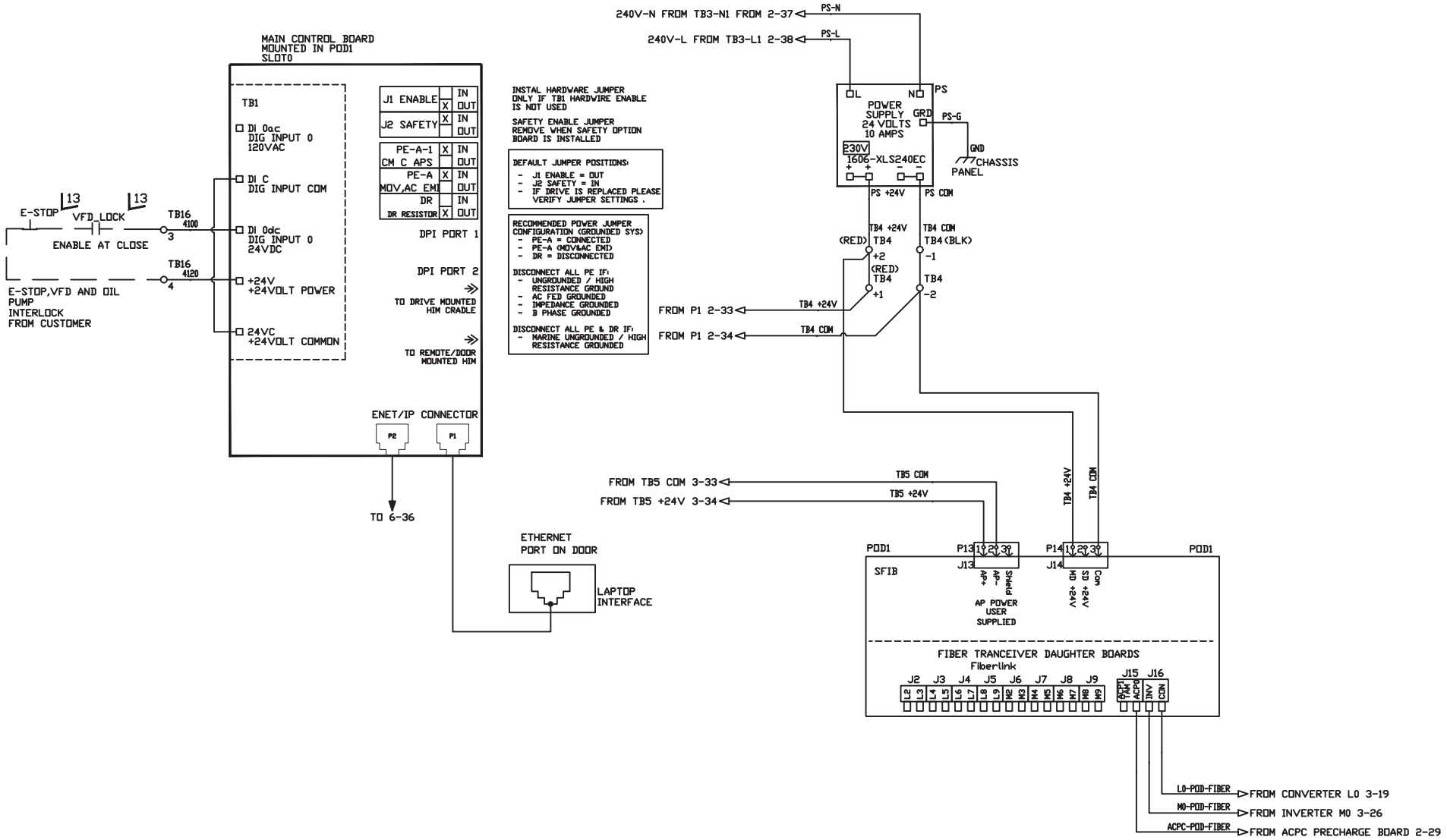
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

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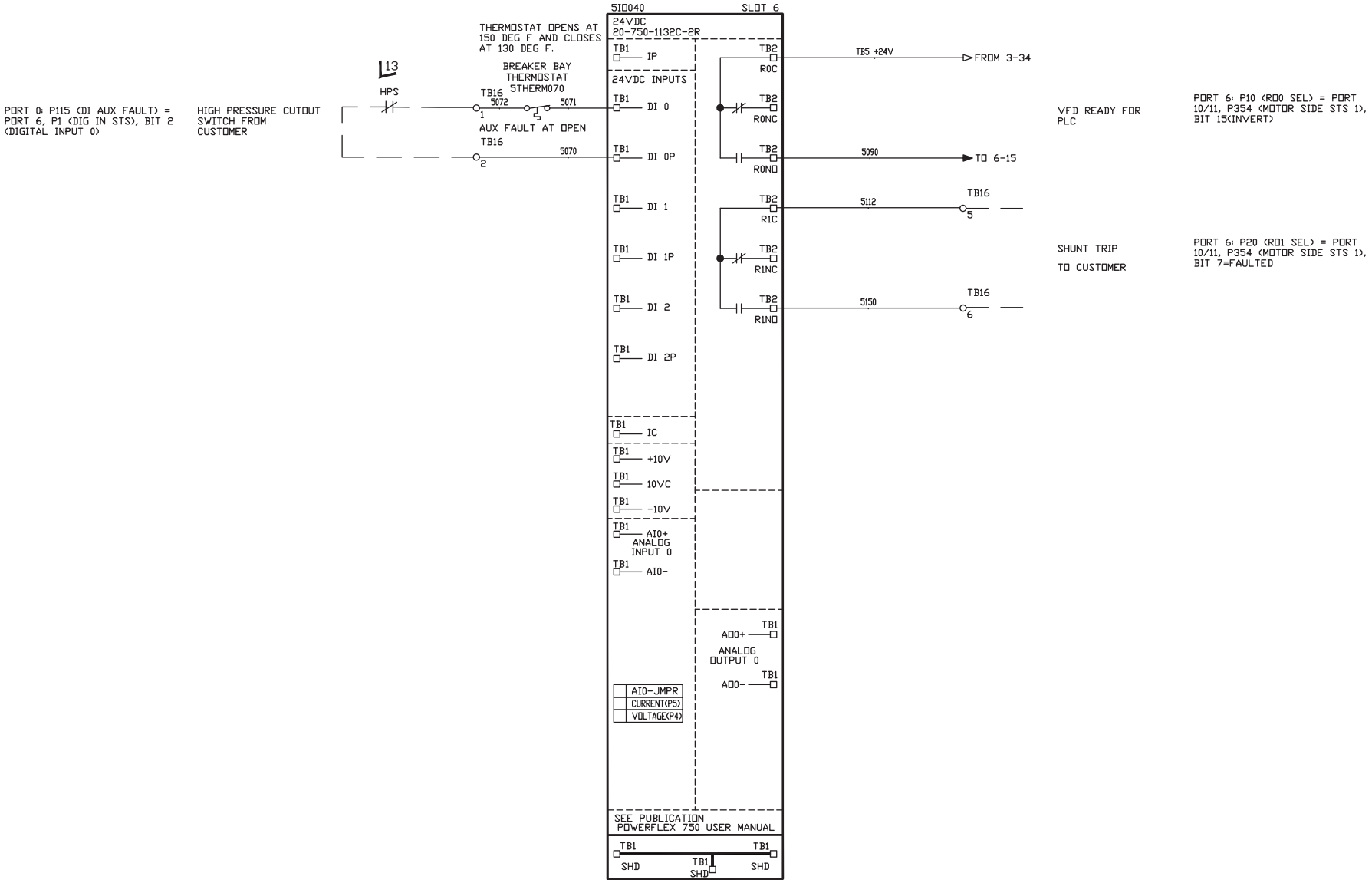
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

Drawn by: NBOOPATHI Date: 05/16/2022

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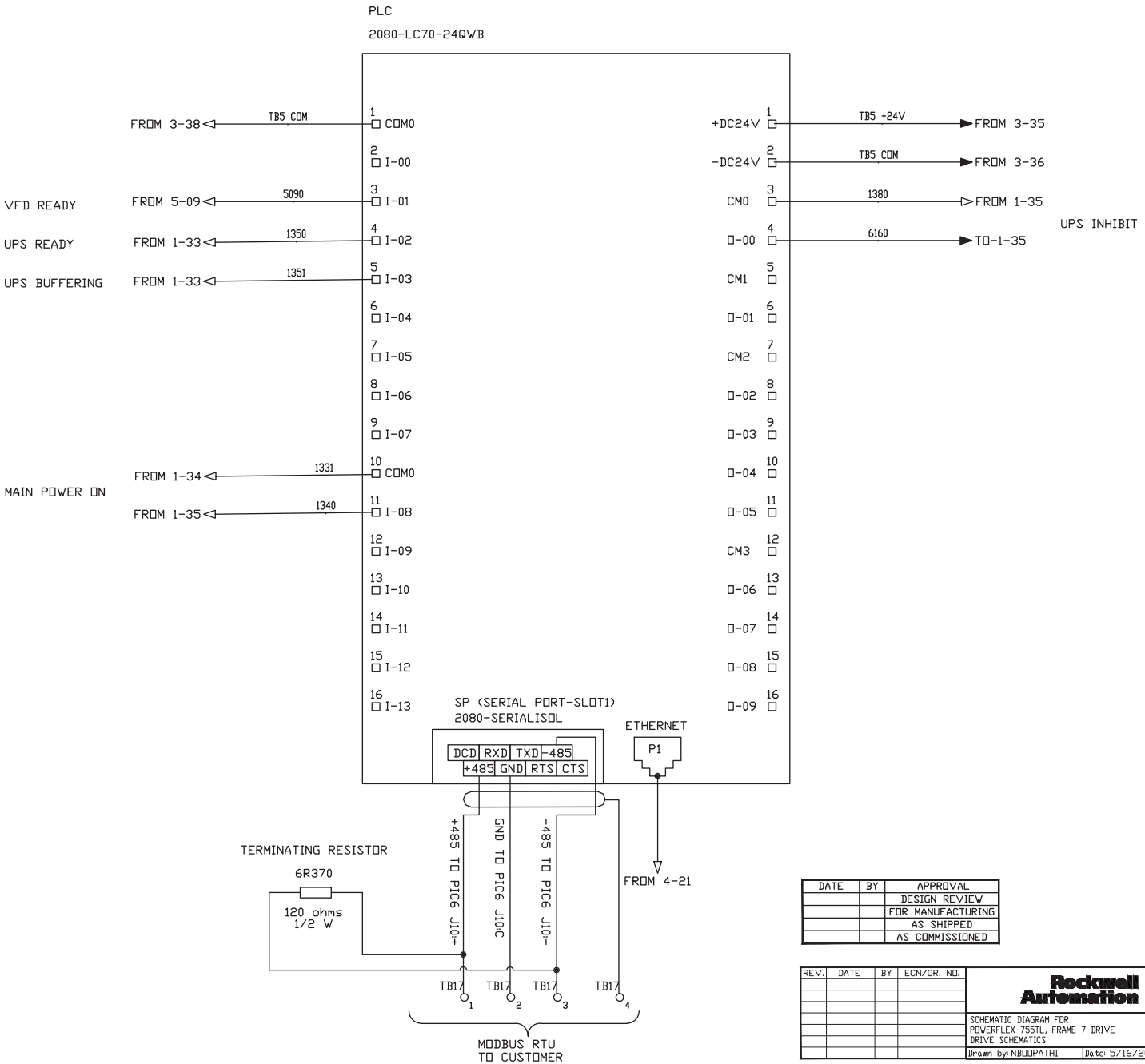
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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SCHEMATIC DIAGRAM FOR
POWERFLEX 755TL, FRAME 7 DRIVE
DRIVE SCHEMATICS

Drawn by: NBOOPATHI Date: 5/16/2022

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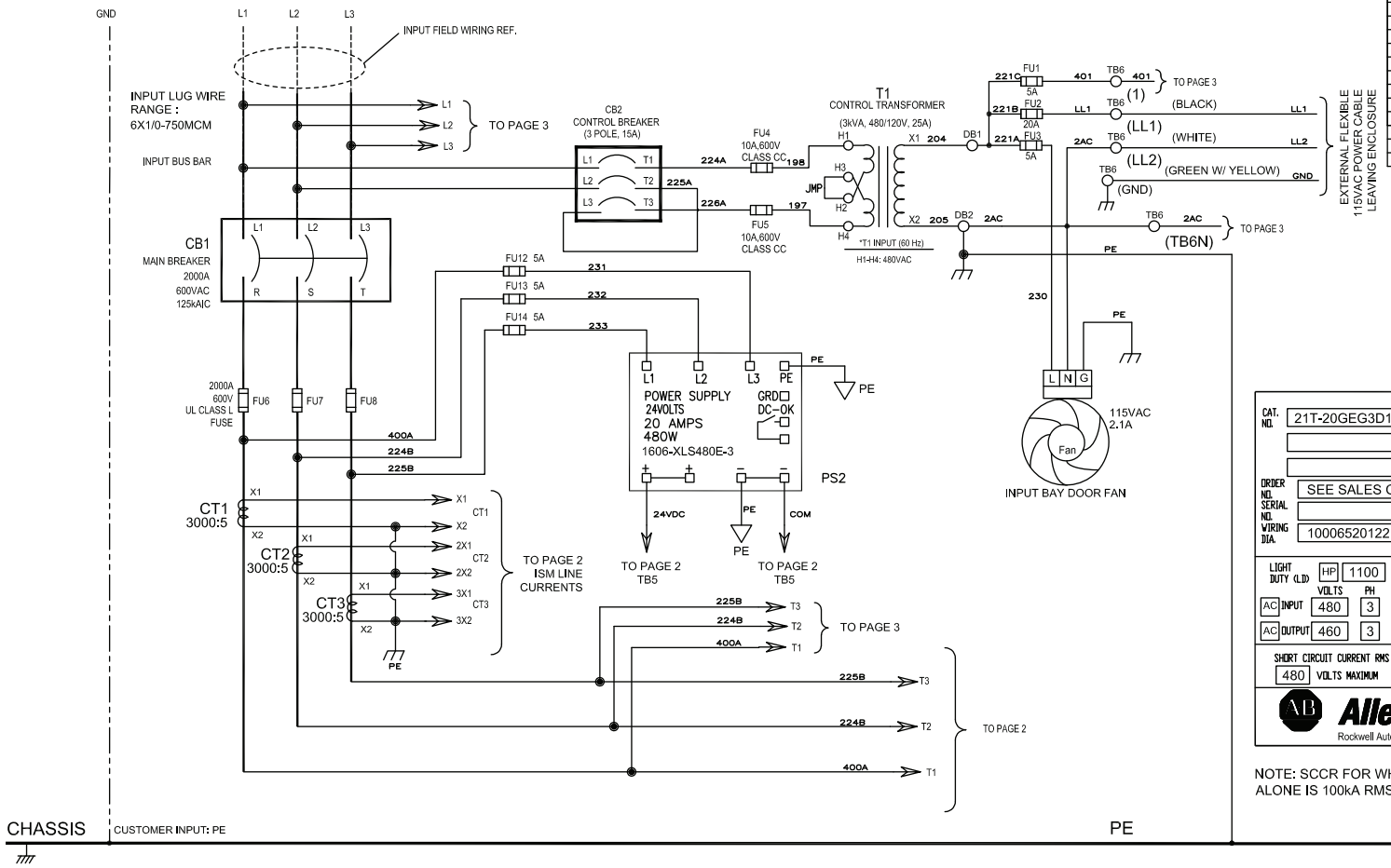
APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)

NOTES:

1.) DASHED LINES INDICATE EXTERNAL COMPONENTS AND WIRING BY OTHERS.

CARRIER XR6 PF755T 480VAC WIRING DIAGRAM



FUSE TABLE		
REF	FUSE DESCRIPTION	SUPPLIER & P/N
FU1	CLASS CC, 5A/600V	FERRAZ SHAWMUT ATQR5
FU2	CLASS CC, 20A/600V	FERRAZ SHAWMUT ATQR20
FU3	CLASS CC, 5A/600V	FERRAZ SHAWMUT ATQR5
FU4	CLASS CC, 10A/600V	FERRAZ SHAWMUT ATQR10
FU5	CLASS CC, 10A/600V	FERRAZ SHAWMUT ATQR10
FU6	2000A, 600V, Class L fuse	KLU-2000
FU7	2000A, 600V, Class L fuse	KLU-2000
FU8	2000A, 600V, Class L fuse	KLU-2000
FU9	EUROTEC gL-gG 1A/690V	FERRAZ SHAWMUT 17011-G
FU10	EUROTEC gL-gG 1A/690V	FERRAZ SHAWMUT 17011-G
FU11	EUROTEC gL-gG 1A/690V	FERRAZ SHAWMUT 17011-G
FU12	CLASS CC, 5A/600V	FERRAZ SHAWMUT ATQR5
FU13	CLASS CC, 5A/600V	FERRAZ SHAWMUT ATQR5
FU14	CLASS CC, 5A/600V	FERRAZ SHAWMUT ATQR5

ENCLOSED INDUSTRIAL CONTROL PANEL
NO. A-1155
Allen-Bradley
PLANT: 1100, MEQUON, WI U.S.A MMYY

DATA NAMEPLATE

CAT. NO.	21T-20GEG3D1K3LNDNNNNN-P15-P5
ORDER NO.	SEE SALES ORDER NO
SERIAL NO.	
WIRING DIA.	10006520122
ENCLOSURE TYPE	1
FACILITY	1120

	HP	VOLTS	PH	HZ	AMPS
LIGHT DUTY (LD)	1100				
HEAVY DUTY (HD)	---				
AC INPUT		480	3	60	1382
AC OUTPUT		460	3	0-590	1520

SHORT CIRCUIT CURRENT RMS SYMMETRICAL 65 KA
480 VOLTS MAXIMUM

AUXILIARY INPUT POWER
VOLTS --- PH ---
AMPS --- HZ ---

Allen-Bradley MADE IN U.S.A.
Rockwell Automation 1201 South 2nd St. Milwaukee, WI 53204 USA

NOTE: SCCR FOR WHOLE SYSTEM IS 65kA. SCCR FOR DRIVE ALONE IS 100kA RMS upto 600V MAX, AND 65kA RMS AT 690V MAX.

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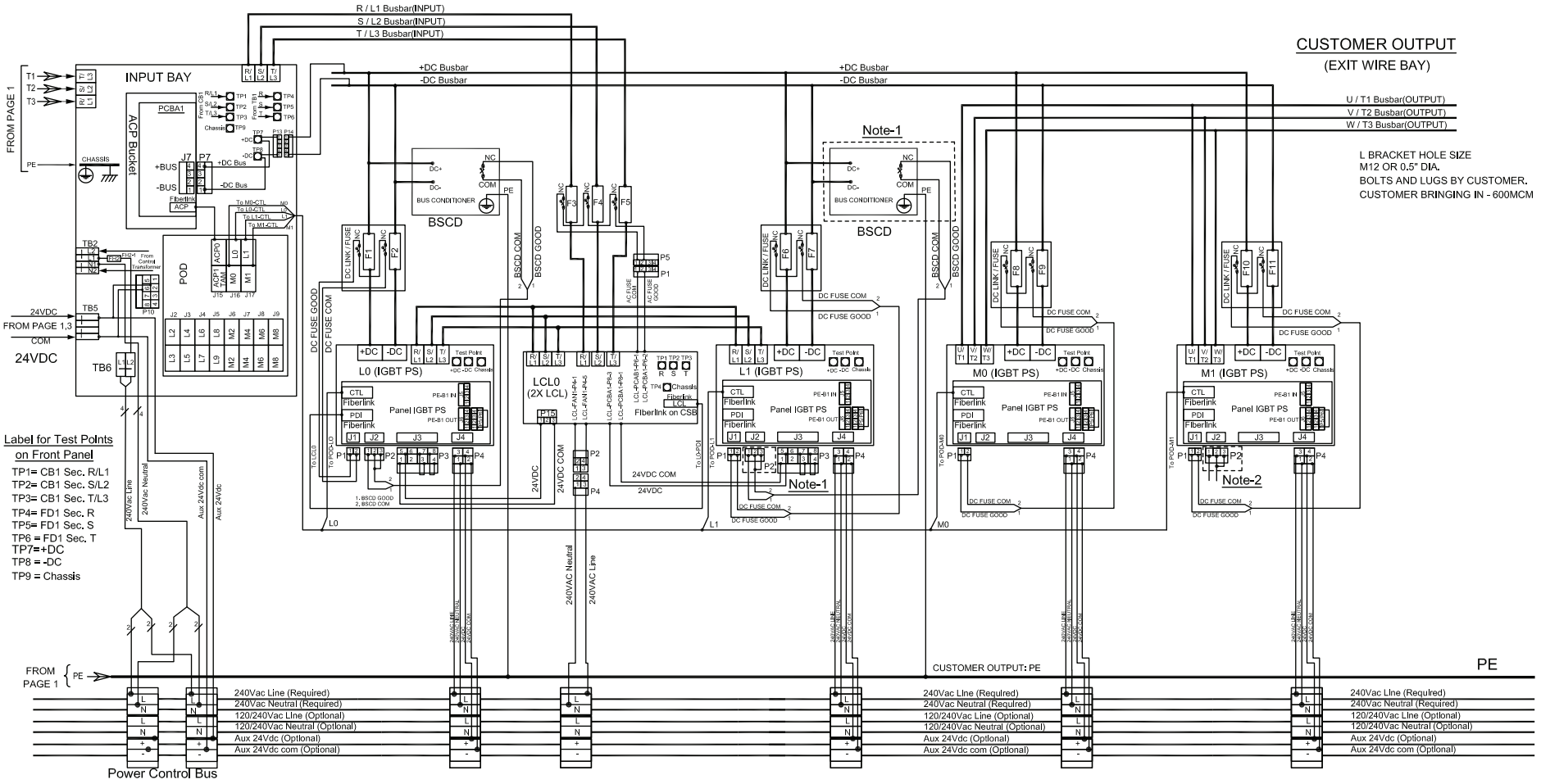
CARRIER XR6 PF755T 480VAC WIRING DIAGRAM	Sheet 1 Of 3	
	Size B	10006520122 Ver 01
Drawn by: NBOOPATHI	Date: 1/21/2022	

APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



Note-1: Applicable for HRG and Floating Ground System only (P50 Option).

Note-2: If Exit Wire Bay is present, connector P2 of Exit Wire Bay must be connected to J2 of IGBT-PS M1.

PF755TR / TL, REGEN /LH DR, SCHEMATIC, FR9

Grounding: Solid Ground, HRG and Floating Ground System

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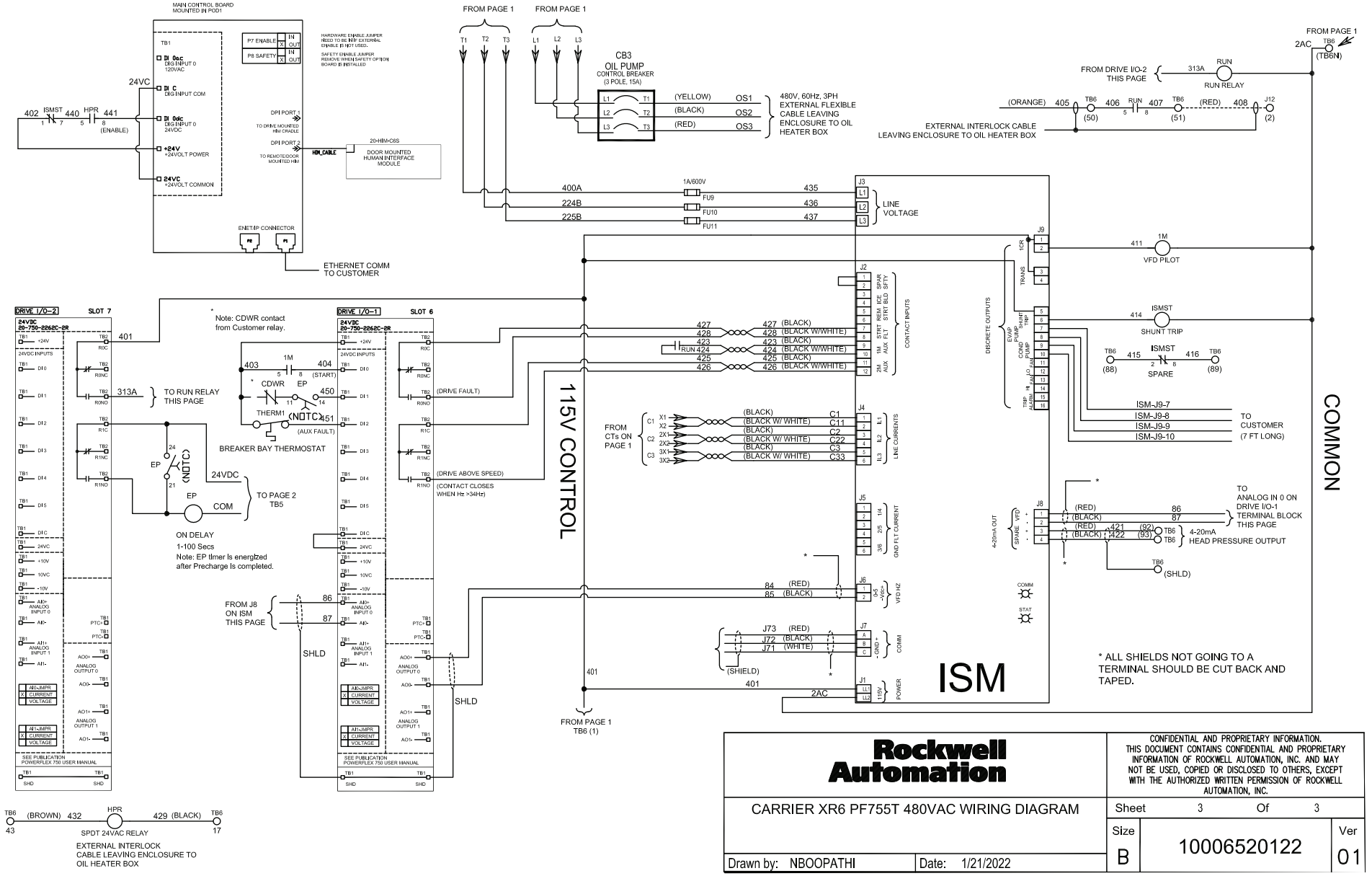
CARRIER XR6 PF755T 480VAC WIRING DIAGRAM		Sheet 2 Of 3
Drawn by: NBOOPATHI	Date: 1/21/2022	Size B / 10006520122 / Ver 01

APPENDIX A — WIRING SCHEMATICS (CONT)

19XR Frame 9 PF755TL Example (cont)



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CARRIER XR6 PF755T 480VAC WIRING DIAGRAM	Sheet 3 Of 3
Drawn by: NBOOPATHI Date: 1/21/2022	Size B — 10006520122 — Ver 01

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