

# PF4MNP FAN COIL SIZES 018 THRU 060

## Product Data

**NOTE:** Read the entire instruction manual before starting the installation.



a160199

### Air Handler Technology at its finest

The PF4MNP fan coil has proven technology with R-410A refrigerant as well as vertical and horizontal applications. The design features contoured condensate pans with rugged drain connections, ensuring that little water is left in the unit at the end of the cooling duty cycle. The lack of standing condensate and corrosion free pans improves IAQ and product life, features homeowners appreciate.

Standard features include grooved tubing and louvered fins. Coil circuiting has also been updated to make the most of all heat pumps and air conditioners. Units come with solid state fan controls, 1-inch (25mm) thick insulation with R-value of 4.2, multi-speed motors, fully-wettable coils, and can accommodate factory- and/or field-installed heaters from 3 to 30 kW.

The PF4MNP fan coil design is loaded with popular features. These fan coils utilize the latest in electronic commutation motor (ECM) technology through the use of high efficiency, multi-tap ECM motors allowing reliable air delivery with increased static pressure. It comes in a pre-painted (taupe metallic) galvanized steel casing and a factory-supplied power plug for ease of installation. The PF4MNP unit is shipped with an R-410A refrigerant TXV.

Assembled at the factory compliant with low leak requirements of less than 2% cabinet leakage rate at 0.5 inches W.C. and 1.4% cabinet leakage rate at 0.5 inches W.C. when tested in accordance with ASHRAE 193 standard.

### STANDARD FEATURES

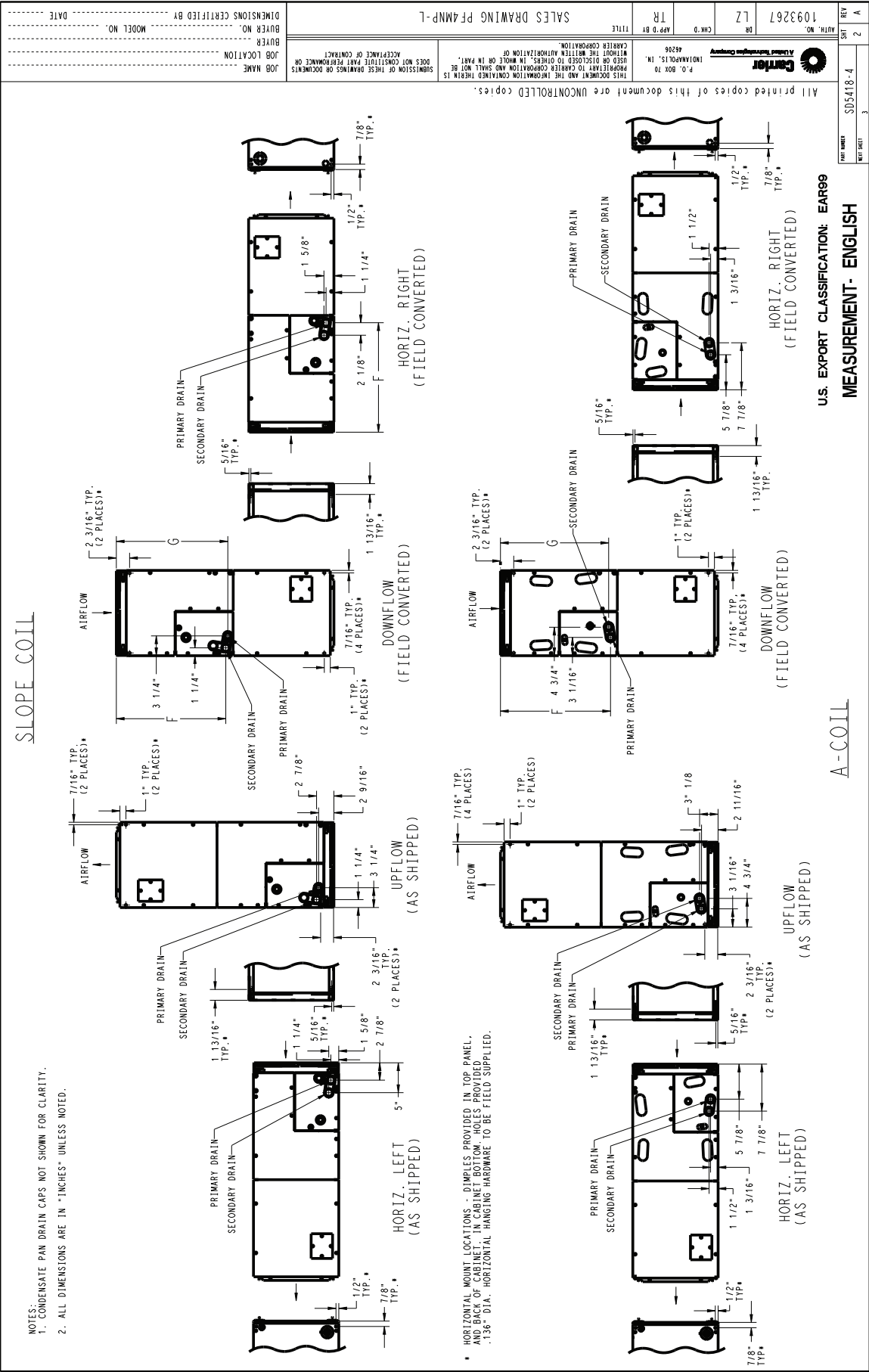
- Multi-tap ECM (electronic commutating motor) motors - all sizes
- Integrated motor controls, with 90-sec off TDR function, have replaced integrated circuit board
- Five available speed taps to meet a wide range of applications
- Large, grooved tube, louvered fin coils
- Efficient, quiet, time-tested blower housings and diffusers
- Sturdy, drainable condensate pans
- Cabinet construction features innovations designed to prevent cabinet sweating
- Tested for condensate disposal in much tougher conditions than Air Conditioning and Refrigeration Institute requirements
- Super-thick R-4.2 insulation with vapor barrier
- Pre-painted galvanized steel cabinet (taupe metallic)
- Installation-flexible, multipoise units
- Horizontal hanging provisions on cabinet
- No tools required to access filter
- Newly improved filter rack area filter door insulation added for improved air seal
- Factory-installed heater packages available on select models (5- through 15-kW)
- 3- through 30-kW accessory heaters - field installed
- Factory-supplied power plug
- Easy plug-in provisions for heater installation
- Entry options for high and low voltage wiring hook-up
- Leak-preventing sweat connections
- Thermostatic expansion valve, TXV, on all coils
- Designed for manufactured housing applications

## Dimensions

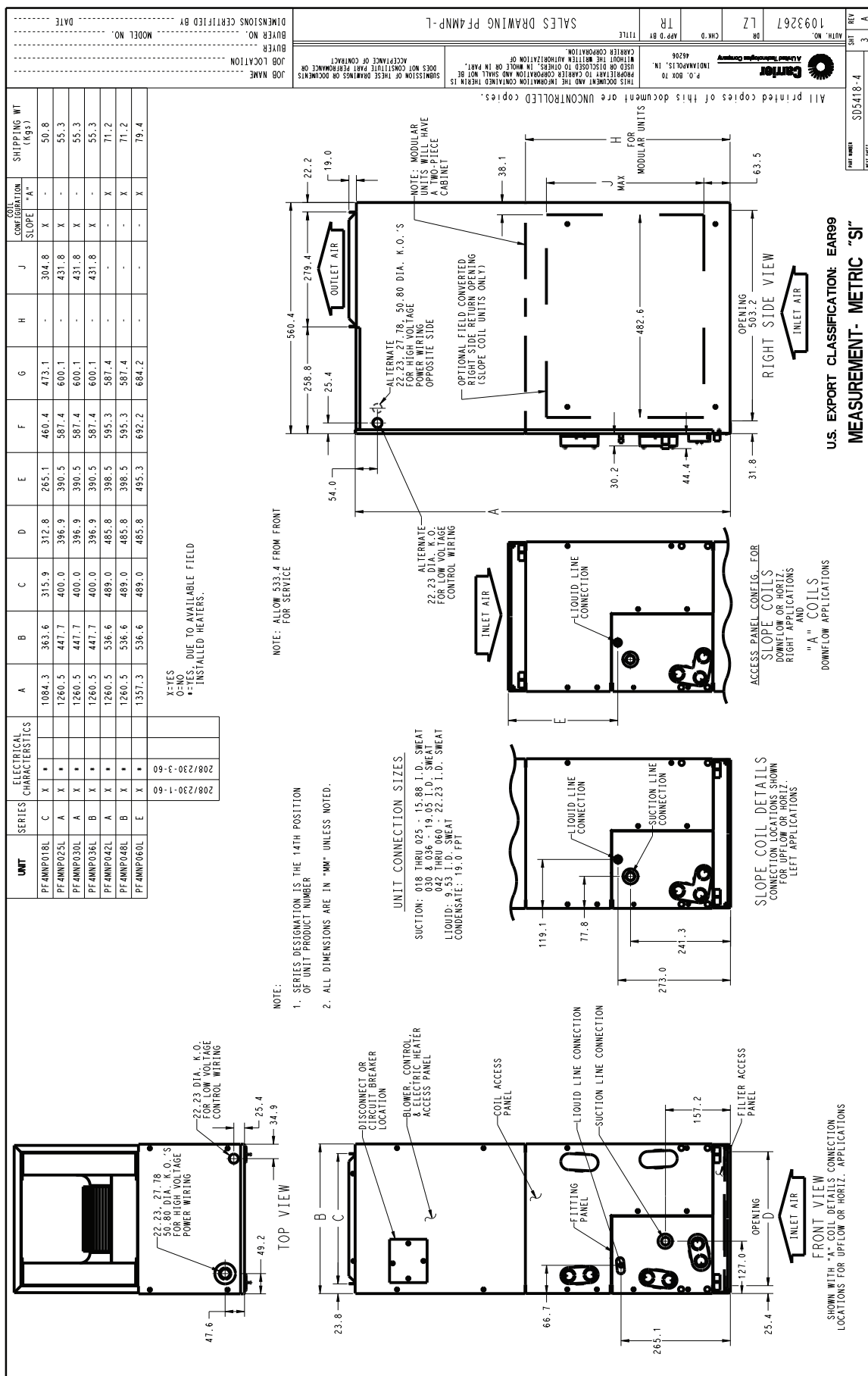
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**Fig. 1 – PF4MNP - English**

Dimensions (cont.)

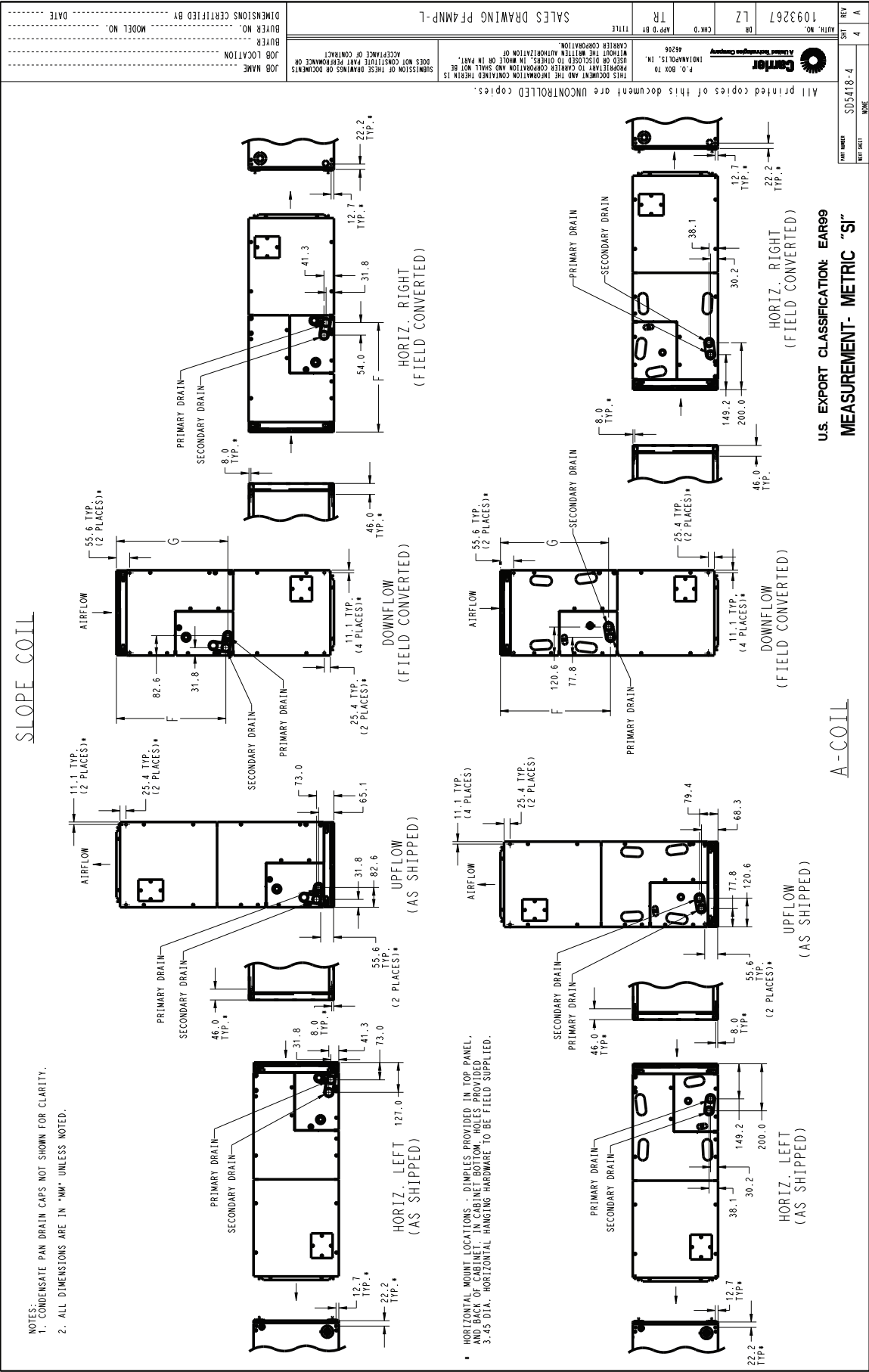


## Dimensions (cont.)



**Fig. 3 – PF4MNP - Metric**

Dimensions (cont.)



## Model Number Nomenclature

| 1       | 2            | 3           | 4              | 5                         | 6               | 7-9                                                                                                          | 10           | 11-12                                                                           |
|---------|--------------|-------------|----------------|---------------------------|-----------------|--------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------|
| P       | F            | 4           | M              | N                         | P               | 018                                                                                                          | L            | 00                                                                              |
| Product | Product      | Refrigerant | Position       | Electrical                | Metering Device | Capacity                                                                                                     | Coil Type    | Heating Size                                                                    |
|         | F = Fan Coil | 4 = R-410A  | M = Multipoise | N = 208/230v,<br>1ph-60Hz | P=TXV           | 018 = 18,000<br>025 = 24,000<br>030 = 30,000<br>036 = 36,000<br>042 = 42,000<br>048 = 48,000<br>060 = 60,000 | L = Aluminum | 00=No Heat<br>05=05kW<br>75=7.5kW<br>08= 08 kW<br>10=10kW<br>11=11kW<br>15=15kW |

## Physical Data

| ORDERING NO.      | NOMINAL COOLING CAPACITY (Btuh) | DIMENSIONS             |                      |                      | SHIPPING WEIGHT |
|-------------------|---------------------------------|------------------------|----------------------|----------------------|-----------------|
|                   |                                 | Height                 | Width                | Depth                |                 |
| <b>PF4MNP018L</b> | 18,000                          | 42-11/16 in.<br>1084mm | 14-5/16 in.<br>363mm | 22-1/16 in.<br>560mm | 112 lb<br>51 kg |
| <b>PF4MNP025L</b> | 24,000                          | 49-5/8 in.<br>1260mm   | 17-5/8 in.<br>447mm  | 22-1/16 in.<br>560mm | 122 lb<br>55 kg |
| <b>PF4MNP030L</b> | 30,000                          | 49-5/8 in.<br>1260mm   | 17-5/8 in.<br>447mm  | 22-1/16 in.<br>560mm | 122 lb<br>55 kg |
| <b>PF4MNP036L</b> | 36,000                          | 49-5/8 in.<br>1260mm   | 17-5/8 in.<br>447mm  | 22-1/16 in.<br>560mm | 122 lb<br>55 kg |
| <b>PF4MNP042L</b> | 42,000                          | 49-5/8 in.<br>1260mm   | 21-1/8 in.<br>536mm  | 22-1/16 in.<br>560mm | 157 lb<br>71 kg |
| <b>PF4MNP048L</b> | 48,000                          | 49-5/8 in.<br>1260mm   | 21-1/8 in.<br>536mm  | 22-1/16 in.<br>560mm | 157 lb<br>71 kg |
| <b>PF4MNP060L</b> | 60,000                          | 53-7/16 in.<br>1357mm  | 21-1/8 in.<br>536mm  | 22-1/16 in.<br>560mm | 175 lb<br>79 kg |

## Specifications

|                                                 |                   |                       |                       |      |                       |      |      |
|-------------------------------------------------|-------------------|-----------------------|-----------------------|------|-----------------------|------|------|
| PF4MNP                                          | 18                | 25                    | 30                    | 36   | 42                    | 48   | 60   |
| EVAPORATOR COIL                                 |                   |                       |                       |      |                       |      |      |
| Face Area (sq. ft)                              | 2.23              | 2.97                  | 2.97                  |      | 4.45                  |      | 5.93 |
| Configuration                                   | Slope             |                       |                       |      | A                     |      |      |
| PF4MNP<br>Metering Device<br>R-410A Refrigerant | TXV               |                       |                       |      |                       |      |      |
| FILTER*                                         |                   |                       |                       |      |                       |      |      |
| 21-1/2-in<br>(546 mm) X                         | 13-in<br>(330 mm) | 16-3/8-in<br>(417 mm) | 16-3/8-in<br>(417 mm) |      | 19-7/8-in<br>(505 mm) |      |      |
| BLOWER ASSEMBLY                                 |                   |                       |                       |      |                       |      |      |
| Motor Type (ECM)                                | Multi-tap ECM     |                       |                       |      |                       |      |      |
| Motor HP                                        | 1/3               | 1/3                   | 1/3                   | 1/2  | 1/2                   | 3/4  | 3/4  |
| CFM                                             | 600               | 800                   | 1000                  | 1200 | 1400                  | 1600 | 1750 |

\*Filter must be field-supplied for PF4MNP units.

## Performance Data

**Table 1 – PF4MNP Airflow Performance (CFM)**

| Model & Size      | Blower Speed | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 |
|-------------------|--------------|------|------|------|------|------|------|
| <b>PF4MNP 018</b> | Tap 5        | 767  | 739  | 702  | 669  | 620  | 565  |
|                   | Tap 4        | 614  | 569  | 534  | 486  | 436  | 398  |
|                   | Tap 3        | 701  | 660  | 616  | 581  | 537  | 499  |
|                   | Tap 2        | 614  | 569  | 534  | 486  | 436  | 398  |
|                   | Tap 1        | 410  | 350  | 304  | 261  | 228  | 203  |
| <b>PF4MNP 025</b> | Tap 5        | 965  | 920  | 870  | 823  | 780  | 740  |
|                   | Tap 4        | 820  | 783  | 740  | 680  | 630  | 575  |
|                   | Tap 3        | 820  | 783  | 740  | 680  | 630  | 575  |
|                   | Tap 2        | 720  | 655  | 610  | 555  | 485  | 450  |
|                   | Tap 1        | 716  | 600  | 540  | 495  | 430  | 328  |
| <b>PF4MNP 030</b> | Tap 5        | 1108 | 1090 | 1065 | 1034 | 1009 | 974  |
|                   | Tap 4        | 1026 | 1000 | 969  | 938  | 899  | 865  |
|                   | Tap 3        | 1026 | 1000 | 969  | 938  | 899  | 865  |
|                   | Tap 2        | 909  | 873  | 842  | 799  | 762  | 724  |
|                   | Tap 1        | 825  | 795  | 757  | 722  | 674  | 634  |
| <b>PF4MNP 036</b> | Tap 5        | 1301 | 1276 | 1245 | 1218 | 1176 | 1121 |
|                   | Tap 4        | 1227 | 1191 | 1169 | 1143 | 1105 | 1074 |
|                   | Tap 3        | 1227 | 1191 | 1169 | 1143 | 1105 | 1074 |
|                   | Tap 2        | 1087 | 1062 | 1030 | 1001 | 966  | 930  |
|                   | Tap 1        | 1026 | 1000 | 969  | 938  | 899  | 865  |
| <b>PF4MNP 042</b> | Tap 5        | 1560 | 1544 | 1507 | 1464 | 1424 | 1358 |
|                   | Tap 4        | 1419 | 1397 | 1358 | 1320 | 1279 | 1239 |
|                   | Tap 3        | 1419 | 1397 | 1358 | 1320 | 1279 | 1239 |
|                   | Tap 2        | 1249 | 1220 | 1184 | 1142 | 1093 | 1052 |
|                   | Tap 1        | 1242 | 1205 | 1158 | 1110 | 1069 | 1026 |
| <b>PF4MNP 048</b> | Tap 5        | 1743 | 1712 | 1679 | 1642 | 1610 | 1574 |
|                   | Tap 4        | 1669 | 1634 | 1599 | 1564 | 1531 | 1499 |
|                   | Tap 3        | 1669 | 1634 | 1599 | 1564 | 1531 | 1499 |
|                   | Tap 2        | 1452 | 1413 | 1377 | 1339 | 1308 | 1271 |
|                   | Tap 1        | 1300 | 1256 | 1221 | 1182 | 1142 | 1101 |
| <b>PF4MNP 060</b> | Tap 5        | 1897 | 1867 | 1836 | 1808 | 1774 | 1736 |
|                   | Tap 4        | 1817 | 1785 | 1757 | 1724 | 1693 | 1655 |
|                   | Tap 3        | 1817 | 1785 | 1757 | 1724 | 1693 | 1655 |
|                   | Tap 2        | 1657 | 1621 | 1589 | 1557 | 1518 | 1474 |
|                   | Tap 1        | 1443 | 1412 | 1377 | 1332 | 1286 | 1243 |

■ - Airflow above 450 cfm/ton.

**NOTES:**

1. Airflow based upon dry coil at 230v with factory-approved filter and electric heater (2 element heater sizes 018 through 036, 3 element heater sizes 042 through 060). For PF4MNP models, airflow at 208 volts is approximately the same as 230 volts because the multi-tap ECM motor is a constant torque motor. The torque doesn't drop off at the speeds the motor operates.
2. To avoid potential for condensate blowing out of drain pan prior to making drain trap:  
Return static pressure must be less than 0.40 in. wc.  
Horizontal applications of 042 - 060 sizes must have supply static greater than 0.20 in. wc.
3. Airflow above 400 cfm/ton on 048-060 size could result in condensate blowing off coil or splashing out of drain pan.

## PERFORMANCE DATA (cont.)

**Table 2 – Gross Cooling Capacities (MBH) - R-410A Refrigerant**

| Unit Size | INDOOR COIL AIR |         | SATURATED TEMPERATURE LEAVING EVAPORATOR (°F / °C) |     |        |    |     |        |    |     |         |    |     |         |    |     |      |
|-----------|-----------------|---------|----------------------------------------------------|-----|--------|----|-----|--------|----|-----|---------|----|-----|---------|----|-----|------|
|           |                 |         | 35 / 2                                             |     | 40 / 4 |    |     | 45 / 7 |    |     | 50 / 10 |    |     | 55 / 13 |    |     |      |
|           | CFM             | EWB     | TC                                                 | SHC | BF     | TC | SHC | BF     | TC | SHC | BF      | TC | SHC | BF      | TC | SHC | BF   |
| 018       | 525             | 72 / 22 | 41                                                 | 20  | 0.00   | 37 | 17  | 0.00   | 32 | 15  | 0.00    | 27 | 13  | 0.02    | 21 | 11  | 0.03 |
|           |                 | 67 / 19 | 33                                                 | 20  | 0.03   | 29 | 18  | 0.03   | 24 | 16  | 0.03    | 19 | 13  | 0.03    | 13 | 11  | 0.04 |
|           |                 | 62 / 17 | 26                                                 | 20  | 0.03   | 22 | 18  | 0.03   | 18 | 16  | 0.04    | 14 | 14  | 0.10    | 11 | 11  | 0.26 |
|           | 600             | 72 / 22 | 45                                                 | 22  | 0.00   | 40 | 19  | 0.00   | 35 | 17  | 0.01    | 30 | 15  | 0.03    | 23 | 12  | 0.04 |
|           |                 | 67 / 19 | 37                                                 | 22  | 0.04   | 32 | 20  | 0.04   | 27 | 17  | 0.04    | 21 | 15  | 0.04    | 15 | 12  | 0.05 |
|           |                 | 62 / 17 | 29                                                 | 22  | 0.04   | 24 | 20  | 0.04   | 19 | 18  | 0.05    | 15 | 15  | 0.12    | 13 | 13  | 0.28 |
|           | 675             | 72 / 22 | 49                                                 | 24  | 0.00   | 44 | 21  | 0.00   | 38 | 19  | 0.03    | 32 | 16  | 0.04    | 25 | 13  | 0.05 |
|           |                 | 67 / 19 | 40                                                 | 24  | 0.05   | 35 | 22  | 0.05   | 29 | 19  | 0.05    | 23 | 16  | 0.05    | 16 | 14  | 0.06 |
|           |                 | 62 / 17 | 32                                                 | 25  | 0.05   | 27 | 22  | 0.05   | 21 | 19  | 0.06    | 17 | 17  | 0.14    | 14 | 14  | 0.29 |
| 025       | 700             | 72 / 22 | 53                                                 | 26  | 0.00   | 47 | 23  | 0.00   | 41 | 21  | 0.00    | 35 | 18  | 0.02    | 27 | 15  | 0.03 |
|           |                 | 67 / 19 | 43                                                 | 27  | 0.03   | 37 | 24  | 0.03   | 31 | 21  | 0.03    | 25 | 18  | 0.03    | 17 | 15  | 0.04 |
|           |                 | 62 / 17 | 34                                                 | 27  | 0.03   | 28 | 24  | 0.03   | 23 | 21  | 0.04    | 18 | 18  | 0.10    | 14 | 14  | 0.26 |
|           | 800             | 72 / 22 | 58                                                 | 29  | 0.00   | 52 | 26  | 0.00   | 46 | 23  | 0.01    | 38 | 20  | 0.03    | 30 | 16  | 0.04 |
|           |                 | 67 / 19 | 47                                                 | 30  | 0.04   | 41 | 26  | 0.04   | 35 | 23  | 0.04    | 27 | 20  | 0.04    | 19 | 17  | 0.05 |
|           |                 | 62 / 17 | 38                                                 | 30  | 0.04   | 32 | 27  | 0.04   | 25 | 24  | 0.05    | 20 | 20  | 0.12    | 16 | 16  | 0.28 |
|           | 900             | 72 / 22 | 63                                                 | 32  | 0.00   | 57 | 28  | 0.00   | 50 | 25  | 0.03    | 41 | 21  | 0.04    | 33 | 18  | 0.05 |
|           |                 | 67 / 19 | 52                                                 | 32  | 0.05   | 45 | 29  | 0.05   | 38 | 25  | 0.05    | 30 | 22  | 0.05    | 21 | 18  | 0.06 |
|           |                 | 62 / 17 | 41                                                 | 33  | 0.05   | 34 | 29  | 0.05   | 27 | 26  | 0.06    | 22 | 22  | 0.14    | 18 | 18  | 0.29 |
| 030       | 875             | 72 / 22 | 62                                                 | 31  | 0.00   | 56 | 28  | 0.00   | 49 | 24  | 0.02    | 41 | 21  | 0.04    | 32 | 17  | 0.04 |
|           |                 | 67 / 19 | 51                                                 | 32  | 0.04   | 44 | 28  | 0.05   | 37 | 25  | 0.05    | 29 | 21  | 0.05    | 21 | 18  | 0.05 |
|           |                 | 62 / 17 | 40                                                 | 32  | 0.05   | 34 | 29  | 0.05   | 27 | 25  | 0.06    | 21 | 21  | 0.13    | 18 | 18  | 0.28 |
|           | 1000            | 72 / 22 | 68                                                 | 34  | 0.00   | 61 | 31  | 0.00   | 53 | 27  | 0.04    | 45 | 23  | 0.05    | 35 | 19  | 0.06 |
|           |                 | 67 / 19 | 56                                                 | 35  | 0.06   | 49 | 31  | 0.06   | 41 | 28  | 0.06    | 32 | 24  | 0.06    | 22 | 20  | 0.07 |
|           |                 | 62 / 17 | 44                                                 | 36  | 0.06   | 37 | 32  | 0.06   | 29 | 28  | 0.07    | 24 | 24  | 0.16    | 20 | 20  | 0.30 |
|           | 1125            | 72 / 22 | 74                                                 | 37  | 0.00   | 66 | 33  | 0.02   | 58 | 29  | 0.05    | 48 | 25  | 0.06    | 38 | 21  | 0.07 |
|           |                 | 67 / 19 | 60                                                 | 38  | 0.07   | 53 | 34  | 0.07   | 44 | 30  | 0.07    | 35 | 26  | 0.07    | 24 | 22  | 0.08 |
|           |                 | 62 / 17 | 48                                                 | 39  | 0.07   | 40 | 35  | 0.07   | 32 | 31  | 0.09    | 26 | 26  | 0.18    | 21 | 21  | 0.32 |
| 036       | 1050            | 72 / 22 | 68                                                 | 34  | 0.00   | 61 | 31  | 0.00   | 53 | 27  | 0.04    | 45 | 23  | 0.05    | 35 | 20  | 0.06 |
|           |                 | 67 / 19 | 56                                                 | 36  | 0.06   | 49 | 32  | 0.06   | 41 | 28  | 0.06    | 32 | 24  | 0.07    | 22 | 20  | 0.07 |
|           |                 | 62 / 17 | 44                                                 | 36  | 0.07   | 37 | 33  | 0.07   | 30 | 29  | 0.08    | 24 | 24  | 0.17    | 20 | 20  | 0.31 |
|           | 1200            | 72 / 22 | 75                                                 | 38  | 0.00   | 67 | 34  | 0.03   | 58 | 30  | 0.06    | 49 | 26  | 0.07    | 38 | 22  | 0.07 |
|           |                 | 67 / 19 | 61                                                 | 39  | 0.07   | 53 | 35  | 0.08   | 45 | 31  | 0.08    | 35 | 27  | 0.08    | 25 | 22  | 0.09 |
|           |                 | 62 / 17 | 49                                                 | 40  | 0.08   | 41 | 36  | 0.08   | 32 | 32  | 0.09    | 26 | 26  | 0.19    | 22 | 22  | 0.33 |
|           | 1350            | 72 / 22 | 81                                                 | 41  | 0.00   | 72 | 37  | 0.05   | 63 | 32  | 0.07    | 53 | 28  | 0.08    | 41 | 23  | 0.09 |
|           |                 | 67 / 19 | 66                                                 | 43  | 0.08   | 58 | 38  | 0.09   | 48 | 34  | 0.09    | 38 | 29  | 0.09    | 27 | 25  | 0.10 |
|           |                 | 62 / 17 | 53                                                 | 44  | 0.09   | 44 | 40  | 0.09   | 35 | 35  | 0.11    | 29 | 29  | 0.22    | 24 | 24  | 0.35 |
| 042       | 1225            | 72 / 22 | 89                                                 | 44  | 0.00   | 80 | 40  | 0.00   | 70 | 35  | 0.02    | 58 | 30  | 0.03    | 46 | 25  | 0.04 |
|           |                 | 67 / 19 | 73                                                 | 45  | 0.04   | 63 | 41  | 0.04   | 53 | 36  | 0.04    | 42 | 31  | 0.04    | 29 | 25  | 0.05 |
|           |                 | 62 / 17 | 58                                                 | 46  | 0.04   | 48 | 41  | 0.04   | 38 | 36  | 0.05    | 30 | 30  | 0.12    | 25 | 25  | 0.28 |
|           | 1400            | 72 / 22 | 98                                                 | 49  | 0.00   | 88 | 44  | 0.00   | 77 | 39  | 0.03    | 64 | 33  | 0.04    | 50 | 28  | 0.05 |
|           |                 | 67 / 19 | 80                                                 | 50  | 0.05   | 70 | 45  | 0.05   | 58 | 39  | 0.05    | 46 | 34  | 0.05    | 32 | 28  | 0.06 |
|           |                 | 62 / 17 | 64                                                 | 51  | 0.06   | 53 | 46  | 0.06   | 42 | 40  | 0.06    | 34 | 34  | 0.14    | 28 | 28  | 0.29 |
|           | 1575            | 72 / 22 | 106                                                | 53  | 0.00   | 95 | 48  | 0.00   | 83 | 42  | 0.04    | 69 | 36  | 0.05    | 54 | 30  | 0.06 |
|           |                 | 67 / 19 | 87                                                 | 55  | 0.06   | 76 | 49  | 0.06   | 63 | 43  | 0.06    | 50 | 37  | 0.07    | 35 | 31  | 0.07 |
|           |                 | 62 / 17 | 69                                                 | 56  | 0.07   | 58 | 50  | 0.07   | 46 | 44  | 0.08    | 37 | 37  | 0.17    | 31 | 31  | 0.31 |
| 048       | 1400            | 72 / 22 | 88                                                 | 46  | 0.00   | 79 | 42  | 0.00   | 69 | 37  | 0.03    | 58 | 31  | 0.04    | 45 | 26  | 0.05 |
|           |                 | 67 / 19 | 72                                                 | 48  | 0.05   | 63 | 43  | 0.05   | 52 | 37  | 0.05    | 41 | 32  | 0.05    | 29 | 27  | 0.06 |
|           |                 | 62 / 17 | 57                                                 | 49  | 0.06   | 48 | 43  | 0.06   | 38 | 38  | 0.06    | 30 | 30  | 0.14    | 25 | 25  | 0.29 |
|           | 1600            | 72 / 22 | 97                                                 | 51  | 0.00   | 87 | 46  | 0.01   | 75 | 40  | 0.04    | 63 | 35  | 0.06    | 49 | 29  | 0.06 |
|           |                 | 67 / 19 | 79                                                 | 52  | 0.06   | 69 | 47  | 0.06   | 57 | 41  | 0.07    | 45 | 36  | 0.07    | 32 | 30  | 0.08 |
|           |                 | 62 / 17 | 63                                                 | 54  | 0.07   | 53 | 48  | 0.07   | 42 | 42  | 0.08    | 34 | 34  | 0.17    | 28 | 28  | 0.31 |
|           | 1800            | 72 / 22 | 105                                                | 55  | 0.00   | 94 | 50  | 0.03   | 82 | 44  | 0.06    | 68 | 38  | 0.07    | 54 | 31  | 0.07 |
|           |                 | 67 / 19 | 86                                                 | 57  | 0.07   | 75 | 51  | 0.08   | 62 | 45  | 0.08    | 49 | 39  | 0.08    | 34 | 33  | 0.09 |
|           |                 | 62 / 17 | 68                                                 | 59  | 0.08   | 57 | 53  | 0.08   | 45 | 47  | 0.09    | 37 | 37  | 0.19    | 30 | 30  | 0.33 |



**Table 2 – Gross Cooling Capacities (MBH) - R-410A Refrigerant**

|            |      |         |     |    |      |     |    |      |    |    |      |    |    |      |    |    |      |
|------------|------|---------|-----|----|------|-----|----|------|----|----|------|----|----|------|----|----|------|
| <b>060</b> | 1600 | 72 / 22 | 106 | 54 | 0.00 | 95  | 49 | 0.00 | 82 | 43 | 0.01 | 69 | 37 | 0.03 | 54 | 31 | 0.04 |
|            |      | 67 / 19 | 86  | 56 | 0.04 | 75  | 50 | 0.04 | 63 | 44 | 0.04 | 49 | 37 | 0.04 | 35 | 31 | 0.05 |
|            |      | 62 / 17 | 68  | 56 | 0.04 | 57  | 50 | 0.04 | 45 | 44 | 0.05 | 36 | 36 | 0.12 | 29 | 29 | 0.28 |
|            | 1750 | 72 / 22 | 113 | 58 | 0.00 | 101 | 52 | 0.00 | 88 | 46 | 0.02 | 74 | 39 | 0.04 | 58 | 33 | 0.04 |
|            |      | 67 / 19 | 92  | 59 | 0.04 | 80  | 53 | 0.05 | 67 | 47 | 0.05 | 53 | 40 | 0.05 | 37 | 33 | 0.05 |
|            |      | 62 / 17 | 73  | 61 | 0.05 | 61  | 54 | 0.05 | 49 | 48 | 0.06 | 39 | 39 | 0.13 | 32 | 32 | 0.28 |
|            | 2000 | 72 / 22 | 124 | 64 | 0.00 | 111 | 57 | 0.00 | 97 | 50 | 0.04 | 81 | 43 | 0.05 | 63 | 36 | 0.06 |
|            |      | 67 / 19 | 101 | 66 | 0.06 | 88  | 59 | 0.06 | 74 | 52 | 0.06 | 58 | 44 | 0.06 | 41 | 37 | 0.07 |
|            |      | 62 / 17 | 80  | 67 | 0.06 | 67  | 60 | 0.06 | 53 | 53 | 0.07 | 43 | 43 | 0.16 | 35 | 35 | 0.30 |

CFM - Cubic Ft per Minute

EWB - Entering Wet Bulb °F (°C)

LWB - Leaving Wet Bulb °F (°C)

TC - Gross Cooling Cap 1000 Btuh

SHC - Gross Sensible Cap 1000 Btuh

BF - Bypass Factor

MBH - 1000 Btuh

## NOTES:

- Contact manufacturer for cooling capacities at conditions other than shown in table.
- Formulas:  
 Leaving db = entering db -  $\frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$   
 Leaving wb = wb corresponding to enthalpy of air leaving coil (hlwb)  
 $h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$   
 where hewb = enthalpy of air entering coil. Direct interpolation is permissible. Do not extrapolate.
- SHC is based on 80°F (27°C) db temperature of air entering coil. Below 80°F (27°C) db, subtract (Correction Factor x CFM) from SHC. Above 80°F (27°C) db, add (Correction Factor x CFM) to SHC.
- Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

**Table 3 – SHC Correction Factor**

| <b>BYPASS FACTOR</b> | ENTERING AIR DRY-BULB TEMPERATURE (°F) |      |      |      |      |          |
|----------------------|----------------------------------------|------|------|------|------|----------|
|                      | 79                                     | 78   | 77   | 76   | 75   | Under 75 |
|                      | 81                                     | 82   | 83   | 84   | 85   | Over 85  |
|                      | ENTERING AIR DRY-BULB TEMPERATURE (°C) |      |      |      |      |          |
|                      | 26                                     | 25   | 25   | 24   | 24   | Under 75 |
|                      | 27                                     | 28   | 28   | 29   | 29   | Over 85  |
|                      | Correction Factor                      |      |      |      |      |          |
|                      | 0.10                                   | .098 | 1.96 | 2.94 | 3.92 | 4.91     |
|                      | 0.20                                   | 0.87 | 1.74 | 2.62 | 3.49 | 4.36     |
|                      | 0.30                                   | 0.76 | 1.53 | 2.29 | 3.05 | 3.82     |

Interpolation is permissible.

Correction Factor =  $1.09 \times (1 - \text{BF}) \times (\text{db} - 80)$ **Table 4 – PF4MNP Air Delivery Performance Correction Component Pressure Drop (in wc) at Indicated Airflow (Dry to Wet Coil)**

| UNIT SIZE  | CFM   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000  |
| <b>018</b> | 0.034 | 0.049 | 0.063 | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    |
| <b>025</b> | 0.015 | 0.026 | 0.038 | 0.049 | 0.059 | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    |
| <b>030</b> | --    | --    | --    | 0.049 | 0.059 | 0.070 | 0.080 | --    | --    | --    | --    | --    | --    | --    | --    | --    |
| <b>036</b> | --    | --    | --    | --    | --    | 0.070 | 0.080 | 0.090 | 0.099 | --    | --    | --    | --    | --    | --    | --    |
| <b>042</b> | --    | --    | --    | --    | --    | --    | --    | 0.049 | 0.056 | 0.063 | 0.070 | --    | --    | --    | --    | --    |
| <b>048</b> | --    | --    | --    | --    | --    | --    | --    | --    | --    | 0.063 | 0.070 | 0.076 | 0.083 | 0.090 | --    | --    |
| <b>060</b> | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    | --    | 0.049 | 0.054 | 0.059 | 0.065 | 0.070 |

**Table 5 – Electric Heater Static Pressure Drop (in wc)**

| PF4MNP<br>018 - 036 |       |                                     | PF4MNP<br>042 - 060 |            |                                     |
|---------------------|-------|-------------------------------------|---------------------|------------|-------------------------------------|
| HEATER ELEMENTS     | kW    | EXTERNAL STATIC PRESSURE CORRECTION | HEATER ELEMENTS     | kW         | EXTERNAL STATIC PRESSURE CORRECTION |
| <b>0</b>            | 0     | + .02                               | 0                   | 0          | + .04                               |
| <b>1</b>            | 3, 5  | + .01                               | 2                   | 8, 10      | + .02                               |
| <b>2</b>            | 8, 10 | 0                                   | 3                   | 9, 15      | 0                                   |
| <b>3</b>            | 9, 15 | - .02                               | 4                   | 20         | - .02                               |
| <b>4</b>            | 20    | - .04                               | 6                   | 18, 24, 30 | - .10                               |

The airflow performance data was developed using fan coils with 10-kW electric heaters (2 elements) in the 018 through 036 size units and 15-kW heaters (3 elements) in the 042 through 060 size units. For fan coils with heaters of a different number of elements, the external available static at a given CFM from the curve may be corrected by adding or subtracting available external static pressure as indicated above.

## PERFORMANCE DATA (cont.)

**Table 6 – Minimum CFM and Motor Speed Selection**

| PF4MNP | HEATER kW |      |      |      |      |      |      |      |      |      |
|--------|-----------|------|------|------|------|------|------|------|------|------|
|        | 3         | 5    | 8    | 9    | 10   | 15   | 18   | 20   | 24   | 30   |
| 018    | 525       | 525  | 525  | —    | 600  | —    | —    | —    | —    | —    |
| 025    | 700       | 700  | 700  | —    | 700  | 775  | —    | —    | —    | —    |
| 030    | —         | 875  | 875  | —    | 875  | 875  | —    | 1060 | —    | —    |
| 036    | —         | 1050 | 970  | 970  | 970  | 920  | —    | 1040 | —    | —    |
| 042    | —         | —    | 1225 | 1225 | 1225 | 1225 | 1225 | 1225 | —    | —    |
| 048    | —         | —    | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 | 1400 |
| 060    | —         | —    | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |

Speed Tap 4 (white wire) is used for electric heat only. White wire must remain on tap 4.

**Table 7 – Accessory Electric Heaters**

| HEATER PART NO. | kW @ 240V | VOLTS/PH | STAGES (kW OPERATING) | INTERNAL CIRCUIT PROTECTION | FAN COIL SIZE USED WITH | HEATING CAP.** @ 230V |
|-----------------|-----------|----------|-----------------------|-----------------------------|-------------------------|-----------------------|
| KFCEH0401N03    | 3         | 230/1    | 3                     | None                        | 018–025                 | 9,400                 |
| KFCEH0501N05    | 5         | 230/1    | 5                     | None                        | 018–060                 | 15,700                |
| KFCEH0801N08    | 8         | 230/1    | 8                     | None                        | 018–060                 | 25,100                |
| KFCEH0901N10    | 10        | 230/1    | 10                    | None                        | 018–060                 | 31,400                |
| KFCEH3201F20    | 20        | 230/1    | 5, 20                 | Fuse}                       | 030–060                 | 62,800                |
| KFCEH1601315    | 15        | 230/3    | 5, 15                 | None                        | 036–060                 | 47,100                |
| KFCEH2001318    | 18        | 230/3    | 6, 12, 18             | None                        | 042–060                 | 56,500                |
| KFCEH3401F24    | 24        | 230/3*   | 8, 16, 24             | Fuse                        | 048, 060                | 78,300                |
| KFCEH3501F30    | 30        | 230/3*   | 10, 20, 30            | Fuse                        | 048, 060                | 94,100                |
| KFCEH2401C05    | 5         | 230/1    | 5                     | Circuit Breaker             | 018–060                 | 15,700                |
| KFCEH2501C08    | 8         | 230/1    | 8                     | Circuit Breaker             | 018–060                 | 25,100                |
| KFCEH2601C10    | 10        | 230/1    | 10                    | Circuit Breaker             | 018–060                 | 31,400                |
| KFCEH3301C20    | 20        | 230/1    | 5, 20                 | Circuit Breaker             | 030–060                 | 62,800                |
| KFCEH2901N09    | 9         | 230/1{   | 3, 9                  | None                        | 036–060                 | 28,200                |
| KFCEH3001F15    | 15        | 230/1    | 5, 15                 | Fuse}                       | 025–060                 | 47,100                |
| KFCEH3101C15    | 15        | 230/1    | 5, 15                 | Circuit Breaker             | 025–060                 | 47,100                |

\* Field convertible to 1 phase.

{ Field convertible to 3 phase.

} Single point wiring kit required for these heaters in Canada.

\*\* Blower Motor heat not included.

**Table 8 – Estimated Sound Power Level (dBA)**

| PF4MNP | CONDITIONS |                     | OCTAVE BAND CENTER FREQUENCY* |      |      |      |      |      |      |
|--------|------------|---------------------|-------------------------------|------|------|------|------|------|------|
|        | CFM        | Ext Static Pressure | 63                            | 125  | 250  | 500  | 1000 | 2000 | 4000 |
| 018    | 600        | 0.25                | 64.7                          | 60.7 | 56.7 | 53.7 | 51.7 | 49.7 | 45.7 |
| 025    | 800        | 0.25                | 66.0                          | 62.0 | 58.0 | 55.0 | 53.0 | 51.0 | 47.0 |
| 030    | 1000       | 0.25                | 67.0                          | 63.0 | 59.0 | 56.0 | 54.0 | 52.0 | 48.0 |
| 036    | 1200       | 0.25                | 67.8                          | 63.8 | 59.8 | 56.8 | 54.8 | 52.8 | 48.8 |
| 042    | 1400       | 0.25                | 68.4                          | 64.4 | 60.4 | 57.4 | 55.4 | 53.4 | 49.4 |
| 048    | 1600       | 0.25                | 69.0                          | 65.0 | 61.0 | 58.0 | 56.0 | 54.0 | 50.0 |
| 060    | 2000       | 0.25                | 70.0                          | 66.0 | 62.0 | 59.0 | 57.0 | 55.0 | 51.0 |

\* Estimated sound power levels have been derived using the method described in the 1987 ASHRAE HVAC Systems & Applications Handbook, Chapter 52, p. 52.7.

## PERFORMANCE DATA (cont.)

**Table 9 – Electrical Data for Units with Factory-Installed Heat**

| PF4MNP        | MTR<br>HP | MTR<br>FLA | VOLTS /<br>PH/ HZ | HEAT PACK<br>INSTALLED | SINGLE CIRCUIT |           |       | DUAL CIRCUIT |           |       |             |           |       |
|---------------|-----------|------------|-------------------|------------------------|----------------|-----------|-------|--------------|-----------|-------|-------------|-----------|-------|
|               |           |            |                   |                        | HEATER<br>AMPS | MCA       | MOCP  | HTR<br>AMPS  | MCA       | MOCP  | HTR<br>AMPS | MCA       | MOCP  |
|               |           |            |                   |                        |                |           |       | L1/L2        | L1/L2     | L1/L2 | L3/L4       | L3/L4     | L3/L4 |
| <b>018L05</b> | 1/3       | 2.8        | 208/230/1/60      | MKFCEH0501N05          | 18.1/20.0      | 26.1/28.5 | 30/30 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>018L08</b> | 1/3       | 2.8        | 208/230/1/60      | MKFCEH0801N08          | 28.9/32.0      | 39.6/43.5 | 40/45 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>025L05</b> | 1/3       | 2.8        | 208/230/1/60      | MKFCEH0501N05          | 18.1/20.0      | 27.8/30.0 | 30/30 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>025L10</b> | 1/3       | 2.8        | 208/230/1/60      | MKFCEH0901N10          | 36.2/40.0      | 48.8/53.5 | 50/60 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>030L08</b> | 1/3       | 2.8        | 208/230/1/60      | MKFCEH0801N08          | 28.9/32.0      | 39.6/43.5 | 40/45 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>030L10</b> | 1/3       | 2.8        | 208/230/1/60      | MKFCEH0901N10          | 36.2/40.0      | 48.8/53.5 | 50/60 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>036L10</b> | 1/2       | 4.1        | 208/230/1/60      | MKFCEH0901N10          | 36.2/40.0      | 50.4/55.1 | 60/60 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>036L15</b> | 1/2       | 4.1        | 208/230/1/60      | MKFCEH1501F15          | 54.2/59.9      | 72.9/80.0 | 80/80 | 36.2/40.0    | 50.4/55.2 | 50/60 | 18.1/20.0   | 22.6/25.0 | 25/25 |
| <b>042L10</b> | 1/2       | 4.1        | 208/230/1/60      | MKFCEH0901N10          | 36.2/40.0      | 50.4/55.1 | 60/60 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>042L15</b> | 1/2       | 4.1        | 208/230/1/60      | MKFCEH1501F15          | 54.2/59.9      | 72.9/80.0 | 80/80 | 36.2/40.0    | 50.4/55.2 | 50/60 | 18.1/20.0   | 22.6/25.0 | 25/25 |
| <b>048L10</b> | 3/4       | 6.0        | 208/230/1/60      | MKFCEH0901N10          | 36.2/40.0      | 52.8/57.5 | 60/60 | N/A          | N/A       | N/A   | N/A         | N/A       | N/A   |
| <b>048L15</b> | 3/4       | 6.0        | 208/230/1/60      | MKFCEH1501F15          | 54.2/59.9      | 75.3/82.4 | 80/90 | 36.2/40.0    | 52.8/57.5 | 60/60 | 18.1/20.0   | 22.6/25.0 | 25/25 |

**Table 10 – Electrical Data for Units without Electrical Heat**

| Model No.           | Mtr<br>HP | Mtr<br>FLA | VOLTS/Ph/Hz  | Single Circuit |                                      | BRANCH CIRCUIT<br>MIN WIRE SIZE*<br>AWG |
|---------------------|-----------|------------|--------------|----------------|--------------------------------------|-----------------------------------------|
|                     |           |            |              | mca            | Maximum<br>Overcurrent<br>Protection |                                         |
| <b>PF4MNP018L00</b> | 1/3       | 2.8        | 208/230/1/60 | 3.5            | 15                                   | 14                                      |
| <b>PF4MNP025L00</b> | 1/3       | 2.8        | 208/230/1/60 | 3.5            | 15                                   | 14                                      |
| <b>PF4MNP030L00</b> | 1/3       | 2.8        | 208/230/1/60 | 3.5            | 15                                   | 14                                      |
| <b>PF4MNP036L00</b> | 1/2       | 4.1        | 208/230/1/60 | 5.1            | 15                                   | 14                                      |
| <b>PF4MNP042L00</b> | 1/2       | 4.1        | 208/230/1/60 | 5.1            | 15                                   | 14                                      |
| <b>PF4MNP048L00</b> | 3/4       | 6.0        | 208/230/1/60 | 7.5            | 15                                   | 14                                      |
| <b>PF4MNP060L00</b> | 3/4       | 6.0        | 208/230/1/60 | 7.5            | 15                                   | 14                                      |

\* Use copper wire only. Use 75°C only in this application. When using non-metallic (NM) sheathed cable, wire size required should be based on that of 60°C conductors, instead of wire sizes shown in table above per NEC Article 336-26.

**NOTE:** If branch circuit wire length exceeds 100 ft (30 m), consult NEC 215-2 to determine maximum wire length. Use 2% voltage drop.

**FLA** - Full Load Amps

Table 11 – Accessory Electric Heater Electrical Data

| HEATER<br>PART NO. | kW    |       | P<br>H<br>A<br>S<br>E | INTERNAL<br>CIRCUIT<br>PROTECTION | HEATER AMPS<br>208/230V |                   |              | BRANCH CIRCUIT            |           |                                  |              |                               |         |                                   |              |                                   |        |
|--------------------|-------|-------|-----------------------|-----------------------------------|-------------------------|-------------------|--------------|---------------------------|-----------|----------------------------------|--------------|-------------------------------|---------|-----------------------------------|--------------|-----------------------------------|--------|
|                    |       |       |                       |                                   | Single<br>Circuit       | Dual Circuit      |              | Min Ampacity<br>208/230V* |           | Min Wire Size (AWG)<br>208/230V† |              | Min Gnd Wire Size<br>208/230V |         | Max Fuse/Ckt Bkr Amps<br>208/230V |              | Max Wire Length<br>208/230V (Ft)‡ |        |
|                    | L1,L2 | L3,L4 |                       |                                   |                         | Single<br>Circuit | Dual Circuit | L1, L2                    | L3, L4    | Single<br>Circuit                | Dual Circuit | L1, L2                        | L3, L4  | Single<br>Circuit                 | Dual Circuit | L1, L2                            | L3, L4 |
| KFCEH0401N03       | 3     | 2.3   | 1                     | None                              | 10.9/12.0               | —                 | —            | 15.9/17.3                 | —         | 12/12                            | —            | —                             | 20/20   | —                                 | 67/68        | —                                 | —      |
| KFCEH0501N05¹      | 5     | 3.8   | 1                     | None                              | 18.1/20.0               | —                 | —            | 26.0/28.4                 | —         | 10/10                            | —            | —                             | 30/30   | —                                 | 66/66        | —                                 | —      |
| KFCEH0501N05²      | 5     | 3.8   | 1                     | None                              | 18.1/20.0               | —                 | —            | 31.2/33.5                 | —         | 8/8                              | —            | —                             | 35/35   | —                                 | 85/88        | —                                 | —      |
| KFCEH2401C05¹      | 5     | 3.8   | 1                     | Ckt Bkr                           | 18.1/20.0               | —                 | —            | 26.0/28.4                 | —         | 10/10                            | —            | —                             | 30/30   | —                                 | 66/66        | —                                 | —      |
| KFCEH2401C05²      | 5     | 3.8   | 1                     | Ckt Bkr                           | 18.1/20.0               | —                 | —            | 31.2/33.5                 | —         | 8/8                              | —            | —                             | 35/35   | —                                 | 85/88        | —                                 | —      |
| KFCEH0801N08       | 8     | 6.0   | 1                     | None                              | 28.9/32.0               | —                 | —            | 44.7/48.5                 | —         | 8/8                              | —            | —                             | 45/50   | —                                 | 59/60        | —                                 | —      |
| KFCEH2501C08       | 8     | 6.0   | 1                     | Ckt Bkr                           | 28.9/32.0               | —                 | —            | 44.7/48.5                 | —         | 8/8                              | —            | —                             | 45/50   | —                                 | 59/60        | —                                 | —      |
| KFCEH2901N09       | 9     | 6.8   | 1                     | None                              | 32.8/36.0               | —                 | —            | 49.5/53.5                 | —         | 8/6                              | —            | —                             | 50/60   | —                                 | 54/87        | —                                 | —      |
| KFCEH2901N09**     | 9     | 6.8   | 3                     | None                              | 18.8/20.8               | —                 | —            | 32.0/34.5                 | —         | 8/8                              | —            | —                             | 35/35   | —                                 | 83/85        | —                                 | —      |
| KFCEH0901N10       | 10    | 7.5   | 1                     | None                              | 36.2/40.0               | —                 | —            | 53.8/58.5                 | —         | 6/6                              | —            | —                             | 60/60   | —                                 | 78/80        | —                                 | —      |
| KFCEH2601C10       | 10    | 7.5   | 1                     | Ckt Bkr                           | 36.2/40.0               | —                 | —            | 53.8/58.5                 | —         | 6/6                              | —            | —                             | 60/60   | —                                 | 78/80        | —                                 | —      |
| KFCEH3001F15       | 15    | 11.3  | 1                     | Fuse                              | 54.2/59.9               | 36.2/40.0         | 18.1/20.0    | 76.3/83.4                 | 53.8/58.5 | 22.7/25.0                        | 4/4          | 6/6                           | 80/90   | 60/60                             | 88/89        | 78/80                             | 75/76  |
| KFCEH3101C15       | 15    | 11.3  | 1                     | Ckt Bkr                           | —                       | 36.2/40.0         | 18.1/20.0    | —                         | 53.8/58.5 | 22.7/25.0                        | —            | 6/6                           | 10/10   | 60/60                             | 25/25        | 78/80                             | 75/76  |
| KFCEH1601315       | 15    | 11.3  | 3                     | None                              | 31.3/34.6               | —                 | —            | 47.7/51.8                 | —         | 8/6                              | —            | —                             | 50/60   | —                                 | 56/90        | —                                 | —      |
| KFCEH2001318       | 18    | 13.5  | 3                     | None                              | 37.6/41.5               | —                 | —            | 55.5/60.4                 | —         | 6/6                              | —            | —                             | 60/70   | —                                 | 76/77        | —                                 | —      |
| KFCEH3201F20       | 20    | 15.0  | 1                     | Fuse                              | 72.3/79.9               | 36.2/40.0         | 36.2/40.0    | 98.9/108.4                | 53.8/58.5 | 45.3/50.0                        | 3/2          | 6/6                           | 100/110 | 60/60                             | 85/109       | 78/80                             | 59/59  |
| KFCEH3301C20       | 20    | 15.0  | 1                     | Ckt Bkr                           | —                       | 36.2/40.0         | 36.2/40.0    | —                         | 53.8/58.5 | 45.3/50.0                        | —            | 6/6                           | 10/10   | 60/60                             | 50/50        | 78/80                             | 59/59  |
| KFCEH3401F24††     | 24    | 18.0  | 3                     | Fuse                              | 50.1/55.4               | —                 | —            | 71.2/77.8                 | —         | 4/4                              | —            | —                             | 80/80   | —                                 | 94/95        | —                                 | —      |
|                    | 24    | 18.0  | 1                     | Fuse                              | 86.7/95.5               | —                 | —            | 116.9/127.9               | —         | 1/1                              | —            | —                             | 125/150 | —                                 | 115/116      | —                                 | —      |
| KFCEH3501F30††     | 30    | 22.5  | 3                     | Fuse                              | 62.6/69.2               | —                 | —            | 86.8/95.0                 | —         | 3/3                              | —            | —                             | 90/100  | —                                 | 97/98        | —                                 | —      |
|                    | 30    | 22.5  | 1                     | Fuse                              | 109.0/120.0             | —                 | —            | 144.8/158.5               | —         | 0/00                             | —            | —                             | 150/175 | —                                 | 117/150      | —                                 | —      |

Table 12 – Field Multipoint Wiring of 24- and 30-kW Single Phase

| HEATER PART NO. | kW   |      | P<br>H<br>A<br>S<br>E | HEATER AMPS<br>208/230V |           |           | MIN AMPACITY<br>208/230V* |           |           | MIN WIRE SIZE (AWG)<br>208/230V† |       |       | MIN GND<br>WIRE SIZE<br>208/230V | MAX FUSE/CKT BKR AMPS<br>208/230V |       |       | MAX WIRE LENGTH<br>208/230V (Ft)‡ |       |
|-----------------|------|------|-----------------------|-------------------------|-----------|-----------|---------------------------|-----------|-----------|----------------------------------|-------|-------|----------------------------------|-----------------------------------|-------|-------|-----------------------------------|-------|
|                 | 240V | 208V |                       | L1,L2                   | L3,L4     | L5,L6     | L1,L2                     | L3,L4     | L5,L6     | L1,L2                            | L3,L4 | L5,L6 |                                  |                                   |       |       |                                   |       |
|                 |      |      |                       |                         |           |           |                           |           |           |                                  |       |       |                                  |                                   |       |       |                                   |       |
| KFCEH3401F24††  | 24   | 18.0 | 1                     | 28.9/32.0               | 28.9/32.0 | 28.9/32.0 | 44.7/48.5                 | 36.2/40.0 | 36.2/40.0 | 8/8                              | 8/8   | 8/8   | 10/10                            | 45/50                             | 40/40 | 59/60 | 73/73                             | 73/73 |
| KFCEH3501F30††  | 30   | 22.5 | 1                     | 36.2/40.0               | 36.2/40.0 | 36.2/40.0 | 53.8/58.5                 | 45.3/50.0 | 45.3/50.0 | 6/6                              | 8/8   | 8/8   | 10/10                            | 60/60                             | 50/50 | 78/80 | 59/59                             | 59/59 |

\* Includes blower motor amps of largest fan coil used with heater.  
† Copper wire must be used. If other than uncoated (non-plated), 75°C ambient, copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the National Electric Code (ANSI/NFPA 70).

‡ Length shown is as measured 1 way along wire path between unit and service panel for a voltage drop not to exceed 2%.

\*\*\* Field convertible to 3 phase.

††Field convertible to 1 phase, single or multiple supply circuit.

NOTES:

- 1. For fan coil sizes 018-036.
- 2. For fan coil sizes 042-060.
- 3. Single circuit application of F15 and F20 heaters requires single-point wiring kit accessory.

## Heater Electrical Data

**Table 13 – Electric Heater Internal Protection**

| HEATER kW | PHASE | FUSE QTY/SIZE | CKT BKR* QTY/SIZE |
|-----------|-------|---------------|-------------------|
| 5         | 1     | —             | 1/60              |
| 8         | 1     | —             | 1/60              |
| 9         | 1/3   | —             | —                 |
| 10        | 1     | —             | 1/60              |
| 15        | 1     | 2/30–2/60     | 2/60              |
| 15        | 3     | —             | —                 |
| 18        | 3     | —             | —                 |
| 20        | 1     | 4/60          | 2/60              |
| 24        | 1/3   | 6/60          | —                 |
| 30        | 1/3   | 6/60          | —                 |

\*All circuit breakers are 2 pole.

When using units with 20-, 24-, and 30-kW electric heaters, maintain a 1-in. (25mm) clearance from combustible materials to discharge plenum and ductwork and maintain a distance of 36-in (914mm) from the unit. Use an accessory downflow base to maintain proper clearance on downflow installations. Use flexible connectors between ductwork and unit to prevent transmission of vibration. When electric heater is installed, use heat resistant material for flexible connector between ductwork and unit at discharge connection. Ductwork passing through unconditioned space must be insulated and covered with vapor barrier.

## Accessories

| ITEM                                               | ACCESSORY PART NO.*         | FAN COIL SIZE USED WITH               |
|----------------------------------------------------|-----------------------------|---------------------------------------|
| 1. Disconnect Kit                                  | KFADK0201DSC                | All single phase 3kW - 10kW heaters   |
| 2. Downflow Base Kit                               | KFACB0101CFB                | 018                                   |
|                                                    | KFACB0201CFB                | 025, 030, 036                         |
|                                                    | KFACB0301CFB                | 042, 048, 060                         |
| 3. Downflow Conversion Kit †                       | KFADC0201SLP                | Slope Coil Units—018, 025, 030, 036   |
|                                                    | KFADC0401ACL                | A-Coil Units—042, 048, 060            |
| 4. Downflow/Horizontal Conversion Gasket Kit       | KFAHD0101SLP                | All                                   |
| 5. Horizontal Water Management Kit (25 pack) ‡     | KFAHC0125AAA                | A-Coil Units—042, 048, 060            |
| 6. Single-Point Wiring Kit                         | KFASP0101SPK                | Only with 15- and 20-kW Fused Heaters |
| 7. Filter Kit (12 Pack)                            | KFAFK0112SML                | 018                                   |
|                                                    | KFAFK0212MED                | 025, 030, 036                         |
|                                                    | KFAFK0312LRG                | 042, 048, 060                         |
| 8. Fan Coil Filter Cabinet (Fan Coil Filter Media) | FNCCABCC0014 (FILXXFNC0014) | 018                                   |
|                                                    | FNCCABCC0017 (FILXXFNC0017) | 025, 030, 036                         |
|                                                    | FNCCABCC0021 (FILXXFNC0021) | 042, 048, 060                         |
| 9. PVC Condensate Trap Kit (50 pack)               | KFAET0150ETK                | All                                   |
| 10. Air Cleaner 240-volt Conversion Kit            | KEAVC0201240                | All                                   |
| 11. Standard Filter Rack Kit                       | KFAFR0101FRM                | 018                                   |
|                                                    | KFAFR0201FRM                | 025, 030, 036                         |
|                                                    | KFAFR0301FRM                | 042, 048, 060                         |
| 12. TXV Kit R-22, Aluminum Coils Only              | KSBTX0601HSO                | 018, 025, 030, 036, 042               |
|                                                    | KSBTX0701HSO                | 048                                   |
|                                                    | KSBTX1001HSO                | 060                                   |
| 13. Door Gasket Kit **                             | 344994-751                  | All                                   |

\* Factory authorized and listed, field-installed.

\*\* This kit is for replacement of factory installed gaskets if they are damaged or removed from the fan coil.

† KFAHD0101SLP must also be purchased for downflow applications.

‡ KFAHD0101SLP must also be purchased for downflow or horizontal applications.

## Accessory Kits Description Suggested and Required Use

### Disconnect Kit

The kit is used to disconnect electrical power to the fan coil so service or maintenance may be performed safely.

**SUGGESTED USE:** Units for 3- through 10-kW electric resistance heaters and cooling controls.

### Downflow Base Kit

This kit is designed to provide a 1-in. (25mm) minimum clearance between unit discharge plenum, ductwork, and combustible materials. It also provides a gap-free seal with the floor.

**REQUIRED USE:** This kit must be used whenever fan coils are used in downflow applications.

### Downflow Conversion Kit

Fan coils are shipped from the factory for upflow or horizontal-left applications. Downflow conversion kits provide proper condensate water drainage and support for the coil when used in downflow applications. Separate kits are available for slope coils and A-coils.

**REQUIRED USE:** This kit must be used whenever fan coils are used in downflow applications.

### Downflow/Horizontal Conversion Gasket Kit

This kit provides the proper gasketing of units when applied in either a downflow or horizontal application.

**REQUIRED USE:** Fan coils in either downflow or horizontal applications.

### Horizontal Applications - Water Management Kit

This kit provides proper installation of fan coils under conditions of high static pressure and high relative humidity.

**SUGGESTED USE:** All fan coils.

### Single Point Wiring Kit

The single point wiring kit acts as a jumper between L1 and L3 lugs, and between the L2 and L4 lugs. This allows the installer to run two heavy-gauge, high-voltage wires into the fan coil rather than 4 light-gauge, high-voltage wires.

**SUGGESTED USE:** Fan coils with 15- and 20-kW fused heaters only.

### Filter Kit (12 pack)

The kit consists of 12 fan coil framed filters. These filters collect large dust particles from the return air entering the fan coil and prevents them from collecting on the coil. This process helps to keep the coil clean, which increases heat transfer and, in turn, the efficiency of the system.

**SUGGESTED USE:** To replace filters in fan coils.

**REQUIRED USE:** All units unless a filter grille is used.

### Fan Coil Filter Cabinet

This cabinet is mounted to the fan coil on the return air end and designed to slip over the outer fan coil casing. The cabinets are insulated using the same insulation as production fan coils. They are designed for the removal of particulates from indoor air using FILXXFNC00(14, 17, 21, 24) media filter cartridges. These fan coil media filter cartridge kits are designed for the removal of particles from indoor air. The cartridge is installed in the return air duct next to the air handler or further upstream.

**SUGGESTED USE:** All fan coils.

### Condensate Drain Trap Kit

This kit consists of 50 PVC condensate traps. Each trap is pre-formed and ready for field installation. This deep trap helps the system make and hold proper condensate flow even during blower initiation.

**SUGGESTED USE:** All fan coils.

### Air Cleaner 240-volt Conversion Kit

The AIRA electronic air cleaner comes ready for 115-v operation.

**REQUIRED USE:** This kit is required when running 240-volt circuit to air cleaner.

### Standard Filter Rack Kit

This kit mounts in fan coil filter rack area and modifies the existing filter rack to support standard 1-in. filter sizes.

**SUGGESTED USE:** Fan coils using standard filter sizes.

### TXV Kit

These kits are designed to convert R-410A fancoils to R-22 TXVs.

### Door Gasket Kit

This kit consists of specific adhesive-backed foam strips which are applied to the unit door and frame, limiting air leakage.