

Residential & Light Commercial Heat Pump System

TOSHIBA
Carrier

Indoor Model: RAV-SM422BTP-UL

Outdoor Model: RAV-SP422AT2P-UL

Submittal Data

Job Name _____ Location _____

Tag _____



A221038

OUTDOOR UNIT STANDARD FEATURES

- Digital inverter compressor technology
- System can operate in cooling only mode with heating locked out
- Line lengths up to 246 ft
- Low-ambient cooling down to 5°F
- System diagnostics

OUTDOOR UNIT MODEL		RAV-SP422AT2P-UL
SYSTEM PERFORMANCE		
Nominal Cooling Capacity†	Btu/h	42,000
SEER2		16.90
EER2		9.50
Nominal Heating Capacity†	Btu/h	47,000
HSPF2		9.00
COP2		3.20
REFRIGERANT LINES		
Total Piping Length	ft	246
Vertical Lift	ft	98
Suction Line Size	in	5/8
Liquid Line Size	in	3/8
AMBIENT OPERATING RANGE		
Cooling DB Min ~ Max*	F	-13~115
Heating DB Min ~ Max	F	-13~59
REFRIGERANT		R410A
FACTORY CHARGE	lbs	7.30

AIRFLOW		
Cooling	CFM	3570
Heating	CFM	3290
SOUND PRESSURE LEVEL		
Cooling	db(A)	54
Heating	db(A)	54
ELECTRICAL		
Power Supply	V/Ph/Hz	208-230/1/60
Minimum Circuit Amps (MCA)	A	32
Recommended Fuse Size	A	40
Maximum Over Current Protection (MOCP)	A	40
PHYSICAL DATA		
Unit Width	in	35-3/8
Unit Height	in	52-3/4
Unit Length	in	12-5/8
Unit Weight - Net / Gross	lbs	234 / 247

Legend

db — Dry Bulb
SEER — Seasonal Energy Efficiency Ratio
HSPF — Heating Seasonal Performance Factor
wb — Wet Bulb

†Rated per AHRI (Air-Conditioning, Heating and Refrigeration Institute) 210/240 Standard.

Cooling: Indoor 80°F (27°C) db/67°F (20°C) wb; Outdoor 95°F (35°C) db

Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db/43°F (6°C) wb

* Requires wind baffle to operate in cooling mode down to -13°F



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RAV-SM422BTP-UL STANDARD DUCT FEATURES

- R-410A refrigerant
- Six sizes from 12,000 to 48,000 Btu/h
- Optional fresh air intake
- Quiet operation (as low as 32 dBA)
- Standard condensate pump with 24.3 in. lift capacity
- Auto or manually set three fan speeds
- Rear return configurable for bottom return

INDOOR UNIT MODEL		RAV-SM422BTP-UL
PERFORMANCE		
Cooling Rated Capacity	Btu/h	42,000
Heating Rated Capacity	Btu/h	47,000
Fan Type (Qty)		Turbo (1)
External Static Pressure (ESP)	in.WG	0.2 (factory default) 0.6 (Max)
Airflow (H/M/L)	CFM	1130/955/810
Sound Pressure (H/M/L)	dBA	38/35/32
ELECTRICAL		
Power Supply	V/Ph/Hz	From ODU
FILTER		
Type		Washable
Quantity		1
MERV Corresponding Value		5
Dimensions (H x W x D)	in.	10-5/8 x 27-5/8 x 5/8

PHYSICAL DATA		
Pipe Connection Size - Liquid (High Pressure)	in	3/8 (Flare)
Pipe Connection Size - Gas (Low Pressure)	in	5/8 (Flare)
Condensate Drain Connection	in	1-1/4
External Finish		Zinc Hot Dipping Steel Plate
Unit Width	in	55-1/4
Unit Height	in	10-7/8
Unit Depth	in	29-5/8
Unit Net Weight	lb	93
MOTOR		
Motor Type		DC
Motor Watts	W	250

ACCESSORIES

- ☐ Wired Remote Controller (7-Day Programmable) RBC-AMS54E-UL
- ☐ Simple Wired Remote Controller RBC-AS41UL
- ☐ Stand-Alone Receiver with Wireless Remote Controller TCB-AX32UL
- ☐ Remote Sensor TCB-TC41LUL
- ☐ Wired Remote Controller RBC-AMT32UL
- ☐ Auxiliary OA Flange TCB-FF151US-UL
- ☐ Zoning Duct Flange TCB-SF56C6BP-UL

DETAIL A

Mounting bolt hole
($\varnothing 0.5(12) \times 0.7(17)$ long hole)

DETAIL B

Mounting bolt hole
($\varnothing 0.5(12) \times 0.7(17)$ U-shape hole)

Z VIEW

Knockout for bottom piping

Refrigerant piping knockout

Conduit connection hole

Refrigerant piping knockout

Refrigerant pipe connecting part ($\varnothing 0.4(9.5)$ flare at liquid side)

Refrigerant pipe connecting part ($\varnothing 0.6(15.9)$ flare at liquid side)

Drain hole ($\varnothing 1.0(25)$ burring hole)

Air intake

5-Drain hole ($\varnothing 0.8(20) \sim 1.5(38)$ burring hole)

unit : in (mm)

Mounting hole sold separately
24- $\varnothing 0.1(3)$ emboss



[illegible]

DIMENSIONAL DRAWING INDOOR UNIT STANDARD DUCT RAV-SP422BTP-UL (CONT.)

