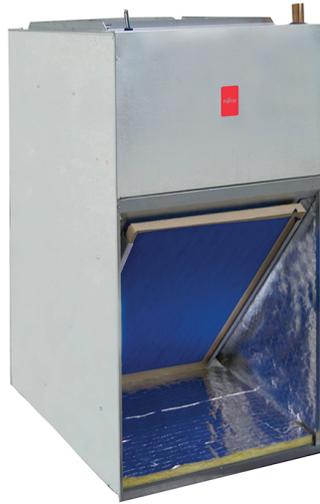


FUJITSU AIR HANDLER

RF1P- Series

PSC Motor

Efficiencies up to 14.5 SEER



- Front or Bottom Return with aluminum tube and fin coil
- Flow Check Piston for cooling or heat pump operation
- Wall-hanging brackets
- Built in Filter Rack
- AHRI Certified
- UL Certified
- Molex Plug Connections for field installed heater kits
- Dual Voltage Direct Drive Blower with multi-speed motor

- Thermoplastic Drain Pan with bottom primary and secondary connections
- Optional Decorative Grill for front return applications
- Optional Factory Installed Condensate Float Switch which shuts off the outdoor unit in event the condensate pan becomes clogged
- Cabinet air leakage less than 2% at 1 inch H₂O when tested in accordance with ASHRAE standard 193

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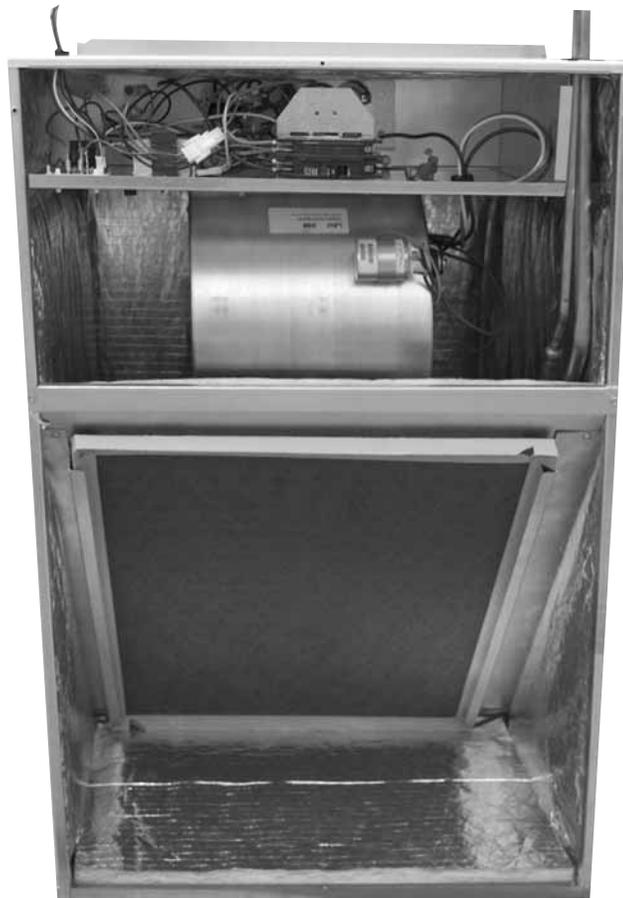
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Engineering Features

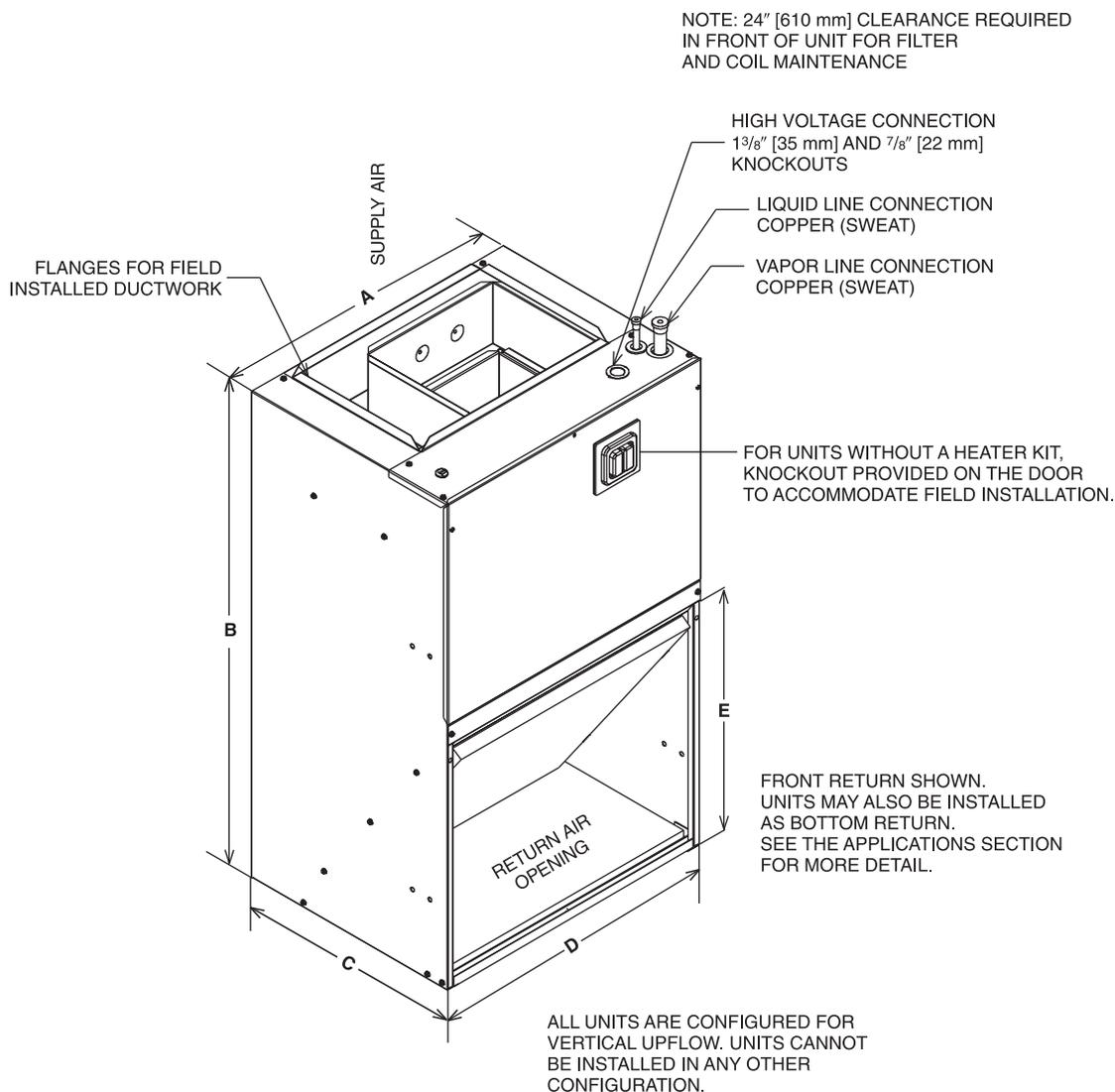
RF1P- Series

- The most compact unit design available, all standard heat air handler models only 36" [915 mm].
- Rugged wall steel cabinet construction, designed for added strength and versatility.
- 1.0" foil faced insulation for excellent thermal and sound performance.
- Four leg blower motor mount.
- Traditional open wire element design for heat applications.
- Indoor coil design provides low air side pressure drop, high performance and extremely compact size.
- Coils are constructed of aluminum fins and internally grooved aluminum tubing.
- Molded polymer corrosion resistant condensate drain pan is provided for all indoor coils.
- Connection point for high voltage wiring is inside the air handler cabinet. Low voltage connection is made on the outside of the air handler cabinet.
- Concentric knockouts are provided for power connection to cabinet. Installer may pull desired hole size up to 1³/₈ inch inches [35 mm] for 7/8 inch [22 mm] conduit.

[] Designates Metric Conversions



Unit Dimensions

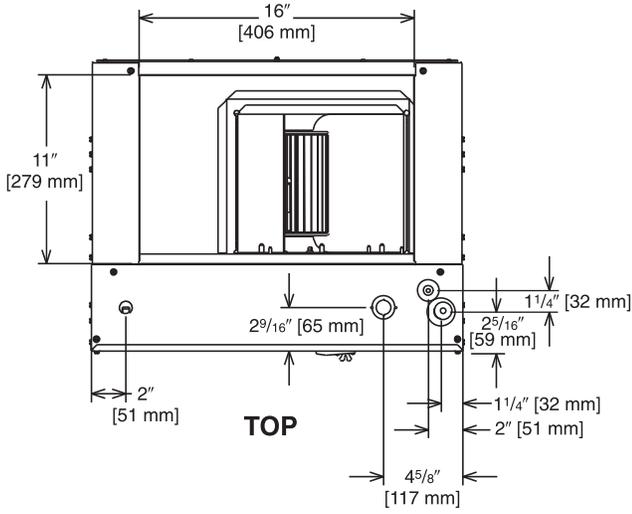


Unit Dimensions & Weights

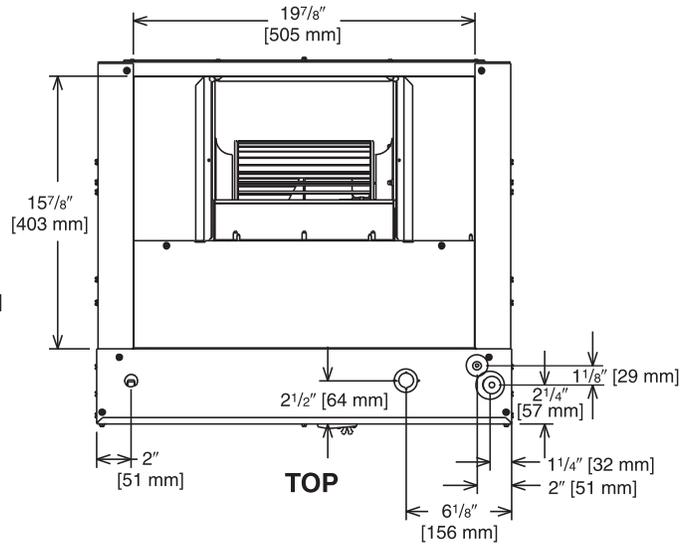
Dimensional Data									
Model	(A) Unit Width In. [mm]	(B) Unit Height In. [mm]	(C) Unit Depth In. [mm]	(D) Return Air Opening Width In. [mm]	(E) Return Air Opening Height In. [mm]	Filter Size in. x in. x in. [mm x mm x mm]	Air Flow CFM (Nom.) [L/s]		Unit Weight/ Shipping Weight (Lbs.) [kg]
							Low	High	
RF1P18	21 ¹ / ₂ [546.1]	36 [914.4]	17 [431.8]	20 [508]	17 ⁷ / ₁₆ [442.9]	20 X 20 X 1 [508 X 508 X 25.4]	600 [283]	—	80 [36] / 90 [41]
RF1P24	21 ¹ / ₂ [546.1]	36 [914.4]	17 [431.8]	20 [508]	17 ⁷ / ₁₆ [442.9]	20 X 20 X 1 [508 X 508 X 25.4]	800 [378]	—	80 [36] / 90 [41]
RF1P30	24 [609.6]	36 [914.4]	21 [533.4]	23 [584.2]	21 ³ / ₈ [542.9]	20 X 25 X 1 [508 X 635 X 25.4]	1000 [472]	—	95 [43] x 105 [48]
RF1P36	24 [609.6]	36 [914.4]	21 [533.4]	23 [584.2]	21 ³ / ₈ [542.9]	20 X 25 X 1 [508 X 635 X 25.4]	1200 [566]	—	95 [43] x 105 [48]

[] Designates Metric Conversions

Unit Dimensions (con't.)



1 1/2 & 2 TON [5.28 & 7.03 kW] MODELS



2 1/2 & 3 TON [8.79 & 10.6 kW] MODELS

[] Designates Metric Conversions

Airflow Performance

Airflow performance data is based on cooling performance with a coil and filter in place. Select performance table for appropriate unit size, voltage and number of electric heaters to be used. Make sure external static applied to unit allows operation within the minimum and maximum limits shown in table

below for both cooling and electric heat operation. For optimum blower performance, operate the unit in the .3 [8 mm] to .7 inches [18 mm] W.C. external static range. Units with coils should be applied with a minimum of .1 inch [3 mm] W.C. external static range.

Airflow Operating Limits

Cooling BTUH x 1,000 Cooling Tons Nominal	-18 1.5	-24 2	-30 2.5	-36 3
Heat Pump or Air Conditioning Maximum Heat/Cool CFM [L/s] (37.5 CFM [18 L/s]/1,000 BTUH) (450 CFM [212 L/s]/Ton Nominal)	675 [319]	900 [425]	1125 [531]	1350 [637]
Heat Pump or Air Conditioning Nominal Heat/Cool CFM [L/s] (33.3 CFM [16 L/s]/1,000 BTUH) (400 CFM [189 L/s]/Ton Nominal)	600 [283]	800 [378]	1000 [472]	1200 [566]
Heat Pump or Air Conditioning Minimum Heat/Cool CFM [L/s] (30.0 CFM [14 L/s]/1,255 BTUH) (360 CFM [170 L/s]/Ton Nominal)	540 [255]	720 [340]	900 [425]	1080 [510]
Maximum kW Electric Heating & Minimum Electric Heat CFM [L/s]	8 450 [212]	10 690 [326]	10 808 [381]	10 976 [461]
Maximum Electric Heat Rise °F [°C]	54 [12]	44 [7]	44 [7]	44 [7]

[] Designates Metric Conversions

208V/240V Airflow Performance Data—RF1P (PSC Motor)

Nominal Cooling Capacity Tons [kW]	Manufacturer Recommended Air-Flow Range (Min/Max) CFM	Blower Size/ Motor HP [W] & # of Speeds	Motor Speed from Factory	Motor Speed	PSC							
					CFM Dry Delivery/filter/heaters/RPM/Watts							
					External Static Pressure-Inches W.C. [kPa]							
					0.1 [.02]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	
1.5	873/438	10X6 1/5 Hp 2 speed dual voltage	High	High	CFM	873	828	785	751	707	—	—
					RPM	897	923	948	955	981	—	—
					Watts	288	286	283	280	274	—	—
				Low	CFM	572	543	508	477	438	—	—
					RPM	706	753	791	830	869	—	—
					Watts	184	181	187	178	172	—	—
2	1137/764	10X6 1/5 Hp 2 speed dual voltage	High	High	CFM	1137	1097	1034	985	933	868	810
					RPM	1101	1104	1114	1118	1124	1130	1136
					Watts	438	444	446	421	391	377	360
				Low	CFM	867	855	827	798	764	—	—
					RPM	864	902	948	978	1002	—	—
					Watts	324	317	290	285	283	—	—
2.5	1148/802	10X8T 1/4 Hp 2 speed dual voltage	High	High	CFM	1148	1104	1040	980	926	855	750
					RPM	862	889	918	943	962	984	1012
					Watts	411	420	379	367	369	350	317
				Low	CFM	1000	958	910	853	802	—	—
					RPM	788	823	855	889	914	—	—
					Watts	343	344	346	322	317	—	—
3	1363/1048	10X8T 1/3 Hp 2 speed dual voltage	High	High	CFM	1363	1303	1240	1169	1096	1030	—
					RPM	1029	1047	1060	1082	1095	1104	—
					Watts	515	514	468	428	428	394	—
				Low	CFM	1196	1158	1105	1048	—	—	—
					RPM	958	984	1012	1037	—	—	—
					Watts	423	402	402	360	—	—	—

- Notes:
- All 208/240V PSC motors have voltage taps for 208 and 240 volts.
 - All 208/240V PSC motors are shipped on high speed and 240 volts.
 - If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below:
 - Unplug the black motor wire off the relay on the control board and plug in the red motor wire.
 - Replace the cap on the black motor wire.
 - Voltage change (208/240V motors):
 - Move the orange lead to transformer 208V tap from 240V tap. Replace the wire cap on 240V tap.
 - Unplug the purple motor wire off the transformer and plug in the yellow motor wire.
 - Replace the cap on the purple motor wire.
 - The above airflow table lists the airflow information for air handlers with maximum heater allowed for each model.

[] Designates Metric Conversions

Piston Sizing Chart

Indoor Unit	Factory Piston	SEER Rating OD Unit	Nominal Tons	Refrigerant	Orifice Size
RF1P1821SPANJA	0.047	13	1.5	R410a	0.047
		14	1.5	R410a	0.049
		13	1.5	R22	0.049
		12	1.5	R22	0.051
		10	1.5	R22	0.053
RF1P2421SPANJA	0.053	13	2	R410a	0.053
		14	2	R410a	0.057
		13	2	R22	0.057
		12	2	R22	0.061
		10	2	R22	0.063
RF1P3024SPANJA	0.061	13	2.5	R410a	0.061
		14	2.5	R410a	0.063
		13	2.5	R22	0.065
		12	2.5	R22	0.065
		10	2.5	R22	0.065
RF1P3624SPANJA	0.065	13	3	R410a	0.065
		14	3	R410a	0.068
		13	3	R22	0.069
		12	3	R22	0.070
		10	3	R22	0.070

RF1P Electrical Data – Blower Motor Only – No Electric Heat

Model/Nominal Cooling Tons	Voltage	Phase	Hertz	HP [W]	RPM	Speeds	Circuit Amps.	Minimum Circuit Ampacity	Maximum Circuit Protector
RF1P1821	208/230	1	60	1/5 [149]	1075	2	1.5	3	15
RF1P2421	208/230	1	60	1/5 [149]	1075	2	1.5	3	15
RF1P3024	208/230	1	60	1/4 [186]	1075	2	2.5	4	15
RF1P3624	208/230	1	60	1/3 [249]	1075	2	2.5	4	15

*Blower motors are all single phase motors.

RF1P Electrical Data – with Electric Heat

Installation of the U.L. Listed original equipment manufacturer provided heater kits listed in the table below is recommended for all auxiliary heating requirements.

Cooling Capacity Tons	Model No.	Heater kW (208/240V)	PH/Hz	No. Elements - kW Per	Type Supply Circuit	Circuit Amps.	Motor Ampacity	Minimum Circuit Ampacity	Maximum Circuit Protection
RF1P 18	RXHJ-21B/T03J	2.25/3.0	1/60	1-3.0	Single	10.8/12.5	1.5	16/18	20/20
	RXHJ-21B/T05J	3.6/4.8	1/60	1-4.8	Single	17.3/20.0	1.5	24/27	25/30
	RXHJ-21B/T08J	5.4/7.2	1/60	2-3.6	Single	26.0/30.0	1.5	35/40	35/40
RF1P 24	RXHJ-21B/T03J	2.25/3.0	1/60	1-3.0	Single	10.8/12.5	1.5	16/18	20/20
	RXHJ-21B/T05J	3.6/4.8	1/60	1-4.8	Single	17.3/20.0	1.5	24/27	25/30
	RXHJ-21B/T08J	5.4/7.2	1/60	2-3.6	Single	26.0/30.0	1.5	35/40	35/40
	RXHJ-21B/T10J	7.2/9.6	1/60	2-4.8	Single	34.6/40.0	1.5	46/52	50/60
RF1P 30	RXHJ-24B/T03J	2.25/3.0	1/60	1-3.0	Single	10.8/12.5	2.5	17/19	20/20
	RXHJ-24B/T05J	3.6/4.8	1/60	1-4.8	Single	17.3/20.0	2.5	25/29	25/30
	RXHJ-24B/T08J	5.4/7.2	1/60	2-3.6	Single	26.0/30.0	2.5	36/41	40/45
	RXHJ-24B/T10J	7.2/9.6	1/60	2-4.8	Single	34.6/40.0	2.5	47/54	50/60
RF1P 36	RXHJ-24B/T03J	2.25/3.0	1/60	1-3.0	Single	10.8/12.5	2.5	17/19	20/20
	RXHJ-24B/T05J	3.6/4.8	1/60	1-4.8	Single	17.3/20.0	2.5	25/29	25/30
	RXHJ-24B/T08J	5.4/7.2	1/60	2-3.6	Single	26.0/30.0	2.5	36/41	40/45
	RXHJ-24B/T10J	7.2/9.6	1/60	2-4.8	Single	34.6/40.0	2.5	47/54	50/60

- Electric heater BTUH - (heater watts + motor watts) x 3.414 (see airflow table for motor watts.)
- Supply circuit protective devices may be fused or "HACR" type circuit breakers.
- If non-standard fuse size is specified, use next size larger standard fuse size.
- Largest motor load is included in single circuit or circuit 1 of multiple circuits.
- No electrical heating elements are permitted to be used with A Voltage (115V) air handler.

- J voltage (230V) single phase air handler is designed to be used with single or three phase 230 volt electric heaters. In the case of connecting 3 phase power to air handler terminal block without the heater, bring only two leads to terminal block, cap, insulate and fully secure the third lead.
- Do not use 480 volts electrical heaters on 230 volts air handler.

Electrical Wiring:

Power Wiring

- Field wiring must comply with the National Electrical Code (C.E.C. in Canada) and any applicable local ordinance.
- Supply wiring must be 75°C minimum copper conductors only.
- See electrical data for product Ampacity rating and Circuit Protector requirement.

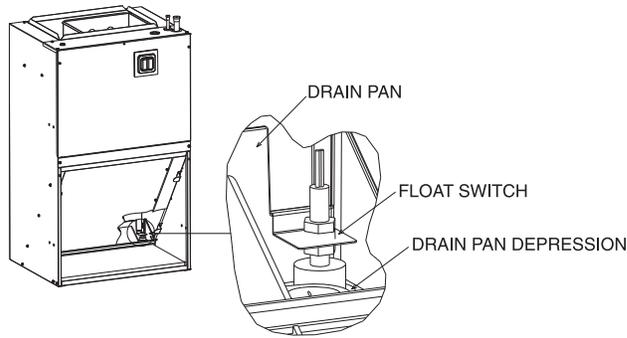
Grounding

- This product must be sufficiently grounded in accordance with National Electrical Code (C.E.C. in Canada) and any applicable local ordinance.
- A grounding lug is provided.

[] Designates Metric Conversions

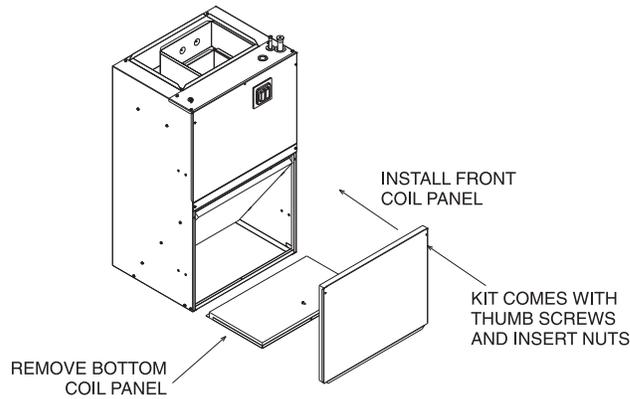
16.0 Accessories-Kits-Parts

- **Drain Pan Over Flow Switch RXHK-A01** is used to detect condensate drain blockage and will shut down the outdoor unit in order to prevent structural damage to the surrounding structures of the air handler.



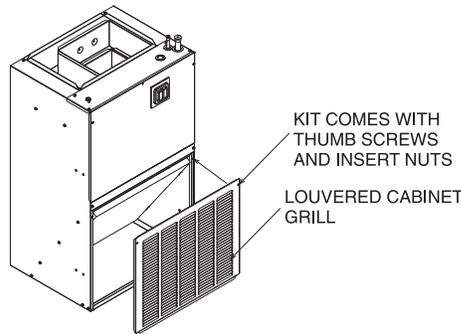
- **Bottom Return Conversion Kit RXHK-** is used to divert the return air from the factory standard front return to a bottom return.

Accessory Number	Indoor Unit
RXHK-B01	RF1P-FR18
	RF1P-FR24
RXHK-B02	RF1P-FR30
	RF1P-FR36

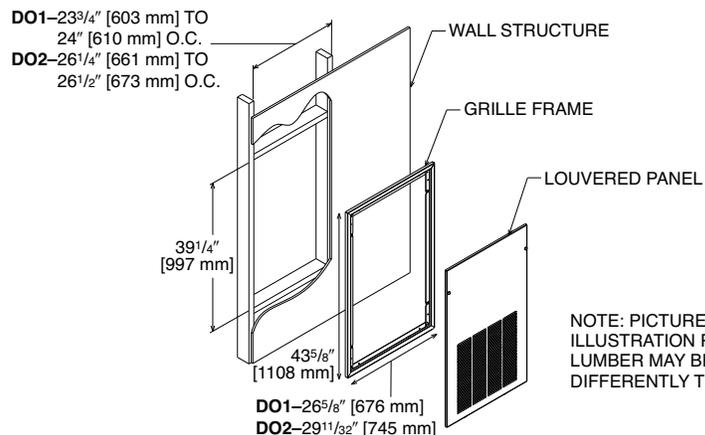


- **Louvered Cabinet Grill RXHK-** is used as decorative grill which covers the return air opening of the front return air handler.

Accessory Number	Indoor Unit
RXHK-C01	RF1P-FR18
	RF1P-FR24
RXHK-C02	RF1P-FR30
	RF1P-FR36



- **Decorative Wall Grill RXHK-D01** or **RXHK-D02** is used in applications where the air handler is installed in a closet or interior wall and allows adequate return air back to the unit. Please refer to RXHD-D01/RXHK-D02 installation instructions for complete dimensional information when selecting a decorative wall grill.



[] Designates Metric Conversions

GENERAL TERMS OF LIMITED WARRANTY*

Rheem will furnish a replacement for any part of this product which fails in normal use and service within the applicable periods stated, in accordance with the terms of the limited warranty.

Conditional Parts (Registration Required)Ten (10) Years

***For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.**

In keeping with its policy of continuous progress and product improvement, FUJITSU reserves the right to make changes without notice.