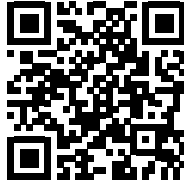




Roundell Evaporators

60
Hz

PRODUCT DATA & INSTALLATION



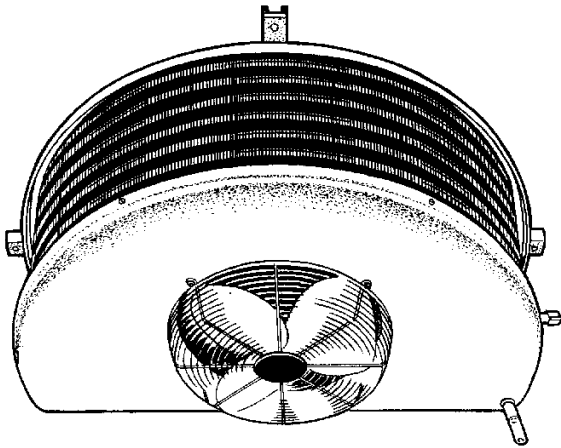
K30-R-PDI-17
1064604

? Questions about this product? ?
Email: evaps@k-rp.com
Call: 1-844-893-3222 x520

High Temperature Applications
(35 °F and Higher)

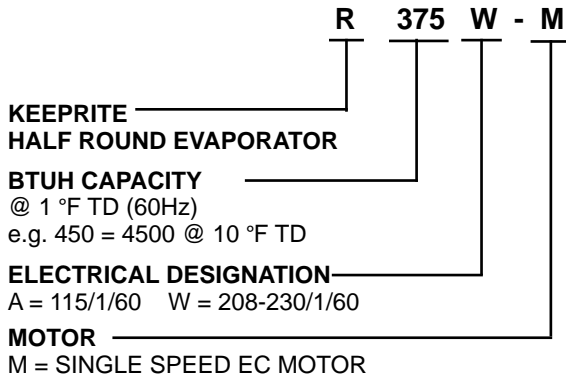
Air Defrost

Electrical Power:
115/1/60, 208-230/1/60



- Compatible with Low GWP Refrigerants
- Direct backwall location and minimum height provides maximum usable storage space.
- Textured heavy gauge aluminum cabinet - lightweight, doesn't show scratches.
- Rigid, slotted channel hangers simplify installation.
- Hinged drain pan for ease of cleaning and service.
- Full collar aluminum plate fins on expanded seamless copper tubes ensure optimum heat transfer efficiency.
- Fan motors are inherently protected
- Standard EC motors

NOMENCLATURE



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Model		R375	R485	R595	R775	R905	R1025	R1305	R2050	
Number of Fans		1	1	1	1	1	1	1	2	
Capacity BTUH (WATTS)	Evap Temp. 25°F (-4°C)	R407A	3540 (1038)	4640 (1359)	5750 (1684)	7510 (2199)	8460 (2478)	9700 (2840)	12200 (3563)	19400 (5680)
		R407C	3360 (984)	4392 (1287)	5445 (1596)	7110 (2084)	8010 (2347)	9180 (2690)	11600 (3376)	18400 (5381)
		R404A	3730	4880	6050	7900	8900	10200	12800	20400
		R507	(1093)	(1430)	(1773)	(2315)	(2608)	(2989)	(3751)	(5979)
		R22	3540 (1038)	4640 (1359)	5750 (1684)	7510 (2199)	8500 (2478)	9700 (2840)	12200 (3563)	19400 (5680)
		R134a	3357 (984)	4392 (1287)	5445 (1596)	7110 (2084)	8010 (2347)	9180 (2690)	11520 (3376)	18360 (5381)
Air Flow	CFM (L/s)	770 (363)	770 (363)	1280 (604)	1300 (614)	1380 (614)	2025 (956)	2000 (944)	4050 (1911)	
Refrigerant ** Charge	Lbs (Kg)	1.4 (0.6)	1.9 (0.9)	2.3 (1.0)	3.3 (1.5)	3.6 (1.6)	4.1 (1.9)	5.3 (2.4)	8.3 (3.7)	

Capacities rated using 10°F (5.6°C) TD & 100°F (38°C) liquid temperature.

Capacities at other TD within a range of 8 to 15 °F (4.4 to 8.3°C) are directly proportional to TD, or use formula: Capacity = Rated capacity ÷ 10 x TD.

For capacities at TD outside of range 8 to 15 °F (4.4 to 8.3°C), or liquid temperature lower than 75°F (24°), consult factory.

Capacities for R407A and R407C are based on mean temperature. Mean temperature is the average temperature between the saturated suction temperature and the temperature feeding the evaporator. For dew point ratings, consult factory.

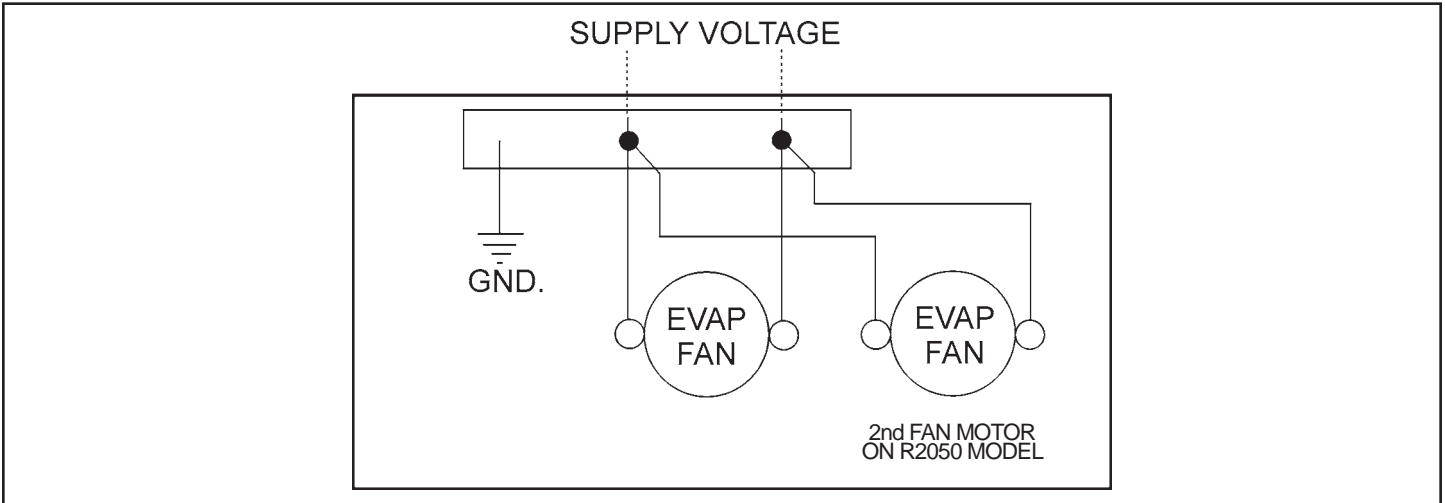
** REFRIGERANT CHARGE CONVERSION FACTORS

R407C	R404A	R507	R22	R134a
0.99	0.92	0.93	1.02	1.03

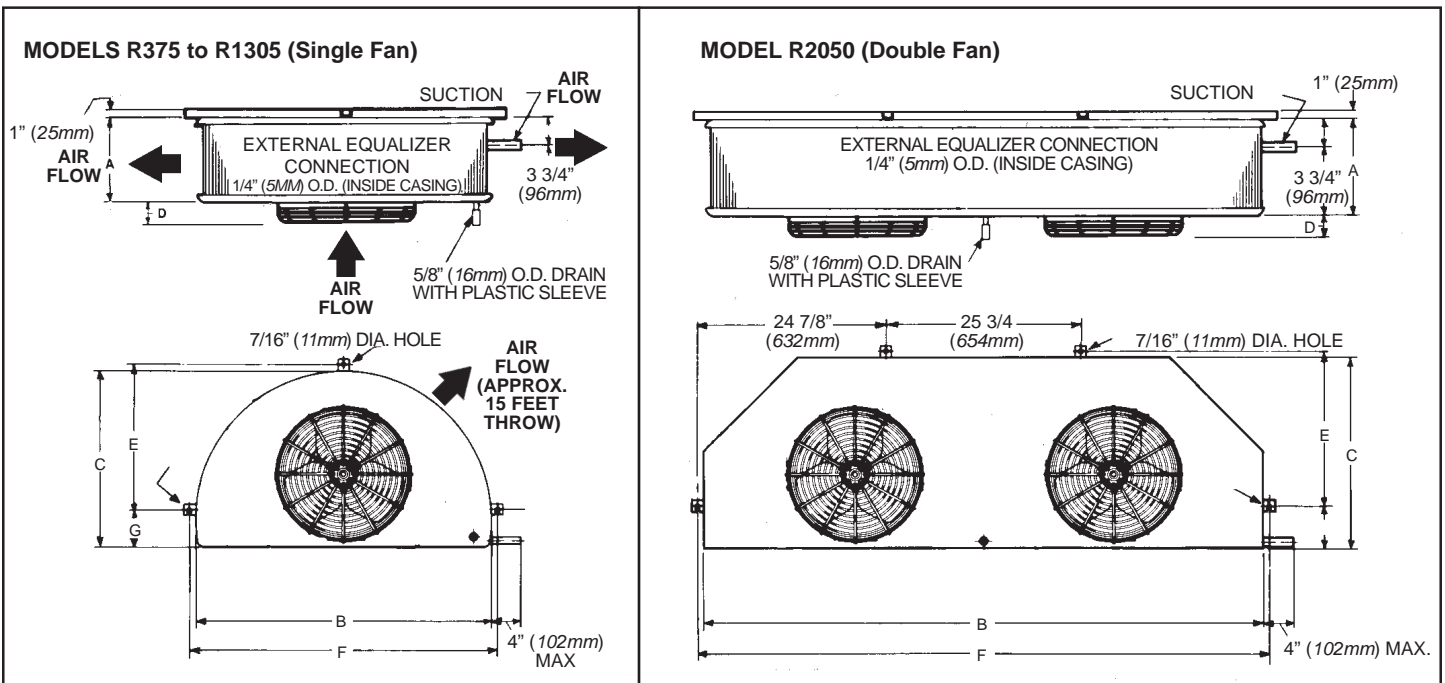
ELECTRICAL DATA

SINGLE SPEED EC MOTOR(S)

MODEL	QTY.	POWER SUPPLY	HP	RPM	WATTS	TOTAL MOTOR FLA	MCA	MOP
R 375	1	115/1/60	1/20	1550	26	0.5	0.63	15
R 485	1	115/1/60	1/20	1550	26	0.5	0.63	15
R 595	1	115/1/60	1/20	1550	26	0.5	0.63	15
R 775	1	115/1/60	1/12	1070	84	1.5	1.88	15
R 905	1	115/1/60	1/12	1070	84	1.5	1.88	15
R 1025	1	115/1/60	1/12	1070	84	1.5	1.88	15
R 1305	1	115/1/60	1/12	1070	84	1.5	1.88	15
R 2050	2	115/1/60	1/12	1070	168	3.0	3.38	15
R 775	1	208-230/1/60	1/10	1070	86	1	1.25	15
R 905	1	208-230/1/60	1/10	1070	86	1	1.25	15
R 1025	1	208-230/1/60	1/10	1070	86	1	1.25	15
R 1305	1	208-230/1/60	1/10	1070	86	1	1.25	15
R 2050	2	208-230/1/60	1/10	1070	172	2	2.25	15



DIMENSIONAL AND PHYSICAL DATA



MODEL		A	B	C	D	E	F	G	Suct. Conn. O.D.		Shipping Weight	
									in	mm	Lbs.	Kg.
R375	in	8 1/8	33 1/4	20 3/4	2	16 3/4	34 3/4	4 3/4	5/8	15.9	72	32.7
R485	mm	(206.4)	(844.6)	(527.0)	(50.8)	(425.5)	(882.7)	(120.7)	5/8	15.9	76	34.5
R595	in	11 1/8	39 1/4	23 3/4	2 1/4	19 3/8	40 3/4	5 1/8	5/8	15.9	98	44.5
R775	mm	(282.6)	(997.0)	(603.3)	(57.2)	(492.1)	(1035.0)	(130.2)	7/8	22.2	104	47.2
R905	in	11 1/8	42 1/4	25 1/4	2 1/2	20 3/8	43 3/4	5 5/8	7/8	22.2	108	49
R1025	in	12 5/8	42 1/4	25 1/4	2 1/2	20 3/8	43 3/4	5 5/8	7/8	22.2	114	51.2
R1305	mm	(320.7)	(1073.1)	(641.4)	(63.5)	(417.5)	(1111.3)	(142.9)	7/8	22.2	124	56.2
R2050	in	12 5/8	74	25 1/4	2 1/2	20 3/8	75 1/2	5 5/8	1 1/8	28.6	187	84.8
	mm	(320.7)	(1879.6)	(641.4)	(63.5)	(417.5)	(1917.5)	(142.9)				

NOTE: 5/8" (15.9 mm) O.D. Drain connection on all models.
1/2" (12.7 mm) Sweat TX Valve connection on all models.

THERMOSTATIC EXPANSION VALVE SELECTION CHART

FOR +35°F ROOMS AND UP

AIR DEFROST		SPORLAN VALVE MODEL		
MODEL	TD °F	R407A R407C R22	R404A R507	R134a
R375	10	SBFVE-AAA-C	SBFSE-AA-C	SBFJE-AA-C
	12	SBFVE-AAA-C	SBFSE-AA-C	SBFJE-AA-C
	15	SBFVE-AA-C	SBFSE-AA-C	SBFJE-AA-C
R485	10	SBFVE-AA-C	SBFSE-AA-C	SBFJE-AA-C
	12	SBFVE-AA-C	SBFSE-AA-C	SBFJE-AA-C
	15	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
R595	10	SBFVE-AA-C	SBFSE-AA-C	SBFJE-AA-C
	12	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
	15	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
R775	10	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
	12	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
	15	SBFVE-A-C	SBFSE-A-C	SBFJE-A-C
R905	10	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
	12	SBFVE-A-C	SBFSE-A-C	SBFJE-A-C
	15	SBFVE-A-C	SBFSE-A-C	SBFJE-A-C
R1025	10	SBFVE-AA-C	SBFSE-A-C	SBFJE-A-C
	12	SBFVE-A-C	SBFSE-A-C	SBFJE-A-C
	15	SBFVE-A-C	SBFSE-B-C	SBFJE-B-C
R1305	10	SBFVE-A-C	SBFSE-A-C	SBFJE-A-C
	12	SBFVE-A-C	SBFSE-B-C	SBFJE-B-C
	15	SBFVE-A-C	SBFSE-B-C	SBFJE-B-C
R2050	10	SBFVE-A-C	SBFSE-B-C	SBFJE-B-C
	12	SBFVE-B-C	SBFSE-B-C	SBFJE-B-C
	15	SBFVE-B-C	SBFSE-C-C	SBFJE-C-C

Selections based on 100° Liquid

APPLICATION

High Temp Evaporators are designed for use with a wide variety of popular refrigerants. At room temperatures above 34°F and evaporating temps no lower than 27°F the air flowing through the coil will accomplish the defrost. Temperatures of 34°F and below (to -40°F) require positive defrosting. (either Electric or Hot Gas). The coil must not be exposed to any abnormal atmospheric or acidic environments. This may result in corrosion to the cabinet and possible coil failure (leaks). (Consult manufacturer for optional baked on phenolic protective coatings).

INSTALLATION

The installation and start-up of evaporators should only be performed by qualified refrigeration mechanics. This equipment should be installed in accordance with all applicable codes, ordinances and local by-laws.

INSPECTION

Inspect all equipment before unpacking for visible signs of damage or loss. Check shipping list against material received to ensure shipment is complete.

IMPORTANT: Remember, you, the consignee, must make any claim necessary against the transportation company. Shipping damage or missing parts, when discovered at the outset, will prevent later unnecessary and costly delays. **If damage or loss during transport is evident, make claim to carrier, as this will be their responsibility, not the manufacturer's.**

Should carton be damaged, but damage to equipment is not obvious, a claim should be filed for "concealed damage" with the carrier.

IMPORTANT: The electrical characteristics of the unit should be checked at this time to make sure they correspond to those ordered and to electrical power available at the job site. Save all shipping papers, tags and instruction sheets for reference by installer and owner.

LOCATION

The unit location in the room should be selected to ensure uniform air distribution throughout the entire space to be refrigerated. Make sure that the air is not blown directly out through the opened door and that the product does not obstruct the free circulation of air.

NOTE: These units drawn air through the fan and discharge air from the coil side.

When installing the unit adjacent to a wall sufficient clearance (2" (50mm) minimum) must be provided to allow the hinged drain pan to be lowered for servicing the unit. Channel type hangers are provided. Rear hangers are slotted to facilitate installation. See dimensional data.

MOUNTING

Mounting brackets with 7/16" dia holes are provided for flush mounting to the ceiling. For details refer to dimensional data on page 3.

Ensure that the ceiling is level since the drain pan has been sloped for drainage during the defrost cycle.

DRAIN LINE

The drain line should be run from the drain connection, sloping at least 4" per foot. A trap outside the room will prevent warm air from entering through the tubing.

Connection should be made to proper drainage facilities that comply with local regulations.

Ensure that the drain pan has sufficient slope for proper drainage (prevention of ice build up/blockage in pan).

PIPING

Refrigerant line sizes are important and may not be the same size as the coil connections. (depends on the length of run) If in doubt, consult "Recommended refrigerant line sizes" charts. (Engineering Manuals or other recognized sources of information).

WIRING

Wire system in accordance with governing standards and local codes. See data and wiring diagram on pages 2-3, for wiring arrangement. Electrical wiring is to be sized in accordance with minimum ampacity rating.

SYSTEM CHECK**Before Start-Up:**

1. All wiring should be in accordance with local codes.
2. Refrigerant lines should be properly sized.
3. Off-cycle defrost systems should include a liquid line solenoid valve.
4. Thorough evacuation and, dehydration has been performed.
5. The suction, discharge, and receiver service valves must be open.
6. The system should include a liquid line drier moisture indicator and suction filter.
7. Pour enough water into the drain pan to allow a good check on drainage and seal the trap.

After Start-Up:

1. Check the compressor oil level to ensure the correct oil charge.
2. Be sure that the expansion valve is properly set to provide the correct amount of superheat.
3. Heavy moisture loads are usually encountered when starting the system for the first time.
4. Check for proper evaporator fan blade rotation.

MAINTENANCE

The unit should be periodically inspected for any dirt or build-up on the fin surface and cleaned if necessary with a soft whisk or brush.

SERVICE PARTS

FOR SERVICE PARTS LOOK-UP:
visit: http://www.k-rp.com/serv_parts.htm
email: parts@k-rp.com
call: 1-844-893-3222 x501

SERVICE LOG

DATE	COMMENTS

FINISHED GOODS WARRANTY

The terms and conditions as described below in the General Warranty Policy cover all products manufactured by National Refrigeration.

GENERAL WARRANTY POLICY

Subject to the terms and conditions hereof, the Company warrants all Products, including Service Parts, manufactured by the Company to be free of defects in material or workmanship, under normal use and application for a period of one (1) year from the original date of installation, or eighteen (18) months from the date of shipment from the Company, whichever occurs first. Any replacement part(s) so supplied will be warranted for the balance of the product's original warranty. The part(s) to be replaced must be made available in exchange for the replacement part(s) and reasonable proof of the original installation date of the product must be presented in order to establish the effective date of the warranty, failing which, the effective date will be based upon the date of manufacture plus thirty (30) days. Any labour, material, refrigerant, transportation, freight or other charges incurred in connection with the performance of this warranty will be the responsibility of the owner at the current rates and prices then in effect. This warranty may be transferred to a subsequent owner of the product.

THIS WARRANTY DOES NOT COVER

(a) Damages caused by accident, abuse, negligence, misuse, riot, fire, flood, or Acts of God (b) damages caused by operating the product in a corrosive atmosphere (c) damages caused by any unauthorized alteration or repair of the system affecting the product's reliability or performance (d) damages caused by improper matching or application of the product or the product's components (e) damages caused by failing to provide routine and proper maintenance or service to the product (f) expenses incurred for the erecting, disconnecting, or dismantling the product (g) parts used in connection with normal maintenance, such as filters or belts (h) products no longer at the site of the original installation (i) products installed or operated other than in accordance with the printed instructions, with the local installation or building codes and with good trade practices (j) products lost or stolen.

No one is authorized to change this WARRANTY or to create for or on behalf of the Company any other obligation or liability in connection with the Product(s). There is no other representation, warranty or condition in any respect, expressed or implied, made by or binding upon the Company other than the above or as provided by provincial or state law and which cannot be limited or excluded by such law, nor will we be liable in any way for incidental, consequential, or special damages however caused.

The provisions of this additional written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by Federal, Provincial or State laws.

PROJECT INFORMATION

System	
Model Number	Date of Start-Up
Serial Number	Service Contractor
Refrigerant	Phone
Electrical Supply	Fax

“AS BUILT” SERVICE PARTS LIST

Service Parts List
Label
To Be Attached
HERE



NATIONAL REFRIGERATION &
AIR CONDITIONING CANADA CORP.



1-800-463-9517 (519) 751-0444 www.k-rp.com info@k-rp.com fax: (519) 753-1140

CANADA: 159 ROY BLVD., BRANTFORD, ON, N3R 7K1

USA: 985 WHEELER WAY, LANGHORNE, PA 19047

Due to National Refrigeration's policy of continuous product improvement, we reserve the right to make changes without notice.