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## TECHNICAL SPECIFICATIONS

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# Q3RD Series

## Single Packaged Heat Pump, Single Phase

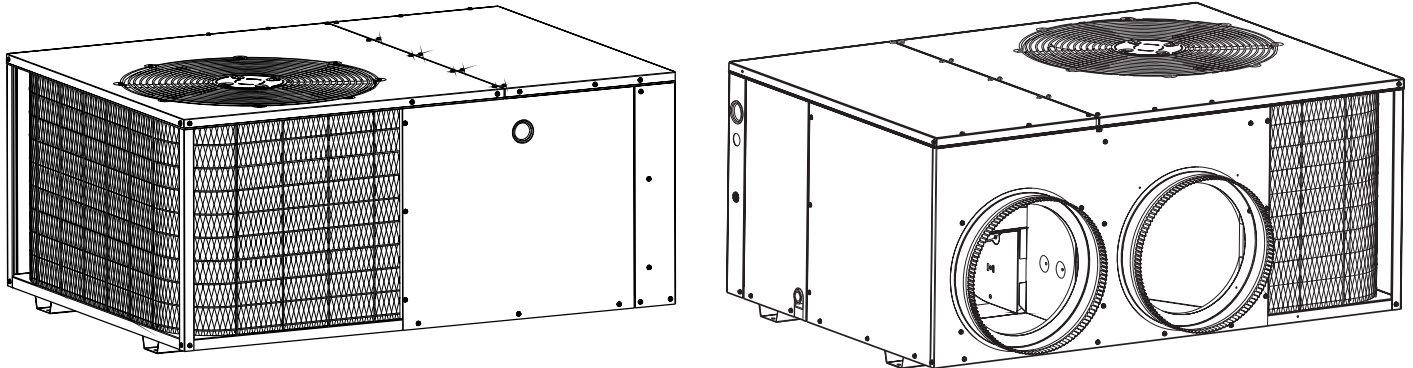
Q3RD-13 SEER

2 thru 4 Ton Units

Cooling: 24,000 to 48,000 Btuh

Heating: 23,200 to 48,000 Btuh

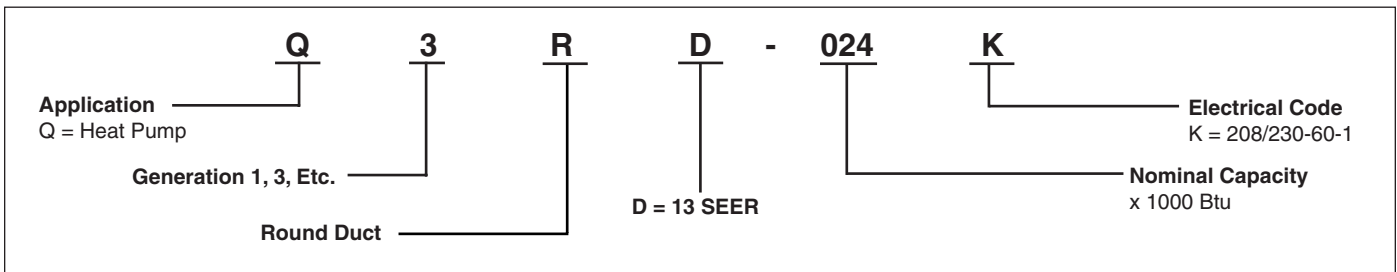
The Q3 Series single packaged heat pumps are high efficiency self contained cooling and heating units that can be installed on a slab. Units are ETL and ETLc listed.



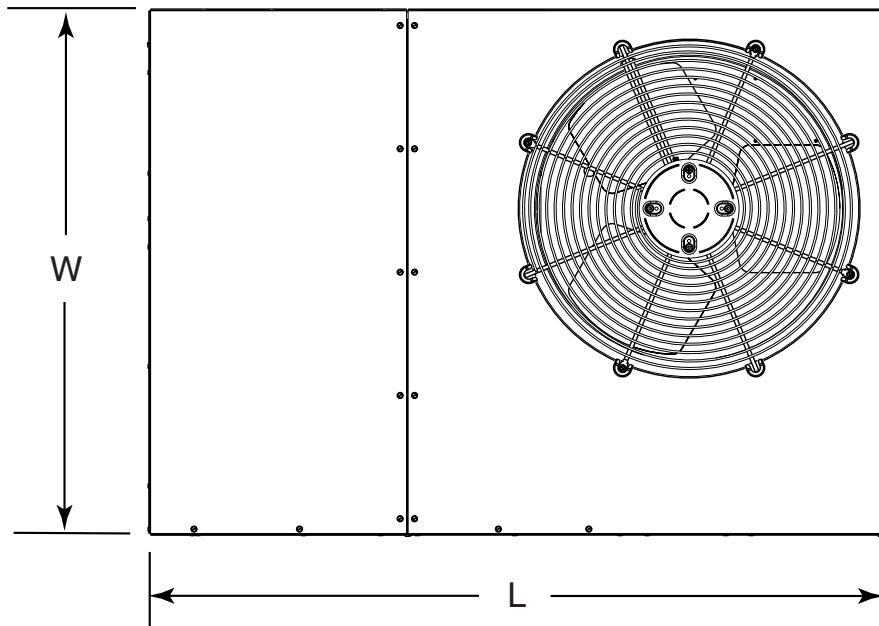
## FEATURES AND BENEFITS

- **State-of-the-art compressor** is standard equipment.
- **Designed using galvanized steel** with a polyester urethane coat finish. The 950 hour salt spray finish resists corrosion 50% better than comparable units.
- **Both indoor and outdoor coils** are designed to optimize heat transfer, minimize size and cost, and increase durability and reliability.
- **The service valves are easily accessible** and simplify servicing of the refrigeration system.
- **A wire coil guard and mesh hail guard that will never rust** protects the coil from being damaged by balls, lawnmowers, hail, etc.
- **Designed to make servicing easier** for the contractor, access panels are provided to all major components and the compressor.
- **0" clearance** to combustibles on duct side of the unit allows for installations in tight areas.
- **Easy access** to evaporator for cleaning and general maintenance.
- **Drain trap** design optimizes drainage capabilities.
- **Easy to install** electric heat strip provides up to 20 kw of heat output.
- **Compact footprint and profile** make the Q3 Series easy to install and transport.
- **Outdoor thermostat** is standard equipment on all heat pumps.
- **1 Year limited parts warranty**
- **1 Year limited labor warranty**
- **5 Year limited compressor warranty**

## MODEL IDENTIFICATION CODE



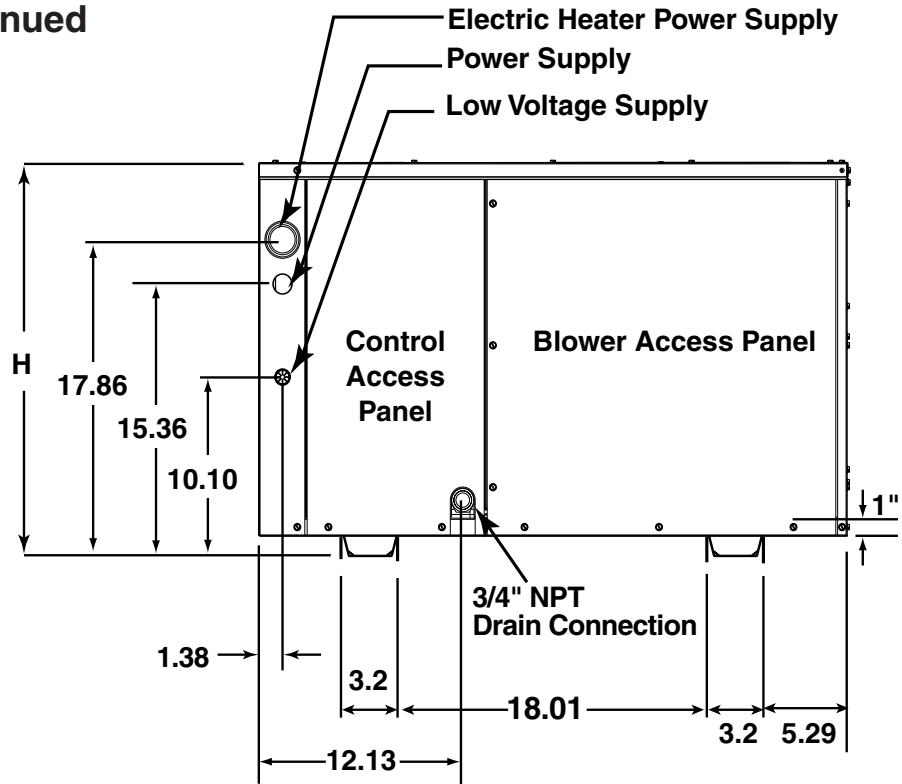
## DIMENSIONS



Top View

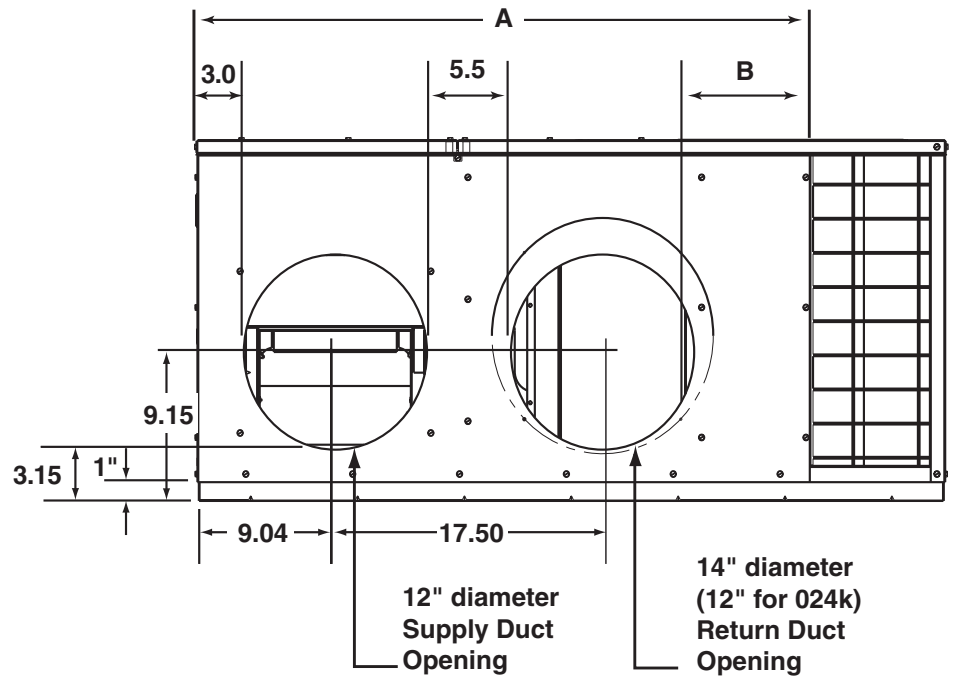
Model Number Q3RD-	(L) Length	(W) Width	(H) Height	A	B
024K	49	35	22.2	40.15	7.61
030K	49	35	30.2	40.15	7.61
036K	49	35	30.2	35.02	2.48
042K	49	35	30.2	35.02	2.48
048K	49	35	34.2	35.02	2.48

# DIMENSIONS Continued



Side View

Model Number Q3RD-	Return Diameter (in)
024K	12
030K	14
036K	14
042K	14
048K	14



Back (Duct) View

# PHYSICAL SPECIFICATIONS

## Q3RD Models

Model No. Q3RD-	024K	030K	036K	042K	048K
<b>Electric Rating — 60 Hz (a)</b>					
Operating Voltage Range	187 - 253	187 - 253	187 - 253	187 - 253	187 - 253
Min. Circuit Ampacity (a)	17.4	19.2	25.4	32.2	40
Field Wire Size — AWG (a)	12	12	10	8	6
Delay Fuse — Max. (b)	25	30	35	35	45
Total Unit — AMPS	14.3	16	21.3	27.2	33.5
<b>Compressor</b>					
Volts	208 - 230	208 - 230	208 - 230	208 - 230	208 - 230
Rated Load Amps	12.1	13.6	16.4	20	26.3
Lock Rotor Amps	54.0	67	83.0	104.0	137.0
<b>Fan Motor and Condenser</b>					
Fan Motor — HP - RPM	1/8 - 1100	1/8 - 1100	1/8 - 1100	1/4 - 1100	1/4 - 1100
Fan Motor — Amps	.84	.84	.84	1.2	1.2
Fan Dia. — CFM	20" - 2700	20 - 2700	20" - 2700	20" - 3000	20" - 3000
<b>Motor and Evaporator</b>					
Blower Motor — HP - RPM	1/2 - 1000	1/4 - 980	1/2 - 1000	3/4 - 1060	3/4 - 1060
Blower Motor — Amps	4.1	1.4	4.1	6	6
CFM @ E.S.P. — in. W.C.	1000 @ .30	1320 @ .30	1390 @ .30	1390 @ .30	1730 @ .30
<b>Refrigerant — Oz.</b>	101	126	125	118	171
<b>Shipping Weight -- Lbs.</b>	295	335	340	355	385

- (a) Amperage and wire size based on refrigeration system only with 60° C wire, 50 ft. length. See Electrical Data tables for supplemental electric heaters. Refer to National Electric Code for additional derating factors for field installed conductors.  
 (b) Use time delay fuse or "HACR" type circuit breaker.

# ELECTRICAL DATA

Model Number	Heater Installed Nom. KW	Single Supply Circuit Option					Multiple Supply Circuit Option														
							Circuit A					Circuit B					Circuit C				
		Minimum Circuit Amp.	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Maximum Over-current Rating*	Minimum Circuit Amp.	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Maximum Over-current Rating*	Minimum Circuit Amp.	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Maximum Over-current Rating	Minimum Circuit Amp.	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Maximum Over-current Rating
Q3RD-024K	0 5 8 10	20.1 45.1 59.6 70.1	10 6 4 3	10 8 6 4	10 8 6 6	30 50 60 80	- - - 16	- - - 12	- - - 12	- - - 12	- - - 25	54.1 - - - 54.1	6 - - 6	6 - - 6	8 - - 8	60 - - 60	- - - - 50	- - - - 6	- - - - 8	- - - - 8	- - - - 80
Q3RD-030K	0 5 8 10 15 15 (3 circuit)	19.2 44.2 59.8 69.2 94.2 -	12 6 4 4 2 -	12 8 6 4 3 -	12 8 6 6 4 -	30 50 60 70 100 -	- - - 17.8 42.8 17.8	- - - 12 6 12	- - - 12 8 12	- - - 12 8 12	- - - 30 50 30	51.4 - - 51.4 26.4	6 - - 6 10	6 - - 6 10	8 - - 8 10	60 - - 60 30	50 - - - 6	6 - - - 8	8 - - - 8	8 - - - 8	60 - - - 60
Q3RD-036K	0 5 8 10 15 15 (3 circuit)	25.4 50.4 65 75.4 100 -	10 6 4 3 1 -	10 6 6 4 2 -	10 8 6 6 3 -	40 60 70 80 110 -	- - 21.3 21.3 46.3 21.3	- - 10 10 6 10	- - 10 10 8 10	- - 10 10 8 10	- - 35 35 50 35	43.7 - 43.7 54.1 54.1 29.1	6 - 6 6 6 10	8 - 8 6 6 10	8 - 8 8 8 10	45 - 45 60 60 30	50 - - - 6	6 - - - 8	8 - - - 8	8 - - - 8	60 - - - 60
Q3RD-042K	0 5 8 10 15 15 (3 circuit) 20 20 (3 circuit)	32.2 57.2 71.8 82.2 107 - 132 -	8 4 3 3 1 - 0 -	8 6 4 4 2 - 0 -	8 6 6 4 3 - 1 -	50 70 80 90 110 - 150 -	- - 26.2 26.2 45.6 26.2 26.2	- - 10 10 6 10 10 -	- - 10 10 8 10 10 -	- - 10 10 8 10 10 -	- - 45 45 50 45 45 -	45.6 - 45.6 52.1 56 34.1 - 56	6 - 6 6 4 8 - 4	8 - 8 6 6 8 - 6	8 - 8 8 6 8 - 6	50 - 50 60 60 35 - 60	50 - - - 6	6 - - - 8	8 - - - 8	8 - - - 8	60 - - - 60
Q3RD-048K	0 5 8 10 15 15 (3 circuit) 20 20 (3 circuit)	40.1 65 79 90 115 - 140 -	6 4 3 2 0 - 0 -	8 4 4 3 1 - 0 -	8 6 4 4 2 - 1 -	60 80 90 100 125 - 150 -	- - 34.1 34.1 59.1 34.1 - 34.1	- - 8 8 4 8 8 -	- - 8 8 6 8 8 -	- - 8 7 8 8 8 -	60 60 60 60 80 60 60 60	45.6 - 45.6 56 56 31 - 56	6 - 6 4 4 8 - 4	8 - 8 6 6 8 - 6	8 - 8 6 6 8 - 6	50 - 50 60 60 35 - 60	50 - - - 6	6 - - - 8	8 - - - 8	8 - - - 8	60 - - - 60

\*When overcurrent rating exceeds 60, internal circuit breakers must be installed in addition to branch circuit protection at distribution panel.

## SYSTEM HEATING AND COOLING CAPACITIES

Model Number Q3RD	Cooling Btuh	SEER	EER	Heating Btuh @47	HSPF
024K	24,000	13	12.6	23,000	7.7
030K	30,000	13	11.6	28,400	7.7
036K	34,400	13	12.1	33,200	7.7
042K	42,000	13	11.6	40,500	7.7
048K	47,000	13	11.0	46,500	7.7

## BLOWER PERFORMANCE

Model Number		External Static Pressure (in. WC)						
Q3RD		0.1	0.2	0.3	0.4	0.5	0.6	
030K	† *	High	1120	1060	1000	930	860	750
		Low	840	800	760	710	610	N/A
024K	*	Tap T1	1100	900	750	650	580	520
036K	**	Tap T2	1170	1080	1000	620	900	860
	† **	Tap T3	1220	1180	1140	1100	1070	1020
		Tap T4	1370	1333	1300	1260	1230	1180
	††	Tap T5	1410	1340	1450	1320	1280	1240
042K	*	Tap T1	1380	1360	1340	1300	1260	1240
048K	† **	Tap T2	1530	1480	1450	1420	1390	1350
		Tap T3	1740	1700	1650	1630	1600	1560
	††	Tap T4	1840	1810	1750	1750	1710	1640
		Tap T5	2130	2080	1970	1890	1850	1180

COPPER WIRE SIZE – AWG (1% Voltage Drop)				
Supply Wire Length-Feet				Supply Circuit Ampacity
200	150	100	50	
6	8	10	14	15
4	6	8	12	20
4	6	8	10	25
4	4	6	10	30
3	4	6	8	35
3	4	6	8	40
2	3	4	6	45
2	3	4	6	50

Wire Size based on N.E.C. for 60° type copper conductors.

\* Factory set cooling speed for 024K, 030K and 042K

\*\* Factory set cooling speed for 036K and 048K

† Factory set electrical heating speed for 024K, 030K and 042K

†† Factory set electrical heating speed for 036K and 048K

# ACCESSORIES

## Heater Application Matrix

Model Number Q3RD-	Motor Speed	H3HK-005H-01A 917166A	H3HK-008H-01A 917167A	H3HK-010H-01A 917168A	H3HK-015H-01A 917169A	H3HK-020H-01A 917170A	H3HK-015H-21A 917172A	H3HK-020H-21A 917173A
024K	High	X(0)	X(0)	X(2)	NA	NA	NA	NA
	Low	X(0)	X(0)	X(2)	NA	NA	NA	NA
030K	High	X(0)	X(0)	X(2)	X(2 or 3)	NA	X(0 or 1)	NA
	Low	X(0)	X(0)	X(2)	X(2 or 3)	NA	X(0 or 1)	NA
036K	High	X(0)	X(0)	X(2)	X(2 or 3)	NA	X(0 or 1)	NA
	Low	X(0)	X(0)	X(2)	X(2 or 3)	NA	X(0 or 1)	NA
042K	High	X(0)	X(2)	X(2)	X(2 or 3)	X(3)	X(0 or 1)	X(1)
	Low	X(0)	X(2)	X(2)	X(2 or 3)	NA	X(0 or 1)	NA
048K	High	X(2)	X(2)	X(2)	X(2 or 3)	X(3)	X(0 or 1)	X(1)
	Low	X(2)	X(2)	X(2)	X(2 or 3)	NA	X(0 or 1)	NA

NA = Not Approved

( ) = Number of internal circuit breaker kits required.

## Heater Kit Accessories

Description	Part Number
4-Pole single circuit adaptor	913350
6-Pole single circuit adaptor	913556
Circuit Breaker Single Phase (2-pole)	913554

## Duct Kits

Description	Part Number
MHFK-12-SW (Single Wide Fitting Kit - 12")	911468A
MHFK-12-DW (Double Wide Fitting Kit - 12")	911469A
MHFK-14-SW (Single Wide Fitting Kit - 14")	914957
MHFK-14-DW (Double Wide Fitting Kit - 14")	914956
UFK-2RMI, 12"x12"x12" "Y" fitting with 2 clamps	911470
Clamps, 10-14" diameter	668659
MHFK-12/14-SW (Single Wide Fitting Kit - 12/14)	919455
MHFK-12/14-DW (Double Wide Fitting Kit - 12/14)	919456



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**157C-0507 (Replaces 157C-0706)**

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations.

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