

P3RA Series

Single Packaged Air Conditioner

P3RA 10 SEER, 3, 4 and 5 Ton Units Cooling: 32,500 to 57,000 Btuh

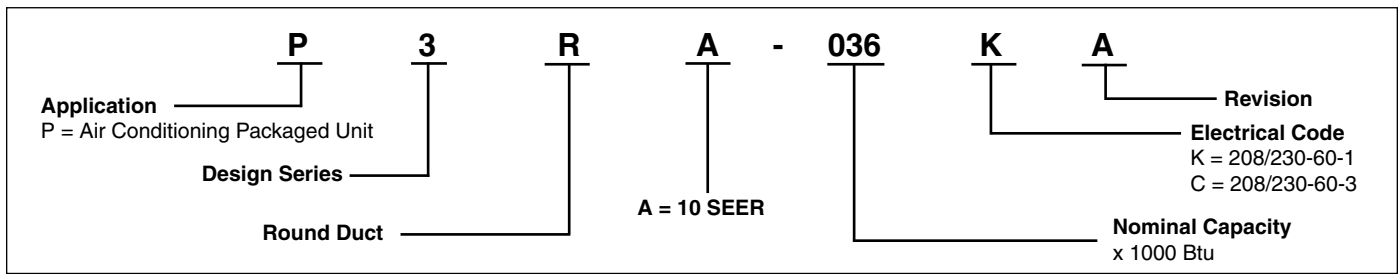
The P3 Series single packaged air conditioners are high efficiency self contained cooling and heating units that can be installed on a slab. Units are ETL listed.



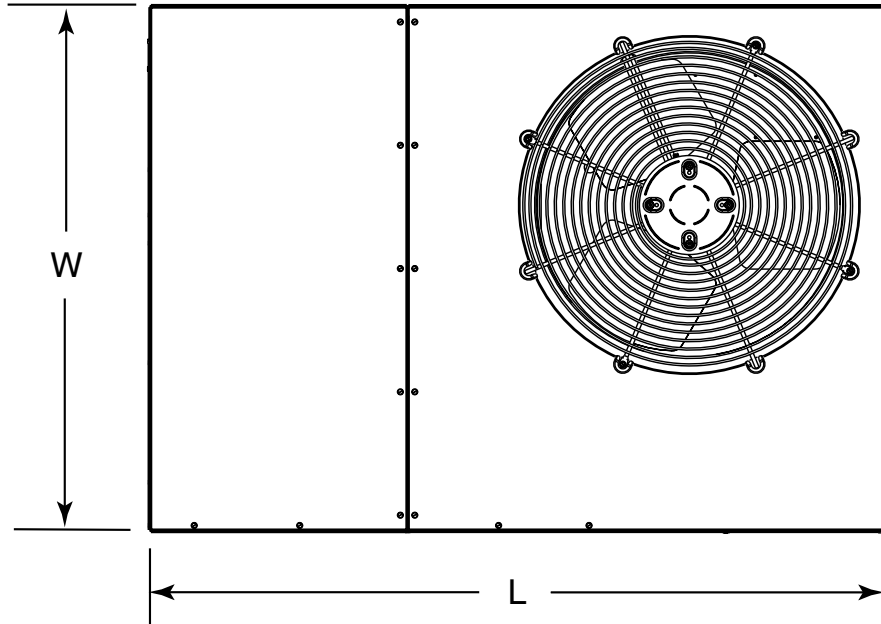
FEATURES and BENEFITS

- **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.
- **A heavy duty PSC motor:** For long lasting reliability and operation. Requires no maintenance and is completely protected from rain and snow.
- **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.
- **1" 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. (Excludes 3 Phase Model)
- **Compact footprint and profile:** Make the P3 Series easy to install and transport.

MODEL IDENTIFICATION CODE



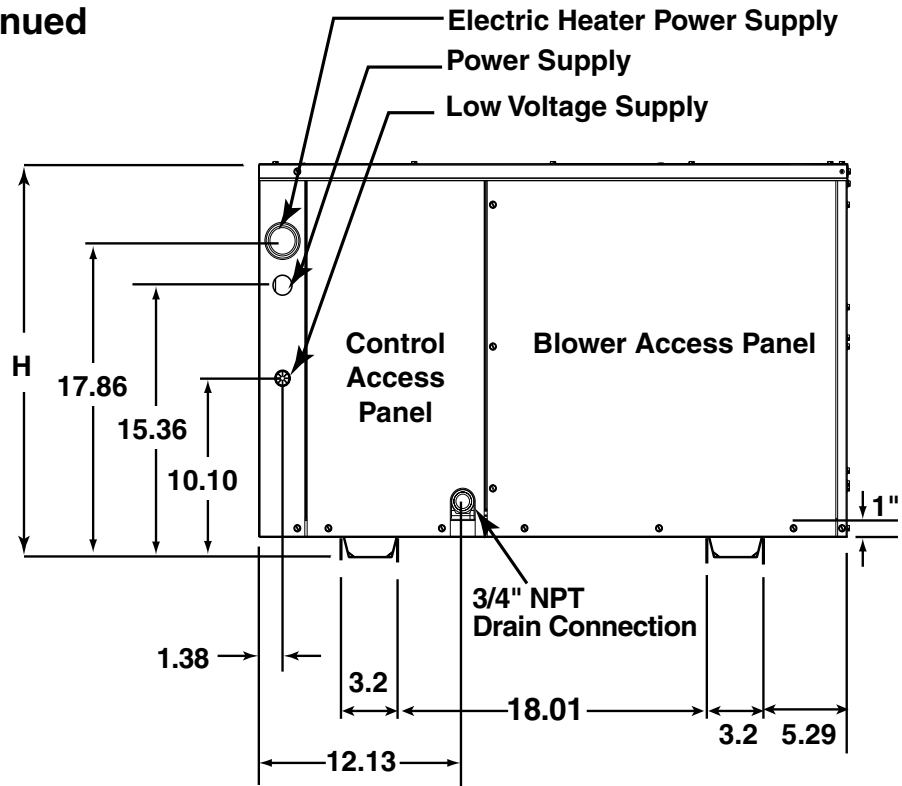
DIMENSIONS



Top View

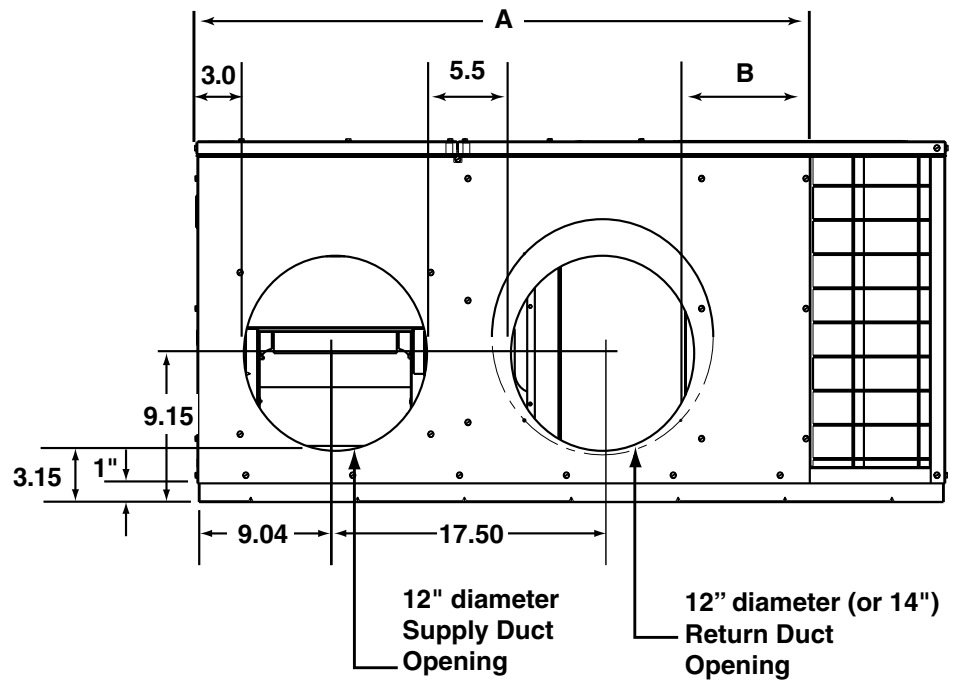
Model No.	(L) Length	(W) Width	(H) Height
P3RA-036K	49	35	22.2
048K	49	35	30.2
060K	49	35	30.2
060C	49	35	30.2

DIMENSIONS Continued



Side View

Model	Return Diameter (in)
P3RA-036KA	12
048KA	14
060KA	14
060CA	14



Back (Duct) View

PHYSICAL SPECIFICATIONS

P3RA Models

Model No. P3RA-	036KA	048KA	060KA	060CA
Electric Rating — 60 Hz (a)				
Operating Voltage Range	187 - 253	187 - 253	187 - 253	187 - 253
Minimum Circuit Ampacity (a)	21.3	31.5	40.3	25.9
Field Wire Size — AWG (a)	10	10	8	10
Delay Fuse (MOP) — Maximum (b)	35	50	60	40
Total Unit — AMPS	17.7	26.1	31.3	21.6
Compressor - Phase	1 Phase	1 Phase	1 Phase	3 Phase
Volts	208 - 230	208 - 230	208 - 230	208 - 230
Rated Load Amps	14.4	21.8	28.8	17.3
Lock Rotor Amps	82.0	137	148	137
Fan Motor and Condensor - Phase	1 Phase	1 Phase	1 Phase	1 Phase
Fan Motor — HP - RPM	1/8 - 1100	1/4 - 1100	1/4 - 1100	1/4 - 1100
Fan Motor — Amps	1.2	1.3	1.3	1.3
Fan Dia. — CFM	20" - 2800	20" - 3000	20" - 3000	20" - 3000
Motor and Evaporator - Phase	1 Phase	1 Phase	1 Phase	1Phase
Blower Motor — HP - RPM	1/3 - 900	1/2 - 1000	1/2 - 1000	1/2 - 1000
Blower Motor — Amps	2.1	3	3	3
CFM @ E.S.P. — in. W.C.	1390 @ .30	1730 @ .30	1680 @ .30	1680 @ .30
Refrigerant — Oz.	60	86	126	128
Shipping Weight — Lbs.	280	325	375	375

(a) Amperage and wire size based on refrigeration system only and rated with 75°C copper wire.

See Electrical Data tables for supplemental electric heaters.

Refer to National or Local Codes having jurisdiction 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 Circuit									
		Minimum Circuit Amp.					Maximum Over-current Rating*					Minimum Circuit Amp.					Maximum Over-current Rating*				
		Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)		
P3RA-036KA	0	21.3	10	10	10	35	-	-	-	-	-	-	-	-	-	-	-	-	-		
	5	27.6	10	10	10	35	-	-	-	-	-	-	-	-	-	-	-	-	-		
	8	40.1	6	8	8	45	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10	52.6	6	6	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
	15	77.6	3	4	4	80	52.6	6	8	8	8	25.0	10	10	10	10	10	10	25		
P3RA-048KA	0	31.5	8	8	8	50	-	-	-	-	-	-	-	-	-	-	-	-	-		
	5	31.5	8	8	8	50	-	-	-	-	-	-	-	-	-	-	-	-	-		
	8	41.3	6	8	8	50	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10	53.8	6	6	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
	15	78.8	3	4	4	80	53.8	6	6	8	8	25.0	10	10	10	10	10	10	25		
P3RA-060KA	0	103.8	1	2	3	110	53.8	6	6	8	8	50.0	6	6	6	6	6	8	50		
	5	40.3	6	8	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
	8	40.3	6	8	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10	41.3	6	8	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
	15	53.8	6	6	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-		
P3RA-060CA	0	78.8	3	4	4	80	53.8	6	6	8	8	25.0	10	10	10	10	10	10	25		
	5	78.8	3	4	4	80	53.8	6	6	8	8	25.0	10	10	10	10	10	10	25		
	8	103.8	1	2	3	110	53.8	6	6	8	8	50.0	6	6	6	6	6	8	50		
	10	25.9	10	10	10	40	-	-	-	-	-	-	-	-	-	-	-	-	-		
	15	25.9	10	10	10	40	-	-	-	-	-	-	-	-	-	-	-	-	-		

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

SYSTEM COOLING CAPACITIES

Model Number P3RA-	036KA	048KA	060KA	060CA
¹ Rated Cooling Capacity - BTUH	32,000	45,000	57,000	57,000
^{1,2} E.E.R - Cooling Efficiency (Btu/Watt)	9.05	8.80	8.95	8.95
^{1,3} S.E.E.R. - Cooling Efficiency	10.0	10.0	10.0	10.0
¹ A.R.I Rated Airflow - CFM	1,240	1,600	1,600	1,600

NOTES:

- 1) Certified in accordance with A.H.R.I. Standard 210/240 at the minimum duct external static pressure allowed by the standard.
- 2) E.E.R. - energy Efficiency Ratio: The EER and Net Capacity is determined @ 95°F Outdoor DB & 80°F DB / 67°F WB Air entering the evaporator.
- 3) S.E.E.R. - Seasonal Energy Efficiency Ratio

BLOWER PERFORMANCE

Model Number P3RA		External Static Pressure (in. WC)(1)					
		0.1	0.2	0.3	0.4	0.5	0.6
036KA	High	1480	1440	1390	1330	1270	1190
	Low	1270	1230	1190	1140	1080	1000
048KA	High	1840	1780	1730	1650	1580	1500
	Low	1700	1650	1590	1540	1470	1390
060KA	High	1800	1740	1680	1620	1540	1470
	Low	1660	1610	1560	1500	1430	1360
060CA	High	1800	1740	1680	1620	1540	1470
	Low	1660	1610	1560	1500	1430	1360

NOTE: Blower performance shown above 0.30" w.c. external static pressure (ESP) is for REFERENCE ONLY. Maximum allowable external static pressure with electric heat added to unit is 0.30" w.c.

(1) Based on 230V operation, Dry coil, No filters.

COPPER WIRE SIZE — AWG (1% Voltage Drop)				
Supply Wire Length-Feet				Supply Circuit
200	150	100	50	Ampacity
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 United States National Electrical Code (NFPA70) for 60° type copper conductors.

ACCESSORIES

Heater Application Matrix

Model Number P3RA-	Motor Speed	H3HK-005H-01B 917166B	H3HK-008H-01B 917167B	H3HK-010H-01B 917168B	H3HK-015H-01B 917169B	H3HK-020H-01B 917170B	H3HK-015H-21B 917172B	H3HK-020H-21B 917173B
036KA	High	X(0)	X(0)	X(0)	X(2)	NA	X(0)	NA
	Low	X(0)	X(0)	X(0)	X(2)	NA	X(0)	NA
048KA	High	X(0)	X(0)	X(0)	X(2)	X(3)	X(0)	X(1)
	Low	X(0)	X(0)	X(0)	X(2)	X(3)	X(0)	X(1)
060KA	High	X(0)	X(0)	X(0)	X(2)	X(3)	X(0)	X(1)
	Low	X(0)	X(0)	X(0)	X(2)	X(3)	X(0)	X(1)

Duct Kits

NA = Not Approved

() = Number of internal circuit breaker kits required.

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")	919455
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

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

Expanded Ratings

P3RA-036KA

O.D.T			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1250	80	62	34.5	31.8	3.13	32.5	30.6	3.35	29.4	28.2	3.54	26.6	26.1	3.79	22.4	22.4	3.86
	80	67	37.7	26.7	3.20	35.6	25.8	3.40	32.4	24.7	3.58	29.5	23.0	3.82	25.2	21.5	3.89
	80	72	39.8	20.1	3.26	37.3	19.0	3.43	35.5	18.5	3.60	31.7	16.8	3.77	28.8	15.6	3.93
	75	63	35.1	25.9	3.14	31.9	24.9	3.35	28.4	23.3	3.52	24.8	21.3	3.70	21.4	19.3	3.84
1350	80	62	34.8	32.7	3.20	32.8	31.3	3.41	29.9	29.0	3.60	27.3	26.9	3.85	23.3	23.3	3.93
	80	67	37.7	27.7	3.26	35.3	27.0	3.47	32.5	25.8	3.66	29.2	24.1	3.87	25.6	21.9	3.99
	80	72	39.9	20.7	3.32	36.8	19.5	3.53	34.3	18.5	3.74	31.8	17.5	3.94	29.3	16.1	4.16
	75	63	35.0	29.8	3.23	31.8	25.8	3.40	28.6	24.3	3.57	25.4	22.6	3.74	22.2	20.7	3.89
1450	80	62	35.1	33.7	3.26	33.4	32.4	3.47	31.0	30.4	3.66	28.0	27.7	3.87	24.2	24.2	3.99
	80	67	37.8	28.8	3.32	35.9	28.1	3.54	33.3	27.0	3.74	30.1	25.1	3.96	26.0	22.3	4.09
	80	72	40.0	21.6	3.38	37.5	20.6	3.60	35.0	19.6	3.82	32.5	18.5	4.04	29.8	17.3	4.27
	75	63	35.2	27.5	3.26	32.2	26.4	3.44	29.2	25.1	3.62	26.2	23.7	3.80	23.2	22.0	3.97

P3RA-048KA

O.D.T			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1450	80	62	45.6	42.1	4.12	42.9	40.3	4.58	39.7	38.1	5.04	35.9	35.2	5.51	31.6	31.6	5.97
	80	67	50.7	33.9	4.16	47.9	33.4	4.60	44.8	32.3	5.06	41.1	31.0	5.51	37.1	28.9	6.07
	80	72	55.9	26.9	4.15	53.3	26.5	4.64	50.1	25.5	5.13	46.5	24.1	5.61	42.3	22.1	6.10
	75	63	46.8	33.9	4.13	44.1	33.2	4.55	40.8	31.9	4.97	37.0	30.1	5.39	32.7	27.8	5.81
1600	80	62	46.7	43.6	4.19	44.0	42.2	4.65	40.8	39.9	5.11	37.0	36.6	5.58	32.7	32.7	6.04
	80	67	51.2	36.5	4.26	48.4	36.0	4.70	45.3	34.9	5.16	41.6	33.6	5.68	37.5	31.5	6.17
	80	72	56.2	28.0	4.35	53.6	27.6	4.84	50.4	26.6	5.33	46.8	25.2	5.81	42.6	23.2	6.30
	75	63	47.2	34.8	4.20	44.5	34.1	4.62	41.2	32.8	5.04	37.4	31.0	5.46	33.1	28.7	5.88
1750	80	62	49.0	46.6	4.27	46.3	44.9	4.73	43.1	42.2	5.19	39.3	38.9	5.66	35.2	35.2	6.12
	80	67	51.8	37.8	4.36	49.3	37.3	4.80	46.2	36.2	5.26	42.5	34.9	5.78	38.4	32.8	6.27
	80	72	56.7	28.6	4.46	54.1	28.2	4.95	50.9	27.2	5.44	47.3	25.8	5.92	43.1	23.8	6.41
	75	63	47.4	35.8	4.32	44.7	35.1	4.74	41.4	33.8	5.16	37.6	32.0	5.58	33.3	29.7	6.00

P3RA-060KA(CA)

O.D.T			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1500	80	62	56.6	48.5	5.19	54.2	48.2	5.63	50.9	46.9	6.15	46.8	44.5	6.77	41.5	41.5	7.52
	80	67	61.9	40.1	5.25	60.1	38.6	5.77	56.5	37.4	6.31	52.4	35.5	6.87	47.4	34.3	7.65
	80	72	66.4	31.1	5.35	64.3	30.9	5.89	61.0	30.5	6.35	56.8	30.1	6.93	51.5	28.9	7.83
	75	63	57.9	38.9	5.21	55.5	38.3	5.65	52.2	37.1	6.17	48.0	35.0	6.79	42.7	32.1	7.52
1650	80	62	57.9	50.0	5.24	55.4	49.8	5.68	52.1	48.5	6.20	48.0	46.1	6.82	43.2	43.2	7.57
	80	67	62.4	41.3	5.31	60.6	39.8	5.83	57.0	38.6	6.37	52.9	36.7	6.93	47.9	35.5	7.71
	80	72	67.7	32.0	5.39	65.4	32.1	5.93	62.1	31.7	6.48	57.9	31.2	7.05	52.6	30.0	7.86
	75	63	58.7	40.6	5.26	56.3	40.0	5.70	53.0	38.7	6.22	48.8	36.6	6.84	43.2	33.3	7.57
1800	80	62	59.1	52.6	5.30	56.7	52.1	5.74	53.4	50.8	6.26	49.3	48.3	6.88	44.0	44.0	7.63
	80	67	63.3	43.3	5.45	61.5	41.8	5.97	57.9	40.6	6.51	53.8	38.7	7.07	48.8	37.5	7.85
	80	72	68.9	33.1	5.47	66.5	33.3	6.01	63.2	32.9	6.55	59.0	32.4	7.11	53.7	31.2	7.89
	75	63	59.9	42.1	5.40	57.5	41.4	5.82	54.2	40.1	6.34	50.0	38.0	6.96	44.7	34.9	7.69



GENERAL TERMS OF LIMITED WARRANTY

NORDYNE will furnish a replacement for any part of this product which fails in normal use and service within the first year of installation, in accordance with the terms of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the NORDYNE warranty department for a copy.

NORDYNE
COMPLETE COMFORT. GENUINE VALUE.

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