Goodman®
Air Conditioning & Heating

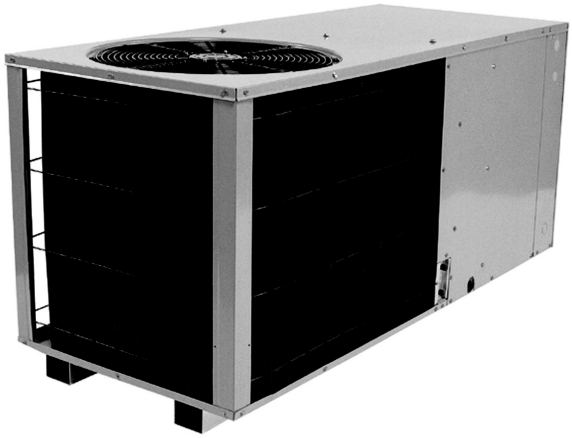
PC SERIES
50 Hertz

Self-Contained Packaged Air Conditioners

4 and 5 Ton [14.1 kW to 17.6 kW]

Nominal Cooling Capacity: 48,000 to 60,000 BTUH

CE



The PC 50 Hz self-contained packaged air conditioners are designed for side-by-side and ground-level or rooftop applications.

Standard Features
- Two-speed evaporator blower motor; low-speed for low-static applications, high-speed for high-static applications
- Quiet operating top condenser discharge
- Copper tubes/aluminum fin coils
- Hermetically sealed reciprocating compressor with internal relief valve and internal overload protection
- Fully charged R-22 system
- Liquid line filter drier
- High-efficiency performance
- Bottom pan rails elevate unit above slab
- High-pressure manual reset control
- Totally enclosed, permanently lubricated condenser fan motor
- Both condenser fan and evaporative blower motors are provided with internal thermal overload protection

Third-Party Tested
- Independent third party performance tested by ETL Testing Laboratories, Inc. Per ARI Standard 210-240

Cabinet Construction
- Heavy-gauge, G-90 galvanized steel with removable access panels
- Completely weatherized, properly reinforced and braced
- Steel sheet metal is zinc-coated and galvanized by the hot-dip process
- Fully insulated air handling compartment
- Convenient access panels

Accessories
- Heat Kit with plug-in connection (nominal capacity from 12-15 kW)
- Room Thermostat (CHT18-60)
- Outdoor Thermostat (OT18-60)
- Thermostat (CHT18-60HD)

Accessories (Field Supplied)
- Roof Curb
- Downflow Plenum (includes filter rack)
- Manual Freash Air Damper (to be used with Downflow Plenum)
- Economizer (to be used with Downflow Plenum)

Accessory Heat Kit Features
- Primary limit protection
- Rust-resistant nickel Chromium heating elements (see Electrical Data Chart)

Specifications

	PC048-5A	PC060-5A
Total Cooling Capacity BTUH [KW]	42,200 [12.4]	50,300 [14.7]
Sensible Cooling Capacity BTUH [KW]	29,800 [8.7]	32,200 [9.4]
EER	9.63	8.15
Sound Rating (bels)	8.4	8.4
Indoor Blower		
Type	DD	DD
Size -D x W in [cm]	9 x 8 [22.9 x 20.3]	10 x 8 [25.4 x 20.3]
Motor H.P. [KW]	1/2	3/4
Evaporator Coil		
Face Area ft² [m²]	6.44 [0.60]	6.22 [0.58]
Fins/In FPI [Fins per cm]	15 [5.9]	12 [4.7]
No. of Rows	2	3
Outdoor Fan		
Fan Dia. In [cm]	22 [56]	22 [56]
Motor H.P.	1/4	1/4
Condenser Coil		
Face Area ft² [m²]	16.2 [1.5]	16.2 [1.5]
Fins/In FPI [Fins per cm]	22 [8.7]	22 [8.7]
No. of Rows	1	1

EER = Energy Efficient Ratio = Capacity (BTUH)/kW Input
kW Input = Compressor + Indoor and Outdoor Blower Watts
Cooling performance based upon standard airflow CFM.
Performance of units tested and verfied by ETL Testing Laboratories.
Total Cooing Capacities is gross, which does not include the effect of teh indoor motor.

Model Identification

P C 0 6 0 – 5A

Electrical Designator
5 - 380 -415 V, 3 Ph, 50 Hz

Nominal Capacity
048 - 42200 BTUH
060 - 50300 BTUH

Unit Type
PC - Package Cooling Unit

* All units are direct drive (DD)

Electrical Ratings

Model	Power Supply			*Minimum Circuit Ampacity	Maximum Overcurrent Protection	Max Volts	Min Volts	Compressor			Blower Motor		Cond. Fan Motor	
	Volts	Ph	Hz					RLA	LRA	Watts	FLA	Watts	FLA	Watts
PC048-5A	380/415	3	50	12.9	20	456	342	8.4	45	3680	1.3	355	0.6	225
PC060-5A	380/415	3	50	16.4	20	456	342	10.5	62	4955	2.2	715	0.6	215

*Wire size should be determined in accordance with Local Electrical Codes. Extensive wire runs will require larger wire sizes.

Evaporator Blower Specifications

Model	Speed	Airflow	External Static Pressure In-Water [Mbar]				
			0.1 [0.25]	0.2 [0.5]	0.3 [0.75]	0.4 [1.0]	0.5 [1.25]
PC060-5A	LOW	CFM [L/s]	1885 [890]	1840 [870]	1795 [850]	1675 [790]	1575 [740]
	HIGH	CFM [L/s]	2030 [960]	1955 [920]	1900 [900]	1760 [830]	1655 [780]
PC048-5A	LOW	CFM [L/s]	1540 [730]	1450 [680]	1315 [620]	1215 [570]	1070 [500]
	HIGH	CFM [L/s]	1590 [750]	1490 [700]	1395 [660]	1280 [600]	1120 [530]

[ ] Designates metric

PC048-5A

INDOOR AIR		CONDENSER AIR TEMPERATURE (DEGREE F)														
		85			95			105			115			120		
SCFM	WB	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw
1118	72	52.2	25.1	5.17	49.4	24.0	5.38	46.5	23.0	5.64	43.7	21.9	5.90	42.3	21.4	6.03
	67	47.5	31.3	4.80	45.1	30.3	5.07	42.3	29.2	5.33	39.5	29.2	5.59	38.1	29.2	5.72
	62	43.7	37.2	4.54	42.5	36.2	4.80	41.4	35.1	5.07	39.0	33.8	5.27	37.8	33.1	5.38
	57	42.3	39.7	4.44	40.4	37.9	4.70	38.1	35.8	5.01	36.2	33.8	5.22	35.3	32.7	5.33
1315	72	54.1	27.8	5.27	51.2	26.8	5.54	48.4	26.1	5.80	45.1	24.7	6.06	43.5	24.0	6.19
	67	49.8	35.8	4.96	47.0	34.8	5.22	44.2	33.8	5.48	41.4	32.7	5.74	40.0	32.2	5.88
	62	46.1	42.8	4.70	43.7	41.1	4.96	41.8	39.0	5.22	39.5	36.9	5.54	38.3	35.8	5.69
	57	45.6	43.2	4.70	43.7	41.1	4.96	41.8	39.0	5.22	39.5	36.9	5.54	38.3	35.8	5.69
1512	72	55.5	30.3	5.38	52.6	29.2	5.64	49.4	28.2	5.90	46.5	27.5	6.16	45.1	27.1	6.29
	67	51.2	40.0	5.07	48.4	39.0	5.33	45.6	37.6	5.59	42.8	36.5	5.85	41.4	36.0	5.98
	62	48.9	45.6	4.91	46.1	43.5	5.17	44.2	41.4	5.43	41.4	39.0	5.74	40.0	37.8	5.90
	57	48.9	45.6	4.91	46.1	43.5	5.17	44.2	41.4	5.43	41.4	39.0	5.74	40.0	37.8	5.90

Sensible heat capacities shown are based on 80^{F} DB entering air at the evaporator coil. For sensible heat capacities at other than 80^{F} DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80^{F}, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80^{F}.

CAPACITIES AT 95^{F} OUTDOOR., 75^{F} DB AND 63^{F} WB INDOOR
TOTAL MBTUH 39.8 SENSIBLE MBTUH 28.2 LATENT MBTUH 11.7

PC060-5A

Indoor Air		Condenser Air Temperature (Degree F)														
		85			95			105			115			120		
SCFM	WB	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw	Total Mbtuh	Sens Mbtuh	Watts Kw
1615	72	64.4	31.3	6.38	60.9	30.0	6.64	57.4	28.7	6.96	53.9	27.4	7.28	52.2	26.8	7.44
	67	58.6	39.2	5.93	55.7	37.8	6.25	52.2	36.5	6.57	48.7	36.5	6.90	47.0	36.5	7.06
	62	53.9	46.5	5.61	52.5	45.2	5.93	51.0	43.9	6.25	48.1	42.2	6.51	46.7	41.3	6.64
	57	52.2	49.6	5.48	49.9	47.4	5.80	47.0	44.8	6.19	44.7	42.2	6.44	43.5	40.9	6.57
1900	72	66.7	34.8	6.51	63.2	33.5	6.83	59.7	32.6	7.15	55.7	30.9	7.48	53.7	30.0	7.64
	67	61.5	44.8	6.12	58.0	43.5	6.44	54.5	42.2	6.77	51.0	40.9	7.09	49.3	40.2	7.25
	62	56.8	53.5	5.80	53.9	51.3	6.12	51.6	48.7	6.44	48.7	46.1	6.83	47.3	44.8	7.02
	57	56.3	53.9	5.80	53.9	51.3	6.12	51.6	48.7	6.44	48.7	46.1	6.83	47.3	44.8	7.02
2010	72	68.4	37.8	6.64	65.0	36.5	6.96	60.9	35.2	7.28	57.4	34.4	7.60	55.7	33.9	7.77
	67	63.2	50.0	6.25	59.7	48.7	6.57	56.3	47.0	6.90	52.8	45.7	7.22	51.0	45.0	7.38
	62	60.3	57.0	6.06	56.8	54.4	6.38	54.5	51.8	6.70	51.0	48.7	7.09	49.3	47.2	7.28
	57	60.3	57.0	6.06	56.8	54.4	6.38	54.5	51.8	6.70	51.0	48.7	7.09	49.3	47.2	7.28

Sensible heat capacities shown are based on 80^{F} DB entering air at the evaporator coil. For sensible heat capacities at other than 80^{F} DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80^{F}, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80^{F}.

CAPACITIES AT 95^{F} OUTDOOR., 75^{F} DB AND 63^{F} WB INDOOR
TOTAL MBTUH 47.48 SENSIBLE MBTUH 29.79 LATENT MBTUH 17.688

PC048-5A (Metric)

Indoor Air		Condenser Air Temperature (Degree C)														
		29			35			41			46			49		
L/S	WB	Total Kw	Sens Kw	Watts Kw	Total Kw	Sens Kw	Watts Kw	Total Kw	Sens Kw	Watts Kwh	Total Kw	Sens Kw	Watts Kwh	Total Kw	Sens Kw	Watts Kwh
528	22.2	15.3	7.3	6.38	14.5	7.0	6.64	13.6	6.7	6.96	12.8	6.4	7.28	12.4	6.3	7.44
	19.4	13.9	9.2	5.93	13.2	8.9	6.25	12.4	8.6	6.57	11.6	8.6	6.90	11.2	8.6	7.06
	16.7	12.8	10.9	5.61	12.5	10.6	5.93	12.1	10.3	6.25	11.4	9.9	6.51	11.1	9.7	6.64
	13.9	12.4	11.6	5.48	11.8	11.1	5.80	11.2	10.5	6.19	10.6	9.9	6.44	10.3	9.6	6.57
621	22.2	15.8	8.2	6.51	15.0	7.9	6.83	14.2	7.6	7.15	13.2	7.2	7.48	12.7	7.0	7.64
	19.4	14.6	10.5	6.12	13.8	10.2	6.44	12.9	9.9	6.77	12.1	9.6	7.09	11.7	9.4	7.25
	16.7	13.5	12.5	5.80	12.8	12.0	6.12	12.3	11.4	6.44	11.6	10.8	6.83	11.2	10.5	7.02
	13.9	13.4	12.6	5.80	12.8	12.0	6.12	12.3	11.4	6.44	11.6	10.8	6.83	11.2	10.5	7.02
714	22.2	16.3	8.9	6.64	15.4	8.6	6.96	14.5	8.3	7.28	13.6	8.1	7.60	13.2	8.0	7.77
	19.4	15.0	11.7	6.25	14.2	11.4	6.57	13.4	11.0	6.90	12.5	10.7	7.22	12.1	10.6	7.38
	16.7	14.3	13.4	6.06	13.5	12.7	6.38	12.9	12.1	6.70	12.1	11.4	7.09	11.7	11.1	7.28
	13.9	14.3	13.4	6.06	13.5	12.7	6.38	12.9	12.1	6.70	12.1	11.4	7.09	11.7	11.1	7.28

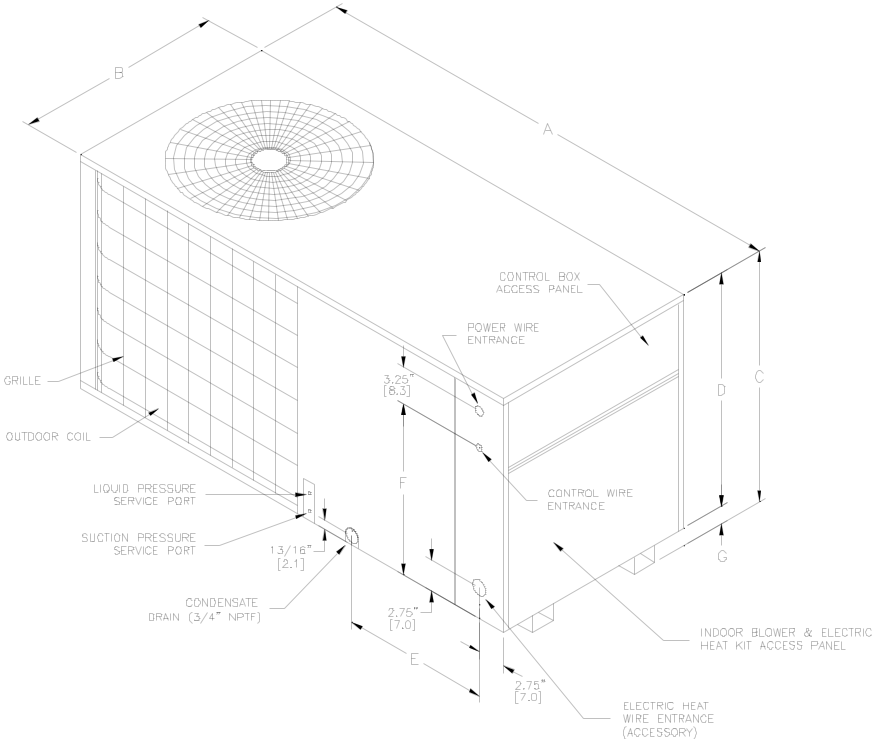
Total capacity shown is gross capacity. Senssible heat capacities shown are based on 80F (26.7C) DB entering air at the evaporator coil. For sensible heat capacities at other than 80 F (26.7) DB, deduct 84 BTUH (0.25 KW) per 100 CFM (50L/s) of evaporator coil air per 1 F (0.6C) below 80 F (26.7C), or add 84 BTUH (0.025 KW) per 100 CFM (50 L/s) of evaporator coil air per 1 F (0.6C) above 80 F (26.7C).

PC060-5A (Metric)

Indoor Air		Condenser Air Temperature (Degree C)														
		29			35			41			46			49		
L/S	WB	Total Kw	Sens Kw	Watts Kw	Total Kw	Sens Kw	Watts Kw	Total Kw	Sens Kw	Watts Kwh	Total Kw	Sens Kw	Watts Kwh	Total Kw	Sens Kw	Watts Kwh
762	22.2	18.9	9.2	6.38	17.8	8.8	6.64	16.8	8.4	6.96	15.8	8.0	7.28	15.3	7.8	7.44
	19.4	17.2	11.5	5.93	16.3	11.1	6.25	15.3	10.7	6.57	14.3	10.7	6.90	13.8	10.7	7.06
	16.7	15.8	13.6	5.61	15.4	13.3	5.93	15.0	12.9	6.25	14.1	12.4	6.51	13.7	12.1	6.64
	13.9	15.3	14.5	5.48	14.6	13.9	5.80	13.8	13.1	6.19	13.1	12.4	6.44	12.7	12.0	6.57
897	22.2	19.5	10.2	6.51	18.5	9.8	6.83	17.5	9.6	7.15	16.3	9.1	7.48	15.7	8.8	7.64
	19.4	18.0	13.1	6.12	17.0	12.7	6.44	16.0	12.4	6.77	15.0	12.0	7.09	14.4	11.8	7.25
	16.7	16.7	15.7	5.80	15.8	15.0	6.12	15.1	14.3	6.44	14.3	13.5	6.83	13.9	13.1	7.02
	13.9	16.5	15.8	5.80	15.8	15.0	6.12	15.1	14.3	6.44	14.3	13.5	6.83	13.9	13.1	7.02
949	22.2	20.1	11.1	6.64	19.0	10.7	6.96	17.8	10.3	7.28	16.8	10.1	7.60	16.3	9.9	7.77
	19.4	18.5	14.7	6.25	17.5	14.3	6.57	16.5	13.8	6.90	15.5	13.4	7.22	15.0	13.2	7.38
	16.7	17.7	16.7	6.06	16.7	15.9	6.38	16.0	15.2	6.70	15.0	14.3	7.09	14.4	13.8	7.28
	13.9	17.7	16.7	6.06	16.7	15.9	6.38	16.0	15.2	6.70	15.0	14.3	7.09	14.4	13.8	7.28

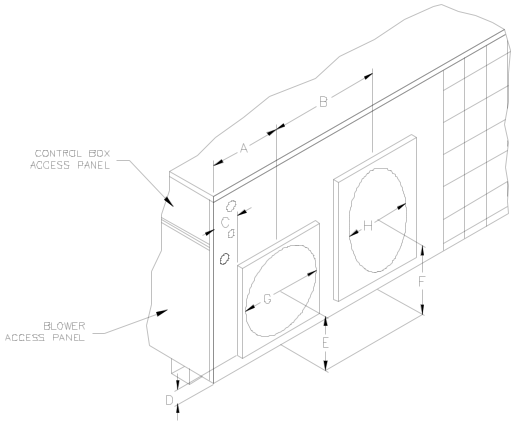
Total capacity shown is gross capacity. Senssible heat capacities shown are based on 80F (26.7C) DB entering air at the evaporator coil. For sensible heat capacities at other than 80 F (26.7) DB, deduct 84 BTUH (0.25 KW) per 100 CFM (50L/s) of evaporator coil air per 1 F (0.6C) below 80 F (26.7C), or add 84 BTUH (0.025 KW) per 100 CFM (50 L/s) of evaporator coil air per 1 F (0.6C) above 80 F (26.7C).

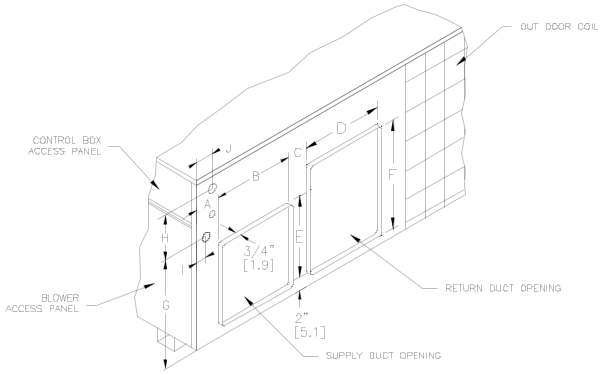
Dimensions



A	B	C	D	E	F	G
63.15 [160.4]	32.15 [81.7]	34.62 [87.9]	32.50 [82.6]	19.56 [49.7]	27.06 [68.7]	2.12 [5.4]

Unit with Circular Duct Panel Added



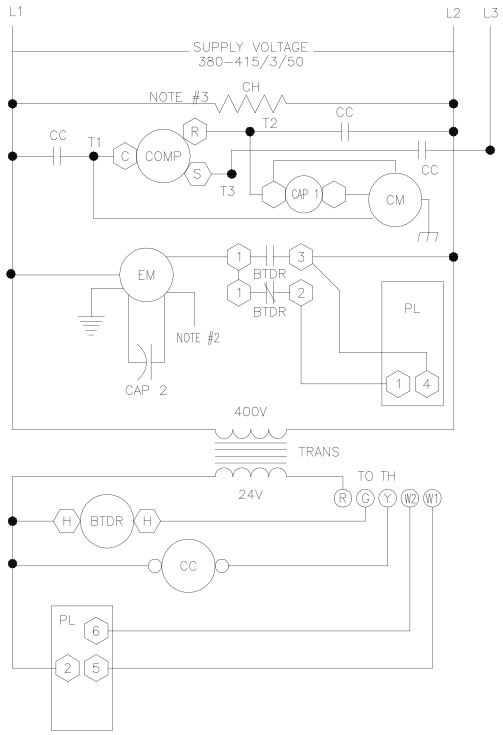


A	B	C	D	E	F	G	H*
10.75 [27.3]	20.25 [51.4]	3.75 [9.5]	2.00 [5.1]	9.00 [22.9]	14.00 [35.6]	14.00 [35.6]	18.00 [45.7]

A	B	C	D	E	F	G	H	I	J
3.75 [9.5]	14 [35.6]	6.25 [15.9]	14 [35.6]	14 [35.6]	24 [61.0]	18.68 [47.4]	11.62 [29.5]	2.25 [5.7]	2.75 [7.0]

* H return opening is equivalent to round duct stated

Schematic Wiring Diagrams



BTDR	BLOWER TIME DELAY RELAY
CAP	CAPACITOR
COMP	COMPRESSOR
CM	CONDENSOR MOTOR
CC	CONTACTOR
CH	CRANKCASE HEATER
EM	EVAPORATOR MOTOR
GL	GROUND LUG
PL	PLUG
SC	SPLICE CONNECTOR
TH	THERMOSTAT
LPS	LOW PRESSURE SWITCH
HPS	HIGH PRESSURE SWITCH
□	MARK TERMINAL
°	UNMARKED TERMINAL
*	WIRE SPLICE

W - WHITE
G - GREEN
R - RED
Y - YELLOW

NOTE: CRANKCASE HEATER SUPPLIED ON 5 TON UNITS ONLY.

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Quality Makes the Difference!

All of our systems are designed and manufactured with the same high-quality standards, regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run-tested before it leaves the factory. That's why we know...there's no better quality.

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