



Applied Packaged Terminal Air Conditioner with Top-Mounted Hydronic Heat

Catalog 1355-9

16" x 42" Model PDAN

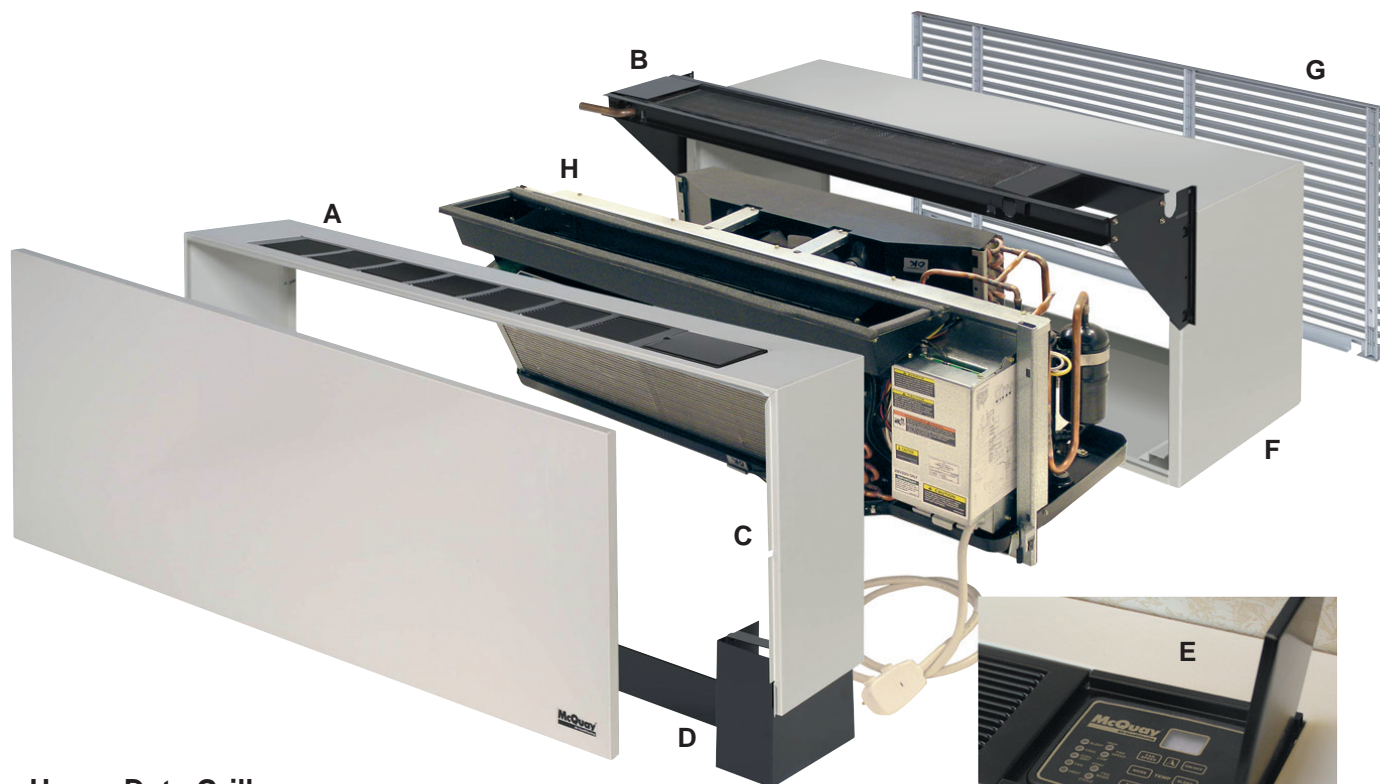
Unit Sizes 007 – 017 • R-410A Refrigerant



Engineered for flexibility and performance™

Unit Features – 16" x 42" Model PDAN with Top-Mounted Hydronic Heat

Complete solution, high efficiency and very quiet – five sizes from 7,000 to 17,000 Btuh



A. Heavy-Duty Grille

- Two-way adjustment allows air to be directed where it is needed.
- Option for extruded aluminum grille.

B. Heating Chassis

- Top-mounted hydronic (steam or hot water) heat for easy installation.

C. Room Cabinet

- Heavy-gauge steel with powder paint coating for maximum scratch and dent resistance.
- Removable for easy access to filters, controls and piping for routine maintenance and service.
- Option for custom cabinet colors.
- Custom depth for varying wall thicknesses.
- Available in front or bottom return configurations.

D. Kick Plate

- Adjustable height and custom colors for varying floor treatments.

E. Digital Touchpad Control

- Reliable and easy to read and operate.
- Continuous or cycle indoor fan operation.
- Automatic room freeze protection.



Digital Touchpad Control



Infrared Remote (Option)

F. Wall Sleeve

- Heavy-gauge steel with powder paint coating for maximum scratch, dent and corrosion resistance.
- Custom wall sleeve depths available.
- Options for brick or panel/curtain wall applications.

G. Outside Air Louver

- Heavy-duty, architectural, extruded aluminum to resist weathering.
- Option for recessed louver.

H. Cooling Chassis

- Energy efficient, quiet and reliable rotary compressor.

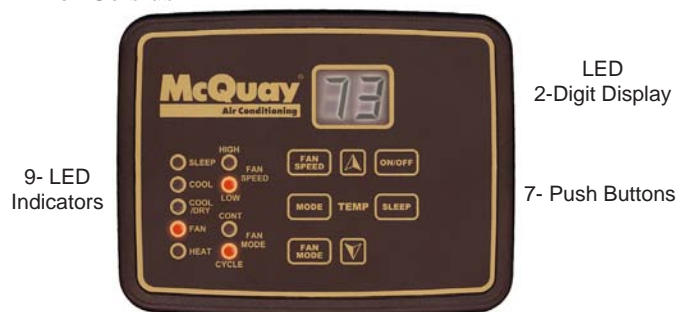
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Digital Touchpad Control

The PDAC/PDHP Standard Touchpad Control is used to control both an integral air conditioner and a source of heat. The user will by default control the electronic controller via the touchpad. The user can select with a jumper for the unit to receive commands from a remote thermostat.

Standard (non-programmable) digital touchpad

- Provides 5-selectable modes of operation: Sleep, Cool, Cool/Dry, Fan, Heat
- Temperature can be displayed in Fahrenheit (default) or Celsius



Inputs and outputs

- Indoor coil sensor, (ICS)
- Outdoor coil sensor, (OCS)
- Indoor air sensor, (IAS)
- Outdoor air sensor, (OAS)
- Remote thermostat, T'STAT (RCBYWG)
- Heat Fan Lock Out, (HFLO)
- Power supply: (24VAC)
- Line voltage input, (L1, L2)
- Indoor fan standby voltage, (L1STB L2STB)
- Control selection: (LUI, T'STAT)
- Model selection: (AC/E, HP, HP/E)
- Time delay bypass, (TEST)
- Indoor off fan cycle: (FAN, OFF CYCLE-10, 20, 30, 1 HR)

Outputs

- Compressor output, COM
- Indoor fan, BLOWER LO, HI
- Outdoor fan, OUTDOOR FAN
- Electric heater, ELE
- Reversing valve, REV VALVE

Keys and indicators labels

7 Push Buttons	ON/OFF, FAN SPEED, MODE FAN MODE, SLEEP Temp buttons: ▲ for Temp UP and ▼ for Temp DOWN
9 LED Indicators	SLEEP, COOL, COOL/DRY, FAN, HEAT, HIGH, LOW, CYCLE, CONT.
LED 2 Digit Displays	No Label

Display function legend

Tr = Room Temperature
 hI = High Room Temperature
 Lo = Low Room Temperature
 LA = Low Ambient Lockout
 rT = Remote Thermostat Control
 tP = Touchpad Control
 t = Time
 Ts = Temperature Setpoint
 Rf = Room Freeze Condition
 CF = Coil Freeze Protection
 F = Fahrenheit
 C = Celsius
 LC = Control Lockout Mode

Remote thermostat control

The remote thermostat can be any thermostat that can interface with an electronic thermostat via RCB-WYG terminals. The Control Selection jumper must be in T'STAT position. During a call the remote thermostat will pass R back to the controller on a respective terminal. The push buttons on the touchpad become inactive in the remote thermostat mode. However, the control pad LED display will indicate the mode of operation, and the room temperature.

Notes: In terms of outputs, there are two types of thermostats: relay contacts and solid state.

If you open the thermostat and don't see relays then it must be solid state.

Manufacturers of solid state output thermostats include loading resistors on their installation kits. They are of 560 Ohm and 3W value. These resistors are meant to load thermostat solid state outputs in order for the output voltage to be either 0 or 24VAC, i.e. no floating voltage. These resistors are connected from W, Y, G to common (C), respectively.

You can wire any type of 24Vac thermostat straight into the REMOTE T'STAT connector of PTAC control boards, 667997101 and 667997201 (Basic and Premium models) and the control boards will recognize the signals from them.

McQuay Model PDAN Product Nomenclature

Note: For Illustration purposes only. Not all options available with all models.
Please consult a McQuay Sales Representative for specific availability.

P DAN 2 009 E M A H A B A M A A E

Unit Type

P = PTAC

Product Identifier

PDAN = Air Conditioner

Design Series

- 1 = A Design 1
- 2 = B Design 2
- 3 = C Design 3
- 4 = D Design 4
- 5 = E Design 5

Unit Size

- 007 = 7,000
- 009 = 9,000
- 012 = 12,000
- 015 = 15,000
- 017 = 17,000 (Cooling Only)

Voltage

- A = 115-60-1
- E = 208/230-60-1
- J = 265/277-60-1
- P = 208/230-60-1 w/stndby 115-60-1
- R = 265-60-1 w/stndy 115-60-1
- T = 208/208-60-1

Brand Name

M = McQuay

Refrigerant

A = R-410A

Heating Type

- E = Electric Heat
- H = Hydronic
- A = Hydronic w/Intermediate Electric

Electric Heat

- A = 2.5 Kw
- B = 3.5 Kw
- C = 5.0 Kw
- Y = None

Hydronic Heat Type

- S = Steam Top Mount (Normally Closed)
- H = Hot Water Top Mount (Normally Open)
- Y = None

Warranty

- A = Standard
- E = Extended
- X = Special

SKU

- A = Stock
- B = Build to Order

Upgrade Packages

- S = Seacoast
- Y = None

Power Connection

- L = Long Cord – 72" (Standard)
- S = Short Cord – 18" (Optional)
- Y = None

Room Interface

- Cabinet Type**
- A = Top-Mounted Hydronic Flat top, Bottom Return

Controls

Control Board Type

- PNUY = Premium, Non-Programmable, Unit Mounted
- PNWY = Premium, Non-Programmable, Wall Mounted
- PNRY = Premium, Non-Programmable, Infrared
- PPUY = Premium, Programmable Unit Mounted
- PAUY = Premium, Programmable with Auto Changeover, Unit Mounted
- PPWY = Premium Programmable, Wall Mounted
- PPRY = Premium Programmable, Infrared

Damper Type

Damper Control

- A = Automatic (Required for Hydronic Heating Subbase)
 - A = Fresh Air Boost Fan
- M = Manual
- Y = No Damper

ARI Performance Data

UNIT SIZE		007			009			012		015		017	
Cooling	Total Btuh(1)	7,400	7,400	7,400	9,100	9,100	9,100	12,800	12,800	14,400	14,400	16,800	
	Sensible Btuh(1)	6,500	6,500	6,500	7,500	7,500	7,500	9,000	9,000	9,600	9,600	11,700	
	EER	10.9	10.9	10.9	10.7	10.7	10.7	9.8	9.8	9.4	9.4	9.3	
	Volts	115	208/230	265	115	208/230	265	208/230	265	208/230	265	208/230	
	Full Load Amps(6)	7.43	4.07	3.34	9.33	5.45	4.04	7.15	6.09	8.21	6.69	10.03	
	Watts(1)	679	679	679	850	850	850	1,306	1,306	1,532	1,532	1,806	
Electric Heat(3)	Volts		208/230	265		208/230	265	208/230	265	208/230	265	208/230	
	2.5 kW	kW		2.2/2.7			2.2/2.7		2.2/2.7		2.2/2.7		2.2/2.7
		Amps		10.7/11.9			10.7/11.9		10.7/11.9		10.7/11.9		10.7/11.9
	3.5 kW	kW		3.1/3.8	3500		3.1/3.8	3500	3.1/3.8	3500	3.1/3.8	3500	3.1/3.8
		Amps		15.2/16.8	13.7		15.2/16.8	13.7	15.2/16.8	13.7	15.2/16.8	13.7	15.2/16.8
	5.0 kW	kW							3.9/4.8	5,000	3.9/4.8	5,000	3.9/4.8
Amps								19.0/21.0	19.3	19.0/21.0	19.3	19.0/21.0	
Hydronic Heat(4)	Valve & Fan Motor Amps	0.74	0.41	0.32	0.74	0.41	0.32	0.41	0.32	0.41	0.32	0.47	
	Hot Water (Btuh) Hi/Lo	18,400/15,600			18,400/15,600			18,400/15,600		18,400/15,600		23,200/16,400	
	Steam (Btuh) Hi/Lo	22,400/22,300			22,400/22,300			22,400/22,300		22,400/22,300		27,900/23,300	
Heat Pump Model													
Cooling	Qt, Btuh(2)	7,400	7,400	7,400	9,200	9,200	9,200	12,700	12,700	14,200	14,200		
	Qs, Btuh(2)	6,500	6,500	6,500	7,500	7,500	7,500	9,000	9,000	9,500	9,500		
	EER	10.9	10.9	10.9	10.3	10.3	10.3	9.8	9.8	9.4	9.4		
	Volts	115	208/230	265	115	208/230	265	208/230	265	208/230	265		
	Full Load Amps	7.43	4.07	3.34	9.33	5.45	4.04	7.15	6.09	8.21	6.69		
	Watts(1)	679	679	679	893	893	893	1,296	1,296	1,511	1,511		
Reverse Cycle Heat	Btuh(2)	6,800	6,800	6,800	8,500	8,500	8,500	12,400	12,400	14,000	14,000		
	COP	3.2	3.2	3.2	3.3	3.3	3.3	3.0	3.0	2.9	2.9		
	Volts	115	208/230	265	115	208/230	265	208/230	265	208/230	265		
	Full Load Amps	7.43	4.07	3.34	9.33	5.45	4.04	7.15	6.09	8.21	6.69		
Electric Heater	Voltage		240V	265V		240V	265V	240V	265V	240V	265V	240V	
	Minimum Circuit Ampacity	2.5 Kw		14.3			14.3		14.3		14.3		
Time Delay Fuses or Type HACR Circuit Breaker	3.5 Kw		19.3	16.4			19.3	16.4	19.3	16.4	19.3	16.4	
	5.0 Kw						28.3	22.2	28.3	22.2	28.3	22.2	
	Hydronic Heat	8.69	4.77	3.89	11.06	6.49	4.77	8.48	7.22	9.8	7.97	12.07	
	2.5 Kw		15			15		15		15		15	
NEMA Receptacle Type Required	3.5 Kw		20	15		20	15	20	15	20	15	20	
	5.0 Kw						25	20	25	20	25	20	
	Hydronic Heat	15	15	15	15	15	15	15	15	15	15	15	
	2.5 Kw		6-15R			6-15R		6-15R		6-15R		6-15R	
Airflow CFM	Cool	High		Low		High		Low		High		Low	
		360		330		360		330		360		330	
	Heat	380		340		380		340		380		340	
		540		550		540		550		540		550	
Vent(5)	50		40		50		40		50		40		

- (1) Based on ASHRAE and ARI test conditions of 95°F DB/75°F WB outside, 80°F DB/67°F WB inside.
 (2) Based on ASHRAE and ARI test conditions of 47°F DB outside, 70°F DB inside.
 (3) Electric Resistance Heat Watts x 3.41 = Btuh. Electric Heating Watts and Amps include Indoor Fan Motor.
 (4) Water – Based on ASHRAE and ARI test conditions of 200°F EWT, 180°F LWT, 70°F EAT with a 1.8 gpm flow rate.
 (5) 90 cfm with Power Vent Option.
 (6) Cooling Full Load Amps includes Compressor, IDF and ODF FLA's.

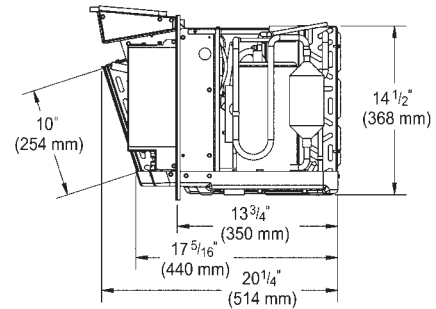
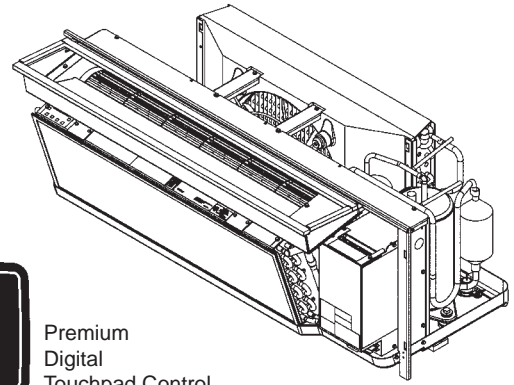
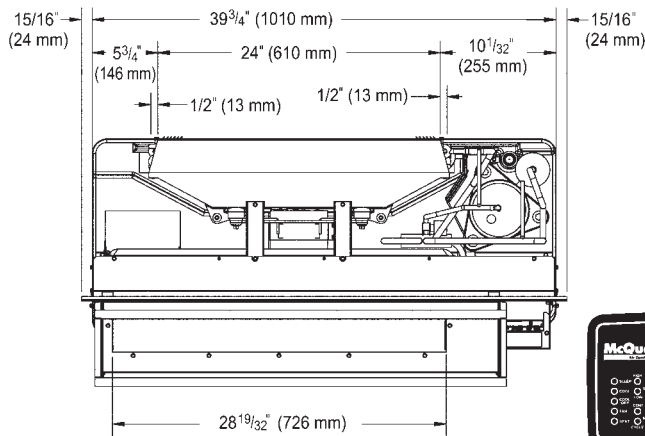
Unit Weights - (lbs.)

Model	007	009	012	015	017
16" x 42" PDHP (Packaged)	146.0	153.5	154.4	162.1	
16" x 42" PDAC (Packaged)	144.5	152.0	152.9	160.6	160.6
16" x 42" PDHP (Chassis)	131.0	138.5	139.4	147.1	
16" x 42" PDAC (Chassis)	129.5	137.0	137.9	145.6	145.6

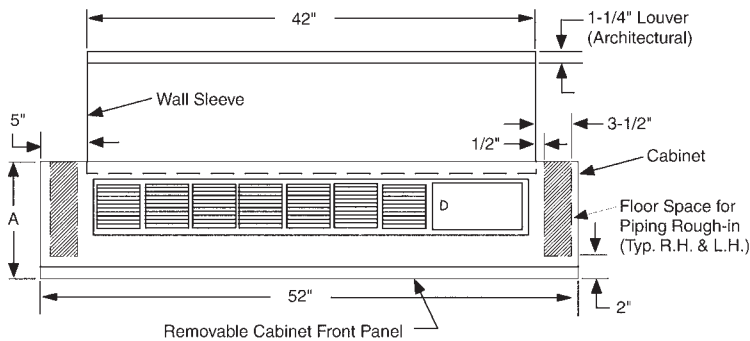
= Not Applicable

Dimensional Data

Unit Dimensions – Chassis



Unit Dimensions – Wall Sleeve, Cabinet & Louver



1/4" RECESS FOR ARCHITECTURAL LOUVER		
"A" – IN. (MM)	"D" – IN. (MM)	"B" – IN. (MM)
ROOM CABINET	WALL SLEEVE	WALL THICKNESS
18 3/4 (476)	13 3/4 (349)	4 3/4 – 5 3/4 (121–146)
17 3/4 (451)	13 3/4 (349)	5 3/4 – 6 3/4 (146–171)
16 3/4 (425)	13 3/4 (349)	6 3/4 – 7 3/4 (171–197)
15 3/4 (400)	13 3/4 (349)	7 3/4 – 8 3/4 (197–222)
14 3/4 (375)	13 3/4 (349)	8 3/4 – 9 3/4 (222–248)
13 3/4 (349)	13 3/4 (349)	9 3/4 – 10 3/4 (248–273)
12 3/4 (324)	13 3/4 (349)	10 3/4 – 11 3/4 (273–298)
11 3/4 (298)	13 3/4 (349)	11 3/4 – 12 3/4 (298–324)
10 3/4 (273)	13 3/4 (349)	12 3/4 – 13 3/4 (324–349)
10 3/4 (273)	14 3/4 (375)	13 3/4 – 14 3/4 (349–375)
10 3/4 (273)	15 3/4 (400)	14 3/4 – 15 3/4 (375–400)
10 3/4 (273)	16 3/4 (425)	15 3/4 – 16 3/4 (400–425)
10 3/4 (273)	17 3/4 (451)	16 3/4 – 17 3/4 (425–451)

Standard Size Wall Sleeve

Note: Electrical rough-in should be located behind kickplate (removable front) and below wall sleeve.

