



United Technologies
turn to the experts

Package Rooftop Units – 50Hz



Quality Assurance
Certificate Reg. No:
04 100 950420



Subject to change without notice
Manufacturing point: Jeddah, Saudi Arabia
Nearest port of embarkation: Jeddah Islamic port
Product classification: Commercial

Product Data Catalog

50ZPM – 50Hz **Nominal Cooling Capacity 3.0 – 5.0 Tons** **HFC R-410A Refrigerant**

The 50ZPM units are single side discharge rooftop cooling unit utilizing electric heat as an option. Units are pre-wired, pre-charged with R-410A refrigerant, and tested at the factory. These units can be placed on the side of a building or can be placed on a roof without roof curbs. Each unit is designed to occupy a minimal space. Piping and drain connections are readily accessible.

The 50ZPM unit is a packaged air conditioner manufactured for housing, residential, and light commercial applications. The 50ZPM unit design is the result of our firm commitment to the development of the finest air conditioners that modern technology can offer.

PHYSICAL DATA - ENGLISH

Unit 50ZPM	36	48	60
Unit Size (Nominal Ton)	3.0	4.0	5.0
Unit Dimensions - in	50.98 x 31.99 x 34.61	50.98 x 31.99 x 38.62	50.98 x 31.99 x 46.62
Unit Operation Weight - LBS	279	305	352
Refrigeration System			
Compressor No.# / Type	1 / Reciprocating	1 / Scroll	
Refrigerant Type	Puron ® R410A		
Circuits No.#	1		
Charge - LBS	5.81	5.83	7.38
Metering Device / ORIFIC OD (in)	Piston / 0.067	Piston / 0.082	TXV / N.A
Filter Drier Qty	1		
High Pressure Switch (Trip ±15/ Reset±25) - PSIG	650 / 420		
Low Pressure Switch (Trip ±5/ Reset±5) - PSIG	54 / 117		
Condenser Coil ⁽¹⁾			
Coil Type	7mm Helical Grooved Copper Tube, 0.74" Aluminum LSW Fins		
Standard Coil Material	Cu/Al		
Rows / Fins (FPI)	2 / 20		
Face Area (ft ²)	9.1	10.2	13.0
Coil Test Pressure (PSIG)	450		
Condenser Fan & Motor			
Approx. Air Flow Rate (CFM)	3350	3400	3700
Quantity	1		
Diameter (in) / No. of Blades	20 / 3		20 / 4
Motor Type	Induction Motor - Totally Enclosed		
Motor HP - RPM	1/3 - 1460		
Evaporator Coil ⁽²⁾			
Coil Type	3/8" Helical Grooved Copper Tube, 0.75" Aluminum LSW Fins		
Standard Coil Material	Cu/Al		
Rows / FPI	3 / 12		
Face Area (ft ²)	4.3	4.9	6.1
Coil Test Pressure (PSIG)	350		
Drain Pan Connection Size (in)	3 / 4		
Return Air Filter Qty / Size (in) - Recommended ⁽³⁾	1 / 24 x 30 x 1		1 / 24 x 36 x 1
Evaporator Fan and Motor Section			
Fan Quantity	1		
Fan Size (Diam. x L) (in)	11.0 x 9.0		12.0 x 10.5
Fan Type	Centrifugal - Forward Blade		
Drive Type	Direct Drive		
Motor Type	Electronically Commutated (ECM)		
Indoor Motor Factory Speed Setting	Medium		Low
Motor Quantity	1		
Maximum HP - Maximum Watt	1/2 - 530	3/4 - 780	1 - 1050
FLA	4.1	6.0	7.6
Efficiency %	78.5	80.0	79.0
No. Of Taps	3 - [1 (Low) - 2 (Medium) - 3 (High)]		
Tap Torque (OZ Ft) [L - M - H]	26.20 - 30.27 - 34.98	43.06 - 45.88 - 58.12	42.98 - 45.80 - 54.90
% of Full Output @ Tap [L - M - H]	65.49 - 75.69 - 87.45	71.76 - 76.47 - 96.86	53.73 - 57.25 - 68.63
Motor OFF- Delay (sec.) @ Tap [L - M - H]	60 - 30 - 0		
Nominal Air Flow Rate (CFM)	1200	1600	1650
External Static Pressure (In.W.G)	Up to 1.0"		
RPM Range	600 - 1200		
Motor Frame Size	NEMA Size - 48 Motor		

(1) Condenser Copper Coils : 21 FPI

(2) Evaporator Copper Coils : 13 FPI

(3) Field Supplied - Field Installed Filter

PHYSICAL DATA - SI

Unit 50ZPM	36	48	60
Unit Size (Nominal Ton)	3.0	4.0	5.0
Unit Dimensions - mm	1295.0 x 812.5 x 879	1295.0 x 812.5 x 981	1295.0 x 812.5 x 1184
Unit Operation Weight - kg	127	139	160
Refrigeration System			
Compressor No.# / Type	1 / Reciprocating	1 / Scroll	
Refrigerant Type	Puron ® R410A		
Circuits No.#	1		
Charge - kg	2.64		3.35
Metering Device / ORIFIC OD(mm)	Piston / 1.70	Piston / 2.08	TXV / N.A
Filter Drier Qty	1		
High Pressure Switch (Trip ±1/ Reset±1.7)- kPaG	44 / 29		
Low Pressure Switch (Trip ±0.3/ Reset±0.3)- kPaG	4 / 8		
Condenser Coil ⁽¹⁾			
Coil Type	7mm Helical Grooved Copper Tube, 0.74" Aluminum LSW Fins		
Standard Coil Material	Cu/Al		
Rows / Fins (FPI)	2 / 20		
Face Area (m ²)	0.85	0.95	1.21
Coil Test Pressure (bar)	31		
Condenser Fan & Motor			
Approx. Air Flow Rate (m ³ /hr)	5690	5773	6283
Quantity	1		
Diameter (mm) / No. of Blades	508 / 3		508 / 4
Motor Type	Induction Motor - Totally Enclosed		
Motor HP - RPS	1/3 - 24		
Evaporator Coil ⁽²⁾			
Coil Type	3/8" Helical Grooved Copper Tube, 0.75" Aluminum LSW Fins		
Standard Coil Material	Cu/Al		
Rows / FPI	3 / 12		
Face Area (m ²)	0.40	0.46	0.57
Coil Test Pressure (bar)	23.8		
Drain Pan Connection Size (mm)	19		
Return Air Filter Qty / Size (mm) - Recommended ⁽³⁾	1 / 610 x 762 x 25		1 / 610 x 914 x 25
Evaporator Fan and Motor Section			
Fan Quantity	1		
Fan Size (Diam. x L) (in)	11.0 x 9.0		12.0 x 10.5
Fan Type	Centrifugal - Forward Blade		
Drive Type	Direct Drive		
Motor Type	Electronically Commutated (ECM)		
Indoor Motor Factory Speed Setting	Medium		Low
Motor Quantity	1		
Maximum HP - Maximum Watt	1/2 - 530	3/4 - 780	1 - 1050
FLA	4.1	6.0	7.6
Efficiency %	78.5	80.0	79.0
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Nominal Air Flow Rate (CFM)	1200	1600	1650
External Static Pressure (In.W.G)	Up to 1.0"		
RPM Range	600 - 1200		
Motor Frame Size	NEMA Size - 48 Motor		

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