

PIONEER

VERTEX™

Ducted Central Split Heat Pump Systems

Ultra High Efficiency

Heat Pump DC Inverter System

Digitally Communicating System Set

Switchable Hi-Lo Capacity Setting

208V~230V, 60Hz, 1Ph



DYC-18

DC INVERTER HEAT PUMP

INVERTER+
TECHNOLOGY



Multi
POSITION

High
Efficiency

Insulated
DESIGN

RS485

HIGH
ESP

Low Noise

STANDARD FEATURES

- DC Inverter Variable Speed Compressor
- Environmentally Friendly New R454b Refrigerant
- High-Efficiency 5 Speed ECM Blower Motor
- High-Efficiency Variable Speed DC Fan Motor
- Standard Digital RS485 Communicating System Set
- Included Accessory Digital Communicating Thermostat
- Included Accessory 60' Long Shielded Digital Thermostat Wire
- Wireless Internet Access and Programming Module
- Included Accessory Liquid Line Filter Dryer
- Included Accessory Water Overflow Safety Switch
- Optional 24 VAC Low Voltage Analog Control Circuitry
- Self-Training Smart Defrost Logic Circuit
- Self Diagnostics and Operational Data Display
- Easy Software Upgrade Through USB Port
- Multi-position (Vertical, Horizontal, Downflow)
- Grooved Copper Tube, Hydrophilic Aluminum Fin Coils
- Acrylic Coil Coating for Long Life Expectancy
- Indoor A-Coil with Thermostatic Expansion Valve
- Included Accessory Water Safety Switch
- Full Size Stamped Metal Coil Guard
- Heavy-Gauge Zinc-Coated Galvanized-Steel Casing
- Compact And Standardized Cabinet Design
- Durable Polyester-Urethane Paint
- Clean Looking Dark Gray Color
- High External Static Pressure Control
- Quiet And Powerful Blower System
- Forward Curve Centrifugal Blower Wheel
- Permanently Lubricated Fan Motor With Ball Bearings
- Rust-Free ABS Multi Position Condensate Drain Pan
- Multiple Power and Control Wiring Knockouts
- Standard 1 Inch Filter Rack with Access Door
- Optional Electric Heater Kits in Various Capacities
- Sweat Type Brass Service Valves with Service Ports
- Factory Charged For Up To 25' Line Set Application

System Model Number			DYC024GCSI18RD	DYC036GCSI18RD	DYC048GCSI18RD	DYC060GCSI18RD
Indoor Unit Model Number			DC024GCSICDHRT	DC036GCSICDHRT	DC048GCSICDHRT	DC060GCSICDHRT
Outdoor Unit Model Number			YD2436GCSI18RD	YD2436GCSI18RD	YD4860GCSI18RD	YD4860GCSI18RD
Cooling	Capacity	Btu/h	24,000 (13,500~31,400)	34,000 (22,300~41,900)	47,500 (32,900~57,300)	55,500 (37,600~67,400)
	EER2	Btu/h.W	13.3	11.7	11.3	10.0
	SEER2	Btu/h.W	20.0	18.6	17.5	17.0
	Cooling Power Input (A2)	W	1,819	2,864	4,145	5,549
Heating	Capacity (at 47° F) and Range	Btu/h	24,000 (10,200~35,900)	34,200 (12,600~48,900)	48,000 (15,200~65,500)	57,000 (18,000~72,500)
	Capacity (at 17° F)	Btu/h	19,200	24,000	40,000	42,000
	Capacity (at 5° F)	Btu/h	20,000	24,000	34,200	42,500
	COP (at 5° F)	W / W	2.1	2.1	2.1	2.1
	HSPF / HSPF2	Btu/h.W	9.4	9.0	9.0	8.6
	Heating Power Input (H1)	W	1,957	2,997	3,580	4,900
Outdoor Unit Specs						
Power Supply (Voltage Range)		V / Ph / Hz	208/230 VAC, 1 Ph / 60 Hz.	208/230 VAC, 1 Ph / 60 Hz.	208/230 VAC, 1 Ph / 60 Hz.	208/230 VAC, 1 Ph / 60 Hz.
High / Low Voltage Range		V	187 ~ 253	187 ~ 253	187 ~ 253	187 ~ 253
Minimum Circuit Ampacity		A	15	20	25	30
Maximum Overcurrent Protection		A	20	25	35	40
Compressor	Type		Twin ROTARY	Twin ROTARY	Twin ROTARY	Twin ROTARY
	Supplier		GMCC	GMCC	GMCC	GMCC
	Rated Current (RLA)	A	10.0	12.8	15.8	20.0
	LRA	A	52.0	52.0	58.1	58.1
Outdoor Fan	Type		DC	DC	DC	DC
	Air Flow	CFM	3,900	3,900	4,440	4,440
	FLA	A	1.8	1.8	1.8	1.8
Condenser Coil	Number of Rows		2	2	2	2
	Tube Outside Diameter	mm (In)	7 (9/32)	7 (9/32)	7 (9/32)	7 (9/32)
Outdoor Sound Level (Sound Power Level)		dB(A)	76	79	76	79
Throttle Type			EEV	EEV	EEV	EEV
Outdoor Unit Dimensions	Net Dimension (W x D x H)	mm	750 x 750 x 635	750 x 750 x 635	750 x 750 x 835	750 x 750 x 835
		inch	29"-1/8 x 29"-1/8 x 25"	29"-1/8 x 29"-1/8 x 25"	29"-1/8 x 29"-1/8 x 32"	29"-1/8 x 29"-1/8 x 32"
	Packing Dimension (W x D x H)	mm	760 x 760 x 660	760 x 760 x 660	760 x 760 x 875	760 x 760 x 875
		inch	30" x 30" x 26"	30" x 30" x 26"	30" x 30" x 34"-1/2	30" x 30" x 34"-1/2
	Net / Gross Weight	kg	62 / 66	62 / 66	85 / 89	85 / 89
		lbs	137 / 146	137 / 146	187 / 196	187 / 196
Indoor Unit Specs						
Power Supply (Voltage Range)		V / Ph / Hz	208/230 VAC, 1 Ph / 60 Hz.	208/230 VAC, 1 Ph / 60 Hz.	208/230 VAC, 1 Ph / 60 Hz.	208/230 VAC, 1 Ph / 60 Hz.
High / Low Voltage Range		V	187 ~ 253	187 ~ 253	187 ~ 253	187 ~ 253
Minimum Circuit Ampacity		A	4	4	5	5
Maximum Overcurrent Protection (Override with Electric Heater Data)		A	15	15	15	15
Fan Motor	Type		ECM	ECM	ECM	ECM
	Rated HP		1/3	1/2	3/4	3/4
	Rated Power	W	249	373	560	560
	FLA	A	2.6	3.8	5.4	5.4
Indoor Coil	Number of Rows		4	4	5	5
	Tube Outside Diameter	mm (In)	7 (9/32)	7 (9/32)	7 (9/32)	7 (9/32)
Indoor Air Flow - High /Low		CFM	690 / 600	920 / 730	1,500 / 1,205	1,500 / 1,205
Indoor Sound Level (Sound Power Level) - High / Low		dB(A)	51 / 48	52 / 49	59 / 55	59 / 55
Throttle Type			TXV	TXV	TXV	TXV
Indoor Unit	Net Dimension (W x D x H)	mm	500 x 560 x 1,162	500 x 560 x 1,162	560 x 620 x 1,350	560 x 620 x 1,350
		inch	19"-5/8 x 22" x 45"-3/4	19"-5/8 x 22" x 45"-3/4	22" x 24"-1/2 x 53"-1/8	22" x 24"-1/2 x 53"-1/8
	Packing Dimension (W x D x H)	mm	580 x 650 x 1,210	580 x 650 x 1,210	640 x 710 x 1,390	640 x 710 x 1,390
		inch	22"-7/8 x 25"-5/8 x 47"-5/8	22"-7/8 x 25"-5/8 x 47"-5/8	25"-1/4 x 28" x 54"-3/4	25"-1/4 x 28" x 54"-3/4
	Net / Gross Weight	kg	59 / 65	59 / 65	77 / 83	77 / 83
		lbs	130 / 143	130 / 143	169 / 182	169 / 182
System Data						
Control System Options		Analog	Standard 24 VAC Thermostat	Standard 24 VAC Thermostat	Standard 24 VAC Thermostat	Standard 24 VAC Thermostat
		Digital	RS485 Communications / Digital Controller	RS485 Communications / Digital Controller	RS485 Communications / Digital Controller	RS485 Communications / Digital Controller
		Remote	Wireless Internet Accesible	Wireless Internet Accesible	Wireless Internet Accesible	Wireless Internet Accesible
Refrigerant System	Connection Type		Sweat	Sweat	Sweat	Sweat
	Liquid Side / Gas Side	Inch	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8	3/8 / 7/8
	Factory Charge R454b	Ozs	116.4	116.4	155.2	155.2
Operating Temperatures	Cooling	°F	5 ~ 131	5 ~ 131	5 ~ 131	5 ~ 131
	Heating	°F	-4 ~ 86	-4 ~ 86	-4 ~ 86	-4 ~ 86
Maximum Line Length		Feet	100	100	100	100
Maximum Elevation Difference		Feet	50	50	50	50

Rated cooling performance data is based on standard ARI conditions of **80°F-DB/67°F-WB** Indoor and **95°F** Outdoor ambient conditions. Rated heating performance data is based on standard ARI conditions of **70°F-DB/60°F-WB** Indoor and **47°F** Outdoor ambient conditions. Variable speed inverter systems adjust their output capacity automatically based on actual indoor and outdoor temperatures, thermostat settings and other heating or cooling loads. Capacity of the system output and related power input will vary based on these conditions. System contains A2L refrigerant and the minimal room size data must be strictly adhered to for any standard installation to avoid fire risk. This data assumes the indoor unit installation height of minimum 6 feet from the floor level. Lower levels require larger min. room sizes. **Specifications and data listed herein are subject to change without notice due to constant product and engineering improvements. Always refer to the equipment nameplate for applicable exact information.**