

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.		
High / Low Voltage Range	V	187~253		187~253		187~253		
Minimum Circuit Ampacity	A	15		20		30		
Maximum Overcurrent Protection	A	20		25		40		
Compressor	Type	Twin ROTARY		Twin ROTARY		Twin ROTARY		
	Supplier	GMCC		GMCC		GMCC		
	Rated Current (RLA)	A	10.0		12.8		15.8	
	LRA	A	52.0		52.0		58.1	
Outdoor Fan	Type	DC		DC		DC		
	Air Flow	CFM	3,900		3,900		4,440	
	FLA	A	1.8		1.8		1.8	
Condenser Coil	Number of Rows	2		2		2		
	Tube Outside Diameter	mm (In)	7 (9/32)		7 (9/32)		7 (9/32)	
Outdoor Sound Level (Sound Power Level)	dB(A)	76		79		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	
		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"	
	Packing Dimension (W x D x H)	mm	760 x 760 x 660		760 x 760 x 660		760 x 760 x 875	
		inch	30" x 30" x 26"		30" x 30" x 26"		30" x 30" x 34"-1/2	
	Net / Gross Weight	kg	62 / 66		62 / 66		85 / 89	
		lbs	137 / 146		137 / 146		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.		
High / Low Voltage Range	V	187 ~ 253		187 ~ 253		187 ~ 253		
Minimum Circuit Ampacity	A	4		5		5		
Maximum Overcurrent Protection (Override with Electric Heater Data)	A	15		15		15		
Fan Motor	Type	ECM		ECM		ECM		
	Rated HP	1/3		1/2		3/4		
	Rated Power	W	249		373		560	
	FLA	A	2.6		3.8		5.4	
Indoor Coil	Number of Rows	4		4		5		
	Tube Outside Diameter	mm (In)	7 (9/32)		7 (9/32)		7 (9/32)	
Indoor Air Flow - High /Low	CFM	690 / 600		920 / 730		1,500 / 1,205		
Indoor Sound Level (Sound Power Level) - High / Low	dB(A)	51 / 48		52 / 49		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	
		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	
	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	
		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	
	Net / Gross Weight	kg	59 / 65		59 / 65		77 / 83	
		lbs	130 / 143		130 / 143		169 / 182	
System Data								
Control System Options	Analog	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		
	Remote	Wireless Internet Accesible		Wireless Internet Accesible		Wireless Internet Accesible		
Refrigerant System	Connection Type	Sweat		Sweat		Sweat		
	Liquid Side / Gas Side	Inch	3/8 / 3/4		3/8 / 3/4		3/8 / 7/8	
	Factory Charge R454b	Ozs	116.4		116.4		155.2	
Operating Temperatures	Cooling	°F	5 ~ 131		5 ~ 131		5 ~ 131	
	Heating	°F	-4 ~ 86		-4 ~ 86		-4 ~ 86	
Maximum Line Length	Feet	100		100		100		
Maximum Elevation Difference	Feet	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.**