

C02 CONDENSING UNITS

GCU-PXB1 / HCU-PXB1

Compact Inverter condensing units with transcritical C02, designed for outdoor applications, easy to install and provided with many technical innovations.

- » CONVENIENCE STORES
- » REFRIGERATED ROOMS
- » FAST FOOD STORES
- » BARS AND RESTAURANTS
- » SPECIALIZED FOOD STORES

FOR CONSERVATION ROOMS UP TO 480 M3

- ✓ Transcritical C02 Commercial Condensing Units for food retailers
- ✓ Wide range of capacities: 2 to 10HP MT and LT
- ✓ Designed for quiet and energy-saving operation
- ✓ Inverter technology reduces energy consumption by up to 30%
- ✓ EC fans work efficiently and quietly
- ✓ Easy and flexible installation
- ✓ Designed as plug & play solutions



F-GAS FREE



PROTECTIVE CASE



PLUG & PLAY



ELECTRONIC CONTROL



PROPORTIONAL MODULATION



SWITCHBOARD



MAIN FEATURES

- ✓ For conservation rooms up to 480 m3.
- ✓ 400V/3F/50Hz power supply.
- ✓ Connection to multiple evaporators.
- ✓ Increased liquid container to allow longer connection sections.
- ✓ High efficiency oil separator from the 4 HP unit.
- ✓ Two-stage scroll compressors with intercooler.
- ✓ Integrated electrical panel with controller.
- ✓ Gas cooler with Ø5 mm pipes to reduce gas load.
- ✓ K65 copper pipes.
- ✓ 1 to 2 scroll compressors.
- ✓ EC axial fan.
- ✓ External mounting.
- ✓ 20HP model under development.
- ✓ Low sound level.
- ✓ Inverter.
- ✓ Plug & Play.
- ✓ Eco Design.
- ✓ Carel electronics (pRack PR300T).



Medium Temperature				GCU 2020 PXB1	GCU 2040 PXB1	GCU 4070PXB1
Capacity *	HP			2	4	10
	Min. kW			1.80	3.25	6.25
	Max. kW			3.39	6.50	12.54
Power & Energy	Ph./Hz./VAC			3PH / 50Hz / 400VAC		
EcoDesign (2009/125/EC)	FLC	A		8.64	16.04	18.25
	COP/SEPR			1.87 / 3.57 SEPR	3.24 SEPR	2.92 SEPR
		kWh/a		5,840	12,307	26,393
Compressor	Compression			2 Stage (Intercooler)		
	Type			Panasonic Hermetic Rotary		
	Cap Ctrl.			ABB Frequency Inverter		
	RPM			2,200 ~ 4,200	2,200 ~ 4,800	1,800 ~ 3,600
	Qty.			1		
	Oil			DAPHNE PZ68S		
Gas cooler fans		I		0.7	1.15	1.80
	Type			Ebmpapst EC		
	Qty.			1		2
		m³/s		1.05		2.10
Sound pressure		mm			450	
(10 m)		mm			45.0	48.0
Refrigerant	Type/GWP				R744/1	
Receiver volume		I		12.50		20.00
Standard pipe run		m		25	35	40
Liquid connections	Inch/Type			3/8"/K65		
Suction connections	Inch/Type			3/8"/K65		1/2"/K65
Oil separator	Standard			no		yes/Turboil
Oil level control	Standard			N/A		Cappillary
Dimensions	Unit	L x D x H	mm	1452 x 574 x 799		
Surface area		m²		0.83		1.29
Weight		kg		151	155	285
Colour	RAL			Light Grey RAL 7035 (Powder Coated & Baked)		
Controller	Type			CAREL pRack pR300 Electronic Controller		
High side PRV		Bar		N/A	120	
Intermediate PRV		Bar		90		80
Compressor HP Switch	Standard				Yes x 1	
PED 2014/68/EU	Category				Cat. III	

* Nominal Tevap. -10°C | Tamb +32°C | 10K Superheat



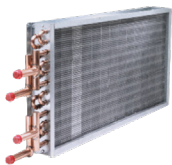
COMPONENTS

RELIABILITY + INNOVATION + EFFICIENCY



Panasonic two-stage rotary compressors

Two stage compression rotary machines are designed to compress the refrigerant twice, significantly reducing load during operation compared to single stage machines.



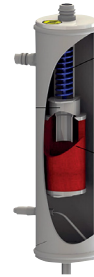
EBM EC Fans & 2 circuit gas & Intercooler

Large surface area to guarantee operation at high ambient, providing improved and efficient operation of two stage compressor.



Large volume liquid receiver and flash-gas tank

Greater expansion volume, minimising risks of liquid entering the flash gas valve and damaging compressor, as well as providing higher efficiencies in warmer ambient conditions.



Carly turboil® separator

Up to 98.5% efficiency, with 2 zone separation. 140 Bar PS maintenance free separator, integrated mufflers to reduce pulsing, vibration & noise.



ABB frequency inverter

Variable speed stepless capacity control, constantly adjusts to match the required load, providing high efficiencies during part load conditions, which equates for circa 80% of unit operation.

Low Temperature				HCU2020PXB1		HCU2040PXB1		HCU4070PXB1			
Capacity *		HP		2HP		4HP		10HP			
		Min.		kW		0.81		1.7			
		Max.		1.42		3.03		6.56			
Power & Energy		Ph./Hz./VAC		3PH/50Hz/400VAC							
EcoDesign		A		8,64		16,04		18,25			
(2009/125/EC)		COP/SEPR		-		1,5		1,55			
		kWh/a		-		15 046		31 478			
Compressor		Compression		2 Stage (Intercooler)							
		Type		Panasonic Hermetic Rotary							
		Cap Ctrl.		ABB Frequency Inverter							
		RPM		2200 to 4200		2700 to 4800		1800 to 3600			
		Qty.		1							
		Oil		Daphne PZ68S							
Gas cooler fans		I		0,7		1,15		2,3			
		Type		Ebmpapst EC							
		Qty.		1							
		m³/s		1.05		2.1					
		Ø (dia.)		mm		450					
Sound pressure		(10 m)		dB(A)		40		45		48	
Refrigerant		Type/GWP		R744/1							
Reciever volume		I		12.5		20					
Standard pipe run		m		25		35		40			
Liquid connections		Inch/Type		3/8" (K65)		1/2" (K65)					
Suction connections		Inch/Type		3/8" (K65)		1/2" (K65)					
Oil seperator		Standard		No		Yes/Turboil					
Oil level control		Standard		N/A		Capillary					
Dimensions		Unit L x D x H		mm		1452 x 574 x 799		1684 x 773 x 1438			
Surface area		m²		0.83		1.29					
Weight		kg		157		161		300			
Colour		RAL		Light Grey RAL7035 (Powder Coated & Baked)							
Controller		Type		CAREL pRack pR300 Electronic Controller & Ultracap							
High side PRV		Bar		N/A		120					
Intermetdiate PRV		Bar		90		80					
Compressor HP Switch		Standard		Yes x 1							
PED 2014/68/EU		Category		Cat. III							

* Nominal Tevap -35°C | Tamb +32°C | 10K Superheat

