

PACKAGED ROOFTOP HEAT PUMP AND GAS HEATING UNITS

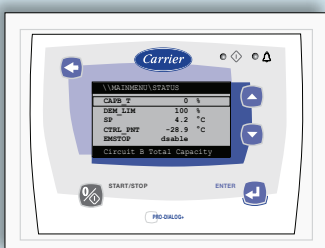


Air treatment 48UH

Options/accessories

- Natural gas or propane gas modules, various capacities*
- Various coil protection options*
- Fresh-air sliding panel*
- Manual outdoor air damper*
- Economizer, thermostatic or enthalpy control, with or without CO₂ sensor control*
- Supply fan with various high static pressure options with or without soft starter*
- Standard supply fan with or without soft starter*
- Various filter options*
- Stainless steel drain pan*
- Energy recovery module*
- Various return/exhaust air options*
- Various temperature sensor options*
- CCN/JBus, Lon or BACnet gateways*
- Dirty filter detection*
- Supply air flow detection*
- Smoke detector*
- Fire thermostat*
- Duct connection fixing frame*
- Various packaging options*
- Various roof curb versions (see 50UA)**
- Remote user interface (Pro-Dialog+)**

* Option ** Accessory



Pro-Dialog+ operator interface

Features

- Seven sizes with nominal cooling capacities from 44 to 109 kW, nominal heating capacities from 44 to 112 kW and a nominal gas heat output from 42 to 151 kW.
- 48UH units are packaged reversible rooftop heat pumps, factory fitted with a multi-stage gas heater.
- Versatile and efficient heat pumps, designed for outdoor installation.
- Self-contained and can be installed in commercial and industrial applications.
- Units use the ozone-friendly refrigerant R-410A that does not affect the ozone layer.
- Components are specifically designed for R-410A refrigerant.
- Reduced size and weight make these units ideal for today's lightweight building structures.
- Cabinet made of powder-painted sheet metal.
- Compressors are hermetic scroll compressors and mounted on vibration isolators.
- Crankcase heaters are standard for all units.
- Low-noise shrouded axial Flying Bird fans, made of composite plastic material.
- Heat exchangers made of high-quality staggered copper tubing, mechanically bonded into pre-coated corrugated aluminium fins.
- Leak-tight refrigerant circuits with brazed connections and reduced vibration levels. Access to pressure transducers and temperature sensors without losing charge.
- Fully wired in accordance with EN standards.
- Simplified electrical connections.
- Gas heating system designed as an alternative to the hot water coil or electric heating options. Units are available with three gas heating modules.
- Tubular dimpled gas heat exchanger optimises heat transfer for maximum efficiency.
- Modular burner assembly consists of a series of injectors.
- Induced draft combustion system for improved efficiency.
- Integrated gas unit controller (IGC).

Physical data

48UH		045	055	065	075	085	100	120
Nominal cooling capacity*	kW	43.5	50.1	59.1	69.1	84.5	96.7	108.8
Nominal power input, cooling	kW	14.4	17.7	20.7	26.5	27.5	33.8	38.7
EER	kW/kW	3.03	2.83	2.86	2.61	3.07	2.86	2.81
Nominal heating capacity**	kW	43.5	54.4	62.0	74.5	85.1	98.7	120.7
Nominal power input, heating	kW	13.2	16.0	20.1	24.8	24.4	30.7	37.5
COP	kW/kW	3.30	3.41	3.09	3.01	3.49	3.21	3.22
Operating weight	kg	820	965	1043	1053	1565	1655	1775
Refrigerant charge		R-410A						
Control		Pro-Dialog+						
Compressor		Hermetic scroll						
No. of circuits/No. of compressors		1/1	1/2	2/2	2/2	2/2	2/3	2/4
Indoor/outdoor coil		Copper tubes, aluminium fins						
Indoor fan and motor		One, centrifugal						
Air flow	l/s	2528	3444	3472	3944	5550	5550	5550
Outdoor fan and motor		Axial Flying Bird fans with rotating shroud, direct-drive motor						
Quantity ... air flow	l/s	1 ... 5400	2 ... 6700	2 ... 10100	2 ... 10100	2 ... 10300	2 ... 10600	2 ... 10600
Sound power level 10⁻¹² W***	dB(A)	86.5	84.4	90.6	90.6	90.7	91.0	91.3
Dimensions								
Length	mm	2125	2125	2125	2125	3581	3581	3581
Width	mm	2193	2193	2193	2193	2196	2196	2196
Height	mm	1413	1442	1796	1796	1825	1825	1825
Gas heaters								
Natural gas heating type		Option 91	Option 91	Option 92	Option 92	Option 94	Option 94	Option 95
Number of cells/injector		6	6	7	7	12	12	14
Net heat input (min./max.)	kW	49/70	49/70	57/81	57/81	49/139	49/139	57/162
Heat output (min./max.)	kW	42/62	42/62	50/73	50/73	43/125	43/125	51/147
Propane gas heating type		Option 101	Option 101	Option 102	Option 102	Option 104	Option 104	Option 105
Number of cells/injector		6	6	7	7	12	12	12
Net heat input (min./max.)	kW	--/71	--/71	--/83	--/83	71/142	71/142	83/166
Heat output (min./max.)	kW	--/64	--/64	--/75	--/75	64/128	64/128	75/151
Weight****	kg	73	73	80	80	150	150	165
Power input (400 V-3 ph-50 Hz)	kW	0.22	0.22	0.22	0.22	0.44	0.44	0.44

* Nominal Eurovent conditions: outdoor air dry bulb temperature of 35°C, indoor air wet bulb temperature of 19°C.

** Nominal Eurovent conditions: outdoor air wet bulb temperature of 6°C, indoor air dry bulb temperature of 20°C.

*** In accordance with ISO 961461 and certified by Eurovent. The values have been rounded and are for information only.

**** Weight and power input values apply to the heating modules.

Electrical data

48UH**		045	055	065	075	085	100	120
Nominal voltage	V-ph-Hz	400-3-50 ± 10%						
Maximum power input*	kW	21.68	27.41	33.52	40.50	44.58	52.98	59.38
Nominal current drawn*	A	25.27	31.55	36.82	45.67	47.30	58.80	77.11
Maximum start-up current	A	206	173	183	204	246	261	226

* Based on an outdoor air dry bulb temperature of 35°C and an indoor air wet bulb temperature of 19°C.

** Standard unit without any options and accessories.

Energy recovery module (option)

The energy recovery module (ERM) is an individual dual-flow unit, equipped with a high-efficiency Eurovent-certified air-to-air heat recovery wheel with 63% to 88% efficiency, an integrated variable-air-volume plug fan and a control system for plug-and-play installation. Specially designed for economical indoor air extraction and to take in fresh air to meet current and future requirements for high-energy-efficiency buildings.

- Unit cabinet is made of galvanised and powder-painted sheet metal.
- Fitted with G4 filters on the fresh-air side as standard to protect the heat recovery wheel against dust.
- Insulated duct, power and control wiring between ERM and rooftop unit - supplied by the factory with the duct kit.
- Heat exchanger reclaims up to 90% of the heat from the extract air and transfers it to the supply air.
- High-efficiency plug fans for exhaust air are more energy-efficient and require less maintenance.

