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data sheet UNIVERSAL HEAT PUMP

CDH050

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air-to-air heat pump for heating, cooling and drying in a regenerative way without any fossil energy sources

> for heating at ambient temperatures down to -20 °C

> for cooling at ambient temperatures up to +37 °C

> for drying at temperatures between +15 °C and +30 °C

> rugged and easy during transport and operation

> fast deployment and setup

> automatic operation

GENERAL DATA

› air-to-air heat pump	
› heating, cooling, drying mode	
› operating ambient temperature heating	-20°C to +25°C
› operating ambient temperature cooling	+5°C to +37°C
› operating room temperature drying	+15°C to +30°C
› ambient temperature for transportation and storing	-25°C to +45°C
› heating capacity (A7/L35)	53,6 kW
› cooling capacity (A30/L12)	32,4 kW
› drying capacity (L30/RH80%)	15,2 l/h
› nominal air flow	8000 m^3/h
› external compression	350 Pa
› electrical connection	400 V | 3 PH | 50 Hz
› plug type	32 A CEE
› max. rated current	32 A
› max. condensate quantity heating	10 l/h
› max. condensate quantity cooling/drying	27 l/h
› connection air hoses	ø 525 mm
› external dimensions	L 2.400 x W 1.700 x H 2.300 (mm)
› mass	1.500 kg

SET UP AND ACTIVATION OF HEAT PUMPS

The heat pumps are installed on a level and solid surface, then connected with hoses for warm and cold air. After connecting to a mobile power supply, the heat pump is operable immediately. They are very variable in terms of installation and flexible in use.

A hose system can distribute the conditioned air. In addition, external compression of 350 Pa enables air distribution within rooms. Apart from setting the target temperature and selecting the operating mode via web browser or touchpanel, there are no other steps needed for the startup.

The air-air heat pump measures the aspirated room temperature and regulates to the predefined target temperature even under extreme conditions. In winter the evaporator coil defrosts through a circuit with a heated gas. So, the interior air is not affected by this process.

(Compliance with local rules and regulations for the operation of a mobile heat pump is the responsibility of the operator.)

TECHNICAL DATA

refrigerant		**compressor**	
› type	R454A	› type	reciprocating
› GWP	239	› manufacturer	Bitzer
› classification	A2L (hardly flammable)	› name	4PES-15Y
› mass	16 kg	› max. operating current	28,2 A
		› max. starting current	81,0 A Y / 132,0 A YY
minimum requirements for the connected room		› max. power consumption	16,0 kW
› min. area	220 m^2		
› min. volume	360 m^3		

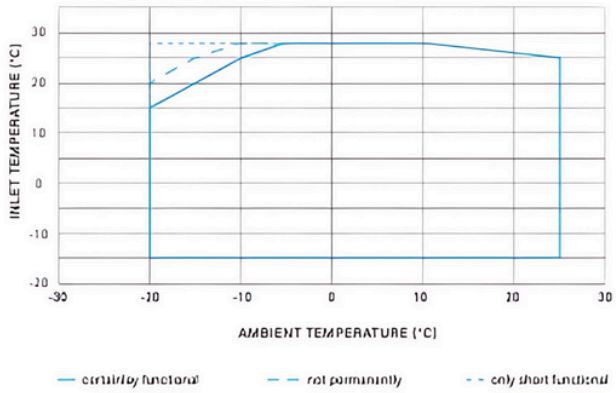
heating capacity		**COP® heating**	
› A-7 – A2 – A7/L35	38,0 – 49,7 – 53,6 kW	› A-7 – A2 – A7/L35	2,17 – 2,59 – 2,83

cooling capacity		**COP® cooling**	
› A30 – A25 – A20/L12	32,4 – 37,5 – 42,2 kW	› A30 – A25 – A20/L12	2,04 – 2,14 – 2,22

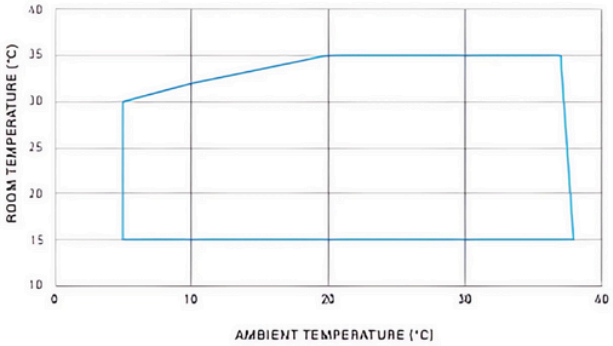
drying capacity		**drying efficiency***	
› R20 – R25 – R30/RH80%	20,8 – 20,6 – 15,2 l/h	› R20 – R25 – R30/RH80%	1,25 – 1,47 – 1,16 l/kWh

A - *ambient temperature (°C)* | **L** - *return air temperature (°C)* | **R** - *inlet air temperature (°C)* | **COP** - *coefficient of performance*
***** *efficiency inclusive power consumption for room air blower*

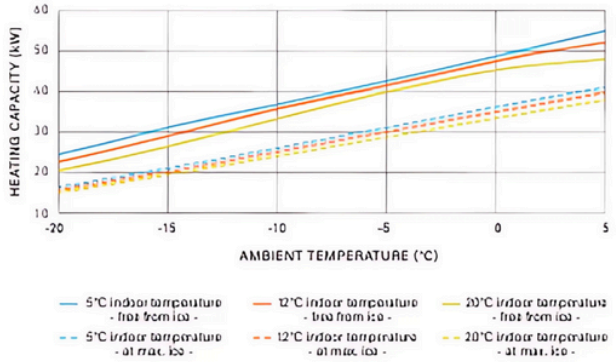
working area heating



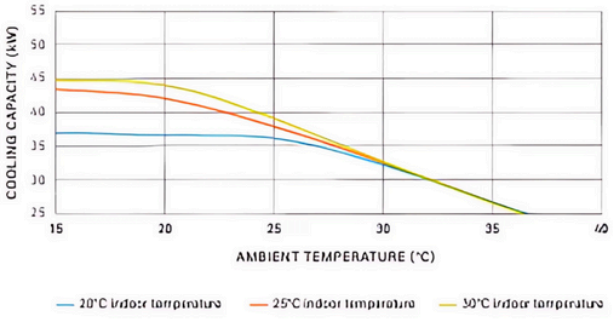
working area cooling



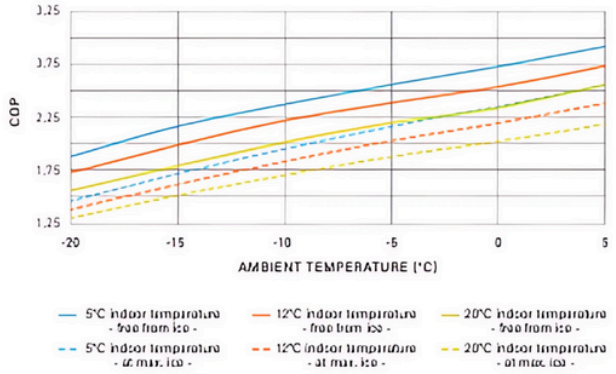
heating capacity



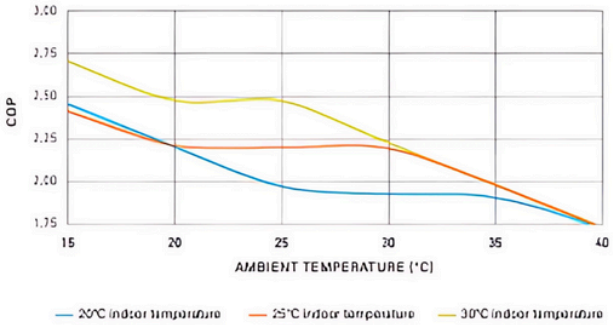
cooling capacity



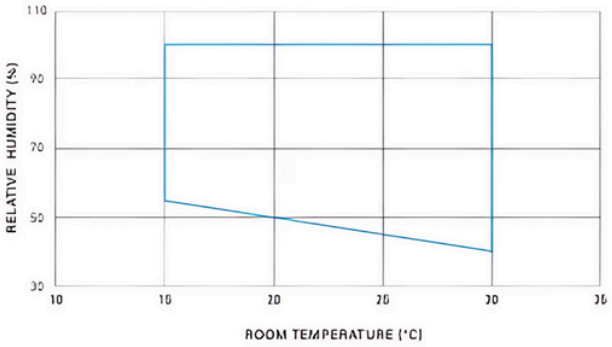
unit efficiency heating



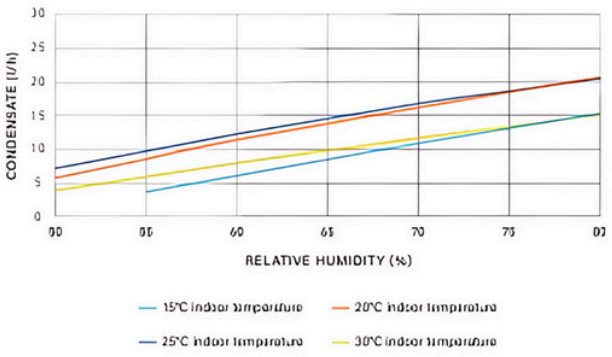
unit efficiency cooling



working area drying



drying capacity



unit efficiency drying