

Applications of low-voltage systems

Air conditioning unit Zone 1/ Zone 1



8701/01-1011-0200-04 Art. No. 288539



- Ex equipment certificate for use in Zone 1 applications
- Automatic cooling power adjustments at different conditions with thermal expansion valve, to achieve constant inner temperature
- Cooling capacity of 4 kW acc. to EN 14511 (L35/L35)
- Wide setpoint range of 18 °C to 35 °C
- Balanced design for direct surface mounting without additional support
- Plug and Play - Easy installation, no setup required

MY R. STAHL 8701A



R. STAHL's ExSys Cool 8701 series of air conditioning system offers the ideal cooling performance in hazardous environment. The use of thermal expansion valve technology enables constant automatic cooling at wide temperature set point (18 °C to 35 °C). ExSys Cool is certified as equipment to be mounted on Ex e and Ex p cabinets e.g. MCC (Motor Control Center) panels. The product has a wide ambient temperature range (depending on the refrigerant choice) from -40 °C to 55 °C and a cooling capacity of 4 kW to 6 kW acc. to EN 14511 (L35/L35). The product is offered as standard pre-defined configuration as well as customized solutions to match flexible customer's HVAC requirements.

Technical Data

Explosion Protection

Application range (zones)	1, 2
IECEX gas certificate	IECEX DEK 23.0009X
IECEX gas explosion protection	Ex db eb q ib IIB+H2 T4 Gb
ATEX gas certificate	23 ATEX 0009X
ATEX gas explosion protection	Ex II 2 G Ex db eb q ib IIB+H2 T4 Gb
Certificates	ATEX (DEK), IECEX (DEK)

Electrical Data

Rated operational voltage AC	220 ... 240 V
Rated operational current	9 A
Frequency	50 Hz
Total power input	2.1 kW
N-pole present	Yes
No. of poles	2

Acoustic Data

Soundlevel condensor side	68 dB
Soundlevel evaporator side	70 dB

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Climatic Data

Air conditioning unit version	Cooling only
CO2 equivalent	1146 kg
Condenser Ex-rated	Yes
Condensing control	Speed controlled condenser fan
Cooling capacity acc. to EN 14511 (L35/ L35)	4.2 kW
Cooling air flow rate	750 m ³ /h
Energy efficiency ratio	2.03
Evaporation control	Thermostatic expansion valve
Evaporator Ex-rated	Yes
Max setpoint temperature	35 °C
Min setpoint temperature	18 °C
Refrigerant charge	2.2 kg
Refrigerant GWP	573
Refrigerant group gas	2
Refrigerant type	R513A
Sensible cooling capacity acc. to EN 14511 (L35/L35)	3.6 kW
Cooling capacity acc. to EN 1411 (L35/L50)	3.7 kW
Speed regulated	No
Temperature control	Yes

Ambient Conditions

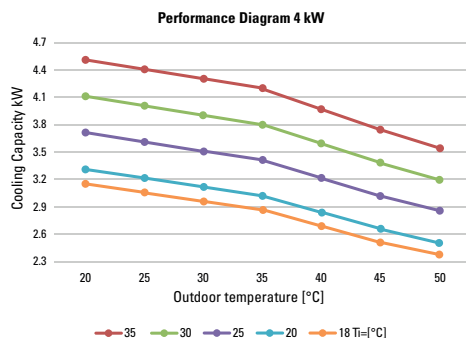
Ambient temperature	-40 °C ... 50 °C
Ambient temperature	-40 °F ... 122 °F

Mechanical Data

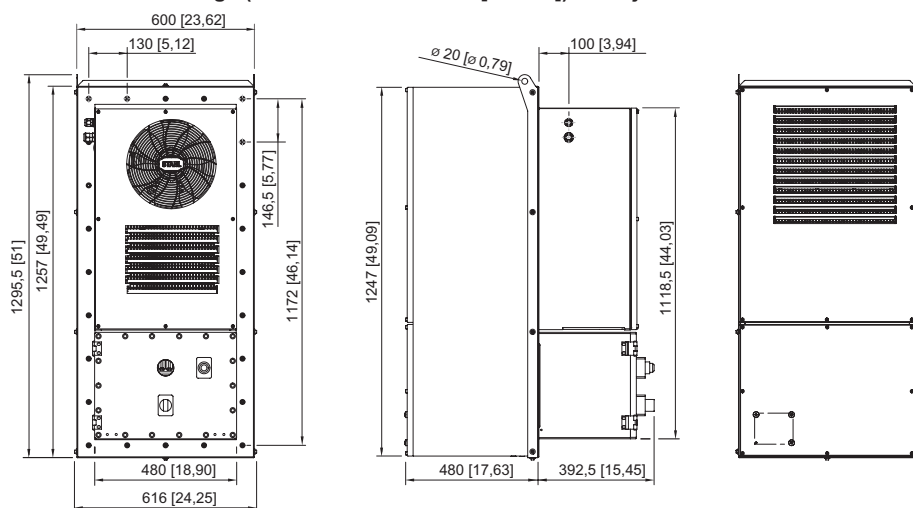
Air conditioner enclosure	Stainless steel 1.4404, 316L, brush finished, Natural finish, Painted: No
Control panel (Ex d)	Copper free aluminium alloy, AlSiMg0,3, Natural finish, Painted: No
Condenser coil	Copper tubes, aluminium fins, Painted: No
Evaporator coil	Copper tubes, aluminium fins, Painted: No
Degree of protection (IP) (IEC 60529)	IP66
Width, inches	23.622 in
Height, inches	49.0157 in
Depth, inches	30.63 in
Width	600 mm
Height	1245 mm
Depth	778 mm
Packaging	Standard
Weight	260 kg
Weight	573.2 lb

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Technical Drawings – Subject to Alterations



Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



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Accessories

Cable gland made of plastic

	Art. No.
<p>8161/7-M20-1304, Ex e Plastic, M20 x 1.5, cable outer diameter 4 to 13 mm</p>	229917

Metal cable gland

	Art. No.
<p>Ex d and Ex e cable glands for all types of unarmoured cables and cables with wire-braid armouring (nickel-plated brass) Type 20A2F, M20 x 1.5</p>	243464
<p>Ex d and Ex e cable glands for all types of armoured cables and cables with wire-braid armouring (nickel-plated brass) Type E1FU, M20 x 1.5</p>	243484

Stopping plug


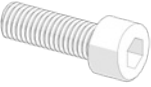

	Art. No.
<p>8290/3-M20 Plastic, M20 x 1.5 Lot size 1 piece</p>	143522

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	Stainless steel stopping plug M20x1.5 with hexagon insert bit	251101
Screw		Art. No.
	Cylindrical screw M10 x 30 A4-70 1 piece	109972
Seal 8701 center plate		Art. No.
	Seal for the center plate for wall mounting	321081

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