

Ex Compact Cooling Unit

ATEXCOOL 2000 / ATEXCOOL 4000

1 Description

Measuring and control instruments (e.g. analyzers) installed in protective cabinets or shelters are often used in hazardous areas of refineries, chemical and petrochemical plants.

2 Application

In hot climate regions, where constant climatic conditions are essential for these sensitive measurements, it is necessary to cool and, in the winter, possibly heat the interior. INTERTEC offers both technologies in one explosion-proof designed unit.

The air conditioning unit is designed for installation on the external wall of the protective cabinet or shelter. It is suitable for application in the open at ambient temperatures ranging from -35 °C to +55 °C. Ex-approval allows an application up to and incl. zone 1.

The components of the air conditioning unit are placed in a corrosion-proof housing made of the same material as INTERTEC's protective cabinets. Thus, it can also be designed to meet antistatic standard according to DIN EN IEC 60079-0.



All electric control components are installed in an Ex d housing or can, in the case of air-conditioning an Ex p cabinet, be installed in the explosion-proof interior of the Ex p cabinet.

For custom applications, INTERTEC can supply complete units consisting of an air conditioning unit and a protective cabinet or shelter.

Protective cabinets can also be supplied in Ex p design (see Technical Data [SDS10780](#))

3 Explosion Protection

ATEX Examination Certificate	TÜV 06 ATEX 2958
ATEX Type of protection (Gas)	II 2G Ex px mb e IIC T3 (Suitable for Zone 1)
Ambient Temperature (with Cooling)	-20 °C ... +55 °C
Ambient Temperature (without Cooling)	-35 °C ... +55 °C

4 Technical Data

	2 kW	4 kW
Type designation (w/o control unit)	ATEXCOOL 2000	ATEXCOOL 4000
Ingress protection of internal circuit	IP54	
Ingress protection of outside comp.	IP55	
Nominal Voltage	400V/50 Hz – other voltage values on request	
Starting Current	approx. 8 A	16 A
Rated Current	4,5 A	7,8 A
Back-up Fuse	10 A	16 A
Cooling Capacity	Q ₀ =ca. 2000 W (35°C/35°C)	Q ₀ =ca. 4000 W (35°C/35°C)
Refrigerant	R134a	R134a
Noise Level	approx. 74 dB(A) at one meter	
Condensate Drain	Automatic (Maintenance-free)	
Housing Material	Glassfibre reinforced polyester GRP (RAL7035), antistatic Painted weather protection hood (optional: stainless steel)	
Weight	approx. 120 kg	approx. 175 kg
Dimensions H x W x D	1646 x 466 x 380 mm	1845 x 600 x 451 mm
Condenser Side	At least 500 mm spacing to be provided from the wall	

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5 Control unit

5.1 Control unit inside the Ex d - Cabinet (INTERTEC standard)

- H x W x D = 276 x 356 x 217 mm, incl. mounting tabs
- Optionally mounted inside the cabinet (standard) or separately on the outside of the cabinet.

(Picture: Mounting inside)



(Picture: Mounting outside)



5.2 Control unit located in Ex hazardous areas (INTERTEC special design)

- Mounting box with electrical components
H x W x D = 350 x 330 x 150 mm (with alternate supply voltage: Mounting box with electrical components H x W x D = 350 x 450 x 150 mm)
- Mountable outside the cabinet in a non-Ex zone (e.g. located in 20 m away control room)
- In "Ex p" design (pressurized enclosure system) the control unit is mounted inside the Ex p cabinet.

Please note: In case of loss of over-pressure the on-site installation has to ensure that the cooling unit is immediately switched off.