COLD ROOM CONTROL PANEL

202 EXPERT FREDDOX

The 202 EXPERT Freddox multifunction cold room controller can be used to control all the main components of a single-phase split refrigeration installation.

It has been specially designed to reduce installation time for the installer, saving time and money.

Equipped with a large temperature display, the 202 EXPERT Freddox panel is also equipped with control and setting keys that are accessible from the front of the panel.

The 7 LED indicators make it quick to view the status of the various components of the system.

Features

This panel is designed to control single-phase refrigeration systems up to 1kW (Iabs≈ 10A).

It is equipped with a differential circuit breaker accessible from the front under a transparent and lockable cover.

It has 4 single-phase voltage outputs for connection to :

- the compressor
- the evaporator and its electric defrost
- the cold room lighting

2 configurable free voltage contact type auxiliary outputs are also available :

- to control condensing units already equipped with contactors (allowing control of systems above 1kW absorbed)
- to provide a pump-down function (via control of the solenoid valve and the compressor using the LP pressure switch)
- to report an alarm signal

4 inputs are available :

- room temperature (NTC sensor supplied)
- defrost termination temperature (NTC probe supplied)
- 2 configurable digital inputs (door contact, external signal for remote installation control, activation of night mode, etc.)

An energy saving function is also available via RS485 output for connection to a TeleNET supervision system or to a network using MODBUS-RTU protocol.

Conformity to Low Voltage Directive (LVD) 2014/35/EU and Electromagnetic Compatibility Directive (EMCD) 2014/30/EU.

TECHNICAL DATA

MODEL	202 Expert Freddox
BRIC CODE	4401-6TL202EXPFR

POWER SUPPLY

Voltage	230V~ ± 10% 50/60Hz
Max power (only electronics)	~ 7VA
Rated current (with all loads connected)	16A

INPUT CHARACTERISTICS

Type of sensors that can be connected	NTC 10K 1%
Resolution	0,1 °C
Sensor read precision	± 0,5 °C
Read range	-45 à +99 °C

OUTPUT CHARACTERISTICS

Description	Installed relay	Features of the board outputs	Notes
Compressor	30A (AC1)	10A 250V~ (AC3) (2HP) (100000 cycles)	**The sum of contemporary absorptions of these outputs has not to exceed 16A.**
Fans	16A (AC1)	2,7A 250V~ (AC3)	
Defrost	30A (AC1)	16A 250V~ (AC1)	
Room light	16A (AC1)	16A 250V~ (AC1)	
Aux 1 (free voltage contact)	5A (AC1)	5(3)A 250V~	
Aux 2 (free voltage contact)	5A (AC1)	5(3)A 250V~	

Insulation between relay outputs: 1500V

GENERAL ELECTRICAL PROTECTION

Differential magnetothermic circuit breaker	16A Id=300mA Disconnecting power 4,5kA

AMBIENT CONDITIONS

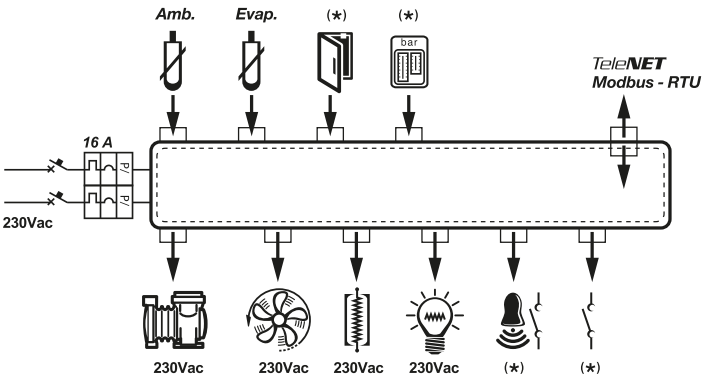
Working temperature	-5 à +40°C <90% R.H. non condensing
Storage temperature	-10 à 70°C <90% R.H. non condensing

INSULATION AND MECHANICAL CHARACTERISTICS

Box protection rating	IP65
Box material	ABS self-extinguishing
Type of insulation	Class II

Dimensions (mm)

Connection diagram



(*) Configurable function

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