

DISPLAY CABINET CONTROLLER FOR MECHANICAL AND ELECTRONIC EXPANSION VALVES WITH POWER MODULE COMPATIBLE OUTPUT

LCPG

Type LCPG is a unit suitable for the **control** of refrigerated display cabinets with all types of defrost. The unit controls the cabinet temperature by measuring 2 air temperatures and operating a pulsed expansion valve, liquid solenoid valve or condensing unit.

The pulsed expansion valve is controlled using a pressure transducer and suction temperature sensor.

The unit can be set for terminating or **controlling the defrost**. Defrost can be detected by a sensor mounted on the suction line, by JTL Network communications, by a voltage free contact closure or by a real time clock within the unit. Up to 12 defrosts per day can be achieved by setting a schedule of defrost start times and durations in the unit.

The defrost is terminated when the temperature of the air leaving the evaporator or the evaporator temperature exceeds an adjustable **defrost termination** value, or when an adjustable time is reached. Evaporator **fans** or an **auxiliary heaters** can be controlled during defrost.

The unit detects and **alarms high temperatures**. The alarm level and its response time are adjustable. High temperature alarms are cancelled during defrost.

Cabinet temperature together with a simple alarm and defrost mode messages can be indicated locally by using a JTL **display** unit. A keyswitch on this display can be used to select one of the 2 temperature setpoints and 2 methods of cabinet shutdown.

Type LCPG provides a comprehensive alarm reporting, **data-logging** and **remote access** when connected to a JTL Communications Unit.

Type LCPG can be used with off cycle, electric, 2, 3 pipe or ring main gas defrost systems.

Cabinet lights and blinds can be operated by the LCPG on receipt of commands from the JTL network.

Trim heaters can be switched by the LCPG when the unit is shutdown under switch or JTL network control.

The LCPG has screw terminal connectors for temperature and pressure inputs.

FEATURES

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| • Dual temperature operation | • Trim heater isolation |
| • Display keyswitch selected shutdown | • Defrost input contact |
| • Suction pressure input | • Suction temperature defrost detection |
| • Temperature measurement inputs | • Up to 12 timed defrosts per day |
| • Temperature display drive | • Display keyswitch input |
| • Power module compatible output | • Blind and lighting override input contact |
| • Maintenance unit socket | • Default data set-up switches |
| • JTL Network communications sockets | • Non-volatile set-up memory |
| • Network initiated defrost option | • Watchdog to ensure reliable operation |
| • Network initiated lighting control | • Battery supported data-logging memory |
| • Network initiated blind control | • Battery supported real time clock |
| • Network initiated shutdown facility | |



HARDWARE

È	Temperature sensor inputs	5
È	Sensor types supported	JTL
È	Temperature display drives	1
È	Voltage-free contact outputs	5
È	Optionally isolated high voltage inputs	2 (240 V max)
È	Data logging memory capacity	1000 points on 3 channels

TECHNICAL SPECIFICATION

Temperature sensor input 1	Air On
Temperature sensor input 2	Air Off
Temperature sensor input 3	Evaporator
Temperature sensor input 4	Suction Line
Temperature sensor input 5	Energy saving or defrost termination
Suction pressure input	4-20 mA
Refrigerant choice	R22, R502, R404A, R404B, R407, R507, R408
Input 1	Lighting and Blind override
Input 2	Defrost initiation
Output 1	Blind closed/Lights off
Output 2	Fan Control or heater Control
Output 3	Defrost control
Output 4	Trim heater
Output 5	Liquid valve control/Pulsed expansion valve
Power module output	Active pull up open collector transistor 12 way molex socket
Communications port	RS485 2 wire
Communications data rate	4800/38400 baud (auto detected)
Communications protocol	JTL zone protocol
Controller dimensions unboxed (L x W x H)	208 x 167 x 43 mm
Controller weight unboxed	0.5 kg
Controller dimensions boxed (L x W x H)	248 x 176 x 56 mm
Controller weight boxed	1.54 kg
Power supply (Standard)	230 V 48-62 Hz
(Optional)	110 V

ORDERING INFORMATION

LCPG	Controller
LCPG-B	Controller boxed

Power Supply Options:

For 110 V append - 110 to order code



This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions.

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