

## **EXTENDED CONTROLLER**

# **ELECTRONICS** AND CONTROLS

FOR ADVANCED HEAT PUMPS

CF-120-2 EN



LMC320i EXTENDED



# LMC320i EXTENDED CONTROLLER



# FOR HEAT PUMPS

LMC320i EXTENDED is a configurable, pre-programmed heat pump controller with extended I/O's. It is specially designed for advanced heat pumps, including brine/water, air/water, water/water, air/air and domestic hot water. The controller ensures optimal indoor climate and optimizes your heat pump to save time, cost and energy.

#### **ENERGY EFFICIENT CONTROL**

Capacity control your heat pump in periods of fluctuating heating or

cooling needs. Optimize heat pump operation with electronic expansion valve control algorithms for a higher SCOP.

#### OPTIMAL SYSTEM PROTECTION

Unique integration with BITZER IQ MODULES for optimal safety and protection of your system. The BITZER IQ bus shares all necessary information with the controller to keep the heat pump operating energy efficient and protected under all conditions.

### >> YOUR ADVANTAGES

- // Energy and cost saving through intelligent capacity control and defrost scheduling
- // 16 pre-defined applications ensuring easy installation with configurable setup to fit your unique heat pump
- // Electronic Expansion Valve control to optimize operation and a higher SCOP

| Technical specifications    |  |
|-----------------------------|--|
| BITZER Electronics part no. | 399000658  |
| Size                        | 185mm (l) * 110mm (w) * 61mm (h)   |
| Power supply                | 110 - 230VAC 50-60 Hz +/-10%; typical 4 VA, max. 18 VA   |
| Operating temperature       | -20°C ~ +60°C  |
| Storage temperature         | -30°C ~ +60°C  |
| Enclosure protection        | IP20, pollution degree 2   |
| Relative humidity           | 5% - 95%RH, non-condensing   |
| Temperature inputs          | 11 (+1 Extended) for BITZER Electronics NTC sensors $-40^{\circ}$ C $\sim +99^{\circ}$ C; +/- $1^{\circ}$ C accuracy                               |
| Analogue inputs             | 2, AI1 to AI2; 0-5V with 5 Volt supply for radiometric pressure transmitters; Rin: 25KOhm.   |
| Digital inputs              | 7, not galvanically isolated; 0 – 3.3V with pull-up resistor   |
| Analogue outputs            | 6, AO0 to AO5; 0-10V, +/- 3%, Rin > 10KOhm; max frequency 1Hz  |
| Relay outputs               | RE0 to RE11: 10A 24VDC / 10A 250VAC resistive, max 0.75A inductive load; double isolation to low power side; max. 250VAC isolation between relays. |
| RS485 ports                 | 2 with common 12V 80mA output; 1 used for display and 1 for future use   |
| USB ports                   | 1 device mode only for software update and communication with a PC   |
| Real time clock             | With 1 year battery back up  |
| Datalog                     | 1 year capacity  |
| 12VDC output                | Up to 500 mA   |
| Ethernet connection         | 1, 10/100 Mbit; on Web versions  |

## **RELATED PRODUCTS**

#### **BITZER SMART CONNECT**

Monitor and operate heat pumps remotely with BITZER SMART CONNECT cloud and app solution. Available for Apple iOS, Android, Windows and MAC computers.



#### TOUCH DISPLAYS

User friendly user panels with touch display and Wi-Fi functionality, specialy designed for heat pump applications by our experienced interaction designers.