## **VARIABLE SPEED DRIVES (VSD)**

## DANFOSS VLT HVAC DRIVE FC 131



#### DESCRIPTION

The VLT HVAC FC 131 is a dedicated drive designed to work with heating, ventilation, and air conditioning systems. The drive is easy to install and features a trouble-free set up which ensures fast and efficient commissioning. It incorporates a highly effective heat management system that makes it ideal for demanding environments and where drive space is restricted.

#### **Typical Applications**

Speed control of commercial and industrial fan applications in shopping centres, office buildings and car parks, through to industrial processes and equipment ventilation applications.

#### **Features**

- User friendly interface with start-up wizard for quick and easy configuration.
- Integrated fan / pump control for a more efficient startup.
- Normal operation or switch to special operation mode with up to 16 different zones in two setups
- Built-in PI controller for smooth variable speed control.
- Fire Mode for continuous vital fan operation regardless of control signals, warnings or alarms.
- Built-in RFI filters to remove electromagnetic interference and lower harmonic levels.
- DC choke to mitigate harmonics and balance voltage drops and spikes.
- Thermistor input to prevent motors from overheating.
- IP54 class protection enclosure.
- Up to 50°C ambient temperature with derating.

#### **Electrical Supply**

380–480V, three-phase, 50Hz

#### Testing

Harmonics Standard EN 61000-3-12 EMC Standard EN/IEC 61800-3 (C1 & C2 – cable length restrictions apply)

#### Wiring Diagram

Please refer all enquires to Fantech sales engineers.

#### Standard I/O

- 4 x Digital Inputs
- 2 x Analogue Inputs 0-10V or 0/4-20mA
- 2 x Analogue Outputs 0/4-20mA (Can be used as digital outputs)
- 2 x Relay Output

#### **Fieldbus communication**

- BACnet MSTP
- Modbus RTU
- FC Protocol
- N2 Metasys
- FLN Apogees

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### **TECHNICAL DATA**

| Model          | Input /<br>Output    | Motor kW | Amps<br>@ 40°C | Protection<br>Class | Frame<br>Size | Dimensions, mm     | Weight,<br>kg. |
|----------------|----------------------|----------|----------------|---------------------|---------------|--------------------|----------------|
| FC131-132L9242 | 3 phase /<br>3 phase | 0.75     | 2.2            | IP54                | 12            | 115W x 332H x 225D | 5.3            |
| FC131-132L9243 |                      | 1.5      | 3.7            |                     |               |                    |                |
| FC131-132L9245 |                      | 2.2      | 5.3            |                     |               |                    |                |
| FC131-132L9246 |                      | 3        | 7.2            |                     |               |                    |                |
| FC131-132L9248 |                      | 4        | 9.0            |                     |               |                    |                |
| FC131-132L9249 |                      | 5.5      | 12.0           |                     | 13            | 135W x 368H x 237D | 7.2            |
| FC131-132L9250 |                      | 7.5      | 15.5           |                     |               |                    |                |
| FC131-132L9251 |                      | 11       | 23.0           |                     | 14            | 180W x 476H x 290D | 13.8           |
| FC131-132L9252 |                      | 15       | 31.0           |                     |               |                    |                |
| FC131-132L9253 |                      | 18.5     | 37.0           |                     |               |                    |                |
| FC131-132L9255 |                      | 22       | 44.0           |                     | 16            | 242W x 650H x 260D | 27             |
| FC131-132L9257 |                      | 30       | 61.0           |                     |               |                    |                |
| FC131-132L9259 |                      | 37       | 73.0           |                     |               |                    |                |
| FC131-132L9262 |                      | 45       | 90.0           |                     | 17            | 308W x 680H x 310D | 45             |
| FC131-132L9264 |                      | 55       | 106.0          |                     |               |                    |                |
| FC131-132L9266 |                      | 75       | 147.0          |                     | 18            | 370W x 770H x 335D | 65             |
| FC131-132L9269 |                      | 90       | 177.0          |                     |               |                    |                |