Basic Drive FC-101

Frequency converters



Use

- This general-purpose variable frequency drive is designed for regulating the rotation speed of an AC electric motor with a maximum power output of 90 kW.
- This drive is suitable for both general ventilation and smoke extraction ventilation systems.

Certified fire mode

- The fire mode prevents the drive from a self-protecting shut-down. While in this mode the drive continues to perform speed regulation duty for mission-critical fans irrespective of control signals, warnings and alarms which may otherwise force it shut down.

Filter

- A built-in throttle on the DC link ensures a low harmonic load on the power mains as per the EN 61000-3-12 standard requirements.

Inputs and outputs

- Four PNP or NPN programmable digital inputs, 0-24 V DC
- 2 analogue inputs (0-10 V or 0/4-20 mA)
- 2 analogue outputs (0/4-20 mA)
- 2 relay outputs
- MODBUS RTU (RS 485)
- BACnet MSTP
- FC Protocol
- N2 Metasys
- FLN Apogee

Installation

- Thanks to an ultra-compact design the drive can be easily fitted into a larger unit or panel of an air ventilation system. The casings are rated IP20/Type 1/IP21 (optional) and IP54.

Frequency converter type and SKU code

Power [kW]	Current [A]	VLT® FC 101 HVAC Basic Drive 0.37-90 kW (3 x 380 – 480 V~, without a braking transistor)			
0.37	1.2	–	131L9861	–	–
0.75	2.2	–	131L9862	131N0177	131N0178
1.5	3.7	–	131L9863	131N0179	131N0180
2.2	5.3	–	131L9864	131N0181	131N0182
3	7.2	–	131L9865	131N0183	131N0184
4	9.1	–	131L9866	131N0185	131N0186
5.5	12	–	131L9867	131N0187	131N0188
7.5	15.5	–	131L9868	131N0189	131N0190
11	23	–	131L9869	131N0191	131N0192
15	31	–	131L9870	131N0193	131N0194
18	37	–	131L9871	131N0195	131N0196
22	42.5	–	131L9872	131N0197	131N0198
30	61	131L9873	131L9875	131N0201	131N0202
37	73	131L9881	131L9883	131N0205	131N0206
45	90	131L9889	131L9891	131N0209	131N0210
55	106	131L9897	131L9899	131N0213	131N0214
75	147	131L9905	131L9907	131N0217	131N0218
90	177	131L9913	131L9915	131N0221	131N0222
Casing		(E20) IP20/Chassis	(E20) IP20/Chasis	IP54	IP54
EMC filter		(H2) RFI class A2 (for industrial areas)	(H3/H4) RFI class A1/B (for residential areas)	(H2) RFI class A2 (for industrial areas)	(H3) RFI class A1/B (for residential areas)
Control panel		(X) without panel	(X) without panel	Integral	Integral

VLT® HVAC Basic frequency converters rated up to 22 kW are fitted with circuit boards with a special class 3C3 protective coating. For frequency converters rated higher than 22 kW this protective coating is optional while, the 3C2 coating is standard.

VLT® FC 101 HVAC Basic Drive frequency converter options

Order code	Description
132B0200	Operator's digital panel
132B0201	Kit for remote mounting of the operator panel to an IP55 cabinet, including 3 m cable
132B0202	Decoupling plate for H1 and H2 standard sizes
132B0204	Decoupling plate for H3 standard size
132B0205	Decoupling plate for H4 and H5 standard sizes
132B0207	Decoupling plate for H6 standard size
132B0242	Decoupling plate for H6 standard size (extra large)

Order code	Description
132B0208	Decoupling plate for H7 standard size
132B0243	Decoupling plate for H7 standard size (extra large)
132B0209	Decoupling plate for H8 standard size
132B0244	External EMC filter class A1/B1 for power output from 0.37 to 2.2 kW
132B0245	External EMC filter class A1/B1 for power output from 3 to 7.5 kW
132B0246	External EMC filter class A1/B1 for power output from 11 to 15 kW
132B0247	External EMC filter class A1/B1 for power output from 18.5 to 22 kW