

Fact Sheet

VLT® DriveMotor FCP 106



Standalone frequency converter for mounting on any standard induction or permanent magnet motor from 0.55-7.5 kW.

With a wide range of standard integrated pump and fan features, the VLT® DriveMotor FCP 106 can provide efficient control of motors in the 0.55 – 7.5 kW range.

By mounting the drive directly on the motor, owners are free to choose their own manufacturer and design the optimal system for their application. Once attached to the motor the drive automatically sets the optimal parameters to provide stable, energy efficient operation.

IE4

efficiency. The VLT® DriveMotor FCP 106 complies with both IE3 and IE4 (for EN 60034-30-1) efficiency requirements.

The FCP 106 is the perfect solution for both OEMs and end-users. By mounting the drive directly on the motor, with an adjustable adaptor plate, you eliminate the need for cabinets and reduce cable costs significantly. Setup is easy with VLT® Motion Control Tool MCT 10.

Compatible with VLT® DriveMotor FCM 300

The FCP 106 can be retrofitted on a FCM 300 motor with an adaptor plate.

Product range

3 x 380 – 480 V 0.55 – 7.5 kW
(with 110% overload torque)

3 x 380 – 480 V 0.55 – 5.5 kW
(with 160% overload torque)

Available enclosure ratings

IP 54 (UL type 3R) 0.55 – 7.5 kW

PC software tool: VLT® Motion Control Tool MCT 10

Ideal for commissioning and servicing the drive with induction motor attached.



Mount the FCP 106 on your preferred motor.

Feature	Benefit
Alphanumeric display, 7 languages	Effective commissioning
External connection for display as standard	Fast connectivity
Motor data pre-programmed	No programming needed
IP 54/UL type 3R enclosure	Reliable in wet and dirty environments
PCB protection class 3C3	Reliable in corrosive environments
Vibration fulfilling LVD requirements	Suitable for all motor mounted challenges
110% overload (0.55 – 7.5 kW)	Optimised for fans and pumps
160% overload (0.55 – 5.5 kW)	High starting torque by one step up in power size
Asynchronous or permanent magnet motor	Free choice of motor technology
Sleep mode	Save energy and extend lifetime
Automatic Energy Optimizer function	Saves an additional 5-15% energy
AHU dedicated functions	Reduces cost and saves energy
Pump dedicated functions	Protects the pump and extends the lifetime
Built-in PI controller	No external PI controller required
Smart Logic Controller	Often makes PLC/DDC unnecessary
Control signal for mechanical brake	Reduce effort in PLC
FC Protocol, Modbus, Metasys, BACnet, integrated	Flexible connectivity
Integrated DC link	Meets EN 61000-6-12, small power cable
Integrated EMC filters	Meets EN 61800-3, (C1 and C2), and EN 55011 Class (B and A1)

VLT® Control Panel LCP 31 (LCP only)

Alphanumeric display for commissioning and status indication during operation. Connection easy accessible through cable gland.

Ordering number: 132B0200

VLT® Control Panel LCP 31 Mounting Kit

Including 3 m cable, panel mounting bracket, gasket and fastners.

Ordering number: 134B0557

Local Operation Pad LOP

Panel for start/stop and setting the reference.

Ordering number: 175N0128

Potentiometer for cable gland

For setting the reference directly at the drive.

Ordering number: 177N0011

Motor Adapter Plate FCP 106

MH1 – Ordering number: 134B0340

MH2 – Ordering number: 134B0390

MH3 – Ordering number: 134B0440

Wall Mounting Plate FCP 106

MH1 – Ordering number: 134B0341

MH2 – Ordering number: 134B0391

MH3 – Ordering number: 134B0441

Crimp terminals for mounting FCP on motor

0.2 – 0.5 mm², 25 pcs.

Ordering number: 134B0495

0.5 – 1.0 mm², 25 pcs.

Ordering number: 134B0496

1.0 – 2.5 mm², 25 pcs.

Ordering number: 134B0497

2.5 – 4.0 mm², 25 pcs.

Ordering number: 134B0498

4.0 – 6.0 mm², 25 pcs.

Ordering number: 134B0499

Specifications

Mains supply (L1, L2, L3)	
Supply voltage	380 – 480 V ±10%
Supply frequency	50/60 Hz
Displacement power factor (cos φ) near unity	(> 0.98)
Switching on input supply L1, L2, L3	1–2 times/min.
Output data (U, V, W)	
Output voltage	0–100% of supply voltage
Switching on output	Unlimited
Ramp times	1–3600 sec.
Output frequency	0–590 Hz
Digital inputs	
Programmable digital inputs	4
Logic	PNP or NPN
Voltage level	0–24 VDC
Analogue input	
Analogue inputs	2
Modes	Voltage or current
Voltage level	0 V to +10 V (scaleable)
Current level	0/4 to 20 mA (scaleable)
Digital/analogue output	
Programmable outputs	2
Analogue output current level	0/4–20 mA
Relay outputs	
Programmable relay outputs	2 (resistive load 250 VAC, 3 A 30 VDC, 2 A)
Additional features when mounting the electronic (FCP 106) on your motor	
Note your production info into the drive	Identification of your programming
Change motor data to fit your motor	Optimize settings for your motor settings
Create new factory settings (CSIV Technology)	Ensure correct motor data settings
Motor cable length up to 0.5 m	Mount FCP on every side of the motor
Custom adapter plate	Mount FCP on every motor make
Oversized FCP can be mounted on motor	Higher overload for critical applications
Motor independent cooling	FCP fits on any motor

Dimensions

Dimensions (mm)	kW	Length A	Width B	Height C
MH1	0.55	231	162	107
	0.75			
	1.1			
	1.5			
MH2	2.2	277	187	113
	3			
	4			
MH3	5.5	322	220	124
	7.5			

