

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.

NO

motor cable required.

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.

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)
3 x 380 – 480 V.....	7.5 kW (with 150% overload torque)

Available enclosure ratings

IP66 (UL type 4X outdoor) 0.55 – 7.5 kW

PC software tool: VLT® Motion Control Tool MCT 10

Ideal for commissioning and servicing the drive with IM or PM motor attached.



Mount the FCP 106 on your preferred motor.

Feature	Benefit
Graphical display, 7 languages	Effective commissioning
External connection for display as standard	Fast connectivity
Motor data pre-programmed	No programming needed
IP66/UL type 4X outdoor	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
150% overload (7.5 kW)	High starting torque
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 (SLC)	Often makes PLC/DDC unnecessary
Control signal for mechanical brake	Reduce effort in PLC
Embedded via RS485: FC Protocol, Modbus RTU, BACnet Optional: PROFIBUS DP V1	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® Memory Module MCM 101

Facilitates helpful implementation of factory settings for OEM and machine builders, fast installation of firmware updates, and easy commissioning or exchange of drives in service situations.

Ordering number: 134B0791

Memory Module Programmer

Simply use your PC to copy the drive settings from one VLT® Memory Module to another.

Ordering number: 134B0792

VLT® Control Panel LCP 102 (Graphical LCP only)

Ordering number: 130B1107

Remote Mounting Kit (LCP 102)

3 m cable, panel mounting bracket, gasket and fasteners

Ordering number: 134B0564

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

Ordering numbers:

MH1: 134B0340

MH2: 134B0390

MH3: 134B0440

Crimp terminals for mounting FCP on motor

Ordering numbers:

0.2–0.5 mm², 25 pcs.: 134B0495

0.5–1.0 mm², 25 pcs.: 134B0496

1.0–2.5 mm², 25 pcs.: 134B0497

2.5–4.0 mm², 25 pcs.: 134B0498

4.0–6.0 mm², 25 pcs.: 134B0499

Specifications

Mains supply (L1, L2, L3)	
Supply voltage	380 – 480 V ±10%
Supply frequency	50/60 Hz
Displacement power factor (cos φ)	> 0.98 near unity
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	0.05–3600 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 (SIVP Technology)	Ensure correct motor data settings
Motor cable length up to 2 m	Meets EN 61800-3 C2
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

Wall Mounting Plate FCP 106

Ordering numbers:

MH1: 134B0341

MH2: 134B0391

MH3: 134B0441

Motor Adapter Plate FCM 106 (for Lafert motors only)

Ordering numbers:

MH1 – frame 71: 134B0338

MH1 – frame 80/90: 134B0339

MH2 – frame 71, : 134B0388

MH2 – frame 80-100: 134B0389

MH2 – frame 112: 134B0393

MH3 – frame 112: 134B0438

MH3 – frame 132: 134B0439

MH3 – frame 90/100: 134B0443

Dimensions

Dimensions [mm]	kW	Length	Width	Height
		A	B	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			

