VLT® DriveMotor FCP 106

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

**Feature**

- Graphical display, 7 languages
- External connection for display as standard
- Motor data pre-programmed
- IP66/UL type 4X outdoor
- PCB protection class 3C3
- Vibration fulfilling LVD requirements
- 110% overload (0.55 – 7.5 kW)
- 160% overload (0.55 – 5.5 kW)
- 150% overload (7.5 kW)
- Asynchronous or permanent magnet motor
- Sleep mode
- Automatic Energy Optimizer function
- AHU dedicated functions
- Pump dedicated functions
- Built-in PI controller
- Smart Logic Controller (SLC)
- Control signal for mechanical brake
- Embedded via RS485: FC Protocol, Modbus RTU, BACnet
- Optional: PROFIBUS DP V1
- Integrated DC link
- Integrated EMC filters

**Benefit**

- Effective commissioning
- Fast connectivity
- No programming needed
- Reliable in wet and dirty environments
- Reliable in corrosive environments
- Suitable for all motor mounted challenges
- Optimised for fans and pumps
- High starting torque by one step up in power size
- High starting torque
- Free choice of motor technology
- Save energy and extend lifetime
- Saves an additional 5-15% energy
- Reduces cost and saves energy
- Protects the pump and extends the lifetime
- No external PI controller required
- Often makes PLC/DDC unnecessary
- Reduce effort in PLC
- Flexible connectivity

**NO**

motor cable required.

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.

**PC software tool:**

VLT® Motion Control Tool MCT 10

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

www.danfoss.com/fcm106
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

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

Specifications

<table>
<thead>
<tr>
<th>Mains supply (L1, L2, L3)</th>
<th>Supply voltage</th>
<th>380 – 480 V ±10%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supply frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>Displacement power factor (cos φ)</td>
<td>&gt; 0.98 near unity</td>
</tr>
<tr>
<td></td>
<td>Switching on input supply L1, L2, L3</td>
<td>1–2 times/min.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output data (U, V, W)</th>
<th>Output voltage</th>
<th>0 – 100% of supply voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Switching on output</td>
<td>Unlimited</td>
</tr>
<tr>
<td></td>
<td>Ramp times</td>
<td>0,05–3600 sec.</td>
</tr>
<tr>
<td></td>
<td>Output frequency</td>
<td>0–590 Hz</td>
</tr>
</tbody>
</table>

Digital inputs

| Programmable digital inputs | 4 |
| Logic | PNP or NPN |
| Voltage level | 0–24 VDC |

Analogue input

| 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
Change motor data to fit your motor
Create new factory settings (SIVP Technology)
Motor cable length up to 2 m
Custom adapter plate
Oversized FCP can be mounted on motor
Motor independent cooling

Dimensions

<table>
<thead>
<tr>
<th>Dimensions [mm]</th>
<th>kW</th>
<th>Length A</th>
<th>Width B</th>
<th>Height C</th>
</tr>
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<tbody>
<tr>
<td>MH1 0.55</td>
<td>0.75 1.1 1.5</td>
<td>231</td>
<td>162</td>
<td>107</td>
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<tr>
<td>MH2 2.2 3 4</td>
<td>277</td>
<td>187</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>MH3 5.5 7.5</td>
<td>322</td>
<td>220</td>
<td>124</td>
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</table>

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