VLT® Soft Starter MCD 3000

VLT® Soft Starter MCD 3000 is a total motor starting solution. Current transformers measure the motor current and provide feedback for controlled motor voltage ramp up, but also for numerous motor protection functions.

A numeric display and logic keypad buttons makes programming easy and operational status such as motor current is shown via the display.

The VLT® Soft Starter MCD 3000 is wall mountable, however a Remote Operator module allows for remote control and motor performance monitoring, making it ideal for panel installation.

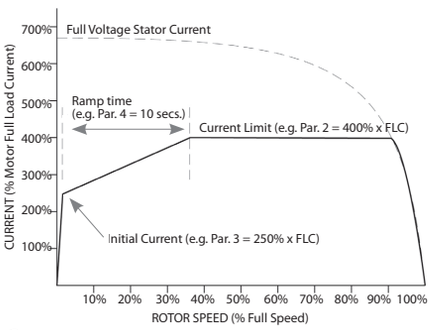
Features	Benefits
• Current ratings for normal and heavy starting	• Fits the most severe applications
• Current limit soft start with initial current ramp up	• Limiting the current the motor can draw during start
• DC brake function	• Fast stop of heavy inertia applications
• Internal delta wiring kit	• The soft starter carries only phase current, and can therefore control a motor with greater full load current
Reliable	**– Maximum up-time**
• Numerous motor protection features	• Maintenance free
• Password protection of parameters	• Prevents unauthorized changes
• Max. ambient temperature 50˚C without derating	• No external cooling or oversizing necessary
User-friendly	**– Save commissioning and operating cost**
• Four different auto-adjustable ramp down profiles	• Reduced assembly time • Less installation cost
• Built-in local control panel with display	• Easy to operate

The perfect solution, also for more severe applications:

- Pumps
- Conveyors
- Fans
- Mixers
- Compressors
- Centrifuge
- Mill
- Saw
- And many more

Power range
7.5 – 800 kW
Versions for 200–690 VAC

VLT®
THE REAL DRIVE



Current ramp

Fully featured Soft Starter for motors up to 800 kW

- Total motor starting solution
- Advanced start, stop and protection features
- Local programming keypad and display

Optional:

- Modules for serial communication
- Remote operator kit
- PC software

Remote operation kit

- Start/stop, reset
- LED for start, run, trip
- Trip codes
- Current display
- Motor temperature display
- 4–20 mA output

Specifications

Mains supply (L1, L2, L3)	
Supply voltage MCD3000-TS	3x200 VAC ~ 525 VAC 3x200 VAC ~ 440 VAC (Inside Delta Connection)
Supply voltage MCD3000-T7	3x200 VAC ~ 690VAC 3x200 VAC ~ 440 VAC (Inside Delta Connection)
Supply frequency (at start)	50HZ (± 2Hz) / 60 Hz (± 2Hz)
Supply frequency (during start)	>45Hz (50Hz supply) or >55Hz (60 Hz supply)
Supply frequency (during run)	>48Hz (50Hz supply) or >58Hz (60 Hz supply)
Electronics control voltage	230 VAC (+10%/-15%) or 400 VAC (+10%/-15%)

Control inputs	
Start (Terminals 15 & 16)	Normally Open, Active 24 VDC, 8mA approx.
Stop (Terminals 17 & 18)	Normally Closed, Active 24 VDC, 8mA approx.
Reset (Terminals 25 & 26)	Normally Closed, Active 24 VDC, 8mA approx.
Parameter Set (Terminals 27 & 28)	Normally Open, Active 24 VDC, 8mA approx.

Relay outputs	
Programmable Output A1) (Terminals 13 & 14)	Normally Open, 5 A @ 250 VAC/360 VA, 5 A @ 30 VDC resistive
Programmable Output B2) (Terminals 21, 22 & 24)	Changeover, 5 A @ 250 VAC/360 VA, 5 A @ 30 VDC resistive
Output C3) (Terminals 33 & 34)	Normally Open , 5 A@250 VAC/360 VA, 5 A@30 VDC resistive
1) Programmable functions	Line contactor, Run, High current flag, Low current flag
2) Programmable functions	Tripped, Output on, High current flag, Low current flag, Line contactor
3) Programmable functions	Run, D.C.Brake Contactor Control, Off

Environmental	
Degree of protection MCD3007 to MCD3132	IP 21
Degree of protection MCD3185 to MCD3800	IP 20
Operating Temperatures	-5˚C / +60˚C
Rated short-circuit current (with semi-conductor fuses)	100kA
Rated insulation voltage (Surges)	2 kV line to earth, 1kV line to line
Rated impulse withstand voltage (Fast transients)	2 kV
Pollution Degree	Pollution Degree 3
Electro static discharge	4 kV contact discharge, 8 kV air discharge
Equipment class (EMC)	Class A
Radio-frequency electromagnetic field	0.15 MHz – 80 MHz: 140dBµV 80 MHz – 1 GHz: 10 V/m

This product has been designed for Class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

Standards Approvals	
C√	CISPR-11
UL1	UL508
C-UL1	CSA 22.2 No. 14
CE	IEC 60947-4-2

1) Requires use of semi-conductor fuses. Excludes models MCD3600~MCD3800

Cabinet sizes

Power range (400V)	7.5–55 kW	75–110 kW	132 kW	185–500 kW	600–800 kW
Series	**3007 - 3055**	**3075 - 3110**	**3132**	**3185 - 3500**	**3600 - 3800**
Height [mm]	530	530	530	850	1000
Width [mm]	132	264	396	430	560
Depth [mm]	270	270	270	280	315