

# VLT® Soft Starter MCD 100

VLT® Soft Starter MCD 100 is a cost effective and extremely compact soft starter for AC motors.



A true “fit and forget” soft starter for DIN rail mount MCD 100 provides basic soft start and stop function.

- A robust semiconductor design – selection can be based on motor power which ensures easy selection.
- Can be used for an almost unlimited number of starts per hour without derating.
- A universal control voltage (24-480 V AC/ V DC) – simplifies selection and keeps stock at a minimum.
- A “fit and forget” contactor design – simplifies installation and reduces required panel space.

- Digitally controlled rotary switches – secures precise settings and simplifies installation.
- Ratings for heavy duty as standard – simplifies installation and reduces the risk of breakdown

**Power range**

MCD 100-001 .....	1,5 kW
MCD 100-007 .....	7.5 kW
MCD 100-011 .....	11 kW

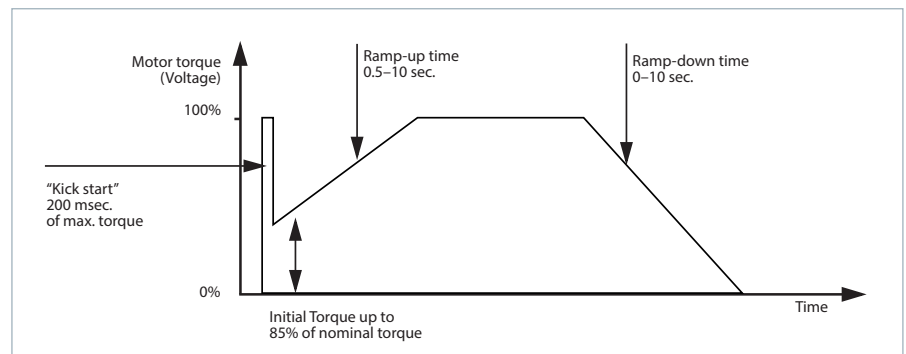
*All sizes are rated for line voltage up to 600 V AC.*

## Perfect

match for:

- Smaller compressors for example scroll or reciprocating compressors in air-conditioning units
- Conveyor systems
- Pumps

Feature	Benefit
Small footprint and compact size	– Saves panel space
Selection can be based on motor power	– Easy selection
Universal control voltage	– Simplifies selection – Keeps stock at a minimum
“Fit and forget” contactor design	– Simplifies installation – Reduces required panel space
User friendly	Save commissioning and operating cost
Easy to install and use	– Saves time
Digitally controlled rotary switches	– Secures precise settings and simplifies installation
Easy DIN rail mounting for sizes up to 30 kW	– Saves time and space
Reliable	Maximum uptime
Robust semiconductor design	– Reliable operation
Almost unlimited number of starts per hour without derating	– Prevents unauthorized changes
Max. ambient temperature 50° C without derating	– No external cooling or oversizing necessary



### Timed voltage ramp

- Micro Soft Start Controller for motors up to 11 kW
- Extremely robust SCR design with heavy ratings as standard
- Unlimited number of starts per hour
- Contactor style design for easy selection, installation and commissioning



### Specifications

Mains supply (L1, L2, L3)	
MCD 100	3 x 208 VAC ~ 600 VAC (+10% / -15%)
Supply frequency (at start)	45 Hz – 66 Hz
Control circuit (A1, A2)	
MCD 100	24 – 480 VAC/VDC (-15% +10%)
Environmental	
Degree of protection MCD 100	IP 20
Operating temperatures	-5° C/+40° C (60° C with de-rating)
Pollution Degree	Pollution Degree 3
EMC Emission	
Equipment class (EMC)	Class A
Conducted radio frequency emission	
0.15 MHz – 0.5 MHz	< 90 dB (µV)
0.5 MHz – 5 MHz	< 76 dB (µV)
5 MHz – 30 MHz	80-60 dB (µV)
Radiated radio frequency emission	
30 MHz – 230 MHz	< 30 dB (µV/m)
230 MHz – 1000 MHz	< 37 dB (µV/m)
<i>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.</i>	
EMC Immunity	
Electro static discharge	4 kV contact discharge, 8 kV air discharge
Radio-frequency electromagnetic field	
0.15 MHz – 1000 MHz	140 dB (µV)
Rated impulse withstand voltage (Fast transients 5/50 ns – Burst)	4 kV line to earth
Rated insulation voltage (Surges 1.2/50 µs – 8/20 µs)	4 kV line to earth, 2 kV line to line
Voltage dip and short time interruption	100 ms (at 40% nominal voltage)
Short Circuit	
Rated short-circuit current MCD 100-001	Normal fuses: 25 A gL/gG
SCR I2t rating for semiconductor fuses	72 A2s
Rated short-circuit current MCD 100-007	Normal fuses: 50 A gL/gG
SCR I2t rating for semiconductor fuses	1800 A2s
Rated short-circuit current MCD 100-011	Normal fuses: 80 A gL/gG
SCR I2t rating for semiconductor fuses	6300 A2s
Heat Dissipation	
MCD 100-001	Max. 4 watts
MCD 100-007 to MCD 100-011	2 watts/Ampere
Standards Approvals	
UL/C-UL	UL508
CE	IEC 60947-4-2

### Dimensions

Model	Power size (kW)	Rated current (Amps)	Dimensions (mm) H x W x D	Approvals
MCD 100	1.5	3 A AC-53b: 4-10: 110	102 x 22.5 x 123.5	UL, CE
	7.5	15 A AC-53a: 8-3: 100-3000 AC-58a: 6-6: 100-3000	110 x 45 x 128.1	
	11	25 A AC-53a: 8-3: 100-3000 AC-58a: 6-6: 100-3000	110 x 90 x 128	

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