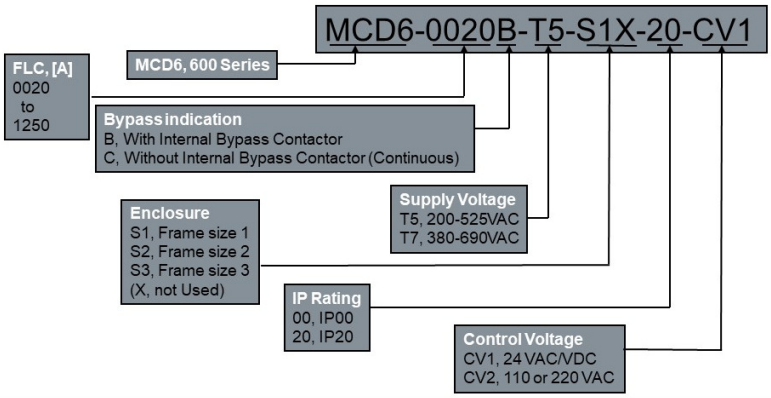
ENGINEERING TOMORROW

Fact Sheet

VLT® Soft Starter MCD 600 delivers superior performance for fixed-speed applications



Typecode selector



Flexible installation:

- Wide variety of Ethernet and serial-based communication option cards
- Application-dedicated smart cards

Increased savings

- Integrated bypass ensures both high efficiency and harmonic-free operation at full speed, reducing energy consumed and cooling requirements.

Easier to operate with new capabilities:

- Pump-clean function
- PowerThrough operation
- Calendar or run time-based scheduling
- Enhanced protection delivers increased uptime.
- Simulation mode with no power to the motor

MCD600- Chassis Digital Soft Starter with Built in Bypass & Motor Overload Protection

Part Number	Maximum FLC Ratings		230VAC		460VAC		600VAC	
	Standard*	Heavy**	Standard*	Heavy**	Stan-dard*	Heavy**	Standard*	Heavy**
			Motor HP (nom)	Motor HP (nom)	Motor HP (nom)	Motor HP (nom)	Motor HP (nom)	Motor HP (nom)
MCD6-0020B	17	14	5	3	10	10	15	10
MCD6-0034B	28	22	10	7.5	20	15	20	20
MCD6-0042B	35	28	10	10	25	20	30	25
MCD6-0063B	52	40	15	10	40	30	40	30
MCD6-0069B	59	46	20	15	40	30	50	40
MCD6-0086B	77	52	25	15	60	40	60	50
MCD6-0108B	81	65	30	20	60	50	75	60
MCD6-0129B	99	77	30	25	75	60	100	75
MCD6-0144B	124	96	40	30	100	75	125	75
MCD6-0171B	131	104	50	40	100	75	125	100
MCD6-0194B	156	124	60	40	125	100	150	125
MCD6-0244B	195	156	75	60	150	125	200	150
MCD6-0287B	240	180	75	60	200	150	200	150
MCD6-0323B	261	203	100	75	200	150	250	200
MCD6-0410B	377	302	150	100	300	250	350	300
MCD6-0527B	414	321	150	125	350	250	450	300
MCD6-0579B	477	361	200	150	400	300	500	350
MCD6-0654B	515	414	200	150	450	350	500	450
MCD6-0736B	590	480	200	300	500	400	600	500
MCD6-0950B	796	619	300	250	600	500	800	600
MCD6-1154B	984	768	400	300	800	600	1000	800
MCD6-1250B	1130	903	450	350	900	700	1100	900
MCD6-0160C	146	118	50	40	100	75	150	100
MCD6-0215C	176	144	60	50	125	100	150	150
MCD6-0275C	233	185	75	60	150	150	200	150
MCD6-0343C	306	246	100	75	250	200	300	250
MCD6-0448C	354	336	125	125	250	250	350	350
MCD6-0590C	480	382	200	150	400	300	500	400
MCD6-0667C	576	431	200	150	450	350	600	450
MCD6-0839C	722	590	300	200	600	500	700	600
MCD6-0979C	864	722	350	300	700	600	900	700
MCD6-1134C	966	784	400	300	800	600	1000	800

**Standard Duty- 350% current, 30 second ramp, 4 starts per hour*
***Heavy Duty- 450% current, 30 second ramp, 4 starts per hour*
For light duty applications please consult factory

ENGINEERING TOMORROW

Mains voltage range

- 3 x 200-525 VAC (T5)
- 3 x 380-690 VAC (T7)

Current range and enclosure

- IP20: 20-129 A (nominal)
- IP00: 144-1250 A (nominal)

Additional features

- Advanced start, stop and protection features
- Auto start/stop clock
- Compact size
- DC injection braking
- 4-line graphical display
- Multiple programming setup menus

Available options

- Fieldbus communication modules:
  - EtherNet/IP
  - PROFINET
  - Modbus TCP
  - PROFIBUS
  - DeviceNet
  - Modbus RTU
- Remote LCP Option
- Application card
  - Smart Pump
- PC software:
  - WinStart
  - VLT® Motion Control Tool MCT 10

Enclosed options available - consult factory



VLT® Control Panel LCP 601

- Remote mountable option kit
  - IP65 enclosure class
  - 3 m cable included
- Features:
  - Graphical, multi-line display
  - Real-time graphing
  - Full parameter list, Quick Menu and application setup
  - Adjustable multiple monitoring views

Feature	Benefit
Quick set-up menu	– Adjusts key parameters to suit the application, reducing start-up time
Log menu – up to 348 individual events recorded	– Eases analysis of the application
Pump clean functionality and deragging	– Helps dislodge debris from impeller without extra components
Integrated USB port (Parameter copy, data logging, firmware updates)	– Reduced startup and upgrade time – Easy access to operational data
AAC Adaptive Acceleration Control	– Automatically adapts to the chosen start/stop profile
Reversing contactor control	– Allows for soft starting in any direction – Does not require any external contactors
Internal bypass contactors	– Save space and wiring – Reduced heat dissipation when running – Eliminates costly external components
PowerThrough operation	– Utilizes 2-phase control when one phase is damaged (shorted SCR)
Onscreen, dynamic QR-codes	– Provides information about the MCD 600, including serial number and failure information

Control voltage (terminals A4, A5, A6)	
CV1 (A8, A9)	24 VAC/VDC (± 20%), 2.8 A
CV2 (A8, A9)	110-120 VAC (+ 10% / -15%), 600 mA
CV2 (A8, A9)	220-240 VAC (+ 10% / -15%), 600 mA
Mains frequency	50/60 Hz (± 5%)
Inputs	
Input rating	Active 24 VDC, 8 mA (approximately)
Motor thermistor (TER-05, TER-06)	Trip > 3.6 kΩ, reset > 1.6 kΩ
Outputs	
Relay outputs	10 A @ 250 VAC resistive 5 A @ 250 VAC AC15 pf 0.3
Main Contactor (13, 14)	Normally open
Relay output A (21, 22, 23)	Changeover
Relay output B (33, 34)	Normally open
Analog Output (AO-07, AO-08)	0-20 mA or 4-20 mA (selectable)
Maximum load	600 Ω (12 VDC @ 20 mA) (accuracy ±5%)
Environmental	
Protection MCD6-0020B ~ MCD6-0129B	IP20
Protection MCD6-0144B ~ MCD6-1250B	IP00
Operating temperature	-10° C to 60° C, above 40° C with derating
Storage temperature	-25° C to + 60° C
Operating altitude	0-1000 m, above 1000 m with derating
Humidity	5% to 95% relative humidity
Pollution degree	Pollution Degree 3
Vibration	IEC 60068-2-6

Dimensions - with Internal Bypass

Current Rating [A]	Weight [lbs]	Height [in]	Width [in]	Depth [in]	Frame Size
20 - 129B	10.7 10.9 12.1	13.2	6	9.1	S1
144 - 244B	28	19.5	8.5	9.6	S2
287 - 410B	34.2	20.6	8.5	9.6	
527 - 579B	41.9				
654 - 736B	112.4	24.3	17.6	12.3	S3
950B	136.7				
1154B	138.9				
1250B	143.3				

Dimensions - without Internal Bypass

Current Rating [A]	Weight [lbs]	Height [in]	Width [in]	Depth [in]	Frame Size
160 - 215C	26.9	19.5	8.5	9.6	S2
275 - 343C	28.2	20.6			
448C	35.3				
590 - 667C	103.6	24.3	17.6	12.3	S3
839C	127.9				
979C	130.1				
1134C	134.5				

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material.
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