Danfoss MCD 201 Series Compact Starter Instruction Manual

Contents

Danfoss MCD 201 Series Compact Starter

Specifications:

- Model: MCD 201 Series
- Power Range: 7.5 kW to 110 kW @ 400 VAC
- Current Ratings:
  - AC53b: 18 A to 200 A
  - AC53b 4-6:354 to AC53b 4-6:594
  - AC53b 4-20:340 to AC53b 4-20:580
- Control Voltage:
  - CV1: 24 VAC, 24 VDC
  - CV3: 110-240 VAC, 380-440 VAC

Product Usage Instructions

Installation:

1. Ensure the power supply matches the voltage requirements of the MCD 201 Series.
2. Connect the main contactor as per the provided diagram.
3. Securely fasten the cables based on the cable termination specifications.

Settings Adjustment:

- Adjust the initial torque setting to your desired percentage.
- Set the ramp-up time and ramp-down time based on your application’s requirements.
- Configure the soft stop feature as needed.

Operation:

1. Ensure all connections are secure before powering on the MCD 201.
2. Use the provided controls to start, stop, and adjust the motor speed as required.

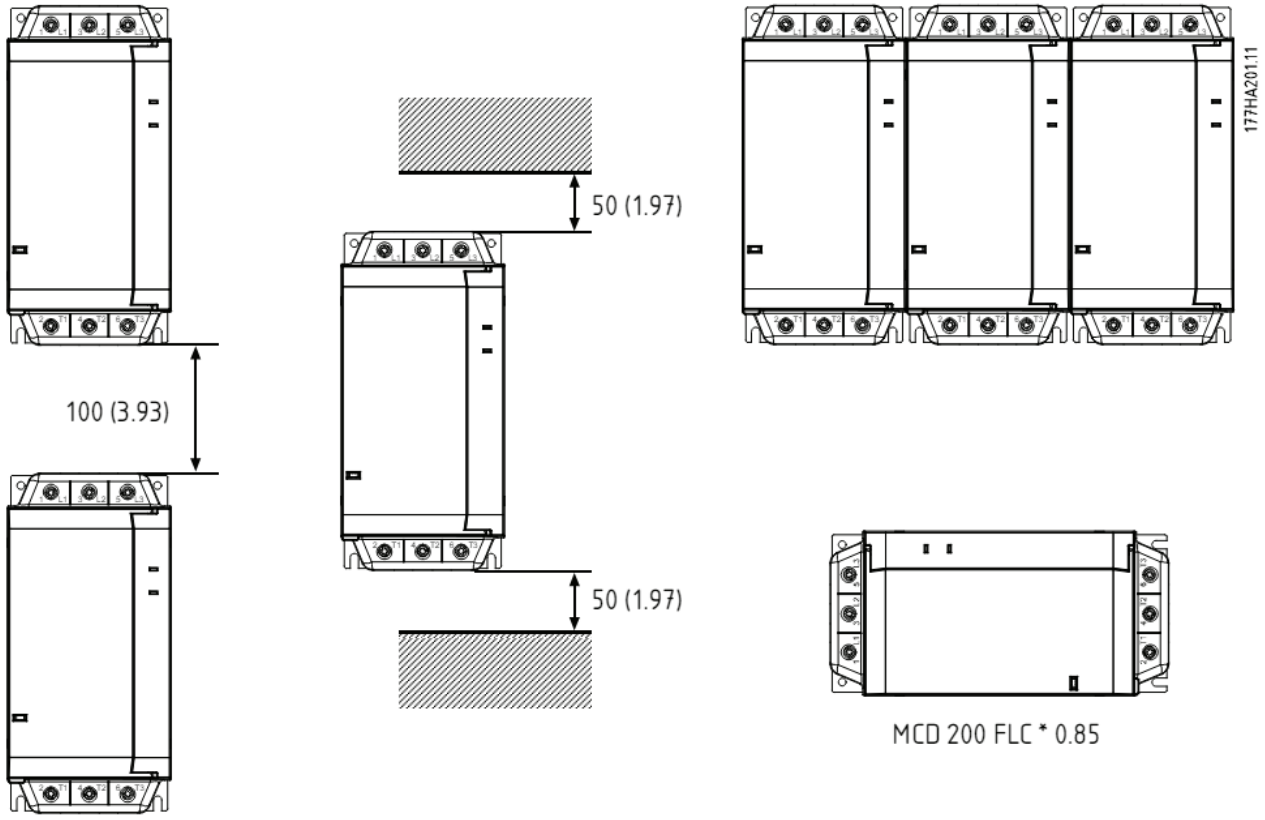
3. Monitor the operation for any irregularities or issues.

Frequently Asked Questions (FAQ):

Q: What should I do if the MCD 201 shows a ‘Ready x 1 x 6’ error?
A: The ‘Ready x 1 x 6’ error indicates a specific issue with the connections. Check and ensure proper connection of L1, L2, L3, T1,T2, and T3 terminals as per the provided manual.

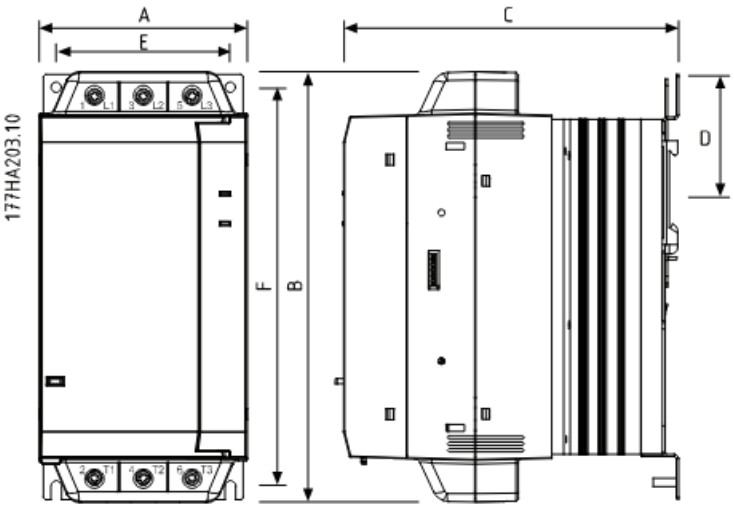
MCD 201 Series

Mounting



mm (inch)

Dimensions



mm (inch)

Cable Termination

	mm² (AWG)						mm² (AWG)	
	MCD 201-007 ~ MCD 201-030		MCD 201-037 ~ MCD 201-055		MCD 201-075 ~ MCD 201-110		MCD 201-007 ~ MCD 201-110	
	10 - 35 (8 - 2)	14 (0.55) mm (inch)	25 - 50 (4 - 1/0)	14 (0.55) mm (inch)	N.A.	11 (0.43) 26 (1.02) 8.5 (0.33) mm (inch)	0.14 - 1.5 (26 - 16)	6 (0.24) mm (inch)
	10 - 35 (8 - 2)		25 - 50 (4 - 1/0)		N.A.		0.14 - 1.5 (26 - 16)	
	Torx (T20) 3 Nm 2.2 ft-lb		Torx (T20) 4 Nm 2.9 ft-lb		N.A.		N.A.	
	7 mm 3 Nm 2.2 ft-lb		7 mm 4 Nm 2.9 ft-lb		N.A.		3.5 mm 0.5 Nm max 4.4 lb-in max	

75 ºC Wire – Use copper conductors only

Specifications

MCD 201 – XXX – YY - ZZZ

kW @ 400 VAC, 40 °C
Power Rating

(L1, L2, L3)
Mains Supply

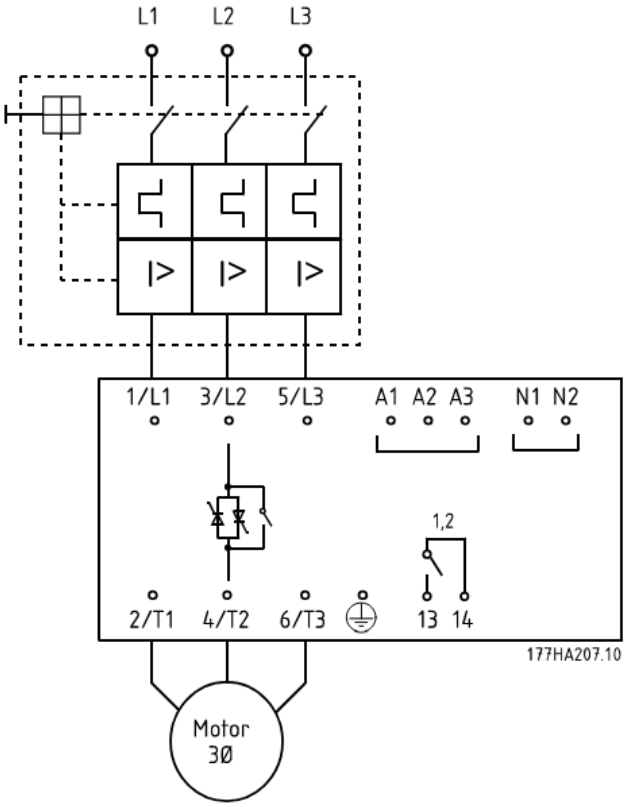
(A1, A2, A3)
Control Supply

Model	kW @ 400 VAC	A	AC53b
007	7.5	18 A	AC53b 4-6:354
015	15	34 A	AC53b 4-6:354
018	18	42 A	AC53b 4-6:354
022	22	48 A	AC53b 4-6:354
030	30	60 A	AC53b 4-6:354
037	37	75 A	AC53b 4-6:594
045	45	85 A	AC53b 4-6:594
055	55	100 A	AC53b 4-6:594
075	75	140 A	AC53b 4-6:594
090	90	170 A	AC53b 4-6:594
110	110	200 A	AC53b 4-6:594
007	7.5	17 A	AC53b 4-20:340
015	15	30 A	AC53b 4-20:340
018	18	36 A	AC53b 4-20:340
022	22	40 A	AC53b 4-20:340
030	30	49 A	AC53b 4-20:340
037	37	65 A	AC53b 4-20:580
045	45	73 A	AC53b 4-20:580
055	55	96 A	AC53b 4-20:580
075	75	120 A	AC53b 4-20:580
090	90	142 A	AC53b 4-20:580
110	110	165 A	AC53b 4-20:580

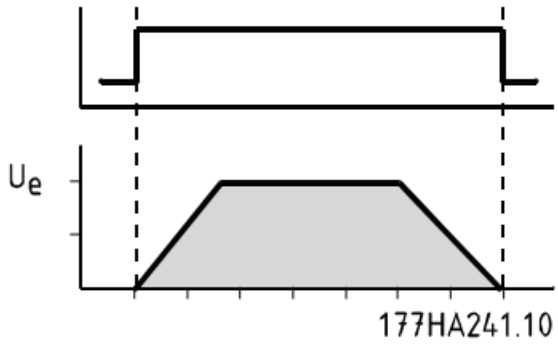
T4	3Ø, 200-440 VAC 45-66 Hz
T6	3Ø, 200-575 VAC 45-66 Hz

CV1	24 VAC 24 VDC
CV3	110-240 VAC & 380-440 VAC

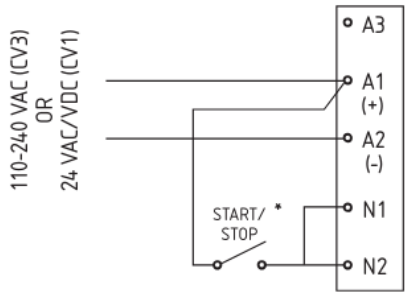
Wiring

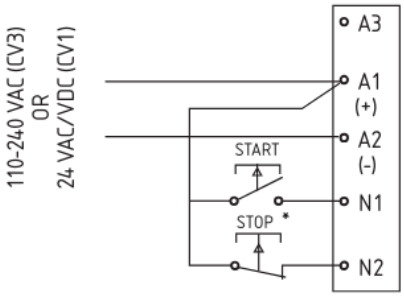


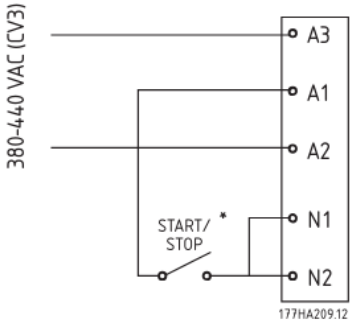
1. 6 A @ 30 VDC resistive / 2 A 400 VAC, AC11
2. Main Contactor

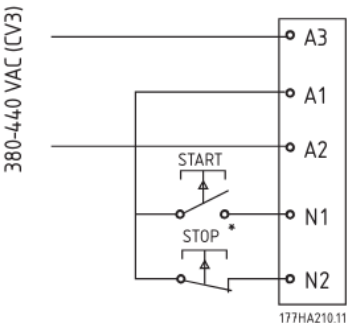


- 2 Wire……2 Fils……..cxema









Also resets trip conditions

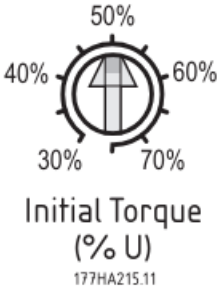
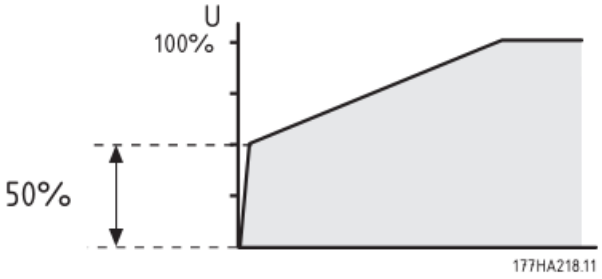
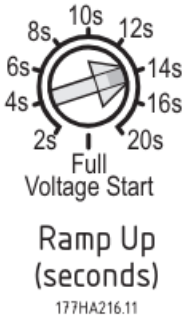
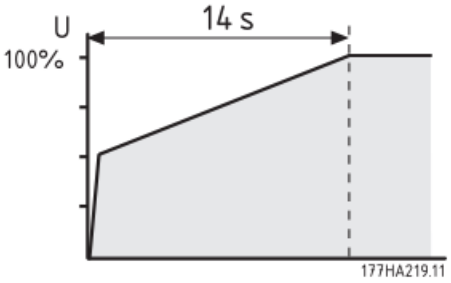
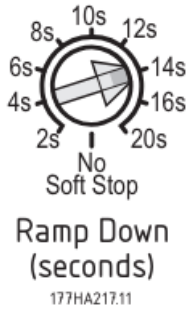
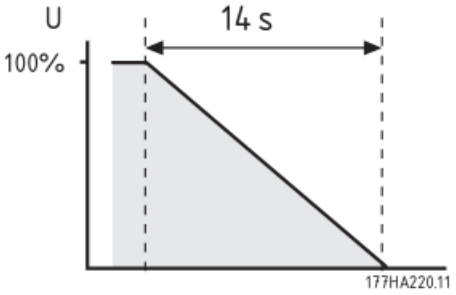
Always apply control voltage before (or with) mains voltage.

With 24 VAC/VDC use contacts rated for low voltage and low current (gold flash or similar). ⚠

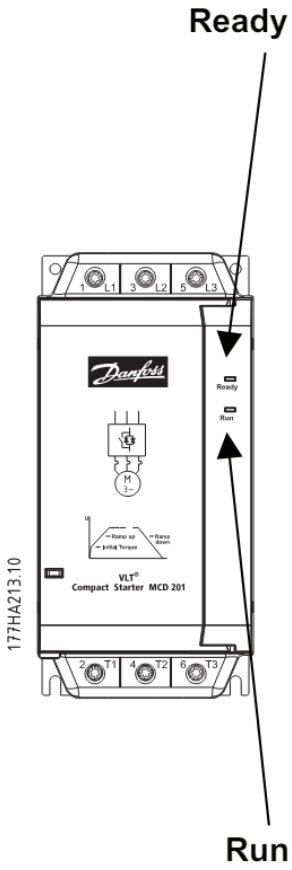
Disconnect from the power source before installing or servicing. ⚠

This product has been designed for Class A environments. Use of this product in domestic environments may cause radio interference.

Adjustments

Par.	Example	
Initial Torque		
Ramp Up		
Ramp down		

Indication



○	●	☼
Off	On	Flash
No control power	Ready	Starter tripped
Motor not running	Motor running at full speed Motor	Motor starting or stopping Motor

Trouble Shooting

Ready	**Description**
☼ x 1	Power Circuit: Check mains supply L1, L2 & L3, motor circuit T1, T2 & T3 and soft starter SCRs
☼ x 6	Supply Frequency: Check supply frequency is in range.

☼ x 8	Network Comms Failure (between accessory module and network): Check network connections and settings.
☼ x 9	Starter Comms Failure (between starter and accessory module): Remove and refit accessory modul e.

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Documents / Resources

	Danfoss MCD 201 Series Compact Starter [pdf] Instruction Manual MCD 201-007, MCD 201-015, MCD 201-018, MCD 201-022, MCD 201-030, MCD 201-037, MCD 201-045, MCD 201-055, MCD 201-075, MCD 201-090, MCD 201-110, MCD 201 Series, MCD 201 Series Compact Starter, Compact Starter, Starter

References

- Global AC drive manufacturer - Danfoss Drives | Danfoss
- User Manual