

INOVANCE

MD800 Series Standard AC Drive (Multidrive System)

Making small automated devices smarter



reddot winner 2021

- Drive ratings: 200 W to 7.5 kW
- 1ph 200 V and 3 ph 400 V supply
- Modular design (from 1 to 8 drives)
- Choice of fieldbus protocols available



STO
SIL3

EtherCAT

EtherNet/IP

CANopen

CANlink

PROFINET

MD800- Features & Functions

Modular design for easy installation and maintenance



Designed for cabinet space - reduced installation costs



- Eight Invoance MD200 drives, each module's footprint is: width 75 mm x height 180 mm

- Common height and depth: 182 mm × 160 mm
- Rectifier width: 99.5 mm
- Drive width: 49.5 mm

Adapting to adverse environments



- Thickened conformal coating, meeting the 3C3 and 3S2 environmental requirements
- Separate air filter
- IP40 protection



1. Input filter
2. Extension card (optional)
3. Power supply unit — control module
4. Power supply unit — power supply module

5. Drive unit — dual-axis drive unit
6. Drive unit — single-axis drive unit
7. Drive unit — three-way quick-plug baseplate
8. Drive unit — three-way quick-plug baseplate

Power supply unit

Power:

Three-phase 400 V model: 3.7/7.5/15 kW

Single-phase 200 V model: 2.2/3.7 kW

Operating panel:

Color segment-code LCD display

Local resources:

4DI/4DIO/2AI/1RO

CAN + Modbus

Auxiliary +24 V input

Type-C debug port

Extension card slot x 2

Optional resources:

Braking unit

Extension cards (I/O card and communication card)

Drive unit

Power:

Three-phase 400 V single-axis model: 0.4 kW to 7.5 kW

Three-phase 400 V dual-axis model: 0.4 kW to 3.7 kW

Three-phase 200 V single-axis model: 0.2 kW to 2.2 kW

Three-phase 200 V dual-axis model: 0.2 kW to 2.2 kW

Operating panel:

N/A

Local resources:

N/A

Optional resources:

Safe torque off (STO) function (SIL 3)

Ordering code

Power supply unit

MD800 - 0 - 4T 12 B -INT

① ② ③ ④ ⑤ ⑥

① Product category: AC drive	④ Rated input current Power supply unit: Rated input current (heavy load) Three-phase 400 V model 12: 12A 22: 22A 41: 41A Single-phase 200 V model 24: 24A 40: 40A	⑤ Braking component N/A: no special function B: built-in braking unit of the power supply unit
② Unit type: power supply unit		
③ Voltage class Input voltage of the power supply unit: 4T: three-phase 400 V 2S: single-phase 200 V		⑥ Version: INT: International variant

Drive unit

MD800 - 2 - 4T 1R8 S -INT

① ② ③ ④ ⑤ ⑥

① Product category: AC drive	④ Rated output current: Drive unit: Rated output current (heavy load) Three-phase 400 V model 1R8: 1.8A to 17: 17A Three-phase 200 V model 1R7: 1.7A to 11: 11A	⑤ Safety component N/A: no special function S: built-in STO of the drive unit
② Unit type: drive unit 1: single-axis drive unit 2: dual-axis drive unit		
③ Voltage class: Output voltage of the drive unit: 4T: three-phase 400 V 2T: three-phase 200 V		⑥ Version: INT: International variant

Specifications

Single drive units

Power (kW)		Model ^[1]	Output AC current (A)	
HD	ND		HD	ND
400V DC supply voltage: 510V DC~720V DC				
0.4	0.75	MD800-1-4T1R8(S)-INT	1.8	2.1
0.75	1.5	MD800-1-4T3R4(S)-INT	3.4	4.6
1.5	2.2	MD800-1-4T4R8(S)-INT	4.8	5.4
2.2	3.7	MD800-1-4T5R5(S)-INT	5.5	9
3.7	5.5	MD800-1-4T9R5(S)-INT	9.5	13
5.5	7.5	MD800-1-4T13(S)-INT	13	17
7.5	11	MD800-1-4T17(S)-INT	17	21
200V DC supply voltage: 270V DC~360V DC				
0.2	0.4	MD800-1-2T1R7(S)-INT	1.7	1.9
0.4	0.75	MD800-1-2T3(S)-INT	3	3.5
0.75	1.5	MD800-1-2T5(S)-INT	5	8
1.5	2.2	MD800-1-2T8(S)-INT	8	9.6
2.2	3.7	MD800-1-2T11(S)-INT	11	17.6

Dual drive units

Power (kW)		Model ^[1]	Output AC current (A)	
HD	ND		HD	ND
400V DC supply voltage: 510V DC~720V DC				
0.4	0.75	MD800-2-4T1R8(S)-INT	1.8	2.1
0.75	1.5	MD800-2-4T3R4(S)-INT	3.4	4.6
1.5	2.2	MD800-2-4T4R8(S)-INT	4.8	5.4
2.2	3.7	MD800-2-4T5R5(S)-INT	5.5	9
3.7	5.5	MD800-2-4T9R5(S)-INT	9.5	13
200V DC supply voltage: 270V DC~360 V DC				
0.2	0.4	MD800-2-2T1R7(S)-INT	1.7	1.9
0.4	0.75	MD800-2-2T3(S)-INT	3	3.5
0.75	1.5	MD800-2-2T5(S)-INT	5	8
1.5	2.2	MD800-2-2T8(S)-INT	8	9.6
2.2	3.7	MD800-2-2T11(S)-INT	11	17.6

Rectifier units

Power (kW)		Model ^[2]
HD	ND	
3 ph 400V AC input		
3.7	5.5	MD800-0-4T12(B)-INT
7.5	11	MD800-0-4T22(B)-INT
15	18.5	MD800-0-4T41(B)-INT
1 ph 200V AC input		
2.2	3	MD800-0-2S24(B)-INT
3.7	4.4	MD800-0-2S40(B)-INT
3 ph 220V AC input		
3.7	5.5	MD800-0-2T22B-INT
7.5	11	MD800-0-2T41B-INT

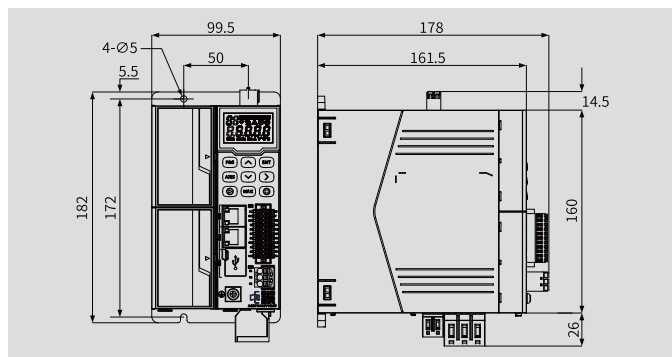
Note:

[1] For single & dual drive units, MD800-X-XTXXXS-INT supports STO function, otherwise not.

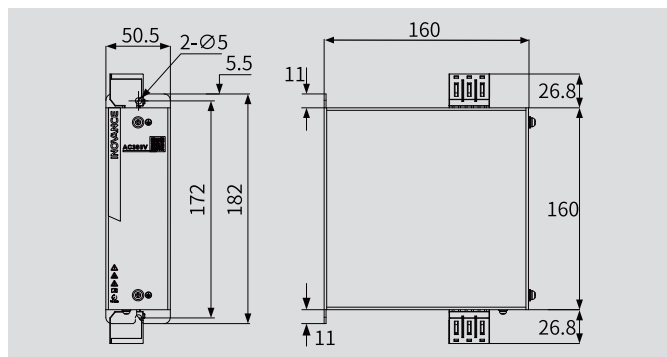
[2] For rectifier units, MD800-0-XXXXB-INT supports built-in dynamic braking, otherwise not.

Dimensions

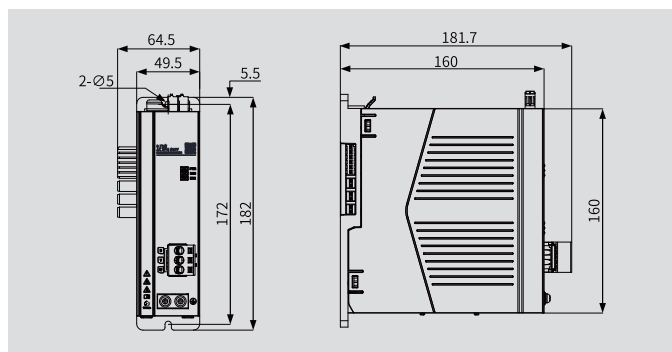
Power supply unit



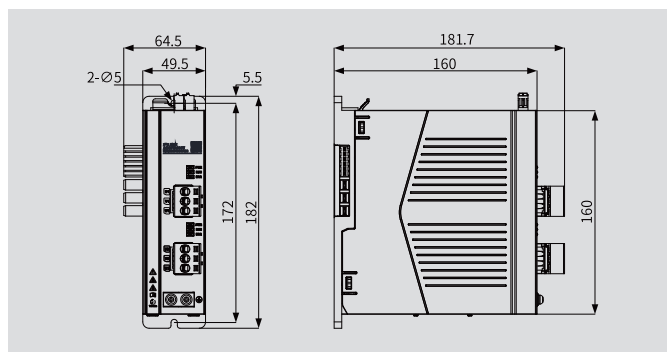
Filter unit



Single-axis drive unit



Dual-axis drive unit



Accessories

Model	Description
IO-M1	I/O expansion card: 8 DI, 8 DO, 2 AI
IO-R1	Relay expansion card: 8 relays with normally open contact
IO-R2	Relay expansion card: 4 relays with changeover contact
SI-PN1	PROFINET communication card
SI-ECAT1	EtherCAT communication card
SI-EN	Ethernet IP communication card
SOP-20	Remote LCD keypad (inc. 3 m cable)
MD800-PBJ100M-W1	Rectifier unit cable support bracket
MD800-PBJ50M-W1	Single or dual drive unit cable support bracket
MD800-AZB1	Mounting plate for easy assembly of an MD800 set in the electrical panel

EMC filters

Category	Filter model	Matched rectifier model
EMC filters (To achieve C2 level)	FIL800-4T-045	MD800-0-4T12*
		MD800-0-4T22*
		MD800-0-4T41*
	FIL800-2S-045	MD800-0-2S24*
		MD800-0-2S40*

Note:

- 3 ph 400 V input reactors available on request (3% impedance) For more information, please contact our local offices.
- For more accessories information, please contact Invince local office.

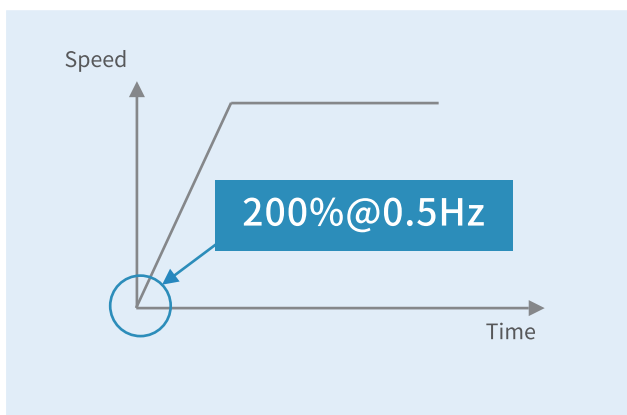
Multi-functionality

- Multiple built-in algorithms, including V/f, SVC, and PMVVC
- Induction motors (IMs) and permanent magnet (PM) motors supported
- PM high-speed application and speed tracking supported



High startup torque

- High startup torque without encoders
- 200% at 0.5 Hz under open-loop vector control
- Adapting to various changing loads



Long cables supported

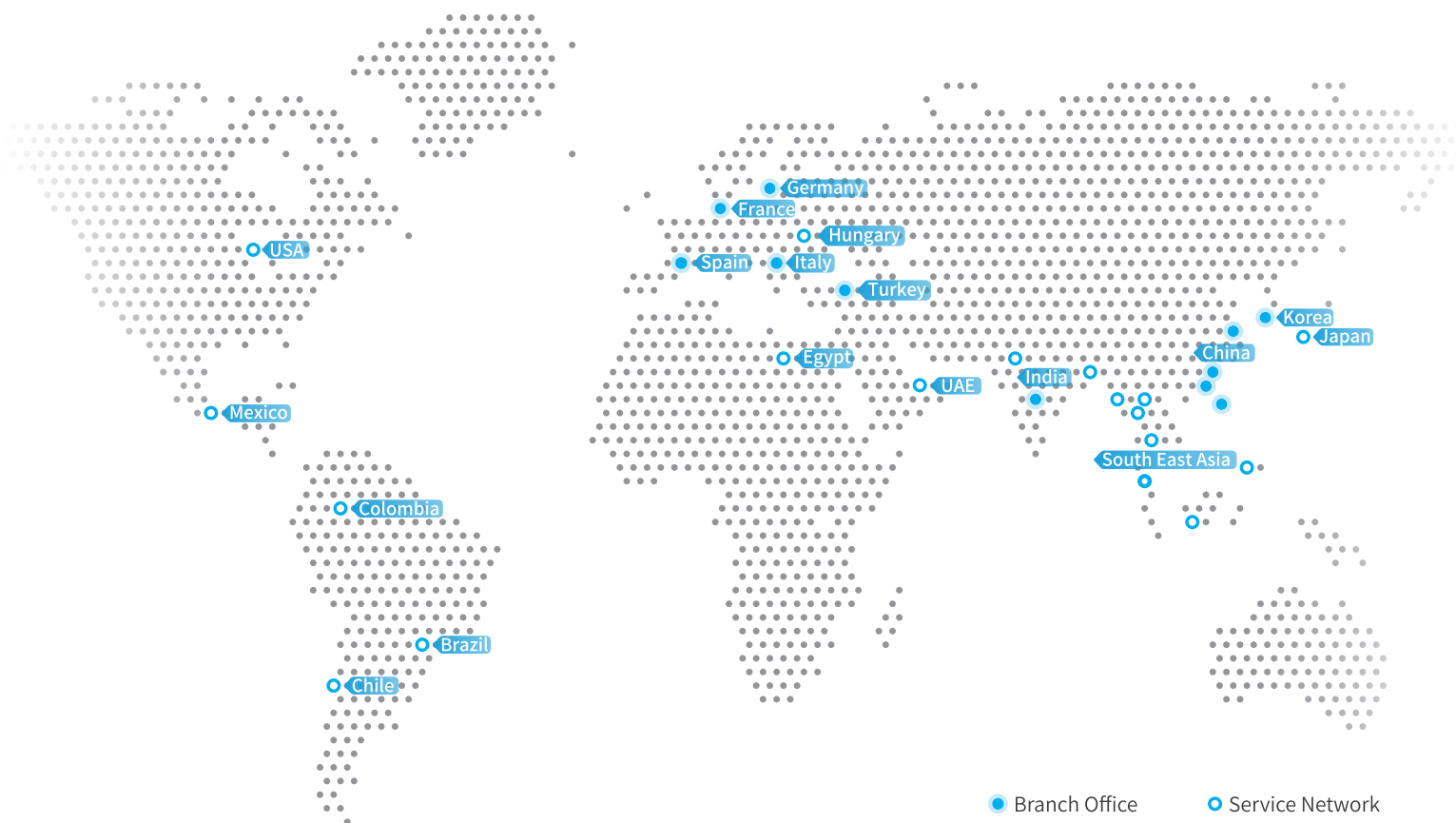
- Up to 150 m output cable supported
- No additional output components required
- Complying with the IEC 60034-25 technical specifications, improving the service life of the motor



Double rated design

- Double rated design: 1 min for 150% of the rated current, 1 min for 110% of the rated current
- Overload capacity adjustment through parameter settings
- AC drive selection based on the load and use case





Advancing industrial technology, for a better world



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