

MD800 - Compact AC MultiDrive

Comprehensive functionality in a compact footprint



- Modular design (from 1 to 8 drives)
- 1 ph 200 V and 3 ph 400 V supply
- Drive ratings: 200 W to 7.5 kW
- STO SIL3
- Choice of fieldbus protocols available



reddot winner 2021
innovative product



MD800 – features & functions



Comprehensive functionality:

- Individual STO SIL 3 for each drive
- Suitable for open loop asynchronous & PM synchronous motors
- +24 VDC control backup supply
- IP40 rated
- Remote LCD keypad (optional)
- Commissioning PC software available
- Dual rated: heavy duty (HD, G rating): 150% overload; normal duty (ND, P rating): 110% overload

High level, flexible connectivity:

- Built-in I/Os: 4 DI, 4 DI/DO, 2 AI, 1 RO
- Standard onboard communications: USB commissioning port, CAN, RS485



- Two expansion slots
 - I/O expansion cards
 - Fieldbus option cards:



Reduced installation costs

- User-friendly pluggable connectors (spring type)
- Faster build time
- Reduced wiring
- User-friendly pluggable connectors (spring type)
- Fewer external components:
 - > Common EMC filter (C2 compliant)
 - > Input reactor
 - > Fuses/MCCBs
 - > Common built-in dynamic braking (variant)

Compact footprint for smaller cabinets

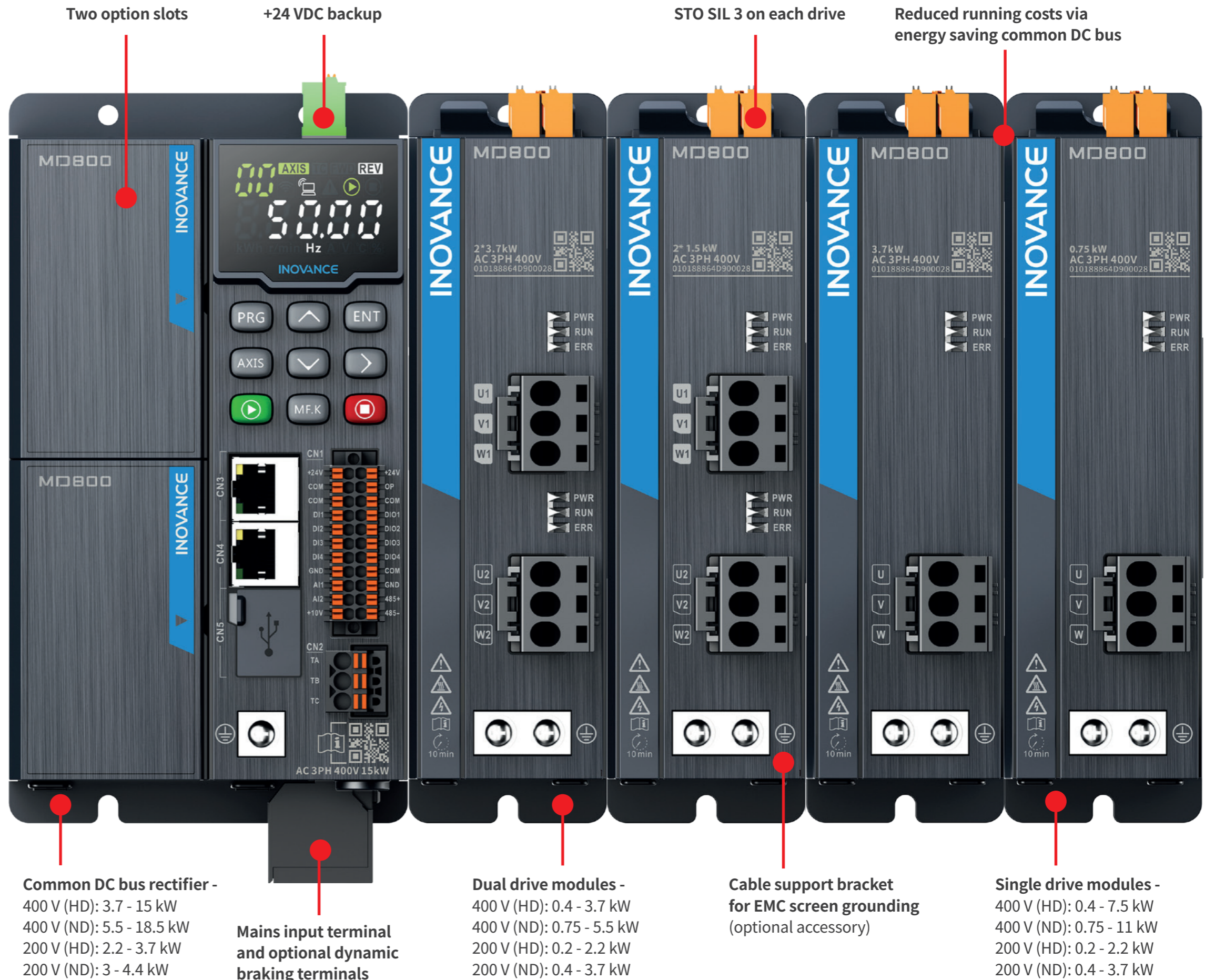
- Common height and depth: 182 mm x 160 mm
- Rectifier width: 99.5 mm
- Drive width: 49.5 mm

Designed for durability:

- High level conformal coating (3C3 & 3S2)
- Operating temp range: -20 to +60°C (de-rating > 50°C)
- Operating altitude: up to 4,000 m (de-rating > 1,000 m)
- Separate cooling channel for heatsink

This image is illustrated in its actual size: W 300 mm x H 182 mm

* In development



Two option slots

+24 VDC backup

STO SIL 3 on each drive

Reduced running costs via energy saving common DC bus

Common DC bus rectifier -
 400 V (HD): 3.7 - 15 kW
 400 V (ND): 5.5 - 18.5 kW
 200 V (HD): 2.2 - 3.7 kW
 200 V (ND): 3 - 4.4 kW

Mains input terminal and optional dynamic braking terminals

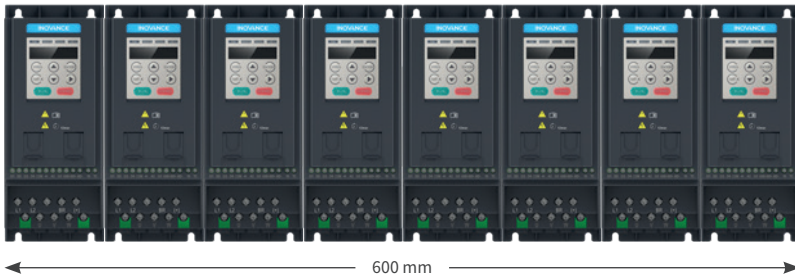
Dual drive modules -
 400 V (HD): 0.4 - 3.7 kW
 400 V (ND): 0.75 - 5.5 kW
 200 V (HD): 0.2 - 2.2 kW
 200 V (ND): 0.4 - 3.7 kW

Cable support bracket for EMC screen grounding (optional accessory)

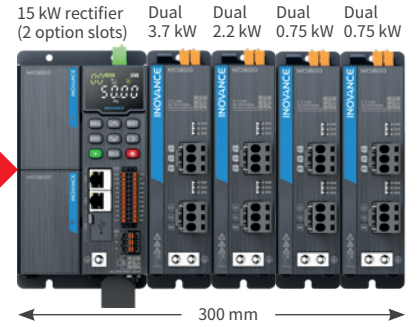
Single drive modules -
 400 V (HD): 0.4 - 7.5 kW
 400 V (ND): 0.75 - 11 kW
 200 V (HD): 0.2 - 2.2 kW
 200 V (ND): 0.4 - 3.7 kW

Designed for cabinet space saving - reduced installation costs

Eight Inovance MD200 drives, each module's footprint is: W 75 mm x H 180 mm



Footprint reduction
-50%



Single drive units

Power (kW)		Part number	Model	Output AC current (A)		STO function	
HD	ND			HD	ND		
400 V, DC supply voltage: 510-720 VDC							
0.4	0.75	0101B470	MD800-1-4T1R8	1.8	2.1	No	
0.75	1.5	01019513	MD800-1-4T3R4	3.4	4.6		
1.5	2.2	0101B471	MD800-1-4T4R8	4.8	5.4		
2.2	3.7	01019514	MD800-1-4T5R5	5.5	9		
3.7	5.5	0101B472	MD800-1-4T9R5	9.5	13		
5.5	7.5	01019512	MD800-1-4T13	13	17		
7.5	11	01019506	MD800-1-4T17	17	21	Yes	
0.4	0.75	0101B582	MD800-1-4T1R8S	1.8	2.1		
0.75	1.5	0101B583	MD800-1-4T3R4S	3.4	4.6		
1.5	2.2	0101B586	MD800-1-4T4R8S	4.8	5.4		
2.2	3.7	0101B587	MD800-1-4T5R5S	5.5	9		
3.7	5.5	0101B590	MD800-1-4T9R5S	9.5	13		
5.5	7.5	0101B591	MD800-1-4T13S	13	17		
7.5	11	0101B555	MD800-1-4T17S	17	21		
200 V, DC supply voltage: 270-360 VDC							
0.2	0.4	0101BA93	MD800-1-2T1R7	1.7	1.9		No
0.4	0.75	0101BA92	MD800-1-2T3	3	3.5		
0.75	1.5	0101BA91	MD800-1-2T5	5	8		
1.5	2.2	0101BA89	MD800-1-2T8	8	9.6		
2.2	3.7	0101BA88	MD800-1-2T11	11	17.6		
0.2	0.4	0101BD16	MD800-1-2T1R7S	1.7	1.9	Yes	
0.4	0.75	0101BA90	MD800-1-2T3S	3	3.5		
0.75	1.5	0101B584	MD800-1-2T5S	5	8		
1.5	2.2	0101BD17	MD800-1-2T8S	8	9.6		
2.2	3.7	0101BA94	MD800-1-2T11S	11	17.6		

Dual drive units

Power (kW)		Part number	Model	Output AC current (A)		STO function
HD	ND			HD	ND	
400 V, DC supply voltage: 510-720 VDC						
0.4	0.75	0101B469	MD800-2-4T1R8	1.8	2.1	No
0.75	1.5	01019509	MD800-2-4T3R4	3.4	4.6	
1.5	2.2	0101AK33	MD800-2-4T4R8	4.8	5.4	
2.2	3.7	01019510	MD800-2-4T5R5	5.5	9	
3.7	5.5	01019511	MD800-2-4T9R5	9.5	13	
0.4	0.75	0101B576	MD800-2-4T1R8S	1.8	2.1	
0.75	1.5	0101B577	MD800-2-4T3R4S	3.4	4.6	
1.5	2.2	0101B579	MD800-2-4T4R8S	4.8	5.4	
2.2	3.7	0101B580	MD800-2-4T5R5S	5.5	9	
3.7	5.5	0101B554	MD800-2-4T9R5S	9.5	13	
200 V, DC supply voltage: 270-360 VDC						
0.2	0.4	0101BA86	MD800-2-2T1R7	1.7	1.9	No
0.4	0.75	0101BA85	MD800-2-2T3	3	3.5	
0.75	1.5	0101BA84	MD800-2-2T5	5	8	
1.5	2.2	0101BA79	MD800-2-2T8	8	9.6	
2.2	3.7	0101BA80	MD800-2-2T11	11	17.6	
0.2	0.4	0101BA83	MD800-2-2T1R7S	1.7	1.9	
0.4	0.75	0101B585	MD800-2-2T3S	3	3.5	
0.75	1.5	0101BD18	MD800-2-2T5S	5	8	
1.5	2.2	0101BD19	MD800-2-2T8S	8	9.6	
2.2	3.7	0101BA87	MD800-2-2T11S	11	17.6	

Rectifier units

Power (kW)		Part number	Model	Built-in dynamic braking
HD	ND			
3 ph 400 VAC input				
3.7	5.5	0101B573	MD800-0-4T12	No
7.5	11	0101B572	MD800-0-4T22	
15	18.5	0101B571	MD800-0-4T41	
3.7	5.5	0101AK34	MD800-0-4T12B	Yes
7.5	11	01019507	MD800-0-4T22B	
15	18.5	0101AH51	MD800-0-4T41B	
1 ph 200 VAC input				
2.2	3	0101BA52	MD800-0-2S24	No
3.7	4.4	0101B602	MD800-0-2S40	
2.2	3	0101BA53	MD800-0-2S24B	Yes
3.7	4.4	0101B603	MD800-0-2S40B	

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*
		MD800-0-2S24*
		MD800-0-2S40*

Accessories

Part number	Model	Description
01040124	IO-M1	I/O expansion card: 8 DI, 8 DO, 2 AI
01040123	IO-R1	Relay expansion card: 8 relays with normally open contact
01040122	IO-R2	Relay expansion card: 4 relays with changeover contact
01040121	SI-PN1	PROFINET communication card
01040120	SI-ECAT1	EtherCAT communication card
In development	SI-EN	Ethernet IP communication card
In development	SI-EM	Modbus TCP communication card
01040028/20	SOP-20	Remote LCD keypad (inc. 3 m cable)
01040175	MD800-PBJ100M-W1	Rectifier unit cable support bracket
01040176	MD800-PBJ50M-W1	Single or dual drive unit cable support bracket
01040169	MD800-AZB1	Mounting plate for easy assembly of an MD800 set in the electrical panel

*3 ph 400 V input reactors available on request (3% impedance)

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