INOVANCE

MD800 - Compact AC MultiDrive

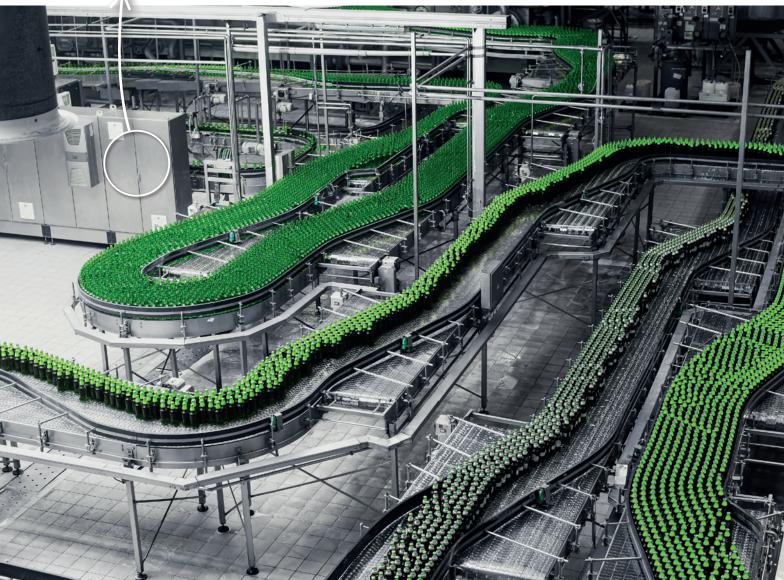
Comprehensive functionality in a compact footprint



- Modular design (from 1 to 8 drives)
- $\cdot~$ 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

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MD800 – features & functions

Comprehensive functionality:

- · Individual STO SIL 3 for each drive
- Suitable for open loop asynchronous & PM synchronous motors
- \cdot +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

CANlink is an Inovance proprietary fieldbus



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



Reduced installation costs

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

Compact footprint for smaller cabinets

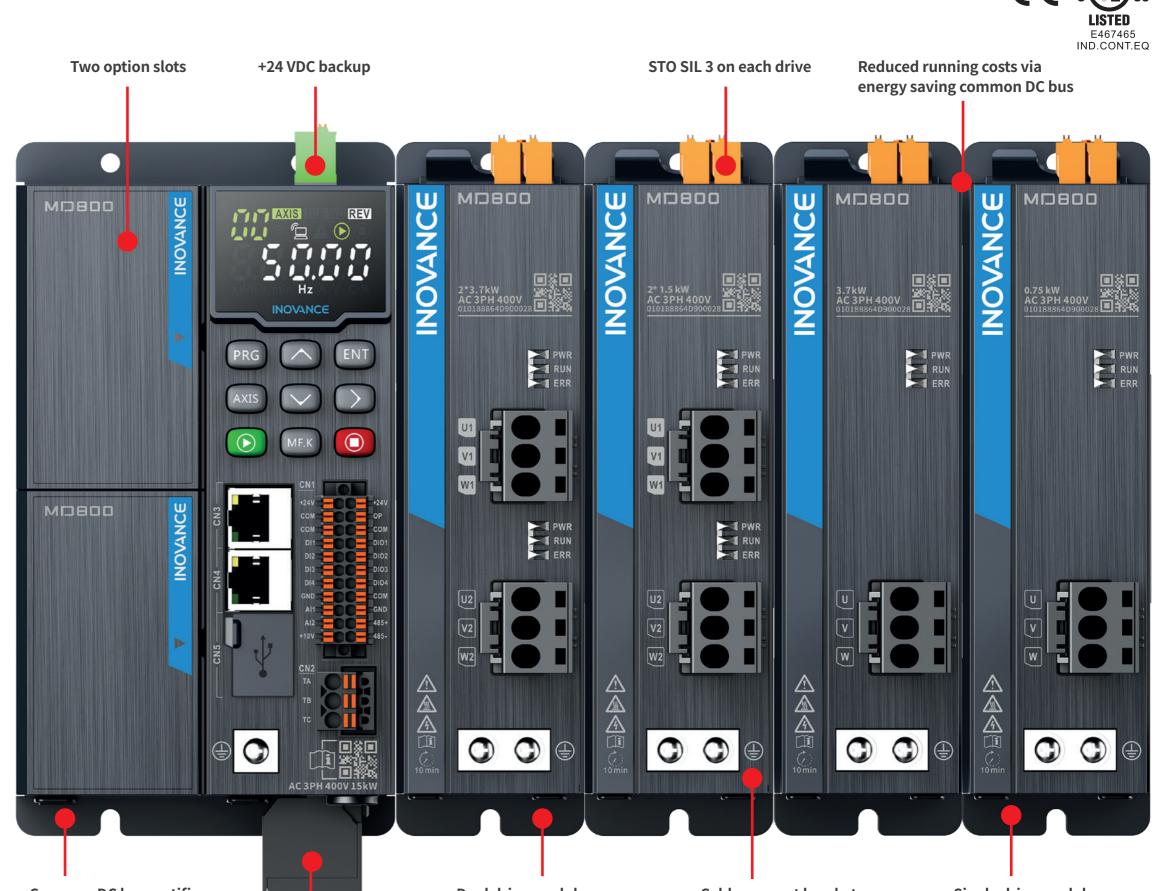
- · Common height and depth: 182 mm x 160 mm
- · Rectifier width: 99.5 mm
- Drive width: 49.5 mm

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



* In development



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



Single drive units

| Power (kW) | | Part | Model | Output AC current (A) | | STO | | |
|------------|---------------------------------------|----------|----------------|-----------------------|------|----------|--|--|
| HD | ND | number | Model | HD | ND | function | | |
| | 400 V, DC supply voltage: 510-720 VDC | | | | | | | |
| 0.4 | 0.75 | 0101B470 | MD800-1-4T1R8 | 1.8 | 2.1 | | | |
| 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 | No | | |
| 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 | | | |
| 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 | Yes | | |
| 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 | | | |
| 0.4 | 0.75 | 0101BA92 | MD800-1-2T3 | 3 | 3.5 | | | |
| 0.75 | 1.5 | 0101BA91 | MD800-1-2T5 | 5 | 8 | No | | |
| 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 | | | |
| 0.4 | 0.75 | 0101BA90 | MD800-1-2T3S | 3 | 3.5 | | | |
| 0.75 | 1.5 | 0101B584 | MD800-1-2T5S | 5 | 8 | Yes | | |
| 1.5 | 2.2 | 0101BD17 | MD800-1-2T8S | 8 | 9.6 | | | |
| 2.2 | 3.7 | 0101BA94 | MD800-1-2T11S | 11 | 17.6 | | | |

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)

Dual drive units

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

Rectifier units

| Power (kW) | | Part | Model | Built-in | |
|--------------------|-----------------|--------------------------|-----------------|-----------------|--|
| HD | ND | number | model | dynamic braking | |
| 3 ph 400 VAC input | | | | | |
| 3.7 | 5.5 | 0101B573 | MD800-0-4T12 | | |
| 7.5 | 7.5 11 0101B572 | | MD800-0-4T22 | No | |
| 15 | 18.5 | 0101B571 | MD800-0-4T41 | 1 | |
| 3.7 | 5.5 | 0101AK34 | MD800-0-4T12B | | |
| 7.5 | 11 | 01019507 MD800-0-4T22E | | Yes | |
| 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 | INO | |
| 2.2 | 3 | 0101BA53 | 3 MD800-0-2S24B | | |
| 3.7 | 4.4 | 4 0101B603 MD800-0-2S40B | | res | |
| | <u> </u> | | | Yes | |

EMC Filters

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

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