



DM1 and DM1 Pro – compact drives for universal use

Maximum functionality with a small footprint

The PowerXL™ DM1 variable frequency drive combines maximum functionality with a small footprint. It can be used wherever space is limited, but where the functionality of a standard universal drive is nevertheless required. This includes pump and HVAC applications as well as the control of conventional motors such as asynchronous or PM motors.



Safe (DM1 Pro)

Thanks to the built-in two-channel STO (SIL2, PLd, Cat.3), no external contactor is required for safe torque off. This is especially important for material handling applications.



Integrated web server (DM1 Pro)

The integrated web server makes it possible to configure and operate the device without the need to install any additional software.



Short-circuit protection without any upstream devices

For short-circuit protection up to 100 kA, no additional upstream devices (such as a line choke) are required. The maximum short-circuit current depends on the selected protection device:

- FAZ up to 14 kA
- PKZ up to 65 kA
- Fuses up to 100 kA



Multi-pump applications

The DM1 offers all the basic functions required for the smooth control and switching of booster pump applications, in which several pumps are networked together.



Rugged

IP20 degree of protection, with optional IP21/NEMA1 kit.
Ambient temperature range: -30 °C (with cold weather function) to +50 °C (up to +60 °C with derating)



Bluetooth on board

The DM1 can also communicate with PowerXpert inControl via Bluetooth, without the need to open the control panel.



Measurements

Integrated energy measurement and energy cost calculator



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At a glance



At a glance

Applications:

- Pumps
- Fans
- Conveyor belts
- Compressors

Motor power:

- 1 x 230 V: 0.18 – 4 kW
- 3 x 230 V: 0.25 – 15 kW
- 3 x 400 V: 0.37 – 22 kW
- IP20, IP21/NEMA1 options kit
- Brake chopper as standard

DM1 features

- Without keypad
- Without STO
- Modbus RTU on board
- V/f control
- Bluetooth
- No option cards

Communication:

- Bluetooth and Modbus RTU as standard
- In addition, the DM1 Pro comes with:
on board: Modbus TCP, Ethernet IP, BACnet MS/TP and BACnet IP
optional: PROFINET, PROFIBUS, DeviceNet, SmartWire-DT

Energy-efficient

The DM1 Pro comes with PM motor control for implementing highly energy-efficient applications

Configuration

Keypad with 7-segment display (DM1 Pro) for easy on-site configuration

Everything on board

Integrated setpoint potentiometer, which eliminates the need for external wiring

Implementing smaller control panels

The compact design significantly reduces the footprint compared to previous solutions

DM1 Pro features

- Keypad with 7-segment display and setpoint potentiometer
- STO on board
- Modbus RTU, Modbus TCP, Ethernet IP, BACnet MSTP, BACnet IP on board
- PROFINET, PROFIBUS, DeviceNet, SmartWire-DT optional
- V/f control, sensorless vector control, PM motor control
- Bluetooth
- Web server on board
- Slot for one option card

For more information, visit
Eaton.com/DM1

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