

DA1 Series 10 min Product Overview



Powering Business Worldwide

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Eaton Product Offering

- Machinery OEM Drives

DE1, DC1, **DA1**, M-Max

0.25HP – 30HP

- HVAC Drives

H-Max

1HP – 250HP

- General Purpose Industrial Drives

DG1, SVX

1.0HP – 250HP

- High Performance Drives

SPX, LCX, SPI

1.0HP – 2000HP

- Low Harmonic Drives

CFX, CPX

25HP – 800HP

- Medium Voltage Drives

SC9000

100HP – 5000HP



Drives assortment

PowerXL™ DA1 Advanced Machinery Drive

Enclosure **IP66**



1 to 10 HP / 480 V FS 2 - 3

1 to 15 HP / 480 V FS 2 - 3

Enclosure **IP20**



DA1 – Main features

Power range

- 1~ 230 V / 3~ 230 V: 1 to 3 HP
- 3~ 230 V / 3~ 230 V: 1 to 7.5 HP
- 3~ 480 V / 3~ 480 V: 1 to 15 HP
- 3~ 575 V / 3~ 575 V: 1 to 20 HP

Control mode

- U/f , SLV, CLV
- 150 % Overload 60 sec.
- 200 % Overload 4 sec.

Features / Options

- IP20, IP66
- EMC Filter
- Brake-Chopper
- STO
- LED/OLED-Display

Onboard I/O interface (max. .. min.)

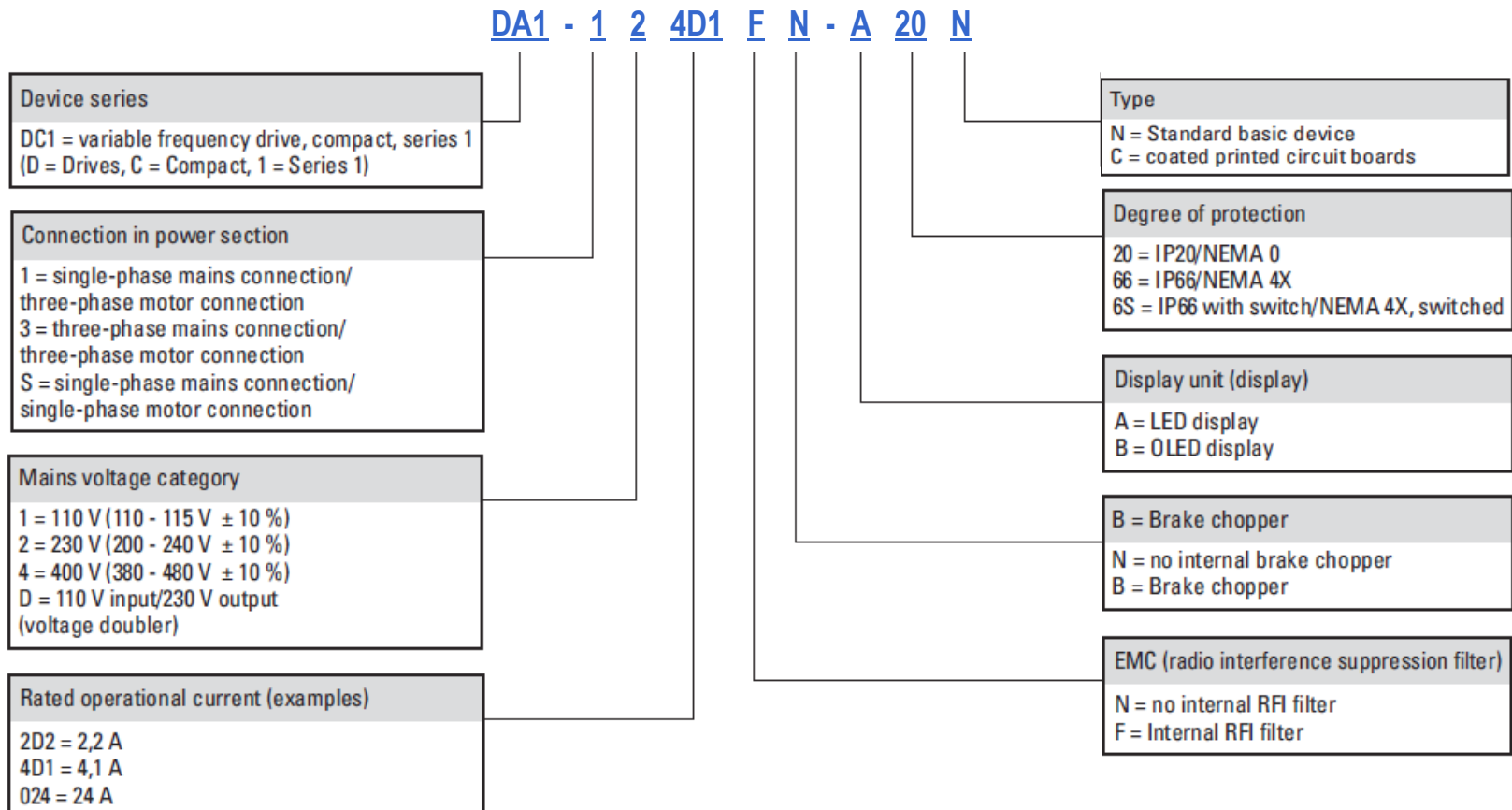
- 5 inputs (3 digital and 2 digital/analog)
 - 4-20mA or 0-10Vdc
- 2 output (2 digital/analog)
 - 4-20mA or 0-10Vdc
- 2 Relay output

Communication

- Modbus RTU and CANopen onboard
- Fieldbus modules as Option
- SmartWire-DT as Option

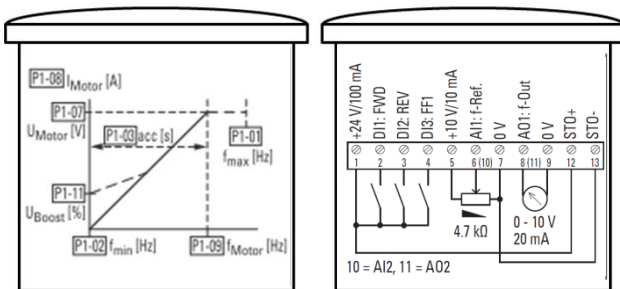


Type Coding



DA1 – IP20 FS 2 - 3

Info card



Communication Interface

CANopen, Modbus RTU, OP-Bus as standard

Slot for fieldbus- / I/O-extensions



Mains terminals

Keypad/display (LED)

DIN rail mounting (FS2)

Detachable
Control terminals

Motor terminals

DA1 – IP66 FS 2 - 3

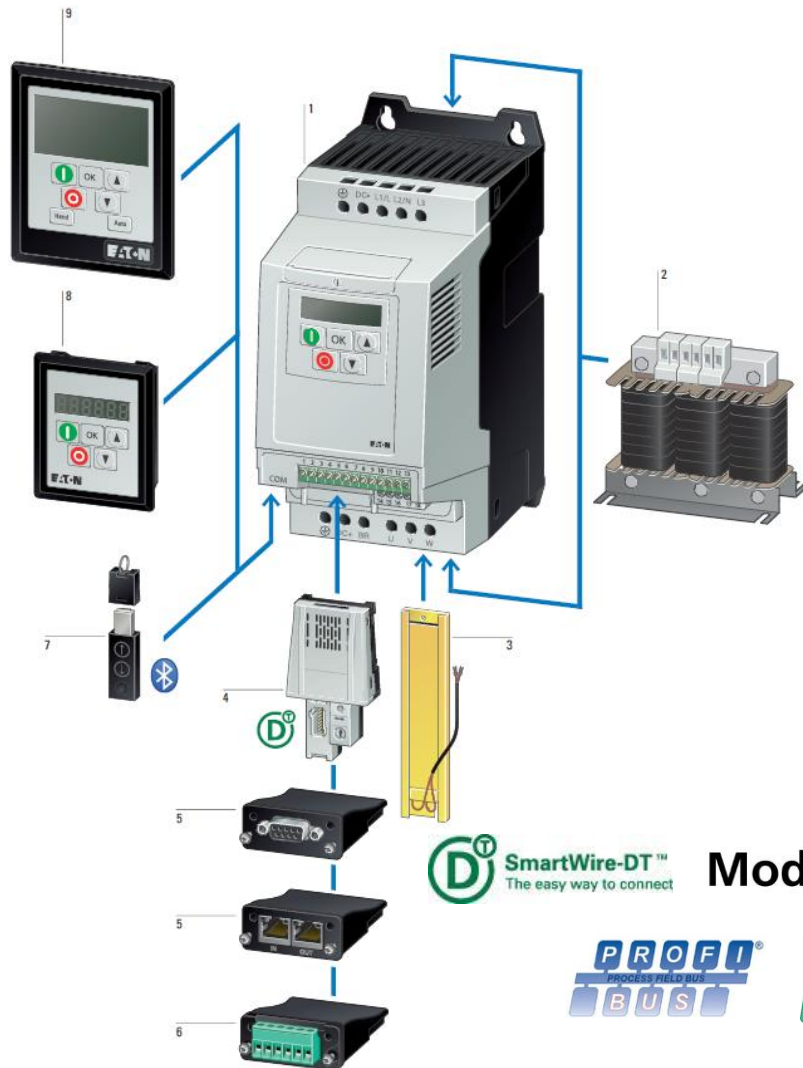
Keypad/display OLED

Keypad/display OLED + local control elements

- Speed potentiometer
- Run reverse / off / run forward switch
- Power isolator with lock off



DA1 - Accessories



- 1) DA1 - Advanced Drive
- 2) Mains- / Motor-Chokes
- 3) Braking resistors
- 4) SWD module
- 5) Fieldbus modules
- 6) I/O extension & encoder modules
- 7) Communication-/Copy-Stick
- 8) Remote Keypad LED
- 9) Remote Keypad OLED



Modbus®

CANopen



EtherCAT®

EtherNet/IP®



Modbus-TCP



DA1 – Advantage

Main Features

- Ease-of-use performance
 - Out-Of-Box commissioning !
 - Only 14 basic parameter !
 - Detachable control terminals
- Ambient temperature +50°C at IP20 (IP66 fractional with derating)
- Powerful V/f control
 - V/f control, CLV & SLV (200% torque @ 0 rpm)
 - Standard Asynchronmotors, PM motors, BLDC and SynchRel motors
 - Internal Master/Slave communication
- STO integrated
- CANopen and Modbus onboard
- Fieldbus modules and SmartWire-DT as option
- Degree of protection IP66 as option



DA1 – Applications

Complex application

- Lifting and crane applications
- Applications with high torque
 - Compressor (squeezer)
 - Combers / breakers
 - Extruders
 - Draw benches
- Multi axis applications
 - Winding applications
 - Roll machines (wires, sheets)
 - Paper mills
- Complex conveyor
 - Belt conveyors (multiaxial)
 - Roller conveyors (multiaxial)

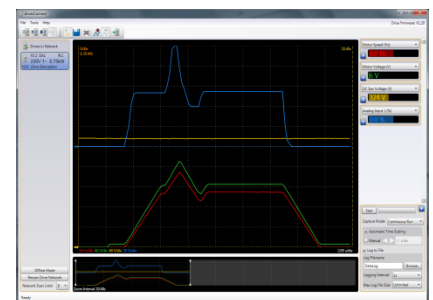
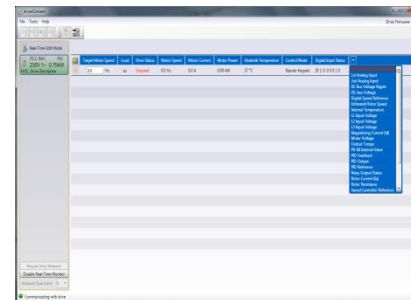
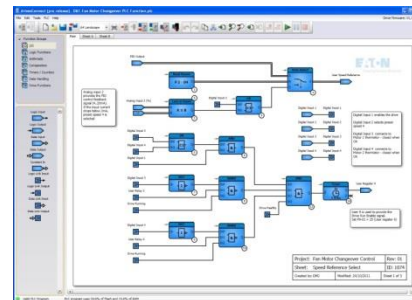
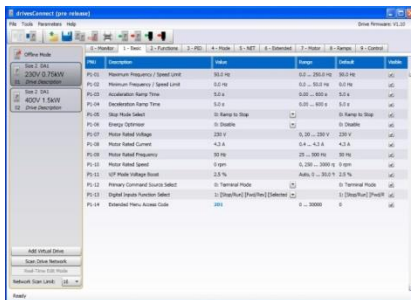


Software

drivesConnect

<http://www.drive-support-studio.com/OTS/Eaton/downloads/deploy/drivesConnect.htm>

- Parameter Editor
- Drive Control/Monitor
- Function Block Editor
- Scope/Data Logger

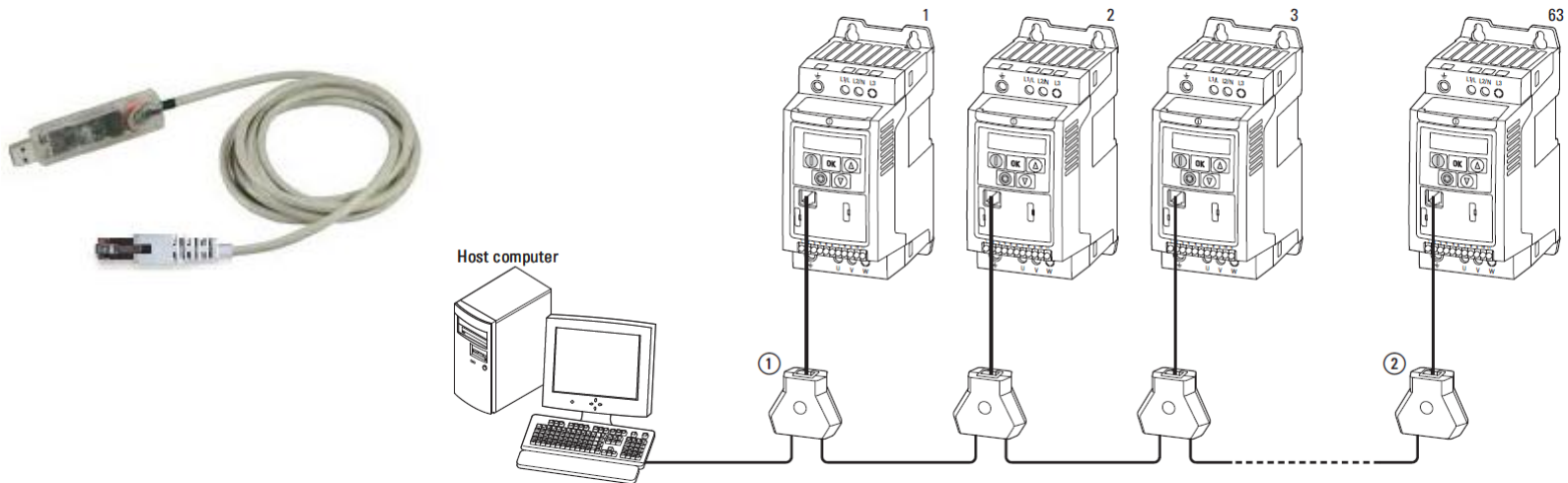


PC communication

Software – Connection

Cable via USB / RS485 Converter

63 participants / Master-Slave communication for DA1



Wireless communication via Bluetooth/Copy Stick (DX-COM-STICK2)



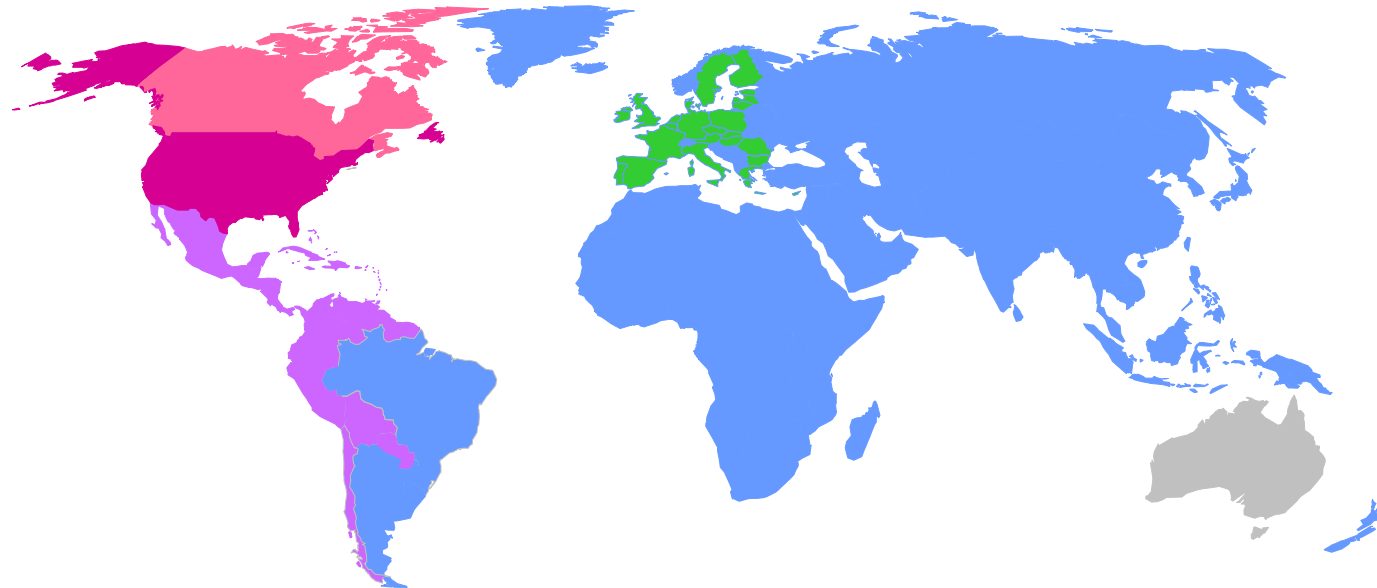
Parameter copy function integrated

Copy parameter
to COM-Stick



Copy parameter
to drive

Approvals & Standards



not applicable
for Drives



■ UL (NEC / NEMA)
■ CSA / cUL / UL

■ IEC/EAC*/UkrSepro*
■ IEC / EN / CE

■ IEC / cTick

DA1 only



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