

OJ Drives®



OJ DV 600V series

- 460–600V supply voltage
- cULus Recognised
- IP65 / Type 4X sealing grade
- With and without external cooling fan
- BACnet MS/TP
- UL 61800-5-1, CS22.2.174 recognized

The OJ DV series now includes six new variants for use with 600V supply voltage. They have all the durability, flexibility and features familiar from the original DV series – making its benefits available to a wider range of applications worldwide.

Six power variants – same size

Catering to different needs for power, the 600V DV series comprises six variants from 2.4 to 7.5kW. All six come in the same enclosure size for convenient planning and mounting.

Suitable for all fan systems – different options available

Designed to be very flexible in use, OJ DV drives are suitable for any fan system. A range of optional modules can be added to suit your particular application. When mounting the drive outside the air flow, the drive can also be equipped with an external cooling fan.

BACnet MS/TP

BACnet ensures that information is exchanged in a standardised way between sensors, actuators, and controls in a building. Equipped with BACnet

MS/TP the OJ DV can now be part of the building automation. BACnet MS/TP is running on RS-485.

4X sealing grade – down to -40 degrees

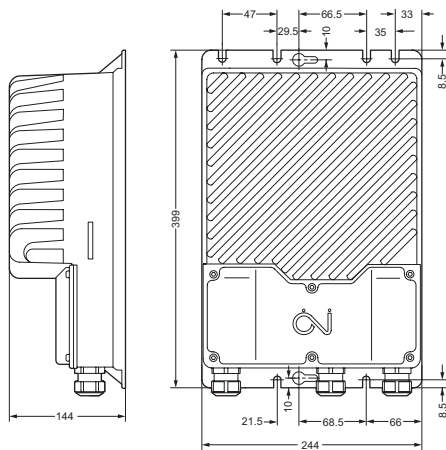
The DV series has an IP65 and Type 4X sealing rating. The Type 4X rating indicates that the drive is suitable for outdoor installation down to -40°C/F – and UV resistant, too.

For voltages between 460 and 600 VAC

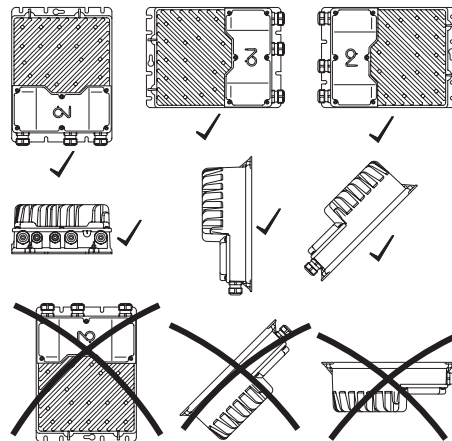
The DV 600V series can be supplied with voltage between 460 and 600 VAC. This, together with the cULus recognition, makes it ideal for North American applications.

Norms and standards


The OJ DV series comes with a fully integrated EMC filter, which means that it meets the norms set for emissions and immunity in industrial and residential areas EN 61800-3 (C1 and C2). IE requirements can be easily met using an IM or PM motor together with an OJ-DV. The OJ DV product series is cULus Recognised according to UL 61800-5-1 and CS22.2.174.



BR1014A22b



BR1014A05a

	Type	DV-3024	DV-3030	DV-3040	DV-3055	DV-3065	DV-3075	
Enclosure				H4				
Power size	kW	2.4	3.0	4.0	5.5	6.5	7.5	
Horsepower	Hp	3.2	4.0	5.4	7.4	8.7	10.0	
Efficiency	%	> 96.5%						
Power supply								
Voltage	VAC	3 x 460 - 600 VAC 50/60 Hz +/-10%						
Supply current at max. load at nominal supply voltage (400V/480V)	A	3.9/3.0	4.6/3.5	6.2/4.7	8.4/6.5	9.7/7.5	11.5/8.5	
Power factor (cos-phi) at max. load		> 0.9						
Motor output								
Nominal motor power (on shaft) *1	kW	2.4	3.0	4.0	5.5	6.5	7.5	
Frequency	Hz	AC motor: 0-120 PM motor: 0-400						
Max. output voltage	Vrms	3 x 0 - 0.9 x Vin						
Max. output current	Arms	4.9	5.8	7.7	10.5	16.2	18.3	
Protection								
Max. fuse	A	16						
Short circuit capacity	A	3500	3500	3500	3500	5000	5000	
FLA	A	5.2	6.6	8.7	12.0	14.2	16.4	
Motor output		Short-circuit protected between phases						
Motor		Protected by current limit						
Overload protection		Current and temperature overload protection						
Environment								
Operating temperature *2	°C/°F	-40°C to +50°C / -40°F to 122°F					-40°C to +45°C / -40°F to +113°F	
Starting temperature	°C/°F	-40°C to +50°C / -40°F to 122°F						
Storage temperature	°C/°F	-40°C to +70°C / -40°F to 158°F						
Dimensions	W x H x D	220 x 294 x 107 mm / 8.66 x 11.57 x 4.21 inch						
Protection rating		IP 54 & 65 / NEMA 4x						
Enclosure material		Aluminium						
Front cover		Plastic						
Weight	kg	3.9						
Humidity	% rh	10-95% rh, non-condensing						
Housing		Corrosion resistant to EN/ISO 12944-2:1998 Category C4						
Air flow / cooling		Turbulent air speed of min. 3 m/s to achieve max. output power at max. ambient temperature. Turbulent air speed below 3m/s and higher ambient temperature might lead to reduced output power. (3m/s turbulent air speed is equivalent to 6,5 m/s laminar air speed)						
Interfaces								
Modbus RTU		RS485 (baud rate: 9.6, 19.2, 38.4, 57.6 115.2 Kbaud)						
BACnet MS/TP		Baud rate: 9600, 19200, 38400, 57600, 115200 kbs MAC: 0 - 127, MAX Master: 1 -127, Device object ID: 0 - 4194302						
Digital communication		3 x RJ12 & 2 x spring terminals						
Analogue In1		0-10 VDC, 100% @ 9.5 V DC +/-2%						
Analogue Out1		+10 VDC						
Digital In		2 x with internal pull-up						
Digital Out1		Open collector						
Features								
Technology		Sinusoidal back-EMF signal controlled via FOC (Field Oriented Control)						
Flying start		Yes, < 30% of max. speed						
Ramp-up time	sec.	15-300						
Ramp-down time	sec.	15-300						
Integrated EMC filters		Yes						
Approvals								
EMC		EN 61800-3 (C1 & C2)						
LVD		EN 61800-5-1 / UL 61800-5-1						
Product standard		EN 61800 Part 2						
North America		UL -61800-5-2 / CS22.2.174						
RoHS Directive		Yes						
Product approvals								

Note: Data are valid at: nominal supply voltage, +25°C and sufficient air flow

*1: Motor Power Factor = 0.8 and efficiency = 90% / *2: OGF variants: -40°C to +40°C / -40°F to +104°F

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