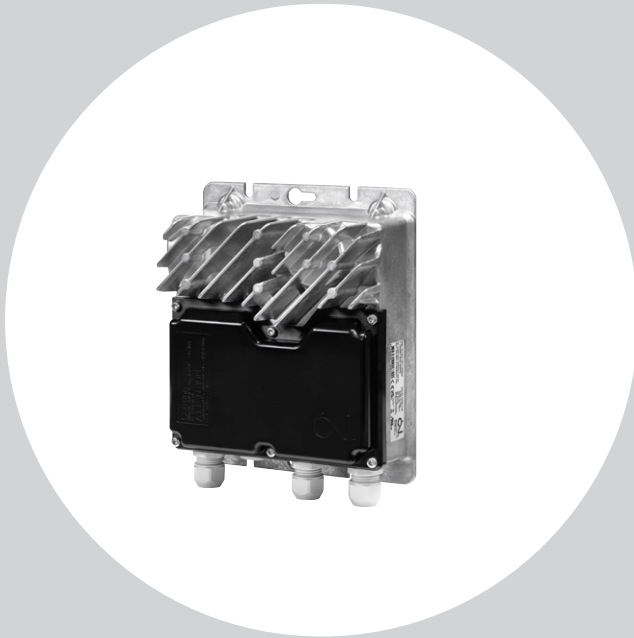


OJ Drives®



OJ DV GEN II

- 0.37 & 0.75 kW / 0.5 & 1.0 Hp
- 115 V single phase supply
- IM, PMSM, PMsynRM motor
- Ignition-protected
- CE, UL, CSA

OJ DV GEN II series

OJ DV GEN II is the upgraded version of our successful series of dedicated drives for ventilation applications.

This new version is fully backwards compatible with the same power variants, which hold the exact mechanical dimensions and comes with the same Modbus and BACnet protocols.

This new generation of drives offers excellent possibilities for customization.

Design

The OJ DV Gen II offers a flexible installation design – they can be mounted inside or outside the airflow.

OJ DV GEN II is suitable for any system, as it can be configured specifically for your application. Adding option modules and mounting a cooling fan on the OJ DV GEN II enlarge the application use.

Moreover, the OJ DV GEN II series has been extended and can now be provided with a local user interface.

The OJ DV GEN II removable front cover design allows easy access to the connection compartment and provides sufficient space for connecting the option module cables. The OJ DV GEN II front cover facilitates safe mounting on the aluminium frame, securing the desired sealing grade.

Controlling

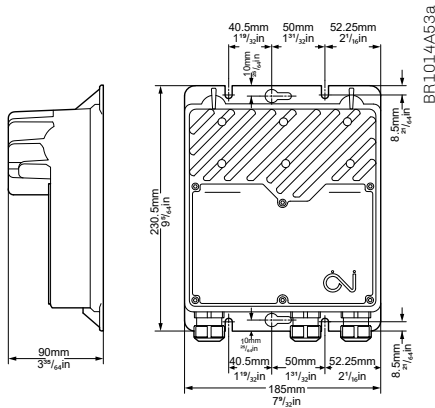
The OJ DV GEN II can be controlled using a 0-10 V or a 4-20 mA signal and through Modbus RTU or BACnet MS/TP. In addition, the digital input and output interfaces can be used to determine and configure the control method.

Grid immunity

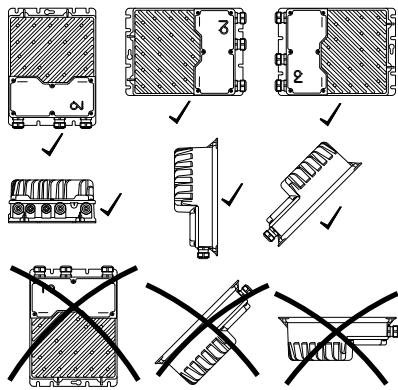
The OJ DV GEN II offers Over Voltage Detection, allowing the drives to survive in most types of grids worldwide. Our drives are robust and handle grid disturbances, such as notches, spikes and transients.

Built-in EMC filter

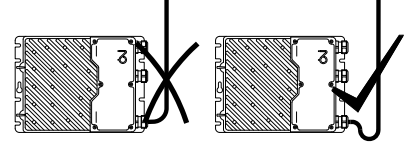
The OJ DV GEN II series comes with a fully integrated EMC filter and therefore meets the emissions and immunity norms for industrial and residential areas according to EN 61800-3 (C1 and C2) and FCC §47 part 15 B. and ICES-003.





Dimensions H1



Correct mounting



Correct mounting

	Type	DV-A004	DV-A007
Frame size			H1
Power size	kW	0.37	0.75
Horsepower	Hp	0.5	1.0
Efficiency	%	> 94%	
Power supply			
Voltage	VAC	1 x 115 VAC 50/60 Hz +/-10%	
Supply current at max. load at nominal supply voltage (115 V)	A	3.7	7.25
Power factor (cos-phi) at max. load		> 0.99 (Active PFC)	
Motor output			
Nominal motor power (on shaft) *1	kW	0.37	0.75
Frequency	Hz	AC motor: 0-120 PM motor: 0-595	
Max. output voltage	Vrms	3 x 0 - 250 VAC	
Max. output current	Arms	1.0	2.1
Protection			
Max. fuse	A	16	
Short circuit capacity	A	5000	
Motor output		Short-circuit protected between phases	
Motor		Protected by current limit	
Over-voltage protection		Yes, <400V (NTC)	
Overload protection		Current and temperature overload protection	
Environment			
Operating 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	
Protection rating		IP 54 & 65 / NEMA 4x	
Enclosure material		Aluminium	
Front cover		Plastic (Black front cover is UV resistant)	
Weight	kg/lbs	2.0 kg / 4.4 lbs	
Humidity	% rh	10-95% rh, non-condensing	
Surface		Corrosion resistant according to EN/ISO 9223 Class 4	
Air flow / cooling		Turbulent air speed of min. 3 m/s or 9.84ft/s to achieve max. output power at max. ambient temperature. Turbulent air speed below 3m/s or 9.84ft/s and higher ambient temperature might lead to reduced output power. (3m/s or 9.84ft/s turbulent air speed is equivalent to 6.5m/s or 21.32ft/s laminar air speed)	
Interfaces			
Field bus		Modbus RTU , BACnet MS/TP	
Analogue Inputs		1 input 0-10 VDC 4-20mA PWM	
Analogue Output		1 output +10 VDC or +24 VDC	
Digital Inputs		2 inputs Internal pull-up to +24VDC	
Digital Output		1 output Open collector, Internal pullup to +10 VDC or +24 VDC	
Status LED		Green/yellow/red	
Features			
Technology		Sinusoidal back-EMF signal controlled via FOC (Field Oriented Control)	
Software updating		Yes, via serial interface	
Motor parameters		Preprogrammed by OJ or on-site configuration	
Short-circuit protection		Yes	
Integrated EMC filters		Yes	
Approvals			
EMC		EN/BS 61800-3 (C1 & C2) / FCC §47 part 15 B. and ICES-003	
LVD		EN/BS 61800-5-1 / UL 61800-5-1	
Product standard		IEC/BS 61800 Part 2	
North America		UL-61800-5-1 / CS22.2 No. 274	
Ignition-protected components		IEC/UL60335-2-40, cl.22.116 & cl.22.117 / UL 121201 Class1, Div2	
Overvoltage category		III	
Pollution degree		2	
Altitude		1000 m / 3280 ft: Without derating and 2000 m / 6560 ft: With 1% derating per 100 meter/328 ft. above 1000 meter / 3280 ft.	
Supply earthing system		TN / TT / IT	
RoHS Directive		Yes	
Product approvals		 	
Note: Data are valid at: nominal supply voltage, +25°C or +77°F and sufficient air flow			
*1: Motor Power Factor = 0.8 and efficiency = 90%			

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