OJ Drives®

OJ DV GEN II

- 0.5 - 1.3kW
- 208 - 277V single phase supply
- IM, PM motors
- Wide-range operation
- CE, UKCA, 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 customisation.

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 0-10V or a 4-20mA 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).

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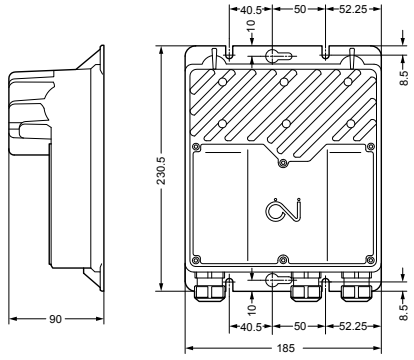
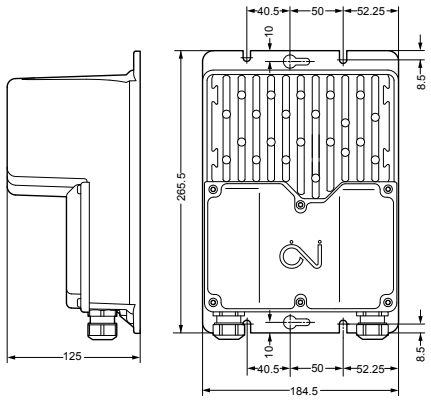


Dimensions H1



Dimensions H1x

	Type	DV-1005	DV-1007	DV-1011	DV-1013
Frame size		H1			H1x
Power size	kW	0.5	0.75	1.1	1.3
Horsepower	Hp	0.7	1.0	1.5	1.7
Efficiency	%	> 94%			
Power supply					
Voltage	VAC	1 x 208-277 VAC 50/60 Hz +/-10%			1 x 230 VAC 50/60 Hz +/-10%
Supply current at max. load at nominel supply voltage (400V/480V)	A	3.0	4.4	6.5	8.5
Power factor (cos-phi) at max. load		> 0.99 (Active PFC)			
Motor output					
Nominal motor power (on shaft) *1	kW	0.5	0.8	1.15	1.3
Frequency	Hz	AC motor: 0-120 | PM motor: 0-400			
Max. output voltage	Vrms	3 x 0 - 250 VAC			
Max. output current	Arms	2	3.2	4.5	5.2
Protection					
Max. fuse	A	16			
Short circuit capacity	A	1000	1000	2000	2000
FLA	A	3.6	5.3	7.8	9.2
Motor output		Short-circuit protected between phases			
Motor		Protected by current limit			
Over-voltage protection		Yes, 400 V (PTC)			
Overload protection		Current and temperature overload protection			
Environment					
Operating temperature	°C/°F	-40°C to +50°C / -40°F to +122°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			
Protection rating		IP 54 & 65 / NEMA 4x			
Enclosure material		Aluminium			
Front cover		Plastic			
Weight	kg	2.0			3.6
Humidity	% rh	10-95% rh, non-condensing			
Surface		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 6,5m/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)			
LVD		EN/BS 61800-5-1 / UL 61800-5-1			
Product standard		EN/BS 61800 Part 2			
North America		UL -61800-5-2 / CS22.2.174			
Overvoltage category		III			
Pollution degree		2			
Hight over See		2000m			
Supply earthing system		TN / TT / IT			
RoHS Directive		Yes			
Product approvals		CE / cULus / UKCA			

Note: Data are valid at: nominal supply voltage, +25°C and sufficient air flow
*1 Motor Power Factor = 0.8 and efficiency = 90%