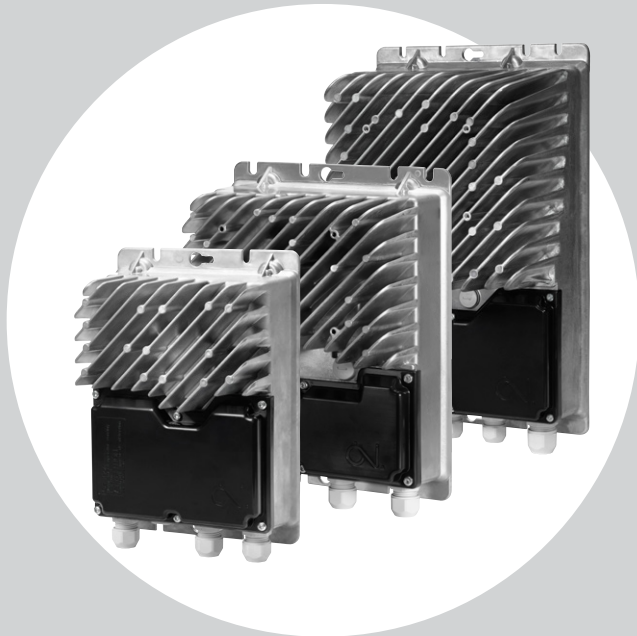


OJ Drives™



OJ DV GEN II

- 1.5 - 15 kW / 2.0 - 20.0 Hp
- 380 - 480 V three phase supply
- IM, PMSM, PMsynRM motor
- Ignition-protected
- CE, UL, CSA
- Ambient temperature up to +70°C/+158°F

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

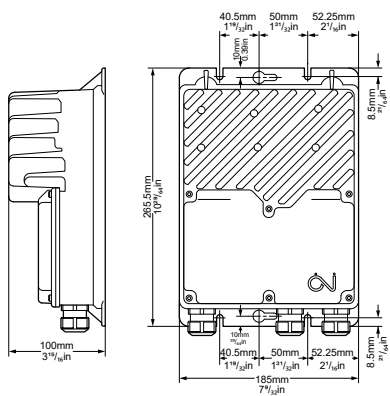
The OJ DV GEN II series comes with a fully integrated EMC filter and therefore meets the emissions and immunity norms for industrial and residential areas according to EN 61800-3 (C1 and C2) and FCC §47 part 15 B. and ICES-003.

	Type	DV-3015	DV-3024	DV-3030	DV-3040	DV-3055	DV-3065	DV-3075	DV-3110	DV-3150
Frame size		H3			H4				H5	
Power size	kW	1.5	2.4	3.0	4.0	5.5	6.5	7.5	11	15
Horsepower 380-480V supply	Hp	2.0	3.2	4.0	5.5	7.5	8.7	10.0	15.0	20.0
Horsepower 208-240V supply	Hp	1.2	1.9	2.3	3.1	4.3	5.0	5.8	8.5	11.6
Efficiency	%	> 96.5%			> 96.5%				> 97.5%	
Power supply										
Voltage	VAC	3 x 208 - 240 V AC 50/60 Hz +/-10% *1 3 x 380 - 480 V AC 50/60 Hz +/-10%								
Supply current at max. load at nominal supply voltage (208-380/480 V) @+50°C/+122°F	A	3.2	5.0	6.3	8.4	11.5	13.6	15.7	23.0	30.0 *4
Supply current at max. load at nominal supply voltage (208-380/480 V) @+60°C/+140°F *6	A	3.2	5.0	6.3	8.4	11.5	13.6 *4	15.7 *4	23.0	23.0
Supply current at max. load at nominal supply voltage (208-380/480 V) @+65°C/+149°F *6	A	3.2	5.0	5.0	8.4	11.5	11.5	-	23.0 *4	23.0 *4
Supply current at max. load at nominal supply voltage (208-380/480 V) @+70°C/+158°F *6	A	3.2	4.0	-	8.4	11.5	11.5	-	20.0 *4	-
Power factor (cos-phi) at max. load		> 0.9								
Motor output										
Nominal motor power (on shaft) *2	kW	1.5	2.4	3.0	4.0	5.5	6.5	7.5	11	15
Frequency	Hz	AC motor: 0-120 PM motor: 0-595								
Max. output voltage	Vrms	3 x 0 - 0.9 x Vin								
Max. output current 208-480 V @+50°C/+122°F	Arms	4.0	5.6	7.2	9.5	12.0	14.5	16.4	24.0	32.5 *4
Max. output current 208-480 V @+60°C/+140°F *6	Arms	4.0	5.6	7.2	9.5	12.0	14.5 *4	16.4 *4	24.0	29.0
Max. output current 208-480 V @+65°C/+149°F *6	Arms	4.0	5.6	6.8	9.5	12.0	14.0	-	24.0	29.0 *4
Max. output current 208-480 V @+70°C/+158°F *6	Arms	4.0	5.6	-	9.5	12.0	14.0	-	24.0 *4	-
Protection										
Max. fuse	A	16							32	
Short circuit capacity	A	5000								
Motor output		Short-circuit protected between phases, Current and temperature overload protection, Thermal Memory Retention								
Max over-voltage		<565 V								
Environment										
Operating temperature	°C/°F	-40°C to +50°C / -40°F to +122°F (Up to +70°C / +158°F depending on variant, see above)								
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	3.0 kg / 6.6 lbs			3.9 kg / 8.6 lbs				9.5 kg / 20.9 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 9.84 ft/s to achieve max. output power at max. ambient temperature. Turbulent air speed below 3m/s or 9.84 ft/s and higher ambient temperature might lead to reduced output power. (3 m/s or 9.8 4 ft/s turbulent air speed is equivalent to 6.5 m/s or 21.32 ft/s laminar air speed)								
Interfaces										
Field bus		Modbus RTU , BACnet MS/TP								
Analogue Inputs		1 input: 0-10 V DC or 4-20 mA or PWM								
Analogue Output		1 output: +10 V DC or +24 V DC								
Digital Inputs		2 inputs: Internal pull-up to +24 V DC								
Digital Output		1 output: Open collector, Internal pullup to +10 V DC or +24 V DC								
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								
Integrated EMC filters		Yes, C1 and C2								
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 *3		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. *5								
Overvoltage category		III								
Pollution degree		2								
Altitude		1.000 m / 3.280 ft: Without derating and 2.000 m / 6.560 ft: With 1% derating per 100 meter/328 ft. above 1000 meter / 3280 ft.								
Supply earthing system		TN / TT								
RoHS Directive		Yes								
Product approvals		CE / C  us								

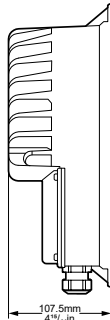
Note: Data are valid at: nominal supply voltage, +25°C or +77°F and sufficient air flow

*1: At 3 x 230 V supply the output power is derated to 58% *2: Motor Power Factor = 0.8 and efficiency = 90% *3: Only available with black front cover *4: Reduced when with cooling fan

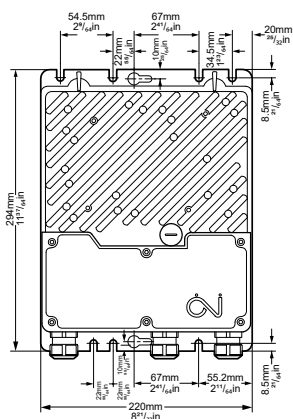
*5: max. +50°C/+122°F ambient temp. *6: Special part number



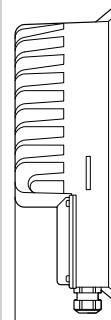
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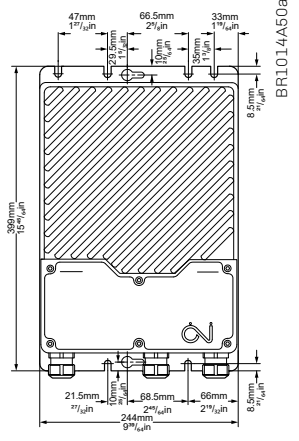
Dimensions H4



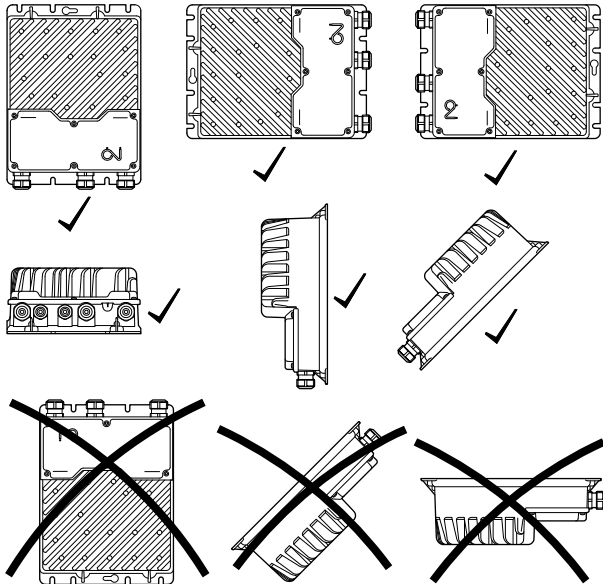
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Dimensions H5

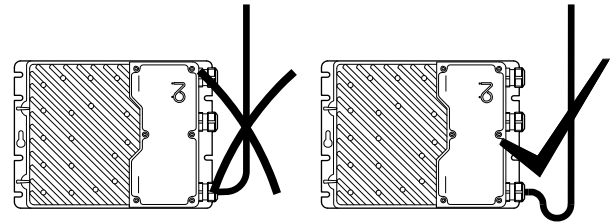


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Correct mounting



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Correct mounting