OJ Drives®

OJ DV GEN II with Local User Interface

- 1.5 - 15kW
- 380 - 480V three phase supply
- IM, PM motors
- Wide-range operation
- 2" color touchscreen
- CE, UL, CSA

OJ DV GEN II series

OJ DV GEN II is the upgraded version of our series of dedicated drives for ventilation applications. GEN II drives are fully backwards compatible with the corresponding power variants, which have the exact same mechanical dimensions and the same Modbus and BACnet protocols. GEN II drives offer excellent possibilities for customization.

Design

The flexible installation design lets you mount the drive 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 further expands the drives' potential.

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

Local User Interface

The built-in 2" touchscreen with color display lets users carry out basic set-up and local operation. The intuitive interface also gives access to readouts of a wide range of information. All this facilitates easy troubleshooting and swift responses to alarms.

Control

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 configure the control method.

Grid immunity

Over Voltage Detection enables these robust drives to cope with most types of grids worldwide, handling disturbances such as notches, spikes and transients.

Built-in EMC filter

The OJ DV GEN II series comes with a fully integrated EMC filter, meeting 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.

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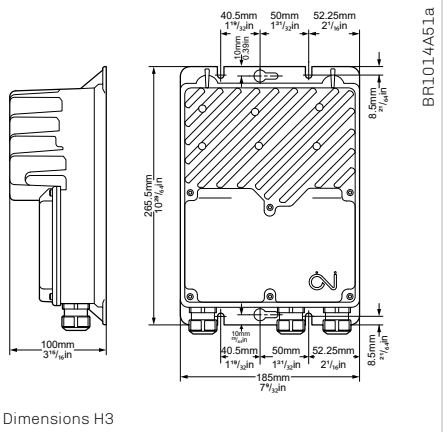
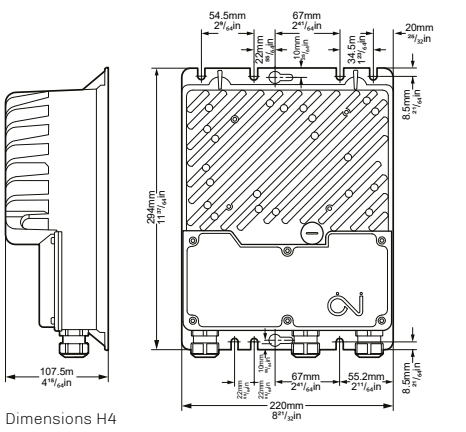
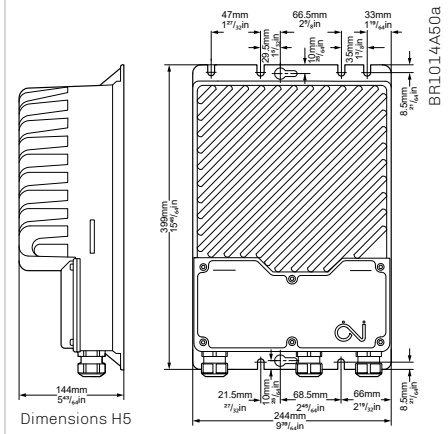


Dimensions H3



Dimensions H4



Dimensions H5

	Type	DV-3015-xxLx	DV-3024-xxLx	DV-3030-xxLx	DV-3040-xxLx	DV-3055-xxLx	DV-3065-xxLx	DV-3075-xxLx	DV-3110-xxLx	DV-3150-xxLx
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	Hp	2.0	3.2	4.0	5.4	7.4	8.7	10.0	14.7	20.1
Efficiency	%	> 96.5%			> 96.5%				> 97.5%	
Power supply										
Voltage	VAC	3 x 208 - 240 VAC 50/60 Hz +/-10% *1 3 x 380 - 480 VAC 50/60 Hz +/-10%								
Supply current at max. load at nominel supply voltage (380V/480V)	A	3.1/2.5	5.0/4.0	6.2/5.0	8.2/6.5	11.5/9.0	15.0/10.5	15.5/12.5	23.0/18.0	31.0/24.5
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: 0-400								
Max. output voltage	Vrms	3 x 0 - 0.9 x Vin								
Max. output current	Arms	4.5	6.5	8.0	10.0	12.0	16.0	19.0	27	35.0
Protection										
Max. fuse	A	16							32	
Short circuit capacity	A	2000	3500	3500	3500	3500	5000	5000	5000	5000
FLA	A	3.3	5.2	6.6	8.7	12.0	14.2	16.4	23.8	32.5
Motor output		Short-circuit protected between phases								
Motor		Protected by current limit								
Max over-voltage		<565V								
Overload protection		Current and temperature overload protection								
Environment										
Operating temperature	°C/°F	-20°C to +50°C / -4°F to +122°F								
Starting temperature	°C/°F	-20°C to +50°C / -4°F to +122°F								
Storage temperature	°C/°F	-20°C to +70°C / -4°F to +158°F								
Protection rating		IP 65 / NEMA 4x								
Enclosure material		Aluminium								
Front cover		Plastic (Black front cover is UV resistent)								
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 9.84ft/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								
User interface		2 inch color resistive touch								
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 *3		UL -61800-5-2 / CS22.2.174								
Overvoltage category		III								
Pollution degree		2								
Hight over See		2000m / 6.560ft								
Supply earthing system		TN / TT / IT								
RoHS Directive		Yes								
Product approvals		CE / cULus								

Note: Data are valid at: nominal supply voltage, +25°C or +77°F and sufficient air flow
*1: At 3 x 230V supply the output power is derated to 58% *2: Motor Power Factor = 0.8 and efficiency = 90% *3: H5 OGF variant is limited to 32A