

# **OJ Drives®**



## OJ DV GEN II with Local User Interface

- 2.4 15kW
- 460 600V three phase supply
- IM, PM motors
- Wide-range operation
- 2" color touchscreen
- 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**

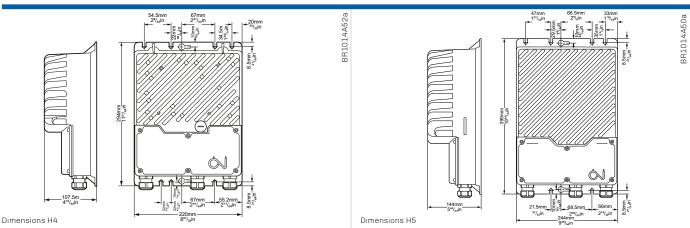
Over Voltage Detection enables these robust drives to cope with most types of grids worldwide, handling disturbances such as notches, spikes and transients.

## **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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Nominal motor power (on shaft)*1		Туре	DV-6024-xxLx	DV-6030-xxLx	DV-6040-xxLx	DV-6055-xxLx	DV-6075-xxLx	DV-6110-xxLx	DV-6150-xxLx			
Mary	Frame size				H4			Н	5			
## Service	Power size	kW	2.4	3.0	4.0	5.5	7.5	11	15			
Note Note No. 1970   1.00   1	Horsepower	Нр	3.2	4.0	5.5	7.5	10.0	15.0	20.0			
Vac	Efficiency	%			> 96.5%			> 97	7.5%			
Supply content at most lead at a coming any processor (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)								•				
Surface   Surf	Voltage	VAC			3 x 4	60 - 600 VAC 50/60 Hz +	/-10%					
Soliton control protect (No. No. No. No. No. No. No. No. No. No.			41/01	F 1 // 0	70/50	05/70	100/100	100/145	05 5 (00 0			
Monism and the propose on a shally 1		A	4.1/3.1	5.1/4.0	7.0/5.2	9.5/7.2	13.0/10.0	19.0/14.5	25.5/20.0			
Nominal motion power on shaft   1	Power factor (cos-phi) at max. load					> 0.9						
Max. Captay Notes   Marce   10   Marce   1	Motor output											
Max. output survivation	Nominal motor power (on shaft) *1	kW	2.4	3.0	4.0	5.5	7.5	11	15			
Mas. solg 16.0 8.0 8.0 13.0 16.0 22.0 30.0 30.0 30.0 30.0 30.0 30.0 30	Frequency	Hz			AC m	notor: 0-120   PM motor:	0-400					
Name	Max. output voltage	Vrms				3 x 0 - 0.9 x Vin						
Max. Islame	Max. output current	Arms	5.0	6.0	8.5	11.50	16.0	22.5	30.0			
Short circuit capacity	Protection											
Fig.   A	Max. fuse	A			16			3	2			
Motor Wolfer Motor Protected Protected Process and phase to earth Motor Protected Process and phase to earth Motor Protected Process and	Short circuit capacity	Α	3500	3500	3500	3500	5000	5000	5000			
Make oran vollage	FLA	Α	5.2	6.6	8.7	12.0	16.4	23.8	32.5			
Make oran vollage	Motor output				Short-circuit pro	tected between phases a	nd phase to earth					
Max own-voltage		+										
Our hour despiration		+					·					
Territorians		+			Current o		protection					
Speaking temperature   10/F   2.9°C to 5.9°C / 4*F to 1.22°F	•				Ouronta	na temperature over load	protection					
Starting temperature		°C /°E			00	0°C to ±50°C / 4°E to :11	20°F					
Storage temperature												
Protection rating   September   Page   Pa				-				-				
Enclosure material		+ 6/ -		-	-20		56 F	-				
Final cooper		+				· · · · · · · · · · · · · · · · · · ·						
Weight         kg/fbs         3.0 kg / 8.6 lbs         3.8 kg / 8.6 lbs         9.5 kg / 20.9 lbs           Hundifly         % rh         10-85% rh, non-condensing           Surface         Corrosion resistant according to BLV,509 9223 class 4           Air flow / cooling         Turbulent air speed of min. 3 m/s or 9.841/t to achieve max. output power at max. ambient emperature in urbulent air speed below 3m/s or 9.841/t s turbulent air speed is equivalent to 6.5m/s or 21.321/t s laminar air speed)           Interfaces         Field bus         Modes RTU, B.AChet MS/TP           Analogue Inputs         I input class and a control of the color		+			PRT PP		ecictent)					
Munistry		kø/lhs		3 0 kg /6 6 lbs	15111	1		9.5 kg /	20 9 lbs			
Surface Corresion 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 ambit 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 I input  Analogue Output I input  Analogue Output I output  +10 VDC or +24 VDC  Digital Inputs I output  -10 VDC or +24 VDC  Digital Inputs I output  -10 VDC or +24 VDC  Digital Output I output  -10 VDC or +24 VDC  Digital Output I output  -10 VDC or +24 VDC  Digital Output I open collector. Internal pullus pt -10 VDC or +24 VDC  Status LED I Green/yellow/red  Status LED I Green/yel				0.0 kg/ 0.0 lb0	1			0.0 kg/	20.0 100			
Turbulent air speed of min. 3 m/s or 9.84H/s to achieve max. output power at max. ambient temperature. Turbulent air speed below 3 m/s or 9.84H/s and higher ambient temperature might load to reduced output power. (3 m/s or 9.84H/s turbulent air speed is equivalent to 6.6 m/s or 2.1 32H/s laminar air speed)  Interfaces  Field bus Modbus RTU. BACnet MS/TP		+ 2										
Field bus   Modbus RTU, BACnet MS/TP   1 input   1 input   2 inputs   2 inputs   2 inputs   2 inputs   2 inputs   2 inputs   3 input   1 output   1 outp												
Analogue Inputs   Simple			ı									
Analogue Inputs Analogue Output Digital Inputs Digital Inputs Digital Inputs Digital Output Open collector, Internal pull-up to +24VDC Digital Output Open collector, Internal pull-up to +24VDC Digital Output Open collector, Internal pull-up to +10 VDC or +24 VDC Status LED User inc Green/yellow/red User inc Jone Output Open collector, Internal pull-up to +10 VDC or +24 VDC Status LED Status	Field bus				M	odbus RTU, BACnet MS/	TP					
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Analogue Output         PWM           Analogue Output         1 output +10 VDC or +24 VDC           Digital Inputs         2 inputs -10 inputs -10 inputs -10 input to +24 VDC           Digital Output         0 Open collector, Internal pullup to +24 VDC           Status LED         0 Genery/pllow/red -10 inputs -10 inputs	Analogue Inputs											
Analogie Output   10   10   10   10   10   10   10   1												
Digital Inputs         2 inputs Internal pull-up to +24VDC           Digital Output         1 output Open collector, Internal pull-up to +10 VDC or +24 VDC           Status LED         ■ Percenyellow/red           User interface         ■ Percenyellow/red           User interface         ■ Sinusoidal back-EMF signal controlled via FOC (Field Oriented Control)           Features         ■ Percenyellow/red           Technology         ■ Sinusoidal back-EMF signal controlled via FOC (Field Oriented Control)           Software updating         ■ Percenyellow/red           Motor parameters         ■ Percenyellow/red           Short-circuit protection         ■ Percenyellow/red           Short-circuit protection         ■ Yes           Short-circuit protection         ■ Percenyellow/red           Short-circuit protection         ■ Yes           Short-circuit protection         ■ Yes           Short-circuit protection         ■ Yes           Short-circuit protection         ■ Yes           Short-circuit protection         Yes           Short-circuit protection         ■ Yes           Short-circuit protection         Yes           Short-circuit protection         Yes           Short-circuit protection         Yes           Short-circuit protection         Yes	Analogue Output											
Digital Output Digital Output Open collector, Internal pullup to +10 VDC or +24 VDC Status LED Green/yellow/red User interface Jinch 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  EMC SPORT STORY  EMC	District Tours											
Status LED												
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         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.580ft           Supply earthing system         TN/TT/IT	Digital Inputs		1 output									
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         Yes           EMC         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22 2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT						internal pull-up to +24VD 1 output						
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         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output					internal pull-up to +24VD 1 output r, Internal pullup to +10 \						
Software updating         Yes, via serial interface           Motor parameters         Preprogrammed by OJ or on-site configuration           Short-circuit protection         Yes           Integrated EMC filters         Yes           Approvals         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN/TT/IT	Digital Output Status LED				Open collector	internal pull-up to +24VD 1 output r, Internal pullup to +10 \ Green/yellow/red	/DC or +24 VDC					
Software updating         Yes, via serial interface           Motor parameters         Preprogrammed by OJ or on-site configuration           Short-circuit protection         Yes           Integrated EMC filters         Yes           Approvals         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output Status LED User interface				Open collector	internal pull-up to +24VD 1 output r, Internal pullup to +10 \ Green/yellow/red	/DC or +24 VDC					
Motor parameters         Preprogrammed by OJ or on-site configuration           Short-circuit protection         Yes           Integrated EMC filters         Yes           Approvals         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN/TT/IT	Digital Output Status LED User interface Features				Open collector	internal pull-up to +24VD 1 output Toutput Toutput Toutput Toutput Toutput Green/yellow/red 2 inch color resistive touc	/DC or +24 VDC					
Short-circuit protection         Yes           Integrated EMC filters         Yes           Approvals         FCC §47 part 15 B. and ICES-003           Safety         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 0522.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN/TT/IT	Digital Output Status LED User interface Features Technology				Open collector	Internal pull-up to +24VD 1 output Thernal pullup to +10 V Green/yellow/red 2 inch color resistive touc	/DC or +24 VDC					
Integrated EMC filters         Yes           Approvals         FCC §47 part 15 B. and ICES-003           EMC         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output  Status LED  User interface  Features  Technology  Software updating				Open collector 2 Sinusoidal back-EMF s	nternal pull-up to +24VD 1 output 1 nutput 1 nternal pullup to +10 \ Green/yellow/red 2 inch color resistive tour signal controlled via FOC Yes, via serial interface	/DC or +24 VDC ch (Field Oriented Control)					
Approvals           EMC         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output Status LED User interface Features Technology Software updating Motor parameters				Open collector 2 Sinusoidal back-EMF s	nternal pull-up to +24VD 1 output 1 output 1 internal pulliup to +10 v Green/yellow/red inch color resistive touc signal controlled via FOC Yes, via serial interface mmed by OJ or on-site co	/DC or +24 VDC ch (Field Oriented Control)					
EMC         FCC §47 part 15 B. and ICES-003           Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output Status LED User interface Features Technology Software updating Motor parameters Short-circuit protection				Open collector 2 Sinusoidal back-EMF s	internal pull-up to +24VD 1 output 1, Internal pull-up to +10 \ Green/yellow/red 2 inch color resistive touc signal controlled via FOC Yes, via serial interface mmed by OJ or on-site oc Yes	/DC or +24 VDC ch (Field Oriented Control)					
Safety         UL 61800-5-1 CS22.2.174           Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output Status LED User interface Features Technology Software updating Motor parameters Short-circuit protection Integrated EMC filters				Open collector 2 Sinusoidal back-EMF s	internal pull-up to +24VD 1 output 1, Internal pull-up to +10 \ Green/yellow/red 2 inch color resistive touc signal controlled via FOC Yes, via serial interface mmed by OJ or on-site oc Yes	/DC or +24 VDC ch (Field Oriented Control)					
Product standard         IEC 61800 Part 2           Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output  Status LED  User interface  Features  Technology  Software updating  Motor parameters  Short-circuit protection  Integrated EMC filters  Approvals				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD 1 output 1, Internal pullup to +10 \ Green/yellow/red 2 inch color resistive touc signal controlled via FOC Yes, via serial interface mmed by OJ or on-site of Yes Yes	(Field Oriented Control) onfiguration					
Overvoltage category         III           Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output  Status LED  User interface  Features  Technology  Software updating  Motor parameters  Short-circuit protection  Integrated EMC filters  Approvals  EMC				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD I output I output Internal pull-up to +10 V Green/yellow/red Inch color resistive touc signal controlled via FOC Yes, via serial interface mmed by OJ or on-site co Yes Yes Yes E §47 part 15 B. and ICES	(Field Oriented Control) onfiguration					
Pollution degree         2           Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output  Status LED  User interface  Features  Technology  Software updating  Motor parameters  Short-circuit protection  Integrated EMC filters  Approvals  EMC  Safety				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD 1 output 1 output 1 internal pull-up to +10 v Green/yellow/red 2 inch color resistive touc signal controlled via FOC Yes, via serial interface mmed by OJ or on-site of Yes Yes 9 47 part 15 B. and ICES UL 61800-5-1 CS22.2.17	(Field Oriented Control) onfiguration					
Hight over See         2000m / 6.560ft           Supply earthing system         TN / TT / IT	Digital Output Status LED User interface Features Technology Software updating Motor parameters Short-circuit protection Integrated EMC filters Approvals EMC Safety Product standard				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD 1 output 1, Internal pull-up to +10 V Green/yellow/red 2 inch color resistive tour signal controlled via FOC Yes, via serial interface mmed by OJ or on-site of Yes Yes Yes 2847 part 15 B. and ICES UL 61800-5-1 CS22.2.17 IEC 61800 Part 2	(Field Oriented Control) onfiguration					
Supply earthing system TN / TT / IT	Digital Output  Status LED  User interface  Features  Technology  Software updating  Motor parameters  Short-circuit protection  Integrated EMC filters  Approvals  EMC  Safety  Product standard  Overvoltage category				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD  1 output  Internal pull-up to +10 V  Green/yellow/red  Inch color resistive touch  signal controlled via FOC  Yes, via serial interface mmed by OJ or on-site of Yes  Yes  Yes  2847 part 15 B. and ICES  UL 61800-5-1 CS22.2.17  IEC 61800 Part 2  III	(Field Oriented Control) onfiguration					
	Digital Output  Status LED  User interface  Features  Technology  Software updating  Motor parameters  Short-circuit protection  Integrated EMC filters  Approvals  EMC  Safety  Product standard  Overvoltage category  Pollution degree				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD I output I ou	(Field Oriented Control) onfiguration					
	Digital Output  Status LED  User interface  Features  Technology  Software updating  Motor parameters  Short-circuit protection  Integrated EMC filters  Approvals  EMC  Safety  Product standard  Overvoltage category  Pollution degree  Hight over See				Open collector  2  Sinusoidal back-EMF s  Preprogra	Internal pull-up to +24VD  1 output  1 output  Internal pull-up to +24VD  Green/yellow/red  inch color resistive touc  signal controlled via FOC  Yes, via serial interface  mmed by OJ or on-site co  Yes  Yes  2 \$47 part 15 B. and ICES  UL 61800-5-1 CS22.2.17  IEC 61800 Part 2  III  2  2000m / 6.560ft	(Field Oriented Control) onfiguration					

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