



# **OJ Drives®**



# **OJ DV series**

- 13 power variants
- 5 enclosure sizes
- IM. PM and BLDC motors
- Operation from -40° to +50°
- BACnet MS/TP
- UL 61800-5-1, CS22.2.174 recognized

A series of drives dedicated for ventilation systems comprising 13 output variants (from 0.5 to 15 kW) fitted in four different enclosures to match any rooftop fan, plug fan or AHU application.

### Wide ambient temperature range

Continuous operation in almost any environment from -40°C to +50°C / -40°F to +122°F. In Fire Mode, OJ DV can run for an hour in temperatures up to +70°C / +158°F.

## Flexible design

By adding different modules, OJ DV are suitable for any fan system. With their installation flexibility, they can be mounted inside or outside the air flow.

#### **BACnet MS/TP**

BACnet ensures that information is exchanged in a standardised way between sensors, actuators, and controls in a building. Equipped with BACnet MS/TP the OJ DV can now be part of the building automization. BACnet MS/TP is running on RS-485.

#### **Energy efficient**

Passive cooling allows the drives to save energy while providing reliable, highly efficient power for the ventilation system. With OJ DV, an efficiency of up to 97% can be achieved.

#### Plug & Play technology

Preprogrammed motor settings help maximize functionality, while the removable front cover facilitates easy access to connectors for instant system configuration.

#### Norms and standards

The OJ DV series comes with a fully integrated EMC filter and therefore meets norms for emis-sions and immunity in industrial and residential areas EN 61800-3 (C1 and C2). IE requirements can be easily fulfilled using an IM or PM motor together with an OJ DV.

The OJ DV product series is cULus Recognised according to UL 61800-5-1 and CS22.2.174.

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Enclosure														
	Туре	DV-1005	DV-1007	DV-1011	DV-1013	DV-3015	DV-3024	DV-3030	DV-3040	DV-3055	DV-3065	DV-3075	DV-3110	DV-3150
	J.AA7	0.5	H1	1.1	H1x	1.5	H3 2.4	2.0	4.0		H4	7 =		H5
Power size	kW	0.5	0.75 1.0	1.1	1.3	1.5	3.2	3.0 4.0	4.0 5.4	5.5 7.4	6.5 8.7	7.5 10.0	11 14.7	15 20.1
Horsepower Efficiency	Hp %	0.7	> 9		1.7	2.0	> 96.5%	4.0	5.4		96.5%	10.0	<del> </del>	17.5%
Power supply	/6			1470			> 50.5%				50.070			17.576
					.,				3 x 208 - 2	240 VAC 50/60	Hz +/-10% *1			
Voltage	VAC		1 x 230 VAC 50	/60 HZ +/-10	% •					480 VAC 50/6			r	
Supply current at max. load at nominel supply	А	3.0	4.4	6.5	8.5	3.1/2.6	5.0/4.2	6.3/5.2	8.4/7.0	11.5/9.6	13.6/11.3	15.7/13.1	23/19.1	31.1/26.1
voltage (400V/480V) Power factor			I	I								1		,
(cos-phi) at max. load			> 0.99 (A	ctive PFC)						> 0.9				
Motor output														
Nominal motor power (on	kW	0.5	0.8	1.15	1.3	1.5	2.4	3.0	4.0	5.5	6.5	7.5	11	15
shaft) *2 Frequency	Hz			<u> </u>			AC moto	r: 0-120   PM r	notor: 0-/i00			1		
Max. output voltage	Vrms		3 x 0 - 2	250 VAC			Admid	7.0 120   1 1011	110101.0 400	3 x 0 - 0.9 x \	/in			
Max. output current	Arms	2	3.2	4.5	5.2	4.5	6.4	7.8	10.0	12.0	15.0	19.0	27	35.0 *3
Protection			,	,					,					
Max. fuse	Α				_		16						;	32
Short circuit capacity	Α	1000	1000	2000	2000	2000	3500	3500	3500	3500	5000	5000	5000	5000
FLA	Α	3.6	5.3	7.8	9.2	3.3	5.2	6.6	8.7	12.0	14.2	16.4	23.8	32.5
Motor output								uit protected be		3				
Motor			** /=	N/ (DTC)			Pro	tected by curre	ent limit					
Over-voltage protection Overload protection			Yes, 400	V (PTC)		1	Current and	Yes, 565 V emperature ov	enload protoci	tion				
Environment							Current and	emperature ov	remoau protect	1011				
Operating temperature	°C/°F						-40°C 1	o +50°C / -40°	F to +122°F					
Starting temperature	°C/°F			-				o +50°C / -40°						
Storage temperature	°C/°F						-40°C 1	o +70°C / -40°	F to +158°F					
Dimensions	mm	18	5 x 230,5 x 90 i	mm	185 x 265 x	18	35 x 265 x 100	mm		220 x 29	4 x 107 mm		244 x 399	9 x 144 mm
					125 mm				44.6					
Protection rating Enclosure material							1	2 54 & 65 / NEN						
Front cover								Plastic						
Weight	kg		2.0		3.6		3.0	I lastic			3.9			9.5
Humidity	%rh							95% rh, non-cor	ndensing					
Surface						Corr		to EN/ISO 129		tegory C4				
Air flow / cooling			Turbulent ai	r speed of min							below 3m/s and laminar air spec	d higher ambient ed)	temperature	
Interfaces														
Modbus RTU								e: 9.6, 19.2, 38.						
BACnet MS/TP								, 19200, 38400 ster: 1 -127, De						
Digital communication	Slave					IVIAC. U		12 & 2 x spring		0-4104302				
Digital communication	Master							Lx RJ12 conne				-		
Analogue In1								C, 100% @ 9.5						
Analogue Out1								+10 VDC						
Digital In1							Start/	+10 VDC stop with inter						
Digital In1 Digital In2								stop with inter Alarm rese	nal pull-up t					
Digital In1 Digital In2 Digital Out1							Tacho: 1 pulse,	stop with inter Alarm rese revolution   Ala	nal pull-up t arm/running s					
Digital In1 Digital In2 Digital Out1 Green LED						Lit	Tacho: 1 pulse,	stop with inter Alarm rese revolution   Ala ted   Flashing:	nal pull-up t arm/running s Active commu	nication	***************************************			
Digital In1 Digital In2 Digital Out1 Green LED Red LED						Lit	Tacho: 1 pulse,	stop with inter Alarm rese revolution   Ala	nal pull-up t arm/running s Active commu	nication	tor			
Digital In1 Digital In2 Digital Out1 Green LED Red LED Features						Lit: Flashing: Ala	Tacho: 1 pulse, : Power connec rm but still rur	stop with intern Alarm rese (revolution   Ala sted   Flashing: A ning   Constant	nal pull-up t arm/running s Active commu lly lit: Critical a	nication larm - stop mo				
Digital In1 Digital In2 Digital Out1 Green LED Red LED Features Technology						Lit: Flashing: Ala	Tacho: 1 pulse, : Power connec rm but still rur back-EMF sigr	stop with interior Alarm rese /revolution   Ala /ted   Flashing: Joint   Constant al controlled vi	nal pull-up t arm/running s Active commu ly lit: Critical a	nication larm - stop mo				
Digital In1 Digital In2 Digital Out1 Green LED Red LED Features	sec.					Lit: Flashing: Ala	Tacho: 1 pulse, : Power connec rm but still rur back-EMF sigr	stop with intern Alarm rese (revolution   Ala sted   Flashing: A ning   Constant	nal pull-up t arm/running s Active commu ly lit: Critical a	nication larm - stop mo				
Digital In1 Digital In2 Digital In2 Digital Out1 Green LED Features Technology Flying start	sec.					Lit: Flashing: Ala	Tacho: 1 pulse, : Power connec rm but still rur back-EMF sigr	stop with interior Alarm rese /revolution   Ala /reted   Flashing: Johnson   Constant all controlled vinus, < 30% of max	nal pull-up t arm/running s Active commu ly lit: Critical a	nication larm - stop mo				
Digital In1 Digital In2 Digital Out1 Green LED Red LED Features Technology Flying start Ramp-up time						Lit: Flashing: Ala Sinusoidal	Tacho: 1 pulse, : Power connec rm but still rur back-EMF sigr Ye	stop with internal Alarm rese frevolution   Alated   Flashing: ning   Constant lal controlled vis. < 30% of max 15-300 Yes	nal pull-up t arm/running s Active commu ly lit: Critical a ia FOC (Field Oi . speed	nication larm - stop mo riented Contro				
Digital In1 Digital In2 Digital Out1 Green LED Red LED Features Technology Flying start Ramp-up time Ramp-down time						Lit: Flashing: Ala Sinusoidal	Tacho: 1 pulse, : Power connec rm but still rur back-EMF sigr Ye	stop with interdal Alarm rese Alarm rese Alarm rese Arevolution   Ale Sted   Flashing: Ining   Constant I controlled vi I controlled vi I constant I controlled vi I constant I constant	nal pull-up t arm/running s Active commu ly lit: Critical a ia FOC (Field Oi . speed	nication larm - stop mo riented Contro				
Digital In1 Digital In2 Digital Out1 Green LED Red LED Features Technology Flying start Ramp-up time Ramp-down time Alarm Alarm reset Fan stop						Lit: Flashing: Ala Sinusoidal Via digital ii stem stops th	Tacho: 1 pulse, : Power connect rm but still rur back-EMF sign Ye nput, MODBUS e fan as quickl	Alarm rese (revolution   Alarm rese (revolution   Alarm rese (revolution   Alarm ted   Flashing , ning   Constant  al controlled vi s, < 30% of max 15-300 15-300 Yes or powering do (as possible, B	nal pull-up t arm/running s Active community lit: Critical a la FOC (Field Oil), speed	nication larm - stop mo riented Contro han 60 second Il depend on th	s e inertia of the f			
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