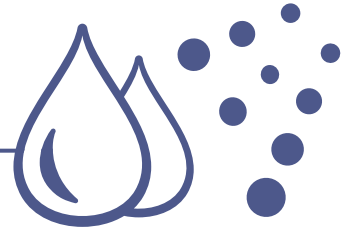


OPTIDRIVE™ IP66 / NEMA 4X



AC Variable Speed Drive
0.37kW – 7.5kW (0.5 – 10HP)
110 – 480V

Ideal for washdown applications



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110 – 480V

Expanding on the success of previous Optidrives, the IP66 / NEMA 4X range are ideal for high-pressure washdown duty.

Ready for high-pressure washdown, the cost-effective IP66 / NEMA 4X Optidrives can be mounted directly on your processing equipment.

Available for all Optidrive E2 variants up to 7.5kW/10HP in three physical frames sizes.

Key Features & Benefits

- Dust-tight IP66 / NEMA 4X rated enclosure
- Designed for high-pressure washdown duty
- Corrosion-protected heatsinks
- Easy setup with preset parameters
- Rapid programming with Optistick & Optiwand PDA
- Wall mountable
- Conduit cable entry
- Keypad control
- Industrial 40°C ambient rating
- Optional built-in RFI/EMC Filter
- Integral Brake Chopper on sizes 2 & 3
- MODBUS RTU serial communication as standard
- PI control for feedback applications



Dimensions

Size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)	Fixings
1	232	161	175	2.8	4 × M4
2	257	188	187	4.6	4 × M4
3	310	210.5	243	7.4	4 × M4

Ideal for washdown applications

Industry Sectors

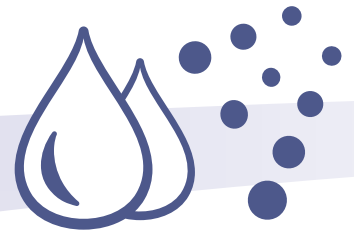
Food Processing | Paper & Forest Products | Petroleum & Chemical
Unit & Baggage Handling | HVAC | Pumping & Fluid Handling | Aggregate & Cement | Mining



IP66

IP (Ingress Protection) ratings classify the level of protection provided by an enclosure or housing, against solids (1st digit) and liquids (2nd digit).

IP66 is rated as 'dust-tight' and protected against 'heavy seas' or 'powerful jets of water'.



NEMA 4X

The NEMA (National Electrical Manufacturers Association) ratings can be approximately compared to those of the IP system.

NEMA 4X specifies protection against falling dirt, windblown dust, splashing or hose-directed water, corrosion and external formation of ice.

Switched Option

- Local potentiometer for speed control
- Drive FWD/OFF/REV switch - Programmable for Hand / Auto (Local / Remote) applications
- Local Power Isolator - Provides the ability to isolate the motor for maintenance and servicing.

Options

Product	Description
Optifilter	RFI Line Filter
Optibrake	Dynamic Braking Resistor
Input Chokes	Mains Supply Input Chokes
Output Filters	Motor Output Filter, recommended for long motor cable runs
2ROUT	2 Relay Output option
HVACO	2 Relay Output for HVAC operation
LOGIP	High Voltage Logic Input option
Optiport E2	Optiport Plus remote mounting keypad
Network Cables	RJ45 Cables and Splitters
PC Connection Kit	Isolated USB to RS485 Adaptor
Optiwand PDA / SP	Commissioning and backup software for Pocket PC / PDA
Optistore V3	Commissioning and storage software for PC
Fieldbus Gateway	DeviceNet, Profibus and Ethernet gateways



Model Reference

110–115V ± 10% 1 Phase Input / 3 Phase 230V Output (Voltage Doubler)

kW Models			HP Models			Output Current (A)	Size
With Filter	Without Filter	kW	With Filter	Without Filter	HP		
–	–	–	–	ODE-2-11005-1H01#	0.5	2.3	1
–	–	–	–	ODE-2-11010-1H01#	1	4.3	1
–	–	–	–	ODE-2-21015-1H04#	1.5	5.8	2

200–240V ± 10% 1 Phase Input

kW Models			HP Models			Output Current (A)	Size
With Filter	Without Filter	kW	With Filter	Without Filter	HP		
ODE-2-12037-1KB1#	ODE-2-12037-1K01#	0.37	ODE-2-12005-1HB1#	ODE-2-12005-1H01#	0.5	2.3	1
ODE-2-12075-1KB1#	ODE-2-12075-1K01#	0.75	ODE-2-12010-1HB1#	ODE-2-12010-1H01#	1	4.3	1
ODE-2-12150-1KB1#	ODE-2-12150-1K01#	1.5	ODE-2-12020-1HB1#	ODE-2-12020-1H01#	2	7	1
ODE-2-22150-1KB4#	ODE-2-22150-1K04#	1.5	ODE-2-22020-1HB4#	ODE-2-22020-1H04#	2	7	2
ODE-2-22220-1KB4#	ODE-2-22220-1K04#	2.2	ODE-2-22030-1HB4#	ODE-2-22030-1H04#	3	10.5	2

200–240V ± 10% 3 Phase Input

kW Models			HP Models			Output Current (A)	Size
With Filter	Without Filter	kW	With Filter	Without Filter	HP		
–	ODE-2-12037-3K01#	0.37	–	ODE-2-12005-3H01#	0.5	2.3	1
–	ODE-2-12075-3K01#	0.75	–	ODE-2-12010-3H01#	1	4.3	1
–	ODE-2-12150-3K01#	1.5	–	ODE-2-12020-3H01#	2	7	1
ODE-2-22150-3KB4#	ODE-2-22150-3K04#	1.5	ODE-2-22020-3HB4#	ODE-2-22020-3H04#	2	7	2
ODE-2-22220-3KB4#	ODE-2-22220-3K04#	2.2	ODE-2-22030-3HB4#	ODE-2-22030-3H04#	3	10.5	2
ODE-2-32040-3KB4#	ODE-2-32040-3K04#	4.0	ODE-2-32050-3HB4#	ODE-2-32050-3H04#	5	18	3

380–480V ± 10% 3 Phase Input

kW Models			HP Models			Output Current (A)	Size
With Filter	Without Filter	kW	With Filter	Without Filter	HP		
ODE-2-14075-3KA1#	ODE-2-14075-3K01#	0.75	ODE-2-14010-3HA1#	ODE-2-14010-3H01#	1	2.2	1
ODE-2-14150-3KA1#	ODE-2-14150-3K01#	1.5	ODE-2-14020-3HA1#	ODE-2-14020-3H01#	2	4.1	1
ODE-2-24150-3KA4#	ODE-2-24150-3K04#	1.5	ODE-2-24020-3HA4#	ODE-2-24020-3H04#	2	4.1	2
ODE-2-24220-3KA4#	ODE-2-24220-3K04#	2.2	ODE-2-24030-3HA4#	ODE-2-24030-3H04#	3	5.8	2
ODE-2-24400-3KA4#	ODE-2-24400-3K04#	4	ODE-2-24050-3HA4#	ODE-2-24050-3H04#	5	9.5	2
ODE-2-34055-3KA4#	ODE-2-34055-3K04#	5.5	ODE-2-34075-3HA4#	ODE-2-34075-3H04#	7.5	14	3
ODE-2-34075-3KA4#	ODE-2-34075-3K04#	7.5	ODE-2-34100-3HA4#	ODE-2-34100-3H04#	10	18	3

Notes

All models are available with or without switches.

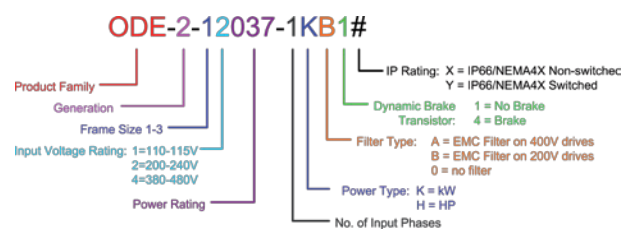
Replace '#' in the product code with:

'Y' for switched drives

or

'X' for non-switched drives.

Model codes explained



Drive Specification

Output Ratings	Overload capacity	150% for 60 secs; 175% for 2 secs
	Frequency	0...500Hz
Input Ratings	Frequency	48–62Hz
	Voltage	110–115V ± 10% 1 Phase (0.5–1.5HP) 200–240V ± 10% 1 Phase (0.37–2.2kW / 0.5–3HP) 200–240V ± 10% 3 Phase (0.37–3.7kW / 0.5–5HP) 380–480V ± 10% 3 Phase (0.75–7.5kW / 1–10HP)
	Temperature	Operating: -10 to 40°C max; Storage: -40 to 60°C
	Altitude	0–2000m (derate 1% per 100m above 1000m)
	Ingress protection	IP66 / NEMA 4X
Programming	Devices	Keypad, PC, PDA, Smartphone
Control Specification	Control method	Voltage Vector
	PWM Frequency	4...32kHz (effective)
	V/Hz ratio	Linear
	Boost	Yes
	Stop mode	Coast/Ramp/DC Brake
	Internal brake transistor	Yes (sizes 2 and 3); External resistor required
	Capacity	100% Drive Rated Power continuously
	Skip frequency	One point, adjustable frequency band
	Frequency setpoint control	0...10V DC 20...4mA 4...20mA Digital – Keypad Modbus
	Preset speeds	4
	PI control	Yes
	Spin start	Yes
	Acceleration	0...600 secs
Deceleration	(2 ramps) 0...600 secs	
Programmable I/O	Input 1, Input 2	Programmable Digital Input
	Input 3, Input 4	User-selectable Analogue / Digital Input
	Output 1	Programmable Analogue / Digital Output
	Relay 1	Relay Output (30V DC 5A, 250V AC, 6A)
	Keypad Display	Operating display
Protective Functions	Remote mount	Optional Optoport E2 remote mounting keypad
	Inverter trip	Over voltage, over current, under voltage, external trip, motor overload, over temperature, short circuited, earth fault
Communication	Memory	Last 4 trips stored
	Supported protocols	Modbus, Profibus DP (via gateway), DeviceNet (via gateway), RS485 (Optibus)
Compliance	EN 61800-3:2004	Adjustable speed electrical power drive systems. EMC requirements.

bj.gear

dedicated gear drive solutions

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