

NEMA 12 drives

For harsh, wet & dirty environments

- Sensorless Flux Vector Drives
- Industrial VFDs
- Single Phase Motor VFDs



Bardac
drive technology

IP55/NEMA 12 Protected
Ratings up to 10HP
115/230/460/575 volts units
Ethernet option sizes 2 & 3
drive.web option sizes 2 & 3

OPTIDRIVE E2 *i55*

A general purpose drive with all purpose features
 Basic or full featured systems drive
 Basic or peer-to-peer networking over Ethernet

Basic or loaded, the new **E2 *i55*** is designed to give you the very best in value, performance and ease of use. The innovative design incorporates flexibility, expandability and convenience that will work in many different applications throughout your plant.

The basic concept is simple and easy but you have all the options you will need to enhance the drive to a full featured, integrated systems drive.

Switched Version with keypad, display, speed pot, forward/off/reverse switch & power isolator switch.

Unswitched Version with keypad & display.

- 40°C ambient temperature
- Conduit cable entry
- Padlockable power switch
- Wash down duty
- ModbusRTU RS485 port
- Compact packaging
- All standard drive features included
- Brake standard on sizes 2 & 3 (100% rated)
- 150% rating 60 secs, 175% for 2 secs
- Simple set up procedure



SPECIFICATION

Output	Frequency	0 to 500Hz
Supply options	Frequency	48 - 62 Hz
	Voltage/Phases	100 - 132 volts max, single phase (0.5 - 1.5HP) 180 - 264 volts max, 1-phase (0.5 - 3HP) 180 - 264 volts max, 3-phase (0.5 - 5HP) 342 - 528 volts max, 3-phase (1 - 15HP)
Environment	Temperature	Operating, -10 to 40°C max, storage, -40 to 60°C
	Altitude	0-2000M, derate 1% per 100M above 1000M
	Humidity	up to 95%, non condensing
	Ingress Protection	Basic IP20, Optional IP55 (NEMA12)
Control	Mode	Voltage vector
	PWM frequency	4 to 32KHz (effective)
	V/Hz ratio	Linear
	Boost	Yes
	Stop modes	Coast / ramp / DC brake
	Skip frequency	One point, adjustable frequency band
	Setpoint reference	0-10VDC, 4-20mA, 20-4mA, 0-20mA, Keypad, Modbus
	Preset speeds	8
	PI control	Direct & analog input trim
	Spin start	Starts safely into rotating motor
Accel/Decel	0 - 600 seconds + Ramp stop decel 0 - 600 seconds	
Configurable i/o	Input 1	Programmable digital input
	Input 2	Programmable digital input
	Input 3	Configurable analog or digital input
	Input 4	Configurable analog or digital input
	Output 1	Configurable analog or digital output
	Output 2	Normally open relay contact 30VDC 5A, 250VAC 6A
Protection	Drive trip	Over/under volts, over current, external trip,
	Motor	Overload, over temperature, short circuit, ground fault
	Trip memory	Last 4 trips stored

OPTIONS

- Internal Ethernet (size 2 & 3)
- Internal **drive.web** process control (size 2 & 3)
- Integral RFI filter
- Remote keypad and display
- OPTISTICK plug in unit for fast up/down load

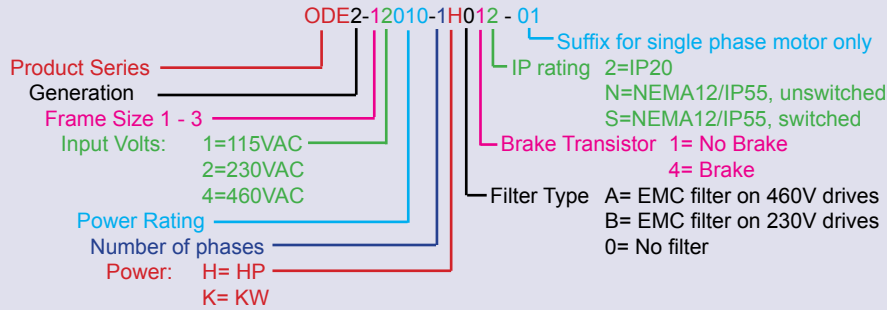
NEMA 12 TOUGH

For wet, harsh, dirty & washdown environments

3-Phase Motor Control

Single Phase Motor Control

MODEL NUMBERING



All purpose drives for 3-phase motors

Model	Supply	Motor	Power	Amps	Size
ODE2-11005-1H01#	1Ø, 115V	3Ø, 230V	0.5HP	2.3	1
ODE2-11010-1H01#	1Ø, 115V	3Ø, 230V	1.0HP	4.3	1
ODE2-21015-1H04#	1Ø, 115V	3Ø, 230V	1.5HP	5.8	2
ODE2-12005-1H01#	1Ø, 230V	3Ø, 230V	0.5HP	2.3	1
ODE2-12010-1H01#	1Ø, 230V	3Ø, 230V	1HP	4.3	1
ODE2-22020-1H04#	1Ø, 230V	3Ø, 230V	2HP	7	2
ODE2-22030-1H04#	1Ø, 230V	3Ø, 230V	3HP	10.5	2
ODE2-14010-3H01#	3Ø, 460V	3Ø, 460V	1HP	2.2	1
ODE2-14020-3H01#	3Ø, 460V	3Ø, 460V	2HP	4.1	1
ODE2-24020-3H04#	3Ø, 460V	3Ø, 460V	2HP	4.1	2
ODE2-24030-3H04#	3Ø, 460V	3Ø, 460V	3HP	5.8	2
ODE2-24050-3H04#	3Ø, 460V	3Ø, 460V	5HP	9.5	2
ODE2-34075-3H04#	3Ø, 460V	3Ø, 460V	7.5HP	14	3
ODE2-34100-3H04#	3Ø, 460V	3Ø, 460V	10HP	18	3

N = Unswitched, S = Switched

DIMENSIONS & WEIGHT

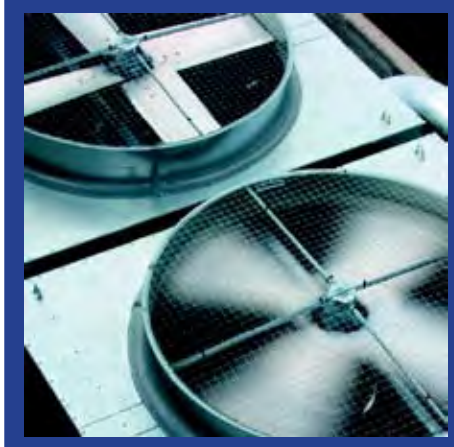
Size	Height	Width	Depth	Weight
1	7.9" (200mm)	5.5" (140mm)	6.4" (162mm)	5.4lbs (2.4kg)
2	12.2" (310mm)	6.5" (164mm)	6.9" (176mm)	10.3lbs (4.6kg)
3	12.2" (310mm)	8.3" (211mm)	9.6" (243mm)	16.6lbs (7.4kg)

Single phase motor controller

For use only with Shaded Pole (SP) or Permanent Split Capacitor (PSC) type motors in variable torque, fan and centrifugal pump applications

Model	Supply	Motor	Power	Amps	Size
ODE2-11005-1H01#-01	1Ø, 115V	1Ø, 115V	0.5HP	7.0	1
ODE2-21007-1H01#-01	1Ø, 115V	1Ø, 115V	0.75HP	10.5	2
ODE2-12005-1H01#-01	1Ø, 230V	1Ø, 230V	0.5HP	4.3	1
ODE2-12010-1H01#-01	1Ø, 230V	1Ø, 230V	1HP	7.0	1
ODE2-22015-1H04#-01	1Ø, 230V	1Ø, 230V	1.5HP	10.5	2

N = Unswitched, S = Switched



OPTIDRIVE ODP *i55*

Sensorless Vector Drive

High performance open loop flux vector drive with optional encoder feedback and on board *drive.web* programmable control



All the features of the E2 series drives together with high performance flux vector control providing:

- 100% torque control down to less than 0.5% speed
- Sensorless speed regulation better than 1%
- Encoder feedback speed regulation better than 0.1%
- Torque control
- Output up to 1000Hz
- Supply voltages up to 600VAC

Sensorless Flux Vector Drives

Model	Supply	Motor	Power	Amps	Size
ODP-12005-USi#	1Ø, 230V	3Ø, 230V	0.5HP	2.3	1
ODP-12010-USi#	1Ø, 230V	3Ø, 230V	1HP	4.3	1
ODP-22020-USi#	1Ø, 230V	3Ø, 230V	2HP	7	2
ODP-22030-USi#	1Ø, 230V	3Ø, 230V	3HP	10.5	2
ODP-24010-USi#	3Ø, 460V	3Ø, 460V	1HP	2.2	2
ODP-24020-USi#	3Ø, 460V	3Ø, 460V	2HP	4.1	2
ODP-24030-USi#	3Ø, 460V	3Ø, 460V	3HP	5.8	2
ODP-24050-USi#	3Ø, 460V	3Ø, 460V	5HP	9.5	2
ODP-25010-USi#	3Ø, 600V	3Ø, 575V	1HP	1.7	2
ODP-25020-USi#	3Ø, 600V	3Ø, 575V	2HP	3.1	2
ODP-25030-USi#	3Ø, 600V	3Ø, 575V	3HP	4.1	2
ODP-25050-USi#	3Ø, 600V	3Ø, 575V	5HP	5.8	2
(All above 600V drives need external NEMA 12 line reactor OD-IL163-US-i55)					
ODP-25075-USi#	3Ø, 600V	3Ø, 575V	7.5HP	9.0	2
(Above 600V drive needs external NEMA 12 line reactor OD-IL263-US-i55)					
# N = Unswitched, S = Switched (with pot, power switch, F/OFF/R)					

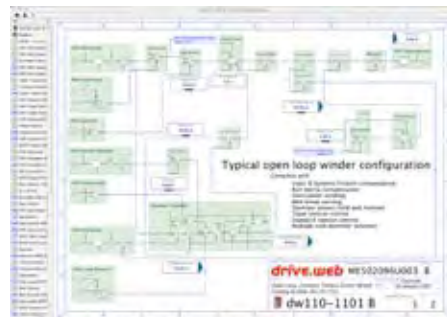
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SMARTER DRIVES WITH *drive.web* CONTROL TECHNOLOGY

A *drive.web speedy485* process controller can be installed in any new size 2 or 3 *i55* drive to provide peer-to-peer networking over Ethernet, ModbusTCP/IP, programmable function blocks for arithmetic, logic, PI control and more.

Get the basic *drive.web savvy* tools **FREE** from www.driveweb.com and enjoy a **FREE** online seminar on easy, innovative system design.



CONCEIVE

VISUALIZE

MONITOR

CONTROL



Bardac DRIVES TECHNOLOGY

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