

# OPTIDRIVE E2

Industrial AC Drives up to 15HP  
IP20 and NEMA 12 Options  
Single & 3-phase motor versions



**Bardac**  
*drive technology*

THE NEW E2  
Expandable  
Easy  
Economical  
Enduring  
Efficient

# OPTIDRIVE E2

A general purpose drive with all purpose features  
Basic or NEMA 12 (IP55)  
Basic or full featured systems drive  
Basic or peer-to-peer networking over Ethernet

Basic or loaded, the new E2 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.

## THE BASICS

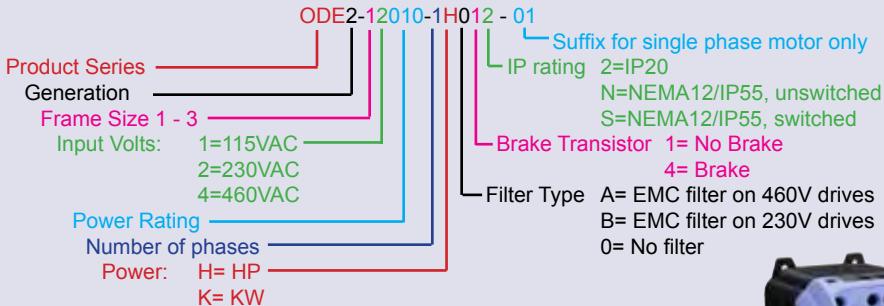
Compact packaging  
Simple mechanical and electrical installation  
50°C ambient rating  
150% rating for 60 seconds, 175% for 2 seconds  
Simple 14 parameter basic set up  
Integral RFI filter option  
Integral brake transistor, sizes 2 & 3 (100% continuous rated)  
ModbusRTU serial port  
Remote keypad and display option  
OPTISTICK plug in unit for fast up/down load of parameters

## 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 50°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



#### MODEL NUMBERING



## STANDARD IP20 DRIVES

Model	Supply	Motor	Power	Amps	Size
ODE2-11005-1H012	1Ø, 115V	3Ø, 230V	0.5HP	2.3	1
ODE2-11010-1H012	1Ø, 115V	3Ø, 230V	1.0HP	4.3	1
ODE2-21015-1H042	1Ø, 115V	3Ø, 230V	1.5HP	5.8	2
ODE2-12005-1H012	1Ø, 230V	3Ø, 230V	0.5HP	2.3	1
ODE2-12010-1H012	1Ø, 230V	3Ø, 230V	1HP	4.3	1
ODE2-12020-1H012	1Ø, 230V	3Ø, 230V	2HP	7	1
ODE2-22020-1H042	1Ø, 230V	3Ø, 230V	2HP	7	2
ODE2-22030-1H042	1Ø, 230V	3Ø, 230V	3HP	10.5	2
ODE2-32050-3H042	3Ø, 230V	3Ø, 230V	5HP	18	3
ODE2-14010-3H012	3Ø, 460V	3Ø, 460V	1HP	2.2	1
ODE2-14020-3H012	3Ø, 460V	3Ø, 460V	2HP	4.1	1
ODE2-24020-3H042	3Ø, 460V	3Ø, 460V	2HP	4.1	2
ODE2-24030-3H042	3Ø, 460V	3Ø, 460V	3HP	5.8	2
ODE2-24050-3H042	3Ø, 460V	3Ø, 460V	5HP	9.5	2
ODE2-34075-3H042	3Ø, 460V	3Ø, 460V	7.5HP	14	3
ODE2-34100-3H042	3Ø, 460V	3Ø, 460V	10HP	18	3
ODE2-34150-3H042	3Ø, 460V	3Ø, 460V	15HP	24	3

#### DIMENSIONS & WEIGHT

Size	Height	Width	Depth	Weight
1	6.8" (173mm)	3.3" (82mm)	4.9" (123mm)	2.5lbs (1.1kg)
2	8.7" (221mm)	4.1" (104mm)	5.9" (150mm)	5.9lbs (2.6kg)
3	10.3" (261mm)	5.2" (131mm)	6.9" (175mm)	9lbs (4.0kg)



## NEMA 12 / IP55 DRIVES

**Switched** version with keypad, display, speed pot, forward/off/reverse switch & power isolator switch

**Unswitched** version with keypad & display



#### For harsh & dirty environments

- 40°C ambient temperature
- Conduit cable entry
- Padlockable power switch
- Wash down duty
- ModbusRTU port
- Compact packaging
- All standard drive features included
- Brake standard on sizes 2 & 3
- Optional internal Ethernet size 2 & 3
- Optional internal **drive.web** sizes 2 & 3

## NEMA 12 / IP55 DRIVES

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
ODE2-12020-1H01#	1Ø, 230V	3Ø, 230V	2HP	7	1
ODE2-22020-1H04#	1Ø, 230V	3Ø, 230V	2HP	7	2
ODE2-22030-1H04#	1Ø, 230V	3Ø, 230V	3HP	10.5	2
ODE2-32050-3H04#	3Ø, 230V	3Ø, 230V	5HP	18	3
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

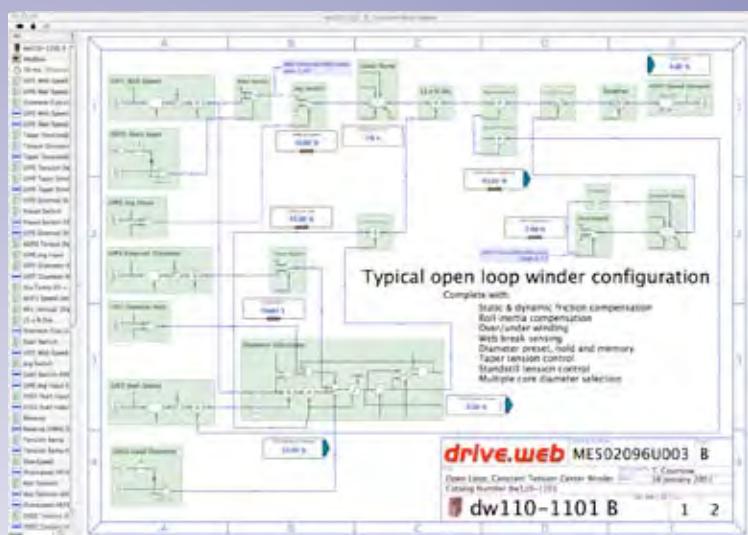
Size	Height	Width	Depth	Weight
1	7.9" (200mm)	5.5" (140mm)	6.4" (162mm)	5.4lbs (2.4kg)
2	12.2" (310mm)	6.5" (164mm)	6.9" (176mm)	10.3lbs (4.6kg)
3	12.2" (310mm)	8.3" (211mm)	9.6" (243mm)	16.6lbs (7.4kg)

# THE SMARTER E2

The **dw213 smarty** programmable system integrator is cost effective for systems of any size or complexity. It has a plug and play interface to the E2 and other drives and provides easy peer-to-peer networking over Ethernet without the need for a PLC. Key features include:

- 16 additional flexible analog/logic, plug in i/o
- 10/100baseTX Ethernet
- Peer-to-peer networking
- Programmable control with arithmetic, logic, etc.
- Internet access
- **savvy** intuitive, graphical system design software
- Powerful system navigation tools
- Optional ModbusTCP/IP (slave) interface
- Optional encoder input
- Optional process control function block library
- Optional winder control function block library
- Optional advanced math function block library
- Optional encoder/registration function block library
- Optional high voltage input isolation
- Optional on board storage of signal flow diagram

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**drive technology**

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