Invertek Drives.com

# OPTIDRIVE™ E3

AC Variable Speed Drive

**General Purpose Drive**
Easy control for all motor types

**Easy to Use**

0.37kW – 37kW / 0.5HP – 50HP
**110–480V** Single & 3 Phase Input

**IP20** **IP66**

# OPTIDRIVE™ E3

## Easy to Use

### General Purpose Drive

Focused on ease of use, **Optidrive E3** provides unrivalled simplicity of installation, connection and commissioning, allowing the user to benefit from precise motor control and energy savings within minutes.

**Simple Commissioning**

With just 14 basic parameters and application macro functions providing rapid set up, Optidrive E3 minimises start-up time.

**Intuitive Keypad Control**

Precise digital control at the touch of a button.

**Application Macros**

Switch between **Industrial**, **Pump** & **Fan** modes to optimise Optidrive E3 for your application.

Industrial | Pump | Fan

*See* **Page 6**

## IP20

### Up to 37kW

- ✓ Easy to use
- ✓ Compact & robust

*See* **Page 4**

### Take a closer look at the stunning Optidrive E3

**www.invertekdrives.com**/optidrive-e3

### Sensorless Vector Control for all Motor Types

**IM**
IE2 & IE3 Induction Motors

**PM**
AC Permanent Magnet Motors

**BLDC**
Brushless DC Motors

**SynRM**
Synchronous Reluctance Motors

Precise and reliable control for
**IE2, IE3 & IE4 motors**

# IP66

## Up to 22kW

- ✓ Outdoor rated
- ✓ Dust-tight
- ✓ Washdown ready

*See* **Page 5**

## Key Features

- ✓ Internal Category C1 EMC filter
- ✓ Internal PI control
- ✓ Internal brake chopper
- ✓ Dual analogue inputs
- ✓ Operates up to 50°C
- ✓ Bluetooth® connectivity
- ✓ Option for control of single phase motors (*see* **Page 8**)

**Modbus** *RTU*
**CAN**

on-board as standard

## Internal Category C1 EMC Filter

An internal filter in every Optidrive E3 saves cost and time for installation.

Cat C1 according to EN61800-3:2004

# OPTIDRIVE™ E3

**IP20** Up to 37kW

## Compact, robust and reliable general purpose drive for panel mounting

**Fast Connection**
5mm rising clamp terminals with captive screws

**Quick Reference**
Integrated help card

**Modbus RTU**
**CAN**
on-board as standard

**Optistick Smart**
Rapid commissioning tool
*See* **Page 10**

**Simple Installation**
DIN rail and keyhole mounting options

Power supply connects at top

Operates up to 50°C

Dual analogue inputs

Motor supply connects at base

### Incredibly Easy to Use

- ✓ Built in PI control, EMC filter (C1) & brake chopper
- ✓ Application macros for industrial, fan and pump operation
- ✓ Bluetooth® connectivity

### Controls Multiple Motor Types

- ✓ IE2, 3 & 4
- ✓ IM, PM, BLDC and SynRM

5 sizes cover global supply ratings

### Simply Power Up

Optidrive E3 provides precise motor control and energy savings using the factory settings. Simply power up and the drive can immediately deliver energy savings.

14 basic parameters allow simple adjustment for your application if required, with up to 50 parameters available in total for a highly flexible performance.

# OPTIDRIVE™ E3

## IP66 Outdoor

**Up to 22kW**

### Coated Heatsink as Standard

Ideal for hygiene based operations requiring washdown — such as food and beverage

## Outdoor rated enclosed drives for direct machine mounting, dust tight and ready for washdown duty

Switched or non-switched

### Locally customisable

Flat front to terminal cover with mounting points for switches and an internal PCB.

Conformal coating as standard

1. **2 x RJ45 ports** eliminate the need for a splitter.
2. **Easily accessible EMC disconnect**
3. **Easy to wire** due to the large, accessible chamber and removeable gland plate.

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### IP66/Nema 4X outdoor rated

Built with tough polycarbonate plastics specifically chosen to withstand degredation by ultra violet (UV), greases, oils and acids. Also robust enough not to be brittle at -20°C.

### Dust-Tight Design

Install directly on your processing equipment and be sure of protection from dust and contaminants.

### Washdown Ready

With a sealed ABS enclosure and corrosion resistant heatsink, the Optidrive E3 IP66 is ideal for high-pressure washdown applications.

### Switched models

Simply wire up the drive, turn the inbuilt potentiometer and the motor will start running – allowing immediate energy savings.

Saving energy cannot be easier than this!

For ultimate ease of use

Local Speed Potentiometer

Run Reverse / Off / Run Forward Switch

Lockable Mains Disconnect / Isolator

# Application Macros

Switch modes at the touch of a button to optimise Optidrive E3 for your application

Single parameter application macro selection

## Industrial Mode

**Industrial Mode** optimises Optidrive E3 for load characteristics of typical industrial applications.

**Applications include:**

- Conveyors
- Mixers
- Treadmills

**Sensorless Vector** provides high starting torque and excellent speed regulation

**IP20** panel mount units or
**IP66** for direct machine mounting

Rapid parameter cloning using **OPTISTICK** Smart

## Pump Mode

**Pump Mode** makes energy efficient pump control easier than ever.

**Applications include:**

- Dosing Pumps
- Borehole Pumps
- Transfer Pumps
- Swimming Pools
- Spas
- Fountains

- Constant or variable torque
- Internal PI control

## Fan Mode

**Fan Mode** (inc. fire operation) makes air handling a breeze, ideal for simple HVAC systems.

**Applications include:**

- Air Handling Units
- Ventilation Fans
- Circulating Fans
- Air Curtains
- Kitchen Extract

- High efficiency **variable torque** motor control
- Flying start capability
- Mains loss ride through
- PI control

### Instant Power Savings

The graph below shows the incredible efficiency of Optidrive E3 for controlling airflow compared to traditional damper control methods.

**Modbus** RTU
**CAN**

on-board as standard

## How much energy could you save?

Estimate potential energy savings, $CO_2$ emissions and financial savings for your application with the Invertek Drives **Energy Savings Calculator** app.

Download on the App Store

GET IT ON Google Play

**www.invertekdrives.com**/calculator

# OPTIDRIVE™ E3

Invertek Drives.com

| | kW | HP | Amps | Frame | Model Code (Product Family, Generation, Frame Size, Voltage Code, Output Current x 10, Supply Phases, EMC Filter, Brake Transistor, Enclosure Option) |
|---|---|---|---|---|---|
| 110–115V ± 10% 1 Phase Input | 0.37 | 0.5 | 2.3 | 1 | ODE - 3 - 1 1 0023 - 1 0 1 # |
| | 0.75 | 1 | 4.3 | 1 | ODE - 3 - 1 1 0043 - 1 0 1 # |
| | 1.1 | 1.5 | 5.8 | 2 | ODE - 3 - 2 1 0058 - 1 0 4 # |
| 200–240V ± 10% 1 Phase Input | 0.37 | 0.5 | 2.3 | 1 | ODE - 3 - 1 2 0023 - 1 # 1 # |
| | 0.75 | 1 | 4.3 | 1 | ODE - 3 - 1 2 0043 - 1 # 1 # |
| | 1.5 | 2 | 7 | 1 | ODE - 3 - 1 2 0070 - 1 # 1 # |
| | 1.5 | 2 | 7 | 2 | ODE - 3 - 2 2 0070 - 1 # 4 # |
| | 2.2 | 3 | 10.5 | 2 | ODE - 3 - 2 2 0105 - 1 # 4 # |
| | 4 | 5 | 15.3 | 3 | ODE - 3 - 3 2 0153 - 1 0 4 # |
| 200–240V ± 10% 3 Phase Input | 0.37 | 0.5 | 2.3 | 1 | ODE - 3 - 1 2 0023 - 3 0 1 # |
| | 0.75 | 1 | 4.3 | 1 | ODE - 3 - 1 2 0043 - 3 0 1 # |
| | 1.5 | 2 | 7 | 1 | ODE - 3 - 1 2 0070 - 3 0 1 # |
| | 1.5 | 2 | 7 | 2 | ODE - 3 - 2 2 0070 - 3 # 4 # |
| | 2.2 | 3 | 10.5 | 2 | ODE - 3 - 2 2 0105 - 3 # 4 # |
| | 4 | 5 | 18 | 3 | ODE - 3 - 3 2 0180 - 3 # 4 # |
| | 5.5 | 7.5 | 24 | 3 | ODE - 3 - 3 2 0240 - 3 # 4 # |
| | 7.5 | 10 | 30 | 4 | ODE - 3 - 4 2 0300 - 3 # 4 # |
| | 11 | 15 | 46 | 4 | ODE - 3 - 4 2 0460 - 3 # 4 # |
| | 15 | 20 | 61 | 5 | ODE - 3 - 5 2 0610 - 3 F 4 2 |
| | 18.5 | 25 | 72 | 5 | ODE - 3 - 5 2 0720 - 3 F 4 2 |
| 380–480V ± 10% 3 Phase Input | 0.75 | 1 | 2.2 | 1 | ODE - 3 - 1 4 0022 - 3 # 1 # |
| | 1.5 | 2 | 4.1 | 1 | ODE - 3 - 1 4 0041 - 3 # 1 # |
| | 1.5 | 2 | 4.1 | 2 | ODE - 3 - 2 4 0041 - 3 # 4 # |
| | 2.2 | 3 | 5.8 | 2 | ODE - 3 - 2 4 0058 - 3 # 4 # |
| | 4 | 5 | 9.5 | 2 | ODE - 3 - 2 4 0095 - 3 # 4 # |
| | 5.5 | 7.5 | 14 | 3 | ODE - 3 - 3 4 0140 - 3 # 4 # |
| | 7.5 | 10 | 18 | 3 | ODE - 3 - 3 4 0180 - 3 # 4 # |
| | 11 | 15 | 24 | 3 | ODE - 3 - 3 4 0240 - 3 # 4 # |
| | 15 | 20 | 30 | 4 | ODE - 3 - 4 4 0300 - 3 # 4 # |
| | 18.5 | 25 | 39 | 4 | ODE - 3 - 4 4 0390 - 3 # 4 # |
| | 22 | 30 | 46 | 4 | ODE - 3 - 4 4 0460 - 3 # 4 # |
| | 30 | 40 | 61 | 5 | ODE - 3 - 5 4 0610 - 3 F 4 2 |
| | 37 | 50 | 72 | 5 | ODE - 3 - 5 4 0720 - 3 F 4 2 |

**Replace #** in model code with colour-coded option

## Enclosure Types

**A**
**IP66 Outdoor Use**
Non-switched

**B**
**IP66 Outdoor Use**
Switched

**2**
**IP20**

## EMC Filter

**F** Internal EMC Filter

**0** No Internal EMC Filter

**IP20**

| | Size | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| mm | Height | 173 | 221 | 261 | 420 | 486 |
| mm | Width | 83 | 110 | 131 | 171 | 222 |
| mm | Depth | 123 | 150 | 175 | 212 | 226 |
| kg | Weight | 1.0 | 1.7 | 3.2 | 9.1 | 18.1 |
| | Fixings | 4xM5 | 4xM5 | 4xM5 | 4xM8 | 4xM8 |

**IP66**

| | Size | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| mm | Height | 232 | 257 | 310 | 360 |
| mm | Width | 161 | 188 | 210.5 | 240 |
| mm | Depth | 162 | 182 | 238 | 275 |
| kg | Weight | 2.5 | 3.5 | 7.0 | 9.5 |
| | Fixings | 4xM4 | 4xM4 | 4xM4 | 4xM4 |

## Drive Specification

| | | |
|---|---|---|
| Input Ratings | Supply Voltage | 110 – 115V ± 10%<br>200 – 240V ± 10%<br>380 – 480V ± 10% |
| | Supply Frequency | 48 – 62Hz |
| | Displacement Power Factor | > 0.98 |
| | Phase Imbalance | 3% Maximum allowed |
| | Inrush Current | < rated current |
| | Power Cycles | 120 per hour maximum, evenly spaced |
| Output Ratings | Output Power | 110V 1 Ph Input: 0.5–1.5HP (230V 3 Ph Output)<br>230V 1 Ph Input: 0.37–4kW (0.5–5HP)<br>230V 3 Ph Input: 0.37–11kW (0.5–15HP)<br>400V 3 Ph Input: 0.75–22kW<br>460V 3 Ph Input: 1–30HP |
| | Overload Capacity | 150% for 60 Seconds<br>175% for 2.5 seconds |
| | Output Frequency | 0 – 500Hz, 0.1Hz resolution |
| | Acceleration Time | 0.01 – 600 seconds |
| | Deceleration Time | 0.01 – 600 seconds |
| | Typical Efficiency | > 98% |
| Ambient Conditions | Temperature | Storage: –40 to 60°C<br>Operating: –20 to 50°C |
| | Altitude | Up to 1000m ASL without derating<br>Up to 2000m maximum UL approved<br>Up to 4000m maximum (non UL) |
| | Humidity | 95% Max, non condensing |
| | Vibration | Conforms to EN61800-5-1 |
| Enclosure | Ingress Protection | IP20, IP66 |

| | | | |
|---|---|---|---|
| Programming | Keypad | | Built-in keypad as standard<br>Optional remote mountable keypad |
| | Display | | 7 Segment LED |
| | PC | | OptiTools Studio |
| Control Specification | Control Method | | Sensorless Vector Speed Control<br>PM Vector Control<br>BLDC Control<br>Synchronous Reluctance |
| | PWM Frequency | | 4–32kHz Effective |
| | Stopping Mode | | Ramp to stop: User Adjustable 0.1–600 secs<br>Coast to stop |
| | Braking | | Motor Flux Braking<br>Built-in braking transistor (not frame size 1) |
| | Skip Frequency | | Single point, user adjustable |
| | Setpoint Control | Analog Signal | 0 to 10 Volts<br>10 to 0 Volts<br>0 to 20mA<br>20 to 0mA<br>4 to 20mA<br>20 to 4mA |
| | | Digital | Motorised Potentiometer (Keypad)<br>Modbus RTU<br>CANopen<br>EtherNet/IP |
| Fieldbus | Built-in | CANopen | 125–1000 kbps |
| | | Modbus RTU | 9.6–115.2 kbps selectable |

| | | |
|---|---|---|
| I/O Specification | Power Supply | 24 Volt DC, 100mA, Short Circuit Protected<br>10 Volt DC, 10mA for Potentiometer |
| | Programmable Inputs | 4 Total<br>2 Digital<br>2 Analog / Digital selectable |
| | Digital Inputs | 8 – 30 Volt DC, internal or external supply<br>Response time < 4ms |
| | Analog Inputs | Resolution: 12 bits<br>Response time: < 4ms<br>Accuracy: ± 2% full scale<br>Parameter adjustable scaling and offset |
| | Programmable Outputs | 2 Total<br>1 Analog / Digital<br>1 Relay |
| | Relay Outputs | Maximum Voltage: 250 VAC, 30 VDC<br>Switching Current Capacity: 6A AC, 5A DC |
| | Analog Outputs | 0 to 10 Volt |
| Application Features | PI Control | Internal PI Controller<br>Standby / Sleep Function |
| | Fire Mode | Bidirectional<br>Selectable Speed Setpoint (Fixed / PI / Analog / Fieldbus) |
| Maintenance & Diagnostics | Fault Memory | Last 4 Trips stored with time stamp |
| | Data Logging | Logging of data prior to trip for diagnostic purposes:<br>Output Current<br>Drive Temperature<br>DC Bus Voltage |
| | Monitoring | Hours Run Meter |
| Standards Compliance | Low Voltage Directive | Adjustable speed electrical power drive systems. EMC requirements |
| | EMC Directive | 2014/30/EU<br>Cat C1 according to EN61800-3:2004 |
| | Machinery Directive | 2006/42/EC |
| | Conformance | CE, UL, RCM |

# OPTIDRIVE™ E3

For Single Phase Motors

**IP20** **IP66**

**Up to 1.1kW**

## Single Phase Motor Control for PSC & Shaded-Pole Motors

### Key Features

- ✓ 110–115V and 200–240V models
- ✓ Small mechanical envelope
- ✓ Rugged industrial operation
- ✓ Fast setup, and simple operation with 14 basic parameters
- ✓ Unique motor control strategy optimised for single phase motors
- ✓ Motor current and rpm indication
- ✓ Built in PI control, EMC filter (C1) & brake chopper
- ✓ Application macros for industrial, fan and pump operation
- ✓ Bluetooth® connectivity

**Modbus RTU**
**CAN**

on-board as standard

150% overload for 60 secs (175% for 2 secs)

### Dedicated to Single Phase Motor Control

Designed to be cost effective and easy to use, the Optidrive E3 for Single Phase Motors is for use with PSC (Permanent Split Capacitor) or Shaded-Pole Single Phase induction motors.

Optidrive E3 for Single Phase Motors uses a revolutionary motor control strategy to achieve reliable intelligent starting of single phase motors.

- Removes the need for 3 phase supply wiring
- Provides the same performance features as the 3 phase Optidrive E3
- The ideal energy saving solution where high starting torque is not required — typically including fans, blowers, centrifugal pumps, fume extractors and air flow controllers

### Special Boost Phase

To ensure reliable starting of single phase motors, the drive initially ramps the motor voltage up to rated voltage whilst maintaining a fixed starting frequency, before reducing the frequency and voltage to the desired operating point.

# OPTIDRIVE™ E3

For Single Phase Motors

| | kW | HP | Amps | Size | Model Code (Product Family, Generation, Frame Size, Voltage Code, Capacity, Supply Phases, EMC Filter, Brake Transistor, Enclosure Type, Single Phase Output) |
|---|---|---|---|---|---|
| 110–115V ± 10% 1 Phase Input | 0.37 | 0.5 | 7 | 1 | ODE - 3 - 1 1 0070 - 1 # 1 # - 01 |
| | 0.55 | 0.75 | 10.5 | 2 | ODE - 3 - 2 1 0105 - 1 # 4 # - 01 |
| 200–240V ± 10% 1 Phase Input | 0.37 | 0.5 | 4.3 | 1 | ODE - 3 - 1 2 0043 - 1 # 1 # - 01 |
| | 0.75 | 1 | 7 | 1 | ODE - 3 - 1 2 0070 - 1 # 1 # - 01 |
| | 1.1 | 1.5 | 10.5 | 2 | ODE - 3 - 2 2 0105 - 1 # 4 # - 01 |

**Replace #** in model code with colour-coded option

## Model Code Guide:

ODE-3-120043-3F12-01

- Product Family
- Generation
- Frame Size
- Voltage Code: 110–115V = 1, 200–240V = 2, 380–480V = 4
- Capacity
- Supply Phases: Single Phase = 1, 3 Phase = 3
- EMC Filter: Internal EMC Filter = F, No Internal EMC Filter = 0
- Brake Transistor: No Internal Brake Transistor = 1, Internal Brake Transistor = 4
- Enclosure Type: IP20 = 2, IP66 Outdoor use Non-switched = A, IP66 Outdoor use Switched = B
- Single Phase Output

## Enclosure Types

**A**
**IP66 Outdoor Use** Non-switched

**B**
**IP66 Outdoor Use** Switched

**2**
**IP20**

## EMC Filter

| | |
|---|---|
| F | Internal EMC Filter |
| 0 | No Internal EMC Filter |

**IP20**

| | Size | 1 | 2 |
|---|---|---|---|
| mm | Height | 173 | 221 |
| mm | Width | 83 | 110 |
| mm | Depth | 123 | 150 |
| kg | Weight | 1.0 | 1.7 |
| | Fixings | 4xM5 | 4xM5 |

**IP66**

| | Size | 1 | 2 |
|---|---|---|---|
| mm | Height | 232 | 257 |
| mm | Width | 161 | 188 |
| mm | Depth | 162 | 182 |
| kg | Weight | 2.5 | 3.5 |
| | Fixings | 4xM4 | 4xM4 |

## Drive Specification

| | | |
|---|---|---|
| Input Ratings | Supply Voltage | 110 – 115V ± 10%<br>200 – 240V ± 10% |
| | Supply Frequency | 48 – 62Hz |
| | Displacement Power Factor | > 0.98 |
| | Phase Imbalance | 3% Maximum allowed |
| | Inrush Current | < rated current |
| | Power Cycles | 120 per hour maximum, evenly spaced |
| Output Ratings | Output Power | 110V 1 Ph Input: 0.5–0.75HP<br>230V 1 Ph Input: 0.37–1.1kW (0.5–1.5HP) |
| | Overload Capacity | 150% for 60 Seconds<br>175% for 2.5 seconds |
| | Output Frequency | 0 – 500Hz, 0.1Hz resolution |
| | Acceleration Time | 0.01 – 600 seconds |
| | Deceleration Time | 0.01 – 600 seconds |
| | Typical Efficiency | > 98% |
| Ambient Conditions | Temperature | Storage: –40 to 60°C<br>Operating: –20 to 50°C |
| | Altitude | Up to 1000m ASL without derating<br>Up to 2000m maximum UL approved<br>Up to 4000m maximum (non UL) |
| | Humidity | 95% Max, non condensing |
| | Vibration | Conforms to EN61800-5-1 |
| Enclosure | Ingress Protection | IP20, IP66 |
| Programming | Keypad | Built-in keypad as standard<br>Optional remote mountable keypad |
| | Display | 7 Segment LED |
| | PC | OptiTools Studio |

| | | | |
|---|---|---|---|
| Control Specification | Control Method | V/F Voltage<br>Energy Optimsied V/F | |
| | PWM Frequency | 4–32kHz Effective | |
| | Stopping Mode | Ramp to stop: User Adjustable 0.1–600 secs<br>Coast to stop | |
| | Braking | Motor Flux Braking<br>Built-in braking transistor (frame size 2) | |
| | Skip Frequency | Single point, user adjustable | |
| | Setpoint Control | Analog Signal | 0 to 10 Volts<br>10 to 0 Volts<br>0 to 20mA<br>20 to 0mA<br>4 to 20mA<br>20 to 4mA |
| | | Digital | Motorised Potentiometer (Keypad)<br>Modbus RTU<br>CANopen<br>EtherNet/IP |
| Fieldbus | Built-in | CANopen | 125–1000 kbps |
| | | Modbus RTU | 9.6–115.2 kbps selectable |
| I/O Specification | Power Supply | 24 Volt DC, 100mA, Short Circuit Protected<br>10 Volt DC, 10mA for Potentiometer | |
| | Programmable Inputs | 4 Total<br>2 Digital<br>2 Analog / Digital selectable | |
| | Digital Inputs | 8 – 30 Volt DC, internal or external supply<br>Response time < 4ms | |
| | Analog Inputs | Resolution: 12 bits<br>Response time: < 4ms<br>Accuracy: ± 2% full scale<br>Parameter adjustable scaling and offset | |
| | Programmable Outputs | 2 Total<br>1 Analog / Digital<br>1 Relay | |
| | Relay Outputs | Maximum Voltage: 250 VAC, 30 VDC<br>Switching Current Capacity: 6A AC, 5A DC | |
| | Analog Outputs | 0 to 10 Volt | |

| | | |
|---|---|---|
| Application Features | PI Control | Internal PI Controller<br>Standby / Sleep Function |
| | Fire Mode | Selectable Speed Setpoint (Fixed / PI / Analog / Fieldbus) |
| Maintenance & Diagnostics | Fault Memory | Last 4 Trips stored with time stamp |
| | Data Logging | Logging of data prior to trip for diagnostic purposes:<br>Output Current<br>Drive Temperature<br>DC Bus Voltage |
| | Monitoring | Hours Run Meter |
| Standards Compliance | Low Voltage Directive | Adjustable speed electrical power drive systems. EMC requirements |
| | EMC Directive | 2014/30/EU<br>230V 1Ph. Filtered Units : Cat C1 according to EN61800-3:2004 |
| | Machinery Directive | 2006/42/EC |
| | Conformance | CE, UL, RCM |

# Options & Accessories

## Optistick Smart

### Optistick Smart **OPT-3-STICK-IN**

Rapid Commissioning Tool

- Allows copying, backup and restore of drive parameters
- Provides Bluetooth interface to a PC running OptiTools Studio or the OptiTools Mobile app on a smartphone
- Onboard NFC (Near Field Communication) for rapid data transfer

## Remote Keypads

### Optipad **OPT-3-OPPAD-IN**

Remote Keypad & TFT Display

### Optiport 2 **OPT-2-OPORT-IN**

Remote Keypad & LED Display

## RJ45 Accessories

Ideal for simple and fast connection of Modbus RTU/CAN networks

| | |
|---|---|
| **OPT-J4505-IN** | RJ45 Cable 0.5m |
| **OPT-J4510-IN** | RJ45 Cable 1.0m |
| **OPT-J4530-IN** | RJ45 Cable 3.0m |
| **OPT-J45SP-IN** | RS485 3 Way Data Cable Splitter RJ45 |

## EtherNet Module

### EtherNet Module **OPT-2-ETHEG-IN**

- ODVA compliant EtherNet/IP Modbus Translator Device
- Compatible with all drive platforms: P2, E3 & Eco
- Integrated network switch: simplifying network architecture
- Compatible with RSLogix and CoDeSys PLCs

## External EMC Filters, Input Chokes & Output Filters are available

*See* **www.invertekdrives.com** for details

## OptiTools Studio

Drive commissioning and parameter backup

- Real-time parameter editing
- Drive network communication
- Parameter upload, download and storage
- Simple PLC function programming
- Real-time scope function and data logging
- Real-time data monitoring

**Compatible with:**
Windows Vista & Windows 7, Windows 8, Windows 8.1 & Windows 10

# Proven Worldwide in Low Power Applications

Chain wax development for Team Sky cycling team

**Muc-Off, UK**

Cooling loop for solar energy research

**Solar Tech Lab, Italy**

Chilled water pump control predicted to save AED 12385 per year

**Al Jahili Fort, UAE**

Business-critical climate control for commercial horticulturist

**Hatziminas Flowers, Greece**

Efficient water circulation gives energy savings of 60% per annum

**Leisure World, Australia**

Pallet handling in **UK**

Olive oil decanting in **Greece**

Seed processing in **Netherlands**

Pizza making in **Belgium**

Chamfering machines in **Italy**

Machine tool OEM in **UK**

Chemical fume removal in **Singapore**

Sawmill optimisation in **UK**

Precision polishing in **Switzerland**

*See* **www.invertekdrives.com**/solutions for full case studies

# OPTIDRIVE™ E3

Invertek Drives.com

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## Optidrive E3

### Low Power Applications

Dedicated to low power applications, Optidrive E3 combines innovative technology, reliability, robustness and ease of use in a range of compact IP20 & IP66 enclosures.

### Simple Commissioning

14 parameter basic setup. Default settings suitable for most applications. Contactor style connection for simple wiring.

### Optidrive E3 IP66

Environmentally protected, IP66 rated models can be mounted directly on your processing equipment.

**IP66** / NEMA 4X

### Washdown Ready

With a sealed ABS enclosure and corrosion resistant heatsink, Optidrive E3 IP66 models are ideal for high-pressure washdown applications.

### On-drive Control

IP66 models feature optional, convenient controls for speed control, REV/OFF/FWD and Power ON/OFF, complete with safety lock.

### Single Phase Motor Control

Optidrive E3 for Single Phase Motors provides accurate speed control of single phase PSC or shaded pole motors. Special boost phase ensures reliable starting, initially ramping the motor voltage up to rated voltage whilst maintaining a fixed starting frequency, before reducing the frequency and voltage to the desired operating point.

## About Invertek Drives

- **Sales, service & application support in over 80 countries**
- **World-class production, innovation & training facilities at UK headquarters**
- **Global assembly cells controlled by cloud-based manufacturing database**
- **ISO 14001 environmental & ISO 9001 quality management systems**

www.invertekdrives.com/optidrive-e3

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