INVERTEK DRIVES
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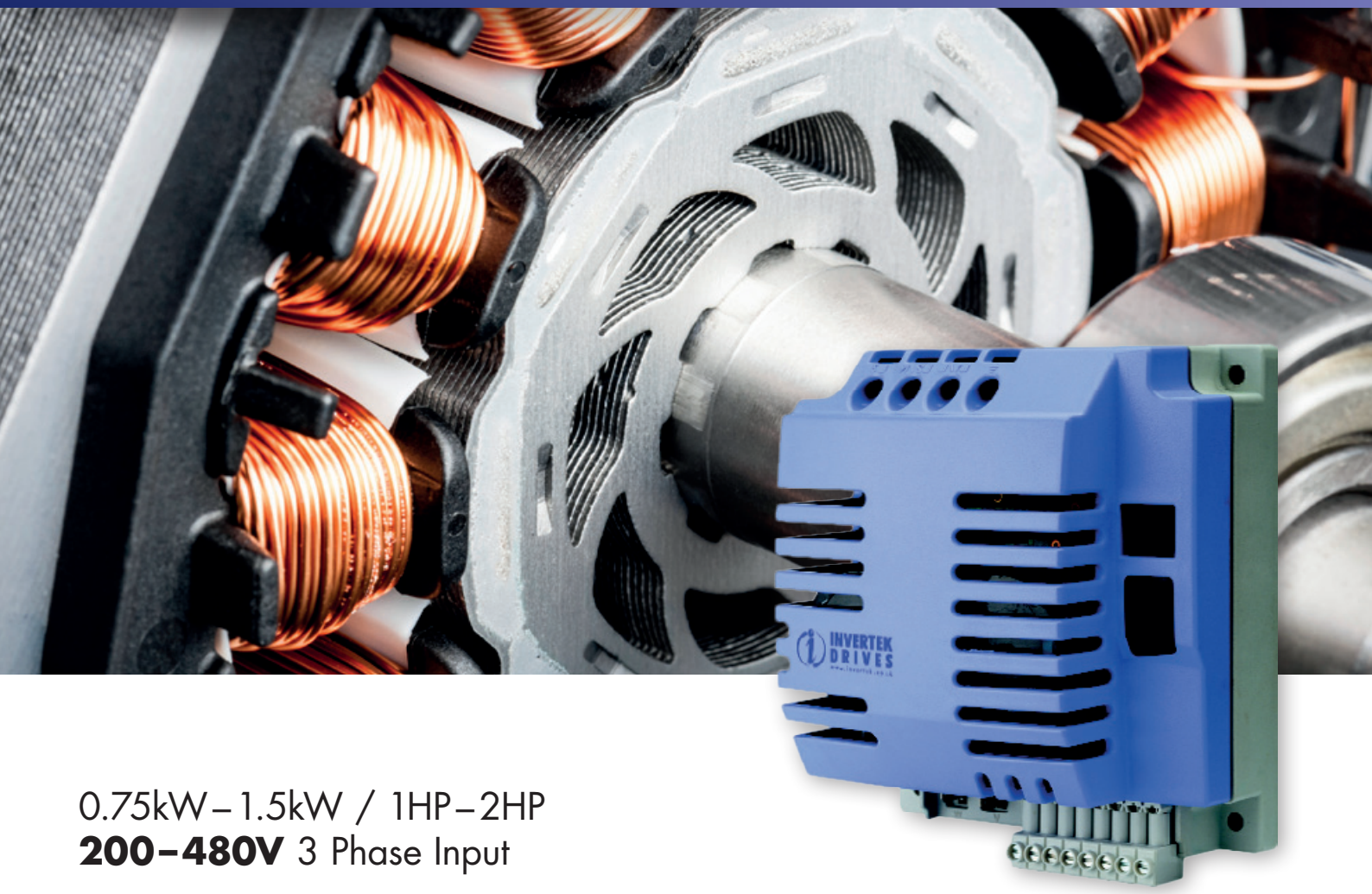
# OPTIDRIVE™ PLUS 3GV
## COMPACT

## Dedicated OEM Drive
For efficient integration into systems




0.75kW – 1.5kW / 1HP – 2HP
**200–480V** 3 Phase Input

# OPTIDRIVE™ PLUS 3GV COMPACT

Dedicated OEM Drive

## Optidrive Compact

The Optidrive Plus 3GV Compact is a revolutionary variable speed drive designed for OEM users who require a simple module in a compact package which can be easily and efficiently integrated into an overall system.

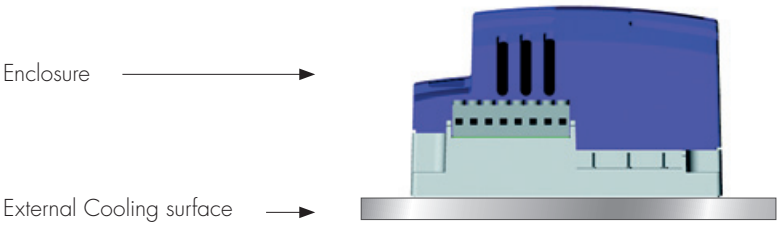
Utilising the very latest technology and manufacturing techniques, the Optidrive Plus 3GV Compact offers unrivalled durability and performance. The mechanical design has been specifically designed to allow the OEM to mount the unit simply on any metallic surface allowing efficient heat sinking for optimum ease of installation.

The inverter specification is based on the successful Optidrive Plus 3GV range and offers the same class leading open loop vector high performance motor control, providing optimum control of motor speed and torque. Commissioning can be carried out using the optional Optiport Plus remote keypad and display, or using Invertek's software package commissioning can be carried out using the optional Optiport Plus remote keypad or using Optistore V3 PC software via an optional USB communications interface.

Pluggable terminals are fitted for control connections, to ease wiring, whilst an onboard 24 volt DC power supply can be used for external control circuits. The Optidrive Plus 3GV Compact can optionally be supplied with an internal RFI filter, to allow compliance with the latest directives where required.

## Designed for compact enclosures

Unique design enables the drive to be mounted into small enclosures transferring heat through the rear face for dissipation



Control terminals
1. 24V out
2. Digital input 1
3. Digital input 2
4. Analog input 1
5. Analog input 2
6. 0V
7. Relay output
8. Relay output

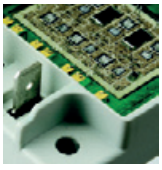
## Key Features and Benefits

- Lightweight, compact 'Cool Plate' design for easy OEM integration
- Extremely robust with high vibration resistance
- Full open loop vector motor control for optimum motor performance in demanding applications
- Excellent thermal management
- Pluggable control terminals
- Fast-on power terminals

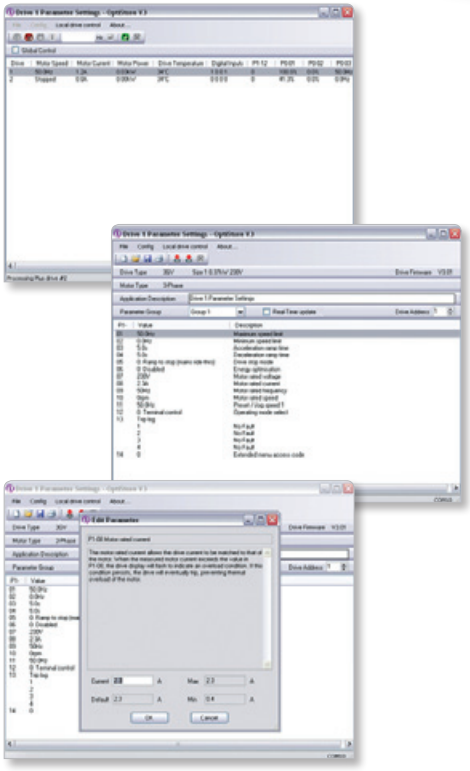
Power Input Terminals

Control Connections

RJ11 Connector



Mounting holes in corners.
(4.3mm diameter, 2.5Nm Max)



## Optistore V3

Optistore V3 is a Windows application program for PC's, allowing quick and accurate communication with Optidrives for parameter management, network monitoring & firmware upgrades.

### Key Benefits

- Plug and go, simple and easy PC control
- Individual drive or drive network management including monitoring and control
- PC based data storage and file management
- Parameter set transfer to or from Optidrives.
- File management: naming, storing, printing, emailing etc.
- Parameter export facility allows the user to insert parameter settings in other programs e.g. Microsoft WORD (*.rtf or *.txt formats)

# OPTIDRIVE™ PLUS 3GV COMPACT

| | kW | HP | Amps | Size | kW Model Code | HP Model Code |
|---|---|---|---|---|---|---|
| 200 – 240 Volts, 1 Phase Input | 0.75 | 1 | 4.3 | 1 | OPC - 1 - 1 2 075 - 1 K # 1 2 | N/A |
| | 1.5 | 2 | 7 | 1 | OPC - 1 - 1 2 150 - 1 K # 1 2 | N/A |
| 380 – 480 Volts, 3 Phase Input | 0.75 | 1 | 2.2 | 1 | OPC - 1 - 1 4 075 - 3 K # 1 2 | N/A |
| | 1.5 | 2 | 4.1 | 1 | OPC - 1 - 1 4 150 - 3 K # 1 2 | N/A |

Product Range · Generation · Frame Size · Supply Voltage · Power Rating · Input Phases · Power Type · Factory Build Options

**kW Models: Factory Settings**
Motor Rated Frequency: 50Hz
Motor Rated Voltage: 400V

**HP Models: Factory Settings**
Motor Rated Frequency: 60Hz
Motor Rated Voltage: 460V

## Factory Build Options

EMC Filter: Low Voltage Filter, High Voltage Filter, No EMC Filter
Brake Transistor: No Internal Brake Transistor
Enclosure: IP20

| | | | | |
|---|---|---|---|---|
| B | 0 | 1 | 2 |
| B | 0 | 1 | 2 |
| A | 0 | 1 | 2 |
| A | 0 | 1 | 2 |

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

## Model Code Guide

OPC-1-12075-1K#12

- Product Family: OPC
- Generation: 1
- Frame Size: 2
- Supply Voltage: 110-115V = 1, 200-240V = 2, 380-480V = 4
- Power Rating Code: 075, 150
- Input Phases: Single Phase = 1, 3 Phase = 3
- Power Type: kW = K, HP = H
- EMC Filter: 400 Volt EMC Filter = A, 200 Volt EMC Filter = B, No Internal EMC Filter = 0
- Brake Transistor: No Internal Brake Transistor = 1
- Enclosure: IP20 = 2

## Drive Specification

| | | |
|---|---|---|
| Input Ratings | Supply Voltage | 200 – 240V ± 10%<br>380 – 480V ± 10% |
| | Supply Frequency | 48 – 62Hz |
| Output Ratings | Output Power | 0.75KW & 1.5KW |
| | Overload Capacity | 150% for 60 seconds, 175% for 2 seconds |
| | Output Frequency | 0 – 500Hz, 0.1Hz resolution |
| Ambient Conditions | Temperature | Operating : – 10 to 60°C |
| | Altitude | 0 to 2000m, derate 1% per 100m above 1000m |
| | Ingress Protection | IP00 |
| Programming | Keypad | Optional remote mountable keypad |
| | PC | Optistore V3 |
| Control Specification | Control Method | V/F Voltage Vector<br>3GV Sensorless Vector |
| | V/Hz ratio | Linear (1 adjustment point) |
| | Boost | Automatic after autotune |
| | Stopping Mode | Coast / Ramp / DC Brake |
| | Skip Frequency | Single point, user adjustable |
| | Frequency Setpoint Control | 0 to 10 VDC, ± 10 VDC, 0 to 24 VDC 4 to 20mA, 0 to 20mA, Digital - Keyboard, RS485 (Master Slave) |
| | Pre-set speeds | 8 |
| | PID Control | Yes |
| | Spin Start | Yes |
| | Acceleration | 0 to 3000 Sec |
| | Deceleration | (2 ramps) 0 to 3000 Sec |

| | | |
|---|---|---|
| I/O Programming | Input 1 | Programmable Digital Input |
| | Input 2 | Programmable Digital Input |
| | Input 3 | Programmable Digital / Analog input |
| | Input 4 | Programmable Bipolar Analog / Digital Input |
| | Relay 1 | 1 Relay Output (30 VDC 5A, 250 VAC, 6A) |
| Keyboard Display | Remote mount | Optional Optiport Plus remote mounting keypad |
| Protective Functions | Inverter Trip | Over voltage, Over current, Under voltage, External trip, Motor overload Over temperature, Short circuited Earth Fault, Under Voltage |
| | Memory | Last 4 Trips stored |
| Additional Features Standards | | Built in Master - Slave Operation Mode PID 'Sleep' Mode Energy Optimising Function |
| Standards Compliance | EN 61800-3:2004 | Adjustable speed electrical power drive systems. EMC requirements. |

**Optidrive Compact User Guide**

Scan to download or visit the Invertek Drives website

## Call Invertek Drives

+44 (0)1938 556868

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

**INVERTEK DRIVES LIMITED** UK HEAD OFFICE
Offa's Dyke Business Park, Welshpool, Powys. UK SY21 8JF
**Tel:** +44 (0)1938 556868 **Fax:** +44 (0)1938 556869 **Email:** sales@invertekdrives.com

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