Invertek Drives.com

OPTIDRIVE™

Stock Drives Catalogue

Variable Speed Drives
& Accessories

Invertek Drives.com

UK Headquarters, Welshpool

Invertek Drives

Invertek Drives is dedicated to the design and manufacture of sophisticated electronic variable speed drives, used to control motors in a wide variety of industrial and energy saving applications.

The Organisation

State of the art UK headquarters house specialist facilities for innovation, manufacturing and global marketing.

The company pledges to implement and operate the ISO 14001 Environmental Management System to enhance environmental performance.

All operations, including innovation, are accredited to the exacting customer focused ISO 9001 quality standard.

The company's products are sold globally by a network of specialist distributors in over 80 different countries. Invertek Drives' unique and innovative Optidrive range is designed for ease of use and meets recognised international design standards for CE (Europe), UL (USA) and RCM (Australia).

Innovative Products

- Easy to use variable speed drives
- Incredible performance
- Robust & reliable
- Low cost of installation & ownership
- Wide power range
  0.37–250kW, 115V–600V

Company Overview

Online Support | Pre-sales Support | Customer Service | Technical Support | Knowledge Management | Field Service | Logistics & Distribution | Spare Parts & Repair | Service Contracts | International Support

- Conveyors
- HVAC
- Machine Tools

- Manufacturing
- Pumping
- Process Control

- Elevators
- Cranes

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AC Variable Speed Drive

0.75 – 250kW / 1 – 400HP
200 – 600V Single & 3 Phase Input

Energy Efficient
Fan & Pump Control

- AC Induction (IM) Motors
- AC Permanent Magnet (PM) Motors
- Brushless DC (BLDC) Motors
- Synchronous Reluctance (SynRM) Motors

Multi Language Text Display

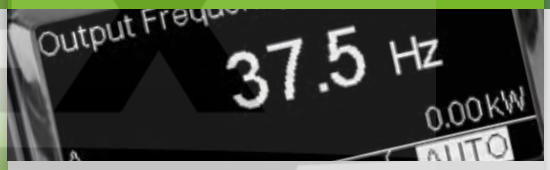
OPTIFLOW™ Multiple Pump Control

BACnet® MS/TP built-in as standard

Internal EMC Filter

Fire Mode

Key Features



- ECO Vector Motor Control
- Energy Optimised Design
- Internal EMC Filter
- Low Noise Operation

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

IP20 / NEMA 1

IP55 / NEMA 12

IP66 / NEMA 4X

Save Energy

Accurate speed control of fans and pumps provides the most energy efficient control method

Energy optimisation function minimises energy usage in real time under partial load conditions

Sleep & wake functions ensure operation only when required

Save Money

Advanced on-board features remove the need for peripheral equipment

Intelligent maintenance interval timing allows programmable maintenance reminders, avoiding costly downtime

Automatic load monitoring provides an early warning of potential faults, such as belt failures or blocked filters

Save Time

Built in keypad and OLED text display provides intuitive operation

Simple parameter structure with carefully selected default values reduce commissioning time

Practical design allows easy access to power and control terminals without specialist tools

Fire Override Mode

Fire override mode ignores signals and alarms, keeping the drive operating for as long as possible.

This feature is crucial for ensuring smoke extraction from buildings in the event of a fire.

Selectable Normally Open or Normally Closed logic means that the Optidrive Eco can be easily configured to the signal produced by your fire management system.

With an independently set speed for fire mode operation, selectable as either forward or reverse direction, the Optidrive Eco has the flexibility to match the needs of your fire control system.

Improved Fan Efficiency

Unique Eco Vector Sensorless Control

Optidrive Eco uses advanced motor control, designed to provide the most energy efficient motor control possible. Operation with standard IM Motors, Permanent Magnet or Synchronous Reluctance motors is possible, all without requiring any feedback device or optional modules – simply change parameters to suit the connected motor, autotune and operate!

Eco Vector continuously adjusts in real time to provide the most efficient operating conditions for the load, typically reducing energy consumption by 2 – 3% compared to standard AC drives – providing similar long term costs savings to selecting a higher efficiency motor.

Energy Optimised Design

Optidrive Eco up to frame size 5 are designed with film capacitors, replacing the traditional electrolytic capacitors used in the DC link. Film capacitors have lower losses, and also remove the need for AC, DC or swinging chokes, improving overall drive efficiency. Efficiency is improved by up to 4% compared to standard AC drives, whilst also reducing supply current total harmonic distortion (iTHD), improving the Real Power Factor and reducing total input current, leading to cost savings on installation through reduced cable and fuse ratings and smaller supply transformer rating.

PID Control

Optidrive Eco has a PID controller built in that is fully integrated with both HVAC and energy efficient features and is packaged in a user friendly way to ensure ease of use and fast commissioning.

Energy Efficient Pump Control

OPTIFLOW™

Co-ordinated pump station control, built into each drive as standard, allows independent control of multiple pump applications.

- All pumps operate as variable speed for maximum energy saving.
- Equal run time sharing across every pump.
- Automatic system reconfiguration in the event of a pump fault (including the master pump).
- Continued system operation when drives are individually powered off (including the master drive).
- Communication and +24V control voltage shared between drives via a standard RJ45 patch lead.
- Independent maintenance indicators for each pump.
- Any pump can be switched to Hand operation a the touch of a button, and will automatically rejoin the network when switched back to Auto.
- For waste water applications each pump can be set for blockage/ragging detection and activate an automatic de-ragging/pump cleaning cycle.
- Optional mains isolator with lock-off for safe pump maintenance.
- Optiflow function configured through simple parameter set-up and intelligent drive self configuration.

See OPTIFLOW™ in action

Scan to watch the video or visit
http://youtu.be/9QQ89bQYdfs

Pump Efficiency

In-built Sleep Mode with Auto-boost

Sleep mode saves energy by detecting when a pump is running inefficiently and producing little useful work. Optidrive Eco can be programmed to enter into a sleep/disabled mode until the demand increases. To help prevent sleep mode oscillation, Optidrive Eco can automatically initiate a boost cycle to increase pressure on starting or stopping.

Drive Controlled Bypass

Intelligent features within the Optidrive Eco allow a bypass circuit to be implemented. Activation of Bypass mode can be determined intelligently by the Optidrive Eco drive based on a command from the building management system. The drive can be set to automatically select bypass mode when entering into a trip condition ensuring minimal disruption to service.

Avoid Pump Downtime

Blockage Detect/Clear

Optidrive Eco can detect potential pump blockages in real time and trigger a programmed cleaning cycle to automatically clear them, preventing downtime.

Pump Clean/Stir Cycle

Triggered by a settable period of inactivity, a configurable cleaning cycle can be run to clear sediment, ensuring the pump is ready to run when needed.

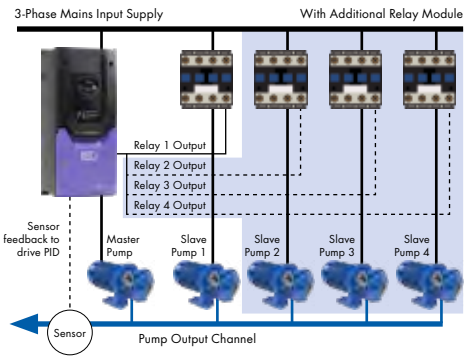
Dry Run Protection

Optidrive Eco can evaluate a pump's speed/power and shut it off or warn when the pump starts to run dry, protecting it from heat/friction damage.

Motor Preheat Function

Optidrive Eco features a motor preheat function to help ensure moisture is not permitted to collect on the motor in periods of inactivity and prior to motor start up. In addition, the motor preheat function can be used to keep condensation from developing on the motor as the motor cools down immediately following a stop. The feature is fully configurable, meaning the pump can be always available the instant it is required.

Cascade Control Pump Staging



Variable speed duty pump with up to 4 assist pumps

Optidrive Eco can provide automatic operating time monitoring and balancing for assist pumps to share duty cycle. Run time clocks for all fixed speed assist pumps are maintained and visible within the Optidrive Eco for integration into the pump system maintenance schedules.

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Replace # in model code with enclosure/display option

	kW	HP	Amps	Frame Size	Model Code	IP20 Cabinet Mount	IP55 TFT Display	Indoor IP66 Non Switched	Indoor IP66 with Disconnect	Outdoor IP66 Non Switched	Outdoor IP66 with Disconnect
200–240V ± 10% 1 Phase Input	0.75	1	4.3	2	ODV - 3 - 2 2 0043 - 1 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	1.5	2	7	2	ODV - 3 - 2 2 0070 - 1 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	2.2	3	10.5	2	ODV - 3 - 2 2 0105 - 1 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
200–240V ± 10% 3 Phase Input	0.75	1	4.3	2	ODV - 3 - 2 2 0043 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	1.5	2	7	2	ODV - 3 - 2 2 0070 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	2.2	3	10.5	2	ODV - 3 - 2 2 0105 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	4	5	18	3	ODV - 3 - 3 2 0180 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	5.5	7.5	24	3	ODV - 3 - 3 2 0240 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	7.5	10	30	3	ODV - 3 - 3 2 0300 - 3 F 1 #					A-MN	E-MN
	7.5	10	30	4	ODV - 3 - 4 2 0300 - 3 F 1 #	2-MN	N-MN				
	11	15	46	4	ODV - 3 - 4 2 0460 - 3 F 1 #	2-MN	N-MN			A-MN	E-MN
	15	20	61	5	ODV - 3 - 5 2 0610 - 3 F 1 #	2-MN	N-MN				
	18.5	25	72	5	ODV - 3 - 5 2 0720 - 3 F 1 #	2-MN	N-MN				
	22	30	90	5	ODV - 3 - 5 2 0900 - 3 F 1 #	2-MN	N-MN				
	30	40	110	6	ODV - 3 - 6 2 1100 - 3 F 1 #		N-MN				
	30	40	110	6A	ODV - 3 - 6 2 1100 - 3 F 1 #	2-MN					
	37	50	150	6	ODV - 3 - 6 2 1500 - 3 F 1 #		N-MN				
	37	50	150	6A	ODV - 3 - 6 2 1500 - 3 F 1 #	2-MN					
	45	60	180	6	ODV - 3 - 6 2 1800 - 3 F 1 #		N-MN				
	45	60	180	6B	ODV - 3 - 6 2 1800 - 3 F 1 #	2-MN					
	55	75	202	7	ODV - 3 - 7 2 2020 - 3 F 1 #		N-MN				
	75	100	248	7	ODV - 3 - 7 2 2480 - 3 F 1 #		N-MN				
380–480V ± 10% 3 Phase Input	0.75	1	2.2	2	ODV - 3 - 2 4 0022 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	1.5	2	4.1	2	ODV - 3 - 2 4 0041 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	2.2	3	5.8	2	ODV - 3 - 2 4 0058 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	4	5	9.5	2	ODV - 3 - 2 4 0095 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	5.5	7.5	14	2	ODV - 3 - 2 4 0140 - 3 F 1 #					A-MN	E-MN
	5.5	7.5	14	3	ODV - 3 - 3 4 0140 - 3 F 1 #	2-MN		X-TN	D-TN		
	7.5	10	18	3	ODV - 3 - 3 4 0180 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	11	15	24	3	ODV - 3 - 3 4 0240 - 3 F 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	15	20	30	3	ODV - 3 - 3 4 0300 - 3 F 1 #					A-MN	E-MN
	15	20	30	4	ODV - 3 - 4 4 0300 - 3 F 1 #	2-MN	N-MN				
	18.5	25	39	4	ODV - 3 - 4 4 0390 - 3 F 1 #	2-MN	N-MN			A-MN	E-MN
	22	30	46	4	ODV - 3 - 4 4 0460 - 3 F 1 #	2-MN	N-MN			A-MN	E-MN
	30	40	61	5	ODV - 3 - 5 4 0610 - 3 F 1 #	2-MN	N-MN				
	37	50	72	5	ODV - 3 - 5 4 0720 - 3 F 1 #	2-MN	N-MN				
	45	60	90	5	ODV - 3 - 5 4 0900 - 3 F 1 #	2-MN	N-MN				
	55	75	110	6	ODV - 3 - 6 4 1100 - 3 F 1 #		N-MN				
	55	75	110	6A	ODV - 3 - 6 4 1100 - 3 F 1 #	2-MN					
	75	100	150	6	ODV - 3 - 6 4 1500 - 3 F 1 #		N-MN				
	75	100	150	6A	ODV - 3 - 6 4 1500 - 3 F 1 #	2-MN					
	90	150	180	6	ODV - 3 - 6 4 1800 - 3 F 1 #		N-MN				
	90	150	180	6B	ODV - 3 - 6 4 1800 - 3 F 1 #	2-MN					
	110	175	202	6B	ODV - 3 - 6 4 2020 - 3 F 1 #	2-MN					
	110	175	202	7	ODV - 3 - 7 4 2020 - 3 F 1 #		N-MN				
	132	200	240	7	ODV - 3 - 7 4 2400 - 3 F 1 #		N-MN				
	160	250	302	7	ODV - 3 - 7 4 3020 - 3 F 1 #		N-MN				
	200	300	370	8	ODV - 3 - 8 4 3700 - 3 # 1 #	2-MN	N-MN				
	250	400	480	8	ODV - 3 - 8 4 4800 - 3 # 1 #	2-MN	N-MN				
500–600V ± 10% 3 Phase Input	0.75	1	2.1	2	ODV - 3 - 2 6 0021 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	1.5	2	3.1	2	ODV - 3 - 2 6 0031 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	2.2	3	4.1	2	ODV - 3 - 2 6 0041 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	4	5	6.5	2	ODV - 3 - 2 6 0065 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	5.5	7.5	9	2	ODV - 3 - 2 6 0090 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	7.5	10	12	3	ODV - 3 - 3 6 0120 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	11	15	17	3	ODV - 3 - 3 6 0170 - 3 0 1 #	2-MN		X-TN	D-TN	A-MN	E-MN
	15	20	22	3	ODV - 3 - 3 6 0220 - 3 0 1 #	2-MN				A-MN	E-MN
	15	20	22	4	ODV - 3 - 4 6 0220 - 3 0 1 #		N-MN				
	18.5	25	28	4	ODV - 3 - 4 6 0280 - 3 0 1 #	2-MN	N-MN			A-MN	E-MN
	22	30	34	4	ODV - 3 - 4 6 0340 - 3 0 1 #	2-MN	N-MN			A-MN	E-MN
	30	40	43	4	ODV - 3 - 4 6 0430 - 3 0 1 #	2-MN	N-MN			A-MN	E-MN
	37	50	54	5	ODV - 3 - 5 6 0540 - 3 0 1 #	2-MN	N-MN				
	45	60	65	5	ODV - 3 - 5 6 0650 - 3 0 1 #	2-MN	N-MN				
	55	75	78	6	ODV - 3 - 6 6 0780 - 3 0 1 #		N-MN				
	75	100	105	6	ODV - 3 - 6 6 1050 - 3 0 1 #		N-MN				
	90	125	130	6	ODV - 3 - 6 6 1300 - 3 0 1 #		N-MN				
	110	150	150	6	ODV - 3 - 6 6 1500 - 3 0 1 #		N-MN				

EMC Filter

0	No Internal EMC Filter
F	Internal EMC Filter
R	High Performance EMC Filter

Drive Specification

Input Ratings	Supply Voltage	200 – 240V ± 10% 380 – 480V ± 10% 500 – 600V ± 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	230V 1Ph. Input: 0.75–2.2kW (1–3HP) 230V 3Ph. Input: 0.75–75kW (1–100HP) 400V 3Ph. Input: 0.75–250kW 460V 3Ph. Input: 1–400HP 575V 3Ph. Input: 0.75–110kW (1–150HP)
	Overload Capacity	110% for 60 seconds 150% for 15 seconds
	Output Frequency	0 – 250Hz, 0.1Hz resolution
	Typical Efficiency	> 98%
Ambient Conditions	Temperature	Storage: –40 to 60°C Operating: –10 to 50°C
	Altitude	Up to 1000m ASL without derating Up to 2000m maximum UL approved Up to 4000m maximum (non UL)
	Humidity	95% Max, non condensing
	Vibration	Conforms to EN61800-5-1 2007, IEC 60068-2-6
Enclosure	Ingress Protection	IP20, IP55, IP66
Programming	Keypad	Built-in keypad as standard Optional remote mountable keypad
	Display	Built-in multi language text display
	PC	OptiTools Studio
Control Specification	Control Method	Eco Sensorless Vector Open Loop Permanent Magnet Vector Open Loop BLDC Vector Open Loop Synchronous Reluctance Vector
	PWM Frequency	4 – 32kHz Effective
	Stopping Mode	Ramp to stop: User Adjustable 0.1–600 secs Coast to stop
	Braking	AC Flux Braking
	Skip Frequency	Single point, user adjustable
	Setpoint Control	Analog Signal: 0 to 10 Volts / 10 to 0 Volts –10 Volts to +10 Volts 0 to 20mA / 20 to 0mA 4 to 20mA / 20 to 4mA
		Digital: Motorised Potentiometer (Keypad) Modbus RTU BACnet MS/TP
Fieldbus Connectivity	Built-in	BACnet MS/TP: BACnet Application Specific Controller 9.6 - 76.8 kbps selectable Data Format: 8N1, 8N2, 8O1, 8E1
		Modbus RTU: 9.6 - 115.2 kbps selectable Data Format: 8N1, 8N2, 8O1, 8E1
	Optional	BACnet/IP: Plug-in BACnet/IP interface Dual LAN ports Device Level Ring
		Other: PROFIBUS DP (DPV1) PROFINET IO DeviceNet EtherNet/IP EtherCAT Modbus TCP

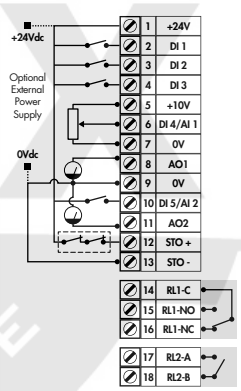
I/O Specification	Power Supply	24 Volt DC, 100mA, Short Circuit Protected 10 Volt DC, 10mA for Potentiometer
	Programmable Inputs	5 Total as standard (optional additional 3) 3 Digital (optional additional 3) 2 Analog / Digital selectable
	Digital Inputs	Opto - Isolated 8 – 30 Volt DC, internal or external supply Response time < 4ms
	Analog Inputs	Resolution: 12 bits Response time: < 4ms Accuracy: < 1% full scale Parameter adjustable scaling and offset
	PTC Input	Motor PTC / Thermistor Input Trip Level : 2.5Ω
	Programmable Outputs	2 Total 1 Analog / Digital 1 Relay
	Relay Outputs	Maximum Voltage: 250 VAC, 30 VDC Switching Current Capacity: 5A
	Analog Outputs	0 to 10 Volts / 10 to 0 Volts 0 to 20mA / 20 to 0mA 4 to 20mA / 20 to 4mA
Application Features	PID Control	Internal PID Controller Multi-setpoint Select Standby / Sleep Mode Boost Function
	Fire Mode	Bidirectional Selectable Speed Setpoint (Fixed / PID / Analog / Fieldbus)
	Load Monitoring	High Current Protection (Fan / Bump Blocked) Low Current Protection (Broken Belt / Shaft) Pump Blockage Detection with Cleaning
	Duty / Assist / Standby	Built-in Multi-Pump Support Autotmatic Changeover on Fault Automatic Changeover on Time Fully Redundant
Pump Control Features	Pump Blockage Detection	Pump load monitoring with autotune function, user configurable
	Pump Cleaning	Adjustable Bi-directional Pump Cleaning Cycle operation
	Multi-Pump Control	Control of fixed speed assist pumps (with cascade control module) Control of Duty, Assist and Standby variable speed pumps via internal Master – Slave network
	Pump Stir	Automatic pump stir to prevent sediment build-up
Maintenance & Diagnostics	Fault Memory	Last 4 Trips stored with time stamp
	Data Logging	Logging of data prior to trip for diagnostic purposes : Output Current Drive Temperature DC Bus Voltage
	Maintenance Indicator	Maintenance Indicator with user adjustable maintenance interval Onboard service life monitoring
	Monitoring	Hours Run Meter Resettable & Non-Resettable kWh meters Cooling Fan Run Time
Standards Compliance	Low Voltage Directive	2014/35/EU
	EMC Directive	2014/30/EU
	Additional Conformance	UL, cUL, EAC, RCM
	Harmonic Currents	IEC61000-3-12
	Environmental Conditions	Designed to meet IEC 60721-3-3, in operation: IP20 Drives: 3S2/3C2 IP55 & 66 Drives: 3S3/3C3

Model Code Guide

ODV-3-340140-3F1#-#N

- Product Family
- Generation
- Frame Size
- 200–240V = 2, 380–480V = 4, 500–600V = 6 | Voltage Code
- Output Rating
- Supply Phases
- No Internal EMC Filter = 0, Internal EMC Filter = F, High Performance EMC Filter = R | EMC Filter
- No Brake Transistor = 1 | Brake Transistor
- IP20 = 2, IP55 = N, Indoor IP66 Non-switched = X, Indoor IP66 with Disconnect = D, Outdoor IP66 Non-switched = A, Outdoor IP66 with Disconnect = E | Enclosure
- OLED = T, TFT = M | Display
- Standard Coating = N | PCB Coating

Connection Diagram



Function	Default Setting
24 Volt DC Output, 100mA max / 24 Volt DC Input	
Digital Input 1	Drive Enable
Digital Input 2	Analog/Preset Speed 1 Select
Digital Input 3	Local/Remote Reference Select
+10 Volt Power Supply 5mA	
Analog Input 1	Local Speed Reference
0 Volt	
Analog Output 1	Motor Speed
0 Volt	
Analog Input 2	Remote Speed Reference
Analog Output 2	Motor Current
Safe Torque Off Input	
Safe Torque Off Input	
Output Relay 1	Drive Healthy / Fault
Output Relay 2	Drive Running

NOT TO SCALE

	Size	IP20 2	IP20 3	IP20 4	IP20 5	IP20 6A	IP20 6B	IP20 8	IP66 2	IP66 3	IP66 4	IP55 4	IP55 5	IP55 6	IP55 7	IP55 8
mm	Height	221	261	418	486	614	726	974	257	310	360	450	540	865	1280	1334
mm	Width	110	131	172	233	286	330	444	188	211	240	171	235	330	330	444
mm	Depth	185	205	240	260	320	320	423	182	235	271	252	270	332	358	423
kg	Weight	1.8	3.5	9.2	18.1	32	43	124.5	3.5	6.6	9.5	11.5	23	55	89	TBC

POWER PRECISION CONTROL

THE NEW SIZE 8 RANGE

Now available in Optidrive P2 and Optidrive Eco ranges, combining the innovative features of these products with the ability to control motors rated up to 480 Amps.

It is available as IP20 for control cabinet mounting and as IP55 for direct mounting.

OPTIDRIVE™ Size 8
Up to 250kW / 400HP
380 – 480V

Invertek Drives.com

www.invertekdrives.com

OPTIDRIVE™ Size 8

200 – 250kW / 300 – 400HP
380 – 480V

High Power Drive Module

Optidrive Frame Size 8 extends the power rating capacity of Optidrive P2 and Optidrive Eco products up to 250kW / 400HP.

Combining all the features of the standard products, and providing the ability to control motors with rated current up to 480Amps, Frame Size 8 is available in an IP20 enclosure suitable for control cabinet mounting.

Frame Size 8 comes with a built in EMC Filter to meet Category C3 with an option to upgrade to a High Performance EMC Filter that meets Category C2. The drive also has a built in choke as standard.

A new IP55 enclosure is also available and is designed for direct plant/control room mounting.

CP2 OPTIDRIVE™

	kW	HP	Amps	kW Model Code	HP Model Code
380–480V ± 10% 3 Phase Input	200	300	370	ODP - 2 - 8 4 200 - 3 K # 4 #	ODP - 2 - 8 4 300 - 3 H # 4 #
	250	400	480	ODP - 2 - 8 4 250 - 3 K # 4 #	ODP - 2 - 8 4 400 - 3 H # 4 #

kW Model Code: Product Family | Generation | Frame Size | Voltage Code | Power Rating Code | Supply Phases | Power Type | EMC Filter | Brake Transistor

HP Model Code: Product Family | Generation | Frame Size | Voltage Code | Power Rating Code | Supply Phases | Power Type | EMC Filter | Brake Transistor

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	kW	HP	Amps	Model Code
380–480V ± 10% 3 Phase Input	200	300	370	ODV - 3 - 8 4 3700 - 3 # 1 #
	250	400	480	ODV - 3 - 8 4 4800 - 3 # 1 #

Model Code: Product Family | Generation | Frame Size | Voltage Code | Capacity | Supply Phases | EMC Filter | 1 Quadrant | Enclosure Type

# Enclosure	
2-MN	IP20 with TFT display
N-MN	IP55 with TFT display

# EMC Filter	
0	No Internal EMC Filter
F	Internal EMC Filter
R	High Performance EMC Filter

Options Include

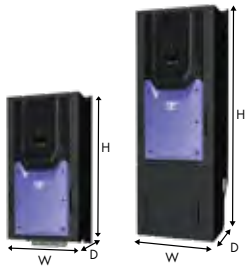
OPT-2-L31500-00	Frame Size 8 AC Line Choke 500A, 1%
OPT-2-M3500-00	Frame Size 8 Output Choke 500A
OPT-2-L3500-00	Frame Size 8 AC Line Choke 500A, 4%
OPT-2-E3500-00	Frame Size 8 EMC Filter

Size 8 Drive Specification

Input Ratings	Supply Voltage	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	400V 3Ph. Input: 200 & 250kW 460V 3Ph. Input: 300 & 400HP
	Overload Capacity	P2: 150% for 60 seconds Eco: 110% for 60 seconds
	Output Frequency	0 – 120Hz, 0.1Hz resolution
	Typical Efficiency	> 97%

Ambient Conditions	Temperature	Storage: –40 to 60°C Operating: –10 to 50°C
	Altitude	Up to 1000m ASL without derating Up to 4000m maximum
	Humidity	95% Max, non condensing
Enclosure	Ingress Protection	IP20 / IP55
Programming	Keypad	Built-in keypad as standard Optional remote mountable keypad
	Display	Built-in multi language TFT display
	PC	OptiTools Studio
Standards Compliance	Low Voltage Directive	2014/35/EU
	EMC Directive	2014/30/EU
	Additional Conformance	UL, cUL, EAC, RCM, DNV
	Harmonic Currents	Eco: IEC61000-3-12

Dimensions



Enclosure		IP20	IP55
mm	Height	974	1334
mm	Width	444	444
mm	Depth	423	423
kg	Weight	124.5	TBC