



**EUROTHERM  
DRIVES**

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# **506/507/508**

## **Product Manual**

HA389427 Issue 7

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## WARRANTY

Eurotherm Drives warrants the goods against defects in design, materials and workmanship

for the period of 12 months from the date of delivery on the terms detailed in Eurotherm Drives Standard Conditions of Sale IA058393C.

Eurotherm Drives reserves the right to change the content and product specification without notice.

# Safety Information



## Requirements

**IMPORTANT:** Please read this information BEFORE installing the equipment.

### Intended Users

This manual is to be made available to all persons who are required to install, configure or service equipment described herein, or any other associated operation.

The information given is intended to highlight safety issues, and to enable the user to obtain maximum benefit from the equipment.

Complete the following table for future reference detailing how the unit is to be installed and used.

INSTALLATION DETAILS	
Serial Number (see product label)	
Where installed (for your own information)	
Unit used as a: (refer to Certification for the 506/507/508)	<input type="checkbox"/> Component <input type="checkbox"/> Relevant Apparatus
Unit fitted:	<input type="checkbox"/> Wall-mounted <input type="checkbox"/> Enclosure

### Application Area

The equipment described is intended for industrial motor speed control.

### Personnel

Installation, operation and maintenance of the equipment should be carried out by qualified personnel. A qualified person is someone who is technically competent and familiar with all safety information and established safety practices; with the installation process, operation and maintenance of this equipment; and with all the hazards involved.

# Safety Information



## Hazards

### WARNING!

This equipment can endanger life through rotating machinery and high voltages. Failure to observe the following will constitute an ELECTRICAL SHOCK HAZARD.

These controllers are non-isolated products, both control and power circuitry are at mains potential. External control equipment should be used which provides adequate protection for the user against electric shock hazard.

- The equipment must be **permanently earthed** due to the high earth leakage current.
- Before working on the equipment or filter ensure isolation of the mains supply from terminals L1 and L2.
- The drive motor must be connected to an appropriate safety earth.
- The EMC filter equipment contains high value capacitors which take time to discharge after removal of the mains supply. Wait for at least 3 minutes before working on the filter.
- Never perform high voltage resistance checks on the wiring without first disconnecting the drive from the circuit being tested.
- When replacing a drive in an application and before returning to use, it is essential that all user defined parameters for the product's operation are correctly installed.
- This equipment contains electrostatic discharge (ESD) sensitive parts. Observe static control precautions when handling, installing and servicing this product.

**IMPORTANT:** Metal parts may reach a temperature of 90 degrees centigrade in operation.

### Application Risk

The specifications, processes and circuitry described herein are for guidance only and may need to be adapted to the user's specific application.

Eurotherm Drives does not guarantee the suitability of the equipment described in this Manual for individual applications.

# Safety Information



## Risk Assessment

Under fault conditions, power loss or other operating conditions not intended, the equipment may not operate as specified. In particular:

- The motor speed may not be controlled
- The direction of rotation of the motor may not be controlled
- The motor may be energised

## Guards

The user must provide guarding and /or additional safety systems to prevent risk of injury and electric shock.

**Note:** *Thermal sensors contained within the motor must be double insulated.*

- All exposed metalwork in the units are protected by basic insulation and bonding to a safety earth.

## RCDs

These are not recommended for use with this product but, where their use is mandatory, only Type B RCDs should be used.

## Signal and Control Terminals

This is a non isolated product. The signal plus control connections are not isolated from the AC supply.

## Filter

- AC Supply filters produce earth (ground leakage currents in excess of 3.5mA).
- AC Supply filters contain capacitors, allow at least 1 minute before servicing.
- AC Supply filters should be permanently earthed (grounded), use the second Protective Ground terminal as an independent earth (ground).
- Eurotherm Drives do not recommend the use of RCDs. Special RCDs (type B-IEC755) are required due to AC and DC components flowing in the earth (ground) leakage current. All loads requiring protection with an RCD would be at risk.



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