

Chapter 7 Installation Information

Before connecting AC supply to this equipment.

1. Ensure good airflow over heatsink. Maintain clearance above and below controller to 70mm.
2. Operating temperature range 0 to + 40°C.
3. Protect from airborne pollutants.
4. Avoid vibration.

MOTOR

1. Ensure motor is mechanically secure and mounted according to manufacturers specifications and practice.
2. Ensure that motor is connected for 220/240V 3-phase operation.
3. Check obstructions in motor vents to maintain cooling air path.
4. Auxiliary cooling must be provided for motor if constant torque is required and low speed operation is possible, see motor manufacturers derating specification.
5. Ensure motor is free to rotate and that pulleys and couplings are correctly aligned.
6. Ensure transit damage has not occurred to motor windings or connections. Disconnect the controller before carrying out electrical measurements e.g., insulation resistance.

WIRING

1. For EMC installation refer to the section “EMC and the CE Mark”.
2. For information on the wiring of the controllers refer to:-
 - a) 582 - HJ057820
 - b) 583 - HJ058055
 - c) 5831 - HJ385002

A general purpose diagram of momentary start/stop is given in diagram HJ385167.

3. Control cabling 0.75 sq.mm. minimum.
4. Power cable to be minimum 300V AC rated at 1.1 x controller current.
5. HRC fuses or circuit breakers of the correct rating are recommended for incoming supply protection.
6. Isolated control wiring should not be run close to the power cabling. If screened cables are used (recommended on setpoints and meters) connect screens to earth only at controller end.
7. Eurotherm Drives supply fuse assemblies which can be bulkhead mounted and also act as convenient supply isolators. For fuse part numbers refer to Electrical Specification on page 2-1. If preferred circuit breakers of appropriate rating may also be used as an alternative to fuses.
8. A cable assembly Eurotherm Drives reference LA056140 is required when connecting the 582 to the 5801 Brake Unit. The cable assembly consists of an insulation displacement connector and a twisted pair of red and black cable. The insulation displacement connector fits into the socket SK1 on the 582 and the red and black cable end connect to the 5801. The red cable connects to D+, the black cable to D-.

SPECIAL CONSIDERATIONS FOR UL COMPLIANCE

1. Power Cabling to be rated at 1.25 x controller current.
2. An external running motor overload protective device must be provided by the installer. This device may be:-
 - i) A motor thermistor monitoring motor temperature.
 - ii) A thermal overload monitoring motor current.
 - iii) Any device which is considered adequate by the installer or local inspector to comply with the National Electric Code and/or local code requirements.
3. Where a protective ground terminal is provided as indicated by the IEC grounding symbol, the controller should be grounded via a cable of suitable rating as defined by the National Electric Code.
4. Class T Branch Circuit fuses rated at 20A for 1.1 and 1.5kW controllers and 30A for 2.2kW controllers must be provided by the installer.
5. 583 Products are suitable for use on a circuit capable of delivering not more than 5000 RMS symmetrical amperes, 240 volts maximum.