

Every electric motor having a rating exceeding 0.37 kW shall be provided with control equipment incorporating means of protection against over load of the motor. Installation of 1-phase motors rated up to 3.7 KW (5HP) and 3-phase motors up to 110 KW (150 HP) only shall normally be permitted unless otherwise approved by DEWA. Where a large number of motors above 150 HP are proposed, the advice of DEWA shall be sought on availing a bulk supply.

All electric motors shall be adequately protected against overload, short circuit, earth leakage and additionally, against loss of one or more phases, voltage fluctuations, etc. as deemed essential to suit individual applications.

Starters shall be provided with overload relays of the thermal type with automatic compensations for variation in ambient temperature between 2.8 °C and 48 °C.

The starting equipment to limit the current may consist of any of the following type of device or other approved by DEWA.

- a) Adjustable speed drive
- b) Intelligent controllers

All motors shall be provided with an isolator, for isolating the motor from the supply during periods of inspection or maintenance. Such means of isolation shall effectively interrupt the supply on all phases. The isolator may be integral with the control gear or separate, but shall be in close proximity to the motor. An emergency stop pushbuttons shall be incorporated in the control gear.

When motor starting gear is energised from an auxiliary circuit, the circuit shall also be isolated during maintenance.

All starters, isolators and pushbuttons shall be clearly marked in Arabic and English stating which machine they control and their function. To avoid confusion, the words 'START' and 'STOP' and not 'OPEN' and 'CLOSED' shall be used.

Motors and their control gear shall be located in well ventilated areas with adequate space for operation, inspection and maintenance.

4.6.11 **Stand-by Generators**

Installation and connection of standby generators in the consumer's installation, for the purpose of maintaining power supply under mains failure conditions, shall be permitted only with prior approval from DEWA.