

		Document Code:	Design Specification:	
		ED-P-02.01-04	HIGH VOLTAGE ELECTRIC INDUCTION MOTORS (IEC 60034)	
Engineer Division	Technical Department	ELECTRICITY		SEPTEMBER 2017
				Page 5 of 27

1.5. Measurement units

The measurement units to be used shall be the International System (SI), or the Anglo-saxon system of units, to be established at the beginning of the Project.

2. DEFINITIONS

For other terms and abbreviations included in this specification, the definitions to consider shall be the ones established in the reference IEC standard 60034.

3. SERVICE CONDITIONS

3.1. Environmental conditions

The motor shall be suitable for continuous operation to nominal power respecting the limits of temperature indicated in IEC standard 60034 located outdoors, without protection and in the following conditions:

- Altitude lower than 1000 m (3281 ft)
- Maximum temperature 40 °C (104°F)
- Minimum temperature -5 °C (23°F)
- Maximum relative humidity (daily average) 90%
- Minimum relative humidity (daily average) 50%
- Chemically aggressive atmosphere, salty, dusty and corrosive, common to industrial facilities.

More restrictive conditions will be detailed in the BDD document and/or in the particular documentation of the project (data sheets, particular requisition, etc.)

3.2. Power supply

Unless indicated otherwise in the project documents, the motors will be suitable for continuous running at rated output (at ambient temperature and at the voltage and frequency values defined in the project documents) with variations of voltage and frequency within the limits of "zone A" (defined in the standard IEC 60034-1), without exceeding the temperature rise defined for the insulation systems of thermal class B (80K).

Furthermore, the motors will be suitable for continuous running at rated output (at ambient temperature and at the voltage and frequency values defined in the project documents) with voltage and frequency variations exceeding the limits of "zone A", within zone B, but without exceeding the temperature rise permitted by the insulation system of thermal class B by more than 10K.

3.3. Starting conditions

Unless otherwise specified in the project documentation, motors shall comply with the following requirements:

- a) The motors shall be prepared on-line starting.

Based on the characteristics of the equipment being operated, the motor manufacturer shall specify any limitations and recommend the most appropriate motor for each specific case.