

(PREVIEW)

Indian Standard
A. C. MOTOR CAPACITORS
SECTION 1: GENERAL

1.1 Scope and object

This International Standard applies to motor capacitors intended for connection to windings of asynchronous motors supplied from a single-phase system having a frequency up to and including 100 Hz, and to capacitors to be connected to three-phase asynchronous motors so that these motors may be supplied from a single-phase system.

This standard covers impregnated or unimpregnated capacitors having a dielectric of paper, plastic film, or a combination of both, either metallized or with metal-foil electrodes, with rated voltages up to and including 660 V. Electrolytic motor start capacitors will be covered by IEC 252-2 which is under consideration.

NOTE - The following are excluded from this standard:

- Shunt capacitors of the self-healing type for a.c. power systems of up to and including 1 000 V nominal voltage. (IEC 831-1)
- Shunt capacitors of non self-healing type for a.c. power systems of up to and including 1 000 V nominal voltage. (IEC 931-1)
- Shunt capacitors for a.c. power systems having a nominal voltage above 1 000 V. (IEC 871-1)
- Capacitors for induction heat-generating plants, operating at frequencies between 40 Hz and 24 000 Hz (IEC 110: Recommendation for capacitors for inductive heat generating plants operating at frequencies between 40 Hz and 24 000 Hz).
- Series capacitors (IEC 143: Series capacitors for power systems).
- Coupling capacitors and capacitor dividers (IEC 358: Coupling capacitors and capacitor dividers).
- Capacitors to be used in power electronic circuits (IEC 1071-1: Power electronic capacitors).
- Small a.c. capacitors to be used for fluorescent and discharge lamps (IEC 566: Capacitors for use in tubular fluorescent and other discharge lamp circuits).

- Capacitors for suppression of radio interference (IEC publication under consideration).
- Capacitors intended to be used in various types of electrical equipment and thus considered as components.
- Capacitors intended for use with d.c. voltage superimposed on a.c. voltage.

The object of this standard is:

- a) to formulate uniform rules regarding performance, testing and rating;
- b) to formulate specific safety rules;
- c) to provide a guide for installation and operation.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this international Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 68-2-1 : 1990, *Environmental testing. Part 2: Tests - Test A: Cold*

IEC 68-2-3 : 1969, *Environmental testing. Part 2: Tests - Test Ca: Damp heat, steady state*

IEC 68-2-6 : 1982, *Environmental testing. Part 2: Tests - Test Fc and guidance: Vibration (sinusoidal)*

IEC 68-2-20 : 1979, *Environmental testing, Part 2: Tests - Test T: Soldering*

IEC 68-2-21 : 1983, *Environmental testing. Part 2: Tests - Test U: Robustness of terminations and integral mounting devices*

IEC 529 : 1989, *Degrees of protection provided by enclosures (IP Code).*