HIPOTRONICS

ISOLATION TRANSFORMER

High Voltage DC Isolation Transformers

■ **High Voltage DC Isolation Transformers** are used to provide AC power to circuits that are operated at a DC voltage for either polarity above ground potential. All units are conservatively designed for continuous operation with high reliability. Low internal losses eliminate the need for external cooling in ambient temperatures up to 40 degrees Celsius. Electrostatic shields (one or more) are provided to reduce voltage stresses and low voltage coupled noise. Each transformer is constructed of high quality dielectric materials and processed to assure long life.

FEATURES

- ☑ Epoxy encapsulated.
- ☑ Three single phase units can be arranged for three phase operation.
- ☑ Conservative design with high quality dielectric materials.
- ☑ Custom available single or three phase units available for OEM applications.

BENEFITS

Epoxy insulated units meet UL94V-0 flame retardance specifications.

Low capacitance reduces stored energy at high voltage.

Epoxy eliminates need for oil insulation.

Compact size reduces weight compared to comparable oil insulated units.

Double shielding reduces ground coupling noise.

Low internal losses eliminates the need for external cooling.

APPLICATIONS

Testing of insulating liquids in:

- ■ Ion implant systems.
- ■ Industrial lasers.
- ■ Modular systems.
- ■ Desposition systems.
- ■ Electron beam lithography systems.
- ■ Electron beam welding systems.
- ■ Medical lasers.
- ■ High voltage power supplies.
- ■ All types of accelerators.

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TECHNICAL SPECIFICATIONS

The following must be specified when choosing an isolation transformer:

- Isolation Voltage – DC reference voltage with respect to ground at which the equipment will operate.
- Rated kVA – Maximum continuous kVA rating of transformer (after adjustment for harmonics is taken into account).
- Input Voltage – Voltage near ground potential.
- Output Voltage – Voltage above ground reference by the value of DC isolation voltage.

Catalog Number	DC Isolation Voltage kV*	Power Ratings kVA	Input Voltage V	Output Voltage V	Frequency Hz	Dimensions L x W x H inches	Weight Lbs.
IT25-05E-A-A	25	0.5	115	115	60	7 x 4¾ x 6½	18
IT50-1E-A-A	50	1.0	115	115	50/60	10⅞ x 7⅞ x 14	65
IT50-1E-B-B	50	1.0	220	220	50/60	10⅞ x 7⅞ x 14	65
IT50-1E-AB-A	50	1.0	110 or 220	115	50/60	10⅞ x 7⅞ x 17½	65
IT100-1E-A-A	100	1.0	115	115	50/60	10⅞ x 7⅞ x 17½	65
IT100-1E-B-B	100	1.0	220	220	50/60	10⅞ x 7⅞ x 17½	65
IT100-1E-AB-A	100	1.0	110 or 220	115	50/60	16 x 11½ x 17½	65
IT50-5E-A-A	50	5.0	120	120	50/60	16 x 11½ x 17½	200
IT50-5E-B-B	50	5.0	220	220	50/60	16 x 11½ x 20	200
IT100-5E-BC-AJ	100	5.0	120 or 240	208 or 220	50/60	16 x 11½ x 20	200
IT100-5E-B-B	100	5.0	220	220	50/60	16 x 11½ x 20	200
IT100-5E-AC-AB	100	5.0	115 or 208	115 or 220	50/60	16 x 11½ x 20	200

*** Negative rating. Consult factory for positive rating.**

ADDITIONAL BENEFITS

- Simplified installation and mounting due to small size and low weight.
- Less stored energy.
- Flame retardant materials meet NFPA, SEMICON, and other regulation.
- Extended tracking and puncture path.
- More durable/longer life due to high dielectric strength of cast epoxy.
- No exposed windings to attract dust/dirt and cause flashovers.
- Shield constructions helps elimintate stress on high voltage windings caused by system transients.

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