

Manually Operated 3 phase; 415 V; 50 Amp; Trolley mounted Voltage Variac for Electrical Testing –

Scope –

Vendor must provide Manually Operated 3 phase; 415 V 50 A; Trolley mounted Voltage Variac for Electrical Testing.

The detailed technical specifications are as follows -

Special Features

- Simple & rugged in construction therefore has long life, is relatively cheaper, noiseless in operation, compact and easy to understand, maintain and repair.
- Good regulation – Voltage drop on load is low, due to low resistance of conductor and low leakage flux of toroidal core.
- Output voltage variation on No-load and even on load is effortless, smooth, continuous, beakless, and linearly proportional to angular rotation.
- High efficiency-No load losses and load losses are low.
- Negligible waveform and power factor distortion due to simple transformer action.
- Excellent short time overload capacity.

Technical specifications of the dimmerstat –

- Input - Supply Voltage – 415 volts (+/- 10%); Phase – 3; Frequency – 50 Hz
- Output - Voltage – 0 – 470 volts; Current Rating – 50 amp; Phase – 3; Frequency – 50 Hz
- Operation – manually operated
- Ventilation – Air Cooled
- Insulation Resistance – Not less than 5 MOhms at 500 V DC
- Dielectric Test – 2.5 kV RMS for 1 min
- Operating Temp. – 50 Deg C.
- Storage Temp. - -9 – 70 Deg C
- Humidity – up to 95% RH
- Confirms to – IS5142

Power Terminal Box –

- Two separate terminal boxes to be provided for primary and secondary connections.

- Contactor controlled power connections with start / stop push button and ON / OFF indications is to be provided on primary side of the dimmerstat. The contactor controlled terminal box is to be mounted on trolley.
- The terminal boxes to be provided with nut bolt type of connectors only.
- 4C * 16 sqmm Cu Stranded flexible cable (IS marked) 10 mtr for primary end and 25 mtr on secondary is to be provided with dimmerstat.
- The secondary side (4C * 16 sq mm) power cable should be provided with crocodile testing clamps suitable for 100 amps current handling.

Enclosure –

- Sheet Thickness- 2mm for Enclosure
- Epoxy based Powder Coating,
- Shade- External & Internal RAL-7035
- Physical Dimension of the Dimmerstat should not be more than –
- Height – 1000 mm
- Width – 800 mm
- Depth - 1000 mm
- Enclosure is to be provided with louvers for better air ventilation.
- All the hardware used should be of SS material only.
- The dimmerstat is to be provided with eye bolts of sufficient capacity for lifting purpose.

Trolley wheel Specifications –

- Weight testing Certificate to be provided for Trolley) –
- Wheel carrying capacity – 1.5 times of that of dimmerstat gross weight.
- Swivel Section - steel formed top plate. Tempered and polished steel balls rotate in two smooth raceways
- Legs - steel formed legs welded inside and outside to outer raceway
- Axle - hex head bolt with lock nut
- Lubrication - pre-lubricated before shipping
- Finish - Zinc Plating for corrosion resistance

- Trolley should have handle for manual shifting.
- The dimmerstat is to be fixed on the trolley and if required the trolley and dimmerstat can be separated.
- Vendor must provide one set (for all 3 phase) brushes as spares.
- Warrantee of the dimmerstat will be 24 months from the date of delivery at site. The warrantee will include dimmerstat and its operating mechanism.
- The vendor must conduct a demonstration of the equipment at the site. Once the vendor fulfills all the requirements outlined in the PO and the demonstration is accepted by BPCL, then BPCL will provide acceptance of the equipment.

The product must comply with IS 5142:1969 for Voltage Variac.