## PRODUCT STANDARD

SWITCHGEAR ENGINEERING DIVISION

SG 12900 Rev.No.:01

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### **TUBULAR HEATERS**

### **1.0 Scope**

This standard covers the requirement of tabular heaters used as space heaters in H.T. chambers of Switchgears to prevent condensation of moisture.

### 2.0 Rating

The heater shall be rated 230v, 75 watts.

### 3.0 Constructional aspects

The general arrangement of the heater shall be according to the drawing No.: 35215001630. The connections shall be brought to the terminal connector made of porcelain as shown on the drawing.

The heating element shall be of good quality Nicrome wire/ Aluminium -Iron alloy (kanthal) of about 42SWG in the form of coiled wire inserted inside porcelain tube. This element shall be uniformly spread over the entire length of porcelain tube, so that hot spots are avoided and uniform heat along complete length is ensured.

The support for the terminals shall be of good quality, heat resistant, mechanically strong vitrified white porcelain. The terminals for connection by the user shall be suitable for insertion of 2 Nos. 2.5 square mm stranded copper conductor.

The base bottom supports, end caps, perforated cover etc. shall be of good finish & shall be zinc plated & passivated.

A Rating plate giving wattage, voltage and manufacturers name and sl. No. Style No (......) shall be suitably fixed on the end cap.

### **4.0 Tests**

The supplier shall carry out following routine tests:-

- 1) Continuity.
- 2) Power frequency at 2kv for 1 minute.
- 3) Insulation resistance (not less than 10 Mega ohms).
- 4) Temperature rises test for 48 hours  $(110-130^{0} \text{ C})$ .
- 5) Consumption (Approx. 75 watts)

Routine test reports shall be sent along with the consignment.

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		ALTD.	NB	QCX (SCR) 1 N.N. SHENOI	N.N. SHENOI			
		APPD.	RKS	PD&D SWM (PLNG)	1	PREPARED	ISSUED	DATE
		DATE.	28-07-2000	CEG	1	VJ	SKS	12-05-1993

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		5.0 Acceptance Criteria							
		1. Supplier to submit routine test report along with the consignment.							
		<ul><li>2. 100% Visual check.</li><li>3. Supplier to submit Test Report for dimensions check.</li></ul>							
		4. Rating plate as per clause 2.0 above.							
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COPYRIGHT AND CONFIDENTIAL		- Pov - Ins	<ul> <li>Continuity.</li> <li>Power frequency at 2 kV for 1 minute.</li> </ul>						

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SG 12900 Rev.No.:01

