

RETYPE

TENDER SPECIFICATION

NO. CLW/ES/3/0202

ALT

A

ENCLOSURE

1. ANNEXURE

2. DRG. No. - NO. - CLW/ES/3/SK-1/0202

3. TOTAL NO. OF SHEET - 4

SPECIFICATION FOR

SNUBBER CIRCUIT TO CONTACTOR AUXILIARIES

FOR

3-PHASE LOCOMOTIVES

SPECIFICATION FOR Snubber Circuit to Contactor Auxiliaries	DRN. <i>Aug 2005</i> SSE/IE	CHKD/REV <i>[Signature]</i> SEE/AEE	Electric Loco Design Office Chittaranjan Locomotive Works NO. CLW/ES/3/0202							
	APPROVED BY <i>[Signature]</i>		ALT.	A						

ALTERATION RECORD SHEET

1A

SL. No.	Date of Amendment	Page No.	ALTERATION NO.	REASON	AUTHORITY
1.	.03.21	3, 4	'A'	<p>1. clause no. 4 has been deleted as per approval of Note no. ELDD/Misc. dated 26.02.21 by PC&E.</p> <p>2. Mounting and overall dimensions shall be as per dwg. other dimensions of drawing are for guidance only added as 'Note' in Sheet No. 4.</p>	<p>(Signature) 22/3/21</p>
SPECIFICATION FOR Snubber Circuit to Contactor Auxilliaries		DRN	CHKD	Electric Loco Design Office Chittaranjan Locomotive Works No.-CLW/ES/3/0202	
		SSE/JE	SEE		
		APPROVED BY		ALT.	A

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SPECIFICATION FOR Snubber Circuit to Contactor Auxiliaries	DRN. <i>Adh</i> 30.05.14 SSE/JE	CHKD/REV <i>S</i> SEE/AEE	Electric Loco Design Office Chittaranjan Locomotive Works NO.-CLW/ES/3/0202			
	APPROVED BY <i>[Signature]</i>		ALT. <i>A</i>			

1. SCOPE:

This specification covers the manufacture and supply of Snubber Circuit to Contactor Auxiliaries for 6000 HP three phase electric locomotives.

2. CLIMATIC AND ENVIRONMENTAL CONDITION

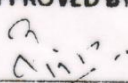
Maximum atmospheric temperature	: +70°C (in sun) & +50°C (in shade)
Ambient temperature (operating)	: -20°C to + 70°C
Ambient temperature (storage)	: -30°C to + 80°C
Normal humidity	: 60%
Maximum humidity	: 100% saturation during rainy season.
Altitude	: 160masl.
Rain fall	: Very heavy in certain areas. The equipment should be designed in such a way as to withstand its running at 10Km/hr in flood water level of 102 mm above rail level.
Atmosphere conditions	: Extremely dusty and desert terrain in certain areas.
Coastal areas	: Locomotive and equipment will be designed to work even in coastal area in humid and salty laden atmosphere.
Vibration	: The equipment subsystem and their mounting arrangement will be designed to withstand vibration and shock encountered in service as specified in correspondence unless otherwise prescribed.

3. Standards:

As per relevant IS/IEC.

4. QUALITY ASSURANCE : Quality assurance should be as per ISO 9000.

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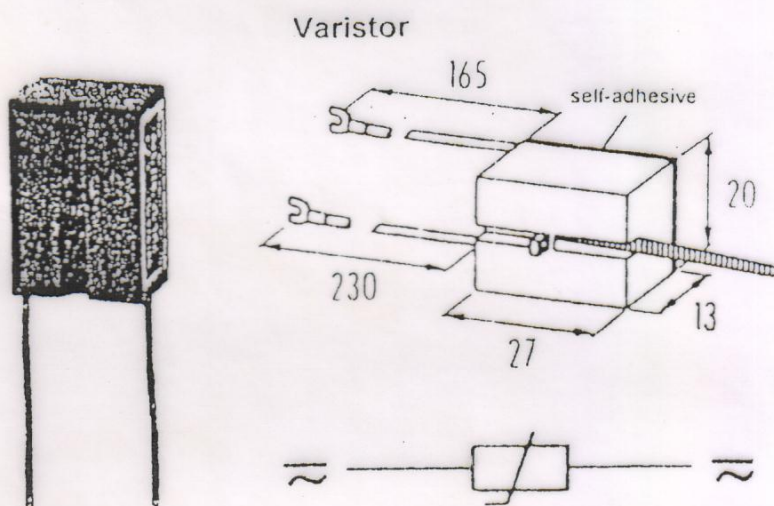
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5. **TEST:** Type test and routine test shall be carried out according to relevant IS/IEC standard.

6. SUBMISSION OF TENDER QUOTATION:

- 6.1 All tender document including the quotation shall be submitted in duplicate including any correspondence till a contract is finalised.
- 6.2 The tenderer shall give sufficient information to prove that his factory has adequate facilities and capacities to manufacture the snubber circuit to meet fully the technical requirements of the specification and quality of materials and workmanship.
- 6.3 Quotation shall not be considered complete unless all information is furnished and are therefore liable to be rejected.
- 6.4 Detailed drawings of the snubber circuit should be submitted for approval of purchaser.
- 6.5 Past test report (if any)

7. DIMENSIONAL DRAWING



Note: Mounting and overall dimensions shall be as per above drawings. The other dimensions of drawing are for guidance only.

SPECIFICATION FOR Snubber Circuit to Contactor Auxiliaries	DRN. APC 30.05.12 SSE/JE	CHKD/REV SEE/AEE	Electric Loco Design Office Chittaranjan Locomotive Works NO.-CLW/ES/3/0202							
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8. TECHNICAL DATA

Article	Varistor
Function	Interference suppression
Type	AO VDR
Material	Plastic
Coil Voltage	110 volts AC/DC
Frequency range	0 to 60 Hz
Coil maximum power	100VA
Attenuation factor	$\approx 1.5 \times$ coil voltage
Operational temperature	-20 °C to + 70 °C
Connection	Self secure fork terminal
Fixing	Screw or self -adhesive
Inflammability class	According to UL 94
Admissions to standards	UL and CSA

SPECIFICATION FOR Snubber Circuit to Contactor Auxiliaries	DRN. <i>Rev</i> 30.05.12 SSE/JE	CHKD/REV <i>3</i> SEE/AEE	Electric Loco Design Office Chittaranjan Locomotive Works NO.-CLW/ES/3/0202				
	APPROVED BY <i>G. N. S.</i>		ALT.	A			