

Modification Sheet No. RDSO/WAM-4/78

1. Title of Modification:- Provision of R.C. Damping unit across 380 V auxiliary winding (TFWA) of the transformer connected to ARNO convertor.

2. Application:- All electric locomotives where three phase AC auxiliary motors have been used.

3. Object:- A comparative study made by MGS Electric Loco Shed revealed that the number of insulation failures on auxiliary motors can be reduced significantly by providing RC networks across the 330 V auxiliary windings.

It has been, therefore, decided to provide such damping networks on all the locomotives.

4. Modification Drawing No.:- RDSO SK. EL. No. 3083

5. Agency for implementation:- (i) Electric Locomotive Sheds for all the locomotives in service.

(ii) CLW for new builds.

6. Material required:- (a) R.C. networks comprising of resistor and capacitor with the following technical specification:

(i) Capacitor:- Damping capacitor type D-640 234006 of M/s. Bosch; 0.47 MFD, 640 V rms, 50HZ suitable for 85°C case, temperature. With repetitive peak voltage 1600V and non-repetative 2000V, or equivalent.

(ii) Resistor:- 20 ohms, 50W suitable for 500 V application, Viterous enamelled wire wound, as per IS: 3373 Part-II Pattern-2.

(iii) Panel Board:- 10mm thick, phenolic resin-impregnated fabric (IS/2038) suitable dimensions and mounting arrangement.

(iv) Cable:- Cable for connections of adequate length, as required size 80/0.2mm 750V grade elastomeric as per RDSO specification No. E-13/03.

(v) Fuse:- 2 amps, 415 Vrms, HRC cartridge fuse link as IS: 2208.

6. b) Material rendered surplus:- NIL

7. Work to be carried out:- Connect resistor and capacitor in series with a fuse as shown in drawing SK EL 3088 and provide the unit across 380V, 50 HZ transformer auxiliary winding (TFWA) feeding ARNO.

Important note:- (i) The damping unit should be mounted as close as possible to transformer auxiliary winding.

(2) The capacitor should be mounted by the side of the resistor and not above it, at a distance of not less than 100 mm

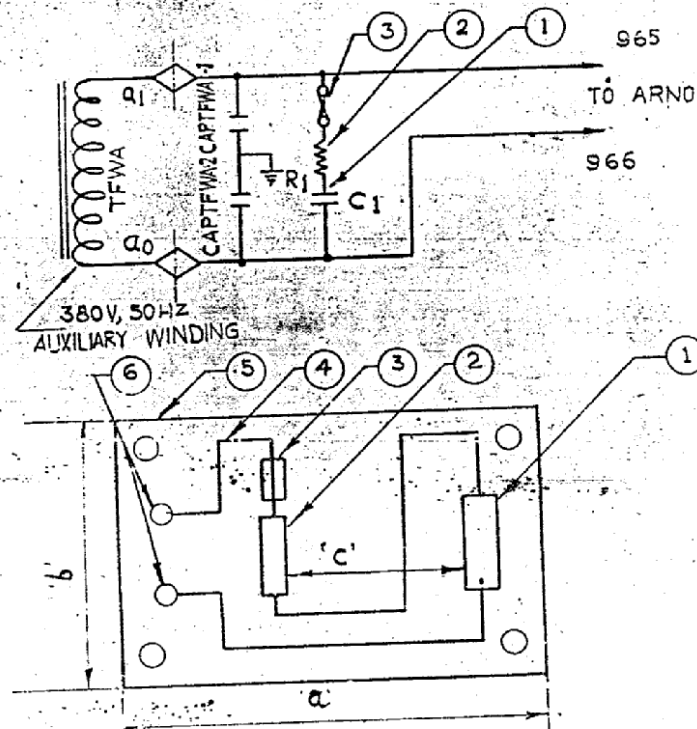
8. Reference:- (i) Para 2.5 of the minutes of meeting held by Board on 18-5-78 in connection with failures of auxiliary motors on electric locomotives.

(ii) Sr.DFE/RS/Mughalsarai letter No. TRS/MGS/RDSO/2, dt. 18-12-1977.

9. Distribution:- (As per list).

Sd. xx xx xx,
(D.S.Baweja),
Krite Maha Nideshak.

SKEL - 3088



NOTE:-
DIMENSION (a) & (b) TO
SUIT THE MOUNTING
ARRANGEMENT
(c) NOT LESS THAN 100MM. GAP.

6	TERMINALS	2	5A, 440V
5	BASE BOARD (Phenolic resin impregnated)	1	100mm THICK
4	CABLE (750V, 89/2mm ²)	AS REQUIRED	2.5mm ²
3	REWIRABLE FUSE WITH HOLDER	1	2A, 15V (52208)
2	RESISTOR	1	20Ω, 50W
1	CAPACITOR (640V)	1	0.5 0.47μF
PART NO.	DESCRIPTION	QTY	MTL/SPEC

REF-MOD. NO. RDSQ/WAM₄/78

SCALE:- NTS

APPROVED FOR D.G.

DAMPING UNIT FOR 380V π ms
AUXY WINDING ON Q.C. LOCOS

RDSO. ELEC. DTE.

SKEL-3088

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