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No. EL/0.1.3/Driver

Dated: As signed

Principal Chief Electrical Engineer,

- | | |
|---|--|
| 1. Central Railway, Mumbai CST-400 001 | 2. North Western Railway, Jaipur-302 006 |
| 3. East Central Railway, Hazipur-844 101 | 4. South Central Railway, Rail Nilayam, Secunderabad-500 071 |
| 5. East Coast Railway, Chandrashekharpur, Bhubaneswar-751 016 | 6. South East Central Railway, Bilaspur- 495 004 |
| 7. Eastern Railway, Fairlie Place, Kolkata-700 001 | 8. South Eastern Railway, Garden Reach, Kolkata-700 043 |
| 9. North Central Railway, Subedarganj, Prayagraj-211 033 | 10. Southern Railway, Park Town, Chennai-600 003 |
| 11. Northern Railway, Baroda House, New Delhi-110 001 | 12. South Western Railway, Hubli-580 024 |
| 13. North Eastern Railway, Gorakhpur-273001 | 14. West Central Railway, Jabalpur-482 001 |
| 15. North East Frontier Railway, Maligaon, Guwahati-781 011 | 16. Western Railway, Churchgate, Mumbai- 400 020 |
| 17. Banaras Locomotive Works, Varanasi - 221 004 | 18. Chittaranjan Locomotive Works, Chittaranjan- 713 331 |
| 19. Patiala Locomotives Works, Patiala - 147 003 | |

MODIFICATION SHEET NO. RDSO/2024/EL/MS/0497, Rev. '0', Dated 09.02.2024

1.0 TITLE

Modification Sheet for Power Supply to Real-Time Train Information System (RTIS) devices in Tap-changer based conventional Electric Locomotives & 3-Phase Electric Locomotives

2.0 BACKGROUND

- 2.1** A Real-Time Train Information System (RTIS) is being installed on the locomotives for automatic acquisition of train movement timings at the stations, including that of arrival & departure or run-through.
- 2.2** In RTIS Phase-2, the RTIS Power System Module incorporates an inbuilt battery capable of sustaining RTIS operations for 25-30 minutes in the absence of power supply from electric locomotives whereas there is no such provision in RTIS Phase-1. At present the power supply to RTIS has been tapped after HBA (wire no. 700 & 009) & MCB 112.1(wire no. 2096 & 2050) in Tap-changer based conventional & 3-phase locos respectively. In case of switching off of said HBA or MCB which is normally done whenever loco is to be stabled for long time, supply to RTIS will not be available & therefore location of loco will be available for next 25-30 minutes till in-built battery supply is available to RTIS.
- 2.3** To have the continuous monitoring of location of RTIS fitted electric locomotives even if the loco has been switched off completely including control supply, NCR(ELS/CNB & ELS/JHS) was advised for implementation of modified power supply scheme on trial basis in 5 nos. each in Tap-changer based conventional electric locomotives & 3-phase electric locomotives fitted with RTIS.
- 2.4** NCR vide letter no. NCR/EL/Loco/40/RTIS,dated 05.02.2024 furnished the performance feedback on modified power supply scheme to RTIS devices in Tap-changer based conventional and 3-phase electric locomotives and communicated that all aforesaid RTIS fitted electric locomotives are working normal with modified power supply scheme & nothing adverse reported with respect to drainage of battery or battery voltage low.

3.0 OBJECT

To ensure continuous monitoring of location of RTIS fitted Tap-changer based conventional & 3-phase electric locomotives even when the loco is completely switched off including control supply.

In view of above, Modification Sheet no. RDSO/2024/EL/MS/0497, Rev '0' dated 09.02.2024 is issued for implementation of modified Power Supply Scheme to RTIS devices in Tap-changer based conventional & 3-Phase Electric Locomotives.

4.0 WORKS TO BE CARRIED OUT

4.1 The power supply for RTIS is to be tapped before HBA (**wire no. 001 & 009**) in Tap-changer based conventional Electric Locomotives as shown in **Annexure-1**

4.2 The power supply for RTIS is to be tapped before 112.1 MCB(**wire no. 2021 & 2052**) in 3-Phase Electric Locomotives as shown in **Annexure-2**.

4.3 The RTIS MCB shall be switched off only when loco is withdrawn from traffic services for maintenance purposes, otherwise it shall be kept ON.

5.0 APPLICATION TO CLASS OF LOCOMOTIVES

Tap-changer based Conventional and 3-Phase Electric Locomotives.

6.0 MATERIAL REQUIRED

6.1 2 core, 2.5 sqmm cable of length 22- 25 m depending upon the location of PSM in Tap-changer based Conventional Electric Locomotives.

6.2 2 core, 2.5 sqmm cable of length 13 m approx. in 3-Phase Electric Locomotives.

7.0 MATERIAL RENDERED SURPLUS

Nil

8.0 REFERENCES

Nil

9.0 MODIFICATION DRAWING

Annexure-I & Annexure-II (Enclosed)

10.0 AGENCY FOR IMPLEMENTATION

10.1 Electric Loco Sheds, Diesel loco sheds having Electric loco holding, PUs & POH Workshops.

10.2 Centre for Railway Information System(CRIS), New Delhi-110 021: In all RTIS being provided in Tap-changer based conventional and 3-Phase Electric Locomotives.

Encl: As above

for Director General Std./Electrical

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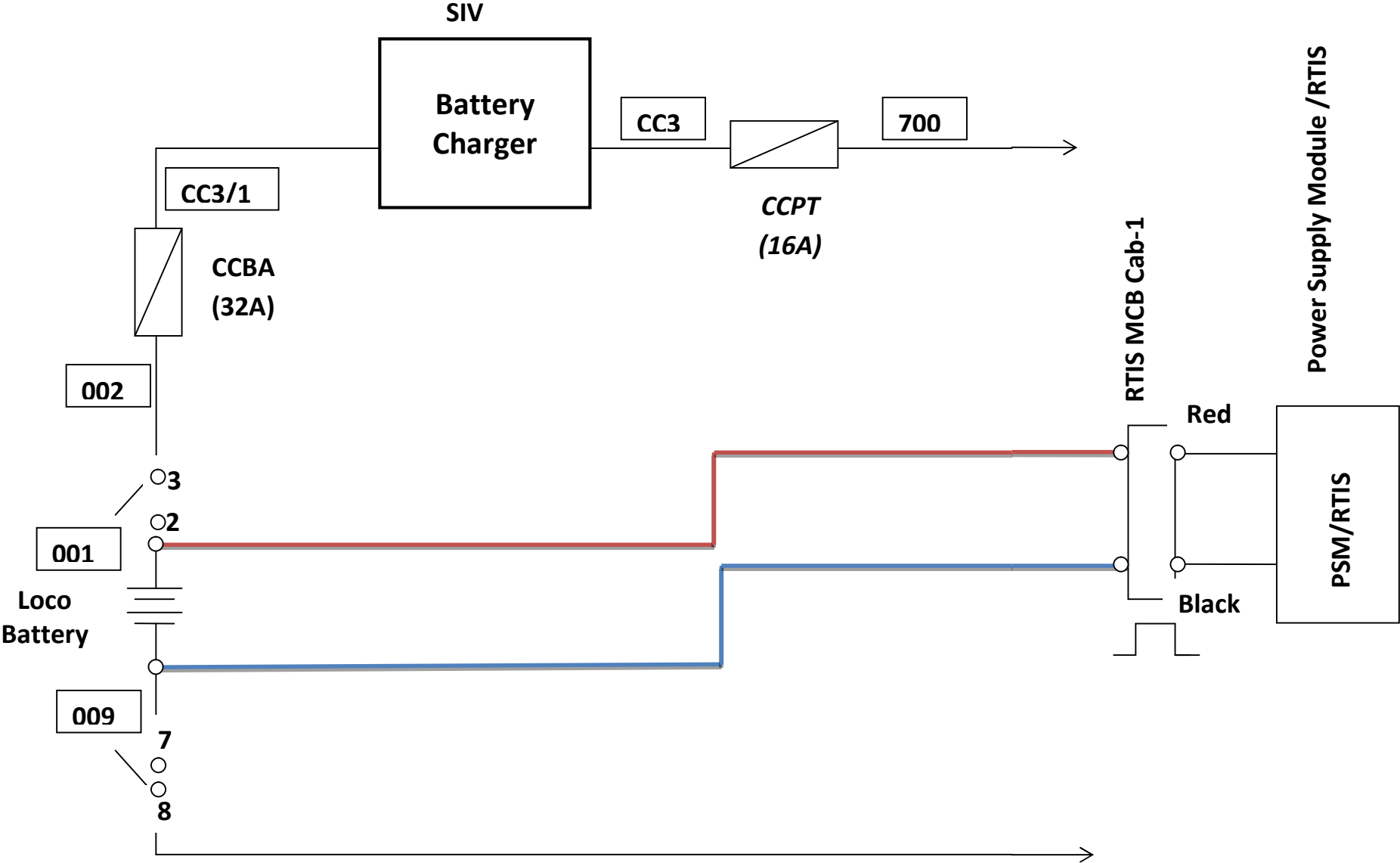


Figure:1 Modified Power supply scheme for Tap-changer based Conventional Electric Locomotives

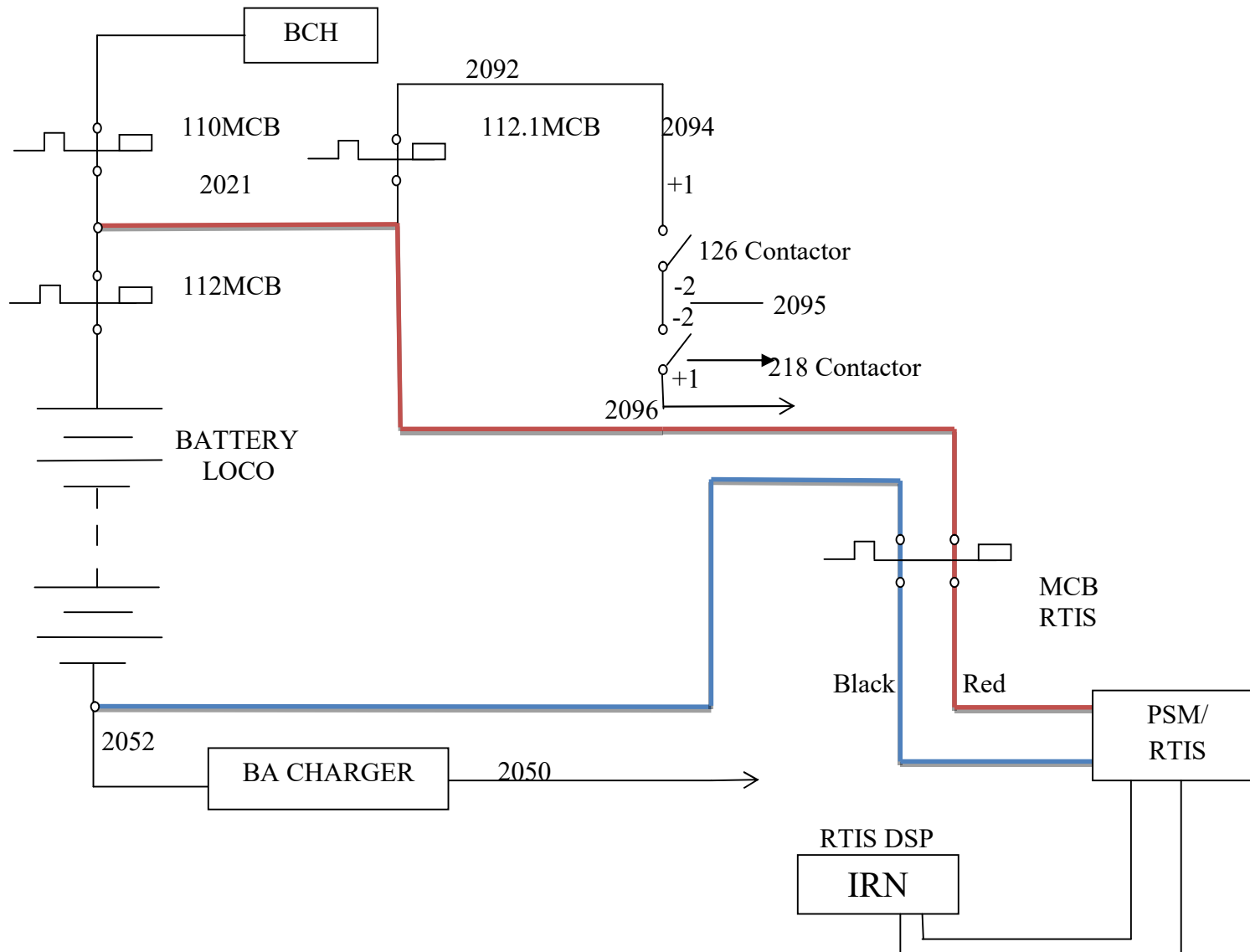


Figure: 2 Modified Power supply scheme for 3-phase Electric Locomotives