# RAIL COACH FACTORY, KAPURTHALA

**CAI N O.: ED/CAI/027 Dated: 27.12.2023**

# COACH ALTERATION INSTRUCTION SHEET FOR MODIFICATIONS IN EXISTING LHB NON AC GS TYPE COACHES

**Rail Coach Factory, Kapurthala**

**CAI No.: ED/CAI/027 Dated: 27.12.2023**

This Coach Alteration Instruction Sheet has been issued for modification in existing **LHB Non AC GS type coaches** wherein following steps are to be taken for modifications in the coach:

**A). LHB GS COACH:**

**Step-1: Removal/Dismantle of Electrical accessories from Coach:**

**1. Roof Arrangement :**

**a) Removal/Dismantle of Cage Clamp Terminals :**

i. Connections of all the circuits i.e. Light, Fan circuits on the Cage clamp terminals provided in each cabin area/Doorway area of the coach shall be disconnected.

ii. The Cage clamp terminals provided for interconnections in each cabin as well as in door way area shall be removed.

**b). Removal/Dismantle of Accident Emergency Light (AEL).**

i. Disconnect all the accident emergency light (AEL) provided in corridor and doorway area on both ends.

ii. Remove all the AELs by removing the hardwares.

**c). Removal/Dismantle of AC Fans :**

i. Disconnect the AC fans connections provided in each cabin area of the coach.

ii. All the AC fans shall be removed from the ceiling arrangement of the coach by removing the hardware's.

**2. Side wall arrangement:**

**a). Removal /Dismantle of Switch Plates :**

i. Disconnect all the circuits i.e. Light, Fans, Mobile charging sockets etc. on the switch plate assembly in cabin /corridor area.

ii. The switch plate assembly provided in Cabin /Corridor area shall be removed by removing the hardwares.

**3. Under frame Arrangement :**

**a). Removal/Dismantle of 60kVA , 750V/415V and 3 kVA 415/190V Transformer:**

i. Disconnect the Input & Output connections from the 60Kva, 750V/415V and 3kva 415/190V Transformer provided in the underframe.

ii. Transformers shall be removed after removing of the hardware's provided for mounting of the **60kVA , 750V/415V and 3 kVA 415/190V Transformers.**

iii. Harness provided for 3 kVA 415/190V Transformer shall be removed by disconnecting I/P & O/P cables from Transformer as well as from Switch Board Cabinet.

**Step-2: Mounting of Electrical Accessories in Coach:**

**1. Roof Arrangement :**

**a). Fixing of Cage Clamp Terminals with Glass fuses:**

i. Cage clamp terminals with glass fuses as per drawing **SKED 933** shall be mounted on the existing bracket in each cabin on both side of the cabin area with the aid of suitable hardwares .

ii. Cage clamp terminals with glass fuses as per drawing **SKED 934** shall be mounted on the existing brackets in each doorway area on both side with the aid of suitable hardwares

iii. Connect all the LIGHTS, FANS circuits alongwith earthing on the Cage Clamp Terminals with Glass fuses in ref. to drawing no. **SKED 923** properly.

iv. Terminations of wires for LIGHT and FAN circuits shall be ensured at Terminal no. 102, 107 (L-1) & 114,115(L-II), 111 (PE), 103, 106 (L-III), 201, 222 (L-IV) , 110 (PE) provided in SBC.

v. 110VDC Wiring of BLDC Fans and DC Lighting circuits shall be laid in conduit-1 (Upper) already provided in Roof of coach and 110VAC wiring for mobile charging shall be laid in in Conduit-2 (Lower) already provided in Roof as per undergiven details:

| Conduit | Existing Arrgt. | Revised Arrgt. |
|---|---|---|
| Conduit-1(Upper) | Lighting Ckt. (110AC/DC)<br>L-I +, L-II +, NL | Lighting & Fan Ckt. (110DC)<br>L-I + L-II + & F-I, F-II, F-III |
| Conduit-2(Lower) | Fan & Mobile charging Ckt. (110VAC)<br>F-I, F-II, F-III & CS-I, CS-II | Mobile Charging Ckt. (110VAC)<br>CS-I, CS-II, CS-III |

**b). Modifications in existing Mobile Charging Circuit:**

i. In existing coaches, 01no. mobile charging sockets is provided in cabin side side wall and another 01 no. mobile charging socket provided in Corridor side side walls.

ii. However as per revised scheme to drawing SKED923, 04 nos. mobile charging sockets are to be provided in cabin side & corridor side wall side (i.e. 3nos. on Cabin side & 01 no. mobile charging socket provided in Corridor side side walls).

| Item Desc. | Existing reference Drawing ( LG74102 Alt. nil ) | | Revised Existing Drawing ( LG74106 Alt. b ) | |
|---|---|---|---|---|
| | Cabin Side | Corridor side | Cabin Side | Corridor side |
| Switch Plate | EDML127, Rev.-0 (Item-1) | EDML127, Rev.-0 (Item-1) | EDML086, Rev.-8 (item-1 &3) Tab.2 | EDML086, Rev.-8 (item-2) Tab.2 |
| Charging Sockets | 01 | 01 | 03 | 01 |
| Wiring | - | - | Additional wire as per SKED 923 to be provided. | - |

**Note: In reference to comply the Railway board Guidelines issued vide letter no. 2009/Elect(G)/109/14 Dated 16.01.2020.**

iii. Accordingly the Cut Outs shall also be modified to suit the switch plate assemblies as per document no. EDML 086 Rev. 8 Table-2. Additional suitable cut outs shall be made for provision of additional mobile charging socket points to document EDML 086 Rev. 8 Table-2 (**item-1, 2 & 3**)

iv. Mobile charging circuits shall be split up into three circuits inplace of existing two circuits. Additional wiring **(1x1.5sqmm (Blue)** for third circuit shall be laid in the existing conduit.

v. Connections of Mobile Charging sockets points in Switch Plate assemblies shall be made in ref. to drawing no. **SKED 923.**

vi. Terminations of wires shall be ensured at Terminal no. 240-241, PE (CS-I), 242- 243, PE (CS-II), 244- 245, PE (CS-III), provided in SBC.

**c). Provision of Accident emergency light (AEL).**

i. Provide the Accident emergency light (AEL) as per RDSO spec. no. **RDSO/PE/SPEC/TL/0180-2016 REV.-0, Type-2** inside the corridor as well as in door way area at the existing locations.

ii. Connect all the accident emergency light (AEL) provided in corridor and doorway area on both ends with existing wring and terminate the wiring in SBC at the **110VDC** MCBs (+S1F41 6A =32-F25.).

**d). Provision of BLDC Fans :**

i. BLDC fans to RDSO spec. RDSO/PE/SPEC/TL/0021/2005 Rev.3 (AM-1) with RCF Annex.-1 shall be mounted at the existing locations in the roof arrangement.

ii. Connect the Male-Female WAGO type connectors supplied by the vendor alongwith fan supply. Connect the all the BLDC FAN circuits on the Cage clamp terminals with fuses in ref. to drawing no. **SKED 923** properly.

iii. Terminations of wires shall be ensured at Terminal no. 118- 119 (F-I), 120- 121 (F-II), 122-123 (F-III), PE provided in SBC.

**2. Side wall arrangement:**

**a). Mounting of Switch Plates :**

i. Switch plate assemblies to document no. **EDML086, Rev.8, Table-2** shall be mounted after modifications in the cut outs to suit the switch plate assemblies as per document no. **EDML086, Rev.8 Table-2** on both sides wall of the coach as per details at 1(b) above.

i. Connections for Light, Fan and Mobile charging points shall be made properly as per ref. drawing no. **SKED 923.** No looseness of wires in switch plates shall be there and same shall be ensured during fitment.

**3. Under frame Arrangement :**

**a). Fitment / Mounting of the 9kVA 750V/415V /190V Transformer:**

i. Mount the **9kVA 750V/415V/190V** Transformer to RDSO spec. RDSO/PE/SPEC/TL/0158 Rev.0, Type-1 on the existing location of 60kva transformer with suitable hardwares as the mountings of both the transformers (i.e 60kva as well as 9kVA) are same, Hence no change /additional brackets are required for mounting of 9 kVA transformer.

ii. Connect the existing Input wires and Out put e-beam cables of size 16Sqmm already laid on the underframe at the IN PUT supply terminals for 750V AC & OUT PUT terminals for 415VAC in 9kva Transformer, however for 190VAC Circuit Out Put supply, additional harness of size **4x6sqmm (R, Y, B, N), length 31mtr** each shall be laid.

iii. Connect the 750VAC (I/P), 415VAC supply and 190VAC (O/P) supply as tabulated below:

| | | |
|---|---|---|
| **750AC (I/P) (R, Y, B, N)** | I/P from +S1K01=32K1 looped at +S1K02 =32K2 | SBC |
| **415AC (O/P) (R, Y, B, N)** | L.1 (+S1F44 =12-F10) , 25A (HRC)<br>L.2 (+S1F45 =12-F11) , 25A (HRC)<br>L.3 (+S1F46 =12-F12) , 25A (HRC)<br>N (+S1F101 =33-F101), 6A (MCB)<br>(Loop at +S1F102, +S1F103 & +S1F104) | SBC |
| **190VAC (O/P) (R, Y, B, N)** | L.1.1 (+S1F47 =12-F15) , 25A (HRC)<br>L.2.1 (+S1F48 =12-F16) , 25A (HRC)<br>L.3.1 (+S1F49 =12-F17) , 25A (HRC)<br>N.1 (+S1F107 =33-F107), 6A (MCB)<br>(Loop at +S1F108, & +S1F109). | SBC |

4. **Bill of Material (BOM) Required per Coach for modifications:**

| Sno. | Item Description | Ref. Spec/Drg. No. | QPC | Remarks |
|---|---|---|---|---|
| **1.** | 9Kva Transformer 750V/415V/190V 3-Phase distribution transformer | RDSO/PE/SPEC/TL/0158-2010 (REV.-0), Type-1 | **01NO.** | Underframe |
| **2.** | BLDC Fans | RDSO/PE/SPEC/TL/0021 Rev. 3-2005, AM-1 with RCF Annex.-1 | **30nos.** | Cabin AREA |
| **3.** | Accident emergency light (AEL). | RDSO/PE/SPEC/TL/0180-2016 REV.-0, Type-2 | 1set Consist of 04nos. | Cabin/corridor area |
| **4** | Switch plate assembly for LGS Coaches. | EDML086 REV. 8 (Table-2) | 01 SET | Cabin/corridor area |
| **5.** | Cage clamp Terminals with glass fuses (Cabin Side) | SKED 933 | 20nos. | Cabin/corridor area |
| **6.** | Cage clamp Terminals with glass fuses (Doorway area). | SKED 934 | 06nos. | Cabin/corridor area |
| **7** | e-beam cable Size 6sqmm (Red) upto 750Volt | ELRS/SPEC/ELC/0019 REV. 4 | 31mtr. | For 190VAC O/P from 9kva TXR |
| **7.1** | e-beam cable Size 6sqmm (Yellow) | | 31mtr. | |
| **7.2** | e-beam cable Size 6sqmm (Blue) | | 31mtr. | |
| **7.3** | e-beam cable Size 6sqmm (Black) | | 31mtr. | |
| **8** | e-beam cable Size 1.5sqmm (RED) | ELRS/SPEC/ELC/0019 REV. 4 | 75mtr | For mobile charging circuit -3 and Looping at additional mobile charging points. |
| **8.1** | e-beam cable Size 1.5sqmm (YELLOW) | | 75mtr | |
| **8.2** | e-beam cable Size 1.5sqmm (Blue) | | 75mtr | |
| **8.3** | e-beam cable Size 1.5sqmm (Black) | | 200mtr | |
| **8.4** | e-beam cable Size 1.5sqmm (GNYE | | 75mtr | |
| **9.** | Hardwares | As required | **Lot** | - |

## 5. Modifications in Switch Board Cabinet :

| Changes in the Switchboard Cabinet to Spec no EDTS333 | | |
|---|---|---|
| **A** | **Modifications in the Schematic drawing of the SBC :** | |
| **A.1** | **Drawing no LS70202 sheet 1/13 revised to drawing no SKED 925** | |
| | 1 | Specification for the cables revised to RDSO specification no ELRS/SPEC/0019 Rev-4 |
| **A.2** | **Drawing no LS70202 sheet 2/13 revised to drawing no SKED 926** | |
| | 1 | Temperature sensor wires for the Regulated Battery Charger deleted |
| **A.3** | **Drawing no LS70202 sheet 3/13** | |
| | 1 | No change |
| **A.4** | **Drawing no LS70202 sheet 4/13 revised to drawing no SKED 927** | |
| | 1 | Transformer 33T01/+S1F74, 1 kVA 230/110 volts deleted |
| | 2 | Auxiliary contactor lighting 33K09/+S1K48, item 89 of the BOM |
| | 3 | MCB 33F22/S1F39, 33F23/S1F40, 33 F24/S1F41 deleted |
| | 4 | Insulation Monitoring Relay 93A1/S1A06 deleted |
| | 5 | Wago type Fuse 33F35/S1F74 and 33F36/S1F75 marked spare |
| **A.5** | **Drawing no LS70202 sheet 5/13 revised to drawing no SKED 928** | |
| | 1 | Auxiliary contactor lighting 32K10/+S1K11, item 59 of the BOM |
| | 2 | Contactor Lighting with Diode 32 K12/+S1K14 item 60 of the BOM |
| | 3 | Contactor Lighting with Diode 32 K13/+S1K13 item 61 of the BOM |
| | 4 | Time Delay Relay 32 K15/+S1K17 item 63 of the BOM |
| | 5 | Circuit modified accordingly for all lighting on DC |
| **A.6** | **Drawing no LS70202 sheet 6/13 revised to drawing no SKED 929** | |
| | 1 | MCB 32F06/+S1F25, MCB 10 A DP, nomenclature changed to Lighting |
| | 2 | MCB 32F07/+S1F26, MCB 10 A DP, nomenclature changed to Lighting |
| | 3 | MCB 32F15/+S1F34, MCB 10 A DP, nomenclature changed to spare |
| **A.7** | **Drawing no LS70202 sheet 7/13** | |
| | 1 | No change |
| **A.8** | **Drawing no LS70202 sheet 8/13 revised to drawing no SKED 930** | |
| | 1 | AC contactors eliminated and lighting circuit modified to dc circuit only |
| **A.9** | **Drawing no LS70202 sheet 9/13** | |
| | 1 | No change |

| | | |
|---|---|---|
| **A.10** | **Drawing no LS70202 sheet 10/13** | |
| | 1 | No change |
| **A.12** | **Drawing no LS70202 sheet 11/13 revised to drawing no SKED 931** | |
| | 1 | Minimal Voltage Relay MR9, 110 V 32U13/+S1K17 item 69 of the BOM deleted |
| **A.13** | **Drawing no LS70202 sheet 12/13** | |
| | 1 | No change |
| **A.14** | **Drawing no LS70202 sheet 13/13 revised to drawing no SKED 932** | |
| | 1 | MCB connected to DC in place of AC |
| | 2 | MCB 32F22/S1F38, 32F23/S1F39, 32F24/S1F40 Added of 6 Amps, 250 V DC |
| | 3 | MCB 32F25/S1F41, 32F26/S1F42 Added of 6 Amps, 250 V DC |
| | 4 | MCB 33F109/S1F109 Added of 6 Amps, 250 V AC |
| | 5 | RCBO 4-pole 16 amps, 30mA added for mobile charging circuit |
| | 6 | MCB +S1F30, 6AMP = 32-F11 to be used for connection of the AEL circuit |
| | 7 | MCB +S1F42, 6AMP = 32-F26 to be used for connection of the Reservation Chart Light |
| **Note** | | |
| | 1 | **HOG modification as per RDSO Modification sheet no RDSO/PE/MS/AC/0051-2017 Rev-2, Amdt-1 ( or Latest Edition ) issued vide RDSO letter no EL/1.6.9.22 Dated 28/07/2014, 24/09/2015, 21/03/2017 may be incorporated ( copy enclosed )** |
| | 2 | Terminal block drawings LS 70201 modified - terminals for earthing and mobile charging socket added |
| **B.1** | **Bill Of Material required to be deleted :** | |
| | 1 | Auxiliary contactor lighting 32K10/+S1K11, Item 59 of the BOM- **deleted** |
| | 2 | Contactor Lighting with Diode 32 K12/+S1K14 Item 60 of the BOM- **deleted** |
| | 3 | Contactor Lighting with Diode 32 K13/+S1K13 Item 61 of the BOM - **deleted** |
| | 4 | Time Relay 32 K15/+S1K17 item 63 of the BOM - **deleted** |
| | 5 | Minimal Voltage Relay MR9, 110 V 32U3/+S1U2.3 Item 69 of the BOM - **deleted** |
| | 6 | Auxiliary contactor lighting 33K09/+S1K48, item 89 of the BOM - **deleted** |
| | 7 | Transformer 33T01/+S1F74, 1 kVA 230/110 volts deleted - **deleted** |
| | 8 | MCB 33F22/S1F39, 33F23/S1F40, 33 F24/S1F41 - **deleted** |
| | 9 | Auxiliary contactor for minimal voltage step (90-156V DC), 32K05/+S1K08, Item-58 of BOM - - **deleted** |

**C: FOLLOWING ITEMS MAY BE ADDED :**

| Sr.no. | | | Item/Term function Technical data | QTY | Drawing no | manufacturer supplier | Place of Installation |
|---|---|---|---|---|---|---|---|
| 1 | 32 | F23 | MCB Fan 6 A, 200 V dc 2-Pole Breaking Capacity 10kA | 4 | BJ2006DC | L&T | S1F39 – BLDC Fan<br>S1F40 – BLDC Fan<br>S1F41 – BLDC Fan<br>S1F42 - RCL |
| | 32 | F24 | | | 5SY52067CC | SIEMENS | |
| | 32 | F25 | | | A9N61523 | SCHNEIDER | |
| | 32 | F26 | | | S202MT-C6UC | ABB | |
| | | | | | FAZ-C6/2-DC | EATON | |
| 2 | 33 | F109 | MCB Fan 6 A, 230 V Ac 2-Pole Breaking Capacity 10kA | 1 | BB20060C | L&T | S1F109 |
| | | | | | 5SL42067RC | SIEMENS | |
| | | | | | A9N2P06C | SCHNEIDER | |
| | | | | | S202MY-C6C | ABB | |
| | | | | | FAZ-C6/2-DC | EATON | |
| 3 | | | Cage clamp Earthing Terminal block | 4 | 280-837 | WAGO/Phoenix /Connectwell | Terminal no. 83 to 86 to be replaced. |

| D | Modifications in the Structural drawing of the SBC : | |
|---|---|---|
| D.1 | **Drawing no LS70201 sheet 3/14 Revised to drawing no SKED 935 sheet - 1** | |
| | 1 | Contactors 32K10/+S1K11, 32 K12/+S1K14, 32 K13/+S1K13, 32 K15/+S1K17, MR9, 110 V 32U3/+S1U2.3, 32K05/+S1K08 deleted, drawing revised |
| D.2 | **Drawing no LS70201 sheet 6/14 revised to drawing no SKED 935 sheet - 2** | |
| | 1 | MCB re-arranged :as per reference-E |
| D.3 | **Drawing no LS70201 sheet 1/14 revised terminal codifications chart.** | |
| | 1 | Terminal no. 83 to 86 changed to 280-837 of M/s WAGO in-place of 280-833 of M/s WAGO |

**E: Reference : MCBs Codification chart : SKED 935**

| Sno. | Code | Rating | Description |
|---|---|---|---|
| 1 | S1F24 | DP 6A | MCB for Lighting control |
| 2. | S1F25 | DP 6A | MCB for lighting (L-II Circuit) – Non Essential Lighting |
| 3 | S1F26 | DP 6A | MCB for lighting (L-I Circuit) – Essential Lighting |
| 4 | S1F29 | DP 6A | MCBs DC-DC Converter |
| 5 | S1F30 | DP 6A | MCBs for AEL |
| 6 | S1F32 | DP 6A | MCBs for Diagnosis |
| 7 | S1F33 | DP 10A | MCBs for PIS & Destination Board. |
| 8 | S1F34 | DP 10A | Spare |
| 9 | S1F36 | DP 6A | MCBs for Pump Control |
| 10 | S1F37 | DP 10A | MCBs for CDTS |
| 11 | S1F38 | DP 10A | MCBs for PA System. |
| 12 | - | - | SPARE |
| 13 | - | - | SPARE |
| 14 | S1F39 | DP 6A | MCBs for BLDC Fans (F-I ) |
| 15 | S1F40 | DP 6A | MCBs for BLDC Fans (F-II) |
| 16 | S1F41 | DP 6A | MCBs for BLDC Fans (F-III) |
| 17 | S1F42 | DP 6A | MCBs for RCL |
| 18 | S1F15 | TP 16A | MCBs for Exhaust Fan |
| 19 | S1F101 | DP 6A | MCBs for Bottle Cooler cum Deep freezer. |
| 20 | S1F102 | DP 20A | MCBs for Water Boiler |
| 21 | S1F103 | DP 6A | MCBs for Hot Case |
| 22 | S1F104 | DP 6A | MCBs for Bottle Cooler |
| 23 | S1F107 | DP 6A | MCBs for Mobile Charging Socket (CS-I) |
| 24 | S1F108 | DP 6A | MCBs for Mobile Charging Socket (CS-II) |
| 25 | S1F109 | DP 6A | MCBs for Mobile Charging Socket (CS-III) |

**F: Revised Terminals Codification Chart (Spec. EDTS333 )**

| ITEM NO. | TER. NO. | PART NO | LOCATION | Ref. Sheet no. |
|---|---|---|---|---|
| 72 | **102** | 280-833 | L-I (+VE) | Sheet 8/13 |
| 71 | **101** | 280-833 | PACIL CIRCUIT | Sheet 12/13 |
| 70 | **100** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 69 | **98** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 68 | **97** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 67 | **96** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 66 | **95** | 280-833 | PACIL CIRCUIT | Sheet 9/13 |
| 65 | **94** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 64 | **93** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 63 | **92** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 62 | **90** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 61 | **89** | 280-833 | DIAGNOSIS | Sheet 9/13 |
| 60 | **88** | 280-833 | LIGHT CONTROL | Sheet 5/13 |
| 59 | **87** | 280-833 | LIGHT CONTROL | Sheet 5/13 |
| 58 | **86** | 280-833 | SPARE (replaced with 280-837) Earth | - |
| 57 | **85** | 280-833 | SPARE (replaced with 280-837) Earth | - |
| 56 | **84** | 280-833 | SPARE (replaced with 280-837) Earth | - |
| 55 | **83** | 280-833 | SPARE (replaced with 280-837) Earth | - |
| 54 | **82** | 280-833 | SPARE | - |
| 53 | **81** | 280-833 | SPARE | - |
| 52 | **64** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 51 | **63** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 50 | **62** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 49 | **61** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 48 | **60** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 47 | **59** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 46 | **58** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 45 | **57** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 44 | **56** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 43 | **55** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 42 | **54** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 41 | **53** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 40 | **52** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 39 | **51** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 38 | **50** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |

| | | | | |
|---|---|---|---|---|
| 37 | **49** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 36 | **48** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 35 | **47** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 34 | **46** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 33 | **45** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 32 | **44** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 31 | **43** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 30 | **42** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 29 | **41** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 28 | **39** | 280-833 | VOLUME CONTROL | Sheet 10/13 |
| 27 | **38** | 280-833 | VOLUME CONTROL | Sheet 10/13 |
| 26 | **37** | 280-833 | VOLUME CONTROL | Sheet 10/13 |
| 25 | **36** | 280-833 | SPEAKERS | Sheet 10/13 |
| 24 | **35** | 280-833 | PUMP CONTROL | Sheet 3/13 |
| 23 | **34** | 280-833 | PUMP CONTROL | Sheet 3/13 |
| 22 | **33** | 280-833 | ANTI SKID SYSTEM | Sheet 7/13 |
| 21 | **30** | 280-833 | PUMP CONTROL | Sheet 3/13 |
| 20 | **29** | 280-833 | PUMP CONTROL | Sheet 3/13 |
| 19 | **28** | 280-833 | AMPLIFIER FOR PA SYSTEM | Sheet 10/13 |
| 18 | **27** | 280-833 | AMPLIFIER FOR PA SYSTEM | Sheet 10/13 |
| 17 | **26** | 280-833 | CDTS | Sheet 6/13 |
| 16 | **25** | 280-833 | CDTS | Sheet 6/13 |
| 15 | **24** | 280-833 | PUMP CONTROL | Sheet 6/13 |
| 14 | **23** | 280-833 | PUMP CONTROL | Sheet 6/13 |
| 13 | **13** | 280-833 | LOUDSPEAKER SYSTEM | Sheet 10/13 |
| 12 | **12** | 280-833 | UIC REMOTE | Sheet 11/13 |
| 11 | **11** | 280-833 | UIC REMOTE | Sheet 11/13 |
| 10 | **10** | 280-833 | UIC REMOTE | Sheet 11/13 |
| 9 | **9** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 8 | **8** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 7 | **7** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 6 | **6** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 5 | **5** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 4 | **4** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 3 | **3** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 2 | **2** | 280-833 | PA SYSTEM | Sheet 10/13 |
| 1 | **1** | 280-833 | PA SYSTEM | Sheet 10/13 |

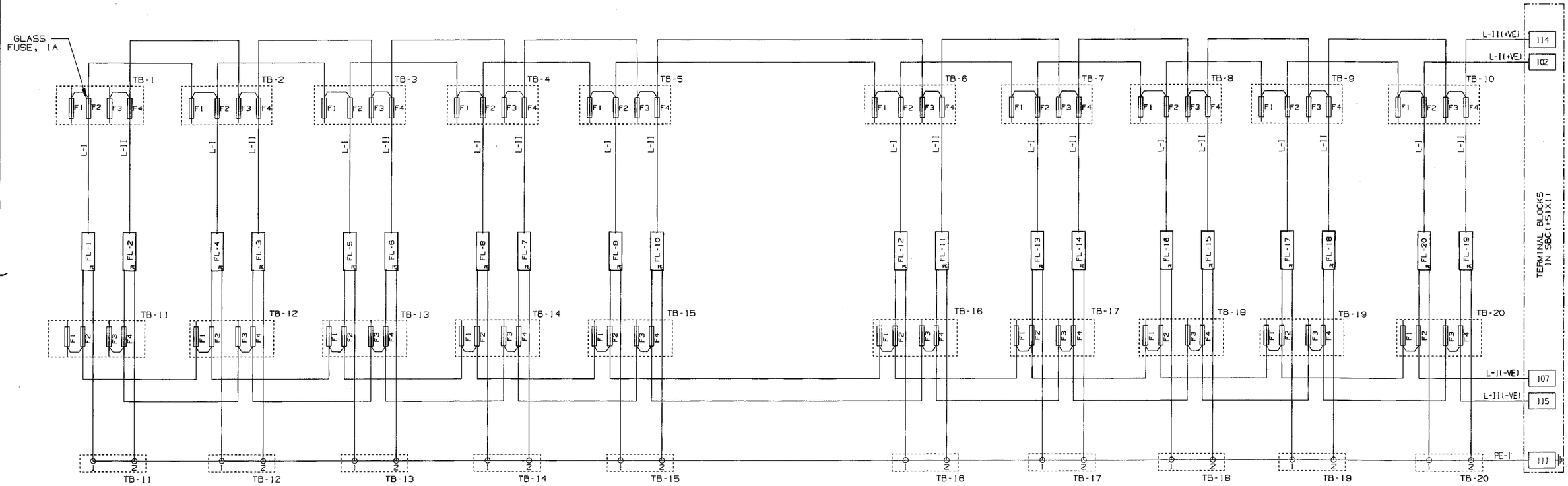
| | | | | |
|---|---|---|---|---|
| 73 | **103** | 280-833 | L-III (+VE) / L-IV(+VE) | Sheet 8/13 |
| 74 | **104** | 280-833 | SPARE | - |
| 75 | **105** | 280-833 | SPARE | - |
| 76 | **106** | 280-833 | L-III (-VE) / L-IV (-VE) | Sheet 8/13 |
| 77 | **107** | 280-833 | L-I (-VE) | Sheet 8/13 |
| 78 | **108** | 280-833 | DOORWAY LIGHT | Sheet 8/13 |
| 79 | **109** | 280-833 | DOORWAY LIGHT | Sheet 8/13 |
| 80 | **112** | 280-833 | SPARE | - |
| 81 | **113** | 280-833 | SPARE | - |
| 82 | **114** | 280-833 | L-II (+VE) | Sheet 8/13 |
| 83 | **115** | 280-833 | L-II ( -VE) | Sheet 8/13 |
| 84 | **116** | 280-833 | SPARE | - |
| 85 | **117** | 280-833 | SPARE | - |
| 86 | **118** | 280-833 | FAN CIRUIT | Sheet 13/13 |
| 87 | **119** | 280-833 | FAN CIRUIT | Sheet 13/13 |
| 88 | **120** | 280-833 | FAN CIRUIT | Sheet 13/13 |
| 89 | **121** | 280-833 | FAN CIRUIT | Sheet 13/13 |
| 90 | **122** | 280-833 | FAN CIRUIT | Sheet 13/13 |
| 91 | **123** | 280-833 | FAN CIRUIT | Sheet 13/13 |
| 92 | **198** | 280-833 | SPARE | - |
| 93 | **199** | 280-833 | SPARE | - |
| 94 | **200** | 280-833 | EARTH INSULATION 415V | Sheet 2/13 |
| 95 | **201** | 280-833 | SPARE | - |
| 96 | **202** | 280-833 | EARTH INSULATION 415V | Sheet 2/13 |
| 97 | **203** | 280-833 | AMMETER | Sheet 2/13 |
| 98 | **204** | 280-833 | AMMETER | Sheet 2/13 |
| 99 | **205** | 280-833 | AMMETER | Sheet 2/13 |
| 100 | **206** | 280-833 | AMMETER | Sheet 2/13 |
| 101 | **210** | 280-833 | SPARE | |
| 102 | **228** | 280-833 | DEEP FREEZER | Sheet 4/13 |
| 103 | **229** | 280-833 | DEEP FREEZER | Sheet 4/13 |
| 104 | **230** | 280-833 | HOT WATER BOILER | Sheet 4/13 |
| 105 | **231** | 280-833 | HOT WATER BOILER | Sheet 4/13 |
| 106 | **232** | 280-833 | HOT CASE | Sheet 4/13 |
| 107 | **233** | 280-833 | HOT CASE | Sheet 4/13 |
| 108 | **234** | 280-833 | BOTTLE COOLER | Sheet 4/13 |
| 109 | **235** | 280-833 | BOTTLE COOLER | Sheet 4/13 |
| 110 | **240** | 280-833 | MOBILE CHARGING SOCKET -1 | Sheet 13/13 |
| 111 | **241** | 280-833 | MOBILE CHARGING SOCKET -1 | Sheet 13/13 |
| 112 | **242** | 280-833 | MOBILE CHARGING SOCKET -2 | Sheet 13/13 |

| | | | | |
|---|---|---|---|---|
| 113 | **243** | 280-833 | MOBILE CHARGING SOCKET -2 | Sheet 13/13 |
| 113A | **244** | 280-833 | MOBILE CHARGING SOCKET -3 | Sheet 13/13 |
| 113B | **245** | 280-833 | MOBILE CHARGING SOCKET -3 | Sheet 13/13 |
| 114 | **F56** | 282-122 | UIC REMOTE CONTROL | Sheet 10/13 |
| 115 | **F57** | 282-122 | UIC REMOTE CONTROL | Sheet 10/13 |
| 116 | **F58** | 282-122 | SPARE | |
| 117 | **F59** | 282-122 | SPARE | |
| 118 | **F60** | 282-122 | INSULATION CONTROL 230/ 415 VAC | Sheet 2/13 |
| 119 | **F61** | 282-122 | INSULATION CONTROL 230/ 415 VAC | Sheet 2/13 |
| 120 | **F62** | 282-122 | INSULATION CONTROL 230/ 415 VAC | Sheet 2/13 |
| 121 | **F63** | 282-122 | ANTI SKID | Sheet 6/13 |
| 122 | **F65** | 282-122 | ANTI SKID | Sheet 6/13 |
| 123 | **F73** | 282-122 | 415 OK | Sheet 1/13 |
| 124 | **F74** | 282-122 | SPARE | - |
| 125 | **F75** | 282-122 | SPARE | - |

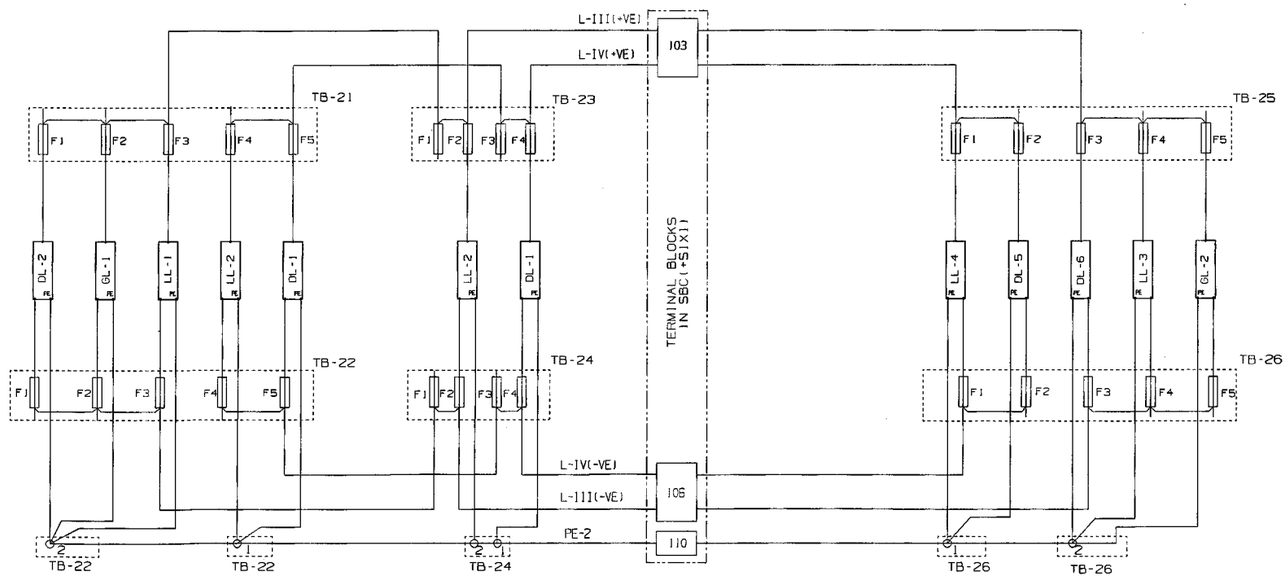
**6. Enclosures:**

| Sno. | Ref. Specification/Drawing no | Item Description |
|---|---|---|
| 1. | SKED 923 | Modified Schematic diagrams for roof wiring for LHB GS Coach |
| 2. | SKED 925 to SKED 932 and LS70202 Alt. nil (Sheets 3/13, 7/13, 9/13, 10/13 & 12/13. | Schematic diagrams for Switch Board Cabinet to spec. EDTS333 Rev. 0, Am-1&2, Cor.1, 2, 3. |
| 2.1 | SKED 935 (SHEET 1 OF 2) | MCB Holder for Switch Board Cabinet |
| 2.2 | SKED 935 (SHEET 2 OF 2) | Equipment back mounting plate for Switch Board Cabinet . |
| 4. | RDSO/PE/SPEC/TL/0158-2010 (REV.-0), Table-1 | RDSO Specification for 9kVA Transformer 750V/415V/190V 3-Phase Distribution Transformer |
| 5. | RDSO/PE/SPEC/TL/0021 Rev.3 -2005, AM-1 with RCF Annex.-1 | RDSO Specification for 110V Brush less DC Fan |
| 6. | RDSO/PE/SPEC/TL/0180-2016 REV.-0, Type-2 | RDSO Specification for Accident Emergency Light (AEL). |
| 7. | EDML086 REV. 8, Table-2 | Switch plate assemblies for LGS Coaches. |
| 8. | Cage clamp Terminals with glass fuses (Cabin Side) | SKED 933 |
| 9. | Cage clamp Terminals with glass fuses (Doorway area). | SKED 934 |
| 10 | ELRS/SPEC/ELC/0019 REV. 4 | RDSO Specification for e-beam cables |

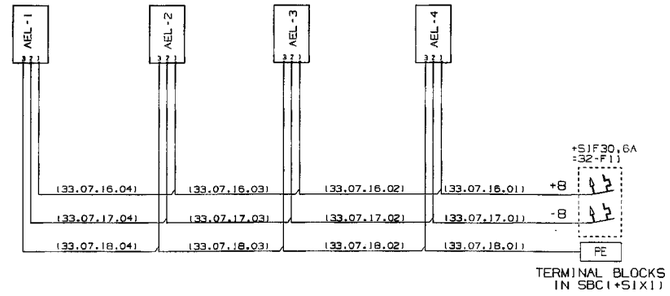
| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|




COMPARTMENT LIGHT CIRCUIT




LAVATORY & DOOR-WAY LIGHT CIRCUIT




ACCIDENTAL EMERGENCY LIGHT CIRCUIT

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| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-923\SKED-923s1.prt (2D) | | | | |
| NIL KG | | MODIFIED SCHEMATIC DIAGRAM FOR ROOF WIRING (FOR LHB EOG GS COACH TO LAYOUT NO. LG90010, ALT-NIL) | SCALE | SSE/ED | | |
| S.AREA | | | | CHD | | |
| NIL $M^2$ | | | | ORN | | |
| ~~LENGTH/DIA.~~ | | RAIL COACH FACTORY, KAPURTHALA | REF.DRG.No. | NIL | | |
| NIL M | | | | | | |
| ~~WIDTH/THICK.~~ | | रेलकोच फैक्टरी कपूरथला IRS | PL NO. | NIL | | |
| NIL M | | | DRG.NO. | SKED-923 | | |
| HEIGHT | | SEE/D&D DY.CEE/D&D | ALT. | NIL | SIZE A1 | SHEET 1/3 |
| NIL M | | | | | | |

ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.

FOR UNTOLERANCED DIMENSIONS REFER MDG0008

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DATE OF FIRST ISSUE | 23/12/2023

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|

GLASS FUSE, 1A

TB-1 TB-2 TB-3 TB-4 TB-5 TB-6 TB-7 TB-8 TB-9 TB-10

F-1 F-2 F-3 F-4 F-5 F-6 F-7 F-8 F-9 F-10 F-11 F-12 F-13 F-14 F-15 F-16 F-17 F-18 F-19 F-20 F-21 F-22 F-23 F-24 F-25 F-26 F-27 F-28 F-29 F-30

TB-11 TB-12 TB-13 TB-14 TB-15 TB-16 TB-17 TB-18 TB-19 TB-20

TERMINAL BLOCKS IN SBC(+SIXI)

F-I(+VE) 118
F-II(+VE) 120
F-III(+VE) 122
F-III(-VE) 123
F-II(-VE) 121
F-I(-VE) 119
PE-6 PE

## FAN CIRCUIT

PE-4
CS-1(N-III) PE
CS-1(B) 245
CS-1(N-II) 244
CS-1(Y) 243
CS-1(N-I) 242
CS-1(R) 241
240

TERMINAL BLOCKS IN SBC(+SIXI)

MCS-1 MCS-2 MCS-3 MCS-4 MCS-5 MCS-6 MCS-7 MCS-8 MCS-9 MCS-10

ADMCS-1 ADMCS-2 ADMCS-3 ADMCS-4 ADMCS-5 ADMCS-6 ADMCS-7 ADMCS-8 ADMCS-9 ADMCS-10

ADMCS-12 ADMCS-14 ADMCS-16 ADMCS-18 ADMCS-20

ADMCS-11 ADMCS-13 ADMCS-15 ADMCS-17 ADMCS-19

MCS-11 MCS-12 MCS-13 MCS-14 MCS-15 MCS-16 MCS-17 MCS-18 MCS-19 MCS-20

Z

CS-1(R)
CS-1(N-I)
CS-1(Y)
CS-1(N-II)
CS-1(B)
CS-1(N-III)
PE-5

GLASS FUSE, 1A — 3-PIN SOCKET
PH — GLASS FUSE, 1A — 3-PIN SOCKET
PH — GLASS FUSE, 1A — 3-PIN SOCKET
LV PANEL 110 V AC
N
E
MOBILE CHARGING SOCKET CIRCUIT

DETAIL-Z

## MOBILE CHARGING CIRCUIT (110V AC)

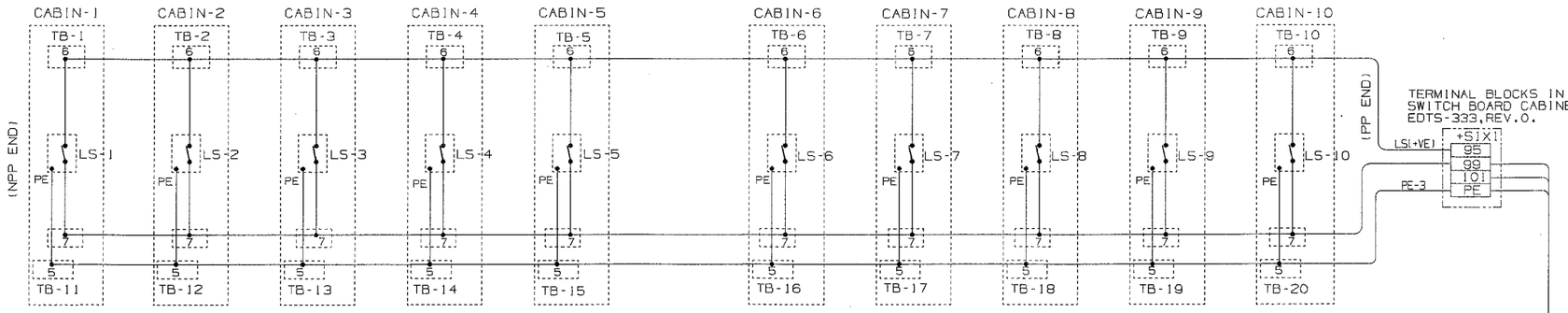
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FOR UNTOLERANCED DIMENSIONS REFER MDG0008

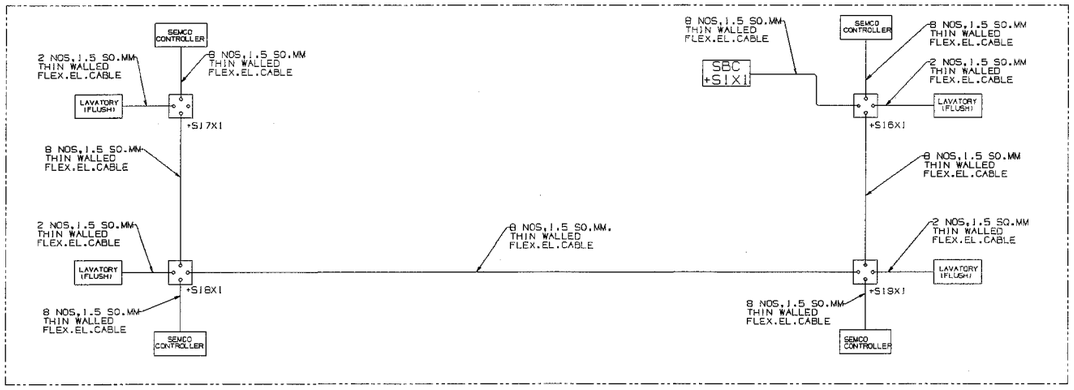
DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.
DATE OF FIRST ISSUE 23/12/2023

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | NIL | | |
| WEIGHT | FILE | Z:\SKED-923\SKED-923s2.prt (2D) | | | | |
| NIL KG | MODIFIED SCHEMATIC DIAGRAM | | | SCALE | SSE/ED | |
| S.AREA | FOR ROOF WIRING | | | | CHD | |
| NIL M² | (FOR LHB EOG GS COACH TO LAYOUT NO. LG90010, ALT-NIL) | | | | DRN | |
| ~~LENGTH/DIA~~ | | | | | | |
| NIL M | RAIL COACH FACTORY, KAPURTHALA | | | REF.DRG.NO NIL | | |
| ~~WIDTH/THICK.~~ | रेलकोच फैक्टरी कपूरथला | | IRS | PL NO. | NIL | |
| NIL M | | | | DRG.NO. | SKED-923 | |
| HEIGHT | SEE/D&D | DY.CEE/D&D | | ALT. | NIL | SIZE A SHEET 2/3 |
| NIL M | | | | | | |

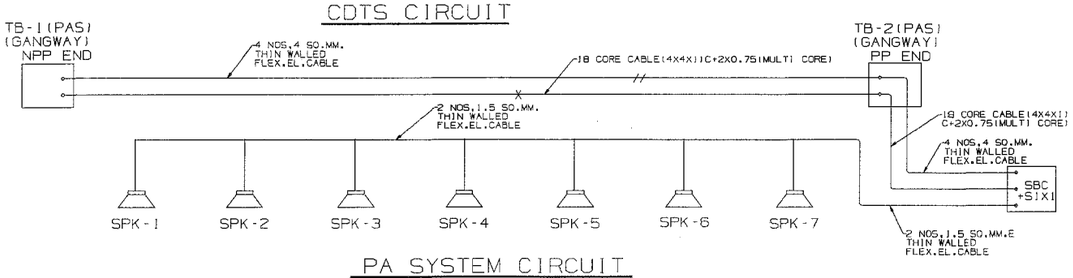
| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |



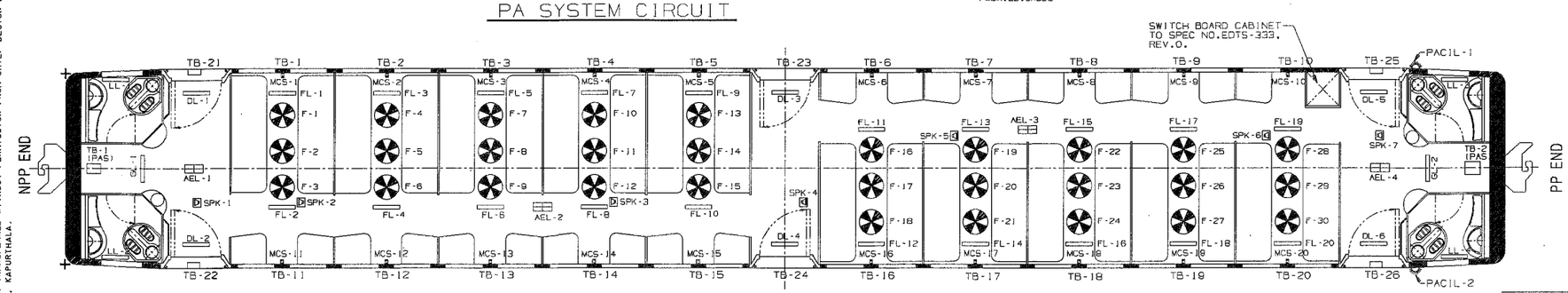

## PACIL CIRCUIT



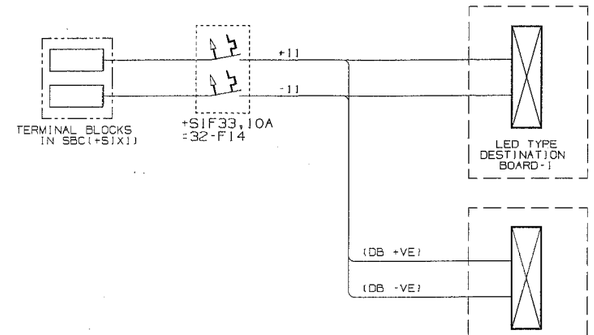

## CDTS CIRCUIT




## PA SYSTEM CIRCUIT




## REFERENCE DIAGRAM




## 110V DC LOAD ON INDIVIDUAL CIRCUIT

| CIRCUIT | CONNECTED LOAD | LOAD IN WATTS | LOAD IN CURRENT |
|---|---|---|---|
| L-I | FL-1,4,5,8,9,12,13, 16,17,20 | 90 | 0.82A |
| L-II | FL-2,3,6,7,10,11, 14,15,18,19 | 90 | 0.82A |
| L-III | DL-2,3,6 GL-1,2 LL-1,3 | 63 | 0.57A |
| L-IV | DL-1,4,5 LL-2,4 | 45 | 0.41A |
| PARCIL | PARCIL-1,2 | 26 | 0.23A |
| F-I(BLDC) | FAN-3,6,9,12,15,18 21,24,27,30 | 380 | 3.45A |
| F-II(BLDC) | FAN-2,5,8,11,14,17 20,23,26,29 | 380 | 3.45A |
| F-III(BLDC) | FAN-1,4,7,10,13,16, 19,22,25,28 | 380 | 3.45A |
| AEL | AEL-1,2,3,4 | 12 | 0.11A |
| TOTAL | | 1466 | 13.33A |

## 110V AC LOAD ON INDIVIDUAL CIRCUIT

| CIRCUIT | CONNECTED LOAD | LOAD IN WATTS | LOAD IN CURRENT |
|---|---|---|---|
| MCS CKT-1 (R) | MCS-1,2,3,4,5,7,10,11,14, 16,17,18,19,20 | 210 | 1.91A |
| MCS CKT-2 (Y) | MCS-8,12,15 ADMCS-1,3,5,7,9,11,13,15, 17,18 | 195 | 1.77A |
| MCS CKT-3 (B) | MCS-6,9,13 ADMCS-2,4,6,8,10,12,14, 16,18,20 | 195 | 1.77A |
| TOTAL | | 600 | 5.45A |

## CABLE SIZE

| CABLE SIZE | SYMBOL | SPECIFICATION |
|---|---|---|
| 1.5 SQ.MM. EBM CABLE | — | ELRS/SPEC/ELC/0019 REV-4 |
| 2.5 SQ.MM. EBM CABLE | / | ELRS/SPEC/ELC/0019 REV-4 |
| 4 SQ.MM. EBM CABLE | // | ELRS/SPEC/ELC/0019 REV-4 |
| 18 CORE CABLE (4X4X1)C+2X0.75 (MULT) CORE) | X | EDTS:32 REV.C,AM-3 CORR-1, DATA SHEET-5 |

## ABBREVIATION & LOAD CHART : 110V DC CIRCUIT

| CODE | DESCRIPTION | WATTAGE | QTY PER COACH | LOAD IN WATTS |
|---|---|---|---|---|
| FL | LED LIGHT | 9 | 20 | 180 |
| DL | DOOR WAY LIGHT | 9 | 06 | 54 |
| GL | GANGWAY LIGHT | 9 | 02 | 18 |
| LL | LAVATORY LIGHT | 9 | 04 | 36 |
| PARCIL | PASSENGER ALARM CUM RESERVATION CHART ILLUMINATION LIGHT | 13 | 2 | 26 |
| AEL | ACCIDENTAL EMERGENCY LIGHT | 3 | 04 | 12 |
| F | FAN | 38 | 30 | 1140 |
| | TOTAL | | | 1466 |

## ABBREVIATION & LOAD CHART : 110V AC CIRCUIT

| CODE | DESCRIPTION | WATTAGE | QTY PER COACH | LOAD IN WATTS |
|---|---|---|---|---|
| MCS | MOBILE CHARGING SOCKET | 15 | 40 | 600 |
| | TOTAL | | | 600 |

NOTE:-
3. FUSE F1 TO F10 ARE GLASS FUSE, 1A.
2. FOR SBC WIRING REFER DRG.NO LS70202.
1. REFER DRG.NO LG76102 FOR ARRGT.OF ROOF WIRING.

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DATE OF FIRST ISSUE 23/12/2023

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | GP/ASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | | | NIL | NIL | NIL | NIL |
| WEIGHT | GROUP | ELECTRICAL | SUPERSEDES: NIL | | | |
| NIL KG | FILE | Z:\SKED-923\SKED-923s3.prt (2D) | | | | |
| S.AREA | MODIFIED SCHEMATIC DIAGRAM FOR ROOF WIRING (FOR LHB EOG GS COACH TO LAYOUT NO. LG90010, ALT-NIL) | | | SCALE | SSE/ED | |
| NIL M² | | | | | CHD | |
| ~~LENGTH/DIA~~ | | | | | DRN | |
| NIL M | RAIL COACH FACTORY, KAPURTHALA | | | REF.DRG.No. NIL | | |
| ~~WIDTH/THICK.~~ | रेलकोच फैक्टरी कपूरथला | | IRS | PL NO. | NIL | |
| NIL M | | | | DRG.NO. | SKED-923 | |
| HEIGHT | SEE/D&D | DY.CEE/D&D | | ALT. | NIL | SIZE A1 SHEET 3/3 |
| NIL M | | | | | | |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

DISCONNECTING AND EARTHING DEVICE

S1

=12-A1
+S1A2

POWER SUPPLY ON/OFF
+S1S01
:32-S7

+S1S02
:32S01
RSW-1

1 (A1) --- NET-1
2 (B1) --- OFF
3 (C1) --- NET-2

MAIN FUSES
:12-F01 20A +S1F50
:12-F02 20A +S1F51
:12-F03 20A +S1F52
:12-F04 20A +S1F53
:12-F05 20A +S1F54
:12-F06 20A +S1F55

MAIN CONTACTOR
+S1K01
:32-K1
=32/06.2

MMR-1
(MEASURING & MONITORING RELAY-1)
+S1K03
:21-K1

MMR-2
(MEASURING & MONITORING RELAY-2)
+S1K04
:21-K2

MMR NET-1

MMR NET-2

+S1S13
=21S01
RSW-V1

+S1S14
=21S02
RSW-V2

:21-P1
+S1P2

:21-P2
+S1P3

415V O.K.

:21-F1 1A +S1F90
:21-F2 1A +S1F91
:21-F3 1A +S1F93
:21-F4 1A +S1F94
:21-F5 1A +S1F95
:21-F6 1A +S1F96

:33-F4 1A +S1F73
:33-K05 +S1K-23

+S7
=12-T1

9KVA T/R
750V/415V
& 190V
(STAR-STAR
CONNECTED)

+S1T2 :12-T2
+S1T3 :12-T3
+S1T4 :12-T4

=12-S2
+S1S12

:12-F10 +S1F44 25A
:12-F11 +S1F45 25A
:12-F12 +S1F46 25A
:12-F15 +S1F47 10A
:12-F16 +S1F48 10A
:12-F17 +S1F49 10A

415V
190V

TO SHEET-13/A-1 TO SHEET-2/A-1

| CABLE SIZE | 25SQMM | 16SQMM | 10SQMM | 6SQMM | 4SQMM | 2.5SQMM | 1.5SQMM | ELECTRON BEAM IRRADIATED CABLE TO SPEC.NO. ELRS/SPEC/ELC/ 0019, REV-4 OR LATEST |
|---|---|---|---|---|---|---|---|---|
| SYMBOL | ~~XXXX~~ | ~~XXX~~ | ~~XX~~ | ~~X~~ | ~~///~~ | ~~//~~ | ~~/~~ | |

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DATE OF FIRST ISSUE 28/12/2023

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL | | | NIL | NIL | NIL | NIL |
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-925.prt (2D) | | | | |
| NIL KG | | HIGH VOLTAGE (750V) WIRING DIAGRAM OF SWITCH BOARD CABINET (FOR LHB EOG NON-AC COACHES) | | SCALE | SSE/ED | |
| S.AREA | | | | | CHD | |
| NIL M² | | | | | DRN | |
| ~~LENGTH/DIA~~ | | | | | | |
| NIL M | | RAIL COACH FACTORY, KAPURTHALA | | REF.DRG.No. | NIL | |
| ~~WIDTH/THICK.~~ | | रेलकोच फैक्टरीकपूरथला | IRS | PL NO. | NIL | |
| NIL M | | | | DRG.NO. | SKED-925 | |
| HEIGHT | | SEE/D&D | DY.CEE/D&D | ALT. | NIL | SIZE A1 SHEET 1/1 |
| NIL M | | | | | | |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

415V 3 PHASE AC

FROM SHEET 1/H-18

L1 — 12 02 10.01 — 33 01 25.03 L1.2
L2 — 12 02 11.01 — 33 01 26.02 L2.2
L3 — 12 02 12.01 — 33 01 27.02 L3.2
N — 12 02 09.01 — 12 02 09.02 N

TO SHEET 3/A-1

12 02 10.04
12 02 09.02
12 02 09.04

L3.C1 330125.21
L2.C1 330126.22
L1.C1 330127.17
.02

+S1 -X3: 01 02 03 PE

330125.22 330126.23 330127.18 320113.01

=32-A1
+S1A3

+S1A3 -X1: A B C D E F G

320114.01

4.5KW RBC
3 Phase, 415V AC / 110V DC

+S1A3 -X2 UA

32 02 10.01 — +S1 -X3 04A — 32 02 10.02 — +UB =32/03.01
32 01 10.02 — +S1 -X3 04 — 32 01 10.01 — +UA
32 01 11.02 — 05 — 32 01 11.01 — -UA

(TO SHEET NO-6, B-1)

+S4 -X1: 01

FLOAT BOOST
+S1A3 -X20: 09 10 11 12 +S1A3 -X20

32 04 05.21 — 42 02 04.03 — 32 04 05.22 — 42 02 10.03

+S1 -X3: 17 16 15 14 13 12 11 10 09 08 06 07

+18 +19 +30 +31

=42/02.2 =42/02.2 =42/02.5 =42/02.5

FLOAT BOOST

=93-F3 +S1F60 2A
=93-F4 +S1F61 2A
=93-F5 +S1F62 2A

93 01 04.01
93 01 05.01
93 01 07.01

TO SHEET 4/F-2

93 01 04.01
93 01 05.01

93 01 04.02
93 01 05.02
93 01 07.02
93 01 07.03

+S1 -X1: 200

=93-A2
+S1-A7

A1 A2 L1 L2

IR 470LY - 40
(INSULATION COTROL AC-230/415V)

E KE 11 14

930106.01
930106.02

+S1 -X1: 202

sig7-11
sig7-14

FROM SHEET 9/C-15

BATTERY FUSE (+VE)

S4X1: 2
R1
F4 250MA
F5 250MA

+S4 -X1: 04 05

320203.01
320201.01

+S1 -X1: 205 203

320203.02
320201.02

=42-P1
+S1P8

A

=42-P2
+S1P9

320204.02
320202.02

+S1 -X1: 206 204

320204.01
320202.01

32 02 06 — +UB — TO SHEET-6 (1-1)

+S5 -X1: 04 05 06

F4 250MA
F5 250MA
F6 32A
R1
+S5 -X1: 12

BATTERY FUSE (-VE)

+S1 -X3: 20
+S5 -X1: 01
+S1 -X3: 21

2550.MM. CABLE

=32-A2
+S3

320114

5050.MM. CABLE

32 01 08 — -UB
32 01 09 — +UB

F2-32A (-VE)
F1-32A (+VE)

BATTERY 70Ah
110V DC

BATTERY FUSES
+VE & -VE AT
UNDER FRAME

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RAIL COACH FACTORY, KAPURTHALA.

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLT | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | NIL | | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-926.prt | | | | |
| NIL KG | | BATTERY DISTRIBUTION | SCALE | SSE/ED | | |
| S.AREA | | WIRING DIAGRAM OF SWITCH BOARD CABINET | | CHD | | |
| NIL M² | | (FOR LHB EOG NON-AC COACHES) | | DRN | | |
| ~~LENGTH/DIA~~ | | RAIL COACH FACTORY, KAPURTHALA | REF.DRG.No. | NIL | | |
| NIL M | | रेल कोच फैक्टरी कपूरथला IRS | PL NO. | NIL | | |
| ~~WIDTH/THICK.~~ | | | DRG.NO. | SKED-926 | | |
| NIL M | | | ALT. | NIL | SIZE A1 | SHEET 1/1 |
| HEIGHT | | | | | | |
| NIL M | | SEE/D&D DY.CEE/D&D | | | | |

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FOR UNTOLERANCED DIMENSIONS REFER MDG0008

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DATE OF FIRST ISSUE 28/12/2023

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

# 415V 3 PHASE AC

FROM SHEET 3/A-11

L1.1 33.01.25.21 XX
L2.1 33.01.26.22 XX
L3.1 33.01.27.17 XX
N.1 12.02.09.02 XX

33 01 25.23

| | =33-F101 | =33-F102 | =33-F103 | =33-F104 |
|---|---|---|---|---|
| | 6A | 20A | 6A | 6A |
| | +S1F101 | +S1F102 | +S1F103 | +S1F104 |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| | 33 01 26.01 | 33 01 28.01 | 33 01 30.01 | 33 01 32.01 |
| | +S1 -X1 228 | +S1 -X1 230 | +S1 -X1 232 | +S1 -X1 234 |
| | BOTTLE COOLER CUM DEEP FREEZER (500W) | HOT WATER BOILER (3000W) | HOT CASE (1000W) | BOTTLE COOLER (500W) |
| | +S1 -X1 229 | +S1 -X1 231 | +S1 -X1 233 | +S1 -X1 235 |
| | 12 02 28.01 | 12 02 30.01 | 12 02 32.01 | 12 02 34.01 |
| 4 | 4 | 4 | 4 | 4 |
| | =33-F101 6A +S1F101 | =33-F102 20A +S1F102 | =33-F103 6A +S1F103 | =33-F104 6A +S1F104 |
| 3 | 3 | 3 | 3 | 3 |
| | 12 02 09.03 XX | 12 02 09.04 XX | 12 02 09.05 XX | 12 02 09.06 XX |

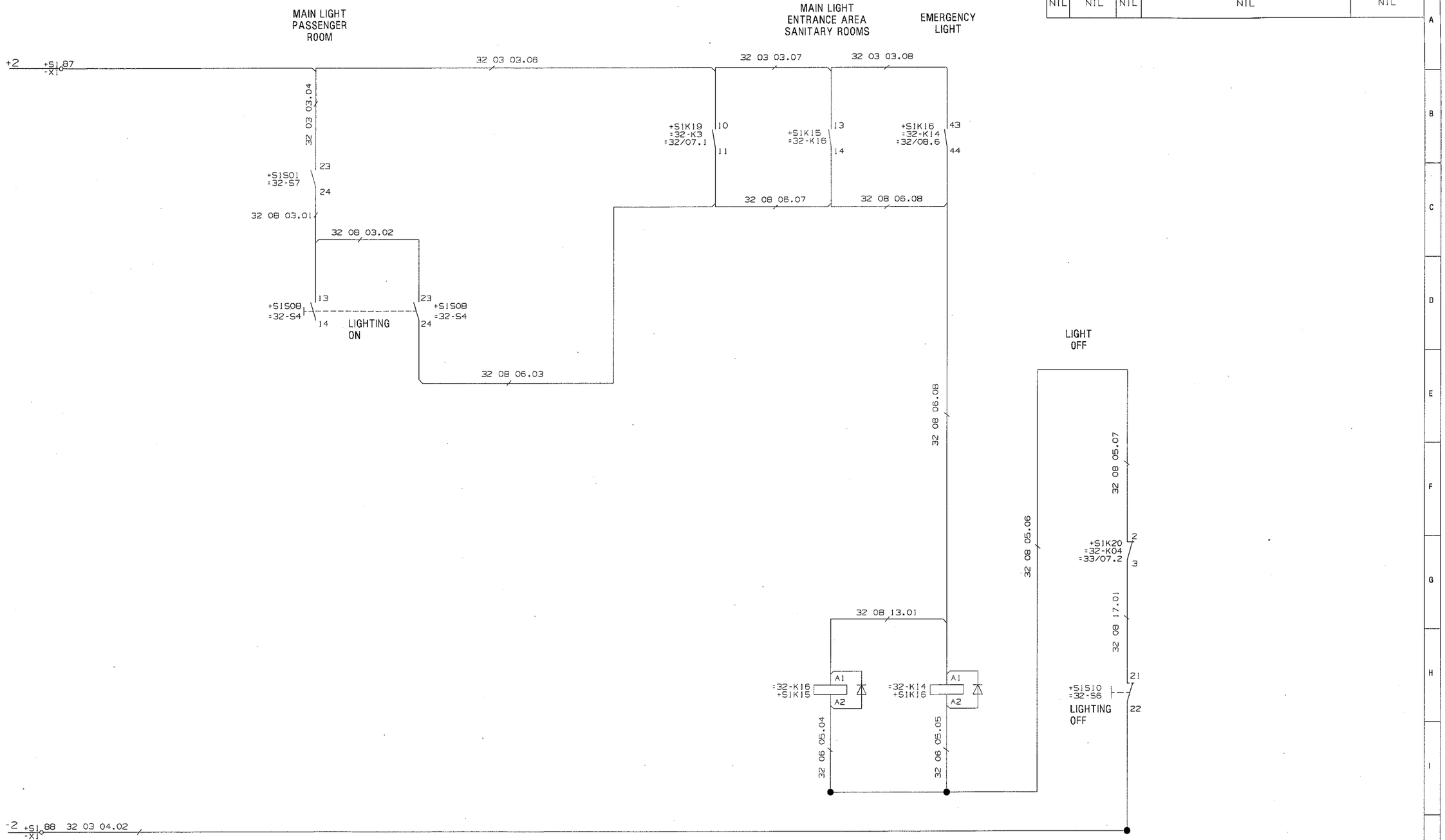
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RAIL COACH FACTORY, KAPURTHALA.

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| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLT | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| | | | NIL | NIL | NIL | NIL |
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-927.prt (2D) | | | | |
| NIL KG | | PANTRY LOAD | | | SCALE | SSE/EO |
| S.AREA | | WIRING DIAGRAM OF SWITCH BAORD CABINET | | | | CHD |
| NIL M² | | (FOR LHB EOG NON-AC COACHES) | | | | DRN |
| ~~LENGTH/DIA~~ | | | | | | |
| NIL M | | RAIL COACH FACTORY, KAPURTHALA | | | REF.DRG.No. | NIL |
| ~~WIDTH/THICK.~~ | | रेलकोच फैक्टरीकपूरथला | | IRS | PL NO. | NIL |
| NIL M | | | | | | |
| HEIGHT | | | | | DRG.NO. | SKED-927 |
| NIL M | | SEE/D&D | DY.CEE/D&D | | ALT. | NIL SIZE A1 SHEET 1/1 |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |




S1K15

=52/04.1 1 2
=52/04.1 3 4
5 6
13 14
=32/08.4 21 22

S1K16

=52/01.2 1 2
=52/01.2 3 4
=52/01.2 5 6
=52/01.2 7 8
=32/08.5 21 22
=32/08.6 43 44

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| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-928.prt (2D) | | | | |
| NIL KG | | COACH LIGHT CONTROL WIRING DIAGRAM OF SWITCH BOARD CABINET (FOR LHB EOG NON-AC COACHES) | | SCALE | SSE/ED | |
| S.AREA | | | | | CHD | |
| NIL M² | | | | | DRN | |
| ~~LENGTH/DIA~~ | | | | | | |
| NIL M | | RAIL COACH FACTORY, KAPURTHALA | | REF.DRG.No. | NIL | |
| ~~WIDTH/THICK.~~ | | | | | | |
| NIL M | | रेलकोच फैक्टरी कपूरथला IRS | | PL NO. | NIL | |
| HEIGHT | | | | DRG.NO. | SKED-928 | |
| NIL M | | SEE/D&D DY.CEE/D&D | | ALT. | NIL SIZE A1 SHEET 1/1 | |

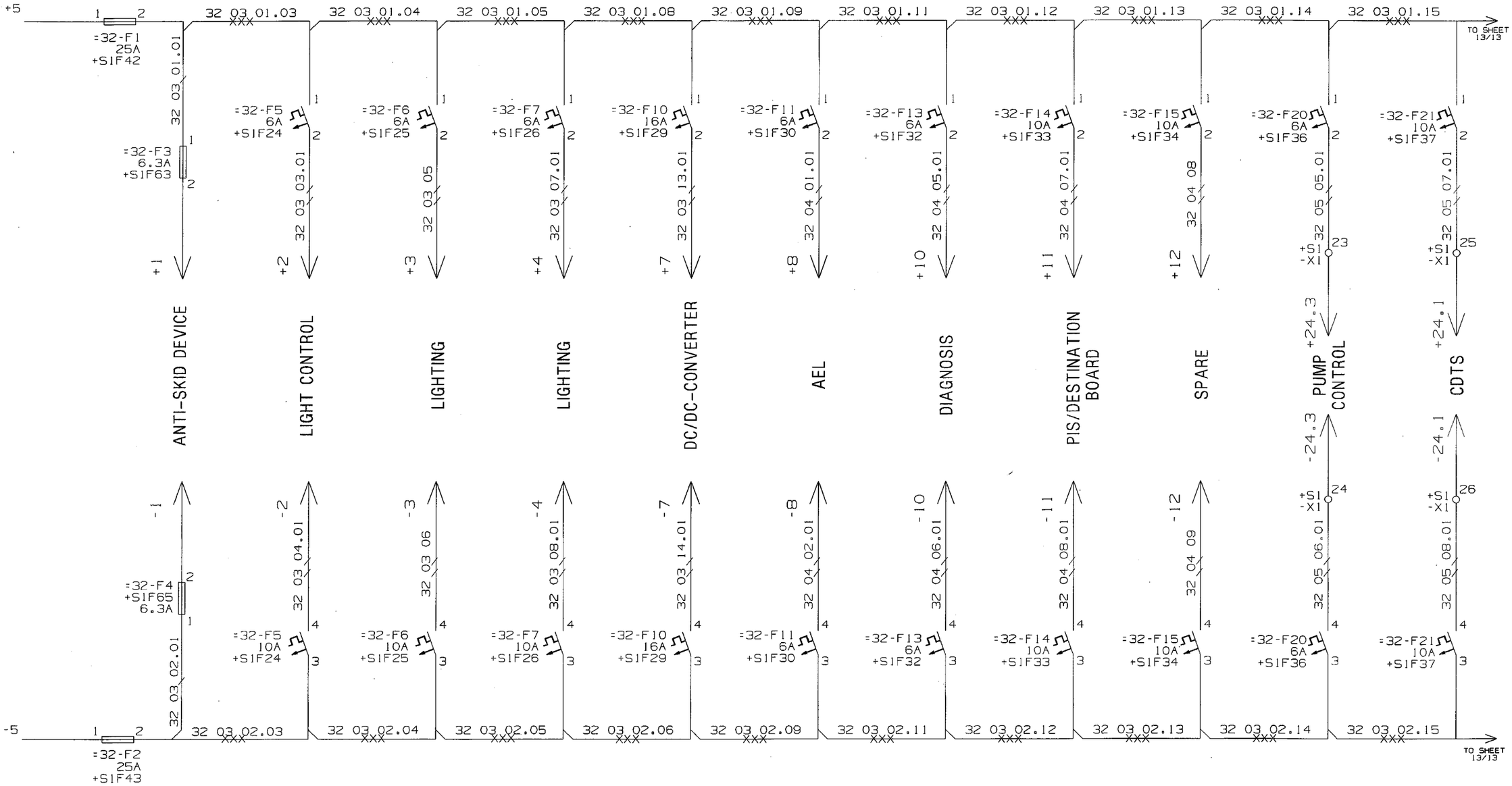
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| | | | | | |
|---|---|---|---|---|---|
| NIL | | NIL | NIL | NIL | NIL |
| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLT DETAIL DRG | MATL. & SPEC. | REMARKS |
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-929.prt (2D) | | | |
| NIL KG | | BATTERY DISTRIBUTION WIRING DIAGRAM OF SWITCH BOARD CABINET (FOR LHB EOG NON-AC COACHES) | SCALE | SSE/ED | |
| S.AREA | | | | CHD | |
| NIL M² | | | | DRN | |
| ~~LENGTH/DIA~~ | | | | | |
| NIL M | | RAIL COACH FACTORY, KAPURTHALA | REF.DRG.No. | NIL | |
| ~~WIDTH/THICK.~~ | | रेल कोच फैक्ट्री कपूरथला IRS | PL NO. | NIL | |
| NIL M | | | DRG.NO. | SKED-929 | |
| HEIGHT | | | | | |
| NIL M | | SEE/D&D DY.CEE/D&D | ALT. | NIL SIZE A3 SHEET 1/1 | |

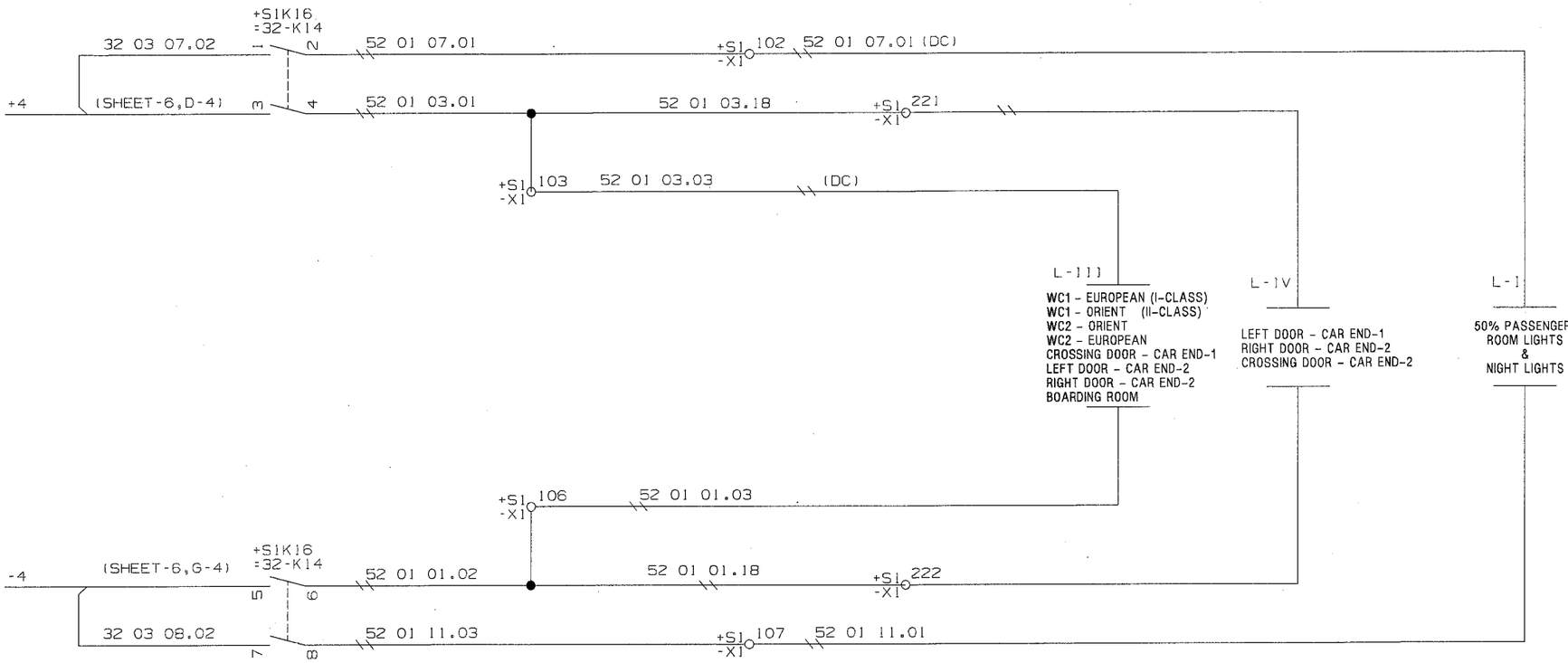
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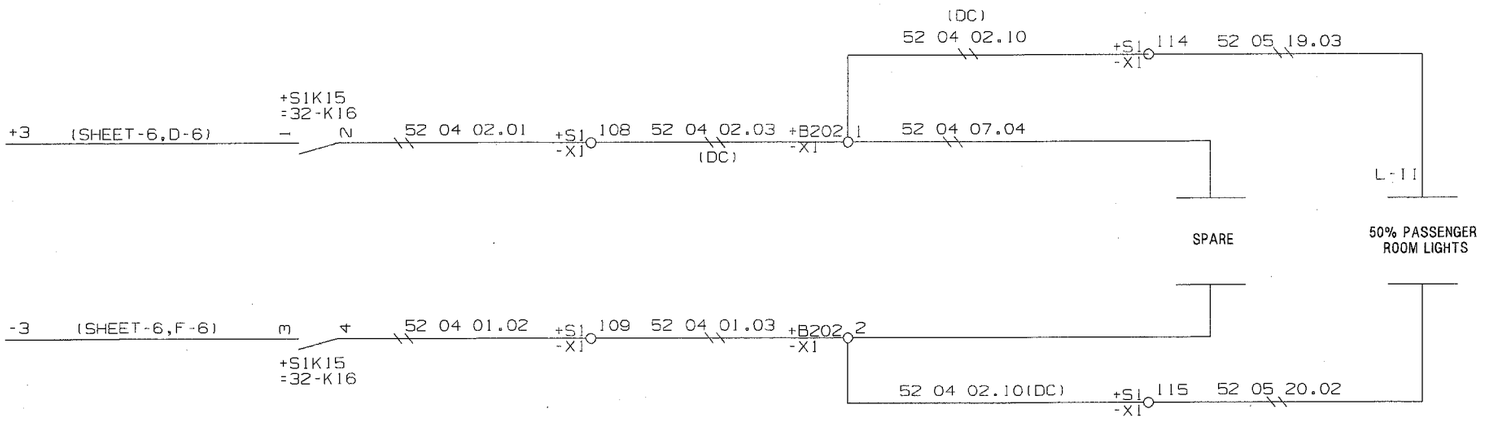
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|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |




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RAIL COACH FACTORY, KAPURTHALA.

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-930.prt (2D) | | | | |
| NIL KG | COACH LIGHTING | | | | SCALE | SSE/ED |
| S.AREA | WIRING DIAGRAM OF SWITCH BOARD CABINET | | | | | CHD |
| NIL $M^2$ | (FOR LHB EOG NON-AC COACHES) | | | | | DRN |
| ~~LENGTH/DIA~~ | RAIL COACH FACTORY, KAPURTHALA | | | | REF.DRG.No. | NIL |
| NIL M | | | | | | |
| ~~WIDTH/THICK.~~ | रेलकोच फैक्टरी कपूरथला | | IRS | | PL NO. | NIL |
| NIL M | | | | | DRG.NO. | SKED-930 |
| HEIGHT | SEE/D&D | | DY.CEE/D&D | | ALT. NIL | SIZE A SHEET 1/1 |
| NIL M | | | | | | |

ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.

FOR UNTOLERANCED DIMENSIONS REFER MDG0008

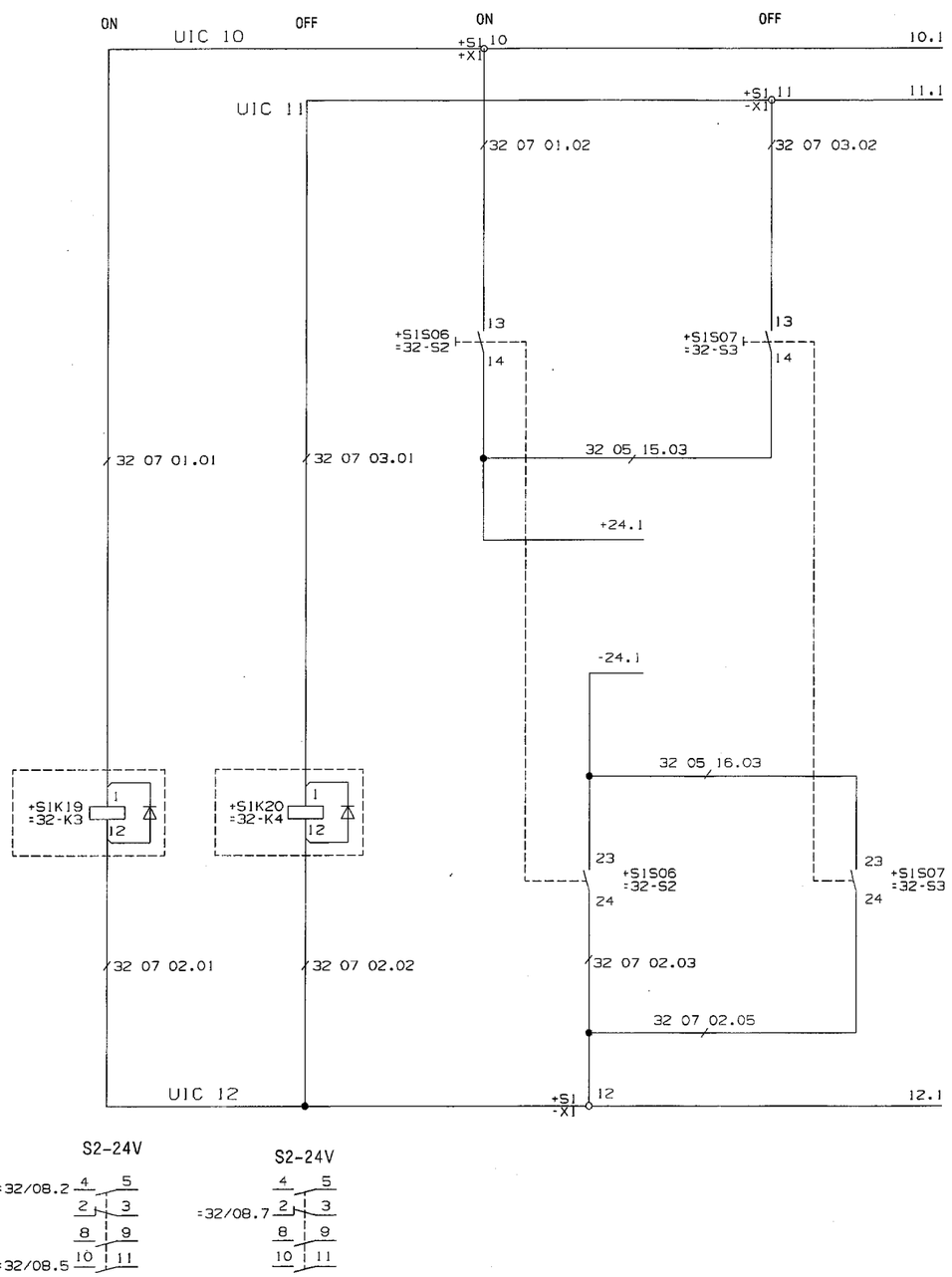
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| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

UIC-LIGHT-REMOTE CONTROL

TRAIN LIGHT










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| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| | | NIL | NIL | NIL | NIL | NIL |
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-931.prt (2D) | | | | |
| NIL KG | | UIC-REMOTE CONTROL | | | SCALE | SSE/ED |
| S.AREA | | WIRING DIAGRAM OF SWITCH BOARD CABINET | | | | CHD |
| NIL M² | | (FOR LHB EOG NON-AC COACHES) | | | | DRN |
| ~~LENGTH/DIA~~ | | | | | | |
| NIL M | | RAIL COACH FACTORY, KAPURTHALA | | | REF.DRG.NO. | NIL |
| ~~WIDTH/THICK.~~ | | रेलकोच फैक्टरी कपूरथला | | IRS | PL NO. | NIL |
| NIL M | | | | | DRG.NO. | SKED-931 |
| HEIGHT | | SEE/D&D | | DY.CEE/D&D | ALT. NIL | SIZE A1 SHEET 1/1 |
| NIL M | | | | | | |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

190V 3 PHASE AC

FROM SHEET 1/J-19

12.02.20.01 → 12 02 20.01
12.02.21.01 → 12 02 21.01
12.02.22.01 → 12 02 22.01
12.02.19.01 → 12 02 19.01

FROM SHEET 6/A-19, 1-19

110 V DC (+VE)
110 V DC (-VE)

32 03 01.16 XXX
32 03 01.17 XXX
32 03 01.18 XXX
32 03 01.19 XXX

=32-F23 6A +S1F39
=32-F24 6A +S1F40
=32-F25 6A +S1F41
=32-F26 6A +S1F42

32 04 11.01
32 04 13.01
32 04 15.01
32 04 17.01

+S1 -X1 118
+S1 -X1 120
+S1 -X1 122

BLDC FANS
BLDC FANS
BLDC FANS
RCL

+S1 -X1 119
+S1 -X1 121
+S1 -X1 123

32 04 12.01
32 04 14.01
32 04 16.01
32 04 18.01

=32-F23 6A +S1F39
=32-F24 6A +S1F40
=32-F25 6A +S1F41
=32-F26 6A +S1F42

32 03 02.16 XXX
32 03 02.17 XXX
32 03 02.18 XXX
32 03 02.19 XXX

4 POLE RCBO, 16A,
240/415 V AC,
WITH SENSITIVITY 30mA

=33-F107 6A +S1F107
=33-F108 6A +S1F108
=33-F109 6A +S1F109

12 02 16.01
12 02 24.01
12 02 26.01

+S1 -X1 240
+S1 -X1 242
+S1 -X1 244

MOBILE CHARGING CIRCUIT-1
MOBILE CHARGING CIRCUIT-2
MOBILE CHARGING CIRCUIT-3

+S1 -X1 241
+S1 -X1 243
+S1 -X1 245

12 02 17.01
12 02 25.01
12 02 27.01

=33-F107 6A +S1F107
=33-F108 6A +S1F108
=33-F109 6A +S1F109

12 02 19.02
12 02 19.03
12 02 19.04

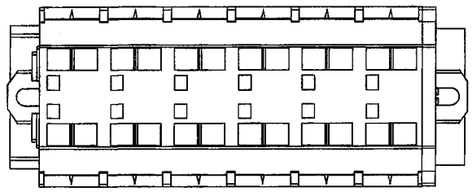
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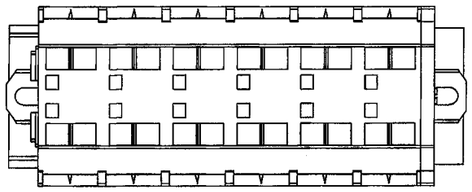
| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | DPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | | NIL | |
| WEIGHT | FILE | Z:\SKED-SBC\SKED-932.prt (2D) | | | | |
| NIL KG | FANS & MOBILE CHARGING CIRCUIT WIRING DIAGRAM OF SWITCH BOARD CABINET (FOR LHB EOG NON-AC COACHES) | | | | SCALE | SSE/ED |
| S.AREA | | | | | | CHD |
| NIL M² | | | | | | DRN |
| ~~LENGTH/DIA~~ | RAIL COACH FACTORY, KAPURTHALA | | | | REF.DRG.No. | NIL |
| NIL M | | | | | | |
| ~~WIDTH/THICK.~~ | रेलकोचफैक्टरीकपूरथला | IRS | | | PL NO. | NIL |
| NIL M | | | | | DRG.NO. | SKED-932 |
| HEIGHT | SEE/D&D | DY.CEE/D&D | | | ALT. | NIL SIZE A1 SHEET 1/1 |
| NIL M | | | | | | |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

## EXISTING TERMINAL BLOCKS

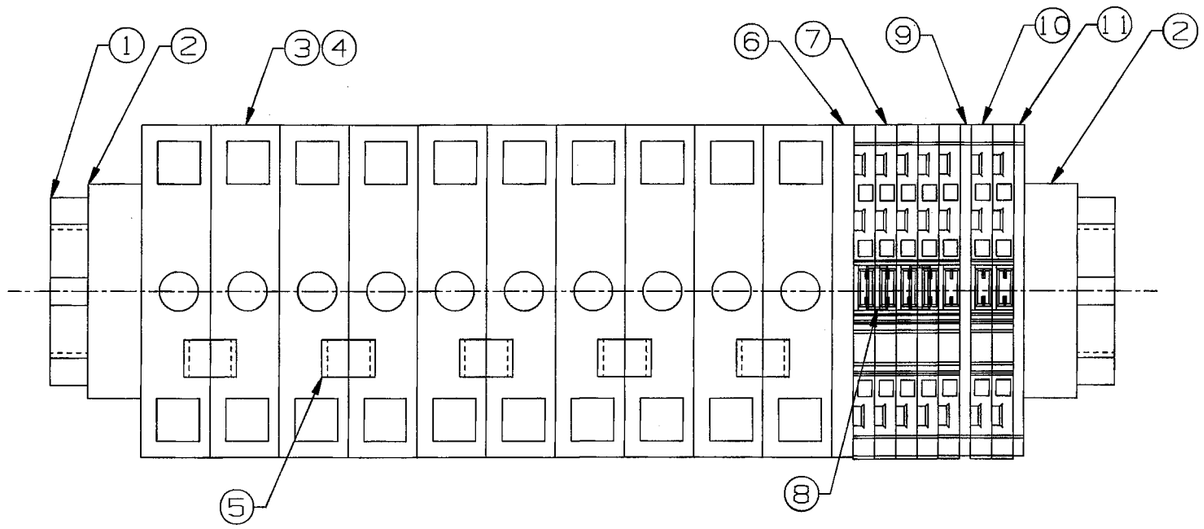


TERMINAL STRIP TO WAGO PART NO. 262-206
OR EQUIVALENT



TERMINAL STRIP TO WAGO PART NO. 262-206
OR EQUIVALENT

## REVISED TERMINAL BLOCKS




## BILL OF MATERIAL

| S.NO. | ITEM | PART NO./STANDARD | QPC |
|---|---|---|---|
| 1. | STEEL RAIL, L=200MM | 210-112 OF M/S WAGO OR EQUIVALENT | 01 NO. |
| 2. | SCREWLESS END STOP | 249-117 OF M/S WAGO OR EQUIVALENT | 02 NOS. |
| 3. | CAGE CLAMP TERMINAL | 282-122 OF M/S WAGO OR EQUIVALENT | 10 NOS. |
| 4. | GLASS FUSE, 5X20MM, 1A | IEC127-74 | 10 NOS. |
| 5. | ADJACENT JUMPER INSULATED | 282-402 OF M/S WAGO OR EQUIVALENT | 05 NOS. |
| 6. | END & INTERMEDIATE PLATE | 282-311 OF M/S WAGO OR EQUIVALENT | 01 NO. |
| 7. | 3-CONDUCTOR GROUND TERMINAL BLOCK | 279-687 OF M/S WAGO OR EQUIVALENT | 05 NOS. |
| 8. | ADJACENT JUMPER INSULATED | 279-422 OF M/S WAGO OR EQUIVALENT | 02 NOS. |
| 9. | END & INTERMEDIATE PLATE, ORANGE | 279-339 OF M/S WAGO OR EQUIVALENT | 01 NO. |
| 10. | 3-CONDUCTOR THROUGH TERMINAL BLOCK | 279-681 OF M/S WAGO OR EQUIVALENT | 02 NOS. |
| 11. | END & INTERMEDIATE PLATE, GREY | 279-308 OF M/S WAGO OR EQUIVALENT | 01 NO. |

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| WELD LENGTH | ITEN | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | | | NIL | NIL | NIL | NIL |
| WEIGHT | GROUP | ELECTRICAL | SUPERSEDES: NIL | | | |
| NIL KG | FILE | Z:\SKED-933.prt (2D) | | | | |
| S.AREA | | | | | | |
| NIL $M^2$ | | | | | | |
| ~~LENGTH / DIA~~ | | | | | | |
| NIL M | | | | | | |
| ~~WIDTH / THICK~~ | | | | | | |
| NIL M | | | | | | |
| HEIGHT | | | | | | |
| NIL M | | | | | | |

CAGE CLAMP TERMINALS
WITH GLASS FUSES (CABIN/CORRIDOR SIDE)
FOR LHB EOG NON AC COACHES

RAIL COACH FACTORY, KAPURTHALA

रेलकोचफैक्टरीकपूरथला | IRS

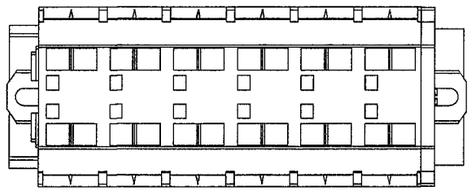
Bhim Jan SEE/D&D | DY.CEE/D&D

| SCALE | SSE/ED | |
|---|---|---|
| | CHD | |
| | DRN | |
| REF.DRG.No. | CC72069, ALT-d | |
| PL NO. | NIL | |
| DRG.NO. | SKED-933 | |
| ALT. NIL | SIZE A2 | SHEET 1/1 |

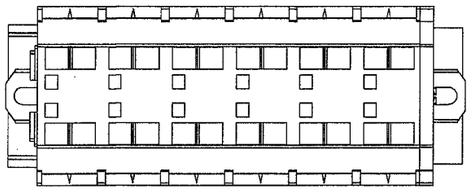
आरे कोच फैक्टरी / मध्यप्रदेश
RCF/RBL

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |

## EXISTING TERMINAL BLOCKS

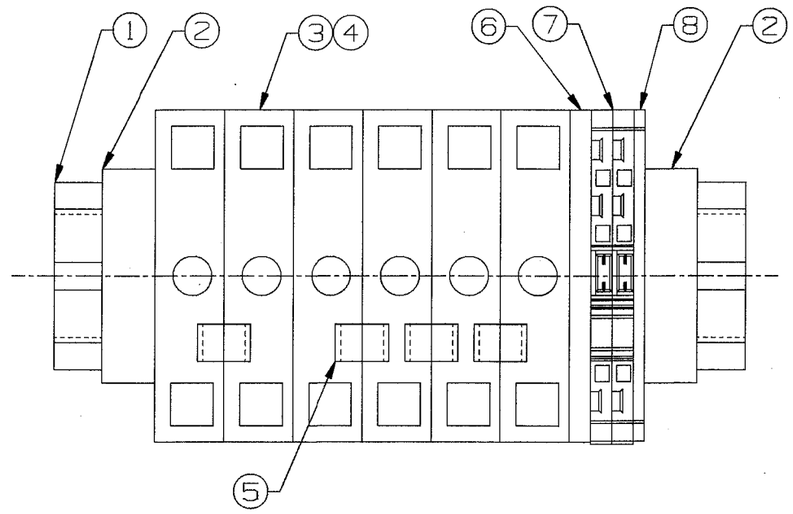


TERMINAL STRIP TO WAGO PART NO. 262-206
OR EQUIVALENT



TERMINAL STRIP TO WAGO PART NO. 262-206
OR EQUIVALENT

## REVISED TERMINAL BLOCKS




## BILL OF MATERIAL

| S.NO. | ITEM | PART NO./STANDARD | QPC |
|---|---|---|---|
| 1. | STEEL RAIL, L=130MM | 210-112 OF M/S WAGO OR EQUIVALENT | 01 NO. |
| 2. | SCREWLESS END STOP | 249-117 OF M/S WAGO OR EQUIVALENT | 02 NOS. |
| 3. | CAGE CLAMP TERMINAL | 282-122 OF M/S WAGO OR EQUIVALENT | 06 NOS. |
| 4. | GLASS FUSE, 5X20MM, 1A | IEC127-74 | 06 NOS. |
| 5. | ADJACENT JUMPER INSULATED | 282-402 OF M/S WAGO OR EQUIVALENT | 04 NOS. |
| 6. | END & INTERMEDIATE PLATE | 282-311 OF M/S WAGO OR EQUIVALENT | 01 NO. |
| 7. | 3-CONDUCTOR GROUND TERMINAL BLOCK | 279-687 OF M/S WAGO OR EQUIVALENT | 05 NOS. |
| 8. | END & INTERMEDIATE PLATE, ORANGE | 279-339 OF M/S WAGO OR EQUIVALENT | 01 NO. |

THIS DRAWING IS THE INTELLECTUAL PROPERTY OF RAIL COACH FACTORY, KAPURTHALA. THIS DRAWING SHOULD NOT BE REPRODUCED, ALTERED, USED FOR MANUFACTURING OF COMPONENTS SOLD OR TRANSFERRED WITHOUT PERMISSION FROM CHIEF DESIGN ENGINEER, RAIL COACH FACTORY, KAPURTHALA.

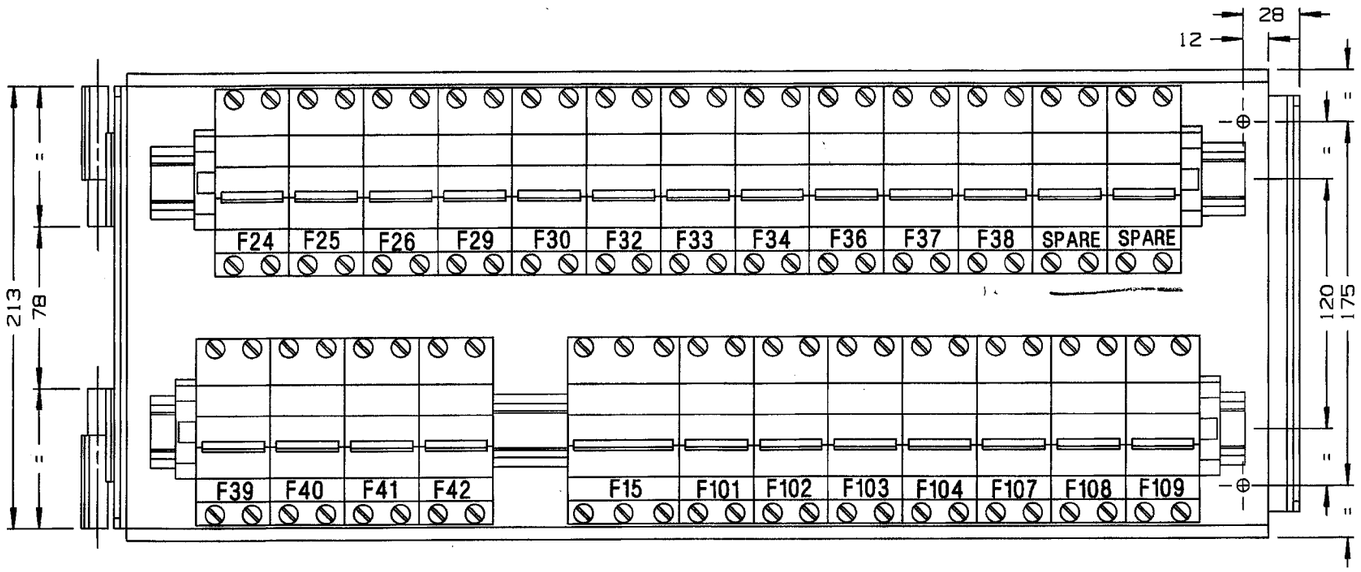
DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE

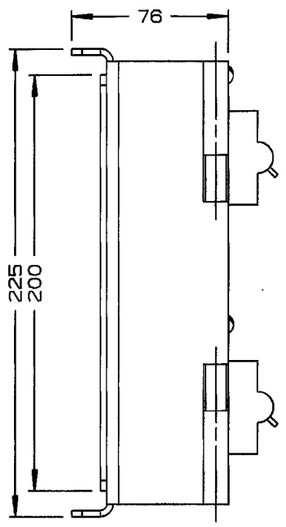
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.

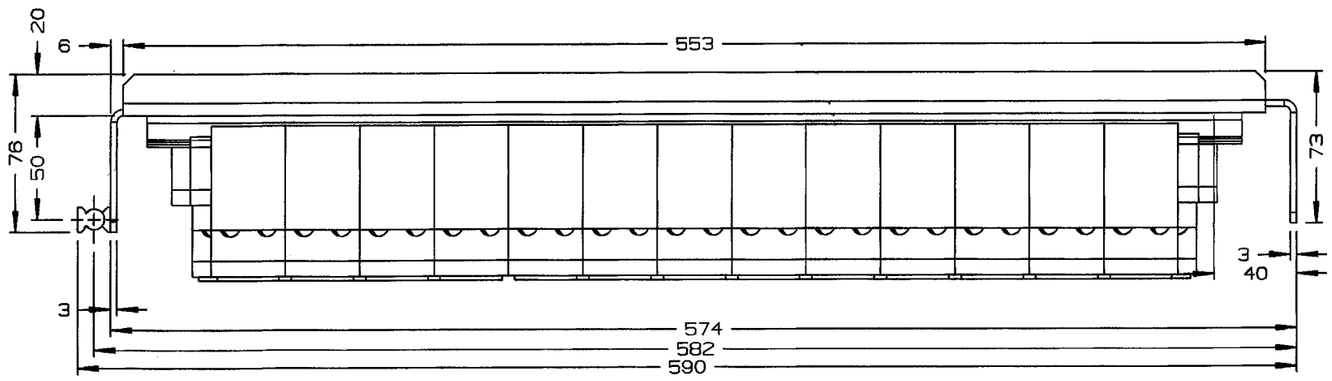
FOR UNTOLERANCED DIMENSIONS REFER MDG0008 | DATE OF FIRST ISSUE 28/12/2023

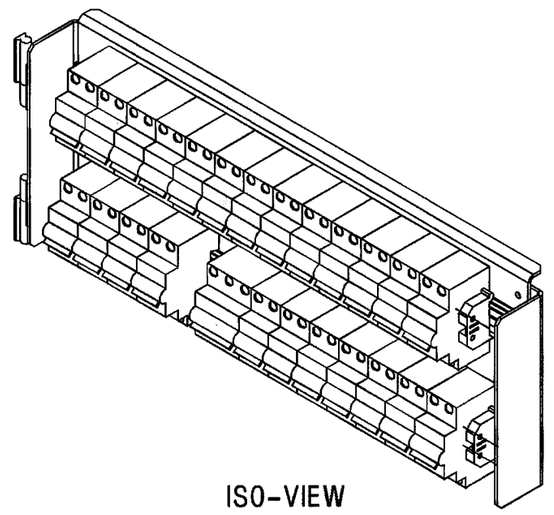
| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | | | NIL | NIL | NIL | NIL |
| | GROUP | ELECTRICAL | SUPERSEDES: NIL | | | |
| WEIGHT | FILE | Z:\SKED-934.prt (2D) | | | | |
| NIL KG | | CAGE CLAMP TERMINALS WITH GLASS FUSES (DOORWAY AREA) FOR LHB EOG NON AC COACHES | | | SCALE | SSE/ED |
| S.AREA | | | | | | CHD |
| NIL M² | | | | | | DRN |
| ~~LENGTH / DIA~~ | | | | | | |
| NIL M | | RAIL COACH FACTORY, KAPURTHALA | | | REF.DRG.No. | CC72070,ALT-c |
| ~~WIDTH / THICK~~ | | रेल कोच फैक्टरी कपूरथला | | IRS | PL NO. | NIL |
| NIL M | | | | | DRG.NO. | SKED-934 |
| HEIGHT | | | | | ALT. | NIL SIZE A2 SHEET 1/1 |
| NIL M | | SEE/D&D | | DY.CEE/D&D | | |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |



ISO-VIEW

NOTE:- 1. ALL DIMENSIONS IN MM.

DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.

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FOR UNTOLERANCED DIMENSIONS REFER MDG0008 | DATE OF FIRST ISSUE 28/12/2023

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: | NIL | | |
| WEIGHT | FILE | D:\BKRM\SKED\sked-935s1.prt | | | | |
| NIL KG | | | | | | |
| S.AREA | | | | | | |
| NIL M² | | | | | | |
| ~~LENGTH / DIA~~ | | | | | | |
| NIL M | | | | | | |
| ~~WIDTH / THICK~~ | | | | | | |
| NIL M | | | | | | |
| HEIGHT | | | | | | |
| NIL M | | | | | | |

# MCB HOLDER
## FOR SWITCH BOARD CABINET

(IN REF. TO CAI. NO. ED/CAI/026, ED/CAI/027, ED/CAI/028)

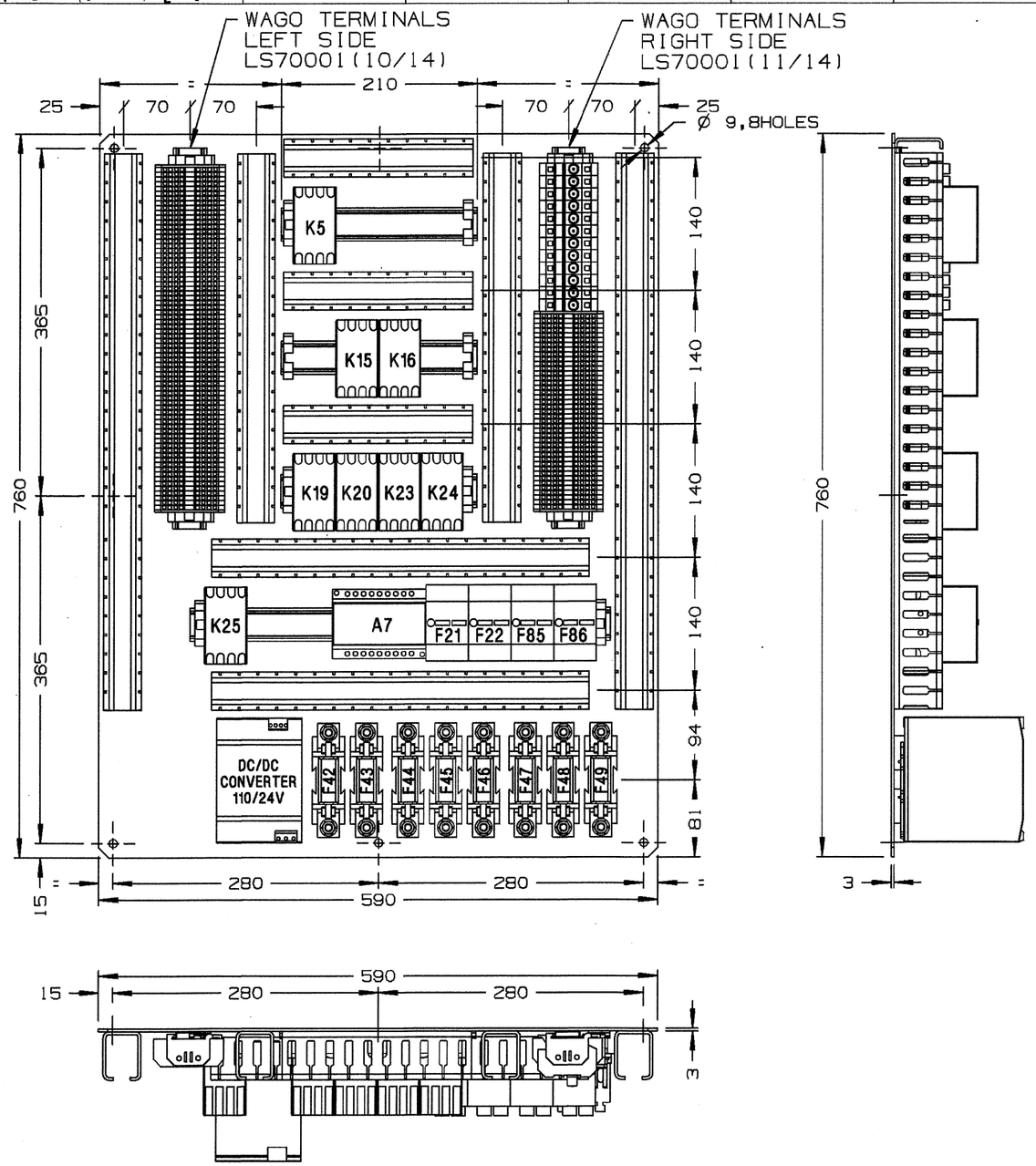
RAIL COACH FACTORY, KAPURTHALA

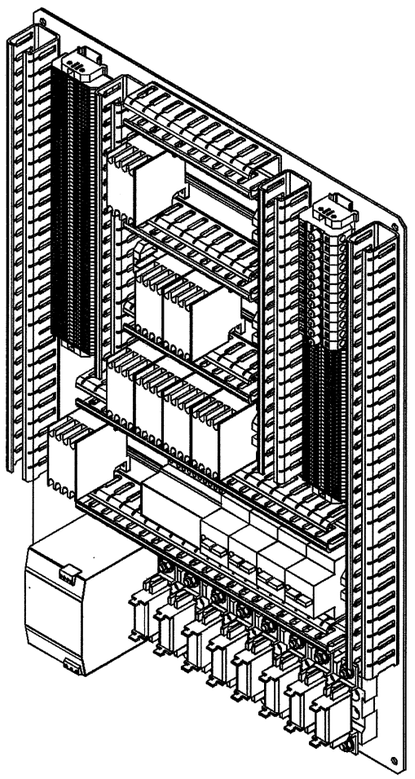
रेल कोच फैक्टरी कपूरथला | IRS

SEE/D&D | DY.CEE/D&D

| SCALE | SSE/ED | |
|---|---|---|
| | CHD | |
| | DRN | |
| REF.DRG.NO. | NIL | |
| PL NO. | NIL | |
| DRG.NO. | SKED-935 | |
| ALT. NIL | SIZE A3 | SHEET 1/2 |

| ALT.NO | ALT.DATE | ZONE | ALTERATIONS | AUTHORITY |
|---|---|---|---|---|
| NIL | NIL | NIL | NIL | NIL |



ISO-VIEW

NOTE:- 1. ALL DIMENSIONS IN MM.
2. REF. DRG. NO.LS70201 (SHEET-3/14).
3. S1K11,S1K8,S1K13,S1K14,S1K17,S1K48 & S1A6 DELETED.

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FOR UNTOLERANCED DIMENSIONS REFER MDG0008 | DATE OF FIRST ISSUE 28/12/2023

| WELD LENGTH | ITEM | DESCRIPTION & DIMENSIONS | QPASSLY | DETAIL DRG | MATL. & SPEC. | REMARKS |
|---|---|---|---|---|---|---|
| NIL M | GROUP | ELECTRICAL | SUPERSEDES: NIL | | | |
| WEIGHT | FILE | D:\BKRM\SKED\sked-935s2.prt | | | | |
| NIL KG | | | | | | |
| S.AREA | | | | | | |
| NIL $M^2$ | | | | | | |
| ~~LENGTH / DIA~~ | | | | | | |
| NIL M | | | | | | |
| ~~WIDTH / THICK~~ | | | | | | |
| NIL M | | | | | | |
| HEIGHT | | | | | | |
| NIL M | | | | | | |

EQUIP.BACK MOUNTING PLATE
FOR SWITCH BOARD CABINET
(IN REF. TO CAI. NO. ED/CAI/026, ED/CAI/027, ED/CAI/028)

RAIL COACH FACTORY, KAPURTHALA

रेल कोच फैक्टरी कपूरथला | IRS

SEE/D&D | DY.CEE/D&D

| SCALE | SSE/ED | |
|---|---|---|
| | CHD | |
| | DRN | |
| REF.DRG.NO. | NIL | |
| PL NO. | NIL | |
| DRG.NO. | SKED-935 | |
| ALT. NIL | SIZE A3 | SHEET 2/2 |