UPS DISTRIBUTION
PANEL(ADMIN BLOCK)

1R x 4C, 16mm²
CU/XLPE/FRLSH CABLE

UPDB-AM-04
LOCATION : OFFICE ROOM (FIRST FLOOR)

E-BUS

R Y B

63A 4P
MCB

E-BUS

63A, 415V, 3Ø, 4WIRE, 50Hz Cu BUS

40A
DP
MCB

40A
DP
MCB

40A
DP
MCB

40A, 240V, 1Ø, 2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø, 2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø, 2WIRE, 50Hz Cu BUS

16A
MCB
(TYP)

R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12

16A
MCB
(TYP)

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 Y9 Y10 Y11 Y12

16A
MCB
(TYP)

B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12

1 #4 mm² Cu. FRLSH wire for Phase
1 #4 mm² Cu. FRLSH wire for Neutral
1 #4 mm² Cu. FRLSH wire for Earth

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 59 | 2 | 3 | 4 | 3 | 3 | 3 | 3 | | | | | |
| | Connected load | | | 0.40 | 0.60 | 0.80 | 0.60 | 0.60 | 0.60 | 0.60 | | | | | |
| | Diversity | | | 0.5 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | | | | | |
| | Demand Load | | | 0.20 | 0.48 | 0.64 | 0.48 | 0.48 | 0.48 | 0.48 | | | | | |
| | Primary Point (1P) | 19 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | |
| | Secondary Point (2P) | 40 | | 1 | 2 | 3 | 2 | 2 | 2 | 2 | | | | | |
| | Total Connected Load | 11.80 kW | | 4.20 kW | | | | | | | | | | | |
| | Total Demand Load | 9.08 kW | | 3.24 kW | | | | | | | | | | | |
| | Area served | | | DISCUSSION ROOM | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | SPARE | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 | Y11 | Y12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 59 | 3 | 3 | 3 | 3 | 4 | 3 | | | | | | |
| | Connected load | | | 0.60 | 0.60 | 0.60 | 0.60 | 0.80 | 0.60 | | | | | | |
| | Diversity | | | 0.4 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | | | | | | |
| | Demand Load | | | 0.24 | 0.48 | 0.48 | 0.48 | 0.64 | 0.48 | | | | | | |
| | Primary Point (1P) | 19 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | |
| | Secondary Point (2P) | 40 | | 2 | 2 | 2 | 2 | 3 | 2 | | | | | | |
| | Total Connected Load | 11.80 kW | | 3.80 kW | | | | | | | | | | | |
| | Total Demand Load | 9.08 kW | | 2.80 kW | | | | | | | | | | | |
| | Area served | | | DISCUSSION ROOM | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 59 | 3 | 4 | 3 | 3 | 3 | 3 | | | | | | |
| | Connected load | | | 0.60 | 0.80 | 0.60 | 0.60 | 0.60 | 0.60 | | | | | | |
| | Diversity | | | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | | | | | | |
| | Demand Load | | | 0.48 | 0.64 | 0.48 | 0.48 | 0.48 | 0.48 | | | | | | |
| | Primary Point (1P) | 19 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | |
| | Secondary Point (2P) | 40 | | 2 | 3 | 2 | 2 | 2 | 2 | | | | | | |
| | Total Connected Load | 11.80 kW | | 3.80 kW | | | | | | | | | | | |
| | Total Demand Load | 9.08 kW | | 3.04 kW | | | | | | | | | | | |
| | Area served | | | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | OPEN OFFICE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |

SUB MAIN PANEL
(ADMIN BLOCK)

1R x 4C, 16mm²
CU/XLPE/FRLSH CABLE

PDB-AM-05
LOCATION : OFFICE (GROUND FLOOR)

E-BUS

R Y B

63A 4P
MCB

E-BUS

63A, 415V, 3Ø, 4WIRE, 50Hz Cu BUS

40A
DP
RCBO
30mA

40A
DP
RCBO
30mA

40A
DP
RCBO
30mA

40A, 240V, 1Ø,
2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø,
2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø,
2WIRE, 50Hz Cu BUS

16A
MCB
(TYP)

R1 R2 R3 R4 R5 R6 R7 R8

16A
MCB
(TYP)

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8

16A
MCB
(TYP)

B1 B2 B3 B4 B5 B6 B7 B8

1 #4 mm² Cu. FRLSH wire for Phase
1 #4 mm² Cu. FRLSH wire for Neutral
1 #4 mm² Cu. FRLSH wire for Earth

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Raw 6A | 0.10 | 24 | 2 | 2 | 2 | 2 | | | | |
| | Connected load in KW | | | 0.20 | 0.20 | 0.20 | 0.20 | | | | |
| | Diversity | | | 0.3 | 0.3 | 0.3 | 0.3 | | | | |
| | Demand Load in KW | | | 0.06 | 0.06 | 0.06 | 0.06 | | | | |
| | Primary Point (1P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Secondary Point (2P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Total Connected Load | 2.40 kW | | 0.80 kW | | | | | | | |
| | Total Demand Load | 0.72 kW | | 0.24 kW | | | | | | | |
| | Area served | | | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Raw 6A | 0.10 | 24 | 2 | 2 | 2 | 2 | | | | |
| | Connected load in KW | | | 0.20 | 0.20 | 0.20 | 0.20 | | | | |
| | Diversity | | | 0.3 | 0.3 | 0.3 | 0.3 | | | | |
| | Demand Load in KW | | | 0.06 | 0.06 | 0.06 | 0.06 | | | | |
| | Primary Point (1P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Secondary Point (2P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Total Connected Load | 2.40 kW | | 0.80 kW | | | | | | | |
| | Total Demand Load | 0.72 kW | | 0.24 kW | | | | | | | |
| | Area served | | | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Raw 6A | 0.10 | 24 | 2 | 2 | 2 | 2 | | | | |
| | Connected load in KW | | | 0.20 | 0.20 | 0.20 | 0.20 | | | | |
| | Diversity | | | 0.3 | 0.3 | 0.3 | 0.3 | | | | |
| | Demand Load in KW | | | 0.06 | 0.06 | 0.06 | 0.06 | | | | |
| | Primary Point (1P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Secondary Point (2P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Total Connected Load | 2.40 kW | | 0.80 kW | | | | | | | |
| | Total Demand Load | 0.72 kW | | 0.24 kW | | | | | | | |
| | Area served | | | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | SPARE | SPARE | SPARE | SPARE |

UPS DISTRIBUTION
PANEL(ADMIN BLOCK)

1R x 4C, 16mm²
CU/XLPE/FRLSH CABLE

UPDB-AM-05
LOCATION : OFFICE ROOM (FIRST FLOOR)

E-BUS

R Y B

63A 4P
MCB

E-BUS

63A, 415V, 3Ø, 4WIRE, 50Hz Cu BUS

40A
DP
30mA

40A
DP
30mA

40A
DP
30mA

40A, 240V, 1Ø, 2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø, 2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø, 2WIRE, 50Hz Cu BUS

16A
MCB
(TYP)

R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12

16A
MCB
(TYP)

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 Y9 Y10 Y11 Y12

16A
MCB
(TYP)

B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12

1 #4 mm² Cu. FRLSH wire for Phase
1 #4 mm² Cu. FRLSH wire for Neutral
1 #4 mm² Cu. FRLSH wire for Earth

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 15 | 3 | 3 | | | | | | | | | | |
| | Connected load | | | 0.60 | 0.60 | | | | | | | | | | |
| | Diversity | | | 0.8 | 0.8 | | | | | | | | | | |
| | Demand Load | | | 0.48 | 0.48 | | | | | | | | | | |
| | Primary Point (1P) | 5 | | 1 | 1 | | | | | | | | | | |
| | Secondary Point... | 10 | | 2 | 2 | | | | | | | | | | |
| | Total Connected... | 3.00 kW | | 1.20 kW | | | | | | | | | | | |
| | Total Demand... | 2.40 kW | | 0.96 kW | | | | | | | | | | | |
| | Area served | | | OPEN OFFICE | OPEN OFFICE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 | Y11 | Y12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 15 | 3 | 3 | | | | | | | | | | |
| | Connected load | | | 0.60 | 0.60 | | | | | | | | | | |
| | Diversity | | | 0.8 | 0.8 | | | | | | | | | | |
| | Demand Load | | | 0.48 | 0.48 | | | | | | | | | | |
| | Primary Point (1P) | 5 | | 1 | 1 | | | | | | | | | | |
| | Secondary Point... | 10 | | 2 | 2 | | | | | | | | | | |
| | Total Connected... | 3.00 kW | | 1.20 kW | | | | | | | | | | | |
| | Total Demand... | 2.40 kW | | 0.96 kW | | | | | | | | | | | |
| | Area served | | | OPEN OFFICE | OPEN OFFICE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 15 | 3 | | | | | | | | | | | |
| | Connected load | | | 0.60 | | | | | | | | | | | |
| | Diversity | | | 0.8 | | | | | | | | | | | |
| | Demand Load | | | 0.48 | | | | | | | | | | | |
| | Primary Point (1P) | 5 | | 1 | | | | | | | | | | | |
| | Secondary Point... | 10 | | 2 | | | | | | | | | | | |
| | Total Connected... | 3.00 kW | | 0.60 kW | | | | | | | | | | | |
| | Total Demand... | 2.40 kW | | 0.48 kW | | | | | | | | | | | |
| | Area served | | | OPEN OFFICE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |

UPS DISTRIBUTION
PANEL(ADMIN BLOCK)

1R x 4C, 16mm²
CU/XLPE/FS CABLE

UPDB-AM-06
LOCATION : OFFICE (GROUND FLOOR)

E-BUS

R Y B

63A 4P
MCB

E-BUS

63A, 415V, 3Ø, 4WIRE, 50Hz Cu BUS

40A
DP
MCB

40A
DP
MCB

40A
DP
MCB

40A, 240V, 1Ø,
2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø,
2WIRE, 50Hz Cu BUS

40A, 240V, 1Ø,
2WIRE, 50Hz Cu BUS

16A
MCB
(TYP)

R1 R2 R3 R4 R5 R6 R7 R8

16A
MCB
(TYP)

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8

16A
MCB
(TYP)

B1 B2 B3 B4 B5 B6 B7 B8

1 #4 mm² Cu. FRLSH wire for Phase
1 #4 mm² Cu. FRLSH wire for Neutral
1 #4 mm² Cu. FRLSH wire for Earth

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 36 | 3 | 3 | 3 | 3 | | | | |
| | Connected load | | | 0.60 | 0.60 | 0.60 | 0.60 | | | | |
| | Diversity | | | 0.8 | 0.8 | 0.8 | 0.8 | | | | |
| | Demand Load | | | 0.48 | 0.48 | 0.48 | 0.48 | | | | |
| | Primary Point (1P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Secondary Point (2P) | 24 | | 2 | 2 | 2 | 2 | | | | |
| | Total Connected Load | 7.20 kW | | 2.40 kW | | | | | | | |
| | Total Demand Load | 5.76 kW | | 1.92 kW | | | | | | | |
| | Area served | | | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 36 | 3 | 3 | 3 | 3 | | | | |
| | Connected load | | | 0.60 | 0.60 | 0.60 | 0.60 | | | | |
| | Diversity | | | 0.8 | 0.8 | 0.8 | 0.8 | | | | |
| | Demand Load | | | 0.48 | 0.48 | 0.48 | 0.48 | | | | |
| | Primary Point (1P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Secondary Point (2P) | 24 | | 2 | 2 | 2 | 2 | | | | |
| | Total Connected Load | 7.20 kW | | 2.40 kW | | | | | | | |
| | Total Demand Load | 5.76 kW | | 1.92 kW | | | | | | | |
| | Area served | | | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | SPARE | SPARE | SPARE | SPARE |

| SYMBOL | DESCRIPTION | kW | TOTAL QTY | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UPS 2nos of 6A | 0.20 | 36 | 3 | 3 | 3 | 3 | | | | |
| | Connected load | | | 0.60 | 0.60 | 0.60 | 0.60 | | | | |
| | Diversity | | | 0.8 | 0.8 | 0.8 | 0.8 | | | | |
| | Demand Load | | | 0.48 | 0.48 | 0.48 | 0.48 | | | | |
| | Primary Point (1P) | 12 | | 1 | 1 | 1 | 1 | | | | |
| | Secondary Point (2P) | 24 | | 2 | 2 | 2 | 2 | | | | |
| | Total Connected Load | 7.20 kW | | 2.40 kW | | | | | | | |
| | Total Demand Load | 5.76 kW | | 1.92 kW | | | | | | | |
| | Area served | | | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | OPEN OFFICE (WS) | SPARE | SPARE | SPARE | SPARE |

**TENDER DRAWING**

1. THIS DRAWING IS FOR INFORMATION AND REFERENCE AS A GENERAL GUIDANCE ONLY.
2. ALL DEPOT FACILITIES, PLANTS & MACHINERIES, ACCOMMODATION FACILITIES, SYSTEM WIDE REQUIREMENTS ETC.SHALL BE VERIFIED FOR MAINTENANCE REQUIREMENT OF ROLLING STOCK AND INFRASTRUCTURE FACILITIES.
3. ALL DIMENSIONS ARE IN METER UNLESS NOTED OTHERWISE AND TO BE READ ONLY NOT MEASURED
4. ABSOLUTE RAIL LEVEL SHALL BE DERIVED FROM APPROVED ALIGNMENT DRAWINGS.
5. STRUCTURE SYSTEM SHOWN IS INDICATIVE. ALL STRUCTURE MEMBER SIZES TO BE DETAILED BY DESIGNER AT LATER STAGE.
6. THIS DRAWINGS HAVE BEEN DEVELOPED IN CONFORMITY TO DPR, SOD, BSRP& OTHER CODAL REQUIREMENTS.
7. SYSTEM ROOM SIZES, HEIGHTS, DOOR SIZE, FLOOR HEIGHT AND CUTOUT DIMENSIONS TO BE VERIFIED BY RELEVANT DISCIPLINES OF ENGINEERING.
8. SHAFTS FOR ELECTRICAL, S&T, PLUMBING, DRAINAGE, SEWAGE DISPOSAL, RAIN WATER HARVESTING, FIRE AND OTHER SYSTEMS SHALL BE PROVIDED AS PER SYSTEM AND MEP REQUIREMENTS.
9. ALL FINISHES ARE SUBJECT TO K-RIDE APPROVAL.
10. SPACE CONSIDERED FOR ELECTRICAL & S&T CABLE TRENCH, DURING THE DETAILED DESIGN STAGE ELECTRICAL & S&T CABLE TRENCH WILL BE PROVIDED BASED ON DESIGN.
11. 1 IN 8.5 TURNOUTS PROVIDED IN THE DEPOT.
12. FM DISTANCE PROVIDED AT 4.25M METERS.

BARSYL
we innovate
BALAJI RAILROAD SYSTEMS (P) LIMITED.

| REV.NO | DESCRIPTION | DESIGNED | CHECKED | REVIEWED | APPROVED |
|---|---|---|---|---|---|
| R0 | TENDER DRAWING | AGP 19/05/24 | SVH 19/05/24 | KLP 19/05/24 | VGR 19/05/24 |

| GENERAL CONSULTANT | | K RIDE | |
|---|---|---|---|
| PROJECT DIRECTOR | | GM / PLANNING | |
| SR.ALIGNMENT EXPERT | | GM / CIVIL / DEPOT | |
| CHIEF TRACK EXPERT | | GM / ROLLING STOCK | |
| CHIEF SIGNALLING EXPERT | | GM / TRACTION | |
| CHIEF TRACTION EXPERT | | GM / SIGNALLING | |
| CHIEF TELECOM EXPERT | | | |
| SR.ROLLING STOCK ENGINEER | | | |

DIRECTOR PROJECT PLANNING

DIRECTOR SYSTEM

K RIDE
RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED

PROJECT I. D: 2388

TITLE:

# ADMIN BUILDING
# ELECTRICAL SYSTEM DISTRIBUTION BOARD SCHEMATIC DIAGRAM

CONSULTANT : BARSYL we innovate
BALAJI RAILROAD SYSTEMS (P) LIMITED.

| SCALE | SHEET NO. | DRG NO.KRIDE_BSRP_RS_DEPOT_SDVL | REV |
|---|---|---|---|
| 1:25 | 6 OF 6 | | 05 |

14 13 12 11 10 9 8 7 6 5 4 3 2 1