

WESTERN RAILWAY
VADODARA DIVISION
ELECTRICAL (POWER) DEPARTMENT
TENDER DOCUMENT

Tender No. : BRC-EL-P-35-2285-97-23-24

Name of work : 1. Vadodara station: Electrical work in connection with improvement to open drains and water hydrant pipelines at PF No 3.
2. Vadodara Division: Electrical work in connection with raising of PFs to HL at important NSG-5 and NSG-6 stations over BG sections as per revised MEA norms at Bodeli (BDE) and Chhota Udepur (CTD).

Cost of Work : ₹ 43,05,459.00

Type of tender : Open tender

Tender document cost : NIL

Earnest Money/Bid Security : ₹ 86,100.00

Completion Period : Six (06) Months

Validity of offer : 60 days

Tender closing date and time : 22.04.2024 at 15.00 hours

NON - TRANSFERRABLE

**Issued by – Senior Divisional Electrical Engineer (Power) Vadodara,
Western Railway**

Note –

1. Pole drawing along with details of base plate, foundation bolts and foundation details (RCC) shall be submitted for approval to the site engineer.
2. Material shall be dispatched only after getting approval from the inspection agency.
3. Red Ochre coat shall be applied on the portion of foundation of poles above the ground level.
4. Required length of three core flexible wire for connection to light fitting is included in the scope of work.

Item No. 21 – Fabrication, supply and fixing of outdoor type M.S. box of size 250 mm x 150 mm x 100 mm fabricated from M.S. sheet of 16 SWG thickness with standard angles, channels etc. suitable for housing LED fitting, 12 Watt. The front of the box should be covered with wired mesh – The price shall cover for fabrication, supply and fixing of M.S. Box of size 250 mm x 150 mm x 100 mm fabricated from M.S. Sheet of 16 SWG thickness for housing of LED fitting. The box shall be suitable for outdoor application with standard angles, channels etc. The front of the box shall be covered with SS 202 wire mesh grill. The M.S. box should have hinged opening for access to LED fitting. The complete box should be painted with two coats of red oxide paint and finished with one coat of Siemens grey paint.

Item No. 22 – Supply, fixing, testing and commissioning of step-down transformer, 3.0 KVA, three-phase, 415/110 Volt AC – The price shall cover for supply, erection, testing and commissioning of 5.0 KVA, 440/100-120 Volt, 50 Hz step-down transformer housed in MS box. The step-down transformer shall be suitable for outdoor installation and weather proof design. The transformer should be copper wound with tapping for 110 to 120 Volt on low voltage side. Each tapping shall be provided with MCB TPN, 63 Amp on incoming side and three nos of MCB DP, 40 Amp on outgoing side. Suitable size of MS angle frame shall be provided for erection of the step-down transformer. The step-down transformer shall be of **TRIO or any other** make approved by Railway.

Item No. 23 – Erection of rail pole, 1.5/2.0 meter – This includes erection of rail pole of 2.0 meters long with foundation and muffing. The foundation size shall be 6" x 6" x 9" approximately and made from cement concrete ratio of 1:3:6. The rail post shall be grouted approximately 0.5 meter below the ground level. The rail pole shall be painted with one coat of red oxide and one coat of black enamel paint (rail pieces of required length shall be supplied by railways).

Item No. 24 – Fabrication, supply, fixing and commissioning of 110 Volt battery charging terminals to be mounted on rail poles – The price shall cover for fabrication, supply, fixing and commissioning of 110 Volt battery charging terminals and design shall be as per sample drawing available in Sr. DEE (Power) Vadodara office. Only two cables shall be tapped from the outgoing terminal of the battery charger and looping of the charging terminals should be in alignment. The looping shall take place at the charging terminals only. Cables shall be terminated/looped at the charging terminals with crimped sockets, nuts, bolts, washers etc. and proper capacity of DC MCB shall be provided on positive and negative terminals. The battery charging terminals shall be securely mounted on rail poles. The 110 Volt charging terminals shall be painted with yellow enamel paint. The cable shall be properly clamped to the pipe. 110 Volt DC and symbol for '+' and '-' for identification of polarity shall be painted on the charging terminal.

Item No. 25 – Supply, installation, testing and commissioning of battery charging rectifier set for input of 415 Volt, three phase, 50 Hz AC and output 110 to 150 Volt, DC at 25 Amp, cell capacity 120 AH for TL coaches – The price shall cover for supply, installation, testing and commissioning of battery charging rectifier set for input of 415 Volt, three-phase, 50 Hz AC and output 110 to 150 Volt, DC at 200 Amp, cell capacity 120 AH for TL coaches as per below mentioned specifications.

Scope : This specification covers manufacture and supply of Thyristor controlled battery chargers for sealed maintenance free batteries fitted on AC and TL coaches for giving normal charging/freshening charge in constant voltage and constant current mode. To be mounted on shop floor suitable for charging 1100 AH VRLA batteries.

Service conditions –

1. The battery chargers covered by this specification shall be natural air cooled suitable for an ambient temperature varying from 9 to 55 deg C with maximum humidity of 98% in altitudes up to 1200 meters above sea level and in dusty atmospheric conditions to be used for charging and discharging sealed maintenance free batteries either fitted on AC & TL coaches in a rake formation or in depots/workshop.