



PRE-QUALIFICATION CRITERIA (PQC)


ITEM NAME : Cable Fault Locator Machine


SECTION : CDS


INDENT NO :

The Bidder must fulfil the following Pre-Qualification Criteria as applicable:

| S. No. | Criteria | Documents to be Provided | Bidder's Response |
|--------|--|---|-------------------|
| 1. | The supplier should either be an Original Equipment Manufacturer (OEM) or an authorized Dealer/ Seller of the OEM for the offered equipment. | Copy of valid manufacturing license / factory registration certificate/ UDYAM/ ISO certificate or equivalent document proving manufacturing capability. OR Valid certificate of authorisation/dealership/ distributorship/ channel partnership certificate from OEM and Copy of valid manufacturing license / factory registration certificate/ UDYAM/ ISO certificate or equivalent document proving manufacturing capability of OEM. | |


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FCX-2 & Planning)

DATE/ दिनांक

08/04/2026



क्रय विनिर्देश

हीप, हरिद्वार

PURCHASE SPECIFICATION
(HEEP - HARDWAR)

FF-11059 Rev 00

पृष्ठ 4 का 1

Page 1 of 4

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कॉपीराइट और गोपनीय

इस दस्तावेज़ की जानकारी भारत हेवी इलेक्ट्रिकल लिमिटेड की संपत्ति है। इसका प्रत्यक्ष या परोक्ष रूप से किसी भी तरह से कंपनी के हित के लिए हानिकारक उपयोग नहीं किया जाना चाहिए

SPECIFICATION FOR CABLE FAULT LOCATOR

| | | | | | | | |
|--------------|-------------|---------------|----------------|----------------|-------------|----------|-----------|
| निर्माणकर्ता | PREPARED BY | विनीत कुमार | Vineet Kumar | अभियंता | Engr. | 08/04/26 | |
| जाँचकर्ता | CHECKED BY | मनीष पाठक | Manish Pathak | वरि. प्रबंधक | Sr. Mgr. | 08/04/26 | |
| स्वीकृत | APPROVED BY | नरेंद्र कुमार | Narendra Kumar | अपर महाप्रबंधक | AGM | 10/04/26 | |
| | | नाम | NAME | पदनाम | Designation | दिनांक | हस्ताक्षर |
| | | | | | | DATE | SIGNATURE |

निर्माण : अनुरक्षण एवं सेवाएँ
PREPARED : M&Sनिर्गत : अनुरक्षण एवं सेवाएँ
ISSUED: MAINTENANCE & SERVICES

दिनांक/ DATE : 08/04/2026

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|---|--|---|
|  | क्रय विनिर्देश हीप, हरिद्वार PURCHASE SPECIFICATION (HEEP - HARIDWAR) | FF-11059 Rev 00 |
| | | पृष्ठ 4 का 2 Page 2 of 4 |

1.0 PURPOSE:

A portable Integrated digital Cable fault locator system is required for testing, locating and pinpointing conductor and insulation faults of low and high resistance, intermittent or flashing nature in XLPE, PILCA and PVC underground power cables upto 11kV.

Note: TDR-only systems will not be accepted.




2.0 SCOPE:

The cable fault locator system shall consist of following equipment: -

- High Voltage Surge Generator.
- Pre-Locator.
- Fault Pin pointer.
- Cables & Leads.

3.0 TECHNICAL REQUIREMENTS:

| S.No. | Description | Requirements |
|------------------------------|-----------------------|---|
| A. BASIC REQUIREMENTS | | |
| 1 | Type | Integrated, Portable & Sturdy |
| 2 | Input Power Supply | Single phase 230V AC +/-10%, Freq.: 50Hz+/-3% |
| 3 | Protection | Zero Interlock |
| | | Short Circuit by internal limitation |
| | | Discharge device |
| | | Thermal Over current switch off |
| 4 | Range | 0-10 km (Minimum) |
| 5 | Operating Temperature | 0 to 50 deg C |
| 6 | Humidity | Up to 95% (non-condensing) |
| 7 | Fault location | Open circuit, Short circuit, Earth fault, High resistance fault, Sheath fault |
| 8 | Interface | USB or RS232 |
| 9 | Duty cycle | Continuous |
| 10 | Degree of Protection | IP 53 or better |
| 11 | Accessories | <ul style="list-style-type: none"> HV Cable Set – 25 mtrs LV Leads Set Earth Cable Set – 25 Mtrs |

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|---|--|---------------|----------------|------------------------|----------|---|
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PURCHASE SPECIFICATION (HEEP - HARIDWAR)

FF-11059 Rev 00

पृष्ठ 4 का 3

Page 3 of 4

- ICM Filter
- Battery Charger
- Carrying Case (For Pin Pointer)
- Ground Microphone/ Headphone

B. HIGH VOLTAGE SURGE GENERATOR

| | | |
|---|---------------------|-------------------------|
| 1 | Output Voltage | 0-16 KV (min.) |
| 2 | Energy | ≥ 1000 Joules |
| 3 | Pulse Output | Adjustable |
| 4 | DC Pressure Testing | Through Selector switch |
| 5 | Display | Digital/ Analogue |
| 6 | Manual Surge | Through Push Button |
| 7 | Indications | HV ON, Mains ON |

C. PRE-LOCATOR

| | | |
|---|----------------------|---|
| 1 | Modes of operation | Impulse Current Method (ICM) Time Domain Reflectometry (TDR) |
| 2 | TDR Output | 20 Vp or better |
| 3 | Pulse Width | 50 nS to 5 μS or better |
| 4 | Voltage Withstand | 400 V AC (50/60 Hz) minimum |
| 5 | Accuracy | 0.5 % min. |
| 6 | Propagation Velocity | 100-300 m/μS or better |
| 7 | Display | LCD/ TFT |

D. FAULT PIN-POINTER

| | | |
|---|--------------------------------|--|
| 1 | Method | Acoustic + electromagnetic detection with amplifier and adjustable filter for noises |
| 2 | Battery Pack | Rechargeable Li-ion battery pack with 6 Hrs Backup |
| 3 | Weight | Light Weighted |
| 4 | Amplification Adjustment Range | =90dB (Acoustic and Magnetic) |
| 5 | Detection | Headphones & Display |
| 6 | Loudspeaker | Integrated |
| 7 | Depth measurement | up to 5 m |
| 8 | Display | Illuminated LCD/ TFT display |

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|---|--|---------------|----------------|------------------------|-------------|---------------------------|-----------|
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| | | <p>पृष्ठ 4 का 4</p> <p>Page 4 of 4</p> |

4.0 OTHER REQUIREMENTS:


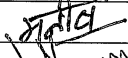

| | |
|---|--|
| 1 | The system offered shall be complete in all respects. It shall contain all hardware/accessories/software required for satisfactory operation of the system. Any additional hardware, software or accessories if required during commissioning, for satisfactory operation of machine shall be supplied by vendor without any price implication. |
| 2 | Instrument should have adequate safety protection against incorrect connection, transient surges etc. |
| 3 | Test & Calibration Reports: Supplier has to provide all Type tests, Routine tests and Calibration reports from Central Govt/NABL/ILAC Approved Accredited Lab to prove Conformity to the Specification & Measurement Accuracy of the instrument. |
| 4 | Demonstration cum Training: On, operation of all functions of the complete system, other supplied accessories, troubleshooting & maintenance of complete system shall be imparted by supplier to the satisfaction of BHEL Engineer at Haridwar without price implication. |
| 5 | Guarantee/Warranty: The instrument should be guaranteed/warranted for a period of 12 months from the date of acceptance after successful demo at BHEL, Haridwar. |
| 6 | Documents (to be supplied with equipment): Valid Test & Calibration certificates and two sets of user Manual shall comprise of operating procedure, troubleshooting charts, circuit diagram and parts list etc. |
| 7 | Instrument Acceptance: i) Final inspection shall be done at BHEL, Haridwar. ii) Successful acceptance after demo cum training by supplier to display all features of the machine as well as to prove out all requirements of this specifications. iii) Valid Test and calibration certificate. iv) Submission of all documentation complying to this specification and other BHEL requirements as per tender enquiry. |

5.0 INFORMATION TO BE SUBMITTED ALONG WITH OFFER:

The Bidder shall submit the following data along with the offer –

5.1 Full compliance to Technical specification (Clause No. 1 to 4).

5.2 Descriptive leaflets/Datasheet having technical detail and Make & Model No. of offered item.

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|---|-------------|--|----------------|------------------------|-------------|---|
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