



नव मंगलूर पत्तन प्राधिकरण  
**NEW MANGALORE PORT AUTHORITY**  
यांत्रिक अभियंता विभाग  
**Mechanical Engineering Department**  
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GSTIN:29AAALN0057A2ZG

**No.8/9/ESD-IV/V/2026-27**

**Date: 25-09-2026**

**Budgetary offer**

**Sir**

**Sub: Request for Budgetary Offer for Supply of Electrical Spare Parts for ESD-IV & ESD-V at Oil Jetty, NMPA – Reg.**

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Please send your lowest **budgetary offer** for the work of “**Supply of Electrical Spare Parts for the ESD-IV & ESD-V at Oil Jetty at NMPA**” in accordance with the schedule of items as below to this e-mail **on or before 02-10-2026**.

| SI. No.                    | Item Description                                          | Qty | Unit | Rate<br>(Rs) | Amount<br>(Rs) |
|----------------------------|-----------------------------------------------------------|-----|------|--------------|----------------|
| <b>1) INDICATION LIGHT</b> |                                                           |     |      |              |                |
| <b>1.</b>                  | LED Indication light (Red)<br><b>HT Side – DC Type</b>    | 65  | Nos  |              |                |
| <b>2.</b>                  | LED Indication light (Yellow)<br><b>HT Side – DC Type</b> | 90  | Nos  |              |                |
| <b>3.</b>                  | LED Indication Light (Blue)<br><b>HT Side – DC Type</b>   | 40  | Nos  |              |                |
| <b>4.</b>                  | LED Indication Light (Green)<br><b>HT Side – DC Type</b>  | 44  | Nos  |              |                |
| <b>5.</b>                  | LED Indication Light (White)<br><b>HT Side – DC Type</b>  | 40  | Nos  |              |                |

|                         |                                                                                                                                                                                                              |    |     |  |  |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>6.</b>               | LED Indication light (Red)<br><b>LT Side – AC Type</b>                                                                                                                                                       | 30 | Nos |  |  |
| <b>7.</b>               | LED Indication light (Yellow)<br><b>LT Side – AC Type</b>                                                                                                                                                    | 70 | Nos |  |  |
| <b>8.</b>               | LED Indication Light (Blue)<br><b>LT Side – AC Type</b>                                                                                                                                                      | 68 | Nos |  |  |
| <b>9.</b>               | LED Indication Light (Green)<br><b>LT Side – AC Type</b>                                                                                                                                                     | 50 | Nos |  |  |
| <b>10.</b>              | LED Indication Light (White)<br><b>LT Side – AC Type</b>                                                                                                                                                     | 10 | Nos |  |  |
| <b>2) ENERGY METERS</b> |                                                                                                                                                                                                              |    |     |  |  |
| <b>1.</b>               | ENERGY METER - DUCATI SMART<br>MACH SMART (11 KV HT Panel) or equivalent<br>DUCATI energia<br>Voltage – 230 V AC<br>Frequency – 50/60 Hz<br>TA – 5A<br>PART NUMBER – 468001105<br>SERIAL NUMBER – 47/01-1128 | 30 | Nos |  |  |
| <b>2.</b>               | ENERGY METER - DUCATI SMART<br>MACH SMART (LT Panel) or equivalent<br>DUCATI energia<br>Voltage – 230 V AC<br>Frequency – 50/60 Hz<br>TA – 5A<br>PART NUMBER – 468001105<br>SERIAL NUMBER – 47/01-1128       | 32 | Nos |  |  |
| <b>3) VOLTMETERS</b>    |                                                                                                                                                                                                              |    |     |  |  |
| <b>1.</b>               | Voltmeter (11 KV HT Panel)<br>ENERCON – DM3257 PULSE (DM52 OPTION DM LABEL)<br>MATERIAL DOC – 1510086570<br>MATERIAL NO – 342826102<br>Job reference: 3428201                                                | 30 | Nos |  |  |

|                                |                                                                                                                                         |    |     |  |  |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
|                                | CL – 1, FS – 11.00 KV, SL – D57/7341 – 1201,<br>240V AUX Supply, PT – 11 KV, Volts – 110V<br>CT: - 15A D ( AD- A Amps)                  |    |     |  |  |
| <b>2.</b>                      | Voltmeter (LT Panel)<br>ENERCON – DM3256<br>FS – 415V, SL – D56/1194.0202, 240V Aux<br>Supply, CL – 1, PULSE ( DM52 OPTION DM<br>LABEL) | 08 | Nos |  |  |
| <b>4) AUTO/MANUAL SWITCHES</b> |                                                                                                                                         |    |     |  |  |
| <b>1.</b>                      | Auto/ Manual Switches                                                                                                                   | 12 | Nos |  |  |
| <b>2.</b>                      | Voltmeter Switch<br>P.T.R:11 kV/110V                                                                                                    | 08 | Nos |  |  |
| <b>3.</b>                      | Ammeter Switch<br>C.T.R:75-150/5A                                                                                                       | 08 | Nos |  |  |
| <b>4.</b>                      | TOGGLE SWITCH (HEATER CONTROL, PLUG<br>LAMP CONTROL, TH, PL)                                                                            | 04 | Nos |  |  |
| <b>5.</b>                      | MAIN SUPPLY SWITCH                                                                                                                      | 02 | Nos |  |  |
| <b>6.</b>                      | REMOTE CONTROL SWITCH                                                                                                                   | 08 | Nos |  |  |
| <b>7.</b>                      | FOUR POLE SWITCH<br>TYPE H-IFO 63/4<br>Ith:63A ,U1:500V-50Hz<br>U1:415V, Ie 63A:AC-22<br>Ref IS:13947-111<br>Make:HAVELLS               | 02 | Nos |  |  |
| <b>8.</b>                      | SWITCH DISCONNECTOR<br>Ith:125A,Ue:415V<br>Make:HAVELLS                                                                                 | 02 | Nos |  |  |

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| <b>9.</b>                          | CHANGE OVER SWITCH<br>Ith:160A/415V, 4Pole<br>AC 23A/Ie:160A, Isc:80KA rms<br>Ref:IEC:9-47-3<br>Make:HAVELLS                                                                                                                                                              | 01 | Nos |  |  |
| <b>10.</b>                         | ON-OFF SWITCH<br>TYPE FB/FBC<br>Ith:250A,Ui:500V<br>Ie-AC23,250A<br>Ue:415V~50HZ<br>IS:4064<br>MAKE:L&T                                                                                                                                                                   | 02 | Nos |  |  |
| <b>11.</b>                         | ON-OFF SWITCH<br>TYPE FB/FBC<br>Ith:315A,Ui:500V<br>Ie-AC23,315A<br>Ue:415V~50HZ<br>IS:4064<br>MAKE:L&T                                                                                                                                                                   | 01 | Nos |  |  |
| <b>5) BREAKER CONTROL SWITCHES</b> |                                                                                                                                                                                                                                                                           |    |     |  |  |
| <b>1.</b>                          | Breaker Control Switches (HT Panel)                                                                                                                                                                                                                                       | 30 | Nos |  |  |
| <b>2.</b>                          | Breaker Control Switches (LT Panel)                                                                                                                                                                                                                                       | 08 | Nos |  |  |
| <b>6) EMERGENCY SWITCH BUTTON</b>  |                                                                                                                                                                                                                                                                           |    |     |  |  |
| <b>1.</b>                          | Emergency Switch Button (Emergency Stop Push Button), suitable for HT switchgear control panel, complete with contact block and mounting accessories, fully compatible with the existing HT panel control circuit and panel mounting arrangement, or approved equivalent. | 20 | Nos |  |  |
| <b>7) RELAYS</b>                   |                                                                                                                                                                                                                                                                           |    |     |  |  |
| <b>1.</b>                          | REJ601 Relay (Make: ABB)<br>Order code: REJ601BD446BC/NH (ABB Make)<br>Scroll No. IVXV91476942                                                                                                                                                                            | 06 |     |  |  |

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|           | Date:24-Mar-2022, Standard: IEC V2.2 FPI,<br>Uaux: 24-240V AC/DC, Fn: 50/60 Hz, Pq: L low,<br>In: 1A, Io: 1A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    | Nos |  |  |
| <b>2.</b> | <p>SIPROTEC7SJ62 Relay (Make: SIEMENS)<br/>7SJ6221-2ENo2-IHFO/OD, F-Nr: BF0112053515<br/>Over current Protection and Control<br/>IN: 1A, 50/60 Hz UN: 100 ----125V AC<br/>IL = 5A/240 V AC, VH = 24-----48V DC<br/>Diagr.: C5 3000-B1150-C121-*<br/>Operation only with fixed cover<br/>Betrieb ncer mit angeschraubter kappe<br/>Type I 69CA<br/>Switching Load of output trip relays:<br/>120V ac pilot duty B300, 240V ac pilot duty<br/>B300<br/>240 ac 5A General Purpose,<br/>240 dc 5A General Purpose<br/>24V dc 5A General Purpose<br/>48v dc 0.8A General Purpose<br/>240V dc 0.1A General Purpose<br/>120V ac 1/6 hp (4.4 FLA)<br/>240v AC ½ HP (4.9 FLA)<br/>Switching Load of DC motor relays if existing:<br/>240V dc 1.6FLA<br/>120V dc 3.2 FLA<br/>60V dc 5.5 FLA</p> | 03 | Nos |  |  |
| <b>3.</b> | <p>JRC066 Relay<br/>Inverse Time over Current &amp; Earth Fault Relay<br/>With INST HI SET<br/>TYPE/ART No:JRC066—1<br/>Current Rating-1A<br/>SL.No: 12-4889/1<br/>AUX SUP RANGE:DC-20-60V<br/>Frequency : 50Hz</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 02 | Nos |  |  |

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|           | JVS ELECTRONICS PVT.LTD BANGALORE>IND                                                                                                                                                                                                                                                                                                                                       |    |     |  |  |
| <b>4.</b> | D1-01/Relay COMBIFLEX<br>Make:ABB<br>P020667<br>RXEG21<br>U20-60V<br>U1-24V<br>U2-48-60V<br>INRK 411101-DC<br>P020244<br>RXKL1<br>1MYN563022-A                                                                                                                                                                                                                              | 02 | Nos |  |  |
| <b>5.</b> | D5-01/50+50N<br>51+51N PROT<br>D1-01/RELAY COMBIFLEX<br>1). 1244<br>RXME1<br>RK 221027-AD<br>VDC-24V, 94<br>2). RXTCS UA:24V<br>1MYN569698-A<br>Sr.No: B10-12527<br>1MYN294611-029<br>95<br>3). RXPQ8n<br>Art.No: 1MYN563645-AAD<br>Voltage: 24V DC<br>Sr.No : 113-17702, 86<br>4). 52X<br>Type: RXPSU6n<br>V:24<br>F: 50Hz<br>Art.No:1MYN563623-AAF<br>Sr.No: 113-7545, 80 | 01 | Nos |  |  |

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| <b>6.</b>  | Tripping Relay<br>Art.No: 1MYN563613-AAC (Make :ABB)<br>Sr.No : M02-3289<br>Type : PQ8NCH2J<br>V: 24V<br>Frequency: 50Hz                                                | 09 | Nos |  |  |
| <b>7.</b>  | BUCHHOLZ ALARM TRIP Relay<br>Make :ABB<br>Type: CV2D2J<br>V:24 V DC<br>Art. No: 1MYN563627-ABB<br>Sr.No:M01-2251                                                        | 03 | Nos |  |  |
| <b>8.</b>  | OTI HIGH ALARM TRIP Relay<br>Make: ABB<br>Type: CV2D2J<br>V: 24V DC<br>Art.No: 1MYN563627-ABB<br>Sr.No: M01-2253                                                        | 03 | Nos |  |  |
| <b>9.</b>  | WTI HIGH ALARM TRIP Relay<br>Make : ABB<br>Type : CV2D2J<br>V: 24V DC<br>Art.No:1MYN563627-ABB<br>Sr.No: M01-2249                                                       | 03 | Nos |  |  |
| <b>10.</b> | ITOC & EF RelayJRCX-053(JVC)<br>Type/ART No: JRC053—1<br>Current Rating: 1A<br>SL.No-12-4888/2<br>AUX.SUP RANGE:20-60V DC<br>JVC Electro. PVT. SIEMENS<br>LTD BANGALORE | 04 | Nos |  |  |
| <b>11.</b> | TRIPPING Relay<br>Make :LALSTOM<br>Type : VAJ                                                                                                                           | 01 |     |  |  |

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|            | MODEL NO: VAJH13YF8003BCH<br>LHVOLTS 2                                                                                                                                                                              |    | Nos |  |  |
| <b>12.</b> | TYPE TEN 2 RELAY<br>Make : EASUN RELROLLE INDIA<br>DELAY ON: PICK-UP<br>Art.No:H2441A1253<br>SER.No : HR9628234<br>Rating: 24V DC<br>Sec:03.0<br>Rating: 110V-AC<br>Article No: 406A12262(H)<br>Serial No:HR9628234 | 02 | Nos |  |  |
| <b>13.</b> | MULTIFUNCTION MOTOR PROTECTION RELAY<br>TYPE MM30-743 L&T<br>Microelectronica scientifica(M-LINE)                                                                                                                   | 02 | Nos |  |  |
| <b>14.</b> | ER TYPE B24X2 RELAY<br>Art No: H408A50169<br>Ser. No: HR9624322<br>Rating: 24V-DC<br>EASUNREYCLLE INDIA                                                                                                             | 02 | Nos |  |  |
| <b>15.</b> | ER TYPE B 62 RELAY<br>Art No: H408A50032<br>Ser No: HR9610589<br>Rating: 24V Dc<br>EASUNREYROLLE INDIA                                                                                                              | 02 | Nos |  |  |
| <b>16.</b> | TYPE TJM 11 RELAY<br>ART.No:405A5352<br>Rating: 5A<br>SER.No:HR9607413<br>Freq-50Hz<br>MAKE:EASUNREYROLLE<br>3.3KV/11 kV                                                                                            | 14 | Nos |  |  |
| <b>17.</b> | TYPE TJM 11 RELAY<br>ART.No:405A5353                                                                                                                                                                                | 14 |     |  |  |

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|            | Rating: 5A<br>SER.No:HR9607412<br>Freq-50Hz<br>MAKE:EASUNREYROLLE<br>3.3KV/11 kV                                         |    | Nos |  |  |
| <b>18.</b> | TYPE TJM 11 RELAY<br>ART.No:405A5356<br>Rating: 5A<br>SER.No:HR9607419<br>Freq-50Hz<br>MAKE:EASUNREYROLLE<br>3.3KV/11 kV | 14 | Nos |  |  |
| <b>19.</b> | ER TYPE B24<br>ART.NO:H408A50168<br>SER.NO:HR9300523<br>RATING: 24V DC<br>MAKE: EASUNREYROLLE                            | 13 | Nos |  |  |
| <b>20.</b> | ER TYPE B62<br>ART.NO:H408A50032<br>SER.NO:HR9408223<br>RATING: 24V DC<br>MAKE: EASUNREYROLLE                            | 02 | Nos |  |  |
| <b>21.</b> | ER TYPE B33<br>ART.NO:408A10710<br>SER.NO:HR9607158<br>RATING: 24V DC<br>MAKE: EASUNREYROLLE<br>3.3KV                    | 12 | Nos |  |  |
| <b>22.</b> | ER TYPE B51<br>ART.NO:H408A50037<br>SER.NO:HR9607217<br>RATING: 24V DC<br>MAKE: EASUNREYROLLE                            | 09 | Nos |  |  |
| <b>23.</b> | ER TYPE B62                                                                                                              | 01 |     |  |  |

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|            | ART.NO:H408A50032<br>SER.NO:HR9508308<br>RATING: 24V DC<br>MAKE: EASUNREYROLLE                                                                        |    | Nos |  |  |
| <b>24.</b> | ER TYPE B11<br>ART.NO:408A10927<br>SER.NO:HR9514681<br>RATING: 30V DC<br>MAKE: EASUNREYROLLE                                                          | 01 | Nos |  |  |
| <b>25.</b> | ER TYPE B11<br>ART.NO:H408A10927<br>SER.NO:HR9514681<br>RATING: 220V AC<br>MAKE: EASUNREYROLLE                                                        | 01 | Nos |  |  |
| <b>26.</b> | ER TYPE B33<br>ART.NO:408A10710<br>SER.NO:HR9607155<br>RATING: 24V DC<br>MAKE: EASUNREYROLLE<br>11 kV                                                 | 01 | Nos |  |  |
| <b>27.</b> | Master Trip Relay<br>Make: ABB<br>Type:PQ8nCH2JS<br>V:240V AC<br>F:50Hz<br>Art No:1MYN563613-RAC<br>Sr.No:113-76292<br>Package Substation at Berth-13 | 1  | Nos |  |  |
| <b>28.</b> | ASHIDA Numerical SELF POWERED Protection<br>Relay<br>ADR141S<br>ADITYA SERIES<br>NOTE ON BATTERY                                                      | 1  | Nos |  |  |

|                                      |                                                                                                                                                                                                                                               |    |     |  |  |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
|                                      | <p>Before use remove the isolation strip of battery from Battery contact.</p> <p>Use Lithium Battery Size-AAA/1.5V</p> <p>Battery is used only for indication purpose and not required for protection.</p> <p>Package Substation Berth-13</p> |    |     |  |  |
| <b>8) HEATER COILS</b>               |                                                                                                                                                                                                                                               |    |     |  |  |
| <b>1.</b>                            | Heater Coils – HIH, 150W, 240V, 121-1, 12-10.                                                                                                                                                                                                 | 33 | Nos |  |  |
| <b>9) BUS BAR SUPPORT INSULATORS</b> |                                                                                                                                                                                                                                               |    |     |  |  |
| <b>1.</b>                            | Bus Bar Support Insulators – 11 KV (Bus bar side – 76 mm Dia, Panel Side – 76 mm)                                                                                                                                                             | 84 | Nos |  |  |
| <b>2.</b>                            | Bus Bar Support Insulators (O-021940 BBI-B14-02-22-07338 - (- 5)) – 11 KV (Bus bar side – 74 mm Dia, Panel Side – 90 mm)                                                                                                                      | 84 | Nos |  |  |
| <b>3.</b>                            | Bus Bar Support Insulators – 3.3 KV                                                                                                                                                                                                           | 60 | Nos |  |  |
| <b>10) BUS BAR LINK COVER</b>        |                                                                                                                                                                                                                                               |    |     |  |  |
| <b>1.</b>                            | Bus Bar link Cover – 11 KV                                                                                                                                                                                                                    | 78 | Nos |  |  |
| <b>2.</b>                            | Bus Bar link Cover – 3.3 KV                                                                                                                                                                                                                   | 21 | Nos |  |  |
| <b>11) MCCB</b>                      |                                                                                                                                                                                                                                               |    |     |  |  |
| <b>1.</b>                            | 400A MCCB, 3P (Make: SIEMENS)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:400A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A                                                                                                 | 08 | Nos |  |  |
| <b>2.</b>                            | 400A MCCB, 4P (Make: Legrand)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:400A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A                                                                                                 | 02 | Nos |  |  |

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| <b>3.</b> | 400A MCCB, 4P (Make: L&T)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:400A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A    | 02 | Nos |  |  |
| <b>4.</b> | 400A MCCB, 3P (Make: L&T)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:400A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A    | 02 | Nos |  |  |
| <b>5.</b> | 250A MCCB,3P (Make: SIEMENS)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:250A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A | 06 | Nos |  |  |
| <b>6.</b> | 250A MCCB,4P (Make: L&T)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:250A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A     | 02 | Nos |  |  |
| <b>7.</b> | 250A MCCB,3P(Make: L&T)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:250A,40deg C                                                 | 02 | Nos |  |  |

|            |                                                                                                                                              |    |     |  |  |
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|            | Ui: 690V-50Hz<br>Utilization Category:A                                                                                                      |    |     |  |  |
| <b>8.</b>  | 200A MCCB,3P (Make: SIEMENS)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:200A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A | 03 | Nos |  |  |
| <b>9.</b>  | 160A MCCB,3P (Make: SIEMENS)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:160A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A | 02 | Nos |  |  |
| <b>10.</b> | 125A MCCB,3P (Make: SIEMENS)<br>Icu:10KA<br>Ics:50% of Icu<br>Ue:415V-50Hz<br>Rating:125A,40deg C<br>Ui: 690V-50Hz<br>Utilization Category:A | 02 | Nos |  |  |
| <b>11.</b> | 100A MCCB,3P (Make: SIEMENS)<br>Ue:415V-50Hz<br>Rating:100A,40deg C<br>Ui: 690V-50Hz<br>Instantaneous:900A<br>Icu:10KA<br>Ics:50% of Icu     | 04 | Nos |  |  |
| <b>12.</b> | 100A MCCB (Make: L&T)<br>Ue:415V-50Hz<br>Rating:100A,40deg C<br>Ui: 690V-50Hz                                                                | 02 | Nos |  |  |

|                |                                                                                                                                            |    |     |  |  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
|                | Instantaneous:900A<br>Icu:10KA<br>Ics:50% of Icu<br>IS 13947-2/IEC 947-2<br>Utilization Category:A                                         |    |     |  |  |
| <b>13.</b>     | 63A MCCB,3P (Make: SIEMENS)<br>Ue:415V-50Hz<br>Rating:63A,40deg C<br>Ui: 690V-50Hz<br>Icu:10KA<br>Ics:50% of Icu<br>Utilization Category:A | 02 | Nos |  |  |
| <b>14.</b>     | 63 A 4P MCCB<br>Ue:415V-50Hz<br>Rating:63A,40deg C<br>Ui: 690V-50Hz<br>Icu:10KA<br>Ics:50% of Icu<br>Utilization Category:A                | 02 | Nos |  |  |
| <b>12) MCB</b> |                                                                                                                                            |    |     |  |  |
| <b>1.</b>      | 16A MCB ,SP,10KA                                                                                                                           | 20 | Nos |  |  |
| <b>2.</b>      | K 02A 9KA TP MCB, breaking capacity, 10kA, suitable for existing HT panel auxiliary/control circuit or approved equivalent                 | 02 | Nos |  |  |
| <b>3.</b>      | G 4A 9KA MCB SP,breaking capacity, 10kA, suitable for existing HT panel auxiliary/control circuit or approved equivalent                   | 01 | Nos |  |  |
| <b>4.</b>      | DP MCB, 66A, 9kA breaking capacity, suitable for existing 3.3kV HT panel control board auxiliary AC circuit or approved equivalent         | 01 | Nos |  |  |
| <b>5.</b>      | DP 220V DC 16A MCB, 10kA breaking capacity, suitable for 220V DC HT panel control and protection circuit or approved equivalent            | 01 | Nos |  |  |
| <b>6.</b>      | 10 A, SP MCB,10KA                                                                                                                          | 25 | Nos |  |  |

|                    |                                                                                                              |    |     |  |  |
|--------------------|--------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>7.</b>          | 16A DP MCB,10KA                                                                                              | 10 | Nos |  |  |
| <b>8.</b>          | 6A DP MCB,10KA                                                                                               | 10 | Nos |  |  |
| <b>9.</b>          | 6A,SP MCB                                                                                                    | 30 | Nos |  |  |
| <b>13) AMMETER</b> |                                                                                                              |    |     |  |  |
| <b>1.</b>          | Ammeter (HT side)<br>S.No:1/95/47264/10<br>C.T.R. 75-150/5A<br>Make: AUTOMATIC ELECTRIC LIMITED<br>BOMBAY-31 | 22 | Nos |  |  |
| <b>2.</b>          | Ammeter (LT side)<br>150/5A<br>F-50Hz<br>I.S.1248<br>Make: AUTOMATIC ELECTRIC LIMITED<br>BOMBAY-31           | 05 | Nos |  |  |
| <b>14)FUSE</b>     |                                                                                                              |    |     |  |  |
| <b>1.</b>          | FUSE,20A,500V, HRC FUSE                                                                                      | 32 | Nos |  |  |
| <b>2.</b>          | FUSE KF 20, 20A/500V                                                                                         | 11 | Nos |  |  |
| <b>3.</b>          | HRC FUSE LINK, 2SFU-2,80KA                                                                                   | 05 | Nos |  |  |
| <b>4.</b>          | FUSE 20A 415V 3W                                                                                             | 02 | Nos |  |  |
| <b>5.</b>          | HRC Fuse160A                                                                                                 | 03 | Nos |  |  |
| <b>6.</b>          | MNS START & OFF RESET VERSION 15MAX<br>FUSE 6A                                                               | 06 | Nos |  |  |
| <b>7.</b>          | HRC FUSE<br>3NWNS6, BS88:1988<br>415V, AC, 8KA (SIEMENS)                                                     | 06 | Nos |  |  |
| <b>8.</b>          | FUSE<br>200A,500V HRC                                                                                        | 18 | Nos |  |  |
| <b>9.</b>          | Fuse 3NA1330,415V~<br>80kA,315A<br>N89619063                                                                 | 03 | Nos |  |  |
| <b>10.</b>         | <b>Fuse 315A</b><br>415V ~ 25.5W<br>HN                                                                       | 06 | Nos |  |  |

|                       |                                                                                                                                                                                                        |    |     |  |  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
|                       | SIZE1g II<br>SF 94234<br>IS:9224 Part(II)<br>Foam pump House<br>Make: L&T Or Equivalent                                                                                                                |    |     |  |  |
| <b>11.</b>            | <b>Fuse 200A</b><br>415V ~ 14.5W<br>HN<br>SIZE1g II<br>SF 94132<br>IS:9224 Part(II)<br>Foam pump House<br>Make: L&T Or Equivalent                                                                      | 06 | Nos |  |  |
| <b>12.</b>            | <b>HBC FUSE LINK 6AMP NS6</b><br>IS:9224<br>PART II<br>415V AC 80KA g II                                                                                                                               | 02 | Nos |  |  |
| <b>13.</b>            | <b>HBC FUSE LINK 2AMP NS2</b><br>IS:9224<br>PART II<br>415V AC 80KA g II                                                                                                                               | 08 | Nos |  |  |
| <b>15) CONTACTORS</b> |                                                                                                                                                                                                        |    |     |  |  |
| <b>1.</b>             | <b>CONTACTOR ,3TF477(SIEMENS)</b><br>IEC 947<br>VDE 0660<br>IS 13947<br>Ie AC-1 90A<br>IUe AC-3 70A<br>Ik<50kA 415V AC<br>V(AC)-220V-20.5KW<br>V(AC)-240V-22KW<br>V(AC)-380-46KW<br>V(AC)-415V – 50 kW | 04 | Nos |  |  |

|           |                                                                                                                                                                                                                                                           |    |     |  |  |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>2.</b> | <b>BF9.01 CONTACTOR</b><br>Make: Lovato                                                                                                                                                                                                                   | 01 | Nos |  |  |
| <b>3.</b> | <b>4P 22B 3TH80 CONTACTOR</b>                                                                                                                                                                                                                             | 01 | Nos |  |  |
| <b>4.</b> | <b>CONTACTOR ML6</b>                                                                                                                                                                                                                                      | 01 | Nos |  |  |
| <b>5.</b> | <b>MNX 185 CONTACTOR</b><br>AC3:185A,3P<br>Coil:240V 50Hz, 288V 60Hz<br>Auxiliary Contact: 2NO+2NC<br>AC-1:275A,Ui:1000V<br>Auxiliary Contact: Ie AC-15:4A,415V<br>Ith:10A, General Use:200A,600V<br>3 AWG-300kcmil CU 75 Deg C STR<br>Torque:123.9 LB IN | 04 | Nos |  |  |
| <b>6.</b> | <b>CONTACTOR MNX 32</b><br>AC-1: 55A, Ui:690V<br>3PH, AC-3<br>Ue:415V & 500V<br>Ie:32A<br>KW:17 & 18.5<br>IEC:60947-4-1<br>IS/IEC:60947-4-1<br>EN IEC:60947-4-1<br>MAKE: Laurits Knudsen                                                                  | 20 | Nos |  |  |
| <b>7.</b> | <b>AIR BREAK CONTACTOR</b><br>3TF34 00-0A<br>Ie/AC1=55A<br>Ie/AC3=32A<br>415V~IS/IEC 60947-4-1 1P00<br>071930008H<br>400V-15KW,415V-17KW,500V-21KW,690V-<br>23KW<br>MAKE : SIEMENS                                                                        | 20 | Nos |  |  |

|                                               |                                                                                                                                                                                                                                                                                                                                                     |    |     |  |  |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>8.</b>                                     | <b>MNX 45 Contactor</b><br><br>Specification:<br>AC-3 Duty Power Contactor, 85A, 415V AC, with suitable coil voltage and auxiliary contacts, suitable for motor control and industrial switching applications.<br><br>Make: L&T / Lauritz Knudsen (MNX) / Equivalent                                                                                | 17 | Nos |  |  |
| <b>9.</b>                                     | <b>CONTACTOR ML10</b><br><br>IS:13947-4-1<br>IEC:947-4-1<br>200A AC3<br>200A AC4<br>415V,50HZ<br>MAKE:L&T<br>SS00972                                                                                                                                                                                                                                | 02 | Nos |  |  |
| <b>10.</b>                                    | <b>CONTACTOR MMOO</b><br><br>Ith:10A<br>Ref        Ie<br>IS:2959    7.5A,AC3<br>IS:6875    4A,AC11<br>415V~50HZ<br>MAKE:L&T                                                                                                                                                                                                                         | 04 | Nos |  |  |
| <b>16) DIRECT-ON-LINE (DOL) MOTOR STARTER</b> |                                                                                                                                                                                                                                                                                                                                                     |    |     |  |  |
| <b>1.</b>                                     | <b>Direct-On-Line (DOL) Motor Starter</b> , Make:<br>Larsen & Toubro Limited (L&T), Type: MK1 or approved equivalent, suitable for 415 V AC, 3 Phase, 50 Hz LT induction motor, complete with contactor, thermal overload relay, START/STOP push buttons, enclosure, and all standard accessories, fully compatible with the existing installation. | 02 | Nos |  |  |
| <b>17) POWER FACTOR METER</b>                 |                                                                                                                                                                                                                                                                                                                                                     |    |     |  |  |
| <b>1.</b>                                     | Power Factor Meter<br>Make: ENERCON                                                                                                                                                                                                                                                                                                                 | 06 | Nos |  |  |

|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                    |    |     |  |  |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
|                                                                                          | RS 485 PULSE DM01<br>CT:5/5A<br>CL:1.0<br>FS:1.00PF<br>SL:C36/7842-0102<br>240V AC<br>PT:0.415KV/415V                                                                                                                                                                                                                                                                              |    |     |  |  |
| <b>18) VCF D2</b>                                                                        |                                                                                                                                                                                                                                                                                                                                                                                    |    |     |  |  |
| <b>1.</b>                                                                                | VCF D2 ( <b>Capacitor Panel</b> )<br>Make: Mimilec<br>415 VAC (3phase-4W)<br>SR.No: 2P0676                                                                                                                                                                                                                                                                                         | 08 | Nos |  |  |
| <b>19) STAR/DELTA TIMER</b>                                                              |                                                                                                                                                                                                                                                                                                                                                                                    |    |     |  |  |
| <b>1.</b>                                                                                | Supply of Siemens Star/Delta Timer Relay, Model 3TA61 55-0A, conforming to VDE 0660, rated operational current 6 A at 220/380 V AC and 4 A at 500 V AC, thermal current (Ith) 16 A, suitable for capacitor panel star-delta control, complete with mounting accessories and terminal connections, <b>or approved equivalent</b> , fully compatible with the existing installation. | 08 | Nos |  |  |
| <b>20) REACTIVE POWER CONTROL RELAY / APFC (Automatic Power Factor Correction) RELAY</b> |                                                                                                                                                                                                                                                                                                                                                                                    |    |     |  |  |
| <b>1.</b>                                                                                | Reactive Power Control Relays, NEPTUNE DUCATI energia, RMC12, Type/P.N 415.95.6030, Serial No. 1201021, Tension V1 = 240 V2 = 415, Frequency 50 Hz, Current 5A, Date DEC 2001.                                                                                                                                                                                                     | 02 | Nos |  |  |
| <b>21)WATT METER</b>                                                                     |                                                                                                                                                                                                                                                                                                                                                                                    |    |     |  |  |
| <b>1.</b>                                                                                | Watt Meter (NEW)<br>Make: LMP<br>Sr No: 5C852584<br>75/150/5A,11 kV/110V<br>3~2E                                                                                                                                                                                                                                                                                                   | 03 | Nos |  |  |

|                           |                                                                                                                                                                                                                                                                                                                                                                      |    |     |  |  |
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|                           | I.S.1248<br>INDUSTRIAL METERS LTD.INDIA                                                                                                                                                                                                                                                                                                                              |    |     |  |  |
| <b>2.</b>                 | Watt Meter(OLD)<br>Make:SEAHORSE INDUSTRIES LTD<br>Year of Supply:1996<br>IS:13010<br>Type:AV 3<br>3Phase 3Wire,Class:1<br>Current:3x -/5A,Voltage:3 x -/110v<br>REVS.PER Kwh:1800<br>Frequency:50Hz<br>No.M:181934<br>165410                                                                                                                                        | 03 | Nos |  |  |
| <b>22)FREQUENCY METER</b> |                                                                                                                                                                                                                                                                                                                                                                      |    |     |  |  |
| <b>1.</b>                 | <b>Frequency Meter (Hz)</b><br>Make: <b>Automatic Electric Ltd.</b> or approved equivalent<br>Calibrated in <b>Cycles Per Second (Hz)</b><br>Standard: <b>IS:1248</b><br>S. No.: <b>53974/7/96</b><br>Voltage: <b>110/220/440 V AC</b><br>Frequency: <b>50 Hz</b><br>Suitable for flush panel mounting and fully compatible with the existing HT panel installation. | 02 | Nos |  |  |
| <b>23)HOOTER</b>          |                                                                                                                                                                                                                                                                                                                                                                      |    |     |  |  |
| <b>1.</b>                 | Industrial Electrical Hooter / Alarm Sounder, 24 V DC, suitable for alarm indication in 3.3 kV HT Monitor Pump Panel, complete with mounting accessories and terminals                                                                                                                                                                                               | 01 | Nos |  |  |
| <b>2.</b>                 | Industrial Electrical Hooter / Alarm Sounder, 24 V DC, suitable for alarm indication in 3.3 kV HT Hydrant Pump Panel, complete with mounting accessories and terminals                                                                                                                                                                                               | 01 | Nos |  |  |

|           |                                                                                                                                                              |    |     |  |  |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>3.</b> | Industrial Electrical Hooter / Alarm Sounder, 24 V DC suitable for Monitor Engine Control Panel, complete with mounting accessories and terminal arrangement | 01 | Nos |  |  |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|

#### **24) DISPLAYS**

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |     |  |  |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>1.</b> | Relay Display Module (Annunciator)<br>Model: MLD-02 (2MLD 2B 10S P000), FUSE 2A,T , 18-90 V DC<br>Make: ALfreAN Electronic Systems, or approved equivalent, suitable for flush mounting on HT Panel, complete with terminal arrangement, LED display windows, built-in TEST, ACCEPT, MUTE and RESET push buttons, 24 V DC (or matching existing operating supply), fully compatible with the existing annunciator installed in the HT Panel. Serial No. of existing unit: 130802420. | 01 | Nos |  |  |
| <b>2.</b> | Relay Display MP-002<br>Sr. no: 0112471<br>Supply Voltage 18-90 V DC<br>FUSE 3 AMP SLOW BLOW<br>(ALAN) ALAN ELECTRONIC SYSTEMS PVT LTD.<br>MUMBAI ALARM ANNUNCIATOR SYSTEM.                                                                                                                                                                                                                                                                                                          | 03 | Nos |  |  |

#### **25) Breaker Transport Trolley**

|           |                                                                                                                                                                                                                                                                                                                                                |    |     |  |  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>1.</b> | Breaker Transport Trolley suitable for the existing ABB 11 kV, 1600 A circuit breakers, including ABB SF <sub>6</sub> and VD4 vacuum circuit breakers, as applicable, fabricated from heavy-duty MS, powder-coated finish, complete with wheels, locking arrangement and lifting mechanism, and fully compatible with the existing switchgear. | 02 | Nos |  |  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|

#### **26) ABB SF<sub>6</sub> Circuit Breaker (Old) Specification:**

- Make: ABB
- Manufacturer Year: 2002
- Rated Voltage: 11 kV
- Rated Current: 1600 A

- Breaking Current: 40 kA
- Opening Coil: 24 V DC
- Closing Coil: 24 V DC
- Spring Charging Motor: 230 V AC

**Note:** The replacement tripping coil, closing coil and spring charging motor shall be fully compatible with the existing ABB SF<sub>6</sub> circuit breaker operating mechanism and shall be supplied with necessary mounting hardware/connectors, wherever applicable.

|           |                                                                                                                                        |   |     |  |  |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------|---|-----|--|--|
| <b>1.</b> | Tripping Coil / Opening Coil (Instantaneous Trip Coil), 24 V DC for ABB SF <sub>6</sub> Circuit Breaker (Old ABB Open Coil Equivalent) | 5 | Nos |  |  |
| <b>2.</b> | Closing Coil, 24 V DC for ABB SF <sub>6</sub> Circuit Breaker                                                                          | 5 | Nos |  |  |
| <b>3.</b> | Spring Charging Motor, 230 V AC for ABB SF <sub>6</sub> Circuit Breaker Operating Mechanism                                            | 5 | Nos |  |  |

#### **27) New ABB Vacuum Circuit Breaker Specification:**

- Make: ABB
- Model: VD4-HPA 12.16.40
- Manufacturer Year: 2022
- Standard: IEC 62271-100
- Rated Voltage: 12 kV
- Rated Current: 1600 A
- Short Circuit Breaking Current: 40 kA rms
- Operating Mechanism: EL3
- Instantaneous Trip Coil: 24 V DC
- Closing Coil: 24 V DC
- Spring Charging Motor: 230 V AC

**Note:** The replacement tripping coil, closing coil and spring charging motor shall be fully compatible with the existing ABB VD4-HPA 12.16.40 circuit breaker operating mechanism (EL3) and shall be supplied with necessary mounting hardware/connectors, wherever applicable.

|           |                                                                                                     |   |     |  |  |
|-----------|-----------------------------------------------------------------------------------------------------|---|-----|--|--|
| <b>1.</b> | Instantaneous Tripping Coil (Opening Coil), 24 V DC for ABB VD4-HPA 12.16.40 Vacuum Circuit Breaker | 5 | Nos |  |  |
| <b>2.</b> | Closing Coil, 24 V DC for ABB VD4-HPA 12.16.40 Vacuum Circuit Breaker                               | 5 | Nos |  |  |

|            |                                                                                                                                                                                                                                                                                                              |    |     |  |  |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|--|--|
| <b>3.</b>  | Spring Charging Motor, 230 V AC for ABB VD4-HPA 12.16.40 Vacuum Circuit Breaker with EL3 Operating Mechanism                                                                                                                                                                                                 | 5  | Nos |  |  |
| <b>28)</b> | <b>Electronic Trivector Meter ER300P,</b><br>3Phase 3Wire,2X110V,<br>-/5A,Ib:5A,Imax:10A<br>Class:0.5S for Active, 0.1S for Reactive<br>Principle Unit:kwh/kVArh<br>Pulse Rate:10000Imp/kwh<br>10000Imp/kVArh<br>M.F:1, Freq:50Hz<br>SL.No:11109355<br>Mfr year:Aug.2011 & Mar.2015<br>Make: L&T<br>(ESD-IV) | 02 | Nos |  |  |
| <b>29)</b> | <b>HT HRC Fuse Link</b><br>1 kV Class HRC Fuse Link suitable for Voltage Transformer (VT/PT) primary protection in Package Substation, with suitable voltage and current rating as per existing system. Make: ABB / Siemens / Schneider / Equivalent.                                                        | 03 | Nos |  |  |
| <b>30)</b> | <b>MULTI-FUNCTION METER</b><br>Make:RISHAB<br>Model:RISH MASTER 3430<br>SR No:12/06/1457<br>Class:0.5<br>INPUT:3PH.110V L-L,5A/1A,45...65Hz<br>Auxiliary:110V L-N AC-15% +20%<br>RISH MASTER 3430 110 L Z Z Z<br>Package Substation at Berth-13                                                              | 1  | Nos |  |  |
| <b>31)</b> | <b>PRESSURE GAUGE</b> bar abs. SF6 Gas<br>04/13, 3300NVI Safe Plus, RMU IECX 62271-200,Serial No:1VYN040113070942<br>Type:V+M, IEC-62271-100,62271-101                                                                                                                                                       | 1  | Nos |  |  |

|            |                                                                                                                                                                                                                                                              |    |     |  |  |
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|            | Ur-12KV,Up-95KV,Fr-50Hz,Ir-630A,Ik-21KA,tk-3S,n-100 ,Oper.Seq: C-0<br>Psw=1.4x10 <sup>3</sup> Pa-SF6 1.1 Kg/module<br>Year:2013<br>Make:ABB<br>Package Substation Berth-13                                                                                   |    |     |  |  |
| <b>32)</b> | <b>Foot Switch</b> , 10A, FLP/WP type, suitable for 10 HP 3 Phase FLP Capstan Motor control circuit at Oil Jetty Berths, complete with necessary accessories, or approved equivalent.                                                                        | 35 | Nos |  |  |
| <b>33)</b> | <b>OVERLOAD THERMAL RELAY</b><br>START & OFF/RESET VERSION<br>500V,50Hz/60Hz,2A,AC-15,MAX FUSE 6A<br>Suitable for 55°C ambient temperature,<br>IS/IEC60947, IEC 60947-4-1, REGD.DESIGN<br>Nos 153157<br>154222<br>MN 2, SS01212<br>MAKE : Laurits Knudsen    | 20 | Nos |  |  |
| <b>34)</b> | <b>NO SWITCH WITH BASE</b><br>SIBASS ELECTRIC ZB2-BE101<br>10(6)A,400v~<br>Listed 170m IND CONT EQ A600-Q-.600,<br>Make: Schneider Electric / Equivalent<br>Model: ZB2-BE101 or equivalent                                                                   | 20 | Nos |  |  |
| <b>35)</b> | <b>NC SWITCH WITH BASE</b><br>Normally Closed (NC) Push Button Contact Block with Base, conforming to IEC/EN 60947-5-1,<br>Rating: A600/Q600, suitable for industrial control panels.<br>Make: Teknic S2 series / Schneider Electric ZB2 series / Equivalent | 10 | Nos |  |  |
| <b>36)</b> | <b>CONTACTOR COIL</b><br>WORKS CAT No. CS93945,240V<br>MNX 9-40<br>MCX 01-04<br>SPARE COIL CAT.No CS94105<br>MAKE: Laurits Knudsen                                                                                                                           | 20 | Nos |  |  |
| <b>37)</b> | <b>CONTACTOR COIL</b><br>3TY 443-OAP<br>MAKE: SIEMENS                                                                                                                                                                                                        | 10 | Nos |  |  |
| <b>38)</b> | <b>Contactors Coil for MNX 45</b><br>Contactor Coil suitable for MNX 45 Contactor,<br>Coil Voltage: 415 V AC, 50 Hz, complete with                                                                                                                           | 10 | Nos |  |  |

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                  |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------|----------------------------|-------|---------|-----|--------|---------|-----|--------|---------|-----|---------|---------|-----|---------|----------|-----|----|-----|--|--|
|                                  | mounting accessories and compatible with existing contactor. Make: Lauritz Knudsen (L&T) / Equivalent.                                                                                                                                                                                                                                                                                                                                                                                                   |                                  |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 39)                              | <b>Contactor Coil for MNX 70</b><br>Contactor Coil suitable for MNX 70 Contactor, Coil Voltage: 415 V AC, 50 Hz, complete with mounting accessories and compatible with existing contactor. Make: Lauritz Knudsen (L&T) / Equivalent.                                                                                                                                                                                                                                                                    | 05                               | Nos                               |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 40)                              | <b>MN2 THERMAL OVERLOAD RELAY</b><br>NOMINAL CT RATIO-30<br>SS03007<br><table><tr><td><b>CURRENT SETTING RANGE (A)</b></td><td><b>INDICATOR SETTING RANGE(A)</b></td><td><b>MAX BACK UP FUSE(A)</b></td></tr><tr><td>42-69</td><td>1.4-2.3</td><td>200</td></tr><tr><td>60-100</td><td>2.0-3.3</td><td>250</td></tr><tr><td>90-150</td><td>3.0-5.0</td><td>315</td></tr><tr><td>135-225</td><td>4.5-7.5</td><td>400</td></tr><tr><td>180-300</td><td>6.0-10.0</td><td>500</td></tr></table><br>MAKE: L&T | <b>CURRENT SETTING RANGE (A)</b> | <b>INDICATOR SETTING RANGE(A)</b> | <b>MAX BACK UP FUSE(A)</b> | 42-69 | 1.4-2.3 | 200 | 60-100 | 2.0-3.3 | 250 | 90-150 | 3.0-5.0 | 315 | 135-225 | 4.5-7.5 | 400 | 180-300 | 6.0-10.0 | 500 | 02 | Nos |  |  |
| <b>CURRENT SETTING RANGE (A)</b> | <b>INDICATOR SETTING RANGE(A)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>MAX BACK UP FUSE(A)</b>       |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 42-69                            | 1.4-2.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 200                              |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 60-100                           | 2.0-3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 250                              |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 90-150                           | 3.0-5.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 315                              |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 135-225                          | 4.5-7.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 400                              |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 180-300                          | 6.0-10.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 500                              |                                   |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 41)                              | Supplying of 1.1KV XLPE or Heat resistant PVC insulated, PVC extruded inner sheath Armoured LT UG Cable as per IS-1554(Part-I) or IS-7098(Part-I) Armouring strip thickness and resistivity as per IS-3975.<br>a) <b>4C X 16sqmm</b>                                                                                                                                                                                                                                                                     | 1000                             | Mtrs                              |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 42)                              | Supplying of 1.1KV XLPE or Heat resistant PVC insulated, PVC extruded inner sheath Armoured LT UG Cable as per IS-1554(Part-I) or IS-7098(Part-I) Armouring strip thickness and resistivity as per IS-3975.<br>b) <b>4C X 35sqmm</b>                                                                                                                                                                                                                                                                     | 1000                             | Mtrs                              |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 43)                              | Stanvac Provar Anti Track – RED <b>Super Hydrophobic Anti Track Insulator Spray</b> #906, suitable for application on 11 kV/3.3 kV electrical insulators, busbar supports and switchgear insulation surfaces for anti-tracking and hydrophobic protection, or approved equivalent.                                                                                                                                                                                                                       | 20                               | Nos                               |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 44)                              | <b>HT Digital Insulation Resistance Tester (Megger)</b> – Supply of digital insulation resistance tester with <b>5 kV DC test voltage</b> , suitable for insulation resistance testing of <b>11 kV HT cables</b> , complete with test leads and standard accessories.                                                                                                                                                                                                                                    | 1                                | No.                               |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |
| 45)                              | <b>LT Digital Insulation Resistance Tester (Megger)</b> – Supply of digital insulation resistance tester with <b>1 kV DC test voltage</b> , suitable for                                                                                                                                                                                                                                                                                                                                                 | 1                                | No.                               |                            |       |         |     |        |         |     |        |         |     |         |         |     |         |          |     |    |     |  |  |

|  |                                                                                                               |  |  |  |  |
|--|---------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  | insulation resistance testing of <b>1.1 kV LT cables</b> , complete with test leads and standard accessories. |  |  |  |  |
|  | <b>Total</b>                                                                                                  |  |  |  |  |
|  | <b>Applicable GST @ 18%</b>                                                                                   |  |  |  |  |
|  | <b>Grand Total including GST</b>                                                                              |  |  |  |  |

Sd/-

Executive Engineer (E-II)  
NMPA, Panambur, Mangaluru

Seal and sign of Tenderer

**General Note: The quoted items shall be genuine OEM products of the specified make/model or approved equivalent and shall be fully compatible with the existing equipment installed at ESD-IV & ESD-V, Oil Jetty, NMPA, without requiring any modification to the existing equipment. Technical catalogues/datasheets shall be submitted for all equivalent products offered.**