



No. CE/T-QC/MSC-I/Cable/

No 21370

Date: 10 JUL 2024

To,

M/s. Samriddhi Industries  
Add., Khasra No. 78/2, S.No. 497, Mouza Karmeta, PC No. 23,  
RI Circle Mahajpur, Ward No. 73, Opposite Dadda Nagar, Katangi Road,  
Maa ambika Electricals, Karmeta, Jabalpur, MP-482002.

Sub: Vendor approval for supply of LT Aerial Bunched cables under on-going MSEDCL scheme.

- Ref :-
- 1) This office circular no.CE/Testing/TTR-Validity/Circular/10 dtd. 22.06.2020.
  - 2) Office note F-2020011400/2020 approved on dt.08.01.2021 & F-2022006710/2022 approved on dt.12.07.2022
  - 3) Your online vendor registration
  - 4) Correction in GTP received on dt. 26.06.2024.
  - 5) Approval from Competent Authority on dtd. 05.07.2024, Office Note no. F-2024007260/2024.

Dear Sirs,

This office is in receipt of your proposal for vendor approval for supply of following size of LT Aerial Bunched cables under on-going MSEDCL schemes for following item.

- a) 3Cx70+1Cx16+1Cx50 sq.mm.
- b) 3Cx50+1Cx16+1Cx35 sq.mm

The copies of the Type Test Reports submitted by your firms are verified with originals in presence of your firm's representative as below.

| Sr. No.                        | Size Of Cable  | Type test report & Date                           | Place of Testing                                  |
|--------------------------------|--|---|---|
| <b>LT Aerial Bunched Cable</b> |  |   |   |
| 1                              | 3Cx70+1Cx16+1Cx50 sq.mm, Aerial Bunched Cable aluminum conductor ,XLPE Insulated, 1100V Grade. | ELMEF/24/02/046/001 O/EL-0001/VI Date- 11.03.2024 | ELMEF Testing & Calibration Laboratories Pvt. Ltd |
|                                |  | RTF/20411-L304 Date- 11.04.2024                   | Robust Testing Solution                           |
| 2                              | 3Cx50+1Cx16+1Cx35 sq.mm, Aerial Bunched Cable aluminum conductor ,XLPE Insulated, 1100V Grade  | ELMEF/24/02/046/001 O/EL-0001/V Date- 11.03.2024  | ELMEF Testing & Calibration Laboratories Pvt. Ltd |
|                                |  | RTF/20411-L305 Date- 11.04.2024                   | Robust Testing Solution                           |

The proposal submitted by you is scrutinized in light of MSEDC technical specifications and respective IS/ IEC amended up to date. The Type Test Reports (TTR) and Guaranteed Technical Parameters (GTP) are found generally in order.

In view of above your proposal for supply of above sizes/ratings of LT Aerial Bunched cables is accepted & pleased to accord approval as MSEDC approved vendor under on-going MSEDC scheme.

This vendor approval is subject to following terms & conditions:

1. All routine and acceptance tests shall be carried out on all drums of above sizes/ratings LT Aerial Bunched cables as per relevant IS/ IEC (amended up to date) at your factory in presence of concerned Executive Engineer (Testing Division), MSEDC.
2. This approval shall not be considered for any technical / commercial evaluation of any tender in MSEDC.
3. The performance guarantee of 60 months from date of commissioning of offered sizes/ratings LT Aerial Bunched cables towards any manufacturing defect shall be given to the end customer.
4. You have to maintain same design & construction of all above sizes/ratings LT Aerial Bunched cables strictly in accordance with the approved GTPs and MSEDC technical specifications and respective IS / IEC (amended up to date) only.
5. The testing and inspection procedure as given in the MSEDC technical specification shall be adopted scrupulously.
6. The approval of GTPs shall not relieve you from responsibilities and liabilities to ensure correctness of drawings & correct interpretation for meeting requirements as per technical specifications and respective IS / IEC.
7. All other technical parameters of all above sizes/ratings LT Aerial Bunched cables should be strictly in accordance with the technical specifications & respective IS / IEC (amended up to date).
8. **This vendor approval is valid for FIVE years i.e. up to dtd.05.07.2029 and it should be ensured by inspecting officer at the time of inspection.**

This approval is issued and without prejudice to technical specifications and all the terms and conditions of the all other tender.

Thanking You.

Encls: One set of approved GTP duly signed & stamped.

Yours Sincerely,



Chief Engineer (Testing-QC)  
MSEDC, Mumbai.

Copy s.w.rs.to:

- 1) Director (Projects) / (Operations), MSEDC, Prakashgad, Mumbai.
- 2) Executive Director-II (Dist.)/ (Infra)/ (Projects), MSEDC, Prakashgad, Mumbai.

Copy f.w.cs. to:

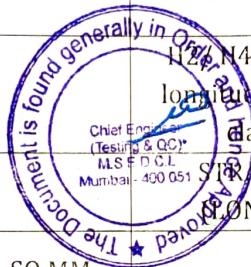
- 1) Chief Engineer (O&M), All Zones, MSEDC.
- 2) Chief Engineer, (MMD)/(HVDS)/(Projects)/(SP)/(Dist.), MSEDC, Prakashgad, Mumbai.

Copy to:

- 1) Superintending Engineer, (Infra) / (MSC), MSEDC, Prakashgad, Mumbai.
- 2) Superintending Engineer (O&M), All Circles, MSEDC.

M/s. Samriddhi Industries,— Vendor approval for supply of LT Aerial Bunched cables under on-going MSEDC scheme

| STANDARD GUARANTEED TECHNICAL PARTICULARS (GTP) |   |                 |   |
|---|---|-----------------|---|
| SR. NO.   | DESCRIPTION                                 | UNIT            | 3 X 50 + 1X16 + 1 X 35 Sq.mm.   |
|   | NAME OF MANUFACTURE                         |                 | SAMRIDDHI INDUSTRIES  |
|   | PLACE OF MANUFACTURE                        |                 | WARD NO. 73, OPPOSITE DADDA NAGAR,<br>KATANGI ROAD, JABALPUR, MP 482002   |
|   | CABLE DETAILS (TYPE)                        |                 | LT AERIAL BUNCHED CABLE   |
|   | CABLE DESCRIPTION                           |                 | 3 Core X 50Sqmm (Phase)+1 Core X 16Sqmm<br>(Street light)water blocked stranded compacted<br>circular aluminium conductor (Class 2), XLPE<br>Insulated. Twisted over 35 Sqmm bare<br>aluminium messenger conductor for working<br>voltage upto & including 1100Volts Areal<br>bunched Cable (3C x 50 +1C x 16+ 35 Sqmm<br>Areal Bunched cable ) |
|   | SIZE OF CABLE                               |                 | 3 X 50 + 1X16 + 1 X 35 Sq.mm.   |
|   | APPLICABLE STANDARDS SPECIFICATION          |                 | IS:14255:1995, IS : 8130 - 2013,IS : 398 (PT-<br>4) 1994, BS EN 50397-1-2006  |
|   | VOLTAGE GRADE (KV)                          | KV              | 1.1 KV  |
| <b>1</b>  | <b>PHASE CONDUCTOR</b>                      |                 |   |
| 1.1   | MATERIAL & GRADE                            |                 | H2/H4 EC GRADE ALUMINIUM Standard<br>longitudinal water tight conductor AS PER<br>clause no. 2 of IS : 8130 - 2013  |
| 1.2   | TYPE OF CONDUCTOR                           |                 | STRANDED CIRCULAR COMPACTED<br>(LONGITUDINALLY WATER TIGHT)   |
| 1.3   | NOMINAL CROSS SECTIONAL AREA                | SQ.MM.          | 50  |
| 1.4   | MINIMUM NO. OF WIRES AS PER IS:8130- 2013   | NOS.            | 7   |
| 1.5   | DIA OF INDIVIDUAL WIRE                      | MM              | 3.00 MM   |
| 1.6   | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20 °C | OHM / KM (MAX.) | 0.641   |
| <b>2</b>  | <b>INSULATION OF PHASE CONDUCTOR</b>        |                 |   |
| 2.1   | INSULATION MATERIAL                         |                 | BLACK XLPE (UV RESISTANT, NON-TRACKING & EROSION RESISTANT) AS PER EN 50397-1-2006  |
| 2.2   | NOMINAL THICKNESS                           | MM              | 1.5   |
| <b>3</b>  | <b>STREET LIGHT CONDUCTOR</b>               |                 |   |
| 3.1   | MATERIAL & GRADE                            |                 | H2/ H4 EC GRADE ALUMINIUM Standard<br>longitudinal water tight conductor AS PER<br>clause no. 2 of IS : 8130 - 2013   |
| 3.2   | TYPE OF CONDUCTOR                           |                 | STRANDED CIRCULAR COMPACTED<br>(LONGITUDINALLY WATER TIGHT)   |



| STANDARD GUARANTEED TECHNICAL PARTICULARS (GTP) |   |                   |   |
|---|---|-------------------|---|
| SR. NO.   | DESCRIPTION                                 | UNIT              | 3 X 50 + 1X16 + 1 X 35 Sq.mm.   |
| 3.2   | TYPE OF CONDUCTOR                           |                   | STRANDED CIRCULAR COMPACTED<br>(LONGITUDINALLY WATER TIGHT)   |
| 3.3   | NOMINAL CROSS SECTIONAL AREA                | SQ.MM.            | 16  |
| 3.4   | MINIMUM NO. OF WIRES AS PER IS: 8130- 2013  | NOS.              | 7   |
| 3.5   | DIA OF INDIVIDUAL WIRE                      | MM                | 1.72 MM   |
| 3.6   | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20 °C | OHM/ KM<br>(MAX.) | 1.91  |
| <b>4</b>  | <b>INSULATION OF STREET LIGHT CONDUCTOR</b> |                   |   |
| 4.1   | INSULATION MATERIAL                         |                   | BLACK XLPE (UV RESISTANT, NON-TRACKING & EROSION RESISTANT) AS PER EN 50397-1-2006  |
| 4.2   | NOMINAL THICKNESS                           | MM                | 1.2   |
| <b>5</b>  | <b>MESSENGER CONDUCTOR</b>                  |                   |   |
| 5.1   | MATERIAL & GRADE                            |                   | Heat Treated ALUMINIUM ALLOY AS PER IS : 3984 PT-1 1994   |
| 5.2   | TYPE OF CONDUCTOR                           |                   | STRANDED CIRCULAR   |
| 5.3   | NOMINAL CROSS SECTIONAL AREA                | SQ.MM.            | 35  |
| 5.4   | MINIMUM NO. OF WIRES                        | NOS.              | 7   |
| 5.5   | DIA OF INDIVIDUAL WIRE                      | MM                | 2.50 MM   |
| 5.6   | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20 °C | OHM/ KM<br>(MAX.) | 0.986   |
| <b>6</b>  | <b>PROPERTIES OF INSULATION</b>             |                   | AS PER TABLE-3 OF MSEDCL SPECIFICATION  |
| 6.1   | MIN. TENSILE STRENGTH                       | N/ SQMM           | 12.5  |
| 6.2   | MIN. ELONGATION AT BREAK                    | %                 | 200   |
| 6.3   | VOLUME RESISTIVITY (MINIMUM)                |                   |   |
|   | (a) AT 27 °C                                | OHM-CM            | 1 X 10^14   |
|   | (b) AT 70 °C                                | OHM-CM            | 1 X 10^12   |
| <b>7.0</b>                                      | <b>PHYSICAL DETAILS OF CABLE</b>            |                   |   |
| 7.1   | EMBOSSING / PRINTING (ON ANY CORE)          |                   | 1100 VOLTS ELECTRIC XLPE AB CABLE 3CX50+1CX16+1CX35 SQMM IS: 14255/ 1995 ISI LOGO CM/ L NO. 2535049 'YEAR OF MFG.' 'MSEDCL' |
| 7.2   | LAY RATIO OF CONDUCTOR                      | MM                | 10 to 14  |
| 7.3   | DIRECTION OF LAY                            |                   | RIGHT HAND  |
| 7.4   | STANDARD LENGTH                             | MTRS              | 1000 ± 5%   |
| 7.5   | NO. OF STANDARD LENGTHS                     | NO.               | 1   |



| STANDARD GUARANTEED TECHNICAL PARTICULARS (GTP) |                     |      |   |
|---|---------------------|------|---|
| SR. NO.   | DESCRIPTION         | UNIT | 3 X 50 + 1 X 16 + 1 X 35 Sq.mm.   |
| 7.6   | MATERIAL OF DRUM    |      | WOODEN DRUM   |
| 8.0   | CORE IDENTIFICATION |      | BY PROVIDING ONE, TWO & THREE RIDGES<br>ON PHASE CORES  |
| 9.0   | TESTING             |      | TYPE TEST/ACCEPTANCE TEST/ROUTINE<br>TEST/OPTIONAL TEST AS PER IS 14255 -<br>1995 & TABLE-5 OF MSEDCL SPECIFICATION |



| STANDARD GUARANTEED TECHNICAL PARTICULARS (GTP) |   |                |   |
|---|---|----------------|---|
| SR. NO.   | DESCRIPTION                                 | UNIT           | 3 X 70 + 1X16 + 1 X 50 Sq.mm.   |
|   | NAME OF MANUFACTURE                         |                | SAMRIDHI INDUSTRIES   |
|   | PLACE OF MANUFACTURE                        |                | WARD NO. 73, OPPOSITE DADDA NAGAR,<br>KATANGI ROAD, JABALPUR, MP 482002   |
|   | CABLE DETAILS (TYPE)                        |                | LT AERIAL BUNCHED CABLE   |
|   | CABLE DESCRIPTION                           |                | 3 Core X 70Sqmm (Phase)+1 Core X 16Sqmm<br>(Street light)water blocked stranded<br>compacted circular aluminium conductor<br>(Class 2), XLPE Insulated. Twisted over 50<br>Sqmm bare aluminium messenger conductor<br>for working voltage upto & including<br>1100Volts Areal bunched Cable (3C x 70 +1C x<br>16+ 50 Sqmm Areal Bunched cable ) |
|   | SIZE OF CABLE                               |                | 3 X 70 + 1X16 + 1 X 50 Sq.mm.   |
|   | APPLICABLE STANDARDS SPECIFICATION          |                | IS:14255:1995, IS : 8130 - 2013,IS : 398<br>(PT-4) 1994, BS EN 50397-1-2006   |
|   | VOLTAGE GRADE (KV)                          | KV             | 1.1 KV  |
| <b>1</b>  | <b>PHASE CONDUCTOR</b>                      |                |   |
| 1.1   | MATERIAL & GRADE                            |                | H2 / H4 EC GRADE ALUMINIUM Standard<br>longitudinal water tight conductor AS PER<br>clause no. 2 of IS : 8130 - 2013  |
| 1.2   | TYPE OF CONDUCTOR                           |                | STRANDED CIRCULAR COMPACTED<br>(LONGITUDINALLY WATER TIGHT)   |
| 1.3   | NOMINAL CROSS SECTIONAL AREA                | SQ.MM.         | 70  |
| 1.4   | MINIMUM NO. OF WIRES AS PER IS:8130- 2013   | NOS.           | 19  |
| 1.5   | DIA OF INDIVIDUAL WIRE                      | MM             | 2.12 MM   |
| 1.6   | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20 °C | OHM/ KM (MAX.) | 0.443   |
| <b>2</b>  | <b>INSULATION OF PHASE CONDUCTOR</b>        |                |   |
| 2.1   | INSULATION MATERIAL                         |                | BLACK XLPE (UV RESISTANT, NON-TRACKING & EROSION RESISTANT) AS PER EN 50397-1-2006  |
| 2.2   | NOMINAL THICKNESS                           | MM             | 1.5   |
| <b>3</b>  | <b>STREET LIGHT CONDUCTOR</b>               |                |   |
| 3.1   | MATERIAL & GRADE                            |                | H2 / H4 EC GRADE ALUMINIUM Standard<br>longitudinal water tight conductor AS PER<br>clause no. 2 of IS : 8130 - 2013  |
| 3.2   | TYPE OF CONDUCTOR                           |                | STRANDED CIRCULAR COMPACTED<br>(LONGITUDINALLY WATER TIGHT)   |



| STANDARD GUARANTEED TECHNICAL PARTICULARS (GTP) |   |   |  |
|---|---|---|--|
| SR. NO.   | DESCRIPTION                                 | UNIT                                      | 3 X 70 + 1X16 + 1 X 50 Sq.mm.  |
| 3.3   | NOMINAL CROSS SECTIONAL AREA                | SQ.MM.                                    | 16   |
| 3.4   | MINIMUM NO. OF WIRES AS PER IS: 8130- 2013  | NOS.                                      | 7  |
| 3.5   | DIA OF INDIVIDUAL WIRE                      | MM  | 1.70   |
| 3.6   | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20 °C | OHM / KM<br>(MAX.)                        | 1.91   |
| 4   | INSULATION OF STREET LIGHT CONDUCTOR        |   |  |
| 4.1   | INSULATION MATERIAL                         |   | BLACK XLPE (UV RESISTANT, NON-TRACKING & EROSION RESISTANT) AS PER EN 50397-1-2006   |
| 4.2   | NOMINAL THICKNESS                           | MM  | 1.2  |
| 5   | MESSENGER CONDUCTOR                         |   |  |
| 5.1   | MATERIAL & GRADE                            |   | Heat Treated ALUMINIUM ALLOY AS PER IS : 398 (PT-4) 1994   |
| 5.2   | TYPE OF CONDUCTOR                           |   | STRANDED CIRCULAR  |
| 5.3   | NOMINAL CROSS SECTIONAL AREA                | SQ.MM.                                    | 50   |
| 5.4   | MINIMUM NO. OF WIRES                        | NOS.                                      | 7  |
| 5.5   | DIA OF INDIVIDUAL WIRE                      | MM<br>(Testing & OC)<br>MSEDCL<br>400 051 | 3.00   |
| 5.6   | MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20 °C | OHM / KM<br>(MAX.)                        | 0.689  |
| 6   | PROPERTIES OF INSULATION                    |   | AS PER TABLE-3 OF MSEDCL SPECIFICATION   |
| 6.1   | MIN. TENSILE STRENGTH                       | N/<br>SQMM                                | 12.5   |
| 6.2   | MIN. ELONGATION AT BREAK                    | %   | 200  |
| 6.3   | VOLUME RESISTIVITY (MINIMUM)                |   |  |
|   | (a) AT 27 °C                                | OHM-CM                                    | 1 X 10 <sup>14</sup>   |
|   | (b) AT 70 °C                                | OHM-CM                                    | 1 X 10 <sup>12</sup>   |
| 7.0   | PHYSICAL DETAILS OF CABLE                   |   |  |
| 7.1   | EMBOSSING / PRINTING (ON ANY CORE)          |   | 1100 VOLTS ELECTRIC XLPE AB CABLE 3CX70+1CX16+1CX50 SQMM IS: 14255/ 1995 ISI LOGO CM / L NO. 2535049 'YEAR OF MFG.' 'MSEDCL' |
| 7.2   | LAY RATIO OF CONDUCTOR                      | MM  | 10 to 14   |
| 7.3   | DIRECTION OF LAY                            |   | RIGHT HAND   |
| 7.4   | STANDARD LENGTH                             | MTRS                                      | 1000 ± 5%  |
| 7.5   | NO. OF STANDARD LENGTHS                     | NO.                                       | 1  |
| 7.6   | MATERIAL OF DRUM                            |   | WOODEN DRUM  |
| 8.0   | CORE IDENTIFICATION                         |   | BY PROVIDING ONE, TWO & THREE RIDGES ON PHASE CORES  |



| STANDARD GUARANTEED TECHNICAL PARTICULARS (GTP) |             |      |   |
|---|-------------|------|---|
| SR. NO.   | DESCRIPTION | UNIT | 3 X 70 + 1X16 + 1 X 50 Sq.mm.   |
| 9.0   | TESTING     |      | <p>TYPE TEST/ACCEPTANCE TEST/ROUTINE TEST/OPTIONAL TEST AS PER IS 14255 - 1995 &amp; TABLE-5 OF MSEDC Specification</p>  |



**MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.**  
**Chief Engineer [Testing & Quality Control Cell]**  
Plot No. G-9, 5<sup>th</sup> Floor, Prakashgad, Prof. Anant Kanekar Marg,  
Bandra (East), Mumbai-400051.  
Phone: (0) 9122-26474211 / 26472131, (P) 26473139  
E-mail: [cetesting2@gmail.com](mailto:cetesting2@gmail.com)  
Website: [www.mahadiscom.in](http://www.mahadiscom.in)

No. CE/T-QC/MSC-I/Cable/

№ 21371

Date: 10 JUL 2024

To,

M/s. Samriddhi Industries,  
Add., Khasra No. 78/2, S.No. 497, Mouza Karmeta, PC No. 23,  
RI Circle Mahajpur, Ward No. 73, Opposite Dadda Nagar, Katangi Road,  
Maa ambika Electricals, Karmeta, Jabalpur, MP-482002

Sub: Vendor approval for supply of ACSR & AAAC Conductors under on-going MSEDC scheme.

- Ref :-
- 1) This office circular no.CE/Testing/TTR-Validity/Circular/10 dtd. 22.06.2020.
  - 2) Office note F-2020011400/2020 approved on dt.08.01.2021 & F-2022006710/2022 approved on dt.12.07.2022
  - 3) Your online vendor registration
  - 4) Type test report verification on dtd. 05.06.2024..
  - 5) Approval from Competent Authority on dtd. 05.07.2024, Office Note no. F-2024006179/2024

Dear Sirs,

This office is in receipt of your proposal for vendor approval for supply of following size of conductors under on-going MSEDC schemes for following item.

1. ACSR 30 Sqmm. Conductor.
2. AAAC 34 Sqmm Conductor.
3. AAAC 55 Sqmm Conductor.
4. AAAC 100 Sqmm Conductor.

The copies of the Type Test Reports submitted by your firms are verified with originals in presence of your firm's representative as below.

| Sr. No. | Size Of Conductor              | Type test report & Date                              | Place of Testing                    |
|---------|--------------------------------|--|-------------------------------------|
| 1       | ACSR 30Sqmm. Weasel Conductor. | ELMEF/24/02/046/0010/EL-0001/XV<br>Date-11.03.2024   | ELMEF Testing & Calibration Lab, MP |
| 2       | AAAC 34Sqmm Conductor.         | ELMEF/24/02/046/0010/EL-0001/X<br>Date-11.03.2024    |                                     |
| 3       | AAAC 55Sqmm Conductor          | ELMEF/24/02/046/0010/EL-0001/XI<br>Date-11.03.2024   |                                     |
| 4       | AAAC 100Sqmm Conductor         | ELMEF/23/05/121/0007-EL-0001/XIII<br>Date-11.03.2024 |                                     |

The proposal submitted by you is scrutinized in light of MSEDC technical specifications and respective IS/ IEC amended up to date. The Type Test Reports (TTR) and Guaranteed Technical Parameters (GTP) are found generally in order.

In view of above your proposal for supply of above sizes/ratings of conductors is accepted & pleased to accord approval as MSEDC approved vendor under on-going MSEDC scheme.

This vendor approval is subject to following terms & conditions:

M/s. Samriddhi Industries – Vendor approval for supply of ACSR & AAAC Conductors under on-going MSEDC scheme

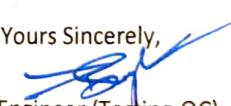
1. All routine and acceptance tests shall be carried out on all drums of above sizes/ratings conductors as per relevant IS/ IEC (amended up to date) at your factory in presence of concerned Executive Engineer (Testing Division), MSEDCL.
2. This approval shall not be considered for any technical / commercial evaluation of any tender in MSEDCL.
3. The performance guarantee of 60 months from date of commissioning of offered sizes/ratings conductor towards any manufacturing defect shall be given to the end customer.
4. You have to maintain same design & construction of all above sizes/ratings conductors strictly in accordance with the approved GTPs and MSEDCL technical specifications and respective IS / IEC (amended up to date) only.
5. The testing and inspection procedure as given in the MSEDCL technical specification shall be adopted scrupulously.
6. The approval of GTPs shall not relieve you from responsibilities and liabilities to ensure correctness of drawings & correct interpretation for meeting requirements as per technical specifications and respective IS / IEC.
7. All other technical parameters of all above sizes/ratings conductors should be strictly in accordance with the technical specifications & respective IS / IEC (amended up to date).
8. **This vendor approval is valid for Five years i.e. up to dtd.05.07.2029 and it should be ensured by inspecting officer at the time of inspection.**

This approval is issued and without prejudice to technical specifications and all the terms and conditions of the all other tender.

Thanking You.

Encls: One set of approved GTP duly signed & stamped.

Yours Sincerely,

  
Chief Engineer (Testing-QC)  
MSEDCL, Mumbai.

Copy s.w.rs.to:

- 1) Director (Projects) / (Operations), MSEDCL, Prakashgad, Mumbai.
- 2) Executive Director-II (Dist.)/ (Infra)/ (Projects), MSEDCL, Prakashgad, Mumbai.

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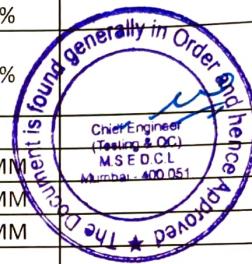
- 1) Chief Engineer (O&M), All Zones, MSEDCL.
- 2) Chief Engineer, (MMD)/(HVDS)/(Projects)/(SP)/(Dist.), MSEDCL, Prakashgad, Mumbai.

Copy to:

- 1) Superintending Engineer, (Infra) / (MSC), MSEDCL, Prakashgad, Mumbai.
- 2) Superintending Engineer (O&M), All Circles, MSEDCL.

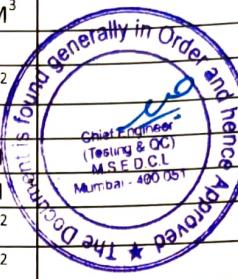
**GUARANTEED TECHNICAL PARTICULARS OF 30 SQ MM OF ACSR WEASEL CONDUCTOR**

| SR. NO. | DESCRIPTION  | UNIT                      | PARTICULARS  |
|---------|--|---------------------------|--|
| 1       | NAME OF MANUFACTURER                                       |                           | SAMRIDHI INDUSTRIES  |
| 2       | BRAND NAME   |                           | JEO  |
| 3       | APPLICABLE STANDARD  |                           | IS 398 PART 2 : 1996   |
| 4       | BIS NO. & VALIDITY DATE                                    |                           |  |
| 5       | SIZE & NAME OF CONDUCTOR                                   |                           | AL.- (6/2.59 MM) + STEEL- (1/2.59MM) ACSR WEASEL CONDUCTOR               |
| 6       | MANUFACTURERS OF RAW MATERIAL                              |                           | AL.- BALCO, NALCO, HINDALCO STEEL- SYSTEMATIC, BEDMUTHA, BANSAL, HD WIRE |
| 7       | COMPOSITION OF HIGH CARBON STEEL                           |                           |  |
|         | A) CARBON  | %                         | 0.5 TO 0.85  |
|         | B) MAGNESE   | %                         | 0.5 TO 1.10  |
|         | C) PHOSPHORUS  | %                         | NOT MORE THAN 0.035  |
|         | D) SULPHUR   | %                         | NOT MORE THAN 0.045  |
|         | E) SILICON   | %                         | 0.1 TO 0.35  |
| 8       | PURITY OF ELECTROLYTIC HIGH GRADE ZINC USE FOR GALVANIZING | %                         | 99.997   |
| 9       | ALUMINIUM WIRE DETAILS                                     |                           |  |
| A)      | DIAMETER I) NOMINAL  | MM                        | 2.59   |
|         | II) MAXIMUM  | MM                        | 2.62   |
|         | III) MINIMUM   | MM                        | 2.56   |
| B)      | CROSS SECTIONAL AREA OF NOMINAL WIRE DIAMETER              | MM <sup>2</sup>           | 5.269  |
| C)      | MASS   | KG/KM                     | 14.24  |
| D)      | MINIMUM BREAKING LOAD                                      |                           |  |
|         | I) BEFORE STRANDING  | KN                        | 0.89   |
|         | II) AFTER STRANDING  | KN                        | 0.85   |
| E)      | RESISTANCE AT 20 °C  | OHM/KM                    | 5.49   |
| F)      | PHYSICAL CONSTANT FOR HARD DRAWN ALUMINIUM WIRE            |                           |  |
|         | I) RESISTIVITY   | OHM<br>MM <sup>2</sup> /M | 0.028264   |
|         | II) DENSITY  | G/CM <sup>3</sup>         | 2.703  |
|         | CONTANT MASS TEMPRETURE COEFFICIENT                        | °C                        | 0.00403  |
|         | COEFFICIENT OF LINERA EXPASION                             |                           | 23X10 <sup>-6</sup>  |
| 10      | STEEL WIRE DETAIL  |                           |  |
| A)      | DIAMETER   |                           |  |
|         | I) NOMINAL   | MM                        | 2.59   |
|         | II) MAXIMUM  | MM                        | 2.64   |
|         | III) MINIMUM   | MM                        | 2.54   |



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|    |   |                          |  |
|----|---|--------------------------|--|
| B) | CROSS SECTIONAL AREA OF NOMINAL WIRE<br>DIAMETER                                      | MM <sup>2</sup>          | 5.269                                      |
| C) | MASS  | KG/KM                    | 41.09                                      |
| D) | MINIMUM BREAKING LOAD<br>I) BEFORE STRANDING<br>II) AFTER STRANDING                   | KN                       | 6.92<br>6.57                               |
| E) | PHYSICAL CONSTANT FOR STEEL WIRE<br>I) COEFFICIENT OF LINEAR EXPANSION<br>II) DENSITY | /°C<br>G/CM <sup>3</sup> | 11.5X10 <sup>-6</sup><br>7.8               |
| 11 | ACSR CONDUCTOR  |                          |  |
| A) | ACTUAL AREA   | MM <sup>2</sup>          | 30   |
| B) | STRANDING AND WIRE DIA.<br>I) ALUMINIUM<br>II) STEEL                                  | MM<br>MM                 | 6/2.59<br>1/2.59                           |
| C) | SECTIONAL AREA OF ALUMINIUM   | MM <sup>2</sup>          | 31.61                                      |
| D) | TOTAL SECTIONAL AREA  | MM <sup>2</sup>          | 36.88                                      |
| E) | APPROXIMATE OVERALL DIA   | MM                       | 7.77                                       |
| F) | APPROXIMATE MASS  | KG/KM                    | 128  |
| G) | CALCULATED MAXIMUM RESISTANCE AT 20 ° C   | OHMS/KM                  | 0.9289                                     |
| H) | APPROXIMATE CALCULATED BREAKING LOAD  | KN                       | 11.12                                      |
| 12 | FINAL MODULUS ELASTICITY  | KG/CM <sup>2</sup>       | 79   |
| 13 | COEFFICIENT OF LINEAR EXPANSION   | /°C                      | 19.1X10 <sup>-6</sup>                      |
| 14 | DIRECTION OF LAY AND LAY RATIO  |                          | RIGHT HAND & 10-14                         |
| 15 | MAXIMUM WORKING TENSION   |                          | 50% OF BREAKING LOAD OF COMPLETE CONDUCTOR |



**GUARANTEED TECHNICAL PARTICULARS OF AAAC 34 Sq.mm (7/2.50mm)**  
**CONDUCTOR**

| SR.<br>NO. | DESCRIPTION                                   | UNIT            | PARTICULARS  |
|------------|---|-----------------|--|
| 1.         | NAME OF MANUFACTURER                          |                 | SAMRIDDHI INDUSTRIES   |
| 2          | Works ADDRESS OF MANUFACTURER                 |                 | WARD NO 73, OPP DADDA NAGAR, KATANGI ROAD,<br>JABALPUR, M.P 482002                 |
| 3          | Brand Name                                    |                 | JEO CABLES, SAMRIDDHI  |
| 4          | BIS No. & Valid date                          |                 | CM/L- 8200036099 Valid up to-31.03.2025  |
| 5          | Applicable Standard                           |                 | IS-398 Part 4  |
| 6          | Size & Name of Conductor                      |                 | 34 Sq.mm   |
| 7          | Manufacturers of Raw material                 |                 | BALCO, NALCO, HINDALCO, VEDANTA, LASER,<br>HIND ALUM., JSK, KJV                    |
| 8          | Aluminum alloy composition                    |                 |  |
| a)         | Si  | %               | 0.50 - 0.90  |
| b)         | Mg  | %               | 0.6 - 0.90   |
| c)         | Fe  | %               | 0.50 Max   |
| d)         | Cu  | %               | 0.10 Max   |
| e)         | Mn  | %               | 0.03 Max   |
| f)         | Cr  | %               | 0.03 Max   |
| g)         | Zn  | %               | 0.10 Max   |
| h)         | B   | %               | 0.06 Max   |
| i)         | Other element (Each)                          | %               | 0.03 Max   |
| j)         | Other element (Total)                         | %               | 0.10 Max   |
| k)         | Al  | %               | Remainder  |
| 9          | Aluminum Alloy wire details                   | Nos             | 7  |
| a)         | Diameter i) Nominal                           | mm              | 2.50   |
|            | ii) Maximum                                   | mm              | 2.53   |
|            | iii) Minimum                                  | mm              | 2.47   |
| b)         | Cross sectional area of nominal wire diameter | mm <sup>2</sup> | 4.909  |
| c)         | Mass  | Kg/km           | 13.25  |
| d)         | Minimum Breaking Load                         |                 |  |
|            | i) Before Stranding                           | kN              | 1.52   |
|            | ii) After Stranding                           | kN              | 1.44   |

|    |   |                    |   |
|----|---|--------------------|---|
| e) | Resistance at 20°C Max  | Ohms/km            | 6.845                                     |
| 10 | Aluminum Alloy Stranded Conductor   |                    |   |
| a) | Actual Area   | mm <sup>2</sup>    | 34  |
| b) | Stranding and wire Dia  | mm                 | 7/2.50                                    |
| c) | Approximate Overall Dia   | mm                 | 7.50                                      |
| d) | Approximate Mass  | Kg/km              | 94  |
| e) | Calculated Maximum Resistance at 20°C   | Ohms/km            | 0.9900                                    |
| f) | Approximate calculated Breaking Load  | kN                 | 10.11                                     |
| 11 | Final Modulus Elasticity  | Kg/cm <sup>2</sup> | 0.6324 X 10 <sup>6</sup>                  |
| 12 | Coefficient of Linear expansion   | /°C                | 23 X 10 <sup>-6</sup>                     |
| 13 | Direction of lay & lay ratio  |                    | Right 10 To 14                            |
| 14 | Maximum working tension   |                    | 50% of Braking load of Complete Conductor |
| 15 | Tolerance, if any, on standard lengths  |                    | +/- 5%                                    |
| 16 | No. of standard lengths in one Drum   |                    | 5 x 2000meter                             |
| 17 | Weight of the conductor in one Drum   | kg                 | 940                                       |
| 18 | Weight of the Drum  | kg                 | 70  |
| 19 | Gross weight of the reel including weight of the conductor  | kg                 | 1110                                      |
| 20 | Drum (reel) details   |                    | Wooden drum                               |
| 21 | a) Dimensions of the Drum   |                    | 1200 x 550 x 750 mm                       |
| 22 | b) whether the drum on which the conductor is wound conforms to the specification                   |                    | Yes IS-1178-1980 updated                  |
| 23 | Complete conductor to be purchased directly From the conductor manufacturer only                    |                    | Yes                                       |
| 24 | Important packing & markings: for the detailed package and markings please refer the specification. |                    | As Per IS-398 Part (4)                    |



**GUARANTEED TECHNICAL PARTICULARS OF AAAC 55 Sq.mm (7/3.15mm) CONDUCTOR**

| SR.<br>NO. | DESCRIPTION                                      | UNIT            | PARTICULARS  |
|------------|--|-----------------|--|
| 1.         | NAME OF MANUFACTURER                             |                 | SAMRIDDHI INDUSTRIES   |
| 2          | Works ADDRESS OF<br>MANUFACTURER                 |                 | WARD NO 73, OPP DADDA NAGAR, KATANGI ROAD,<br>JABALPUR, M.P 482002 |
| 3          | Brand Name                                       |                 | JEO CABLES, SAMRIDDHI  |
| 4          | BIS No. & Valid date                             |                 | CM/L- 8200036099 Valid up to-31.03.2025                            |
| 5          | Applicable Standard                              |                 | IS-398 Part 4  |
| 6          | Size & Name of Conductor                         |                 | 55 Sq.mm   |
| 7          | Manufacturers of Raw material                    |                 | BALCO, NALCO, HINDALCO, VEDANTA, LASER,<br>HIND ALUM., JSK, KJV    |
| 8          | Aluminum alloy composition                       |                 |  |
| a)         | Si   | %               | 0.50 - 0.90  |
| b)         | Mg   | %               | 0.6 - 0.90   |
| c)         | Fe   | %               | 0.50 Max   |
| d)         | Cu   | %               | 0.10 Max   |
| e)         | Mn   | %               | 0.03 Max   |
| f)         | Cr   | %               | 0.03 Max   |
| g)         | Zn   | %               | 0.10 Max   |
| h)         | B  | %               | 0.06 Max   |
| i)         | Other element (Each)                             | %               | 0.03 Max   |
| j)         | Other element (Total)                            | %               | 0.10 Max   |
| k)         | Al   | %               | Remainder  |
| 9          | Aluminum Alloy wire details                      | Nos             | 7  |
| a)         | Diameter i) Nominal                              | mm              | 3.15   |
|            | ii) Maximum                                      | mm              | 3.18   |
|            | iii) Minimum                                     | mm              | 3.12   |
| b)         | Cross sectional area of nominal<br>wire diameter | mm <sup>2</sup> | 7.793  |
| c)         | Mass   | Kg/km           | 21.04  |
| d)         | Minimum Breaking Load                            |                 |  |
|            | i) Before Stranding                              | kN              | 2.41   |



|    |   |                    |   |
|----|---|--------------------|---|
|    | ii) After Stranding   |                    |   |
| e) | Resistance at 20°C Max  | kN<br>Ohms/k<br>m  | 2.29<br>4.290                             |
| 10 | Aluminum Alloy Stranded Conductor   |                    |   |
| a) | Actual Area   | mm <sup>2</sup>    | 55  |
| b) | Stranding and wire Dia  | mm                 | 7/3.15                                    |
| c) | Approximate Overall Dia   | mm                 | 9.45                                      |
| d) | Approximate Mass  | Kg/km              | 149.02                                    |
| e) | Calculated Maximum Resistance at 20°C   | Ohms/k<br>m        | 0.6210                                    |
| f) | Approximate calculated Breaking Load  | kN                 | 16.03                                     |
| 11 | Final Modulus Elasticity  | Kg/cm <sup>2</sup> | 0.6324 X 10 <sup>6</sup>                  |
| 12 | Coefficient of Linear expansion   | /°C                | 23 X 10 <sup>-6</sup>                     |
| 13 | Direction of lay & lay ratio  |                    | Right 10 To 14                            |
| 14 | Maximum working tension   |                    | 50% of Braking load of Complete Conductor |
| 15 | Tolerance, if any, on standard lengths  |                    | +/- 5%                                    |
| 16 | No. of standard lengths in one Drum   |                    | 3 x 2000meter                             |
| 17 | Weight of the conductor in one Drum   | kg                 | 895                                       |
| 18 | Weight of the Drum  | kg                 | 70  |
| 19 | Gross weight of the reel including weight of the conductor  | kg                 | 965                                       |
| 20 | Drum (reel) details   |                    | Wooden drum                               |
| 21 | a) Dimensions of the Drum   |                    | 1200 x 550 x 750 mm                       |
| 22 | b) whether the drum on which the conductor is wound conforms to the specification                   |                    | Yes IS-1178-1980 updated                  |
| 23 | Complete conductor to be purchased directly From the conductor manufacturer only                    |                    | Yes                                       |
| 24 | Important packing & markings: for the detailed package and markings please refer the specification. |                    | As Per IS-398 Part (4)                    |



**GUARANTEED TECHNICAL PARTICULARS OF AAAC 100 Sq.mm (7/4.26mm) CONDUCTOR**

| SR.<br>NO. | DESCRIPTION                                   | UNIT            | PARTICULARS  |
|------------|---|-----------------|--|
| 1.         | NAME OF MANUFACTURER                          |                 | SAMRIDDHI INDUSTRIES   |
| 2          | Works ADDRESS OF MANUFACTURER                 |                 | WARD NO 73, OPP DADDA NAGAR, KATANGI ROAD,<br>JABALPUR, M.P 482002 |
| 3          | Brand Name                                    |                 | JEO CABLES, SAMRIDDHI  |
| 4          | BIS No. & Valid date                          |                 | CM/L-8200036099 Valid up to-31.03.2025                             |
| 5          | Applicable Standard                           |                 | IS-398 Part 4  |
| 6          | Size & Name of Conductor                      |                 | 100 Sq.mm  |
| 7          | Manufacturers of Raw material                 |                 | BALCO, NALCO, HINDALCO, VEDANTA,                                   |
| 8          | Aluminum alloy composition                    |                 |  |
|            | a) Si   | %               | 0.50 - 0.90  |
|            | b) Mg   | %               | 0.6 - 0.90   |
|            | c) Fe   | %               | 0.50 Max   |
|            | d) Cu   | %               | 0.10 Max   |
|            | e) Mn   | %               | 0.03 Max   |
|            | f) Cr   | %               | 0.03 Max   |
|            | g) Zn   | %               | 0.10 Max   |
|            | h) B  | %               | 0.06 Max   |
|            | i) Other element (Each)                       | %               | 0.03 Max   |
|            | j) Other element (Total)                      | %               | 0.10 Max   |
|            | k) Al   | %               | Remainder  |
| 9          | Aluminum Alloy wire details                   | Nos             | 7  |
| a)         | Diameter                                      | i) Nominal      | 4.26   |
|            |   | ii) Maximum     | 4.30   |
|            |   | iii) Minimum    | 4.22   |
| b)         | Cross sectional area of nominal wire diameter | mm <sup>2</sup> | 14.25  |
| c)         | Mass  | Kg/km           | 38.48  |
| d)         | Minimum Breaking Load                         |                 |  |



|    |   |                    |   |
|----|---|--------------------|---|
|    | i) Before Stranding   | kN                 | 4.40                                      |
|    | ii) After Stranding   | kN                 | 4.18                                      |
| e) | Resistance at 20°C Max  | Ohms/km            | 2.345                                     |
| 10 | Aluminum Alloy Stranded Conductor   |                    |   |
| a) | Actual Area   | mm <sup>2</sup>    | 100                                       |
| b) | Stranding and wire Dia  | mm                 | 7/4.26                                    |
| c) | Approximate Overall Dia   | mm                 | 12.78                                     |
| d) | Approximate Mass  | Kg/km              | 272.86                                    |
| e) | Calculated Maximum Resistance at 20°C   | Ohms/km            | 0.339                                     |
| f) | Approximate calculated Breaking Load  | kN                 | 29.26                                     |
| 11 | Final Modulus Elasticity  | Kg/cm <sup>2</sup> | $0.6324 \times 10^6$                      |
| 12 | Coefficient of Linear expansion   | /°C                | $23 \times 10^{-6}$                       |
| 13 | Direction of lay & lay ratio  |                    | Right 10 To 14                            |
| 14 | Maximum working tension   |                    | 50% of Braking load of Complete Conductor |
| 15 | Tolerance, if any, on standard lengths  |                    | +/- 5%                                    |
| 16 | No. of standard lengths in one Drum   |                    | 2 x 2000meter                             |
| 17 | Weight of the conductor in one Drum   | kg                 | 1091                                      |
| 18 | Weight of the Drum  | kg                 | 80  |
| 19 | Gross weight of the reel including weight of the conductor  | kg                 | 1171                                      |
| 20 | Drum (reel) details   |                    | Wooden drum                               |
| 21 | a) Dimensions of the Drum   |                    | 1250 x 550 x 750 mm                       |
| 22 | b) whether the drum on which the conductor is wound conforms to the specification                   |                    | Yes IS-1178-1980 updated                  |
| 23 | Complete conductor to be purchased directly from the conductor manufacturer only                    |                    | Yes                                       |
| 24 | Important packing & markings: for the detailed package and markings please refer the specification. |                    | As Per IS-398 Part (4)                    |

