

# ZHEJIANG PERMANENT CABLE CO., LTD

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## SPECIFICATION FOR SOLAR CABLE 4.0MM<sup>2</sup>

|                                             |                                                                                                   |                                       |                       |
|---------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------|
| Drawing                                     |                 |                                       |                       |
| Cable Specification                         | Solar cable 1X4.0mm <sup>2</sup>                                                                  | Voltage                               | 1500V DC              |
| CABLE CONSTRUCTION                          |                                                                                                   | UNIT                                  | SPEC. PARAMETER       |
| Conductor                                   | Size                                                                                              | mm <sup>2</sup>                       | 4                     |
|                                             | Material                                                                                          | /                                     | Tinned-Copper         |
|                                             | Stranded Diameter                                                                                 | mm                                    | 2.5                   |
| Insulation                                  | Material                                                                                          | /                                     | XLPO                  |
|                                             | Average Thickness                                                                                 | mm                                    | 0.7                   |
|                                             | Minimum Thickness                                                                                 | mm                                    | 0.6                   |
|                                             | O.D.                                                                                              | mm                                    | 3.9                   |
|                                             | Color                                                                                             | /                                     | Black / White         |
| Sheath                                      | Material                                                                                          | /                                     | XLPO                  |
|                                             | Average Thickness                                                                                 | mm                                    | 0.8                   |
|                                             | Minimum Thickness                                                                                 | mm                                    | 0.7                   |
|                                             | O.D.                                                                                              | mm                                    | 5.6+0.1mm             |
|                                             | Color                                                                                             | /                                     | Black / Red           |
| Ref. Weight                                 | G.N.                                                                                              | (kg/km)                               | 61                    |
| Marking                                     | TÜV SÜD EN 50618:2014 H1Z2Z2-K 1×4mm <sup>2</sup> Zhejiang Permanent Cable Co., Ltd.              |                                       |                       |
| Certification                               | TUV NO.: B180601913002                                                                            |                                       |                       |
| Standard                                    | EN 50618:2014                                                                                     |                                       |                       |
| Packing                                     | 1) 100m.<br>2) 1000m/ Drum<br>3) Delivering in other way                                          |                                       |                       |
| Mechanical Properties                       |                                                                                                   |                                       |                       |
| Operating temperature                       | - 40℃ ~ + 90℃                                                                                     | Max. DC Resistance at 20℃ (Ω/km)      | 5.09                  |
| Min resistance of insulation at 20 °C       | 580 MΩ.km                                                                                         | Min resistance of insulation at 90 °C | 0.58 MΩ.km            |
| Max. Temperature                            | 120℃                                                                                              | Safe carrying capacity free in Air    | 55 A                  |
| Application Class                           | A                                                                                                 | Protection Class                      | II                    |
| Rated Voltage                               | DC 1500V (between conductors and between conductor and earth)<br>AC U <sub>o</sub> /U: 1.0/1.0 KV |                                       |                       |
| Physical Properties                         |                                                                                                   |                                       |                       |
| Item                                        | Test Method Standard                                                                              | Insulation                            | Sheath                |
| Elongation                                  | EN 60811-501                                                                                      | 125%                                  | 125%                  |
| Strength                                    |                                                                                                   | 8.0 N/mm <sup>2</sup>                 | 8.0 N/mm <sup>2</sup> |
| Hot Set Test                                | EN 60811-507                                                                                      | 250±3 °C                              | 250±3 °C              |
| Cold elongation test                        | EN 60811-505                                                                                      | -40 ± 2                               | -40 ± 2               |
| Temperature index corresponding to 20 000 h |                                                                                                   | ≥120                                  | ≥120                  |

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