



## AD8 Permanent-Submersion Rubber &amp; Pump Cables

# S1BN8-F

## 0.6/1 kV Heavy-Duty Submersible & Industrial

EN 50525-2-21 AD8 / HD 361 · 0.6/1 kV ('S1') · +90 °C EPR ('B') · AD8 PCP outer sheath



HD 361 / AD8

0.6/1 kV

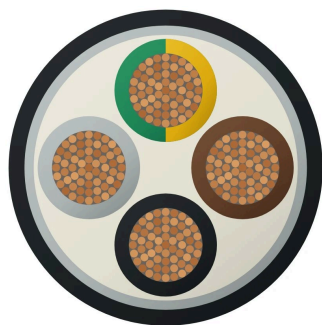
+90 °C Submersible 'S1BN8-F'

### Application

S1BN8-F is a heavy-duty 0.6/1 kV AD8 permanent-submersion and industrial flexible rubber power cable coded to CENELEC HD 361. Serving as the 0.6/1 kV and +90 °C EPR ('B') upgrade to H07RN8-F, it combines higher continuous current capacity and 1000 V

**Typical uses:** Deep-Well & Mine Dewatering Pumps, Municipal Sewage & Stormwater Stations, Dredging Pontoons & Floating Mixers, Civil Tunnelling & Cofferdam Sumps, Heavy Wet-Process Industrial Plants

### Construction



Cross-section, not to scale

|   |                                         |                              |
|---|-----------------------------------------|------------------------------|
| 1 | Flexible copper conductor ('-F')        | EN 60228 Class 5             |
| 2 | 0.6/1 kV +90 °C EPR insulation ('1B')   | EN 50363-1                   |
| 3 | Short-pitch water-resistant core lay-up | EN 50525-2-21                |
| 4 | AD8 submersible polychloroprene sheath  | EN 50363-2-1 / EN 50525-2-21 |

## Technical data

Typical values

|                                |                                      |                               |                                    |
|--------------------------------|--------------------------------------|-------------------------------|------------------------------------|
| Rated voltage U0/U             | 0.6/1 kV AC (Um 1.2 kV)              | Routine AC test voltage       | 3.5 kV rms / 5 min                 |
| Wet insulation resistance      | ≥ 500 MΩ·km at +20 °C                | Conductor stranding class     | EN 60228 Class 5                   |
| Ampacity gain vs H07RN8-F      | +15 % to +18 % higher current rating | Operating frequency           | 50 / 60 Hz & DC                    |
| Max. conductor temp. (in air)  | +90 °C continuous ('B' EPR)          | Max. water temperature (AD8)  | +40 °C continuous (+50 °C peak)    |
| Max. short-circuit temperature | +250 °C (max. 5 s)                   | Mobile ambient range (in air) | -25 °C to +60 °C                   |
| Fixed ambient range (in air)   | -40 °C to +80 °C                     | Min. installation temperature | -25 °C                             |
| Min. bend radius (fixed)       | 4 × D (≤ 12 mm) / 5 × D (> 12 mm)    | Min. bend radius (flexing)    | 6 × D (≤ 12 mm) / 8 × D (> 12 mm)  |
| Max. submersion depth (AD8)    | Up to 100 m water head (10 bar)      | Max. tensile pull on copper   | 15 N/mm <sup>2</sup>               |
| Crush & abrasion resistance    | Heavy-duty EM2 polychloroprene       | Tear strength                 | ≥ 15 N/mm                          |
| AD8 permanent water immersion  | EN 50525-2-21 Annex D/E certified    | Oil, grease & sewage sludge   | EN 60811-404 oil-resistant EM2 PCP |
| Flame retardance               | EN 60332-1-2 self-extinguishing      | Ozone & UV weather resistance | EN 60811-403 ozone-proof           |
| Chemical & slurry exposure     | Resistant to pH 4–10 wastewater      | Halogen status                | Polychloroprene elastomer          |
| Standards                      | CENELEC HD 361 S3 ('S1BN8-F')        |                               |                                    |

## Sizes

12 standard constructions

Tick the sizes you need and send this page to [info@tebaoflex.com](mailto:info@tebaoflex.com) or WhatsApp +86 185 9591 3361.

| Order designation                        | Configuration | Phase size mm <sup>2</sup> | Outer Ø ≈ mm | Copper kg/km | Weight ≈ kg/km | Min. bend R fixed mm |
|------------------------------------------|---------------|----------------------------|--------------|--------------|----------------|----------------------|
| Standard S1BN8-F configurations 12 sizes |               |                            |              |              |                |                      |
| <input type="checkbox"/> S1BN8-F 3G2.5   | 3G2.5         | 2.5                        | 12.2         | 72           | 205            | 49                   |
| <input type="checkbox"/> S1BN8-F 4G2.5   | 4G2.5         | 2.5                        | 13.5         | 96           | 258            | 54                   |
| <input type="checkbox"/> S1BN8-F 4G4.0   | 4G4.0         | 4.0                        | 15.6         | 154          | 362            | 62                   |
| <input type="checkbox"/> S1BN8-F 4G6.0   | 4G6.0         | 6.0                        | 17.6         | 230          | 485            | 70                   |
| <input type="checkbox"/> S1BN8-F 4G10    | 4G10          | 10                         | 22.4         | 384          | 795            | 90                   |
| <input type="checkbox"/> S1BN8-F 4G16    | 4G16          | 16                         | 25.8         | 614          | 1,120          | 103                  |
| <input type="checkbox"/> S1BN8-F 4G25    | 4G25          | 25                         | 30.6         | 960          | 1,650          | 122                  |
| <input type="checkbox"/> S1BN8-F 4G35    | 4G35          | 35                         | 34.2         | 1,344        | 2,180          | 137                  |
| <input type="checkbox"/> S1BN8-F 4G50    | 4G50          | 50                         | 39.6         | 1,920        | 3,020          | 158                  |
| <input type="checkbox"/> S1BN8-F 4G70    | 4G70          | 70                         | 44.8         | 2,688        | 4,050          | 179                  |
| <input type="checkbox"/> S1BN8-F 1×95    | 1×95          | 95                         | 22.8         | 912          | 1,210          | 91                   |
| <input type="checkbox"/> S1BN8-F 1×150   | 1×150         | 150                        | 27.2         | 1,440        | 1,820          | 109                  |

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per EN 50525-2-21 AD8 / HD 361 / VDE 0285.

## Electrical & ampacity data

12 sizes

| Configuration | Max. DC R @ 20 °C<br>Ω/km | Current rating<br>in air (A) | Current rating<br>installed (A) | Mutual C<br>pF/m≈ | AC test<br>V rms |
|---------------|---------------------------|------------------------------|---------------------------------|-------------------|------------------|
| 3G2.5         | 7.980                     | 30                           | 26                              | 82                | 3,500            |
| 4G2.5         | 7.980                     | 30                           | 26                              | 82                | 3,500            |
| 4G4.0         | 4.950                     | 40                           | 34                              | 84                | 3,500            |
| 4G6.0         | 3.300                     | 51                           | 43                              | 87                | 3,500            |
| 4G10          | 1.910                     | 70                           | 60                              | 92                | 3,500            |
| 4G16          | 1.210                     | 93                           | 79                              | 101               | 3,500            |
| 4G25          | 0.780                     | 123                          | 105                             | 114               | 3,500            |
| 4G35          | 0.554                     | 152                          | 129                             | 129               | 3,500            |
| 4G50          | 0.386                     | 189                          | 161                             | 150               | 3,500            |
| 4G70          | 0.272                     | 233                          | 198                             | 180               | 3,500            |
| 1×95          | 0.206                     | 282                          | 240                             | 216               | 3,500            |
| 1×150         | 0.129                     | 374                          | 318                             | 268               | 3,500            |

– Current ratings apply at +25/+30 °C ambient in free air; apply standard derating factors for elevated ambient or drum coiling.

## Standards and approvals

✓ EN 50525-2-21 AD8 / HD 361

✓ EN 60332-1-2

✓ CE / RoHS

## Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

## Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/s1bn8-f-0-6-1-kv-heavy-duty-submersible-industrial-polychloroprene-rubber-cable



Typical values for this cable type, based on EN 50525-2-21 AD8 / HD 361 / VDE 0285. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.