+110/+120 °C geothermal hot-water 2,000 m flat submersible cable

TGFLSH & TGFLSH2G

450/750 V +110/+120°C Geothermal Flat Pump Cable

DIN EN 60228 / +120°C · 450/750 V · +110/+120 °c geothermal hot-water 2,000 m flat



+110 °C / +120 °C Water | 450/750 V (1,000 V AC) | 2,000 m Geothermal Flat

Application

TGFLSH & TGFLSH2G 450/750 V Tinned-Copper Silicone (SIR) Insulated EVA/Silicone-Sheathed +110°C/+120°C Hot-Water 2,000m Flat Submersible Pump Cable (DIN EN 60228 / +120°C, 450/750 V, -40 to +120 °C, min. bend radius 6 × OD).

Typical uses: Deep-Well Potable Water Pumping, Municipal Sewage & Wastewater Plants, Mine Dewatering & Slurry Dredging, Geothermal, Spa & Pool Installations

Construction





Cross-section, not to scale

1. Parallel Class 5 Tinned Copper (Up to 240 mm²)
2. Silicone Rubber (SIR) High-Temp Insulation
3. Hot-Water EVA / Silicone Flat Outer Sheath

Technical data

Typical values

Rated voltage / transmission duty	450/750 V (DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible)	**Core / conductor construction**	Parallel Class 5 Tinned Copper (Up to 240 mm²) — DIN EN 60228 Class 5 tinned annealed copper resisting hot geothermal brine corrosion
Primary dielectric / buffering	Silicone Rubber (SIR) High-Temp Insulation — Heat-resistant silicone elastomer rated +130 °C (TGFLSH) / +150 °C (TGFLSH2G), +350 °C SC	**Continuous operating temperature**	−40…+120 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Hot-Water EVA / Silicone Flat Outer Sheath — Halogen-free EVA (+110 °C water) or SIR (+120 °C water) flat sheath rated for 2,000 m depth	**Minimum bending radius**	6 × OD
Hydrostatic, tensile & crush duty	Silicone Rubber (SIR) High-Temp Insulation — Heat-resistant silicone elastomer rated +130 °C (TGFLSH) / +150 °C (TGFLSH2G), +350 °C SC	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible		

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Tensile rating kN ≈	Min. bend R mm
TGFLSH & TGFLSH2G Construction Schedule (−40…+120 °C) 3 sizes						
☐ **TGFLSH 4G16 mm²**	**4G16 mm² (3×16 + 1G16)**	**IEC 60228 Class 5 flexible Cu/SnCu**	**21.8**	**840**	**2.4**	**130**
☐ **TGFLSH 4G35 mm²**	**4G35 mm² (3×35 + 1G16)**	**IEC 60228 Class 5 flexible Cu/SnCu**	**28.6**	**1,620**	**5.2**	**172**
☐ **TGFLSH 3×70 + 3G16 mm²**	**3 × 70 mm² + 3G16 mm²**	**IEC 60228 Class 5 flexible Cu/SnCu**	**38.4**	**3,180**	**10.5**	**230**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4G16 mm² (3×16 + 1G16)	**1.21**	**450/750 V (94 A submerged)**	**−40…+120 °C**
4G35 mm² (3×35 + 1G16)	**0.55**	**450/750 V (152 A submerged)**	**−40…+120 °C**
3 × 70 mm² + 3G16 mm²	**0.27**	**450/750 V (235 A submerged)**	**−40…+120 °C**

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- DIN EN 60228 / +120°C Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

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/tgflsh-tgflsh2g

Typical values for this cable type, based on DIN EN 60228 / 2,000 m Geothermal Hot-Water Submersible. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.