



EN 50525 & HD 361 Industrial Rubber Cables

S07BB-F / S1BB-F

Heavy-Duty EPR-Insulated Industrial Flexible

EN 50525-2-21 / HD 361 · 450/750 V (S07BB-F) & 0.6/1 kV (S1BB-F) · +90 °C
EPR/EPR · -40



HD 361 / EN 50525

450/750 V & 0.6/1 kV

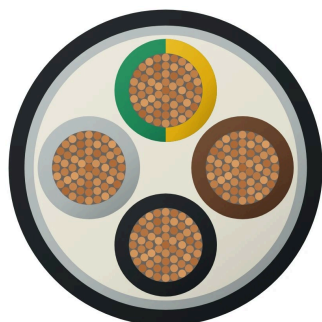
+90 °C Halogen-Free EPR

Application

S07BB-F (450/750 V) and S1BB-F (0.6/1 kV) are heavy-duty halogen-free industrial flexible rubber power cables featuring +90 °C cross-linked ethylene-propylene elastomer ('B') for both core insulation and outer sheathing. Compared with H07RN-F, they deliver

Typical uses: Alpine & Arctic Construction, Wind Turbine Tower & Nacelle Power, Cold-Storage & Food Freezing Plants, Tunnelling & Metro Infrastructure, Outdoor Event & Broadcast Power

Construction



Cross-section, not to scale

1	Flexible copper conductor ('-F')	EN 60228 Class 5
2	+90 °C EPR core insulation ('B')	EN 50363-1
3	Short-pitch core lay-up	EN 50525-2-21
4	+90 °C EPR outer sheath ('B')	EN 50363-2-1

Technical data

Typical values

Rated voltage (S07BB-F / S1BB-F)	450/750 V AC / 0.6/1 kV AC
Specific volume resistivity	≥ 10 ¹³ Ω·cm at +20 °C
Ampacity gain vs H07RN-F	+15 % to +18 % higher current rating
Max. conductor operating temp.	+90 °C continuous ('B' EPR)
Mobile ambient range	-40 °C to +60 °C
Min. laying temperature	-40 °C
Min. bend radius (fixed)	4 × D (≤ 12 mm) / 5 × D (> 12 mm)
Max. dynamic tensile pull	15 N/mm ² total copper cross-section
Abrasion & tear resistance	Heavy-duty Type EM7 elastomer
Halogen-free & low corrosivity	EN 60754-1/2 (< 0.5 % halogens)
Water & moisture resistance	Low water absorption EPR compound
Chemical splash	Resistant to weak acids & alkalis
Standards	CENELEC HD 361 S3 ('S07BB-F / S1BB-F')

Routine AC test voltage	2.5 kV rms (S07) / 3.5 kV rms (S1)
Conductor stranding class	EN 60228 Class 5
Operating frequency	50 / 60 Hz & DC
Max. short-circuit temperature	+250 °C (max. 5 s)
Fixed ambient range	-50 °C to +80 °C
Thermal ageing resistance	EN 50363-1/2 EI7 & EM7 rated
Min. bend radius (flexing)	6 × D (≤ 12 mm) / 8 × D (> 12 mm)
Cold-impact resilience	No cracking at -40 °C per EN 60811-506
Torsional stress (wind loop)	±100 °/m in vertical drip loops
Ozone & UV weather resistance	EN 60811-403 ozone-proof EPR
Sub-zero cold flexibility	Outperforms neoprene below -25 °C
RoHS / REACH status	CE & RoHS 3 compliant

Sizes

12 standard constructions

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

Order designation	Type, Voltage & Configuration	Phase size mm ²	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
S07BB-F (450/750 V) — Heavy-duty +90 °C EPR/EPR flexible rubber 6 sizes						
☐ S07BB-F 3G1.5 (450/750 V)	450/750 V 3G1.5	1.5	9.8	43	122	39
☐ S07BB-F 3G2.5 (450/750 V)	450/750 V 3G2.5	2.5	11.6	72	178	46
☐ S07BB-F 4G2.5 (450/750 V)	450/750 V 4G2.5	2.5	12.8	96	222	51
☐ S07BB-F 5G2.5 (450/750 V)	450/750 V 5G2.5	2.5	14.2	120	272	57
☐ S07BB-F 4G6.0 (450/750 V)	450/750 V 4G6.0	6.0	16.8	230	430	67
☐ S07BB-F 5G6.0 (450/750 V)	450/750 V 5G6.0	6.0	18.6	288	530	74
S1BB-F (0.6/1 kV) — Extra-heavy 1000 V +90 °C EPR/EPR flexible rubber 6 sizes						
☐ S1BB-F 4G10 (0.6/1 kV)	0.6/1 kV 4G10	10	21.6	384	730	86
☐ S1BB-F 4G16 (0.6/1 kV)	0.6/1 kV 4G16	16	24.8	614	1,030	99
☐ S1BB-F 4G25 (0.6/1 kV)	0.6/1 kV 4G25	25	29.4	960	1,520	118
☐ S1BB-F 4G35 (0.6/1 kV)	0.6/1 kV 4G35	35	33.0	1,344	2,010	132
☐ S1BB-F 4G50 (0.6/1 kV)	0.6/1 kV 4G50	50	38.2	1,920	2,760	153
☐ S1BB-F 1×95 (0.6/1 kV)	0.6/1 kV 1×95	95	22.0	912	1,140	88

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

Electrical & ampacity data

12 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V _{rms}
450/750 V 3G1.5	13.300	22	19	80	2,500
450/750 V 3G2.5	7.980	30	26	82	2,500
450/750 V 4G2.5	7.980	30	26	82	2,500
450/750 V 5G2.5	7.980	30	26	82	2,500
450/750 V 4G6.0	3.300	51	43	87	2,500
450/750 V 5G6.0	3.300	51	43	87	2,500
0.6/1 kV 4G10	1.910	70	60	92	2,500
0.6/1 kV 4G16	1.210	93	79	101	2,500
0.6/1 kV 4G25	0.780	123	105	114	2,500
0.6/1 kV 4G35	0.554	152	129	129	2,500
0.6/1 kV 4G50	0.386	189	161	150	2,500
0.6/1 kV 1×95	0.206	282	240	216	2,500

– 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 / HD 361

✓ EN 60754-1/2

✓ 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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/s07bb-f-s1bb-f-heavy-duty-epr-insulated-industrial-flexible-rubber-power-cable



Typical values for this cable type, based on EN 50525-2-21 / 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.