



SAE J1127 Automotive & Heavy-Duty Starter / Ground Battery Cables

SGT

PVC Battery Cable

SAE J1127 Type SGT 60 V DC starter and ground thermoplastic PVC-insulated automotive batte



SAE J1127

60 V DC (25 V AC)

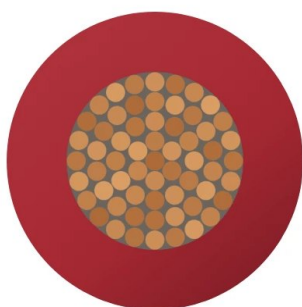
-40 to +105 °C

Application

SGT is an SAE J1127 Type SGT starter and ground battery cable engineered for 60 V DC automotive, commercial vehicle, agricultural tractor, and off-highway equipment battery-to-starter and chassis earthing circuits. Built around rope-lay bunch-stranded annealed

Typical uses: Commercial Truck & Tractor Starter Leads, Standby Diesel Generator Cranking Circuits, Agricultural & Off-Highway Equipment

Construction



Cross-section, not to scale

1	Conductor	SAE J1127
2	Tape	SAE J1127
3	Sheath	SAE J1127

Technical data

Typical values

Rated voltage (U0/U)	60 V DC (25 V AC)	Max. operating voltage	60 V DC
Dielectric test voltage	1000 V AC (spark/dielectric test per SAE J1127)	Insulation resistance	SAE J1127 pinch, abrasion & dielectric compliance
Operating temperature range	-40 °C to +105 °C	Dynamic / flexing temperature	-40 °C to +105 °C
Max. short-circuit temperature	+150 °C	Min. bend radius (fixed)	5 × D
Min. bend radius (flexing)	8 × D	Max. tensile pulling load	15 N/mm ²
Vibration & mechanical duty	Engine vibration & chassis routing	Flame retardancy	SAE J1127 45° flame test (self-extinguishing within 70 s)
Oil & fluid resistance	SAE J1127 hot oil, battery acid, diesel fuel & antifreeze fluid immersion resistant	UV, weather & ozone	Weather, moisture & under-hood ozone resistant
Chemical & environmental	Resistant to sulfuric battery acid, engine oil, transmission fluid, gasoline and coolant	Standards	SAE J1127 (2020) — Surface Vehicle Standard — Low Voltage Battery Cable (Type SGT)

Sizes

8 standard constructions

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

Designation	Size / Configuration	Stranding · Wall	Nom. OD mm	Copper kg/km	Total mass ≈ kg/km	Min. bend R mm
SGT size schedule 8 sizes						
☐ SGT 6 AWG (13.3 mm ²)	6 AWG (13.3 mm ²)	133/27 · 2.1 mm	8.70	95.7	165.0	52.2
☐ SGT 4 AWG (21.2 mm ²)	4 AWG (21.2 mm ²)	133/25 · 2.4 mm	10.60	136.3	235.0	63.6
☐ SGT 2 AWG (33.6 mm ²)	2 AWG (33.6 mm ²)	259/26 · 2.5 mm	12.50	200.1	345.0	75.0
☐ SGT 1 AWG (42.4 mm ²)	1 AWG (42.4 mm ²)	259/25 · 2.5 mm	13.60	246.5	425.0	81.6
☐ SGT 1/0 AWG (53.5 mm ²)	1/0 AWG (53.5 mm ²)	259/24 · 2.5 mm	14.90	301.6	520.0	89.4
☐ SGT 2/0 AWG (67.4 mm ²)	2/0 AWG (67.4 mm ²)	259/23 · 2.5 mm	16.30	371.2	640.0	97.8
☐ SGT 3/0 AWG (85.0 mm ²)	3/0 AWG (85.0 mm ²)	259/22 · 2.5 mm	18.00	461.1	795.0	108.0
☐ SGT 4/0 AWG (107.2 mm ²)	4/0 AWG (107.2 mm ²)	413/23 · 2.5 mm	19.80	574.2	990.0	118.8

– Dimensions and tolerances conform to SAE J1127.

Electrical data

8 sizes

Size / Configuration	Max. DC R @ 20 °C Ω/km	Current in air A	Installed / duty A
6 AWG (13.3 mm ²)	1.320	105	84
4 AWG (21.2 mm ²)	0.840	160	128
2 AWG (33.6 mm ²)	0.530	210	168
1 AWG (42.4 mm ²)	0.420	245	196
1/0 AWG (53.5 mm ²)	0.330	285	228
2/0 AWG (67.4 mm ²)	0.260	330	264
3/0 AWG (85.0 mm ²)	0.210	385	308
4/0 AWG (107.2 mm ²)	0.170	445	356

– Reference ampacities at +30 °C ambient; apply duty-cycle or grouping correction factors per standard.

Standards and approvals

- ✓ SAE J1127 Type SGT; ISO 6722-1
- ✓ ISO 6722-1 (2011)
- ✓ RoHS 3 & REACH Compliant

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/sgt-pvc-battery-cable



Typical values for this cable type, based on SAE J1127. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.