

# High-Voltage Cables for Electric Vehicles

## HV 1000 C - SC

Flexible high-voltage single conductor cable with overall copper shield



Marking for HV 1000 C SC 39100163:

SAB BRÖCKSKES · D-VIERSEN · HV 1000 C - SC 1x25mm² 39100163 CE

**Application:** These high-voltage cables can be used in high-voltage applications e.g. in the fields of agricultural vehicles, construction vehicles and special vehicles. The HV 1000 C - SC is used e.g. between inverters and electric motors.

### Construction:

<b>Conductor:</b>	bare copper strands, extra fine wires
<b>Insulation:</b>	TPFP
<b>Color code:</b>	orange
<b>Shielding:</b>	alu. foil and tinned copper braiding
<b>Wrapping:</b>	non-woven tape
<b>Jacket material:</b>	TPE-U
<b>Jacket color:</b>	orange (RAL 2003)

### Outstanding features:

- extremely high mechanical strength
- high protection against environmental influences
- 100% oil resistance acc. to standard
- application range from -50° to +125°C

### Technical data:

<b>Nominal voltage:</b>	U <sub>o</sub> /U max. 0.6/1 kV AC/DC
<b>Testing voltage:</b>	conductor/conductor: 5000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	5 x O.D.
<i>flexible application:</i>	10 x O.D.
<b>Temperature range:</b>	
<i>fixed installation:</i>	-50/+90°C
<i>flexible application:</i>	-40/+90°C
<i>limited use time:</i>	+125°C (2000 h)
<b>Low temperature resistance:</b>	-50°C acc. to DIN EN 60811-506
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>MUD resistance:</b>	very good - acc. to IEC 60992-360, IEC 61892-4 NEK TS 606
<b>Sunlight resistance:</b>	acc. to HD 605
<b>Ozone resistance:</b>	acc. to EN 50396
<b>Salt water resistance:</b>	acc. to UL 1309
<b>Mechanical characteristics:</b>	the main mechanical characteristics accomplished by the PUR outer jacket are: - high tensile strength - high tear strength - high abrasion resistance - high notch resistance - high transverse strength
<b>Approvals:</b>	CE, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	AWG/c	outer-ø inch	mm	cable weight ≈lbs/mft	ohmic resistance at 20°C max. Ω/km
▶ 39100140	12 AWG / 1c	0.228	5.8	50	4.95
▶ 39100160	10 AWG / 1c	0.256	6.5	67	3.300
▶ 39100161	8 AWG / 1c	0.346	8.8	116	1.910
▶ 39100162	6 AWG / 1c	0.402	10.2	165	1.210
▶ 39100163	4 AWG / 1c	0.480	12.2	244	0.780
▶ 39100164	2 AWG / 1c	0.567	14.4	340	0.554
▶ 39100165	1 AWG / 1c	0.622	15.8	451	0.386
▶ 39100166	2/0 AWG / 1c	0.717	18.2	605	0.227
▶ 39100167	3/0 AWG / 1c	0.823	20.9	814	0.206

Other dimensions and colors are available on request

Construction, materials and tests with reference to:

- DIN EN 60228
- DIN EN 50525
- DIN EN 50290-2-30
- DIN EN 50620
- DIN EN 60811

In individual cases, the specific application must be agreed with SAB Bröckskes.

