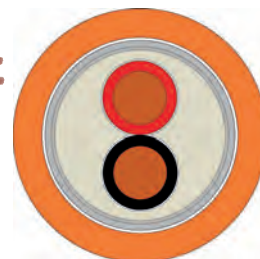


# High-Voltage Cables for Electric Vehicles

## HV 1000 C - MC

Flexible high-voltage multi-conductor cable with overall copper shield



Marking for HV 1000 C MC 39100240:

SAB BRÖCKSKES · D-VIERSEN · HV 1000 C - MC 2x4.0mm<sup>2</sup> 39100240 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 - MC is used as a connection cable e.g. for cabin heating, the electric compressor, the high-voltage heat pump in electric and hybrid vehicles.

### Construction:

<b>Conductor:</b>	bare copper strands, acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	TPFP
<b>Color code:</b>	from 2 conductors: red, black from 3 conductors: HD 308 or acc. to customer request
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	Besilen®
<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>0</sub> /U max. 0.6/1 kV AC/DC
<b>Testing voltage:</b>	conductor/conductor: 5000 V conductor/shielding: 5000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	5 x O.D.
<i>free movement:</i>	10 x O.D.
<b>Temperature range:</b>	
<i>static:</i>	-50/+90°C
<i>flexible:</i>	-40/+90°C
<i>short-term use:</i>	+125°C (2,000 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 TPE-U 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.	no. of conductors	outer-ø		cable weight ≈ lbs/mft	ohmic resistance at 20°C max. Ω/km
		max inch	max mm		
<b>▶ 14 AWG ▪ 2.50 mm<sup>2</sup></b>					
39100225	2	0.390	9.9	99	7.98
39100325	3	0.409	10.4	122	7.98
<b>▶ 12 AWG ▪ 4.0 mm<sup>2</sup></b>					
39100240	2	0.445	11.3	138	4.95
39100340	3	0.476	12.1	169	4.95
<b>▶ 10 AWG ▪ 6.00 mm<sup>2</sup></b>					
39100260	2	0.504	12.8	179	3.10
39100360	3	0.555	14.1	246	3.10
39100460	4	0.594	15.1	291	3.10
39100560	5	0.642	16.3	346	3.10

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.

#### HD 308 Color code:

- 3c: green/yellow, blue, brown
- 4c: green/yellow, brown, black, gray
- 5c: green/yellow, blue, brown, black, gray