High-current water-cooled, furnace & shunt cables

WC Unipolar Weld Cable

WC Unipolar 120–500 mm² Water-Cooled Welding Cable

Tinned copper unipolar annular water-cooled cable for heavy spot welding



ISO 5828 (ref.) | 600 V · +85 °C | Water-Cooled HC

Application

WC Unipolar Weld 120–500 surrounds an extra-flexible tinned copper core with an annular water-cooling jacket, braided reinforcement, and black rubber outer hose for high-duty resistance and seam welding machines.

Typical uses: Electric arc (EAF) & submerged arc (SAF) steelworks, Medium- & high-frequency induction melting foundries, Automotive robotic spot- & seam-welding lines, Heavy DC rectifiers & metallurgical bus feeders

Construction





Cross-section, not to scale

1	**Conductor**	IEC 60228 Class 6 extra-flexible tinned annealed copper · IEC 60228 Class 6
2	**Cooling core / primary dielectric**	Annular deionized-water cooling jacket surrounding tinned copper core · ISO 5828 (ref.)
3	**Strength / pressure reinforcement**	Synthetic textile pressure reinforcement braid · ISO 5828 (ref.)
4	**Outer sheath / hose**	Black abrasion- & oil-resistant reinforced EPDM rubber outer hose

Technical data

Typical values

Rated voltage	600 V	**Test voltage**	3 kV AC
Conductor	Tinned Cu · Cl.6	**Core / dielectric**	Annular deionized-water cooling jacket
Impedance / insulation	≥ 1,000 MΩ·km at 20 °C	**Temp. range (fixed)**	-20 °C to +85 °C
Temp. range (flexing)	-15 °C to +75 °C	**Peak / short-circuit**	+160 °C (5 s)
Min. bending radius	8 × OD	**Primary performance**	Corrosion-Proof Tinned Cu
Environment / duty	Annular Water Cooling	**Mechanical / special**	High-Cycle Flex Hose
Outer finish	Black abrasion- & oil-resistant		

Sizes

7 standard constructions

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

	Cross-section mm²	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 8×D mm
☐	1×120 mm²	41.6	0.166	1,152	2,951	333
☐	1×150 mm²	44.3	0.133	1,440	3,544	354
☐	1×185 mm²	47.2	0.109	1,776	4,233	378
☐	1×240 mm²	51.3	0.082	2,304	5,305	410
☐	1×300 mm²	55.2	0.066	2,880	6,456	442
☐	1×400 mm²	61.0	0.050	3,840	8,362	488
☐	1×500 mm²	66.1	0.040	4,800	10,250	529

- Conductor DC resistance R20 at 20 °C per IEC 60228 Class 6.
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom terminations available on request.

Standards and approvals

- ISO 5828 (ref.)
- IEC 60228 Class 6
- DIN VDE 0282
- 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/wc-unipolar-weld-120-500mm2-water-cooled-cable

Typical values for this cable type, based on ISO 5828 (ref.) · IEC 60228 Class 6 · DIN VDE 0282. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.