



Control & signal cable

JZ-50440 CP

Halogen-Free Screened TPE/PUR Control Cable

300/500 V -40 to +90 °C EMC-screened halogen-free TPE/PUR drag-chain control cable



DIN VDE 0285 / EN 50363-10-2

300/500 V · EMC Cu Braid

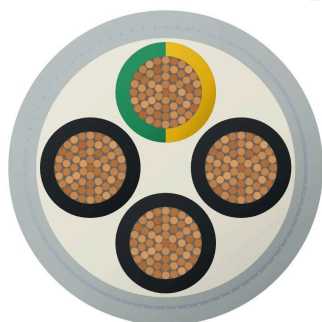
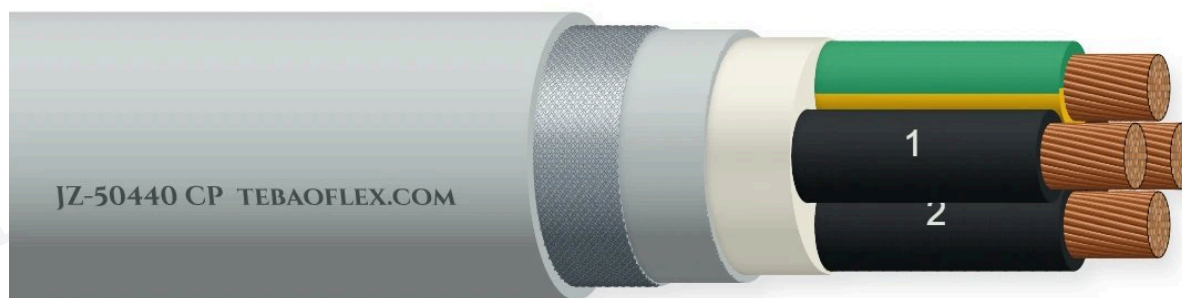
-50 °C to +90 °C

Application

JZ-50440 CP EMC-screened halogen-free control cable (300/500 V, -40 to +90 °C) combining Class 5 copper conductors, TPE-E core insulation, inner elastomer bedding, ≥ 85 % tinned copper wire braid ('C'), and an oil-resistant TMPU PUR jacket ('P').

Typical uses: CNC Machining & Grinding Centres, Wind Turbine Pitch & Yaw Control, Robotic Welding & Assembly Cells, Automated Test Benches, Industrial Cranes & Conveyors

Construction



Cross-section, not to scale

- 1 Fine-stranded bare copper
- 2 Halogen-free TPE core insulation
- 3 Halogen-free inner bedding
- 4 Tinned copper EMC braid (C)
- 5 Polyurethane (TMPU) outer sheath (P)

Technical data

Typical values

Rated voltage U0/U	300/500 V AC	Test voltage (core/core)	3,000 V AC (50 Hz, 5 min)
Test voltage (core/screen)	1,500 V AC	Coupling resistance (30 MHz)	≤ 250 Ω/km (EMC braid ≥ 85 %)
Operating temp. (fixed)	-50 °C to +90 °C	Operating temp. (flexing)	-40 °C to +90 °C
Short-circuit conductor temp.	+150 °C max.	Conductor stranding	IEC 60228 Class 5 fine-stranded Cu
Min. bending radius (fixed)	5 × overall cable diameter	Min. bending radius (flexing)	10 × overall cable diameter
Oil & coolant resistance	EN 60811-404 oils & machining emulsions	Halogen-free verification	IEC 60754-1 & IEC 60754-2 compliant
Hydrolysis & UV resistance	Weather-, UV-, microbe- & hydrolysis-proof	Standards	DIN VDE 0285-525-2-21 / EN 50363-10-2

Sizes

25 standard constructions

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

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard JZ-50440 CP configurations 25 sizes							
☐ JZ-50440 CP 2×0.5	2×0.5 mm ²	Class 5 Cu (0.5 mm ²)	1.25	6.20	31.9	73.4	31
☐ JZ-50440 CP 3G0.5	3G0.5 mm ²	Class 5 Cu (0.5 mm ²)	1.25	6.50	37.8	83.4	32
☐ JZ-50440 CP 4G0.5	4G0.5 mm ²	Class 5 Cu (0.5 mm ²)	1.25	7.00	44.4	97.3	35
☐ JZ-50440 CP 5G0.5	5G0.5 mm ²	Class 5 Cu (0.5 mm ²)	1.25	7.50	51.0	111.8	38
☐ JZ-50440 CP 7G0.5	7G0.5 mm ²	Class 5 Cu (0.5 mm ²)	1.25	8.00	62.4	131.5	40
☐ JZ-50440 CP 12G0.5	12G0.5 mm ²	Class 5 Cu (0.5 mm ²)	1.45	10.60	95.8	217.1	53
☐ JZ-50440 CP 3G0.75	3G0.75 mm ²	Class 5 Cu (0.75 mm ²)	1.25	6.90	46.4	97.8	34
☐ JZ-50440 CP 4G0.75	4G0.75 mm ²	Class 5 Cu (0.75 mm ²)	1.25	7.50	55.8	116.6	38
☐ JZ-50440 CP 5G0.75	5G0.75 mm ²	Class 5 Cu (0.75 mm ²)	1.25	8.00	64.8	133.9	40
☐ JZ-50440 CP 7G0.75	7G0.75 mm ²	Class 5 Cu (0.75 mm ²)	1.25	8.70	81.7	163.4	44
☐ JZ-50440 CP 12G0.75	12G0.75 mm ²	Class 5 Cu (0.75 mm ²)	1.45	11.40	127.4	267.8	57
☐ JZ-50440 CP 18G0.75	18G0.75 mm ²	Class 5 Cu (0.75 mm ²)	1.45	13.20	177.1	365.3	66
☐ JZ-50440 CP 3G1	3G1 mm ²	Class 5 Cu (1 mm ²)	1.25	7.30	55.1	112.7	36
☐ JZ-50440 CP 4G1	4G1 mm ²	Class 5 Cu (1 mm ²)	1.25	7.90	66.8	134.2	40
☐ JZ-50440 CP 5G1	5G1 mm ²	Class 5 Cu (1 mm ²)	1.25	8.50	78.6	156.6	42
☐ JZ-50440 CP 7G1	7G1 mm ²	Class 5 Cu (1 mm ²)	1.25	9.20	100.3	191.7	46
☐ JZ-50440 CP 12G1	12G1 mm ²	Class 5 Cu (1 mm ²)	1.45	12.20	159.1	319.8	61
☐ JZ-50440 CP 3G1.5	3G1.5 mm ²	Class 5 Cu (1.5 mm ²)	1.25	8.40	73.4	149.6	42
☐ JZ-50440 CP 4G1.5	4G1.5 mm ²	Class 5 Cu (1.5 mm ²)	1.25	9.10	90.4	179.8	46
☐ JZ-50440 CP 5G1.5	5G1.5 mm ²	Class 5 Cu (1.5 mm ²)	1.25	9.90	107.6	213.5	50
☐ JZ-50440 CP 7G1.5	7G1.5 mm ²	Class 5 Cu (1.5 mm ²)	1.25	10.70	139.3	262.9	54
☐ JZ-50440 CP 12G1.5	12G1.5 mm ²	Class 5 Cu (1.5 mm ²)	1.45	14.30	224.3	445.1	72
☐ JZ-50440 CP 4G2.5	4G2.5 mm ²	Class 5 Cu (2.5 mm ²)	1.25	10.30	133.1	247.7	52
☐ JZ-50440 CP 5G2.5	5G2.5 mm ²	Class 5 Cu (2.5 mm ²)	1.25	11.20	160.3	295.8	56
☐ JZ-50440 CP 4G4	4G4 mm ²	Class 5 Cu (4 mm ²)	1.25	12.60	199.0	370.5	63

– Outer diameters and weights are nominal engineering values for JZ-50440 CP subject to standard manufacturing tolerances per DIN VDE 0285-525-2-21 / EN 50363-10-2 (TPE/C/PUR).

Electrical & rating data

25 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test V AC rms
2×0.5 mm ²	39.00	9.0	7.0	3,000
3G0.5 mm ²	39.00	9.0	7.0	3,000
4G0.5 mm ²	39.00	9.0	7.0	3,000
5G0.5 mm ²	39.00	9.0	7.0	3,000
7G0.5 mm ²	39.00	9.0	7.0	3,000
12G0.5 mm ²	39.00	9.0	7.0	3,000
3G0.75 mm ²	26.00	12.0	9.0	3,000
4G0.75 mm ²	26.00	12.0	9.0	3,000
5G0.75 mm ²	26.00	12.0	9.0	3,000
7G0.75 mm ²	26.00	12.0	9.0	3,000
12G0.75 mm ²	26.00	12.0	9.0	3,000
18G0.75 mm ²	26.00	12.0	9.0	3,000
3G1 mm ²	19.50	15.0	11.0	3,000
4G1 mm ²	19.50	15.0	11.0	3,000
5G1 mm ²	19.50	15.0	11.0	3,000
7G1 mm ²	19.50	15.0	11.0	3,000
12G1 mm ²	19.50	15.0	11.0	3,000
3G1.5 mm ²	13.30	18.0	14.0	3,000
4G1.5 mm ²	13.30	18.0	14.0	3,000
5G1.5 mm ²	13.30	18.0	14.0	3,000
7G1.5 mm ²	13.30	18.0	14.0	3,000
12G1.5 mm ²	13.30	18.0	14.0	3,000
4G2.5 mm ²	7.98	26.0	20.0	3,000
5G2.5 mm ²	7.98	26.0	20.0	3,000
4G4 mm ²	4.95	34.0	26.0	3,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per DIN VDE 0285-525-2-21 / EN 50363-10-2 (TPE/C/PUR).

Standards and approvals

- ✓ DIN VDE 0285-525-2-21 / EN 50363-10-2 (TPE/C/PUR)
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC Compliance Verified

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

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Web

tebaoflex.com/cables/halogen-free-screened-tpe-pur-control-cable



Typical values for this cable type, based on DIN VDE 0285-525-2-21 / EN 50363-10-2 (TPE/C/PUR). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.