



Screened servo motor power cable

Shielded Servo Motor Power Cable

0.6/1 kV low-capacitance PP/PUR screened servo motor drag-chain cable



0.6/1 kV (UL 1000 V)

Low-Cap PP/PUR

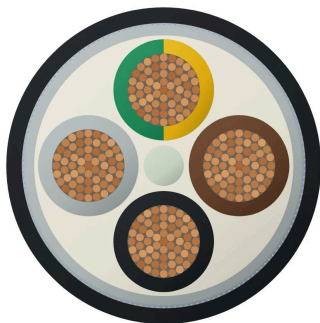
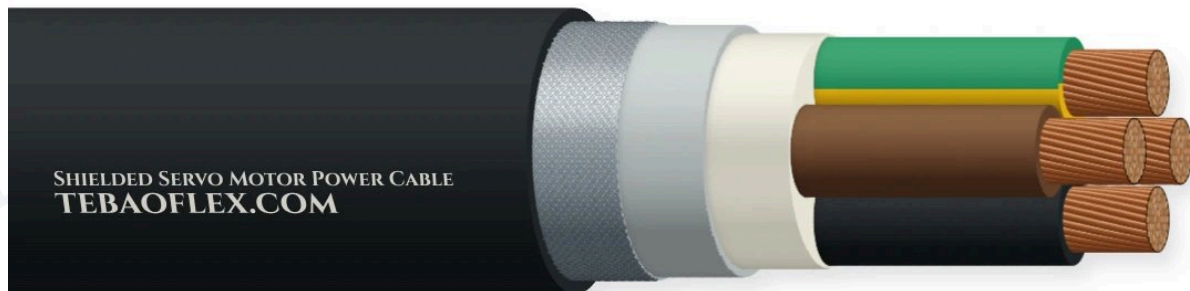
DESINA RAL 2003

Application

High-acceleration 0.6/1 kV (UL 1000 V) servo motor power cable engineered with IEC 60228 Class 6 copper conductors, low-capacitance polypropylene (PP) core insulation, $\geq 85\%$ tinned copper braid and DESINA orange RAL 2003 halogen-free PUR jacket.

Typical uses: CNC Multi-Axis Machining Centres, High-Speed Linear Motor Gantries, Laser & Waterjet Cutting Tables, Automated Stamping & Press Lines, Packaging & Bottling Servo Axes

Construction



Cross-section, not to scale

1 Phase & PE conductors

IEC 60228 Class 6

2 Low-capacitance insulation**3** PTFE sliding wrapAbsorbs shear strain at 50 m/s² acceleration**4** Foil + tinned Cu braid screen**5** Outer motion jacket

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV (UL/CSA 1000 V)
Screen / Field control	Al-PET foil + ≥ 85 % tinned copper braid
Insulation resistance	≥ 500 MΩ·km at 20 °C
Temperature, fixed installation	–50 °C to +80 °C
Short-circuit temperature	+250 °C (max. 5 s)
Min. bending radius, fixed	4 × OD
Max. acceleration	Up to 50 m/s ²
Oil resistance	DIN EN 50363-10-2 · UL Oil Res I & II
Halogen-free / Smoke density	IEC 60754-1/2 halogen-free
Abrasion	High cut and abrasion resistance (ISO 4649)

AC test voltage	4000 V AC (50 Hz, 5 min)
Capacitance	≈ 60 pF/m (core/core) · ≈ 105 pF/m (core/screen)
Temperature, flexing	–40 °C to +80 °C
Max. conductor temperature	+90 °C (VDE) · +80 °C (UL AWM)
Min. bending radius, moving	7.5 × OD (≤ 16 mm ²) · 10 × OD (≥ 25 mm ²)
Max. travel speed	5 m/s gliding · 10 m/s unsupported
Torsional stress	±30°/m in linear carrier
Flame retardance	IEC 60332-1-2 · UL 1581 FT1 / VW-1
Hydrolysis & microbes	Hydrolysis- and microbe-resistant polyether PUR
Standards	DIN EN 50525-2-21 / VDE 0250 & DESINA

Sizes

12 standard constructions

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

Order designation	Configuration	Phase size	Outer Ø ≈ mm	Total Cu kg/km	Weight ≈ kg/km	Min. bend R chain mm
4G 1.5–4.0 mm ² servo motor leads 3 sizes						
☐ SERVO-FD-CP 4G1.5	4G1.5	1.5 mm ²	8.7	79	128	65
☐ SERVO-FD-CP 4G2.5	4G2.5	2.5 mm ²	10.2	124	184	76
☐ SERVO-FD-CP 4G4.0	4G4.0	4.0 mm ²	11.9	192	268	89
4G 6.0–16 mm ² medium spindle leads 3 sizes						
☐ SERVO-FD-CP 4G6.0	4G6.0	6.0 mm ²	13.8	280	376	104
☐ SERVO-FD-CP 4G10	4G10	10 mm ²	16.9	456	595	127
☐ SERVO-FD-CP 4G16	4G16	16 mm ²	20.4	710	895	153
4G 25–50 mm ² high-power drive leads 3 sizes						
☐ SERVO-FD-CP 4G25	4G25	25 mm ²	24.8	1,095	1,340	186
☐ SERVO-FD-CP 4G35	4G35	35 mm ²	28.2	1,510	1,820	212
☐ SERVO-FD-CP 4G50	4G50	50 mm ²	33.4	2,140	2,560	250
3+3G symmetric earth VFD servo leads 3 sizes						
☐ SERVO-FD-SYM 3×1.5+3G0.25	3×1.5 + 3G0.25	1.5 mm ²	9.1	82	134	68
☐ SERVO-FD-SYM 3×2.5+3G0.5	3×2.5 + 3G0.5	2.5 mm ²	10.6	128	192	80
☐ SERVO-FD-SYM 3×4.0+3G0.75	3×4.0 + 3G0.75	4.0 mm ²	12.4	198	278	93

– For servo motors requiring an integrated 24 V DC holding brake or KTY/PTC thermal pair, select Servo Power Cable with Brake Pair.

Electrical & capacitance data

12 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating at +30 °C (A)	C core/core pF/m ≈	C core/screen pF/m ≈	AC test V rms
4G1.5	13.30	18	58	102	4,000
4G2.5	7.98	26	60	105	4,000
4G4.0	4.95	34	62	108	4,000

Configuration	Max. DC R @ 20 °C Ω/km	Current rating at +30 °C (A)	C core/core pF/m≈	C core/screen pF/m≈	AC test V _{rms}
4G6.0	3.30	44	65	114	4,000
4G10	1.91	61	68	119	4,000
4G16	1.21	82	72	126	4,000
4G25	0.78	108	76	133	4,000
4G35	0.55	135	80	140	4,000
4G50	0.39	168	85	149	4,000
3×1.5 + 3G0.25	13.30	18	55	96	4,000
3×2.5 + 3G0.5	7.98	26	57	100	4,000
3×4.0 + 3G0.75	4.95	34	60	105	4,000

– Low mutual capacitance (55–85 pF/m) reduces inverter over-current trips and allows longer cable runs between servo drive and motor.

Standards and approvals

- ✓ CE (2014/35/EU LVD & 2014/30/EU EMC)
- ✓ UL AWM Style 21223 / 20234 (80 °C 1000 V)
- ✓ DESINA Colour-Coding Compliant (RAL 2003)

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/shielded-servo-motor-power-cable



Typical values for this cable type, based on DIN VDE 0250 / UL AWM Style 21223. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.