0.6/1 kV unscreened TPE/PUR servo cable

0.6/1 kV TPE/PUR Servo Power

0.6/1 kV Unscreened TPE/PUR Drag-Chain Servo Power Cable

0.6/1 kV (UL 1000 V) unscreened halogen-free TPE/PUR drag-chain power cable



0.6/1 kV (UL 1000 V) | **100 % Halogen-Free TPE/PUR** | **1.5 mm² to 70 mm²**

Application

SERVO FD 80785 P is a 0.6/1 kV (UL/CSA 1000 V) unscreened drag-chain servo motor and spindle power cable (1.5–70 mm²) built with IEC 60228 Class 6 copper conductors, halogen-free TPE core insulation and coolant-proof TMPU jacket for −40 to +80 °C service.

Typical uses: Long-Travel Gantry & Portal Axes, Deep-Freeze AS/RS Stacker Cranes, Machine-Tool Main Power & Hydraulics, DC Bus & Braking-Resistor Leads, Automated Timber & Steel Sawing Lines

Construction





Cross-section, not to scale

1. Superfine power conductor
2. 0.6/1 kV TPE core insulation
3. Non-woven sliding fleece
4. Halogen-free PUR outer sheath

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV (UL/CSA 1000 V)	Max. operating voltage	AC 720/1200 V · DC 900/1800 V
AC test voltage	4000 V AC (50 Hz, 5 min)	Mutual capacitance	≈ 65 pF/m at 800 Hz
Insulation resistance	≥ 500 MΩ·km at 20 °C	Temperature, flexing	−40 °C to +80 °C
Temperature, fixed installation	−50 °C to +80 °C	Max. conductor temperature	+90 °C (VDE) · +80 °C (UL AWM)
Short-circuit temperature	+250 °C (max. 5 s)	Min. bending radius, moving	7.5 × OD (≤ 16 mm²) · 10 × OD (≥ 25 mm²)
Min. bending radius, fixed	4 × OD	Max. travel speed	5 m/s gliding · 10 m/s unsupported
Max. acceleration	Up to 50 m/s²	Oil resistance	DIN EN 50363-10-2 · UL Oil Res I & II
Flame retardance	IEC 60332-1-2 · UL 1581 FT1 / VW-1	Halogen-free / Smoke density	100 % halogen-free per IEC 60754-1/2
Hydrolysis & UV	Hydrolysis, microbe (EN ISO 846) & UV resistant	Standards	DIN VDE 0250 & DIN EN 50363-10-2

Sizes

14 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	Copper kg/km	Weight ≈ kg/km	Min. bend R chain mm
4G (3+PE) 0.6/1 kV Unscreened TPE/PUR Power Cables (1.5–70 mm²) 10 sizes						
☐ SERVO FD 80785 P 4G1.5	4G1.5	1.5 mm²	8.1	58	102	61
☐ SERVO FD 80785 P 4G2.5	4G2.5	2.5 mm²	9.6	96	152	72
☐ SERVO FD 80785 P 4G4.0	4G4.0	4.0 mm²	11.2	154	226	84
☐ SERVO FD 80785 P 4G6.0	4G6.0	6.0 mm²	13.0	230	322	98
☐ SERVO FD 80785 P 4G10	4G10	10 mm²	16.0	384	518	120
☐ SERVO FD 80785 P 4G16	4G16	16 mm²	19.4	614	795	146
☐ SERVO FD 80785 P 4G25	4G25	25 mm²	23.6	960	1,195	177
☐ SERVO FD 80785 P 4G35	4G35	35 mm²	26.8	1,344	1,640	201
☐ SERVO FD 80785 P 4G50	4G50	50 mm²	31.8	1,920	2,320	238
☐ SERVO FD 80785 P 4G70	4G70	70 mm²	36.6	2,688	3,190	274
4G + 2 Control Cores Unscreened TPE/PUR Servo Cables 4 sizes						
☐ SERVO FD 80785 P 4G1.5+2×1.0	4G1.5 + 2×1.0	1.5 mm²	10.2	77	145	76
☐ SERVO FD 80785 P 4G2.5+2×1.0	4G2.5 + 2×1.0	2.5 mm²	11.6	115	196	87
☐ SERVO FD 80785 P 4G4.0+2×1.0	4G4.0 + 2×1.0	4.0 mm²	13.1	173	272	98
☐ SERVO FD 80785 P 4G6.0+2×1.5	4G6.0 + 2×1.5	6.0 mm²	15.0	259	378	112

– For EMC-screened 0.6/1 kV PWM inverter motor leads, select Shielded Servo Motor Power Cable or Servo Power Cable with Brake Pair.

Electrical & ampacity data

14 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating at +30 °C (A)	AC test V rms
4G1.5	13.300	18	4,000
4G2.5	7.980	26	4,000
4G4.0	4.950	34	4,000
4G6.0	3.300	44	4,000
4G10	1.910	61	4,000
4G16	1.210	82	4,000

Configuration	Max. DC R @ 20 °C Ω/km	Current rating at +30 °C (A)	AC test V rms
4G25	0.780	108	4,000
4G35	0.554	135	4,000
4G50	0.386	168	4,000
4G70	0.272	207	4,000
4G1.5 + 2×1.0	13.300	18	4,000
4G2.5 + 2×1.0	7.980	26	4,000
4G4.0 + 2×1.0	4.950	34	4,000
4G6.0 + 2×1.5	3.300	44	4,000

– Rated for 0.6/1 kV AC (up to 1800 V DC conductor-to-conductor) for main spindle motors and DC-link energy chains.

Standards and approvals

- ✓ CE & 100 % Halogen-Free (IEC 60754-1/2)
- ✓ UL AWM Style 21223 (80 °C 1000 V)
- ✓ RoHS 2 (2011/65/EU) & REACH Compliant

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/0-6-1-kv-unscreened-tpe-pur-servo-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.