torsion-resistant wind turbine fieldbus & data cable

CAN BUS 2×2×0.25 mm² PUR 300 V

120-Ohm CAN BUS 2×2×0.25 mm² (300 V) Foam-Skin PE + 85% TCWB Shielded

ISO 11898-2 / CiA 303-1 · 300 V · Torsion-resistant wind turbine fieldbus & data cable



ISO 11898-2 / CiA 303-1 | 300 V (-40 to +80 °C) | Halogen-Free Oil-Resistant PUR Jacke

Application

120-Ohm CAN BUS 2×2×0.25 mm² (300 V) Foam-Skin PE + 85% TCWB Shielded Halogen-Free PUR Wind Turbine Data Cable (ISO 11898-2 / CiA 303-1) engineered for 300 V wind turbine service across -40 to +80 °C (min. bend radius 6 × OD).

Typical uses: Wind Turbine Main PLC, Yaw & Pitch Fieldbus Networks, PROFIBUS DP & CANopen Hub-to-Nacelle Slip-Ring Links, Anemometer, Vibration, Ice & Condition Monitoring Sensors, Cold-Climate (−40 °C) Wind Farm SCADA & Telemetry

Construction





Cross-section, not to scale

1. Stranded Copper Twisted Pairs (2×2x0.25
2. 120-Ohm Foam-Skin PE Dielectric
3. 85% Tinned Copper Wire Braid Shield
4. Halogen-Free Oil-Resistant PUR Jacket (-

Technical data

Typical values

Rated voltage / operating system	300 V (ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification)	**Core / conductor construction**	Stranded Copper Twisted Pairs (2×2x0.25 mm²) — Finely stranded plain copper pairs coded White/Brown & Green/Yellow
Primary dielectric / insulation	120-Ohm Foam-Skin PE Dielectric — Low-loss cellular foam-skin polyethylene for CANopen signal integrity	**Continuous operating temperature**	−40…+80 °C (wind turbine nacelle, hub & tower duty)
Low-temperature torsion & cold bend	Verified cold-flex and torsion endurance across −40…+80 °C per ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Halogen-Free Oil-Resistant PUR Jacket (-40 °C) — Flame-retardant polyurethane outer sheath (-40 °C to +80 °C)	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	85% Tinned Copper Wire Braid Shield — High-coverage tinned copper braid shielding against converter EMI	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification		

Sizes

3 standard constructions

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

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Max. pulling kN ≈	Min. bend R mm
CAN BUS 2×2×0.25 mm² PUR 300 V Construction Schedule (−40…+80 °C) 3 sizes						
☐ CAN BUS 2×2×0.25 mm² PUR 300 V 1×2×0.34 mm²	1 × 2 × 0.34 mm² (22 AWG) Bus Pair	19-strand Cu + Foam PE + Foil/TCWB	8.0	88	0.9	50
☐ CAN BUS 2×2×0.25 mm² PUR 300 V 2×2×0.25 mm²	2 × 2 × 0.25 mm² (24 AWG) CANopen	Finely stranded Cu + Foam-Skin PE + TCWB	8.6	104	1.1	55
☐ CAN BUS 2×2×0.25 mm² PUR 300 V 2×2×0.34 mm²	2 × 2 × 0.34 mm² Redundant Bus	19-strand Cu + Foam PE + Dual Shield	10.4	148	1.5	65

– Custom conductor cross-sections, core counts, pre-lugged tower kits and drum lengths available per ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification.

Electrical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance	Operating temp.
1 × 2 × 0.34 mm² (22 AWG) Bus Pair	55.00	300 V (120/150 Ω)	−40…+80 °C
2 × 2 × 0.25 mm² (24 AWG) CANopen	78.00	300 V (120 Ω CAN)	−40…+80 °C
2 × 2 × 0.34 mm² Redundant Bus	55.00	300 V (120/150 Ω)	−40…+80 °C

– Every production length undergoes routine conductor DC resistance, AC high-voltage spark/dielectric and dimensional verification.

Standards and approvals

- ISO 11898-2 / CiA 303-1 Compliant
- 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/can-bus-2x2x0-25mm2-pur-shielded-wind-cable

Typical values for this cable type, based on ISO 11898-2 & CiA 303-1 120-Ohm CANopen 2×2×0.25 mm² PUR Wind Turbine Data Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.