TENDER CLARIFICATION | COPPER BRAIDED SCREEN | DIN VDE 0250-812 | Ø ≤ 25 mm ✓

Confirmation of Screened (N)3GRDGC5G Festoon Cable

FC-FST (N)3GRDGC5G 3×16 + 3×16/3 mm² — 0.6/1 kV — Tinned Cu Braid ⩾ 80 %

Response to the Tender Evaluation Committee's technical reference on copper screening, with the revised Technical Datasheet Rev. 1 incorporating an overall tinned copper braided screen.

Part A: **FC-TCR-FST-2026-B2C5** | Part B: **FC-TDS-FST-2026-S9Y3 Rev. 1**

Date: **26.10.2026** | Supersedes: **FC-TCR-FST-2026-7D3A item 2 · TDS Rev. 0**

Quantity: **2,000 m** | Destination: **Syria**

PART A **Response to the Tender Evaluation Committee**

Copper screening of the (N)3GRDGC5G cable

FC-TCR-FST-2026-B2C5 · Rev. 0

A1. Covering Statement

To: The Tender Evaluation Committee

Dear Members of the Committee,

Thank you for the technical reference provided. We have reviewed it and agree with the Committee's position. In the DIN VDE type designation (N)3GRDGC5G, the letter **"C"** denotes a concentric copper screen. Our earlier reply (FC-TCR-FST-2026-7D3A, item 2), which described the offered cable as an unscreened design, was incorrect. We withdraw that statement and apologise for the confusion caused.

We hereby confirm that Anhui FeiChun Special Cable Co., Ltd. offers the (N)3GRDGC5G 3×16 + 3×16/3 mm² cable with an **overall tinned copper braided screen of not less than 80 % optical coverage**, constructed in accordance with DIN VDE 0250-812. The overall diameter remains within the

Committee's maximum of 25 mm. The full revised construction is given in Part B, Technical Datasheet FC-TDS-FST-2026-S9Y3 Rev. 1, which supersedes Rev. 0.

Yours faithfully,
Zihao Yang — Technical Sales Manager, Anhui FeiChun Special Cable Co., Ltd.

YES

FeiChun can supply an equivalent (N)3GRDGC5G cable incorporating an overall tinned copper braided screen with ≥ 80 % coverage, in accordance with DIN VDE 0250-812, with overall diameter 24.0 ± 0.7 mm (max. 24.7 mm, within the 25 mm limit).

A2. Compliance with the Committee's Screening Requirement

Requirement (Committee reference)	FeiChun offer — FC-FST (N)3GRDGC5G	Status
Cable type (N)3GRDGC5G	(N)3GRDGC5G 3×16 + 3×16/3 mm², 0.6/1 kV, with concentric copper screen ("C")	Complies
Standard DIN VDE 0250-812	Constructed in accordance with DIN VDE 0250-812	Complies
Overall copper braided screen	Overall braid of tinned annealed copper wires, Ø 0.20 mm, applied over the inner sheath	Complies
Tinned copper	Tinned copper braid wires; tinned copper Class 5 conductors	Complies
Coverage approx. 80 %	Optical coverage ≥ 80 %	Complies
Overall diameter ≤ 25 mm	24.0 ± 0.7 mm (max. 24.7 mm)	Complies

A3. Revised Answers to Previous Queries

The following items replace the corresponding answers in FC-TCR-FST-2026-7D3A. All other items (1, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15) remain valid as submitted.

No.	Committee query	Revised reconfirmation	Status
2	Copper shielding	**Yes — overall tinned copper braided screen, ≥ 80 % optical coverage** Braid of tinned annealed copper wires Ø 0.20 mm over the rubber inner sheath, covered by a polyester separator tape. Screen DC resistance approx. 3.4 Ω/km at 20 °C. To be bonded to earth at both ends.	Revised
3	Overall cable diameter	**24.0 ± 0.7 mm (range 23.3 – 24.7 mm)** Within the specified maximum of 25 mm.	Revised
7	Minimum dynamic bending radius	**5 × D ≈ 120 mm (festoon operation)** Fixed installation: 4 × D ≈ 96 mm. Value unchanged in practice; recalculated on the revised diameter.	Revised
9	Tensile and torsional resistance	**Tensile load 960 N max.; torsion-stabilised construction** The overall copper braid, applied over the pressure-extruded inner sheath, acts both as electrical screen and as anti-torsion reinforcement, keeping the cable round and preventing corkscrewing. Permissible torsional stress ± 25 °/m.	Revised
14	Conductor DC resistance	**Phase cores 16 mm²: ≤ 1.24 Ω/km at 20 °C** Split earth 3 × 5.3 mm²: combined ≤ 1.24 Ω/km. Copper braid screen: approx. 3.4 Ω/km at 20 °C.	Revised

Function of the screen in the festoon system

The overall copper braid provides electromagnetic screening for the crane's drive circuits (including variable-frequency drives), reducing radiated interference towards adjacent control and data cables. Combined with the symmetrical three-way split protective earth, it gives a balanced, low-interference power supply for the moving trolley and hoist.

RHEYFESTOON is a trademark of Nexans. It is referenced in this document solely to identify the Committee's technical reference; FeiChun claims no affiliation with or endorsement by Nexans.

A4. Declaration

We declare that the cable to be supplied under this tender will incorporate the overall tinned copper braided screen described above and will conform to Technical Datasheet FC-TDS-FST-2026-S9Y3 Rev. 1 (Part B).

PREPARED AND CONFIRMED BY

Zihao Yang

Technical Sales Manager

Anhui FeiChun Special Cable Co., Ltd.

Signature / Date



COMPANY SEAL



PART B · TDS

Technical Datasheet — Screened Festoon Cable

Heavy-duty flexible rubber cable for crane festoon systems

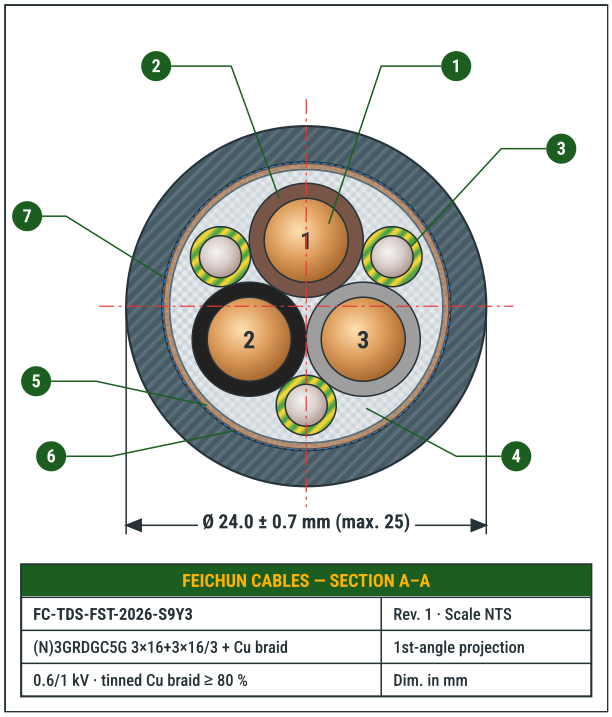
FC-TDS-FST-2026-S9Y3 · Rev. 1

3×16+3×16/3 Configuration (mm²) + Cu screen	**0.6/1 kV** Rated voltage U₀/U
24.0 ± 0.7 Overall Ø (mm) — required max. 25	**⩾ 80 %** Tinned Cu braid coverage

B1. Application

Power supply to moving trolleys and hoist units on festoon systems of heavy-duty overhead travelling and gantry cranes in factories, ports, steel and cement plants. Suitable for indoor and outdoor installation in dry and wet locations, and for coastal environments with salt mist. The overall copper braid screen makes the cable suitable for circuits fed by variable-frequency drives where electromagnetic compatibility is required.

B2. Construction



Pos.	Element	Material / Description
1	**Conductor**	Tinned annealed copper, extra-flexible Class 5 to IEC 60228, 16 mm²
2	**Insulation**	EPR rubber compound type 3GI3 (DIN VDE 0207-20), 90 °C, nominal 1.0 mm
3	**Split protective earth**	3 × 5.3 mm² tinned copper Class 5, green/yellow insulated, in the outer interstices
4	**Inner sheath**	Pressure-extruded rubber compound, nominal 1.0 mm, for stable round geometry
5	**Copper braided screen**	Tinned copper wires Ø 0.20 mm, optical coverage ≥ 80 %; also serves as anti-torsion reinforcement
6	**Separator tape**	Polyester tape over the screen
7	**Outer sheath**	PCP rubber type 5GM5 (DIN VDE 0207-21), black, nominal 2.4 mm; oil-, flame-, ozone- and seawater-resistant

Core identification: brown · black · grey (cores 1-2-3); split protective earth conductors green/yellow. Sheath marking: FEICHUN (N)3GRDGC5G 3×16+3×16/3 0.6/1kV + metre marking.

B3. Dimensional & Mechanical Data

Parameter	Value
Number × cross-section	**3×16 + 3×16/3 mm² + overall Cu screen**
Conductor diameter (approx.)	**5.6 mm**
Nominal insulation thickness	**1.0 mm**
Inner sheath thickness (nominal)	**1.0 mm**
Screen	**Tinned Cu braid, wires Ø 0.20 mm, coverage ⩾ 80 %**
Outer sheath thickness (nominal)	**2.4 mm**
Overall diameter	**24.0 ± 0.7 mm (⩽ 25 mm)**
Approx. weight	**≈ 970 kg/km**
Copper content (conductors + screen)	**≈ 710 kg/km**
Min. bending radius – festoon operation	**5 × D ≈ 120 mm**
Min. bending radius – fixed installation	**4 × D ≈ 96 mm**
Max. tensile load	**20 N/mm² × 48 mm² → 960 N**
Permissible torsional stress	**± 25 °/m**
Max. travel speed	**240 m/min**
Max. acceleration	**0.5 m/s²**

B4. Electrical Data

Parameter	Value
Rated voltage U_0/U	**0.6/1 kV**
Max. operating voltage (AC / DC)	**1.2 kV AC / 1.8 kV DC**
Test voltage	**3.5 kV AC / 5 min**
Max. DC conductor resistance at 20 °C (16 mm²)	**1.24 Ω/km**
Split earth 3 × 5.3 mm², combined DC resistance at 20 °C	**⩽ 1.24 Ω/km**
Copper braid screen DC resistance at 20 °C (approx.)	**3.4 Ω/km**
Min. insulation resistance at 20 °C	**⩾ 20 MΩ·km**
Current rating, in air at 30 °C (DIN VDE 0298-4)	**85 A**
Derating on reels / covered zones	**per DIN VDE 0298-4 tab. 15–18**
Short-circuit current, 1 s	**2.29 kA**

Ambient temperature derating

35 °C: 0.95 · 40 °C: 0.91 · 45 °C: 0.87 · 50 °C: 0.82 — recommended for load calculations given high summer temperatures in Syria.

B5. Thermal & Environmental Data

Parameter	Value
Max. conductor operating temperature	**+90 °C**
Max. short-circuit temperature	**+250 °C**
Ambient temperature – flexing	**–25 °C … +80 °C**
Ambient temperature – fixed	**–40 °C … +80 °C**
Flame retardancy	**IEC 60332-1-2**
Oil resistance	**IEC 60811-404**
Ozone / UV resistance	**IEC 60811-403 / HD 605**
Seawater / salt mist	**Resistant (PCP sheath); not for permanent submersion**

B6. Reference Standards

Standard	Scope
DIN VDE 0250-812	Heavy-duty flexible rubber cables — construction basis
IEC 60228 Class 5	Conductors
DIN VDE 0207-20 / -21	Rubber insulation and sheathing compounds
DIN VDE 0298-4	Permissible current ratings
IEC 60332-1-2	Flame propagation test
IEC 60811-403 / -404	Ozone and oil resistance tests
2014/35/EU · RoHS	Low Voltage Directive, CE conformity

B7. Packing, Testing & Supply

Item	Details
Ordered quantity	2,000 m
Packing	ISPM-15 treated export wooden drums, 2 × 1,000 m or as specified by the customer
Length tolerance	±2 %
Production lead time	2 – 3 weeks after order confirmation
Warranty	1 year, covering failures not caused by human factors
Documentation supplied	Routine test report, certificate of conformity, packing list
Dynamic flexing test	In-house laboratory test report on the production batch, on request; third-party or witnessed testing at the buyer's cost

Revision history: Rev. 0 (20.10.2026) — initial issue. Rev. 1 (26.10.2026) — overall tinned copper braided screen ≥ 80 % added; reference standard corrected to DIN VDE 0250-812; diameter, weight and mechanical data updated; warranty wording updated.

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