TENDER CLARIFICATION | TECHNICAL RECONFIRMATION | FESTOON SYSTEM | 0.6/1 kV

Technical Reconfirmation to the Tender Evaluation Committee

FC-FST (N)3GRDGC5G 3×16 + 3×16/3 mm² — 0.6/1 kV

Point-by-point response to the 15 technical queries raised by the Committee on the heavy-duty flexible rubber festoon cable offered for the crane festoon system.

Doc. No.: **FC-TCR-FST-2026-7D3A** | Revision: **Rev. 0** | Date: **26.10.2026**

Ref. TDS: **FC-TDS-FST-2026-S9Y3 Rev. 0** | Quantity: **2,000 m** | Destination: **Syria**

1. Covering Statement

To: The Tender Evaluation Committee

Dear Members of the Committee,

Thank you for your review of our technical submission. Anhui FeiChun Special Cable Co., Ltd. hereby explicitly reconfirms the technical characteristics of the offered cable FC-FST (N)3GRDGC5G 3×16 + 3×16/3 mm², 0.6/1 kV, as set out in Section 2 below. This document should be read together with our Technical Datasheet FC-TDS-FST-2026-S9Y3 Rev. 0; where a query requires clarification beyond the datasheet, the clarification is given in Section 3.

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

23.6 ± 0.7
Overall Ø (mm) — complies with max. 25 mm

240 m/min
Max. travel speed

5 × D
Min. dynamic bending radius (≈ 120 mm)

1.24 Ω/km
Max. DC resistance at 20 °C

2. Point-by-Point Reconfirmation

No.	Committee query	FeiChun reconfirmation	Status
1	Outer sheath composition	**Polychloroprene (PCP / CR) rubber, compound type 5GM5 to DIN VDE 0207-21, black** Nominal outer sheath thickness 2.4 mm. Applied over a 1.0 mm pressure-extruded rubber inner sheath, with a high-tenacity polyester anti-torsion braid between inner and outer sheath. Oil-, flame-, ozone- and weather-resistant.	Confirmed
2	Copper shielding	**No copper screen — the offered (N)3GRDGC5G is an unscreened design** The type designation and construction per DIN VDE 0250-814 do not include a copper screen or braid. Electromagnetic balance is achieved by the symmetrical three-way split protective earth laid in the outer interstices. See Section 3.1.	Clarified
3	Overall cable diameter	**23.6 ± 0.7 mm (range 22.9 – 24.3 mm)** Fully within the specified maximum of 25 mm.	Confirmed
4	Flexible copper conductors	**Yes — tinned annealed copper, extra-flexible Class 5 to IEC 60228** 16 mm² per phase core, fine-wire bunched-stranded construction, approx. conductor Ø 5.6 mm. EPR insulation type 3GI3 (DIN VDE 0207-20), 90 °C. Core colours: brown, black, grey.	Confirmed
5	Earthing conductor specifications	**3 × 5.3 mm² (designation 3×16/3) — total 16 mm², i.e. 100 % of phase cross-section** Tinned copper Class 5, each individually insulated green/yellow, laid symmetrically in the three outer interstices (split protective earth). Combined DC resistance ≤ 1.24 Ω/km at 20 °C.	Confirmed
6	Maximum operating travel speed	**240 m/min** Maximum acceleration 0.5 m/s².	Confirmed

No.	Committee query	FeiChun reconfirmation	Status
7	Minimum dynamic bending radius	**5 × D ≈ 120 mm (festoon operation)** Fixed installation: 4 × D ≈ 95 mm.	Confirmed
8	Maximum allowable tensile load	**960 N** Based on 20 N/mm² × 48 mm² (3 × 16 mm² main conductors). Load to be transferred via the festoon trolley clamps / towing arrangement, not via the conductors at the terminations.	Confirmed
9	Tensile and torsional resistance	**Tensile load 960 N max.; torsion-stabilised construction** The polyester anti-torsion braid embedded between inner and outer sheath, together with the pressure-extruded inner sheath, keeps the cable geometry round and stable and prevents corkscrewing and core displacement during continuous festoon travel. Permissible torsional stress ± 25 °/m.	Confirmed
10	UV and oil resistance	**Yes — oil resistant to IEC 60811-404; ozone / UV and weathering resistant to IEC 60811-403 / HD 605** The PCP sheath is suitable for permanent outdoor exposure to direct sunlight and for contact with mineral oils and greases typical of crane environments.	Confirmed
11	Expected operational service life	**Typically 8 – 10 years in festoon service** Applies when installed and operated within the rated parameters of this document (travel speed, acceleration, bending radius, tensile load, temperature). Actual life depends on duty cycle, festoon loop geometry and maintenance. See Section 3.3. Contractual warranty: 1 year, covering failures not caused by human factors.	Confirmed
12	Resistance to repeated flexing	**Yes — designed for continuous flexing in festoon systems** Extra-flexible Class 5 fine-wire conductors with short lay, elastic EPR insulation and rubber inner/outer sheaths are specifically selected for permanent repeated bending on festoon trolleys.	Confirmed

No.	Committee query	FeiChun reconfirmation	Status
13	Seawater and salt resistance	**Yes — resistant to seawater spray, salt mist and marine atmosphere** Polychloroprene is the sheath material of choice for port and coastal crane cables. Suitable for wet locations and occasional water contact; the cable is not designed for permanent submersion.	Confirmed
14	Conductor DC resistance	**Phase cores 16 mm²: ⩽ 1.24 Ω/km at 20 °C** Per IEC 60228 Class 5, tinned copper. Split earth 3 × 5.3 mm²: combined ≤ 1.24 Ω/km at 20 °C (each individual earth conductor approx. 3.7 Ω/km). Verified on every production length during routine testing.	Confirmed
15	Dynamic Flexing Test Certificate	**In-house laboratory dynamic flexing test report available on request** A separate independent third-party dynamic flexing certificate is not held for this type. Third-party or witnessed testing can be arranged at the buyer's cost. See Section 3.2.	On request

3. Clarification Notes

3.1 Copper shielding (Query 2)

The cable is offered in its standard, unscreened (N)3GRDGC5G construction, which is the established design for crane festoon power supply. In this design the protective earth is split into three equal conductors placed symmetrically between the phase cores, which balances the magnetic field of the three-phase system and reduces induced voltages in adjacent circuits. Should the tender specification require a copper screen (e.g. for variable-frequency drive circuits), FeiChun can offer a screened variant; its overall diameter and compliance with the 25 mm limit would be confirmed by a separate datasheet before award.

3.2 Dynamic Flexing Test (Query 15)

FeiChun will supply with the delivery the routine test report, certificate of conformity and packing list. In addition, a dynamic (reverse-bending) flexing test can be carried out in FeiChun's in-house laboratory on a sample taken from the production batch for this order, and the resulting test report issued to the Committee. If the Committee requires an independent third-party or witnessed test, FeiChun will arrange it with an agreed laboratory, with the testing cost borne by the buyer.

3.3 Service life conditions (Query 11)

To achieve the stated service life, the festoon system should observe: bending radius ≥ 5 × D at every trolley saddle; loop depth uniform between trolleys; tensile load carried by the towing trolley rather than the cable; operation within −25 °C to +80 °C ambient during flexing. Given high summer ambient temperatures in Syria, current-carrying capacity should be derated per DIN VDE 0298-4 (factor 0.91 at 40 °C; 0.82 at 50 °C).

4. Declaration

We declare that the information provided above is correct and that the cable to be supplied under this tender will conform to the characteristics reconfirmed in this document and in Technical Datasheet FC-TDS-FST-2026-S9Y3 Rev. 0.

PREPARED AND CONFIRMED BY

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

Signature / Date

COMPANY SEAL



5. Technical Contact

Anhui FeiChun Special Cable Co., Ltd.

Tech@feichuncables.com

mining@feichuncables.com

zihao.yang@feichuncables.com

WhatsApp: +86 138 5512 3218

www.feichuncables.com

Head Office

Hefei, Anhui Province, China

Technical Sales Manager: Zihao Yang

Enquiries welcome in English or Arabic.

Intellectual Property Notice: This document, its content and designs are the exclusive property of Anhui FeiChun Special Cable Co., Ltd. and are protected under the Copyright Law of the People's Republic of China and the Australian Copyright Act 1968. Reproduction or distribution without written permission is prohibited, other than for the purpose of evaluating this tender. © 2026 FeiChun Cables. All rights reserved.