TYPE · LV ROUND REELING · HEAVY DUTY | 0.6/1 kV | 33 Variants

CORDAFLEX XPRT Equivalent

FC-CFX-HD (N)SHTÖU 0,6/1 kV

Low voltage reeling cable — EPR insulated, anti-torsion braid, yellow PCP sheath — for container cranes, stacker-reclaimers, ship loaders and mobile mining equipment.

Document No. FC-TDS-CFH-2026-BDF7 Revision 0 Issue date 10 October 2026 Language English (AU)

01 Application & Product Overview

FC-CFX-HD is a heavy-duty low voltage reeling cable for very high mechanical stress — high travel speeds, dynamic tensile loads, changes of direction in different planes, running over rollers and torsional stress.

EPR-insulated cores are laid up in up to three layers. Power designs have the earth conductor split into three parts in the interstices for a symmetrical construction. An anti-torsion braid vulcanised between the inner and outer sheaths keeps the cable stable at high reeling speeds.

Typical applications

- STS, RMG and RTG container cranes — main power and control
- Stacker-reclaimers, ship loaders and bulk-handling gantries
- Mobile mining equipment — opencast and underground (DIN VDE 0168 / 0118)
- Motor-driven reels, spring-driven reels and festoon systems
- Outdoor and indoor use — resistant to ozone, UV, moisture and oil

33 variants
power and control

240 m/min
Travel speed, reeling and festoon

30 N/mm²
Max. tensile load on conductor

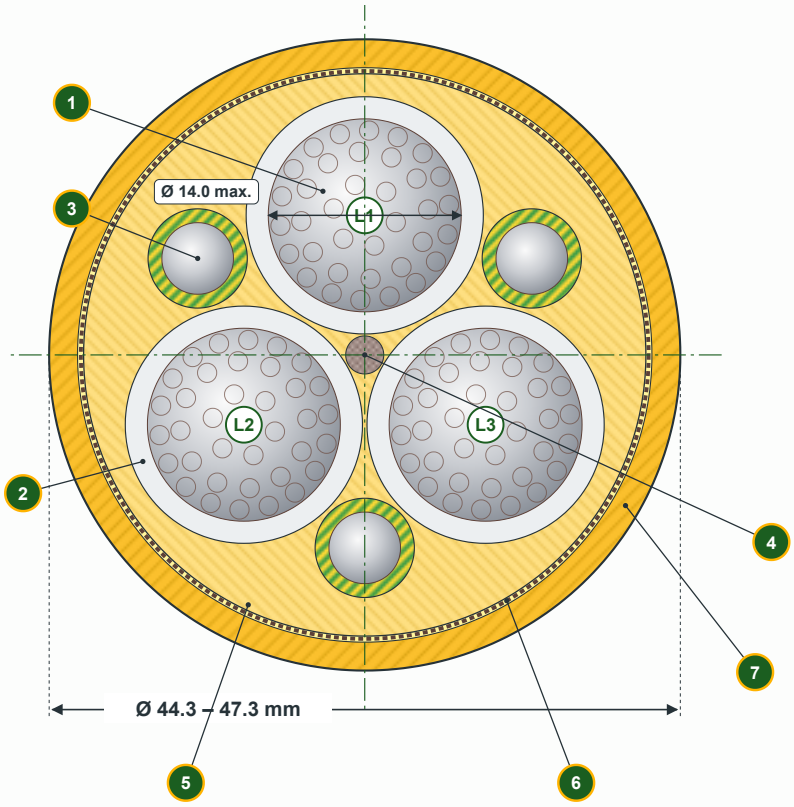
± 50 °/m
Permissible torsional stress

Cross-reference

REFERENCE TYPE	FEICHUN EQUIVALENT
CORDAFLEX XPRT (N)SHTÖU 0,6/1 kV	FC-CFX-HD (N)SHTÖU 0,6/1 kV

Also suitable as a direct replacement for CORDAFLEX (SMK) (N)SHTÖU installations — same designation and dimensions.

02 Construction



FEICHUN · SECTION A–A · 0.6/1 kV

FC-CFX-HD (N)SHTÖU-J

Doc. No. FC-TDS-CFH-2026-BDF7
Ref. 3×95+3×50/3
Rev. 0 · 2026-10-10 · 1st-angle · NTS

Drawing representative of the 3×95+3×50/3 size; other sizes scale proportionally.

Pos.	Element	Material
1	Phase conductor	Tinned electrolytic Cu, very finely stranded, class FS (DIN VDE 0295) / class 5 (IEC 60228)
2	Insulation	Special EPR-based compound, light-coloured cores with black printed numbers
3	Earth conductor	Split into 3 parts in the outer interstices, green-yellow insulation
4	Centre filler	Profiled rubber element
5	Inner sheath	PCP-based rubber compound, yellow
6	Anti-torsion braid	Polyester yarn braid, vulcanised between inner and outer sheath
7	Outer sheath	PCP-based compound, min. 5GM5, abrasion- and tear-resistant, yellow

Design features

Item	Description
Core arrangement	Power: 3 phase cores with earth split into 3 parts in the interstices, or 4 / 5 cores with green-yellow earth; control: up to 3 layers
Core identification	Light-coloured cores with black printed numbers; green-yellow earth (-J)
Sheath system	Double sheath with vulcanised polyester anti-torsion braid — torsion-stable, abrasion and tear resistant
Data transmission	Bus, screened-pair and fibre-optic designs available in the FC-CFX-SP special series
Sheath colour	Yellow (standard); black on request

FEICHUN CABLE

03 Electrical, Thermal & Mechanical Data

Electrical parameters

Parameter	Value
Rated voltage U_0/U	0.6/1 kV
Max. operating voltage AC	0.7/1.2 kV
Max. operating voltage DC	0.9/1.8 kV
AC test voltage	3.5 kV, 5 min (power and control cores)
Current rating basis	DIN VDE 0298-4; laid on a surface, 30 °C ambient — apply reeling factors (§05)

Thermal & mechanical parameters

Parameter	Value
Max. conductor temperature	+90 °C
Short-circuit temperature	+250 °C (max. 5 s)
Ambient — fixed installation	−50 °C to +80 °C
Ambient — fully flexible operation	−35 °C to +80 °C
Max. tensile load	30 N/mm² of total conductor cross-section
Torsional stress	± 50 °/m
Min. bending radius	Per DIN VDE 0298-3 — see type tables
S-type direction changes	Min. spacing 20 × D
Travel speed	Reeling: up to 240 m/min (higher on request); festoon: up to 240 m/min
Resistance	Oil (DIN EN 60811-404), ozone, UV and moisture — unrestricted outdoor use

04 Dimensions, Weights & Ratings — 0.6/1 kV (33 variants)

Cores × cross-section mm²	FeiChun part no.	Conductor Ø max. mm	Outer diameter min. mm	Outer diameter max. mm	Min. bending radius mm	Weight approx. kg/km	Max. tensile force N	R_{20} max. Ω/km	Current rating A	Short-circuit current kA (1 s)
Power cables, 3-core with earth split in three										
3×35+3×16/3	FC-CFX-HD-001	8.4	28.7	31.7	159	1,990	3,150	0.565	162	5.01
3×50+3×25/3	FC-CFX-HD-002	10.3	34.4	37.4	187	2,810	4,500	0.393	202	7.15
3×70+3×35/3	FC-CFX-HD-003	12.0	39.7	42.7	214	3,860	6,300	0.277	250	10.01
3×95+3×50/3	FC-CFX-HD-004	14.0	44.3	47.3	237	4,950	8,550	0.210	301	13.59
3×120+3×70/3	FC-CFX-HD-005	15.8	51.0	55.0	275	6,440	10,800	0.164	352	17.16
3×150+3×70/3	FC-CFX-HD-006	17.5	53.9	57.9	290	7,500	13,500	0.132	404	21.45
3×185+3×95/3	FC-CFX-HD-007	19.4	58.9	62.9	315	8,990	16,650	0.108	461	26.46
3×240+3×120/3	FC-CFX-HD-008	22.5	67.4	71.4	357	11,940	21,600	0.0817	540	34.32
3×300+3×150/3	FC-CFX-HD-009	25.2	75.6	79.6	398	14,740	27,000	0.0654	620	42.90
Power cables, 4-core										
4G4	FC-CFX-HD-010	3.0	16.0	18.0	90	450	480	5.09	41	0.57
4G6	FC-CFX-HD-011	3.6	17.4	19.4	97	600	720	3.39	53	0.86
4G10	FC-CFX-HD-012	4.6	21.6	23.6	118	900	1,200	1.95	74	1.43
4G16	FC-CFX-HD-013	5.6	23.7	26.7	134	1,240	1,920	1.24	99	2.29
4G25	FC-CFX-HD-014	7.3	28.5	31.5	158	1,850	3,000	0.795	131	3.58
Power cables, 5-core										
5G4	FC-CFX-HD-015	3.0	17.4	19.4	97	550	600	5.09	41	0.57
5G6	FC-CFX-HD-016	3.6	19.0	21.0	105	690	900	3.39	53	0.86
5G10	FC-CFX-HD-017	4.6	23.4	25.4	127	1,070	1,500	1.95	74	1.43
5G16	FC-CFX-HD-018	5.6	26.1	29.1	146	1,500	2,400	1.24	99	2.29
5G25	FC-CFX-HD-019	7.3	33.7	36.7	184	2,340	3,750	0.795	131	3.58
Control cables, 1.5 mm²										
7G1.5	FC-CFX-HD-020	1.6	15.2	17.2	86	390	310	13.7	23	0.21
12G1.5	FC-CFX-HD-021	1.6	21.4	23.4	117	720	540	13.7	23	0.21
18G1.5	FC-CFX-HD-022	1.6	21.3	23.3	117	770	810	13.7	23	0.21
24G1.5	FC-CFX-HD-023	1.6	23.8	26.8	134	1,020	1,080	13.7	23	0.21
30G1.5	FC-CFX-HD-024	1.6	26.5	29.5	148	1,240	1,350	13.7	23	0.21
36G1.5	FC-CFX-HD-025	1.6	26.5	29.5	148	1,290	1,620	13.7	23	0.21
56G1.5	FC-CFX-HD-026	1.6	35.9	38.9	195	2,040	2,520	13.7	23	0.21
Control cables, 2.5 mm²										
7G2.5	FC-CFX-HD-027	2.0	16.6	18.6	93	500	520	8.21	30	0.36
12G2.5	FC-CFX-HD-028	2.0	23.4	25.4	127	910	900	8.21	30	0.36
18G2.5	FC-CFX-HD-029	2.0	23.3	25.3	127	1,010	1,350	8.21	30	0.36
24G2.5	FC-CFX-HD-030	2.0	26.2	29.2	146	1,340	1,800	8.21	30	0.36
30G2.5	FC-CFX-HD-031	2.0	29.4	32.4	162	1,660	2,250	8.21	30	0.36

Cores × cross-section mm²	FeiChun part no.	Conductor Ø max. mm	Outer diameter min. mm	Outer diameter max. mm	Min. bending radius mm	Weight approx. kg/km	Max. tensile force N	R_{20} max. Ω/km	Current rating A	Short-circuit current kA (1 s)
36G2.5	FC-CFX-HD-032	2.0	30.3	33.3	167	1,750	2,700	8.21	30	0.36
44G2.5	FC-CFX-HD-033	2.0	34.1	37.1	186	2,180	3,300	8.21	30	0.36

Current rating: nominal value for rubber / PUR cables laid on a surface at 30 °C ambient (DIN VDE 0298-4) — multiply by the factors below for reeled operation and other ambient temperatures. Special designs are manufactured to order.

Reeling factors — cylindrical drum

Layers on drum	1	2	3	4	5
Factor	0.80	0.61	0.49	0.42	0.38

Ambient temperature factors (90 °C conductor)

°C	20	25	30	35	40	45	50
Factor	1.08	1.04	1.00	0.96	0.91	0.87	0.82

05 Standards & Tests

Standard	Scope
DIN VDE 0250-814	Basis of design (LV reeling / trailing cable)
DIN VDE 0295 / IEC 60228	Conductors, class FS / 5
DIN VDE 0207-20 / -21	Insulation (EPR) and sheath (PCP) compounds
DIN VDE 0298-3 / -4	Bending radii, current ratings
DIN EN 60811-404	Oil resistance of sheath
HD 22.16 / EN 50525-1	Water resistance; general requirements

Routine & type tests

- AC voltage test 3.5 kV on every drum
- Conductor resistance and dimensional checks
- Reeling, reversed bending, roller bending and torsion tests (type test)
- Ozone, UV and oil resistance — unrestricted outdoor use

Test documentation: each delivery is accompanied by a FeiChun in-house laboratory inspection certificate. Third-party witnessed testing can be arranged at the buyer's cost.

06 Installation, Marking & Delivery

Installation notes

- Drum core diameter ≥ 2 × minimum bending radius; use guide rollers sized to the same radius.
- Unwind tangentially from the delivery drum — never pull off over the flange; avoid loops and kinks.

Sheath marking

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FEICHUN FC-CFX-HD (N)SHTÖU-J [cores × cross-section] 0,6/1 kV [year] [serial no.] [metre mark]
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- Keep torsion within ± 50 °/m; maintain at least 20 × D between S-type direction changes.
- Keep tensile force within the tabulated limit, including acceleration and braking peaks.
- Lay out and relax the cable before the first reeling; check tension-control settings at commissioning.
- Connect all earth conductor parts and any screens at both ends.

Packing & delivery

Item	Standard
Drum	Steel or fumigated wooden drums, ends sealed with heat-shrink caps
Lengths	To order, single continuous length (no joints)
Production lead time	2–3 weeks after technical confirmation
Warranty	Min. 3 years against manufacturing defects
Drum label	Type, size, length, gross/net weight, batch no., drum no.

07 Certifications & Quality

CE — LVD 2014/35/EU
Attestation No. M.2025.206.C116598 · EN 50525-1:2011+A1:2022 · UDEM International Certification · valid to 01.04.2030

EAC — TR CU 004/2011
Certificate No. ЕАЭС KG417/052.CN.02.15390 · GOST 31996-2012, GOST 31565-2012 · valid 24.10.2025–23.10.2030

UKCA — Verification
No. ICR/VC/HS2508110 · BS EN 50525-1:2011+A1:2022 · ICR Polska · valid to 17.08.2030

FeiChun also holds ATEX (Directive 2014/34/EU) documentation verification and IECEx / VDE related approvals for designated product families. Certificate copies are available on request.

08 Trademark Notice & Intellectual Property

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