FEICHUN CABLE

Anhui Feichun Special Cable Co., Ltd.

zihao.yang@feichuncables.com

www.feichuncables.com

www.reelingcable.com

TECHNICAL SPECIFICATION

SPREADERFLEX 3GSLTOE Spreader Crane Cable for Basket Operation

DOCUMENT TYPE

Technical Specification

PRODUCT SERIES

SPREADERFLEX 3GSLTOE

VOLTAGE RATING

0.6/1 kV

STANDARD

DIN VDE 0250

1. PRODUCT OVERVIEW

The SPREADERFLEX 3GSLTOE represents a premium-grade spreader cable specifically engineered for demanding basket operation applications in load-lifting equipment. This cable series combines exceptional mechanical resilience with superior

electrical performance, making it the optimal choice for spreader systems operating under extreme mechanical stress in gravity-fed collector basket configurations.

2. APPLICATION SCOPE

The SPREADERFLEX 3GSLTOE cable is specifically designed for:

- Feeder cable systems for load-lifting equipment
- Spreader applications with high mechanical stress requirements
- Gravity-fed collector basket operations
- Voltage applications up to 0.6/1 kV
- Cold environment operations down to -40°C
- High-speed hoisting applications up to 160 m/min

3. TECHNICAL SPECIFICATIONS

Electrical Parameters

RATED VOLTAGE

0.6/1 kV (600/1000V)

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 Minutes)

DATA TRANSMISSION

ASI-Bus, Profibus, Fiber Optics

Thermal Parameters

MAX. CONDUCTOR TEMPERATURE

90°C

SHORT CIRCUIT TEMPERATURE

250°C

FIXED INSTALLATION RANGE

-50°C to +80°C

FLEXIBLE OPERATION RANGE

-40°C to +80°C

Mechanical Parameters

TENSILE LOAD

Enhanced with support element

TORSIONAL STRESS

Optimized design

MIN. BENDING RADIUS

Per DIN VDE 0298 Part 3

TRAVEL SPEED (HOIST)

Up to 160 m/min

Chemical Parameters

OIL RESISTANCE

DIN EN 60811-404 compliant

WEATHER RESISTANCE

UV, Ozone, Moisture resistant

ENVIRONMENT

Indoor/Outdoor unrestricted

4. DESIGN FEATURES

4.1 Conductor

Material:	Bare electrolytic copper
Configuration:	Extremely fine stranded, Class FS

4.2 Insulation

Material:	Special EPR compound (Type 3GI3 per DIN VDE 0207)

Temperature Rating: Suitable for -40°C ambient operation

4.3 Core Identification

Method:	Light-colored insulation with black printed numbers
Earth Conductor:	Green/Yellow identification

4.4 Individual Screen

Type:	Braid screen with tinned copper wires
Coverage:	≥60% (shielded cores), ≥80% (twisted pairs)
Performance:	Transfer impedance optimized at 30 MHz

4.5 Support Element

Construction:	Aramid threads woven around lead ball cords
Safety Factor:	5x for 50m vertical suspension
Large Cables:	Round rubber filler with Aramid threads

4.6 Outer Sheath

Material:	Special PUR compound
Color:	Black
Marking:	SPREADERFLEX 3GSLTOE-J (cores) x (cross-section)

5. INSTALLATION REQUIREMENTS

> **Important Installation Note:** Cable must be laid into the basket in a counter-clockwise direction. Detailed installation instructions are available upon request.

5.1 Basket Design Recommendations

Basket Diameter:	Minimum 30 × D (where D = cable diameter)
Basket Height:	Approximately 45 × D
Design Factors:	System-dependent (space requirements, hoisting height/speed, wind load)

5.2 Current Carrying Capacity

Current carrying capacity is determined according to DIN VDE 0298, Part 4, for rubber cables laid on a surface at 30°C ambient temperature (refer to VDE 0298-4, Table 15).

6. PRODUCT DATA TABLES

6.1 3GSLTOE-J Control Cables

Cores × Section	Part Number	MLFB Number	Conductor Ø (max. mm)	Outer Ø (min. mm)	Outer Ø (max. mm)	Bending Radius (min. mm)
48×1	20153609	5DE5697	1.3	31.1	34.1	171

Cores × Section	Part Number	MLFB Number	Conductor Ø (max. mm)	Outer Ø (min. mm)	Outer Ø (max. mm)	Bending Radius (min. mm)
24×2.5	20153610	5DE5625	2.0	29.1	32.1	161
30×2.5	20157101	5DE5698	2.0	31.1	34.1	171
36×2.5	20157102	5DE5688	2.0	34.5	37.5	188
42×2.5	20157103	5DE5690	2.0	36.8	39.8	199
48×2.5	20157104	5DE5660	2.0	41.3	44.3	222
54×2.5	20156743	5DE5667	2.0	45.5	48.5	243
24×3.5	20157105	5DE5678	2.4	32.0	35.0	175
30×3.5	20157106	5DE5680	2.4	34.3	37.3	187
36×3.5	20157107	5DE5681	2.4	37.9	40.9	205
42×3.5	20157108	5DE5685	2.4	42.4	45.4	227
7×4	20157109	5DE5668	3.0	18.1	20.1	101

6.2 3GSLTOE-J Control Cables with Bus Element

Cores × Section	Part Number	MLFB Number	Conductor Ø (max. mm)	Outer Ø (min. mm)	Outer Ø (max. mm)	Bending Radius (min. mm)
24×2.5+1×(2×1)C	20167170	5DE5654	2.0	31.1	34.1	171
24×2.5+4×(2×1)C	20161731	5DE5661	2.0	41.2	44.2	221
36×2.5+2×(2×1)C	20161565	5DE5657	2.0	41.3	44.3	222
42×2.5+2×(2×1)C	20057241	5DE5732	2.0	43.5	46.5	233

6.3 3GSLTOE-J Control Cables with Integrated Fiber Optics

Cores × Section	Part Number	MLFB Number	Conductor Ø (max. mm)	Outer Ø (min. mm)	Outer Ø (max. mm)	Bending Radiu (min. mm)
24×2.5+6×(1G62.5)	20006901	5DE5747	2.0	35.6	38.6	193
24×2.5+12×(1G62.5)	20166384	5DE5635	2.0	34.5	37.5	188
30×2.5+6×(1G62.5)	20157411	5DE5675	2.0	34.5	37.5	188
36×2.5+6×(1G62.5)	20166382	5DE5658	2.0	36.8	39.8	199
42×2.5+6×(1G62.5)	20160680	5DE5648	2.0	41.3	44.3	222
48×2.5+6×(2G62.5)	20157110	5DE5649	2.0	45.5	48.5	243

6.4 3GSLTOE-O AWG Control Cables

Cores × Section	Part Number	MLFB Number	Conductor Ø (max. mm)	Outer Ø (min. mm)	Outer Ø (max. mm)	Bending Radius (min. mm)
20×12AWG	20164631	5DE5694	2.4	30.2	33.3	167
24×12AWG	20160976	5DE5695	2.4	31.6	34.6	173
30×12AWG	20164632	5DE5693	2.4	34.4	37.4	187
36×12AWG	20164633	5DE5696	2.4	38.1	41.1	206
42×12AWG	20154751	5DE5692	2.4	42.4	45.4	227

7. CERTIFICATIONS AND COMPLIANCE

Standard Compliance: DIN VDE 0250

Oil Resistance: DIN EN 60811-404, DIN VDE 0473-811-404 Paragraph 10

Current Capacity: DIN VDE 0298 Part 4, Table 15

Certifications: GOST-R

Note: Special designs are available upon request. Please contact our technical department for customized solutions tailored to your specific application requirements.

8. ORDERING INFORMATION

When ordering SPREADERFLEX 3GSLTOE cables, please specify:

• Cable type designation (3GSLTOE-J or 3GSLTOE-O)

• Number of cores and cross-section

• Required cable length

• Special requirements (bus elements, fiber optics, etc.)

• Environmental conditions and application details

Product Marking Format: SPREADERFLEX 3GSLTOE-J (number of cores) × (cross-section)

FEICHUN SPECIAL CABLES

Website Address www.reelingcable.com www.feichuncables.com

Whatsapp Account + 86 13855123218

Email Address Zihao.yang@feichuncables.com & Ziyu.huang@feichuncables.com