Anhui Feichun Special Cable Co., Ltd.

安徽飞纯特种电缆有限公司

Type NSSHOEU-J 0.6/1kV

Four-Core Flexible Power Cable for Water and Seawater Environments

FEATURED SPECIFICATION: 4×35 MM²

PART NUMBER: **20004845** FEICHUN TYPE NSSHÖU-J

CONDUCTOR DIAMETER ≤ 7.5 mm	OUTER DIAMETER 33.4 - 35.1 mm	RATED VOLTAGE 0.6/1 kV
NET WEIGHT 2150 kg/km	TENSILE FORCE 2100 N	CURRENT CAPACITY 162 A
CONDUCTOR RESISTANCE 0.554 Ω/km	SHORT CIRCUIT CURRENT 5.01 kA	CAPACITANCE 0.49 µF/km
INDUCTANCE 0.25 mH/km		

Application

Flexible four-core power cables designed for use in water and seawater environments, suitable for flexible use and fixed installation in demanding industrial applications requiring heavy mechanical stress resistance.

Primary Applications:

Open-cast mining operations, quarries, construction sites, explosion-hazard areas, industrial and agricultural installations

Environmental Conditions:

Indoor and outdoor use, permanent operation in waste water up to 40°C, maximum submersion depth 2000 meters

Water Compatibility:

Industrial water, cooling water, surface water, rainwater, mixed water, groundwater, and seawater (limited extent)

Special Features:

Four-core configuration with protective-earth conductor, heavy mechanical stress capability, permanent submersion capability

Important Note: In aggressive water or water composed of special substances, the cable's resistance properties should be tested before deployment. For all other specifications, DIN VDE 0298 part 3 applies.

Product Information

Brand:	PROTOMONT
Type Designation:	NSSHOEU-J (NSSHÖU-J)
Configuration:	Four-Core (4x...)
Manufacturing Standard:	DIN VDE 0250-812 or equivalent
Maximum Submersion Depth:	2000 meters

Certifications and Approvals

MA – China Mining Safety Approval

MSHA P-189-3 (Mine Safety and Health Administration)

Fire Certificate of Russian Federation

TR-Certificate GOST K

GOST B Certification

Design and Construction

Conductor:	Copper, tinned, finely stranded (class 5) per DIN EN 60228 / IEC 60228
Insulation Material:	PROTOLON (EPR), Compound type 3GI3 per DIN EN 50363
Core Identification:	Colored cores: gray, black, brown, blue, green/yellow
Core Arrangement:	Four conductors with integrated protective-earth conductor
Inner Sheath:	Vulcanized rubber compound (EPR), Compound type GM1B per DIN EN 50363
Outer Sheath:	Synthetic elastomer compound (CPE), Compound 5GM5 per DIN EN 50363
Sheath Color:	Yellow

Electrical Specifications

Rated Voltage:	0.6/1 kV (600/1000V)
Maximum Operating Voltage (AC):	0.7/1.2 kV
Maximum Operating Voltage (DC):	0.9/1.8 kV
AC Test Voltage:	3 kV
Test Voltage Duration:	5 minutes

Resistance and Performance

Fire Resistance:	DIN EN 60332-1-2
Oil Resistance:	DIN EN 60811-404
Weather Resistance:	Unrestricted outdoor/indoor use, ozone and moisture resistant
Water Resistance:	DIN EN 50525-2-21

Thermal and Mechanical Parameters

Thermal Characteristics

Maximum Conductor Temperature:	90 °C
Maximum Short Circuit Temperature:	250 °C
Maximum Water Temperature:	40 °C (shortened service life at higher temperatures)
Ambient Temperature (Fixed Installation):	min. -40 °C
Ambient Temperature (Flexible Operation):	-25 °C to +60 °C

Mechanical Characteristics

Maximum Tensile Load:	15 N/mm²

Torsional Stress:	**100 °/m**
Minimum Bending Radius:	**According to DIN VDE 0298 part 3**

Complete Technical Data - PROTOMONT NSSHÖU-J 4x Series

Cores × Cross Section	Part Number	Conductor Ø max (mm)	Outer Ø min (mm)	Outer Ø max (mm)	Net Weight (kg/km)	Max Tensile Force (N)	Resistance at 20°C (Ω/km)	Capacitance (µF/km)	Inductance (mH/km)	Current Capacity (A)	Short Circuit (kA)
4×1.5	20004838	1.6	12.0	13.1	210	90	13.3	0.22	0.33	23	0.21
4×2.5	20004839	1.9	14.6	15.7	310	150	7.98	0.23	0.32	30	0.36
4×4	20004840	2.4	16.2	17.3	410	240	4.95	0.26	0.31	41	0.57
4×6	20004841	2.9	17.4	18.5	500	360	3.30	0.30	0.29	53	0.86
4×10	20004842	3.9	21.8	22.9	800	600	1.91	0.32	0.28	74	1.43
4×16	20004843	5.4	25.9	27.6	1160	960	1.21	0.42	0.26	99	2.29
4×25	20004844	6.3	30.6	32.3	1700	1500	0.784	0.42	0.26	131	3.58
4×35	**20004845**	**7.5**	**33.4**	**35.1**	**2150**	**2100**	**0.554**	**0.49**	**0.25**	**162**	**5.01**
4×50	20004846	8.9	38.2	41.2	2980	3000	0.386	0.51	0.25	202	7.15
4×70	20004847	10.6	42.4	45.5	3910	4200	0.272	0.59	0.24	250	10.01
4×95	20004848	12.1	48.2	52.3	5120	5700	0.206	0.60	0.24	301	13.59
4×120	20016763	14.1	54.7	58.8	6570	7200	0.161	0.69	0.23	352	17.16
4×150	20023637	16.0	60.2	64.2	7990	9000	0.129	0.70	0.23	404	21.45
4×185	20007494	17.8	67.3	71.3	9820	11100	0.106	0.71	0.23	461	26.46
4×240	20060343	20.2	72.1	76.4	12100	14400	0.080	0.73	0.23	547	34.32

> **Current Capacity Note:** Nominal current carrying capacity values are specified for multicore cable or three single-core cables in trefoil configuration during permanent operation with DC or AC (50-60 Hz) at 30°C ambient temperature, installed free in air with three cores loaded, in accordance with VDE 0298-4.

Installation Guidelines

Bending Radius:

Minimum bending radius must comply with DIN VDE 0298 part 3 requirements to prevent conductor damage and maintain cable integrity.

Tensile Force:

Do not exceed the maximum permissible tensile force specified for each cable size during installation and operation.

Water Testing:

For installations in aggressive or special composition water, conduct resistance property testing before deployment.

Inspection Requirements:

Accessibility and inspection requirements depend on water consistency and application environment. Regular monitoring recommended for submersed installations.

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Professional Four-Core Cable Solutions for Demanding Industrial Applications

Manufactured to DIN VDE 0250-812 Standard | Certified for Global Markets

FEICHUN SPECIAL CABLES

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