Anhui Feichun Special Cable Co., Ltd.

安徽飞纯特种电缆有限公司

RFOU 0.6/1kV Power Cable

Type RFOU Class 2 CABLE.POWER



APPLICATION

A flame retardant, halogen free cable for fixed installation in various electromechanical and electric equipment, emergency and critical systems as well as electric distribution and lighting systems. Suitable for use in all marine environment conditions such as muddy, dry, wet or oily conditions meeting the requirements of NEK 606.

CHARACTERISTICS

Voltage Rating Uo/U	0.6/1kV
Test Voltage	3.5kV
Temperature Rating	-40°C to +90°C
Minimum Bending Radius	8 × overall diameter

CONSTRUCTION

Conductor	Class 2 stranded tinned copper conductor
Insulation	Halogen free EPR (Ethylene Propylene Rubber)
Bedding	Halogen free compound
Screen	TCWB (Tinned Copper Wire Braid)
Sheath	SHF, MUD (halogen free, mud resistant)
Sheath Colour	Black

> ***Note:*** *Class 5 flexible conductors available on request*

STANDARDS

Product Standards: NEK 606, IEC 60092-350, IEC/EN 60228
Flame Retardant: acc. to IEC/EN 60332-3-24, IEC/EN 60332-1-2
Halogen Free: acc. to IEC/EN 61034-2, IEC/EN 60754-1/2

HIGHLIGHTED SPECIFICATION - 3C X 70MM²

Part Number	No. of Cores	Cross Sectional Area (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR0370	3	70	37.0	3,320

Electrical Characteristics for 70mm² Conductor

Maximum Resistance (20°C)	0.27 Ω/km (Class 2) | 0.277 Ω/km (Class 5)

Current Carrying Capacity	169 Amps (3 Core configuration)
Operating Conditions	Conductor Temperature: 90°C | Ambient Temperature: 45°C

COMPLETE DIMENSIONS TABLE

Single Core (1C) Configurations

Part Number	Cores	Cross Section (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR01015	1	1.5	8.7	140
ASHNR01025	1	2.5	9.2	160
ASHNR01040	1	4	9.8	170
ASHNR01060	1	6	10.4	220
ASHNR0110	1	10	11.4	280
ASHNR0116	1	16	12.5	360
ASHNR0125	1	25	14.8	480
ASHNR0135	1	35	16.0	630
ASHNR0150	1	50	17.6	840
ASHNR0170	1	70	19.6	1,070
ASHNR0195	1	95	21.9	1,300
ASHNR01120	1	120	23.9	1,700
ASHNR01150	1	150	25.9	2,020
ASHNR01185	1	185	28.3	2,350
ASHNR01240	1	240	31.1	3,120
ASHNR01300	1	300	34.4	3,750

Two Core (2C) Configurations

Part Number	Cores	Cross Section (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR02015	2	1.5	12.6	250
ASHNR02025	2	2.5	14.0	330
ASHNR02040	2	4	15.2	400
ASHNR02060	2	6	16.3	470
ASHNR0210	2	10	18.4	630
ASHNR0216	2	16	20.5	820
ASHNR0225	2	25	24.3	1,200
ASHNR0235	2	35	26.8	1,500
ASHNR0250	2	50	29.9	1,840

Three Core (3C) Configurations

Part Number	Cores	Cross Section (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR03015	3	1.5	13.2	280
ASHNR03025	3	2.5	14.7	380
ASHNR03040	3	4	16.0	460
ASHNR03060	3	6	17.2	550
ASHNR0310	3	10	19.4	750
ASHNR0316	3	16	21.7	1,000
ASHNR0325	3	25	25.9	1,490
ASHNR0335	3	35	28.5	1,870
ASHNR0350	3	50	31.8	2,430
ASHNR0370	**3**	**70**	**37.0**	**3,320**
ASHNR0395	3	95	41.9	4,340

Part Number	Cores	Cross Section (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR03120	3	120	46.7	5,490
ASHNR03150	3	150	51.2	6,630
ASHNR03185	3	185	56.7	8,080
ASHNR03240	3	240	62.8	10,130

Four Core (4C) Configurations

Part Number	Cores	Cross Section (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR04015	4	1.5	14.7	360
ASHNR04025	4	2.5	15.8	440
ASHNR04040	4	4	17.3	550
ASHNR04060	4	6	18.6	660
ASHNR0410	4	10	21.1	910
ASHNR0416	4	16	23.7	1,230
ASHNR0425	4	25	28.3	1,840
ASHNR0435	4	35	31.3	2,230
ASHNR0450	4	50	35.9	3,090
ASHNR0470	4	70	40.7	4,330
ASHNR0495	4	95	46.7	5,810
ASHNR04120	4	120	51.5	7,030
ASHNR04150	4	150	57.0	8,610
ASHNR04185	4	185	62.6	10,570

Five Core (5C) Configurations

Part Number	Cores	Cross Section (mm²)	Overall Diameter (mm)	Weight (kg/km)
ASHNR05015	5	1.5	15.8	420
ASHNR05025	5	2.5	17.1	510
ASHNR05040	5	4	18.6	640
ASHNR05060	5	6	20.1	810
ASHNR0510	5	10	22.9	1,110
ASHNR0516	5	16	25.8	1,470
ASHNR0525	5	25	31.0	2,240
ASHNR0535	5	35	34.7	2,820
ASHNR0550	5	50	39.3	3,980
ASHNR0570	5	70	45.2	5,270
ASHNR0595	5	95	51.3	7,570

Multi-Core Configurations (7C to 37C)

Part Number	Cores	Cross Section (mm²)	Overall Diameter (mm)	Weight (kg/km)
ASHNR07015	7	1.5	16.9	490
ASHNR07025	7	2.5	18.4	610
ASHNR10015	10	1.5	20.0	680
ASHNR10025	10	2.5	21.9	940
ASHNR12015	12	1.5	21.4	780
ASHNR12025	12	2.5	23.4	980
ASHNR14015	14	1.5	22.4	930
ASHNR14025	14	2.5	24.5	1,090
ASHNR19015	19	1.5	24.7	1,050
ASHNR19025	19	2.5	27.1	1,420

Part Number	Cores	Cross Section (mm^2)	Overall Diameter (mm)	Weight (kg/km)
ASHNR24015	24	1.5	27.4	1,310
ASHNR24025	24	2.5	30.2	1,830
ASHNR27015	27	1.5	29.1	1,570
ASHNR27025	27	2.5	32.1	1,990
ASHNR37015	37	1.5	32.9	1,820
ASHNR37025	37	2.5	36.7	2,600

CONDUCTOR RESISTANCE

Cross Section (mm^2)	Maximum Resistance at 20°C (Ω/km) Class 2	Maximum Resistance at 20°C (Ω/km) Class 5
0.5	36.7	40.1
0.75	24.8	26.7
1	18.2	20.0
1.5	12.2	13.7
2.5	7.56	8.21
4	4.7	5.09
6	3.11	3.39
10	1.84	1.95
16	1.16	1.24
25	0.734	0.795
35	0.529	0.565
50	0.391	0.393
70	**0.27**	**0.277**

Cross Section (mm^2)	Maximum Resistance at 20°C (Ω/km) Class 2	Maximum Resistance at 20°C (Ω/km) Class 5
95	0.195	0.210
120	0.154	0.164
150	0.126	0.132
185	0.1	0.108
240	0.0762	0.0817
300	0.0607	0.0654

CURRENT CARRYING CAPACITY

Operating Conditions: Conductor Temperature: 90°C | Ambient Temperature: 45°C

Cross Section (mm^2)	Single Core (Amps)	2 Core (Amps)	3 & 4 Core (Amps)	5 Core (Amps)
1	18	15	13	11
1.5	23	20	16	13
2.5	30	26	21	18
4	40	34	28	23
6	52	44	36	30
10	72	61	50	42
16	96	82	67	56
25	127	108	89	74
35	157	133	110	92
50	196	167	137	115

Cross Section (mm^2)	Single Core (Amps)	2 Core (Amps)	3 & 4 Core (Amps)	5 Core (Amps)
70	**242**	**206**	**169**	**142**
95	293	249	205	171
120	339	288	237	198
150	389	331	273	227
185	444	377	311	260
240	522	444	366	305
300	601	511	420	351
400	719	611	503	420
500	827	703	579	484
630	955	812	669	558

DE-RATING FACTORS

Multi-Core Configurations (7 to 37 Cores)

Cross Section (mm^2)	7 Core (Amps)	10 Core (Amps)	12 Core (Amps)	14 Core (Amps)	19 Core (Amps)	24 Core (Amps)	27 Core (Amps)	37 Core (Amps)
1	9	8	8	7	7	6	6	5
1.5	12	11	10	10	9	8	8	7
2.5	16	14	13	12	11	10	10	9

Temperature De-rating Factors

Air Temperature	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C
De-rating Factor	1.10	1.05	1.0	0.94	0.88	0.82	0.74	0.67	0.58	0.47

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