

航空航天用PFA、FEP绝缘电线电缆

PFA, FEP insulated electrical wire and cable for aerospace

产品用途

该系列产品具有耐高低温、耐油、耐磨、耐酸碱及各种化学试剂、抗老化、抗冲击、高阻燃等优异性能及外径小、重量轻等优点。广泛应用于航空航天等领域中通讯、电源、电子电器及仪器仪表线路的连接等。

Application

This series of products have characteristics of high temperature resistant, oil resistant, abrasion resistant, acid and alkali resistant and various chemical reagents, aging resistant, impact resistant, high flame retardant, small outer diameter and light weight, widely used in circuit connection of aerospace and other fields, such as communication, power supply, electronic appliances and instruments.

使用特性

- 1、额定电压：普通型交流600V，轻型交流250V；
- 2、使用温度：见表1。

Service property

- 1、Rated voltage of common type should be a.c. 600V, of light duty should be a.c. 250V;
- 2、Operating temperature refer to table 1.

产品型号及名称 Type and description

表1 - 名称型号及使用温度
Table 1 - Type, description and operating temperature

型号 Type	名称 Description	使用温度 °C Operating temperature
AF-250-1	镀银铜芯PFA绝缘安装线 Silver plated copper core PFA insulated installation wire	-60~+250
AFR-250-1	镀银铜芯PFA绝缘安装软线 Silver plated copper core PFA insulated flexible installation wire	
AFP-250-1	镀银铜芯PFA绝缘镀银屏蔽安装线 Silver plated copper core PFA insulated silver plated copper wire braided shielded installation wire	
AFRP-250-1	镀银铜芯PFA绝缘镀银屏蔽安装软线 Silver plated copper core PFA insulated silver plated copper wire braided shielded flexible installation wire	
AFPF-250-1	镀银铜芯PFA绝缘镀银屏蔽PFA护套电缆 Silver plated copper core PFA insulated silver plated copper wire braided shielded PFA sheathed cable	
AFRPF-250-1	镀银铜芯PFA绝缘镀银屏蔽PFA护套软电缆 Silver plated copper core PFA insulated silver plated copper wire braided shielded PFA sheathed flexible cable	
AFQ-250-1	镀银铜芯PFA绝缘轻型安装线 Silver plated copper core PFA insulated light-duty installation wire	
AFRQ-250-1	镀银铜芯PFA绝缘轻型安装软线 Silver plated copper core PFA insulated light-duty flexible installation wire	
AFPQ-250-1	镀银铜芯PFA绝缘镀银屏蔽轻型安装线 Silver plated copper core PFA insulated silver plated copper wire braided shielded light-duty installation wire	



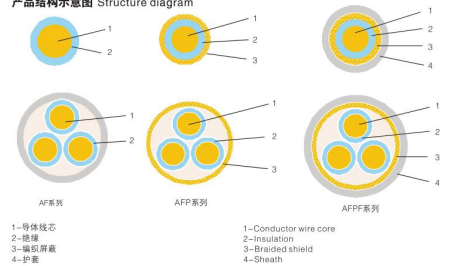
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型号 Type	名称 Description	使用温度 Cooperating temperature	
AFRPQ-250-1	镀银铜芯PFA绝缘屏蔽扁形安装软线 Silver plated copper core PFA insulated silver plated copper wire braided shielded light-duty flexible installation wire	-60~+150	
AFPPQ-250-1	镀银铜芯PFA绝缘屏蔽扁形PFA护套软电缆 Silver plated copper core PFA insulated silver plated copper wire braided shielded PFA sheathed light-duty cable		
AFRRPQ-250-1	镀银铜芯PFA绝缘屏蔽扁形PFA护套软电缆 Silver plated copper core PFA insulated silver plated copper wire braided shielded PFA sheathed light-duty flexible cable		
AF-150	镀银铜芯FEP绝缘扁形安装软线 Tinned copper core FEP insulated installation wire		
AFP-150	镀银铜芯FEP绝缘屏蔽扁形安装软线 Tinned copper core FEP insulated tinned copper wire braided shielded installation wire		
AFPP-150	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated tinned copper wire braided shielded FEP sheathed cable		
AFR-150	镀银铜芯FEP绝缘扁形安装软线 Tinned copper core FEP insulated flexible installation wire		
AFRRP-150	镀银铜芯FEP绝缘屏蔽扁形安装软线 Tinned copper core FEP insulated tinned copper wire braided shielded flexible installation wire		
AFRRP-150	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated tinned copper wire braided shielded FEP sheathed flexible cable		
AFQ-150	镀银铜芯FEP绝缘扁形安装软线 Tinned copper core FEP insulated light-duty installation wire		
AFPQ-150	镀银铜芯FEP绝缘屏蔽扁形安装软线 Tinned copper core FEP insulated tinned copper wire braided shielded light-duty installation wire		
AFPPQ-150	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated tinned copper wire braided shielded FEP sheathed light-duty cable		
AFRQ-150	镀银铜芯FEP绝缘扁形安装软线 Tinned copper core FEP insulated light-duty flexible installation wire		
AFRRPQ-150	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Tinned copper core FEP insulated tinned copper wire braided shielded FEP sheathed light-duty flexible cable		
AFRQ-150	镀银铜芯FEP绝缘扁形安装软线 Tinned copper core FEP insulated light-duty flexible installation wire		
AF-200	镀银铜芯FEP绝缘扁形安装软线 Silver plated copper core FEP insulated installation wire		-60~+200
AFP-200	镀银铜芯FEP绝缘屏蔽扁形安装软线 Silver plated copper core FEP insulated silver plated copper wire braided shielded installation wire		
AFPP-200	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated silver plated copper wire braided shielded FEP sheathed cable		
AFRRP-200	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated silver plated copper wire braided shielded FEP sheathed cable		

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型号 Type	名称 Description	使用温度 Cooperating temperature
AFR-200	镀银铜芯FEP绝缘扁形安装软线 Silver plated copper core FEP insulated flexible installation wire	-60~+200
AFRRP-200	镀银铜芯FEP绝缘屏蔽扁形安装软线 Silver plated copper core FEP insulated silver plated copper wire braided shielded flexible installation wire	
AFRRP-200	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated silver plated copper wire braided shielded FEP sheathed flexible cable	
AFQ-200	镀银铜芯FEP绝缘扁形安装软线 Silver plated copper core FEP insulated light-duty installation wire	
AFPQ-200	镀银铜芯FEP绝缘屏蔽扁形安装软线 Silver plated copper core FEP insulated silver plated copper wire braided shielded light-duty installation wire	
AFPPQ-200	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated silver plated copper wire braided shielded FEP sheathed light-duty cable	
AFRQ-200	镀银铜芯FEP绝缘扁形安装软线 Silver plated copper core FEP insulated light-duty flexible installation wire	
AFRRPQ-200	镀银铜芯FEP绝缘屏蔽扁形安装软线 Silver plated copper core FEP insulated silver plated copper wire braided shielded light-duty flexible installation wire	
AFRRPQ-200	镀银铜芯FEP绝缘屏蔽扁形FEP护套软电缆 Silver plated copper core FEP insulated silver plated copper wire braided shielded FEP sheathed light-duty flexible cable	

产品结构示意图 Structure diagram



基本电缆规格和结构参数

氟塑料绝缘系列产品规格及主要性能符合表2规定；
氟塑料绝缘软导体产品规格及主要性能符合表3规定；
氟塑料绝缘软导体系列产品规格及主要性能符合表4规定；
氟塑料绝缘软导体系列产品规格及主要性能符合表5规定。

Cable specification and structural parameter

Cable structure and main performance of fluorine plastic insulation series should conform to table 2; of fluorine plastic insulation flexible conductor series should conform to table 3; of light duty fluorine plastic insulation series should conform to table 4; of light duty fluorine plastic insulation flexible conductor series should conform to table 5.

表2-氟塑料绝缘系列产品规格及主要性能

芯数×标称截面 Number of cores × nominal cross section area	导体结构参数 (导体直径) Conductor structure (wire diameter)	最大外径mm Maximum outer diameter				20°C时导体直流电阻D ₃₀ Conductor maximum d.c. resistance at 20°C				单位重量≤kg/km Unit weight
		AF-150	AFP-150	AFPP-150	AF-150	AFP-150	AFPP-150	AF-150	AFP-150	
1×0.06	7/0.10	0.86	1.26	1.91	364	336	1.64	4.83	8.97	
1×0.08	7/0.12	0.94	1.34	1.99	245	227	2.05	5.51	9.88	
1×0.12	7/0.15	1.02	1.42	2.07	168	144	2.61	6.3	10.9	
1×0.15	1/0.17	1.07	1.47	2.24	136	126	3.01	6.99	11.5	
1×0.20	1/0.20	1.19	1.59	2.36	90.4	83.5	4.22	8.57	13.1	
1×0.30	1/0.30	1.32	1.72	2.49	58.5	53.4	5.49	10.1	15.2	
1×0.35	1/0.35	1.37	1.77	2.54	50.8	56.9	5.67	10.8	16	
1×0.50	1/0.50	1.47	1.87	2.68	38.8	37.1	7.1	12.3	17.6	
1×0.60	1/0.60	1.57	1.97	2.74	32.5	30.1	8.43	13.9	19.5	
1×0.75	1/0.75	1.63	2.23	2.92	24.6	22.7	10.5	16.6	22.7	
1×1.0	1/0.90	1.98	2.38	3.03	19.3	17.8	12.5	18.9	26.0	
1×1.2	1/0.90	2.08	2.48	3.31	16.6	15.3	16.1	23.4	30.7	
1×1.5	1/0.90	2.28	2.68	3.50	12.7	11.7	19.5	27.3	35.2	
1×2.0	1/0.90	2.55	3.05	3.66	9.50	8.78	24.5	32.8	40.1	
1×2.5	1/0.90	2.90	3.40	4.05	7.43	6.86	32.3	41.8	49.8	
1×3.0	1/0.90	3.10	3.60	4.25	5.73	5.33	43.1	51.3	64.7	
1×3.0	1/0.90	3.30	3.80	4.45	6.53	6.03	38.4	48.6	56.5	
1×4.0	1/0.90	3.50	4.00	4.95	4.88	4.51	46.9	58.3	73.9	
1×4.0	1/0.90	3.75	4.25	5.20	4.88	4.51	48.3	60.0	76.1	
1×5.0	1/0.90	3.75	4.25	5.10	3.98	3.67	56.5	68.3	84.5	
1×6.0	1/0.90	4.15	4.65	5.65	3.30	3.05	68.2	81.7	99.8	
1×8.0	1/0.90	4.50	5.00	5.95	2.60	2.4	69.6	84.2	103.0	
1×8.0	1/0.90	5.40	6.00	7.20	2.60	2.4	106.0	122.0	144.0	
2×0.06	7/0.10	1.72	2.12	2.82	371	343	3.3	9.01	15.4	
2×0.08	7/0.12	1.88	2.28	2.98	250	232	4.2	10.3	17.0	
2×0.12	7/0.15	2.04	2.44	3.14	161	147	5.3	11.9	19.0	
2×0.15	1/0.10	2.14	2.54	3.21	129	129	6.1	12.9	20.3	

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芯数×标称截面 Number of cores × nominal cross section area	导体结构参数 (导体直径) Conductor structure (wire diameter)	最大外径mm Maximum outer diameter				20°C时导体直流电阻D ₃₀ Conductor maximum d.c. resistance at 20°C				单位重量≤kg/km Unit weight
		AF-150	AFP-150	AFPP-150	AF-150	AFP-150	AFPP-150	AF-150	AFP-150	
2×0.20	1/0.12	2.38	2.78	3.55	92.2	85.2	8.6	15.4	23.3	
2×0.20	1/0.16	2.74	3.14	3.91	51.8	50.0	12	20.3	29.2	
2×0.50	1/0.18	2.94	3.34	4.15	39.6	37.8	14	23.2	32.6	
2×0.60	1/0.20	3.14	3.54	4.31	33.2	30.7	17.2	26.4	36.4	
2×0.75	1/0.23	3.66	4.06	4.97	25.1	23.2	21.4	32.0	47.4	
2×1.0	1/0.26	3.96	4.36	5.15	19.7	18.1	25.5	37.8	51.5	
2×1.2	1/0.28	4.16	4.56	5.75	16.9	15.6	32.8	45.3	62.3	
2×0.15	1/0.10	2.14	2.54	3.31	139	129	6.1	12.9	20.3	
2×0.15	1/0.10	2.14	2.54	3.31	139	129	6.1	12.9	20.3	
2×0.20	1/0.12	2.38	2.78	3.55	92.2	85.2	8.6	15.4	23.3	
2×0.35	1/0.16	2.74	3.14	3.91	51.8	50.0	12	20.3	29.2	
2×0.50	1/0.18	2.94	3.34	4.15	39.6	37.8	14	23.2	32.6	
2×0.60	1/0.20	3.14	3.54	4.31	33.2	30.7	17.2	26.4	36.4	
2×0.75	1/0.23	3.66	4.06	4.97	25.1	23.2	21.4	32.0	47.4	
2×1.0	1/0.26	3.96	4.36	5.15	19.7	18.1	25.5	37.8	51.5	
2×1.5	1/0.32	4.56	4.96	6.13	12.9	12.0	39.8	53.3	71.5	
2×2.0	1/0.37	5.10	5.50	6.45	9.70	8.96	50.0	64.4	83.1	
3×0.06	7/0.10	1.85	2.25	2.95	371	34	5.0	11.1	17.8	
3×0.08	7/0.12	2.02	2.42	3.13	250	232	6.3	12.8	19.9	
3×0.12	7/0.15	2.20	2.60	3.30	161	147	8.0	15.0	22.5	
3×0.15	1/0.10	2.30	2.70	3.41	139	129	9.2	16.4	24.2	
3×0.20	1/0.12	2.56	2.96	3.67	92.2	85.2	12.9	19.9	28.4	
3×0.35	1/0.16	2.95	3.35	4.13	51.8	50.5	18.0	26.7	36.1	
3×0.50	1/0.18	3.17	3.57	4.37	39.6	37.8	21.7	30.8	40.8	
3×0.60	1/0.20	3.38	3.78	4.56	33.2	30.7	25.8	35.3	45.8	
3×0.75	1/0.23	3.94	4.34	5.25	25.1	23.2	32.1	43.5	60.0	
3×1.0	1/0.26	4.26	4.66	5.45	19.7	18.1	38.3	51.5	69.0	
3×1.5	1/0.28	4.48	4.88	6.09	16.9	15.6	49.3	57.3	75.8	
3×1.5	1/0.32	4.91	5.31	6.40	12.9	12.0	59.7	71.5	91.7	
3×2.0	1/0.37	5.49	5.89	6.63	9.70	8.96	75.0	87.9	110.0	
4×0.06	7/0.10	2.08	2.48	3.18	371	343	6.7	13.4	20.6	
4×0.08	7/0.12	2.27	2.67	3.37	250	232	8.4	15.6	23.3	
4×0.12	7/0.15	2.46	2.86	3.56	161	147	10.6	18.4	26.6	
4×0.15	1/0.10	2.58	2.98	3.68	139	129	12.3	20.1	28.6	



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Table 3 - Cable structure and main performance of fluorine plastic insulation flexible conductor series. Columns include conductor specifications, maximum outer diameter, 20°C DC conductor resistance, and unit weight.

表3-氟塑料绝缘软导体系列产品结构及主要性能

Table 3 - Cable structure and main performance of fluorine plastic insulation flexible conductor series. Columns include conductor specifications, maximum outer diameter, 20°C DC conductor resistance, and unit weight.

第八章 安装电缆（航空电缆）

续上表Continued

Table 4 - Cable structure and main performance of light diethylene plastic insulation series. Columns include conductor specifications, maximum outer diameter, 20°C DC conductor resistance, and unit weight.

表4-轻质塑料绝缘软导体系列产品结构及主要性能

Table 4 - Cable structure and main performance of light diethylene plastic insulation series. Columns include conductor specifications, maximum outer diameter, 20°C DC conductor resistance, and unit weight.

第八章 安装电缆（航空电缆）



续上表Continued

Table 5 - Cable structure and main performance of light diethylene plastic insulation flexible conductor series. Columns include conductor specifications, maximum outer diameter, 20°C DC conductor resistance, and unit weight.

表5-轻质塑料绝缘软导体系列产品结构及主要性能

Table 5 - Cable structure and main performance of light diethylene plastic insulation flexible conductor series. Columns include conductor specifications, maximum outer diameter, 20°C DC conductor resistance, and unit weight.

第八章 安装电缆（航空电缆）

第八章 安装电缆（航空电缆）

续表 Continued

芯数 × 标称 截面 Number of cores × nominal cross section area mm ²	导体结构根数 /直径n/mm Conductor structure number of wires/ diameter	最大外径mm Maximum outer diameter			20°C时导体直流电阻Ω/km Conductor maximum d.c. resistance at 20°C		单位重量 ≤ kg/km Unit weight		
		AFRQ-150	AFRPQ -150	AFRPFQ -150	AFRQ -150	AFRQ-200、 250-1	AFRQ -150	AFRPQ -150	AFRPFQ -150
		AFRQ-200	AFRPQ -200	AFRPFQ -200	AFRQ -150	AFRQ-200、 250-1	AFRQ -200	AFRPQ -200	AFRPFQ -200
		AFRQ-250 -1	AFRPQ -250-1	AFRPFQ -250-1	AFRPFQ -150	AFRPFQ-200、 250-1	AFRQ -250-1	AFRPQ -250-1	AFRPFQ -250-1
3 × 0.12	24/0.08	1.77	2.22	2.72	167	156	6.09	12.5	18.0
3 × 0.15	30/0.08	1.83	2.28	2.78	135	124	7.00	13.8	19.3
3 × 0.20	42/0.08	2.07	2.52	3.07	102	95.5	9.60	15.9	21.1
3 × 0.30	60/0.08	2.59	3.04	3.54	67.9	64.9	13.7	21.9	28.3
3 × 0.35	75/0.08	2.70	3.15	3.65	58.4	54.7	14.7	23.2	30.0
3 × 0.40	85/0.08	2.80	3.25	3.75	47.8	44.6	16.3	25.1	31.6
4 × 0.014	7/0.05	1.21	1.66	2.16	1483	1370	2.25	6.67	10.3
4 × 0.035	7/0.08	1.45	1.90	2.40	579	536	3.63	8.82	13.1
4 × 0.05	10/0.08	1.57	2.07	2.57	405	376	4.53	10.93	14.94
4 × 0.07	14/0.08	1.76	2.21	2.71	291	278	5.81	12.03	16.93
4 × 0.08	16/0.08	1.81	2.26	2.76	251	234	6.62	13.0	17.9
4 × 0.10	21/0.08	1.89	2.34	2.84	193	179	7.67	14.7	19.6
4 × 0.12	24/0.08	1.98	2.43	2.93	167	156	8.12	15.5	21.3
4 × 0.15	30/0.08	2.05	2.50	3.00	135	124	9.34	17.0	23.1
4 × 0.20	42/0.08	2.32	2.77	3.27	102	95.5	12.8	20.0	25.5
4 × 0.30	60/0.08	2.90	3.35	3.85	67.9	64.9	18.1	27.3	34.3
4 × 0.35	75/0.08	3.02	3.47	3.97	58.4	54.7	19.7	29.8	36.5
4 × 0.40	85/0.08	3.14	3.59	4.09	47.8	44.6	21.6	31.6	39.0

注：根据客户要求绝缘可以做成双色线。

Note: Double color wire may be made according to customer requirement.