FIW Heavy Enamel Magnet Wire Heat Resistant Round Insulated Copper Magnet Wire

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: PEWSC
- Certification: UL,ROHS
- Model Number: FIW Heavy
- Minimum Order Quantity: The MOQ varies according to the size of the specification
- Price: Copper price plus processing fee plus freight
- Packaging Details: Box
- Delivery Time: 3-5 work days
- Payment Terms: T/T 100% payment before shipment
- Supply Ability: Delivery 10-15 days after next order

Product Specification

- Name: FIW Heavy
- Conductor Diameter: 0.071mm-0.710mm
- Conductor Material: Copper
- Temperature Grade: 180
- Voltage Rating: 2800V The Voltage Resistance Varies According To The Thickness Of The Film And The Size Of The Specification
- Standard: NEMA
- Enamel Thickness: Heavy
- Insulation Material: Enamelled
- Conductor Shape: Round
- Colors Option: Red、Natural、Green
- Warranty: 3 Years
- Highlight: **Enamel Magnet Wire Heat Resistant**, **ROHS Enamel Magnet Wire**, **Round Insulated Copper Magnet Wire**

Product Description

Thin Coating Layer: The wire has a very thin insulating coating, which helps to reduce the overall wire diameter, making the wire softer while maintaining the necessary insulating properties for high-density wiring applications.

High Heat Resistance: FIW enamelled wire is designed to withstand high temperature environments, making it suitable for use in power amplifiers, high frequency transformers, and precision sensors.

Excellent Physical Strength: Despite the extremely fine conductors, enamelled wires have good physical strength and toughness, resisting breakage and abrasion to ensure long-term stable operation.

Low Loss: In high frequency applications, FIW enamelled wires exhibit low loss characteristics that have little or no effect on signal transmission, ensuring high quality communications.

Environmentally friendly materials: RoHS compliant and manufactured with environmentally friendly materials, they are both safe and have a low environmental impact.

Versatile applications: From miniature sensors to precision medical devices, FIW enamelled wires are used in a wide range of precision electronic devices due to their unique characteristics.

FIW enamelled wire represents an advancement in miniaturisation in wire and cable technology, with its ultra-fine conductors and thin insulation providing unparalleled benefits for precision circuits. Whether challenged by space constraints or high performance requirements, FIW enamelled wire offers reliable solutions for the most demanding applications.

		NEMA---Heavy													Unit mm
AWG	Diameter of Conduct		Conductor Control Benchmarks		OD Control Benchmarks			Specification Boundaries		Conductor Resistance 20 (Ω/KM)	Insulation breakdown voltage (v)	Min Elongation (%)	Max. Springiness (°)	Resistance to abrasion	
			Lower Limit	Upper Limit	Lower Limit	Median	Upper Limit	Min. Increase in Diameter	Max. Finished overall Diameter					Average	Minimum
44	0.051	+0.002 / -0.003	0.050	0.052	0.062	0.064	0.066	0.010	0.066	9527.95	1300	14	--	--	--
43	0.056	+0.002 / -0.003	0.055	0.057	0.068	0.070	0.072	0.010	0.074	7815.03	1400	15	--	--	--
42	0.064	+0.002 / -0.003	0.063	0.065	0.079	0.081	0.083	0.013	0.084	5899.6	1675	16	--	--	--
41	0.071	+0.003 / -0.002	0.070	0.072	0.086	0.088	0.090	0.013	0.094	4610.88	1675	17	--	--	--
40	0.079	+0.002 / -0.003	0.078	0.080	0.094	0.096	0.098	0.013	0.104	3800.62	1800	17	--	--	--
39	0.089	+0.002 / -0.003	0.088	0.090	0.106	0.109	0.112	0.015	0.114	2968.15	1975	18	--	--	--
38	0.102	+0.002 / -0.003	0.101	0.103	0.122	0.125	0.128	0.018	0.130	2239.81	2150	19	--	--	--

37	0.114	+0.003 -0.002	0.113	0.115	0.134	0.137	0.140	0.018	0.145	1750.03	2325	20	--	--	--
36	0.127	+0.003 -0.003	0.126	0.128	0.149	0.152	0.155	0.020	0.160	1427.71	2525	20	--	--	--
35	0.142	+0.003 -0.002	0.141	0.143	0.167	0.170	0.173	0.023	0.178	1120.02	2750	21	--	--	--
34	0.16	+0.003 -0.003	0.159	0.161	0.185	0.188	0.191	0.023	0.198	890.6	2975	22	--	--	--
33	0.18	+0.003 -0.002	0.179	0.181	0.207	0.211	0.215	0.025	0.221	692.85	3250	23	--	--	--
32	0.203	+0.003 -0.002	0.202	0.205	0.233	0.237	0.241	0.028	0.246	543.36	3525	24	--	--	--
31	0.226	+0.003 -0.002	0.225	0.228	0.258	0.262	0.266	0.030	0.274	437.51	3825	24	--	--	--
30	0.254	+0.002 -0.003	0.252	0.256	0.289	0.293	0.297	0.033	0.307	348.45	4150	25	66	525	450
29	0.287	+0.003 -0.003	0.285	0.289	0.328	0.332	0.336	0.038	0.338	272.17	4250	26	61	560	480
28	0.32	+0.003 -0.002	0.318	0.322	0.364	0.368	0.372	0.041	0.373	217.08	4375	26	55	595	510
27	0.361	+0.002 -0.003	0.358	0.363	0.404	0.409	0.414	0.041	0.419	171.28	4500	27	50	635	540
26	0.404	+0.002 -0.005	0.401	0.406	0.449	0.454	0.459	0.043	0.462	137.89	4600	27	76	675	575
25	0.455	+0.002 -0.005	0.452	0.457	0.503	0.508	0.513	0.046	0.516	108.41	4725	28	72	720	615
24	0.511	+0.002 -0.006	0.507	0.513	0.561	0.566	0.571	0.048	0.577	86.08	4850	28	67	770	655
23	0.574	+0.003 -0.005	0.570	0.576	0.627	0.632	0.637	0.051	0.643	67.80	5000	29	62	820	700
		+0.002				0.								8	7

22	0.643	-0.008	0.639	0.645	0.698	0.703	0.708	0.053	0.714	54.44	5125	29	58	80	50
21	0.724	+0.002 -0.008	0.720	0.726	0.782	0.788	0.794	0.056	0.800	42.82	5250	30	53	940	800
20	0.813	+0.005 -0.008	0.808	0.816	0.877	0.883	0.889	0.061	0.892	33.88	5400	30	66	1000	850
19	0.912	+0.005 -0.010	0.907	0.915	0.979	0.985	0.991	0.064	0.993	26.98	5550	31	62	1070	910
18	1.024	+0.005 -0.011	1.019	1.027	1.093	1.099	1.105	0.066	1.110	21.39	5700	32	58	1150	980
17	1.151	+0.005 -0.013	1.145	1.154	1.225	1.231	1.237	0.071	1.240	16.95	5850	32	54	1230	1045
16	1.29	+0.008 -0.012	1.284	1.293	1.368	1.374	1.380	0.074	1.384	13.44	6000	33	50	1310	1115
15	1.450	+0.008 -0.015	1.444	1.453	1.530	1.536	1.542	0.076	1.549	10.66	6175	33	46	1400	1190
14	1.628	+0.008 -0.015	1.621	1.631	1.713	1.720	1.727	0.081	1.732	8.44	6325	33	42	1490	1270
13	1.829	+0.010 -0.018	1.822	1.832	1.915	1.922	1.929	0.081	1.935	6.69	5600	34	--	1490	1270
12	2.052	+0.010 -0.02	2.044	2.056	2.138	2.146	2.154	0.081	2.162	5.32	5800	34	--	1490	1270
11	2.304	+0.012 -0.023	2.296	2.308	2.393	2.402	2.411	0.084	2.418	4.22	6000	35	--	1490	1270
10	2.588	+0.013 -0.025	2.580	2.592	2.682	2.690	2.698	0.086	2.703	3.34	6200	35	--	1940	1270
9	2.906	+0.015 -0.028	2.896	2.910	3.000	3.009	3.018	0.086	3.023	2.65	3200	36	--	--	--
8	3.264	+0.018 -0.033	3.254	3.268	3.361	3.370	3.378	0.089	3.383	2.1	3300	36	--	--	--

The above single wear resistance values apply to MW-5C 35C 81C 30C 75C 79C 80C 76C 28C 24C. The voltage resistance applies to MW-5C 35C 81C 30C 75C 79C 26C 77C.

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