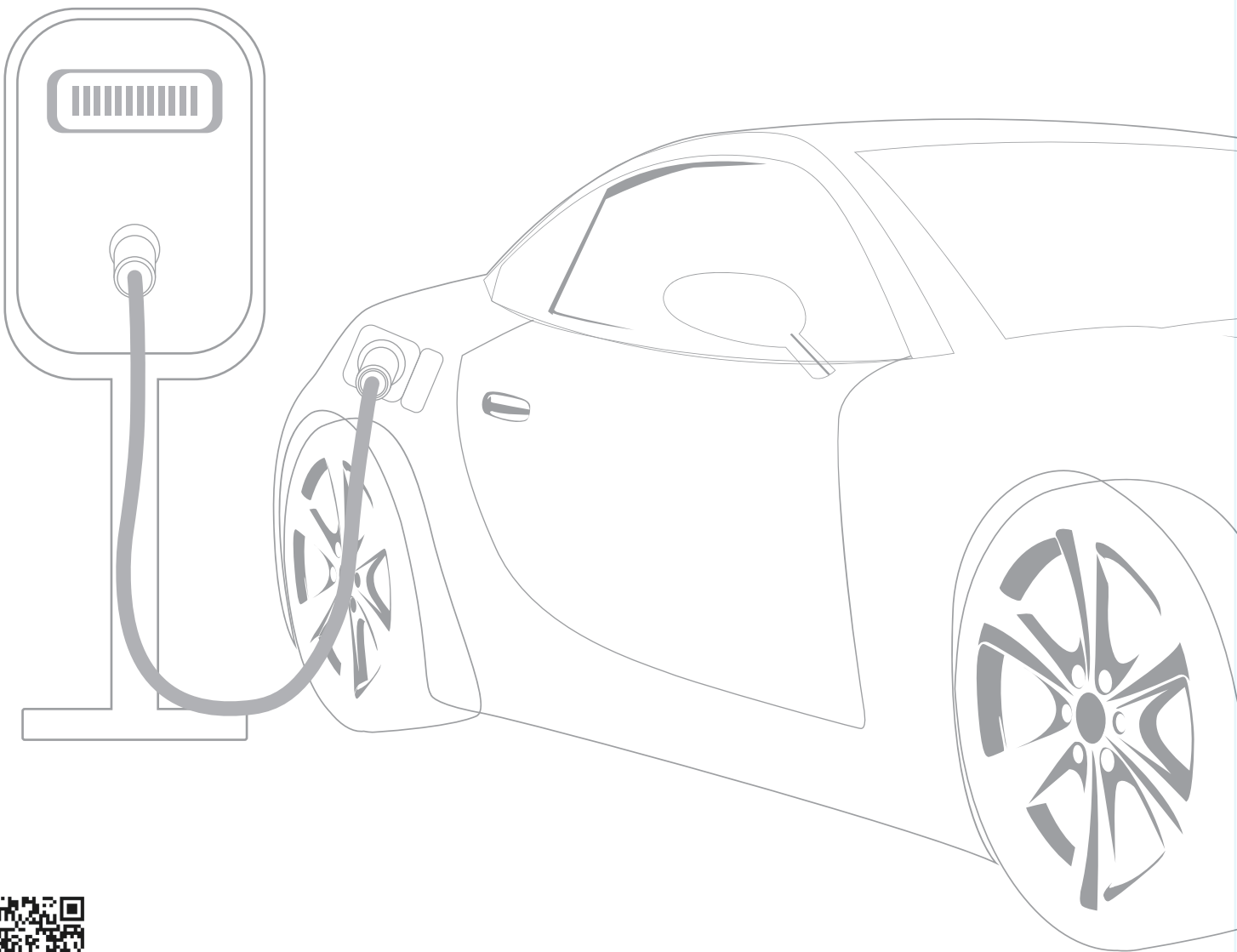




台一國際股份有限公司
TAI-I ELECTRIC WIRE & CABLE CO., LTD

漆包線型錄 Magnet Wire Catalog



電子型錄下載



關於台一國際股份有限公司 / About Us

- 成立於1954年，70年電線電纜業領導品牌。
- 以漆包線、電力電纜等基礎領域佈局多樣化產品組合。
- 秉持永續經營的理念厚植實力，以深耕、創新、國際觀為企業文化。
- 深耕高效能的信號傳遞、電力傳送及能源轉換產品，佈局全世界。
- Founded in 1954, the leading brand in the wire and cable industry for 70 years.
- Main Products : Enameled Wires and Power Cables.
- Corporate Culture: Reinforcement , Innovation and Global Perspective.

主要產品

- 一般漆包線
- 平角漆包線
- 耐熱漆包線
- 耐冷媒漆包線
- 自融著漆包線
- 抗突波漆包線
- 漆包絞線
- 低煙無毒電纜
- 特高壓電力電纜
- XLPE電力電纜
- 複合電纜
- 太陽能電纜
- 耐燃電纜
- 耐熱電纜
- 控制電纜
- 架空全鋁線
- 架空鋼芯鋁絞線
- 光纖纜線
- 大電流電源線組
- 船舶用線組
- 電源線 (組)
- 異型銅條、裸銅線
- 平角銅線、鍍錫銅線

CONTENTS

漆包線製品一覽表 Products	02
各種合成樹脂電線特性一覽表 Properties	05
產品應用 Applications	06
產品優勢 Advantages	08
證書 Certificates	08
線軸尺寸及重量 Bobbin Catalog	09
UL黃卡 UL Yellow Card	10
耐熱壽命特性 Limiting Temperature	11
----- 技術參數Specifications -----	
0種尺寸表 Class 0	12
1種尺寸表 Class1	13
2種尺寸表 Class 2	14
3種尺寸表 Class3	15
NEMA規格 NEMA	16

一般線 / Regular Magnet Wire

品名(規格範圍) Magnet Wire (Size Range)	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格 Applicable Standard					
			JIS	NEMA	IEC	BS	DIN	CNS
聚乙烯醇縮甲醛漆包線 (0.85~3.20) Polyvinyl-Formal (0.85~3.20)	PVF	105°C/A	C3202/2	MW 15-C	60317-1	4516	46416/1	C2040
聚氨基甲酸酯漆包線 (0.05~2.0) Polyurethane (0.05~2.0)	UEW	130°C/B	C3202/6	MW 75-C	60317-4	4520	46416/2	C2041
聚氨基甲酸酯尼龍雙被覆漆包線 (0.05~1.80) Polyurethane-Nylon (0.05~1.80)	UEWE	130°C/B	---	MW 28-C	---	---	---	C2170
聚酯漆包線 (0.05~3.20) Polyester (0.05~3.20)	PEW	155°C#/F	C3202/5	MW 5-C	60317-3 Type 1	---	---	C2039
聚酯尼龍雙被覆 (0.08~1.80) Polyester-Nylon (0.08~1.80)	PEWN	155°C#/F	---	MW 24-C	---	---	---	C2168

平角漆包線 / Rectangular Magnet Wire

品名 Magnet Wire	規格範圍 Size Range	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格 Applicable Standard					
				JIS	NEMA	IEC	BS	DIN	CNS
聚乙烯醇縮甲醛漆包線 Polyvinyl-Formal	寬: 1.00-6.00 厚: 1.00-4.00 截面積: 2 ~ 20 mm ² R角規範: 0.30mm ↑ 漆膜厚度: 0.080~ 0.260mm	PVF	---/A	---	MW 88-C	60317-18	---	---	---
聚酯漆包線 Polyester		PEW	155°C/F	---	---	60317-15	---	---	---
H級聚亞胺酯-聚亞胺醯胺漆包線 Class H Polyesterimide-Polyamideimide		EIWHA	220°C/200°C	---	MW 36-C	60317-29	---	---	---
H級聚亞胺酯-聚亞胺醯胺漆包線 Class H Polyesterimide-Polyamideimide		EIW H	200°C#/200°C	---	MW 36-C	60317-29	---	---	---
聚亞胺醯胺漆包線 Polyamideimide		AIW	220°C/220°C	---	MW 84-C	60317-58	---	---	---
聚醯胺漆包線 Polyimide		PIW	---/240°C	---	MW 20-C	60317-47	---	---	---
H級聚亞胺酯聚亞胺醯胺抗突波漆包線 Class H Polyesterimide-Polyamideimide Voltage Surge Resistant Wire		EIW-HG	200°C/200°C	---	MW 36-C	---	---	---	---
聚亞胺醯胺抗突波漆包線 Polyamideimide Voltage Surge Resistant Wire		AIW-G	220°C/220°C	---	MW 84-C	---	---	---	---
聚醯胺抗突波漆包線 Polyimide Voltage Surge Resistant Wire		PIW-G	---/240°C	---	MW 20-C	---	---	---	---

◎ 紅銅條 / Copper Rod ◎ 平角銅線 / Flat Copper Wire ◎ 異型銅條 / Shaped Copper Bar

生產能力規格範圍：4~100 mm²

平角漆包線國際規範VS. 皮膜之增加尺寸與破壞電壓要求比較

國際規範或客戶要求	級別	厚度皮膜增加之尺寸(mm)		寬度皮膜增加之尺寸(mm)		破壞電壓(V)以上
		最小	最大	最小	最大	
JIS	---	0.13	0.18	0.13	0.18	1500
IEC	Grade 1	0.06	0.11	0.06	0.11	1000
	Grade 2	0.12	0.17	0.12	0.17	2000
NEMA	Heavy	0.076	0.127	0.064	0.114	1500
	Quadruple	0.127	0.178	0.102	0.152	2500

特殊線 / Special Purpose Magnet Wire

品名(規格範圍) Magnet Wire (Size Range)	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格Applicable Standard					
			JIS	NEMA	IEC	BS	DIN	CNS
直焊性聚酯漆包線 (0.05~1.20) Solderable Modified Polyester (0.05~1.20)	SMPEW	---/F	---	MW 26-C	---	---	---	---
直焊性聚亞胺酯漆包線 (0.05~1.20) Solderable Modified Polyesterimide (0.05~1.20)	SMEIW	180°C/H	---	MW 77-C	60317-23	---	---	---
H級直焊性聚亞胺酯漆包線 (0.08~1.20) Class H Solderable Modified Polyesterimide (0.08~1.20)	SMEIW.H	180°C/H	---	---	---	---	---	---
B級聚胺基甲酸酯漆包線 (0.05~2.00) Class B Polyurethane (0.05~2.00)	UEWB	130°C#/B	C3202/6	MW 75-C	60317-4	4520	46416/2	---
F級聚胺基甲酸酯漆包線 (0.05~2.00) Class F Polyurethane (0.05~2.00)	UEWF	155°C/F	---	MW 79-C	60317-20	---	---	---
H級聚胺基甲酸酯漆包線 (0.05~2.00) Class H Polyurethane (0.05~2.00)	UEWH	---/H	---	MW 82-C	60317-51	---	---	---
F級聚胺基甲酸酯尼龍雙被覆漆包線 (0.08~1.80) Class F Polyurethane-Nylon (0.08~1.80)	UEWF-E	155°C#/F	---	MW 80-C	60317-21	---	---	---
H級聚亞胺酯聚亞胺醯胺抗突波漆包線 (0.404~1.290) Class H Polyesterimide-Polyamideimide Voltage Surge Resistant Wire (0.404~1.290)	EIW-HG	200°C/200°C	---	MW 35-C	---	---	---	---
聚亞胺醯胺抗突波漆包線 (0.404~1.290) Polyamideimide Voltage Surge Resistant Wire (0.404~1.290)	AIW-G	---/220°C	---	MW 81-C	---	---	---	---

融著線 / Bonding Magnet Wire

品名(規格範圍) Magnet Wire (Size Range)	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格Applicable Standard					
			JIS	NEMA	IEC	BS	DIN	CNS
自融著聚胺基甲酸酯雙被覆漆包線 (0.10~1.20) Polyurethane Self-Bonding (0.10~1.20)	SBUEW FBW-BS	---/B	---	---	60317-2	---	---	---
F級自融著聚胺基甲酸酯雙被覆漆包線 (0.10~1.20) F Class-Polyurethane Self-Bonding (0.10~1.20)	FBW-SFC FBW-SFS	---/F	---	---	60317-35	---	---	---
聚酯漆融著 (0.10~1.20) Polyester Self-Bonding (0.10~1.20)	FBW-FC FBW-FS	---/F	---	---	---	---	---	---
自融著聚亞胺酯雙被覆漆包線 (0.10~1.20) Polyesterimide Self-Bonding (0.10~1.20)	FBW-EHC, FBW-EHS FBW-SHC, FBW-SHS	---/H	---	---	60317-37	---	---	---
自融著聚亞胺酯聚亞胺醯胺雙被覆漆包線 (0.10~1.20) Polyesterimide Polyamideimide Self- Bonding (0.10~1.20)	FBW-HA FBW-HC FBW-HS	180°C#/200°C	---	MW 102-C	60317-38	---	---	---
自融著聚亞胺醯胺漆包線 (0.10~1.20) Polyamideimide Self-Bonding (0.10~1.20)	FBW-CC FBW-CS	---/220°C	---	---	---	---	---	---

耐熱線 / Heat Resistant Magnet Wire

品名(規格範圍) Magnet Wire (Size Range)	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格 Applicable Standard					
			JIS	NEMA	IEC	BS	DIN	CNS
F級聚酯瓷漆包線 (0.05~3.20) Class F Polyester (0.05~3.20)	FTW	155°C#/F	---	MW 5-C	60317-3 Type 2	---	46416/4	---
F級聚酯瓷尼龍雙被覆漆包線 (0.08~1.80) Class F Polyester-Nylon (0.08~1.80)	FTW E	155°C/F	---	MW 24-C	---	---	---	---
聚亞胺聚酯漆包線 (0.05~3.20) Polyesterimide (0.05~3.20)	EIW	180°C#/H	C3202/8	MW 30-C	60317-8	4665	46416/5	C2100
H級聚亞胺聚酯聚亞胺醯胺漆包線(0.08~3.20) Class H Polyesterimide-Polyamideimide (0.08~3.20)	EIW H	200°C#/200°C	---	MW 35-C	60317-13	---	---	---
聚亞胺醯胺漆包線 (0.08~3.00) Polyamideimide (0.08~3.00)	AIW	220°C/220°C	---	MW 81-C	60317-57	---	---	---
聚醯亞胺漆包線 (0.20~2.00) Polyimide (0.20~2.00)	PIW	---/240°C	---	MW 16-C	60317-46	---	---	---

耐冷媒線 / Resistant to Refrigerants Magnet Wire

品名(規格範圍) Magnet Wire (Size Range)	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格 Applicable Standard					
			JIS	NEMA	IEC	BS	DIN	CNS
H級聚亞胺聚酯-聚亞胺醯胺耐冷媒漆包線 (0.50~1.20) Class H Polyesterimide-Polyamideimide Freon-Resisting (0.50~1.20)	DFWF	200°C/200°C	---	MW 73-C	---	---	---	---
H級聚亞胺聚酯-聚亞胺醯胺耐冷媒漆包線 (0.50~1.20) Class H Polyesterimide-Polyamideimide Freon-Resisting (0.50~1.20)	DFW-A	200°C/200°C	---	MW 73-C	---	---	---	---

其他 / The Others

品名(規格範圍) Magnet Wire (Size Range)	代號 Symbol	UL認可耐熱溫度/耐熱區分 Thermal Endurance Approved by UL / Thermal Endurance Class	適用規格 Applicable Standard					
			JIS	NEMA	IEC	BS	DIN	CNS
撚線 (0.07 ~1.00) Litz Magnet Wire (0.07~1.00)	LZ	---/A-H	---	---	---	---	---	---

各種合成樹脂電線 特性一覽表

Properties

◎優良 (Excellent) ○良 (Good) △可 (Average) ×不可 (No Good)

項目 ITEM		電線種 WIRE TYPE	聚乙烯醇縮 甲醛漆包線 (PVF)	聚氨基甲 酸酯漆包線 (UEW)	聚胺基甲 酸酯尼龍 雙被覆漆包線 (UEW.E)	聚酯漆包線 (PEW)	聚酯漆 尼龍雙被覆 漆包線 (PEW.N)	聚亞胺聚酯 漆包線 (EIW)	聚亞胺聚酯 聚亞胺醃胺 漆包線 (EIW.H)	聚亞胺醃胺 漆包線 (AIW)	聚醃亞胺 漆包線 (PIW)
機械特性 Mechanical Properties	自動繞線性 Windability used automatic winding machine		◎	○	◎	○	◎	○	◎	◎	◎
	可撓性(%) Flexibility(%)		120	105	110	110	120	120	120	120	130
	往復磨耗(回) Repeated Scrape Resistance Test (Times)		70	40	50	60	70	60	90	150	50
	單向性磨耗(kg) Unidirectional Scrape Resistance Test (kg)		1.2	1.1	1.3	1.0	1.4	1.2	1.2	1.1	0.9
	扭轉剝離(回) Adhesion Test by Twisting method (Times)		154	150	150	147	145	140	140	140	173
針孔 Pin Hole	針孔自然回復性 Pin Hole Natural restorability	吸濕(無) No-moisture absorption	◎	◎	◎	○	○	○	○	◎	◎
		吸濕(有) Moisture absorption	×	×	△	○	○	△	△	◎	◎
耐藥品類 特性 Chemical Properties	耐苯乙烯性 Resistance to Styrene		△	×	○	×	○	◎	◎	◎	◎
	石油系列變壓器絕緣油性 Resistance to Petrolic transformer Oil		◎	×	×	○	○	◎	◎	○	△
	氯化物系列變壓 Resistance to Chloric transformer Oil		×	△	○	△	○	△	○	○	◎
	耐硫酸性 Resistance to Sodium Hydroxide		◎	◎	◎	○	○	◎	◎	◎	◎
	耐氫氧化鈉性 Resistance to Sodium Hydroxide		◎	○	○	×	△	△	○	△	×
	耐冷媒性(R-407、R-410、R-32) Resistance to refrigerants (R-407、R-410、R-32)		×	×	×	×	×	◎	◎	◎	◎
耐熱性 Heat Resistant Properties	耐軟化溫度(°C) Cut-through(°C)		260	250	240	310	290	400	420	440	550
	熱壽命(°C) Thermal Endurance (ASTMD2307)		120	130	130	155	155	180	200	220	240
	耐熱衝擊性 Heat Shock		◎	△	○	○	○	◎	◎	◎	◎
	過電流特性 Burnoof Test		○	△	○	○	◎	◎	◎	◎	◎
電器特性 Electrical Properties	耐Corona放電發生的電壓 Proof Corona Voltage (V)		600	550	550	590	480	480	480	480	500
	浸水後之破壞電壓 B.D.V. after wet		○	◎	○	○	○	◎	◎	◎	◎
	吸濕後之破壞電壓 B.D.V. after moisture absorption		○	○	◎	◎	◎	◎	◎	◎	◎
	吸濕後之絕緣抵抗 Resistance after moisture absorption		△	○	○	◎	◎	○	◎	◎	◎
皮膜剝離 Insulating Removal	直焊性 Solderable		×	◎	◎	×	×	×	×	×	×
	藥品剝離性 Chemical Removal		○	△	△	○	○	×	×	×	×



■ 變壓器

泛用於大功率油(乾)式變壓器、高壓變壓器、各種電器用變壓器及發電機等產品，具備優良加工性能及產品壽命。

Widely used in high-power oil (dry) transformers, high-voltage transformers, various electrical transformers, and generators, this product possesses excellent processing performance and product lifespan.

■ 產品

聚乙烯醇縮甲醛漆包線、聚胺基甲酸酯漆包線、聚酯漆包線、聚酯瓷尼龍雙被覆、聚亞胺聚酯漆包線、H種聚亞胺聚酯聚亞胺醯胺漆包線、融著線、撚線

Polyvinyl-Forma(PVF) · Polyurethane(UFW) · Polyester(PEW) · Polyester-Nylon(PEW.N) · Polyesterimide(EIW) · Polyesterimide-Polyamideimide(EIW.H) · Bonding Magnet Wire · Litz Magnet Wire



■ 新能源車用馬達

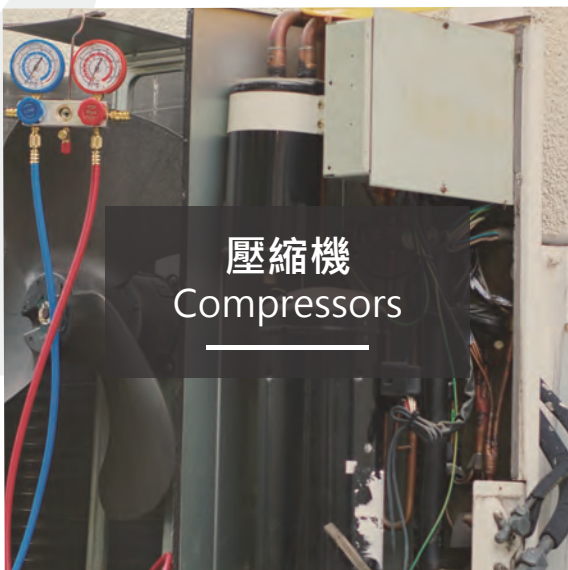
漆包平角扁線主要應用於：新能源車驅動馬達、控制器、充電設備等需求，具優良耐熱性能、機械加工性能、耐ATF油性能、耐電暈性能及高PDIV能力，符合800V充電需求。

Enamelled rectangular flat wire is primarily used in applications such as new energy vehicle drive motors, controllers, charging equipment, and other related requirements. It exhibits excellent heat resistance, mechanical processing performance, resistance to ATF oil, resistance to electrical corona, and high PDIV (Partial Discharge Inception Voltage) capability, meeting the demands of 800V charging.

■ 產品

平角漆包線、聚亞胺醯胺漆包線、聚醯亞胺漆包線、聚亞胺醯胺抗突波漆包線、聚醯亞胺抗突波漆包線

Flat Magnet Wire · Polyamideimide(AIW) · Polyimide(PIW) · Polyamideimide Voltage Surge Resistant Wire(AIW-G) · Polyimide Voltage Surge Resistant Wire(PIW-G)



■ 壓縮機

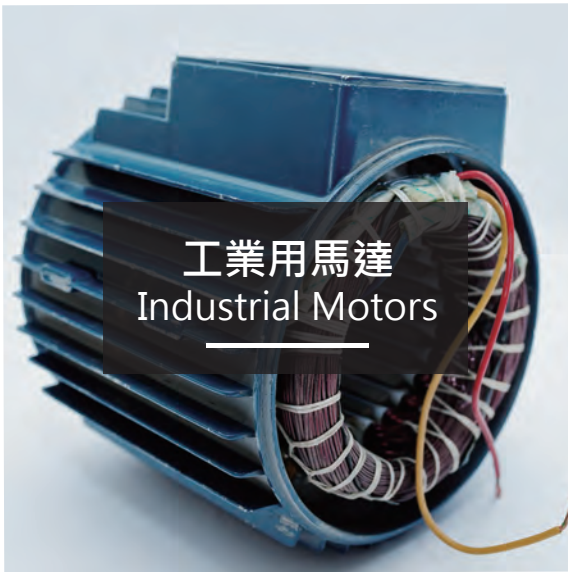
泛用於各類型制冷壓縮機，適用各類型環保冷媒，如R134-a、R-407C、R-410A等，且滿足高速自動繞線作業需求。

It is suitable for a wide range of refrigeration compressors, compatible with various environmentally friendly refrigerants such as R134-a, R-407C, R-410A, etc., and meets the requirements for high-speed automatic winding operations.

■ 產品

H級聚亞胺聚酯-聚亞胺醯胺耐冷媒漆包線、H級聚亞胺聚酯-聚亞胺醯胺耐冷媒漆包線

Class H Polyesterimide-Polyamideimide Freon-Resisting(DFWF) · Class H Polyesterimide-Polyamideimide Freon-Resisting(DFW-A)



工業用馬達 Industrial Motors

■ 工業用馬達

泛用於一般馬達、特殊馬達、工業高壓馬達、高頻馬達、變頻負載馬達，具優良高速繞製性能。

It is commonly used in general motors, special motors, industrial high-voltage motors, high-frequency motors, and variable frequency load motors, exhibiting excellent high-speed winding performance.

■ 產品

聚酯瓷漆包線、聚酯瓷尼龍雙被覆、F級聚酯瓷漆包線、F級聚酯瓷尼龍雙被覆漆包線、聚亞胺聚酯漆包線、H種聚亞胺聚酯聚亞胺醯胺漆包線、聚亞胺醯胺漆包線、聚醯亞胺漆包線、H級聚亞胺聚酯聚亞胺醯胺抗突波漆包線、聚亞胺醯胺抗突波漆包線

Polyester(PEW)、Polyester-Nylon(PEW.N)、Class F Polyester(FTW)、Class F Polyester-Nylon(FTWE)、Polyesterimide(EIW)、Polyesterimide-Polyamideimide(EIW.H)、Polyamideimide(AIW)、Polyimide(PIW)、Class H Polyesterimide-Polyamideimide Voltage Surge Resistant Wire(EIW-HG)、Polyamideimide Voltage Surge Resistant Wire(AIW-G)



汽車零件 Automotive Parts

■ 汽車零件

泛用於汽機車相關電裝部品，如啟動器、高壓線圈、燃油泵浦、啟動馬達、發電機、兩刷馬達、電動窗馬達及EPS馬達等。

It is widely used in automotive and motorcycle electrical components, such as starters, high-voltage coils, fuel pumps, starter motors, generators, windshield wiper motors, electric window motors, and EPS motors.

■ 產品

聚亞胺聚酯漆包線、H種聚亞胺聚酯聚亞胺醯胺漆包線、直焊性聚亞胺聚酯漆包線、H級直焊性聚亞胺聚酯漆包線、聚亞胺醯胺漆包線、聚醯亞胺漆包線、H級聚亞胺聚酯聚亞胺醯胺抗突波漆包線、聚亞胺醯胺抗突波漆包線、聚醯亞胺抗突波漆包線

Polyesterimide(EIW)、Polyesterimide-Polyamideimide(EIW.H)、Solderable Modified Polyesterimide(SMEIW)、Class H Solderable Modified Polyesterimide(SMEIW.H)、Polyamideimide(AIW)、Polyimide(PIW)、Class H Polyesterimide-Polyamideimide Voltage Surge Resistant Wire(EIW-HG)、Polyamideimide Voltage Surge Resistant Wire(AIW-G)、Polyimide Voltage Surge Resistant Wire(PIW-G)



電抗器 Reactors

■ 電抗器

泛用於各式電抗器，如串聯電抗器、並聯電抗器、進線/出線電抗器、消弧電抗器、濾波電抗器、啟動電抗器及平波電抗器等。

It is universally applicable to various reactors, such as series reactors, parallel reactors, line/terminal reactors, arc suppression reactors, filtering reactors, starting reactors, and harmonic reactors, and so on.

■ 產品

聚酯瓷漆包線、聚酯瓷尼龍雙被覆、F級聚酯瓷漆包線、F級聚酯瓷尼龍雙被覆漆包線、聚亞胺聚酯漆包線、H種聚亞胺聚酯聚亞胺醯胺漆包線

Polyester(PEW)、Polyester-Nylon(PEW.N)、Class F Polyester(FTW)、Class F Polyester-Nylon(FTWE)、Polyesterimide(EIW)、Polyesterimide-Polyamideimide(EIW.H)

產品優勢 Advantages



01

技術領先優勢

傳承日本第一電工漆包線生產工藝，並且累積40多年之生產經驗，具技術領先優勢。

02

檢測能力優勢

具備完整的檢測設備，包括介質損耗(TgD)、PDIV、紅外線光譜儀及線上SMART KATT 連續檢測設備。

03

應用技術優勢

擁有經驗豐富的技術團隊，能高效提出高品質對應線樣，滿足客戶客製開發需求。

04

具優質客戶群

特斯拉供應鏈：台全電機、松川精密。

電動機車：睿能創意 gogoro。

國際性廠商：松下電器、東元電機、台達電子及士林電機等。

證書

Certificates

品質及環境管理系統認證

01.

ISO9001
證書



02.

正字標記
證書9001



03

IATF16949
證書



04.

IECQ QC
80000證書



05.

ISO50001
證書



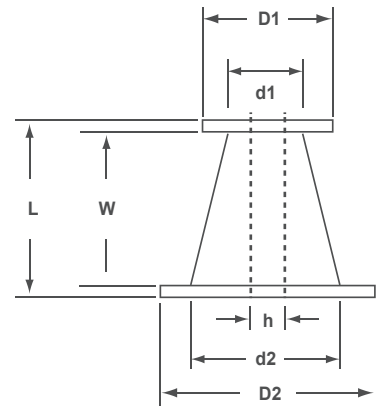
06.

ISO14001
證書



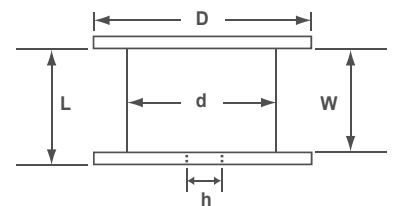
種類 PT Type

線軸名稱 Reel Name	外徑 D(mm)		軸徑 d(mm)		內長 W(mm)	軸長 L (mm)	穴徑 h(mm)	線徑範圍 Size Range (mm)	捲線重量 Wire weight (kg)
	D1	D2	d1	d2					
PT-4	124	140	74	86	170	200	26	0.06~0.16	4.0±1.2
PT-10	160	180	96	110	200	230	30	0.08~0.30	10.0±8.0
PT-15	180	200	96	110	200	230	30	0.12~0.5	15.0±4.5
PT-25	215	230	110	130	250	280	30	0.2~0.8	28.0±5.0
PT-60	270	300	150	175	350	400	45	0.6~2.6	60.0±15.0
PT-90	300	315	180	200	424	500	100	0.6~3.2	90.0±25.0
PT-200	375	400	215	240	530	630	100	1.0~3.2	200.0±50.0
PT-270	435	460	255	280	530	630	100	1.6~3.2	270.0±60.0



種類 DP Type

線軸名稱 Reel Name	外徑 D(mm)	軸徑 d(mm)	內長 W(mm)	軸長 L (mm)	穴徑 h(mm)	重量 Wire weight (g)
DP-30	400	170	245	285	51.5	3150
DP-50	500	220	270	320	60	6000

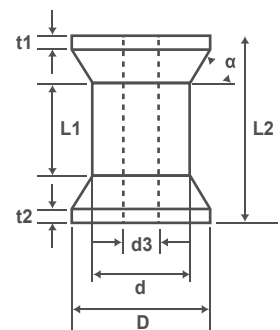


種類 雙錐軸 JIS Type

品名	輪翼直徑 D(mm)	胴體直徑 d(mm)	軸孔直徑 d3(mm)	輪翼距 L1(mm)	全長 L2(mm)	輪翼厚度 t1/t2(mm)	重量 W(g)
PL-300S	63.4	44.4	16	60	86.3	13.15	70
PL-400S	76	60	16	68	92	12	98
PL-600S	88	68	16	79	106	13.5	130
OR-1K	106	82	20	80	112	16	165
OR-1.5K(A)	106	76	20	75	112	18.5	165
OR-1.5K(B)	106	76	20	75	112	18.5	195
OR-1.5R	107.5	76	20	75	112	18.5	200
OR-1.5S	106	76	20	75	112	18.5	200
OR-2K(A)	112	70	20	116	166	25	232
OR-2K(B)	112	70	20	116	166	25	225
OP-2	100	65	20	111	145	17	160
PL-4S(A)	135	80	20	110	175	32.5	314
PL-4S(B)	135	80	20	110	175	32.5	320
PL-10S	170	100	26	160	230	35	507

種類 雙錐軸 IEC Type

品名	輪翼直徑 D(mm)	胴體直徑 d(mm)	軸孔直徑 d3(mm)	輪翼距 L1(mm)	全長 L2(mm)	輪翼斜角 α degrees	重量 W(g)
76/45	63.4	44.4	16	60	86.3	45	70
79/45	80	55	16	70	100	45	85
99/45R	100	56	16	49	100	45	100
124/45R	125	71	16	65	125	45	160
159/45R	160	90	22	85	160	45	315
199/45R	200	112	22	106	200	45	575



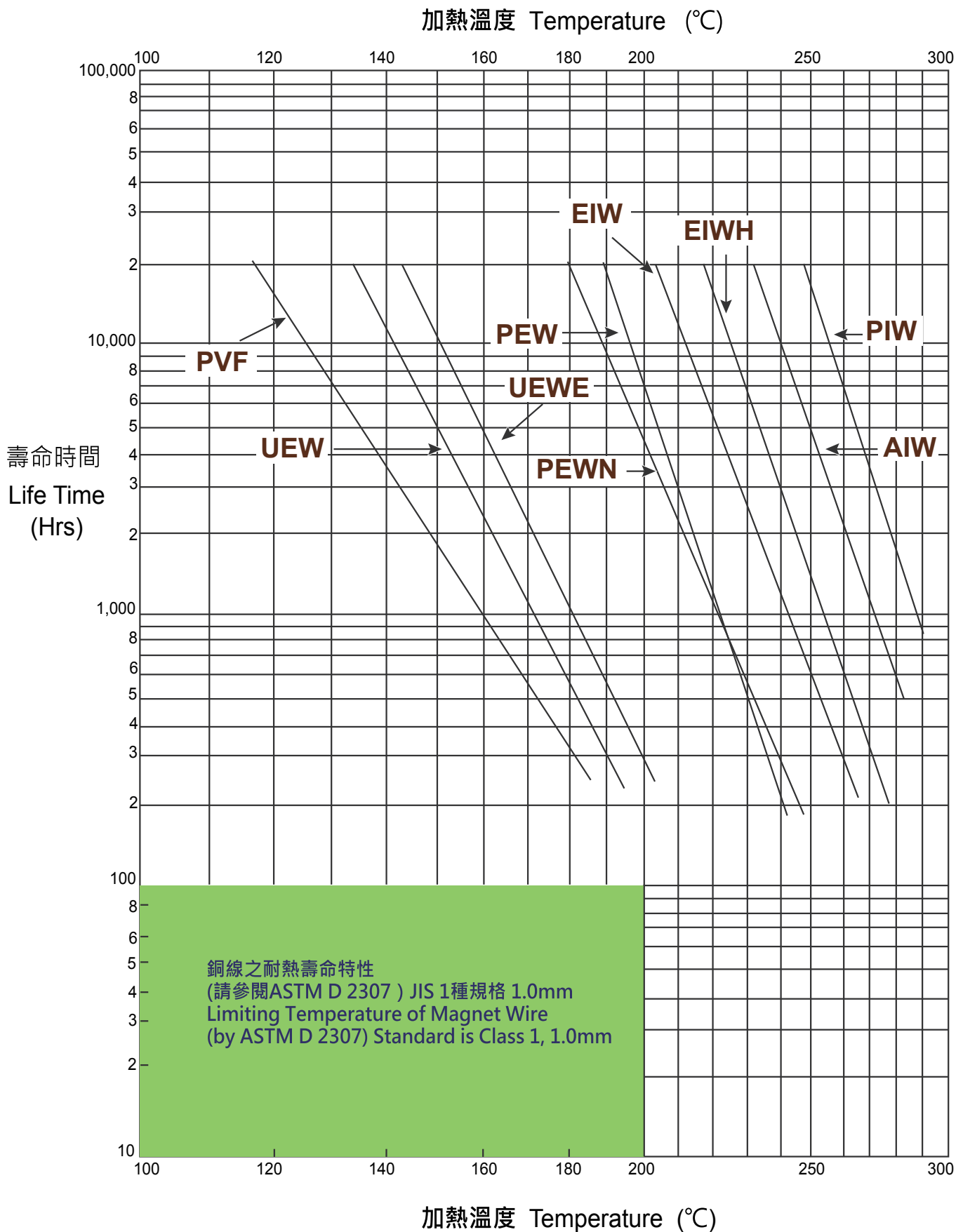
OBMW2

Magnet Wire-Component
 TAI-I ELECTRIC WIRE & CABLE CO., LTD.
 10TH FL 129 SEC 3 MING SHENG EAST RD · TAIPEI TAIWAN

E85640
 Last Updated on 2023-02-13

Material Designation	Mark Dsg	Base Coat	Top Coat	ANSI Type	Temp Class	
AIW,AIWS	AIW,AIWS	Polyamide-imide	---	MW 81-C	220	
	---	Polyamide-imide	---	MW 84-C	220	
DFWF	DFWF	Polyester-imide	Polyamide-imide	MW 73-C	200	
DFWFH	DFWFH	Polyester-imide	Polyamide-imide	MW 35-C	200[#]	
	---	Polyester-imide	Polyamide-imide	MW 36-C	200[#]	
EIW	EIW	Polyester-imide	---	MW 30-C	180[#]	
EIW H	EIW H	Polyester-imide	Polyamide-imide	MW 35-A	220	
	---	Polyester-imide	Polyester-imide	MW 36-A	220	
	---	Polyester-imide	Polyester-imide	MW 37-C	220	
	---	Polyester-imide	Polyester-imide	MW 35-C	200[#]	
	---	Polyester-imide	Polyester-imide	MW 36-C	200[#]	
EIW HB	EIW HB	Polyester-imide	Polyamide-imide	MW 37-C	220	
EIW-HG	EIW-HG	Polyester	Polyamide-imide	MW 35-C	200	
EIWHA	EIWHA	Polyester-amide-imide	Polyamide-imide	MW 35-C	200	
	---	Polyester-amide-imide	Polyamide-imide	MW 36-C	200	
FTW	FTW	Polyester	---	MW 5-C	155[#]	
FTW E	FTW E	Polyester	Polyamide	MW 24-C	155	
FTW-1	FTW-1	Polyester	---	MW 5-C	155[#]	
FTWH	FTWH	Polyester-amide-imide	Polyamide-imide	MW 35-C	200	
	---	Polyester-amide-imide	Polyamide-imide	MW 73-C	200	
PEW	PEW	Polyester	---	MW 5-C	155[#]	
PEWH	PEWH	Polyester	Polyamide-imide	MW 35-C	200[#]	
PEWN	PEWN	Polyester	Polyamide	MW 24-C	155[#]	
SMEIW	SMEIW	Polyester-imide	---	MW 77-C	180	
UEW	UEW	Polyurethane	---	MW 75-C	130[#]	
UEWB	UEWB	Polyurethane	---	MW 75-C	130	
UEWB-LZ	UEWB-LZ	Polyurethane	---	MW 75-C	130	
UEWE	UEWE	Polyurethane	Polyamide	MW 28-C	130	
UEWE-LZ	UEWE-LZ	Polyurethane	Polyamide	MW 28-C	130	
UEWF	UEWF	Polyurethane	---	MW 79-C	155	
UEWF-E	UEWF-E	Polyurethane	Polyamide	MW 80-C	155[#]	
Material Designation	Mark Dsg	Base Coat	Top Coat	Bond Coat	ANSI Type	Temp Class
AIW-C	AIW-C	Polyamide-imide	---	---	---	220
EIW-C	EIW-C	Polyester-imide	---	---	---	200
---	---	Polyester-imide	---	---	---	180[#]
FBWHA	FBWHA	Polyester	Polyamide-imide	Polyamide	MW 102-C	180[#]
FBWHC	FBWHC	Polyester-imide	Polyamide-imide	Polyamide	---	200

[#] - The magnet wire may perform better than the rating reflects and may not be suitable for insulation system, varnish or end-product testing. Further consideration is necessary prior to its use in testing.



10種尺寸表

Class 0

10種尺寸表 / Class 0

導體 Bare Wire		0種 Class 0		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)	導體 Bare Wire		0種 Class 0		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)
徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)		徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)	
0.100	±0.008	0.016	0.156	2647	0.650	±0.020	0.027	0.752	55.31
0.110	±0.008	0.016	0.166	2153	0.700	±0.020	0.028	0.804	47.47
0.120	±0.008	0.017	0.180	1786	0.750	±0.020	0.030	0.860	41.19
0.130	±0.008	0.017	0.190	1505	0.800	±0.020	0.031	0.914	36.08
0.140	±0.008	0.017	0.200	1286	0.850	±0.020	0.032	0.966	31.87
0.150	±0.008	0.017	0.210	1111	0.900	±0.020	0.033	1.020	28.35
0.160	±0.008	0.018	0.222	969.5	0.950	±0.020	0.034	1.072	25.38
0.170	±0.008	0.018	0.232	853.5	1.000	±0.030	0.036	1.138	23.33
0.180	±0.008	0.019	0.246	757.2	1.100	±0.030	0.037	1.242	19.17
0.190	±0.008	0.019	0.256	676.2	1.200	±0.030	0.037	1.342	16.04
0.200	±0.008	0.019	0.266	607.6	1.300	±0.030	0.039	1.448	13.61
0.210	±0.008	0.019	0.276	549	1.400	±0.030	0.039	1.548	11.7
0.220	±0.008	0.019	0.286	498.4	1.500	±0.030	0.041	1.654	10.16
0.230	±0.008	0.020	0.298	454.5	1.600	±0.030	0.041	1.754	8.906
0.240	±0.008	0.020	0.308	416.2	1.700	±0.030	0.042	1.856	7.871
0.250	±0.008	0.020	0.318	382.5	1.800	±0.030	0.042	1.956	7.007
0.260	±0.010	0.020	0.330	358.4	1.900	±0.030	0.044	2.062	6.278
0.270	±0.010	0.020	0.340	331.4	2.000	±0.030	0.044	2.162	5.656
0.280	±0.010	0.020	0.350	307.3	2.100	±0.030	0.045	2.266	5.123
0.290	±0.010	0.020	0.360	285.7	2.200	±0.030	0.046	2.368	4.622
0.300	±0.010	0.021	0.374	262.9	2.300	±0.030	0.046	2.468	4.26
0.320	±0.010	0.021	0.394	230	2.400	±0.030	0.048	2.574	3.908
0.350	±0.010	0.021	0.424	191.2	2.500	±0.030	0.049	2.678	3.598
0.370	±0.010	0.022	0.446	170.6	2.600	±0.030	0.049	2.778	3.324
0.400	±0.010	0.023	0.480	145.3	2.700	±0.030	0.049	2.878	3.079
0.450	±0.010	0.024	0.532	114.2	2.800	±0.030	0.049	2.978	2.861
0.500	±0.010	0.025	0.586	91.43	2.900	±0.030	0.049	3.078	2.665
0.550	±0.020	0.025	0.646	78.15	3.000	±0.030	0.049	3.178	2.489
0.600	±0.020	0.026	0.698	65.26	3.200	±0.040	0.049	3.388	2.198

1種尺寸表

Class 1

1種尺寸表 / Class 1

導體 Bare Wire		1種 Class 1		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)	導體 Bare Wire		1種 Class 1		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)
徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)		徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)	
0.100	±0.008	0.009	0.140	2647	0.650	±0.020	0.018	0.724	55.31
0.110	±0.008	0.009	0.150	2153	0.700	±0.020	0.019	0.776	47.47
0.120	±0.008	0.010	0.162	1786	0.750	±0.020	0.020	0.830	41.19
0.130	±0.008	0.010	0.172	1505	0.800	±0.020	0.021	0.882	36.08
0.140	±0.008	0.010	0.182	1286	0.850	±0.020	0.022	0.934	31.87
0.150	±0.008	0.010	0.192	1111	0.900	±0.020	0.023	0.986	28.35
0.160	±0.008	0.011	0.204	969.5	0.950	±0.020	0.024	1.038	25.38
0.170	±0.008	0.011	0.214	853.5	1.000	±0.030	0.025	1.102	23.33
0.180	±0.008	0.012	0.226	757.2	1.100	±0.030	0.026	1.204	19.17
0.190	±0.008	0.012	0.236	676.2	1.200	±0.030	0.026	1.304	16.04
0.200	±0.008	0.012	0.246	607.6	1.300	±0.030	0.027	1.408	13.61
0.210	±0.008	0.012	0.256	549	1.400	±0.030	0.027	1.508	11.7
0.220	±0.008	0.012	0.266	498.4	1.500	±0.030	0.028	1.612	10.16
0.230	±0.008	0.013	0.278	454.5	1.600	±0.030	0.028	1.712	8.906
0.240	±0.008	0.013	0.288	416.2	1.700	±0.030	0.029	1.814	7.871
0.250	±0.008	0.013	0.298	382.5	1.800	±0.030	0.029	1.914	7.007
0.260	±0.010	0.013	0.310	358.4	1.900	±0.030	0.030	2.081	6.278
0.270	±0.010	0.013	0.320	331.4	2.000	±0.030	0.030	2.118	5.656
0.280	±0.010	0.013	0.330	307.3	2.100	±0.030	0.031	2.220	5.123
0.290	±0.010	0.013	0.340	285.7	2.200	±0.030	0.032	2.322	4.622
0.300	±0.010	0.014	0.352	262.9	2.300	±0.030	0.032	2.422	4.26
0.320	±0.010	0.014	0.372	230	2.400	±0.030	0.033	2.526	3.908
0.350	±0.010	0.014	0.402	191.2	2.500	±0.030	0.034	2.628	3.598
0.370	±0.010	0.014	0.424	170.6	2.600	±0.030	0.034	2.728	3.324
0.400	±0.010	0.015	0.456	145.3	2.700	±0.030	0.034	2.828	3.079
0.450	±0.010	0.016	0.508	114.2	2.800	±0.030	0.034	2.928	2.861
0.500	±0.010	0.017	0.560	91.43	2.900	±0.030	0.034	3.028	2.665
0.550	±0.020	0.017	0.620	78.15	3.000	±0.030	0.034	3.128	2.489
0.600	±0.020	0.017	0.672	65.26	3.200	±0.040	0.034	3.338	2.198

2種尺寸表

Class 2

2種尺寸表 / Class 2

導體 Bare Wire		2種 Class 2		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)	導體 Bare Wire		2種 Class 2		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)
徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)		徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)	
0.020	±0.002	0.003	0.030	69850	0.320	±0.020	0.010	0.357	222.8
0.030	±0.002	0.003	0.044	28870	0.350	±0.020	0.010	0.387	185.7
0.040	±0.002	0.003	0.056	15670	0.370	±0.020	0.010	0.407	165.9
0.050	±0.003	0.004	0.069	10240	0.400	±0.020	0.011	0.439	141.7
0.060	±0.003	0.004	0.081	6966	0.450	±0.020	0.011	0.490	112.1
0.070	±0.003	0.004	0.091	4990	0.500	±0.020	0.012	0.542	89.95
0.080	±0.003	0.005	0.103	3778	0.550	±0.020	0.012	0.592	74.18
0.090	±0.003	0.005	0.113	2956	0.600	±0.030	0.012	0.644	62.64
0.100	±0.003	0.005	0.125	2381	0.650	±0.030	0.012	0.694	53.26
0.110	±0.003	0.005	0.135	1957	0.700	±0.030	0.013	0.746	45.84
0.120	±0.003	0.006	0.147	1636	0.750	±0.030	0.014	0.798	39.87
0.130	±0.003	0.006	0.157	1389	0.800	±0.030	0.015	0.852	35.17
0.140	±0.003	0.006	0.167	1193	0.850	±0.030	0.015	0.904	31.11
0.150	±0.003	0.006	0.177	1037	0.900	±0.030	0.016	0.956	27.71
0.160	±0.003	0.007	0.189	908.8	0.950	±0.030	0.017	1.008	24.84
0.170	±0.003	0.007	0.199	803.2	1.000	±0.030	0.017	1.062	22.49
0.180	±0.003	0.008	0.211	715	---	---	---	---	---
0.190	±0.003	0.008	0.221	640.6	---	---	---	---	---
0.200	±0.003	0.008	0.231	577.2	---	---	---	---	---
0.210	±0.003	0.008	0.241	522.8	---	---	---	---	---
0.220	±0.004	0.008	0.252	480.1	---	---	---	---	---
0.230	±0.004	0.009	0.264	438.6	---	---	---	---	---
0.240	±0.004	0.009	0.274	402.2	---	---	---	---	---
0.250	±0.004	0.009	0.284	370.2	---	---	---	---	---
0.260	±0.004	0.009	0.294	341.8	---	---	---	---	---
0.270	±0.004	0.009	0.304	316.6	---	---	---	---	---
0.280	±0.004	0.009	0.314	294.1	---	---	---	---	---
0.290	±0.004	0.009	0.324	273.9	---	---	---	---	---
0.300	±0.005	0.010	0.337	254	---	---	---	---	---

3種尺寸表 / Class 3

導體 Bare Wire		3種 Class 3		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)	導體 Bare Wire		3種 Class 3		最大導體抵抗 Maximum Conductor resistance per unit length (Ω /km)
徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)		徑 Diameter (mm)	容許差 Tolerance (mm)	最小皮膜厚度 Minimum Film Thickness (mm)	最大完成外徑 Maximum Overall Diameter (mm)	
0.020	±0.002	0.002	0.028	69850	0.320	±0.005	0.007	0.347	222.8
0.030	±0.002	0.002	0.040	28870	0.350	±0.005	0.007	0.377	185.7
0.040	±0.002	0.002	0.052	15670	0.370	±0.005	0.007	0.397	165.9
0.050	±0.003	0.003	0.064	10240	0.400	±0.005	0.007	0.429	141.7
0.060	±0.003	0.003	0.075	6966	0.450	±0.006	0.007	0.479	112.1
0.070	±0.003	0.003	0.085	4990	0.500	±0.006	0.008	0.531	59.95
0.080	±0.003	0.003	0.097	3778	0.550	±0.006	0.008	0.581	74.18
0.090	±0.003	0.003	0.107	2956	0.600	±0.006	0.008	0.632	62.64
0.100	±0.003	0.003	0.118	2381	---	---	---	---	---
0.110	±0.003	0.003	0.128	1957	---	---	---	---	---
0.120	±0.003	0.004	0.139	1636	---	---	---	---	---
0.130	±0.003	0.004	0.149	1389	---	---	---	---	---
0.140	±0.003	0.004	0.159	1193	---	---	---	---	---
0.150	±0.003	0.004	0.169	1037	---	---	---	---	---
0.160	±0.003	0.005	0.181	908.8	---	---	---	---	---
0.170	±0.003	0.005	0.191	803.2	---	---	---	---	---
0.180	±0.003	0.005	0.202	715	---	---	---	---	---
0.190	±0.003	0.005	0.212	640.6	---	---	---	---	---
0.200	±0.003	0.005	0.222	577.2	---	---	---	---	---
0.210	±0.003	0.005	0.232	522.8	---	---	---	---	---
0.220	±0.004	0.005	0.243	480.1	---	---	---	---	---
0.230	±0.004	0.006	0.255	438.6	---	---	---	---	---
0.240	±0.004	0.006	0.265	402.2	---	---	---	---	---
0.250	±0.004	0.006	0.275	370.2	---	---	---	---	---
0.260	±0.004	0.006	0.285	341.8	---	---	---	---	---
0.270	±0.004	0.006	0.295	316.6	---	---	---	---	---
0.280	±0.004	0.006	0.305	294.1	---	---	---	---	---
0.290	±0.004	0.006	0.315	273.9	---	---	---	---	---
0.300	±0.005	0.007	0.327	254	---	---	---	---	---

AWG SIZE	導體直徑 Bare Wire Diameter		SINGLE		HEAVY		最大導體電阻 Maximum Conductor Resistant per unit length at 20°C(Ω/km)
			最小漆膜增徑 Minimum Increase in Diameter	最大完成外徑 Maximum Overall Diameter	最小漆膜增徑 Minimum Increase in Diameter	最大完成外徑 Maximum Overall Diameter	
	mm	INCH	mm	mm	mm.	mm	Ω/1000FT
8	3.246	0.1285	0.043	3.338	0.089	3.383	0.6281
9	2.906	0.1144	0.043	2.980	0.086	3.023	0.7925
10	2.588	0.1019	0.043	2.659	0.086	2.703	0.9987
11	2.304	0.0907	0.043	2.377	0.084	2.418	1.261
12	2.052	0.0808	0.041	2.121	0.081	2.162	1.588
13	1.829	0.0720	0.041	1.895	0.081	1.935	2.001
14	1.628	0.0641	0.041	1.692	0.081	1.732	2.524
15	1.450	0.0571	0.038	1.509	0.076	1.549	3.181
16	1.290	0.0508	0.036	1.349	0.074	1.384	4.018
17	1.151	0.0453	0.036	1.207	0.071	1.240	5.054
18	1.024	0.0403	0.033	1.077	0.066	1.110	6.386
19	0.912	0.0359	0.030	0.963	0.064	0.993	8.046
20	0.813	0.0320	0.030	0.864	0.061	0.892	10.13
21	0.724	0.0285	0.028	0.770	0.056	0.800	12.77
22	0.643	0.0253	0.028	0.686	0.053	0.714	16.20
23	0.574	0.0226	0.025	0.617	0.051	0.643	20.30
24	0.511	0.0201	0.025	0.551	0.048	0.577	25.67
25	0.455	0.0179	0.023	0.493	0.046	0.516	32.37
26	0.404	0.0159	0.023	0.439	0.043	0.462	41.02
27	0.361	0.0142	0.020	0.396	0.041	0.419	51.44
28	0.320	0.0126	0.020	0.356	0.041	0.373	65.31
29	0.287	0.0113	0.018	0.320	0.038	0.338	81.21
30	0.254	0.0100	0.018	0.284	0.033	0.307	103.7
31	0.226	0.0089	0.015	0.254	0.030	0.274	130.9
32	0.203	0.0080	0.015	0.229	0.028	0.246	162.0
33	0.180	0.0071	0.013	0.206	0.025	0.221	205.7
34	0.160	0.0063	0.013	0.183	0.023	0.198	261.3
35	0.142	0.0056	0.010	0.165	0.023	0.178	330.7
36	0.127	0.0050	0.010	0.147	0.020	0.160	414.8
37	0.114	0.0045	0.010	0.132	0.018	0.145	512.1
38	0.102	0.0040	0.008	0.118	0.018	0.130	648.2
39	0.089	0.0035	0.008	0.107	0.015	0.114	846.6
40	0.079	0.0031	0.008	0.094	0.013	0.104	1079
41	0.071	0.0028	0.008	0.084	0.013	0.094	1323
42	0.064	0.0025	0.005	0.076	0.013	0.084	1659
43	0.056	0.0022	0.005	0.069	0.010	0.074	2143
44	0.051	0.0020	0.005	0.061	0.010	0.066	2593
45	0.0447	0.00176	0.0051	0.0559	0.0102	0.0610	3349
46	0.0399	0.00157	0.0051	0.0508	0.0076	0.0533	4208



台一國際股份有限公司

TAI-I ELECTRIC WIRE & CABLE CO., LTD

■ 台一國際股份有限公司

TAI-I ELECTRIC WIRE & CABLE CO., LTD

105台灣台北市松山區民生東路三段129號10樓
10F, NO.129, SEC. 3, MIN SHENG E.RD., TAIPEI, TAIWAN, 105 R.O.C.
TEL : 886-2-2718-7333 / FAX : 886-2-2718-0969 . 886-2-2719-1311
Website : www.tai-i-int.com.tw

■ 漆包線事業

Magnet Wire Business

303台灣新竹縣湖口鄉鳳山村大同路25號
No. 25, Datong Rd., Hukou Township, Hsinchu County 303,
Taiwan (R.O.C.)
TEL : 886-3-598-1521 / FAX : 886-3-598-1166
E-mail : sales_m@tai-i-int.com.tw

■ 電力通訊事業

Electric Wire & Cable Business

328台灣桃園市觀音區富源里新富路606號
No. 606, Xinfu Rd., Guanyin Dist., Taoyuan City 328, Taiwan (R.O.C.)
TEL : 886-3-490-7711 / FAX : 886-3-490-6622 . 886-3-490-6611
E-mail : TPS@tai-i-int.com.tw