

UE/THHW LF

Electric wire for general wiring

- Heat resistance ★★★★★
 - Oil resistance ★★★★★
 - Noise resistance ★
 - Flame resistance ★★★★★
 - Flexibility ★★
 - non-migratory ★★★★★
 - Transport property ★
- ※The characteristic is an aim.

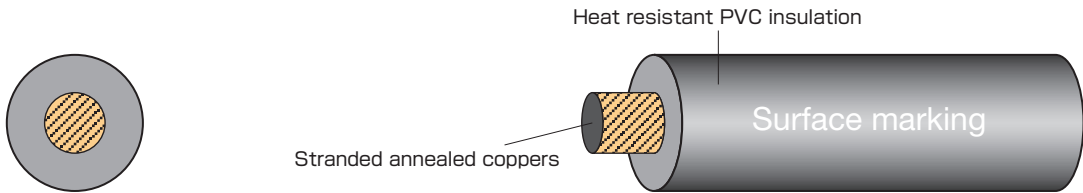
> Application

- Electric wire for North America and EU.
- Passed the UL vertical tray flame-retardant test, it can be used in the cable tray, Raceway. and the race way,(circuit conductor=1/OAWG or more, grand conductor=4AWG or more).
- Electric wire with UL and cUL at 600V,90℃. (Category ZKHZ, ZLGR, ZLGR7)
- CE marking (TÜV recognition product). (Certificate of TÜV No.J50005945)
- Obtaining UL Listed MTW, this wire compliants to NFPA 70 and 79.

> Feature

- Heat resistant PVC material is used to insulation.
- Flame resisting:UL VW-1, cUL FT1.

> Construction figure



> Surface marking

(1) 14AWG~10AWG(circuit conductor), 14AWG~10AWG(Y/G)

E242557 (UL) MTW FLEXING or THHW 600V □□AWG VW-1 c(UL) TW75 600V □□AWG(○○mm²) FT1 TAIYO △ CE 07V-K 450/750V LF R15

(2) 8AWG~1AWG(circuit conductor), 8AWG~6AWG(Y/G)

E242557 (UL) MTW or THHW 600V □□AWG VW-1 c(UL) TW75 600V □□AWG(○○mm²) FT1 TAIYO △ CE 07V-K 450/750V LF R15

(3) 1/OAWG or more(circuit conductor), 4AWG or more(Y/G)

E242557 (UL) MTW or THHW 600V □□AWG CT c(UL) TW75 600V □□AWG(○○mm²) FT1 TAIYO △ CE 07V-K 450/750V LF R15

※R15 indicates "Compliant with RoHS Directive 2011/65/EU and Directive (EU) 2015/863 (10 substances)".

Certification	UL THHW	UL MTW	cUL TW75	TÜV.CE marking
Applicable standard	UL 83	UL 1063	CSA C22.2 No.75	EN50525-2-31
Official symbol	THHW	MTW	TW75	Equivalent of H07V-K
Voltage rating	600V	600V	600V	450/750V
Temperature rating	DRY90℃ WET75℃	DRY90℃ WET60℃	DRY75℃ WET75℃	70℃
Conductor	UL 83	UL 1063	CSA C22.2 No.75	EN60228
Flame rating	VW-1 Vertical-Tray Flame Test	VW-1	FT1	EN50264-2-1

>>> Meeting standard



> Identification

- 14AWG~2/OAWG wire is a black and Y/G.
- 3/OAWG~500MCM wire is a black.
- ※Y/G indicates green core with yellow stripe(30~50%).

> Construction table

No. of cores	Conductor			Separator (mm)	Heat resistant PVC insulation		Approx. weight (lbs/1000ft) (kg/km)	Electrical Characteristics			Allowable ampacity (A)	
	Size (AWG)	Construction (Line/mm)	Outside diameter (mm)		Outside diameter (inch)	Outside diameter (mm)		Conductor resistance (Ω/km20℃)	Insulation resistance (MΩkm20℃)	Electrical strength (V/1min.)	Single insulated wire (a)	3 or less (b)
1C	14 (2.08mil)	41/0.254 (41/10mil)	1.9 (75mil)		0.142	3.6	19 (29)	less than 8.61	more than 175	2000	35	25
1C	12 (3.31mil)	65/0.254 (65/10mil)	2.4 (94mil)		0.161	4.1	29 (43)	less than 5.33	more than 150	2000	40	30
1C	10 (5.26mil)	104/0.254 (104/10mil)	3.1 (122mil)		0.189	4.8	44 (65)	less than 3.42	more than 125	2000	55	40
1C	8 (8.37mil)	7/24/0.254 (7/24/10mil)	4.2 (165mil)		0.264	6.7	74 (110)	less than 2.14	more than 130	2000	80	55
1C	6 (13.3mil)	7/39/0.254 (7/39/10mil)	5.3 (209mil)		0.343	8.7	120 (180)	less than 1.34	more than 135	2000	105	75
1C	4 (21.2mil)	7/61/0.254 (7/61/10mil)	6.6 (260mil)		0.394	10.0	178 (265)	less than 0.848	more than 115	2000	140	95
1C	2 (33.6mil)	19/35/0.254 (19/35/10mil)	8.4 (331mil)		0.465	11.8	265 (395)	less than 0.533	more than 95	2000	190	130
1C	1 (42.4mil)	19/44/0.254 (19/44/10mil)	9.4 (370mil)		0.551	14.0	344 (515)	less than 0.408	more than 105	2500	220	145
1C	1/0 (53.5mil)	19/57/0.254 (19/57/10mil)	10.7 (421mil)		0.602	15.3	430 (645)	less than 0.335	more than 95	2500	260	170
1C	2/0 (67.4mil)	7/7/29/0.254 (7/7/29/10mil)	13.1 (516mil)	0.1	0.705	17.9	567 (850)	less than 0.266	more than 85	2500	300	195
1C	3/0 (85.0mil)	7/7/39/0.254 (7/7/39/10mil)	15.2 (599mil)	0.1	0.788	20.0	734 (1100)	less than 0.206	more than 80	2500	350	225
1C	4/0 (107mil)	7/7/45/0.254 (7/7/45/10mil)	16.3 (642mil)	0.1	0.831	21.1	847 (1270)	less than 0.159	more than 70	2500	405	260
1C	300MCM (152mil)	7/7/65/0.254 (7/7/65/10mil)	19.6 (772mil)	0.1	0.993	25.2	1220 (1830)	less than 0.118	more than 70	3000	500	320
1C	400MCM (203mil)	19/7/32/0.254 (19/7/32/10mil)	22.8 (898mil)	0.1	1.118	28.4	1574 (2360)	less than 0.088	more than 65	3000	615	380

※Partial conductor construction is changed from production in August 2022. For details,please contact our sales representative or the place of purchase.
※UE/THHW might give the separator.
※The examination of 2500V/5 minute besides the withstand voltage test on above mentioned UL standard and the CSA standard is applied.

> Allowable ampacity

- Allowable current of this catalog NFPA70 Table 310.15 (B) rated temperature 90 ℃ ambient temperature 30 ℃.
- For the current correction factor, please refer to the Technical document page .
- For please confirm the NFPA70(National Electric cord) and NFPA79(Electrical Standard for Industrial Machinery) more use.

> Standard sales length

100m
(Sale by cutting short length is available for 8AWG-400MCM products. Please contact us which sizes are available.)