

1000V RFX-MTW LF

Electric wire for wiring in equipment and power supply

- Heat resistance ★★★★★
 - Oil resistance ★★★
 - Noise resistance ★
 - Flame resistance ★★★★★
 - Torsion resistance ★★★★★
 - Flexibility resistance ★★★★★
 - Drag Chain ★★★★★
- ※The characteristic is an aim.

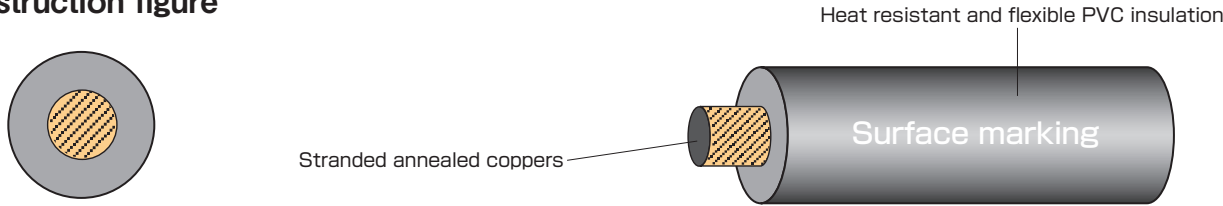
> Application

- Electric wire for wiring in power supply.
※It is not possible to use as a power wire according to CSA standard.
- Appropriate for wiring in a narrow place is excellent in flexibility.
- It is possible to use it for wiring medium or low-speed operational components of machine tool.
- Drag chain test 10 million times or more.
- Electrical insulated wire for internal Wiring equipment with UL and cUL at 1000V,105°C.
(Category : AVLV2,AVLV8,ZKHZ)
- CE marking.
- Obtaining UL Listed MTW,
this wire compliants to NFPA 70 and 79.

> Feature

- Fine wire conductor use.
- Super flexible heat resistant PVC used for insulation.
- Flame resisting : UL VW-1cUL FT-1.

> Construction figure



> Surface marking

(1) 14~3/OAWG wires

E242557 (UL)MTW 600V □□AWM VW-1 or AWM 11563 105°C 1000V VW-1 E67647 cUL AWM I A/B 105°C 1000V FT1 TAIYO CE 07V-K 450/750V <PS>E TY 447 LF R15

(2) 4/OAWG wires

E242557(UL)MTW 600V□□AWM VW-1 or AWM 11563 105°C 1000V VW-1 E67647 cUL AWM I A/B 105°C 1000V FT1 TAIYO CE 07V-K 450/750V LF R15

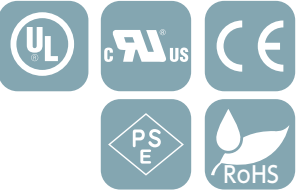
※R15 indicates "Compliant with RoHS Directive 2011/65/EU and Directive (EU) 2015/863 (10 substances)".

> Identification

- 14AWG~2AWG
Black, white, red, blue and Y/G.
 - 1AWG~3/OAWG:Black and Y/G.
 - 4/OAWG:Black.
- ※Y/G indicates green core with yellow stripe(30~50%).

Certification	UL AWM,cUL AWM	UL MTW	CE Marking	Electrical Appliance and Material Safety
Applicable standard	UL 758 CSA C22.2 No.210	UL 1063	EN50525-2-31	LawDepartmental order to determine a technical standard of the electrical equipment
Official symbol	UL STYLE11563 CSA AWM I A/B	MTW	Equivalent of H07V-K	HKIV
Voltage rating	1000V	600V	450/750V	600V
Temperature rating	105°C	DRY90°C WET60°C	70°C	75°C
Conductor	UL 758 CSA C.22.2 No.210	UL 1063	EN60228	JIS C 3102
Flame rating	VW-1,FT-1	VW-1	EN60332-1-2	JIS C 3005 4.26.2-b

>>> Meeting standard



> Construction table

No. of cores	Conductor			heat-resistant flexible-PVC insulation		Approx. weight (lbs/1000ft) (kg/km)	Electrical Characteristics			Allowable ampacity (A) 3 or less
	Size (AWG)	Construction (Line/mm)	Outside diameter (mm)	Outside diameter (inch)	Outside diameter (mm)		Conductor resistance (Ω/km20°C)	Insulation resistance (MΩkm20°C)	Electrical strength (V/1min.)	
1C	14(2.11mm)	7/60/3.2mil	2.07(81mil)	0.15	3.8	20(30)	less than 8.6	more than 50	3000	25
1C	12(3.46mm)	7/63/3.9mil	2.65(104mil)	0.173	4.4	30(45)	less than5.41	more than 50	3000	30
1C	10(5.44mm)	7/99/3.9mil	3.3(130mil)	0.209	5.3	47(70)	less than 3.409	more than 50	3000	40
1C	8(8.91mm)	7/50/7.1mil	4.3(169mil)	0.303	7.7	87(130)	less than 2.144	more than 50	3000	55
1C	6(15.0mm)	7/84/7.1mil	5.7(224mil)	0.358	9.1	134(200)	less than1.32	more than 50	3000	75
1C	4(22.4mm)	7/126/7.1mil	6.9(272mil)	0.406	10.3	188(280)	less than 0.848	more than 40	3000	95
1C	2(35.6mm)	7/200/7.1mil	8.7(343mil)	0.484	12.3	289(430)	less than 0.533	more than 40	3000	130
1C	1(44.9mm)	7/252/7.1mil	9.7(382mil)	0.563	14.3	373(555)	less than 0.423	more than 40	3000	150
1C	1/0(56.8mm)	12/186/7.1mil	11.2(441mil)	0.622	15.8	460(685)	less than 0.335	more than 40	3000	170
1C	2/0(73.3mm)	12/240/7.1mil	12.7(500mil)	0.681	17.3	578(860)	less than 0.266	more than 30	3000	195
1C	3/0(91.6mm)	12/300/7.1mil	14.2(559mil)	0.74	18.8	712(1060)	less than 0.211	more than 30	3000	225
1C	4/0(116mm)	19/240/7.1mil	15.8(622mil)	0.803	20.4	880(1310)	less than 0.167	more than 30	3000	260

> Allowable ampacity

·The allowable current is based on NFPA79 Table 12.5.1.
Rated temperature 90°C,
Ambient temperature 30°C.

·Please multiply the following adjustment factors by the ambient temperature and the cable-laying conditions, etc.

·For the current correction factor, please refer to the P.270.

●Adjustment factors(at ambient temperature)

Ambient temperature(°C)	30	40	50	60	70	80	90	100
Adjustment factors	1.00	0.93	0.86	0.77	0.68	0.58	0.45	0.26

●Adjustment factors(for multiple-line laying)

No. of conductors	2~3	4	5~6	7~15	16~40	41~60	61~
Adjustment factors	0.70	0.63	0.56	0.49	0.43	0.39	0.34

> Movement characteristic

Rotary bending	Bending	U-shaped turn-back	90° bending	Twist		Move bending
				Straight	Bending	
C	B	A	C	B	B	C

※Please consult our Sales Department when using by moving part.

Examination's time:
A= More than 10 million times
B= More than 5 million times
C= More than 3 million times
D= More than 1 million times
E= More than 0.5 million times

> Oil resistance

Insulating oil	Lubricating oil	Cutting oil I	Cutting oil II	Hydraulic oil	Grease
C	C	C	C	C	C

※A~C in the table indicate the characteristics below.

A:There is no problem on practical use at all.
B:Deterioration slightly no problem almost on practical use.
C:It is sometimes deteriorated to some degree, and not possible to use it.

> Standard sales length

100m