

SPECIFICATION

FOR

UL RECOGNIZED AND CSA CERTIFIED HEAT-RESISTANT LEAD FREE PVC INSULATED WIRES

[P/N ; UL1283 TEW LF
UL1284 TEW LF]

Quantity

Your Ref. No.

Our Ref. No.

Signed by



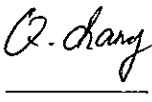
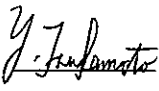
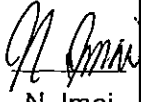
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Issue and revision record

Rev. No.	Issue date	Item	Prepared by	Reviewed by	Approved by
-	Jan. 29, 2003	Initial issue	W.Liu	M.Miyataki	N.Akutsu
1	Oct. 9, 2009	1)CSA File No.and DENAN-Law Approval No. is added. 2) Control of Chemical Substances is added. 3) Product description is added. 4) Marking is changed.	 Q. Chang	 Y.Tsukamoto	 N. Imai

1. Scope

This specification covers UL recognized and CSA certified heat-resistant lead free PVC insulated wires used for internal wiring of electric and electronic equipments.

[UL style 1283 / 105°C, 600V : CSA type TEW / 105°C, 600V]

[UL style 1284 / 105°C, 600V : CSA type TEW / 105°C, 600V]

2. Applicable standards

- (1) UL 758 [Latest version]
- (2) CSA C22.2 No.127 [Latest version]
- (3) Japan Electrical Appliance and Material Safety Law (DENAN-Law) [Latest version]

3. Construction and materials**3.1 Conductor**

- (1)Material ; stranded tinned annealed copper
- (2)AWG size ; 8 ~ 2AWG : UL1283 TEW
1 ~ 4/0AWG : UL1284 TEW
- (3)Stranding ; shown in the Table 1,2
- (4)Diameter ; shown in the Table 1,2

3.2 Insulation

- (1)Material ; heat-resistant lead free PVC
- (2)Thickness ; UL1283 TEW
minimum average ; 1.52mm(60mils)
minimum at any point ; 1.37mm(54mils)
UL1284 TEW
minimum average ; 2.03mm(80mils)
minimum at any point ; 1.82mm(72mils)
- (3)Diameter ; shown in the Table 1,2

3.3 Standard colors

brown, red, orange, yellow, green, blue, violet, gray, white, black, pink, light blue

4. Properties

The properties of wires are shown in the Table 1,2.

5. Marking

The completed wires shall be printed following marking format on the surface throughout entire length by regular interval.

For UL1283

AWM E41447 STYLE 1283 8AWG 105C VW-1 HITACHI -F-
(HITACHI-T)
(HITACHI-I)

CSA LL24713 TYPE TEW 105C 600V FT1 LF
(LL48469)
(LL46119)

For UL1284

AWM E41447 STYLE 1284 4/0AWG 105C VW-1 HITACHI -F-
(HITACHI-T)
(HITACHI-I)

CSA LL24713 TYPE TEW 105C 600V FT1 LF
(LL48469)
(LL46119)

[Note ; Marking format subject to change without notice]

6. Packing**6.1 Packing**

- (1) Unit length ; shown in the Table 1,2
(2) Package style ; shown in the Table 1,2

6.2 Marking on the tag

Each coil or drum shall be tagged to show the following information with UL and CSA stamp.

- | | |
|----------------------|--------------------------|
| 1) UL style/CSA type | 8) Rating temperature |
| 2) Conductor size | 9) Rating voltage |
| 3) No. of conductors | 10) Date of manufacture |
| 4) Color | 11) Insulation thickness |
| 5) Lot No. | 12) Kind of insulation |
| 6) Length | 13) Use |
| 7) File No. | 14) Name of manufacturer |

7. Recognized data

- (1)UL file No. : E41447
(2)CSA file No. : LL24713, LL48469,LL46119
(3)DENAN-Law approval No. : F-HDH1-004, F-HDT1-027, F-TND1-003

8. Product description

UL1283-TEW 1 × 8AWG (7 /24/ 0.26) LF
 ① ② ③ ④ ⑤ ⑥

- ① UL Style No.
- ② CSA type
- ③ No. of Core
- ④ Conductor size
- ⑤ Conductor stranding
- ⑥ Lead Free

9. Control of Chemical Substances

Control of Chemical Substances in this product shall be controlled as below.

9.1 6 substances of RoHS Directive

(1) Applicable standard and statute

(a) Directive of 2002/95/EC

(Directive 2002/95/EC of the European Parliament and of the Council on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment)

(b) 2005/618/EC COMMISSION DECISION of 18 August 2005

(amending Directive 2002/95/EC of the European Parliament and of the Council for the purpose of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment)

(c) JIS C 0950:2008

(The marking for presence of the specific chemical substances for electrical and electronic equipment)

(2) The maximum concentration values for certain hazardous substances.

	Chemical Substances	Concentration value	
		Resin, a paint, and ink	Others
1	Cadmium and Cadmium Compounds	Max. 75ppm	
2	Hexavalent Chromium Compounds	Max. 1000ppm	
3	Laed and Lead Compounds	Max. 100ppm	Max. 1000ppm
4	Mercury and Mercury Compounds	Max. 1000ppm	
5	Polybrominated Biphenyls(PBBs)	Max. 1000ppm	
6	Polybrominated Diphenyl ethers(PBDEs)	Max. 1000ppm	

9.2 15 substances of JGPSSI Level A

(1) Applicable Standard

JGPSSI Manual for Survey of Chemical Substances Contained in Parts and Materials(ver.2:04.04.19)

(2) Maximum concentration value

Not Intentionally added.

6 substances of the clause 9.1 shall be controled as clause 9.1 (2).

Japan Green Procurement Survey Standardization Initiative (JGPSSI)

Table 1 (UL 1283 TEW)

Conductor		Insulation			Conductor resistance (at 20°C) ohm/km	Insulation resistance* (at 20°C) Mohm-km	Test Voltage* V/1min.	Ampacity** A	Unit length m	Packing	Approx Weight kg/km	
Size AWG	Costruction No./mm	Diam. mm	Thick. mm	Diam. mm								Max.Dia mm
8	7/24/0.26	4.30	1.62	7.54	8.2	2.370	15	A.C.2,000	83	153	Coil	124
6	7/38/0.26	5.30	1.62	8.54	9.2	1.490	15	A.C.2,000	111	153	Coil	178
4	7/60/0.26	6.80	1.62	10.04	10.7	0.948	15	A.C.2,000	150	153	Drum	268
2	19/35/0.26	8.70	1.62	11.94	12.6	0.600	15	A.C.2,000	203	153	Drum	397

Table 2 (UL 1284 TEW)

Conductor		Insulation			Conductor resistance (at 20°C) ohm/km	Insulation resistance* (at 20°C) Mohm-km	Test Voltage* V/1min.	Ampacity** A	Unit length m	Packing	Approx Weight kg/km	
Size AWG	Costruction No./mm	Diam. mm	Thick. mm	Diam. mm								Max.Dia mm
1	19/44/0.26	9.74	2.15	14.04	14.9	0.475	15	A.C.2,500	238	153	Drum	520
1/0	19/55/0.26	10.90	2.15	15.20	16.1	0.380	15	A.C.2,500	276	153	Drum	632
2/0	19/70/0.26	12.27	2.15	16.57	17.5	0.299	15	A.C.2,500	322	153	Drum	785
3/0	19/88/0.26	13.75	2.15	18.05	19.0	0.238	15	A.C.2,500	374	153	Drum	965
4/0	37/57/0.26	15.44	2.15	19.74	20.6	0.188	15	A.C.2,500	436	153	Drum	1200

* The spark test may be substituted in a production line.

** These ampacities are calculated for 1 wire in air, based on conductor temperature of 105°C, ambient temperature of 40°C.