



Shi Jaiyou
 HWATEK TECHNOLOGIES CO LTD
 PO BOX 3221
 ROAD TOWN 3221 VIRGIN ISLANDS, BRITISH

Date: 2020/06/11
 Subscriber: 100607703
 PartySite: 772507
 File No: E471371
 Project No: 20SR5310562
 PD No: 20028778
 Type: L
 PO Number:

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
	1		Index Page(s)	
	1		Appendix	
2014/12/22	1	3	Cert of Compliance	
2014/12/22	1	3	Revised Description Page(s) 1	2020/06/11
2014/12/23	1	4	Cert of Compliance	
2014/12/23	1	4	Revised Description Page(s) 1,2	2020/06/11

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at <http://ul.com/aboutul/locations>.

If you'd like to receive updated materials FASTER, UL offers electronic access and/or delivery of this material. For more details, contact UL's Customer Service Professionals as shown above.

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SCL File

INDEX

<u>Cable Type</u>	<u>USL</u>	<u>CNL</u>	<u>Section</u>
EVJT	X	X	1
EVT	X	X	2
EVJE	X	X	3
EVE	X	X	4

*

N/A = Not applicable

ELECTRIC VEHICLE CABLE (FFSO,FFSO2,FFSO3,FFSO7,FFSO8,FFSO9)

TABLE A - SAMPLE SELECTION GUIDE

Sample Group	Category	Cord Type	Report Date	UL	C-UL	Additional Info
1	Reserved for Future Use					
2	Jacketed, thermoplastic elastomer cord	EVE	2014-12-23	Y		
		EVJE	2014-12-22	Y		
		EVJT (TPE)	2014-12-22		Y	
		EVT (TPE)	2014-12-23		Y	
3	Jacketed, thermoplastic cord	EVJT	2014-12-20	Y	Y	
		EVT	2014-12-21	Y	Y	

ELECTRIC VEHICLE CABLE (FFSO, FFSO2, FFSO3, FFSO7, FFSO8, FFSO9)

INDEX TO FOOTNOTES:

CERTIFICATE OF COMPLIANCE

Certificate Number A-E473281
Report Reference E473281-20141222
Issue Date 2020-JUNE-11

Issued to: KUNSHAN HWATEK WIRES AND CABLE CO LTD
NO 528 XINSHENG RD
HUAQIAO TOWN
KUNSHAN
JIANGSU 215332 CHINA

This certificate confirms that representative samples of ELECTRIC VEHICLE CABLE
USL/CNL: Type EVJE rated 90°C or 105°C Dry, 60°C Wet, Oil Jacket, 300 V.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

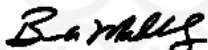
Standard(s) for Safety: UL 62 - Flexible Cords and Cables
CSA-C22.2 No. 49 - Flexible Cords and Cables

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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DESCRIPTION

PRODUCT COVERED:

USL/CNL: Type EVJE rated 90°C or 105°C Dry, 60°C Wet, Oil Jacket, 300 V.

*

CONSTRUCTION DETAILS:

General Character and Use - Electric Vehicle Cable is intended for outdoor use in accordance with Article 400 of the National Electrical Code and general construction requirements in accordance with UL 62 and UL's Certification Requirement Decision (CRD) for UL 62 issued 2012-08-17.

Conductor - Nos. 18 - 12 AWG flexible stranded soft annealed copper using 36 - 30 AWG strands for No. 18 AWG; 36 - 26 AWG strands for No. 16 - 12 AWG in accordance with the requirements in UL 62 for Type SJEOW.

* Insulation - TPE, 15 or 16 in accordance with Table 8 of UL 62. Thickness shall be in accordance with the following:

AWG Size Of Conductor	Minimum Average Thickness, mils	Minimum Thickness At any Point, mils
18 - 12	30	24

Assembly of Conductors - The cable shall consist of 2, 3, 4, 5 or 6 conductors with maximum lay in accordance with Type SJEOW in Table 10 of UL 62.

Optional Conductors, same as above, except Power Limited Data, Signal, Communications and Optical fiber cables that may extend beyond the stated AWG size range. Insulation material and thickness same as above.

Fillers - (Optional) - In accordance with UL 62, Clause 4.1.4.2.

Binder (Optional) - In accordance with UL 62, Clause 4.1.4.3.

Shield (Optional) - In accordance with UL 62, Clause 4.1.5.1 - 4.1.5.5.

* Jacket - TPE, Class , 1.10 or 1.11 in accordance with Table 11 of UL 62. Compound must be R/C QMTT2 TPE 720 hour sunlight resistant compound.

AWG Size Of Conductor	Minimum Avg Thickness, mils	Minimum thickness At any point, mils
18 - 14	30	24
12	45	36

Polarity Identification - Per Clause 4.1.9 of UL 62.

CERTIFICATE OF COMPLIANCE

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NO 528 XINSHENG RD
HUAQIAO TOWN
KUNSHAN
JIANGSU 215332 CHINA

This certificate confirms that representative samples of ELECTRIC VEHICLE CABLE
USL/CNL: Type EVE rated 90°C or 105°C Dry, 60°C Wet, Oil Jacket, 600 V.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

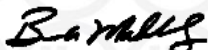
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Bruce Mahrenholz, Director North American Certification Program

UL LLC

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DESCRIPTION

PRODUCT COVERED:

USL/CNL: Type EVE rated 90°C or 105°C Dry, 60°C Wet, Oil Jacket, 600 V.

*

CONSTRUCTION DETAILS:

General Character and Use - Electric Vehicle Cable is intended for outdoor use in accordance with Article 400 of the National Electrical Code and general construction requirements in accordance with UL 62 and UL's Certification Requirement Decision (CRD) for UL 62 issued 2012-08-17.

Conductor - 18 - 12 AWG flexible stranded soft annealed copper using 36 - 30 AWG strands for 18 AWG; 36 - 26 AWG strands for 16 - 12 AWG, minimum 49 strands for 10 - 3 AWG; minimum 133 strands for 2 - 2/0 AWG; minimum 259 strands for 3/0 - 500 kcmil in accordance with the requirements in UL 62 for Type SEOW.

* Insulation - TPE, Class 15 or 16 in accordance with Table 8 of UL 62. Thickness shall be in accordance with the following tables:

TABLE I

AWG Size Of Conductor	Minimum Avg Thickness, mils	Minimum thickness At any point, mils
18 - 16	30	27
14 - 10	45	40
8 - 2	60	54
1 - 4/0	80	72
250 - 500 kcmil	95	86

Assembly of Conductors - The cable shall consist of 2 or more conductors. Length of lay shall be in accordance with Table 10 for type SEOW up to 5 conductors and Table 34 of UL 62 for constructions with 6 or more conductors.

Optional Conductors, same as above, except Power Limited Data, Signal, Communications and Optical fiber cables that may extend beyond the stated AWG size range. Insulation material same as above.

Fillers - (Optional) - In accordance with UL 62, Clause 4.1.4.2.

Binder (Optional) - In accordance with UL 62, Clause 4.1.4.3.

Shield (Optional) - In accordance with UL 62, Clause 4.1.5.1 - 4.1.5.5.

* Jacket - TPE, Class, 1.10 or 1.11 in accordance with Table 11 of UL 62. Compound must be R/C QMTT2 TPE 720 hour sunlight resistant compound. Jacket thickness shall be in accordance with Tables 55, 56, or 57 of UL 62 and CRD (Issued dated 2012-08-17) as appropriate.

Polarity Identification - Per Clause 4.1.9 of UL 62.

MARKING:

The following information shall be surface or indent printed:

1. Listee's name, trade name, trade mark or file number E473281.
2. (UL) or "UL" in a circle
3. Temperature rating (dry/wet)
4. Number of conductors and AWG size
5. Voltage rating
6. Type designation
7. Flame rating

OPTIONAL RATINGS:

VW-1 or FT1 flame rating authorized.

TAG MARKING:

In addition to the items above, the year and month of manufacture shall be marked on the tag affixed to the reel.