

ELECTRIC WIRE AND CABLE CO., LTD.

AC Charging Connector and Cables for EV Series







CHUNG KWANG ELECTRIC WIRE AND CABLE CO., LTD.

WE ARE 45 YEARS EXPERIENCE PROFESSIONAL MANUFACTURERS.

Chung Kwang Electric Wire & Cable was founded in 1979 with more than 40 years of experience in the wire & cable industry. OEM/ODM Customers design their cables based on industry and appliance requiements.

WE HAVE ESG CERTIFICATION AND MULTI-INTERNATIONAL CERTIFICATES.



















PROFESSIONAL PRODUCTION LINE

Manufacturing Capabilities.

- 1. AC Charging Connector and Cables for EV
- (1) One Connector / Two Connectors EV assembly
- (2) Portable EV Charge Set
- (3) EVJE, EVJT, EVE, EVT (4) EV Inlet
- 2. PV Connectors and Cables
- (1) PV Connectors (2) PV Cables
- 3. Power Supply Cords
- (1) Europe Standard (2) USA Standard
- (3) Japan Standard
- 4. Underground Low-Energy Circuit Cables Low Voltage Landscape Lighting Cable
- 5. Submersible Pump Lines
- (1) Submersible Pump Cables
- (2) Winding Wire for Submersible Pump
- 6. Industrial Cables TC, TC-ER, DG







Application for Electric Chargers



Electric Vehicles











Advantages

- Made in Taiwan.
- Stylish, ergonomic and customizable design.
- Charging interface: SAE J 1772 (Type 1) \ IEC 62196-2 (Type 2)



J 1772 Coupler/ Plug

J 1772 Coupler/Plug

- Glass Fiber/ Nylon Construction
- UL 2251
- 15-75 AMP, 18-6 AWG
- · Heat and moisture resistant
- UV resistant
- Oil and solvent resistant
- Abrasion/ crush resistant
- High Quality Copper Conductor
- High Quality gold/ silver plated Pins
- SAE J 1772 Compliant

Applications

- Passenger Electric Vehicle (EV, LSV, NEV, BEV)
- Charging Station (Home/Public/Industrial)
- Electric Fleet
- Public Service Vehicles
- Solar Charging Stations
- Electric WaterCraft
- Electric Motorcycle/ Scooter
- Electric Bus
- Personal Assistance Vehicles
- Amusement Park/ Guide Vehicles















EVT, EVJT, EVE & EVJE

EVT, EVJT, EVE & EVJE

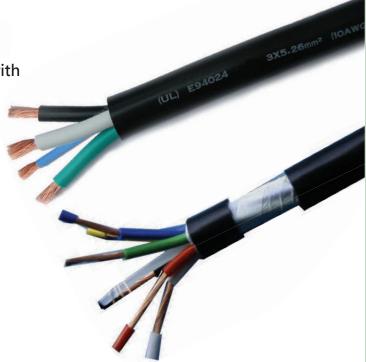
With over 25 years experience in producing wires & cables. UL certified cables, Chung Kwang Electric Wire & Cable is proud to introduce our UL 2263 Certified EV Series Cable for Charging Stations, Electric Cars, Mototrcycles, BEV, LSV and Hybrid vehicles. Our EV series cables are engineered to withstand extreme weather conditions, exposure to oil and solvents, UV rays, and harsh daily indoor/outdoor use.



Our cables are highly flexible and compatiable with SAE J 1772 connectors and UL 2594 and NEC 625 certified charging systems. We also offer customers EV cable solutions such as the additional USB data transmission cores, customer logos, shielding, armouring, and custom jacket colors.

FEATURES

- US specification with TPE and PVC jacket
- UL Certified
- 600 EVE (TPE) 2-18 AWG
- 600 EVT (PVC) 2-18 AWG
- 300 EVJE (TPE) 12-18 AWG
- 300 EVJT (PVC) 12-18 AWG
- Heat and moisture resistant
- UV resistant
- Oil and solvent resistant \ Abrasion/ crush resistant
- High quality copper conductor
- Assembled with SAE J 1772 connectors





AC Charging Connector for EV

Model No.: CKW-EC32A-01-05

Products Features:

(1) Safety and Strict QC managment, made in Taiwan.

(2) Complete Series of Products Ranges.

(3) SAE J 1772.

(4) Low Heat Generation, Highly Waterproof, High-structure Strength.

(5) Stylish, Ergonomic and Customizable Design.

Approval and Technical specification

Approvals: UL 2251/2263 CNS 15700-1/15700-2

File No.: UL E354793 \ UL E347242 \ BSMI V543053410018

Ampere: 16A/24A/32A/48A

Voltage: 300V/600V

Rating Temperature : -40°C ~ 90°C Operating Temperature : -40°C ~ 50°C

Lifespan : ≥ 10000 times

Applications

Application for Electric Chargers







AC Charging with Two Connectors for EV

Model No.: CKW-EC32A-02-03 CKW-EC32A-02-05

Products Features:

- (1) Safety and Strict QC managment, made in Taiwan.
- (2) Complete Series of Products Ranges.
- (3) SAE J 1772.
- (4) Low Heat Generation, Highly Waterproof, High-structure Strength.
- (5) Stylish, Ergonomic and Customizable Design.
- (6) Two Coupler Choice.

Approval and Technical specification

Approvals : UL 2251/ 2263

File No.: UL E354793 \ UL E347242

Ampere: 16A/24A/32A/48A

Voltage: 300V/600V

Rating Temperature : -40°C ~ 90°C Operating Temperature : -40°C ~ 50°C

Lifespan : ≥ 10000 times

Applications

Application for Electric Chargers









Portable EV Charge Set

Model No.: CKW-PORTABLE-EC16A-03-01

Products Features:

(1) Strict QC managment, made in Taiwan.

(2) Portable, Easy to process, Efficiency, and fit for charging the vehicle on travel.

(3) Charging InterFace: SAE J 1772.

(4) Easy to Install, Versatile Compatibility.

(5) Stylish, Ergonomic and Customizable Design.

(6) Product High Stabilization and 12 items of Safety Protection.

Approval and Technical specification

Approvals : UL 2251/ 2263

File No.: UL E354793 \ In application

Ampere: 16A

Voltage: 110V-220V

Operating Temperature: Between -25°C to +50°C

Applications

Application for Electric Chargers. Charging your EV anytime and anyplace.







EV Cables

Model No.: EVJE, EVJT, EVE, EVT

Construction

Conductor: Annealed copper strand Insulation: PVC compliant with RoHS

Jacket: EVJT, EVT: PVC compliant with RoHS;

EVJE, EVE: TPE compliant with RoHS

Approval and Technical specification

Approvals: UL 2263 File No.: UL E347242

Rated Voltage: EVJE, EVJT: 300 Volts;

EVE, EVT: 600 Volts

Rated Temperature: EVJT, EVT: -40°C~105°C

EVJE, EVE: -50°C~105°C

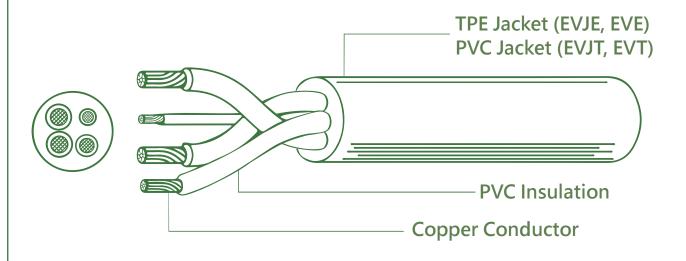
Max. Temperature: 105°C

Conductor Size: EVJE, EVJT: 18 AWG~12 AWG;

EVE, EVT: 18 AWG ~ 2 AWG

Passed UL VW-1 Vertical flame test.

The cable construction, package and length can be modified according to the requirements of customers.





EV Cables

Model No.: EVJE, EVJT, EVE, EVT

EVJE, EVJT Specification

Size(AWG/NO. of conductors)	Nos and Dia. of wire (No. / mm)	Core No.	Insulation Thickness(mm)	Jacket Thickness(mm)	Cable Overall Diameter(mm)
18	16/0.254+41/0.16	3C+1C	0.76+0.76	0.76	7.8 ± 0.2
16	26/0.254+41/0.16	3C+1C	0.76+0.76	0.76	8.5 ± 0.2
14	41/0.254+41/0.16	3C+1C	0.76+0.76	0.76	9.7 ± 0.2
12	65/0.254+41/0.16	3C+1C	0.76+0.76	1.14	11.6 ± 0.2

Note

The number of wires of conductor, wire diameter and finished diameter are nominal for reference. Merchandise please refer to reality.

EVE, EVT Specification

Size(AWG/NO. of conductors)	Nos and Dia. of wire (No. / mm)	Core No.	Insulation Thickness(mm)	Jacket Thickness(mm)	Cable Overall Diameter(mm)
18	16/0.254+41/0.16	3C+1C	1.14+0.76	2.03	12.8 ± 0.2
16	26/0.254+41/0.16	3C+1C	1.14+0.76	2.03	13.0 ± 0.2
14	41/0.254+41/0.16	3C+1C	1.14+0.76	2.03	13.7 ± 0.2
12	65/0.254+41/0.16	3C+1C	1.14+0.76	2.03	15.5 ± 0.2
10	41/0.405+41/0.16	3C+1C	1.14+0.76	2.03	15.8 ± 0.2
8	65/0.405+41/0.16	3C+1C	1.52+0.76	2.41	20.0 ± 0.2
6	105/0.405+41/0.16	3C+1C	1.52+0.76	2.41	22.0 ± 0.2
4	165/0.405+41/0.16	3C+1C	1.52+0.76	2.79	25.4 ± 0.2
2	257/0.405+41/0.16	3C+1C	1.52+0.76	2.79	28.5 ± 0.2

Note

The number of wires of conductor, wire diameter and finished diameter are nominal for reference. Merchandise please refer to reality.



EV Cables

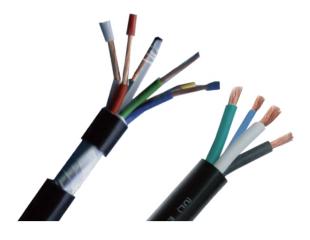
Model No.: EVJE, EVJT, EVE, EVT

Products Features:

- (1) Strict QC managment, made in Taiwan.
- (2) Environmental testing pass RoHs.
- (3) Flame retardant cable.
- (4) Able to withstand vehice driver-over.
- (5) EV Cable structure according to UL 2263 and CSA C22.2 NO.49.
- (6) Advantages: Safe, Stable, Excellent molding, Harmonised, Soft-touch, Cold resistant, Sun resistant and Oil-resistant jacket, High-strength structure.

Applications

- Ideal for charging electric vehicles (EV), neighborhood electric vehicles (NEV), battery electric vehicles (BEV), low-speed vehicles(LSV), personal electric vehicles (PEV), plug-in hybrid vehicles (PHV), and plug-in hybrid electric vehicles (PHEV).
- The EV cables may be used indoors or outdoors. When used outdoors, the charging cable must withstand the damage of high temperatures, sunlight, rain, and automobile oils; therefore, the EV cable should be equipped with special properties such as anti-ultraviolet, ozone, high-and-low temperature resistance, and chemical attack resistance, which is suitable for all the occasions.





EV Inlet

Model No.: CKW-IN-01 \ CKW-IN-02

Products Features:

(1) Strict QC managment, made in Taiwan.

(2) Product High Stabilization.

(3) Charging InterFace: SAE J 1772

(4) Protective cover, nice shape, and easy access open/close button.

(5) Made of reliable materials, nonflammable, environmentally protected, abrasion resistance, impact resistance, oil resistance, and anti-UV.

Approval and Technical specification

Approvals: UL 2251 File No.: UL E354793

Size: $6.5 \text{ cm} \times 6.5 \text{ cm} \times 4 \text{ cm}$

Color: BLACK

Durability: + 10,000 Mating Cycles

Inlet Type	Standard Applied	Ingress Protection (IP) Mated		Ingress Protection (IP) IP Unmated		Ingress Protection (IP) IP Backside	
		Required by Standard		Required by Standard	TE Connectivity	Required by Standard	TE Connectivity
Type 1 AC	SAE J 1772 (IEC 62196-2)	IP44	IP44	IP54	To be ensured by OEM		IP67

Applications

Application for Electric Chargers, eMobility, Vehicle Side.







Hight voltage cables cord for EV

Model No.: CKW-ESC

Construction

Conductor: Bare Copper/Tinned Copper

Taping: Polyester tape/aluminum foil (optional)

Braid: Tinned copper (optional)
Insulation/Sheath: XLPE/ XLPO
Insulation/Sheath Color: Orange

Approval and Technical specification

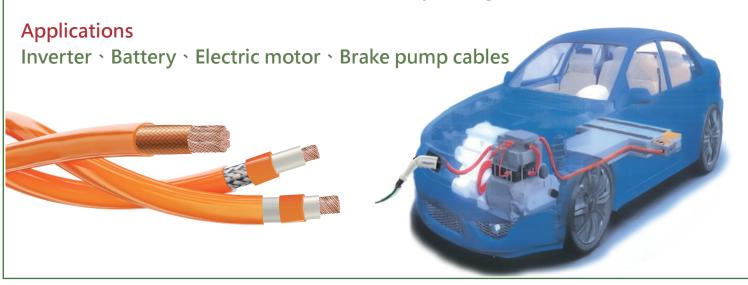
Approvals: ISO 6722 \ ISO 19462 \ LV 216

Rated Voltage: AC/ DC: 600V/ 900V, 1000V/ 1500V

Rating Temperature : -40°C ~ 125°C Conductor Size : 2.5 mm²~120 mm²

Products Features:

- (1) Safety and Strict QC managment, made in Taiwan.
- (2) CKW has a range of high voltage cables for electric vehicles, available in 2.5 mm²~120 mm², unshielded or multi-core configurations.
- (3) Our EV high voltage cables meet all automotive high voltage cable requirements with excellence.
- (4) Good Flexibility, Tough and Easy to Bend/Install, High electrical performance.
- (5) Oil resistance, Cold resistance, Low toxicity, Halogen-free, Flame retardant.





Automotive Wire

Model No.: CKW-AVSS

Construction

Conductor: Soft-annealed copper wires in compliance with JIS C 3102.

Insulation: Vinyl (PVC) insulated.

In compliance with JASO D 611 and RoHS Directive.

Color: Black/ White/ Red/ Green/ Yellow/ Blue/ Gray/ Brown/ Orange/ Sky blue/

Violet Pink/ Light green/ Dark Brown/ Dark Green

Technical specification

Compliance: JASO D611 Rating Temperature: 90°C

Nominal Cross Section	Conductor			Insulation	Overall Diameter		Most electric
	No. of Strands	Diameter of Strand	Outer Diameter	Thickness	Nominal	Maximum	capacity values
mm²		mm	mm	mm	mm	mm	А
0.3	7	0.26	0.8	0.30	1.4	1.5	9
0.5	7	0.32	1.0	0.30	1.6	1.7	12
0.85	19	0.24	1.2	0.30	1.8	1.9	15
1.25	19	0.29	1.5	0.30	2.1	2.2	21
0.3 f	19	0.16	0.8	0.30	1.4	1.5	8
0.5 f	20	0.18	1.0	0.30	1.6	1.7	11
0.75 f	30	0.18	1.2	0.30	1.8	1.9	14
1.25 f	37	0.21	1.5	0.30	2.1	2.2	19
2 f	37	0.26	1.8	0.40	2.6	2.7	26

Note: The 「f」in the table indicates that the conductor is a soft structur.

Products Features:

- AVSS wires are still thinner than type AVS wires while ensuring equivalent performance. Light weight and small diameter of type AVSS wires are best for wiring harness.
- Excellent for oil resistance and flame retardant.

Applications

High heat-resistant and low-voltage wires with thin wall insulation for automobiles, motorcycle and other motor vehicles.

CERTIFICATE OF COMPLIANCE

Certificate Number 20140327-E354793

Report Reference E354793-20131002

Issue Date 2014-March-27

Issued to: CHUGN KWANG ELECRIC WIRE & CABLE CO LTD

33 SUEY TIEN RD SAN HO VILLAGE WU JIH HSIANG

TAICHUNG HSIEN 414 TAIWAN

This is to certify that COMPONENT - ELECTRIC VEHICLE PLUGS,

representative samples of RECEPTACLES AND COUPLERS

See addendum for models.

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 2251 Standard for Safety for Plugs, Receptacles and

Couplers for Electric Vehicles

CSA C22.2 NO. 282-13, Plugs, Receptacles and Couplers

for Electric Vehicles

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: N, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada: N and the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

William R. Carney, Director, North American Certification Programs

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at www.ul.com/contactus



CERTIFICATE OF COMPLIANCE

Certificate Number Report Reference

20140327-E354793 E354793-20131002 2014-March-27

Look for the UL Recognized Component Mark on the product.

Issue Date

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

MODELS:

Vehicle Connector, Cat. No. CKW-18A-300V-C, CKW-25A-300V-C, CKW-32A-600V-C

Vehicle Inlet, Cat. No. CKW-18A-300V-I, CKW-25A-300V-I, CKW-32A-600V-I

mation and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any auti local UL Customer Service Representative at www.ul.com/contactus



自願性產品驗證證書

Certificate of the Voluntary Product Certification



V54341-BSMI

BSM

證書號碼: V543053410018號00 Certificate No.

兹據 重光電線電纜企業股份有限公司

申請自願性產品驗證,

經審查結果符合規定,准予並使用產品驗證標誌及識別號碼: 其登載事項如下:

The application made by 重光電線電纜企業股份有限公司 for Voluntary Product Certification has been reviewed and found to be in compliance with related regulations. Therefore, registration is granted with the Certification Mark and the Identification

No. V54341 Details of the registration are as follows:

申請人: 重光電線電纜企業股份有限公司 Applicant

地 址: 414臺中市烏日區三和里學田路33號

Address

生產廠場: 重光電線電纜企業股份有限公司

Factory

廠 址: 臺中市烏日區學田路33號 Factory address

產品種類名稱: 電動車輛傳導式交流充電設備之充電槍頭及纜線

Type/name of product

中文名稱: 電動車輛充電纜線組

Chinese name

英文名稱:

English name

型 式: CKW-EC 32A-01 (220VAC 32A)

Type

系列產品: 空白

Series of type

驗證標準: CNS15700-1 106年版、CNS15700-2 110年版

Standards

標準檢驗局發證

This certificate shall be issued by the BSMI

本證書以電子文件行之,所載內容若有不符之處,以標準檢驗局系統登錄資料為主,查詢證書資料網址:

https://civil.bsmi.gov.tw

核可日期:中華民國 113 03 08 月 日 Registration date (year) 03 (month) (day) 2024 08 本證書有效期限至 116 年 03 07 月 日 Expiration Date (month) (day) 2027 (year) 03 07 發證日期:中華民國 113年 03 月 08 日 Date of issue (month) (day) 2024 (year) 03

註:次年度自願性產品驗證年費繳納期限為當年11月30日,逾期未繳納者,經限期繳納屆期 未繳納,即依自願性產品驗證實施辦法第21條第8款規定廢止產品驗證,並自次年度1月1日 起生效。

CERTIFICATE OF COMPLIANCE

Certificate Number E347242

Report Reference E347242-20120413

Issue Date 2020-JUNE-11

Issued to: CHUNG KWANG ELECTRIC WIRE & CABLE CO LTD

33 Suey Tien Rd San Ho Village Wu Jih District Taichung 414 TAIWAN

This certificate confirms that ELECTRIC VEHICLE CABLE

representative samples of USL/CNL: Type EVJE.

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

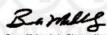
Additional Information: See the UL Online Certifications Directory at

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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CERTIFICATE OF COMPLIANCE

Certificate Number 20170908-E347242

Report Reference E347242-20120415

Issue Date 2017-SEPTEMBER-08

Issued to: CHUNG KWANG ELECTRIC WIRE & CABLE CO LTD

33 Suey Tien Rd San Ho Village Wu Jih Hsiang

Taichung Hsien 414 TAIWAN

This is to certify that ELECTRIC VEHICLE CABLE

representative samples of USL/CNL: Type EVJT.

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

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

14

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bambles

Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number E347242

Report Reference E347242-20120414

Issue Date 2020-JUNE-11

Issued to: CHUNG KWANG ELECTRIC WIRE & CABLE CO LTD

33 Suey Tien Rd San Ho Village Wu Jih District Taichung 414 TAIWAN

This certificate confirms that ELECTRIC VEHICLE CABLE

representative samples of USL/CNL: Type EVE.

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

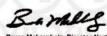
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CERTIFICATE OF COMPLIANCE

Certificate Number 20170908-E347242

Report Reference E347242-20120416

Issue Date 2017-SEPTEMBER-08

Issued to: CHUNG KWANG ELECTRIC WIRE & CABLE CO LTD

33 Suey Tien Rd San Ho Village Wu Jih Hsiang

Taichung Hsien 414 TAIWAN

This is to certify that ELECTRIC VEHICLE CABLE

representative samples of USL/CNL: Type EVT.

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

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

14

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

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Look for the UL Certification Mark on the product.

Bambles

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