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Please find attached the related material on Project

For your convenience, the below describes the related updates:

E535773-20240823-CertificateofCompliance
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# Certificate of Compliance

**Certificate Number:**

UL-US-2432037-0

**Report Reference:**

E535773-20240823

**Issue Date:**

2024-08-30

**Issued to:**

**Suzhou Yihang Electronic Science and Technology Co., Ltd  
North Side Of 5f, Bldg K, Phase II Of Pingqian International  
(Suxiang) Ip, No. 45, Chunxing Rd, Caohu St Suzhou, Jiangsu  
215000  
China**

This certificate confirms that representative samples of:

**FFVI2 - Electric Vehicle Plugs, Receptacles and Couplers -  
Component**

**See Addendum Page for Product Designation(s).**

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

**UL 2251, 4th Ed., Issue Date: 2017-11-20****Additional Information:**

See UL Product iQ® at <https://iq.ulprospector.com> for additional information.

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

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

Look for the UL Recognized Component Mark on the product.



David Piecuch  
UL Mark Certification Program Manager



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# CERTIFICATE OF COMPLIANCE

Certificate number UL-US-2432037-0  
Report reference E535773-20240823  
Date 2024-08-30

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

Model	Product Description
WB-TC-AC1.0-16A	Vehicle Connector
WB-TC-AC1.0-32A	Vehicle Connector
WB-TC-AC1.0-32AL	Vehicle Connector
WB-TC-AC1.0-40A	Vehicle Connector
WB-TC-AC1.0-48A	Vehicle Connector
WB-TC-AC1.0-48AL	Vehicle Connector
WB-TC-AC1.0-48AX	Vehicle Connector
WB-TC-AC1.0-50A	Vehicle Connector
WB-TC-AC1.0-50AL	Vehicle Connector
WB-TC-AC1.0-50AX	Vehicle Connector
WB-TC-AC1.0-80A	Vehicle Connector
WB-TC-AC1.0-80AL	Vehicle Connector
WB-TC-DC1.0-40A	Vehicle Connector
WB-TC-DC1.0-48A	Vehicle Connector
WB-TC-DC1.0-48AL	Vehicle Connector
WB-TC-DC1.0-48AX	Vehicle Connector
WB-TC-DC1.0-50A	Vehicle Connector
WB-TC-DC1.0-50AL	Vehicle Connector
WB-TC-DC1.0-50AX	Vehicle Connector
WB-TC-DC1.0-60A	Vehicle Connector
WB-TC-DC1.0-80A	Vehicle Connector
WB-TC-DC1.0-80AL	Vehicle Connector



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UL Mark Certification Program Manager

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# Certificate of Compliance

**Certificate Number:**

UL-CA-2424811-0

**Report Reference:**

E535773-20240823

**Issue Date:**

2024-08-30

**Issued to:**

**Suzhou Yihang Electronic Science and Technology Co., Ltd**  
**North Side Of 5f, Bldg K, Phase II Of Pingqian International**  
**(Suxiang) Ip, No. 45, Chunxing Rd, Caohu St Suzhou, Jiangsu**  
**215000**  
**China**

This certificate confirms that representative samples of:

**FFVI8 - Electric Vehicle Plugs, Receptacles and Couplers**  
**Certified for Canada - Component**

**See Addendum Page for Product Designation(s).**

Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

**CSA C22.2 NO. 282-17, 2nd Ed., Issue Date: 2017-11-20, Revision Date: 2018-04**

**Additional Information:**

See UL Product iQ® at <https://iq.ulprospector.com> for additional information.

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

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

Look for the UL Recognized Component Mark on the product.



David Piecuch  
UL Mark Certification Program Manager



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# CERTIFICATE OF COMPLIANCE

**Certificate number** UL-CA-2424811-0  
**Report reference** E535773-20240823  
**Date** 2024-08-30

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

Model	Product Description
WB-TC-AC1.0-16A	Vehicle Connector
WB-TC-AC1.0-32A	Vehicle Connector
WB-TC-AC1.0-32AL	Vehicle Connector
WB-TC-AC1.0-40A	Vehicle Connector
WB-TC-AC1.0-48A	Vehicle Connector
WB-TC-AC1.0-48AL	Vehicle Connector
WB-TC-AC1.0-48AX	Vehicle Connector
WB-TC-AC1.0-50A	Vehicle Connector
WB-TC-AC1.0-50AL	Vehicle Connector
WB-TC-AC1.0-50AX	Vehicle Connector
WB-TC-AC1.0-80A	Vehicle Connector
WB-TC-AC1.0-80AL	Vehicle Connector
WB-TC-DC1.0-40A	Vehicle Connector
WB-TC-DC1.0-48A	Vehicle Connector
WB-TC-DC1.0-48AL	Vehicle Connector
WB-TC-DC1.0-48AX	Vehicle Connector
WB-TC-DC1.0-50A	Vehicle Connector
WB-TC-DC1.0-50AL	Vehicle Connector
WB-TC-DC1.0-50AX	Vehicle Connector
WB-TC-DC1.0-60A	Vehicle Connector
WB-TC-DC1.0-80A	Vehicle Connector
WB-TC-DC1.0-80AL	Vehicle Connector



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UL Mark Certification Program Manager

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File E535773  
Project 4791130232

August 23, 2024

REPORT

on

COMPONENT - ELECTRIC VEHICLE PLUGS, RECEPTACLES AND COUPLERS

SUZHOU YIHANG ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD  
JIANGSU, CHINA

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## DESCRIPTION

## PRODUCT COVERED:

USR, CNR - Component, Connector for Electric Vehicles, Models WB-TC-AC1.0-16A, WB-TC-AC1.0-32A, WB-TC-AC1.0-32AL, WB-TC-AC1.0-40A, WB-TC-AC1.0-48A, WB-TC-AC1.0-48AL, WB-TC-AC1.0-48AX, WB-TC-AC1.0-50A, WB-TC-AC1.0-50AL, WB-TC-AC1.0-50AX, WB-TC-AC1.0-80A, WB-TC-AC1.0-80AL, WB-TC-DC1.0-40A, WB-TC-DC1.0-48A, WB-TC-DC1.0-48AL, WB-TC-DC1.0-48AX, WB-TC-DC1.0-50A, WB-TC-DC1.0-50AL, WB-TC-DC1.0-50AX, WB-TC-DC1.0-60A, WB-TC-DC1.0-80A, WB-TC-DC1.0-80AL.

## GENERAL

These are North American Charging Standard (NACS) configuration, multi-pole type devices employing crimp-type contacts for power circuit, control pilot and communications circuits. They are intended to supply AC or DC power to an electric vehicle for the purpose of charging the vehicle batteries. The mating inlet, intended to be installed on an electric vehicle and connected to the vehicle wiring harness, was not evaluated as part of this investigation.

The vehicle connectors are provided with enclosures rated Type 3S in the mated position with inlet with same enclosure rating and may be used either indoors or outdoors.

## RATINGS:

Connector Cat. No.	Rating		Wire Size
	Voltage	Current	
WB-TC-AC1.0-16A	120Vac/240 Vac	16 A	Power - 14 AWG (2 provided) GND - 14 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (2 provided)
WB-TC-AC1.0-32A WB-TC-AC1.0-32AL	120Vac/240 Vac	32 A	Power - 10 AWG (2 provided) GND - 10 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (2 provided)
WB-TC-AC1.0-40A	120Vac/240 Vac	40 A	Power - 9 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-AC1.0-48A WB-TC-AC1.0-48AL	120Vac/240 Vac	48 A	Power - 8 AWG (2 provided) GND - 10 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (2 provided)

## RATINGS (CONT'D):

Connector Cat. No.	Rating		Wire Size
	Voltage	Current	
WB-TC-AC1.0-48AX	120Vac/240 Vac	48 A	Power - 9 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-AC1.0-50A WB-TC-AC1.0-50AL	120Vac/240 Vac	50 A	Power - 8 AWG (2 provided) GND - 10 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (2 provided)
WB-TC-AC1.0-50AX	120Vac/240 Vac	50 A	Power - 9 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-AC1.0-80A WB-TC-AC1.0-80AL	120Vac/240 Vac	80 A	Power - 6 AWG (2 provided) GND - 8 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-DC1.0-40A	1000 Vdc	40 A	Power - 9 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-DC1.0-48A WB-TC-DC1.0-48AL	1000 Vdc	48 A	Power - 8 AWG (2 provided) GND - 10 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (2 provided)
WB-TC-DC1.0-48AX	1000 Vdc	48 A	Power - 9 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-DC1.0-50A WB-TC-DC1.0-50AL	1000 Vdc	50 A	Power - 8 AWG (2 provided) GND - 10 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (2 provided)
WB-TC-DC1.0-50AX	1000 Vdc	50 A	Power - 9 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)



## RATINGS (CONT'D):

Connector Cat. No.	Rating		Wire Size
	Voltage	Current	
WB-TC-DC1.0-60A	1000 Vdc	60 A	Power - 7 AWG (2 provided) GND - 9 AWG (1 provided) Signal - 22 AWG (3 provided) Temperature Sensor - 22 AWG (4 provided)
WB-TC-DC1.0-80A WB-TC-DC1.0-80AL	1000 Vdc	80 A	Power - 6 AWG (2 provided) GND - 8 AWG (1 provided) Signal - 22 AWG (2 provided) Temperature Sensor - 22 AWG (4 provided)

Pilot contacts are rated 2 A, 30 Vdc.

Ambient temperature rating: -40°C to +50°C

Environmental Rating: Type 3S (mated with inlet with same enclosure rating)

## MODEL DIFFERENCES:

The Cat. Nos. WB-TC-AC1.0-32A, WB-TC-AC1.0-40A, WB-TC-AC1.0-48A, WB-TC-AC1.0-48AX, WB-TC-AC1.0-50A and WB-TC-AC1.0-50AX are identical to WB-TC-AC1.0-16A, except for current rating, EV cable and PE contact.

The Cat. No. WB-TC-AC1.0-80A is identical to WB-TC-AC1.0-16A except for current rating, EV cable, PE Contact, bushing and cable clamp.

The Cat. Nos. WB-TC-DC1.0-40A, WB-TC-DC1.0-48A, WB-TC-DC1.0-48AX, WB-TC-DC1.0-50A and WB-TC-DC1.0-50AX are identical to WB-TC-AC1.0-16A, except for voltage rating, current rating, PE contact and EV cable.

The Cat. Nos. WB-TC-DC1.0-60A and WB-TC-DC1.0-80A are identical to WB-TC-AC1.0-16A except for voltage rating, current rating, EV cable, bushing and cable clamp.

The Cat. No. WB-TC-AC1.0-48A is identical to Cat. No. WB-TC-AC1.0-50A except for current rating.

The Cat. No. WB-TC-DC1.0-48A is identical to Cat. No. WB-TC-DC1.0-50A except for current rating.

The Cat. No. WB-TC-AC1.0-48AX and WB-TC-AC1.0-40A are identical to WB-TC-AC1.0-50AX except for current rating.

The Cat. No. WB-TC-DC1.0-48AX and WB-TC-DC1.0-40A are identical to WB-TC-DC1.0-50AX except for current rating.

The Cat. Nos. tabulated below in left column are identical with those in right column except for EV cable type.

Cat. Nos.	Cat. Nos.
WB-TC-AC1.0-80AL WB-TC-DC1.0-80AL	WB-TC-AC1.0-80A WB-TC-DC1.0-80A
WB-TC-AC1.0-50AL WB-TC-DC1.0-50AL	WB-TC-AC1.0-50A WB-TC-DC1.0-50A
WB-TC-AC1.0-48AL WB-TC-DC1.0-48AL	WB-TC-AC1.0-48A WB-TC-DC1.0-48A
WB-TC-AC1.0-32AL	WB-TC-AC1.0-32A

## TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by UL LLC.

USR - Products designated USR have been investigated using US requirements as noted in the Test Record.

CNR - Products designated CNR have been investigated using Canada requirements as noted in the Test Record.

Conditions of Acceptability - In order to be judged acceptable as a component of electric vehicle charging equipment, the following conditions should be met.

1. Interruption of Current - This device has not been tested for interrupting the flow of current by connecting or disconnecting the mating connector. If the device will be routinely connected or disconnected under load in the end-use application, tests to evaluate the device's ability to withstand the resulting electrical arc should be considered. The number of make-and-break cycles, the supply voltage and power factor, and the current carried by each pole of the device in the test are to be developed based upon the conditions that will be presenting in the end-use. This device should be used where the power contacts will not interrupt current.
2. Pilot Contacts - These devices have been tested for 110 percent make and break cycles of interrupting a current by connecting and disconnecting the mating connector in accordance with the Electromagnetic test. The devices should be used with equipment employing a control pilot circuit, having a current interrupting rating not less than the vehicle inlet or vehicle connector rating. The control pilot circuit shall function to ensure that the interrupting device opens the power circuit before the power contacts break.
3. Insulating Materials - The insulating materials used in this device has been investigated for their Relative Thermal Index (Electrical and Mechanical with Impact), Flame Rating, Hot Wire Ignition, High Current Arc Resistance to Ignition and Comparative Tracking Index, and comply with the requirements for direct support of live parts in Section 8 of the standard stated in the Test Record, "Polymeric Materials - Use in Electrical Equipment Evaluations." The maximum operating temperature for any connector shall not exceed the rated operating temperature that is based on the Relative Thermal Index of the material. Materials used for the enclosure of a device comply with the requirements for exposure to outdoor weather conditions (ultraviolet light exposure, water exposure and immersion) in Section 10 of the standard stated in the Test Record.

4. Terminations - The wiring terminations of the vehicle connector employ crimp-type and weld-type terminations that have been subjected to the Conductor Secureness and Pullout tests.
5. Configuration and Mating - These devices employ polarized contact slots but the terminals are not identified.
6. Outdoor Use - The connector and mating inlet have been evaluated for an enclosure rating of Type 3S in accordance with Section 54 of the standard stated in the Test Record.
7. This device has been conducted Short Circuit Test under following conditions. Final acceptance shall be judged in end-product evaluation by considering expected fault current.

Connector Cat. No.	Test Circuit	Protective Fuse
WB-TC-AC1.0-80A	240 Vac, 5 kA	150A
WB-TC-DC1.0-80A	1000Vdc, 5 kA	150A

8. Compliance to National Electrical Code for Cable length of EV cable should be evaluated at the end use application.
9. The temperature sensors have not been evaluated with these devices. There is no reliable insulation between power contact and temperature sensor. Final acceptance of the suitability should be considered in the end-use application.
10. All models were provided with specific cables - R/C (FFSO2/8), type FE EVH2005, EVH2004, EVC1214, EVH2003, EVH2001, EVC1294, EVH2002, EVC1408, EVH2006. The insulation and jacket thickness are thinner than required. Final acceptance of the suitability should be considered in the end-use application.

## CONSTRUCTION DETAILS:

Spacings - Minimum clearances provided through air between live parts of opposite polarity and between live metal parts and exposed dead metal parts and a minimum spacing (creepage) provided over surface between live parts of opposite polarity and between live metal parts and exposed dead metal parts tabulated as below for devices rated different voltage. Per Section 12 of the standard stated in the Test Record, Overvoltage Category II, Pollution Degree 3, Material Group I.

Rated Voltage	Minimum clearances	Minimum creepage
240Vac	1.5mm	3.2mm
1000Vdc	5.5mm	12.5mm

Marking - The device shall be legibly marked, where visible after installation, laser printed on the device.

- a) Recognized Company name, trade name, trademark, or other descriptive marking by which the organization responsible for the product may be identified.
- b) The catalog number.
- c) The electrical rating in both volts and amperes.
- d) "AC" or "AC Only" and "DC" or "DC Only".
- e) A device enclosure type designation, "Type 3S".
- f) UL/cUL recognition mark.
- g) Ambient temperature rating: -40°C to +50°C.

The following shall be provided on the device or on the smallest unit container or carton or on a stuffer sheet in the smallest unit container or carton:

- a) "CAUTION - Risk of Electric Shock, Do Not Disconnect Under Load", or "CAUTION - Not for current interrupting", or "CAUTION - For disconnecting use only", or an equivalent statement following the word "CAUTION".

When the product is intended for use in Canada, cautionary markings shall be provided in both English and French.

Refer to the following photos and descriptive indices for construction details.

Index to Figures:

FIG. No.	Description
1 thru 5	External View of Cat.No. WB-TC-AC1.0-16A
6	Body without label (Top Enclosure)
7 thru 8	Internal View of Cat.No. WB-TC-AC1.0-16A
9	Weld type contacts
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14	Internal View of Cat.No. WB-TC-AC1.0-80A

Index to Illustrations:

ILL. No.	Description
1	Overall View of Cat.No. WB-TC-AC1.0-16A
2	Body
3	Plug
4	Plug Seal
5	Holder
6	Label (Top Enclosure)
7	L1/L2 Contact Terminal - Welding Type
8	PE Contact Terminal (14AWG)
8A	PE Contact Terminal (10AWG)
8B	PE Contact Terminal (9AWG)
8C	PE Contact Terminal (8AWG)
9	CP/PP Contact Terminal
10	Crimp Tool and Die information
11	Guidepost Insulating Cap
12	O-Ring for Terminal Contact
13	Cable Seal
14	Printed Wiring Board Layout
15	Internal Wires
16	Plug Cap
17	Overall view of Cat.No. WB-TC-AC1.0-80A
18A	Bushing of Cat.No. WB-TC-AC1.0-60A
18B	Bushing of Cat.No. WB-TC-AC1.0-80A
19	Cable Clamp

CONNECTOR, Cat. No. WB-TC-AC1.0-16A - FIGs. 1 thru 9, ILL. 1

General - FIGs. 1 thru 9 and ILL. 1 depict the overall view of Cat. No. WB-TC-AC1.0-16A. The general design, shape and arrangement shall be as illustrated. Also represents Cat. No. WB-TC-AC1.0-32A, WB-TC-AC1.0-40A, WB-TC-AC1.0-48A, WB-TC-AC1.0-50A, WB-TC-AC1.0-48AX, WB-TC-AC1.0-50AX, WB-TC-DC1.0-40A, WB-TC-DC1.0-48A, WB-TC-DC1.0-50A, WB-TC-DC1.0-48AX, WB-TC-DC1.0-50AX, WB-TC-AC1.0-50AL, WB-TC-DC1.0-50AL, WB-TC-AC1.0-48AL, WB-TC-DC1.0-48AL, WB-TC-AC1.0-32AL unless otherwise specified.

1. Body - R/C (QMFZ2), IDEMITSU KOSAN CO LTD (E48268), PC, Type ZG1950(f1), black, rated V-0, HWI=2, HAI=1, CTI=3, 125°C, minimum 2.0 mm thick. One-piece construction. See ILL. 2 for overall dimensions.
2. Adhesive (Potting) - R/C (QMFZ2), GUANGZHOU BAIZHUANG COMPOSITE MATERIAL CO LTD (E352175), PUR, Type 6807-1A/B, black, rated V-0, HWI=HAI=CTI=0, 130°C, minimum 1.5 mm thick. Fully potted.
3. Plug - R/C (QMFZ2), SABIC JAPAN L L C (E207780), PC, Type EXL9034(f1), all colors, rated V-0, HWI=2, HAI=0, IPT=1.5kV, 115°C, minimum 1.5 mm thick. Secured to Body by a ST2.9\*8 stainless steel screw. See ILL. 3 for overall dimensions.
4. Plug Seal - R/C (QMFZ2/8), SHIN-ETSU SILICONE INTERNATIONAL TRADING (SHANGHAI) CO LTD (E360537), SIR, Type KE-5612GU, black color, V-0, 150°C. See ILL. 4 for overall dimensions.
5. Holder - R/C (QMFZ2/8), BASF Engineering Plastics (Shanghai) Co., Ltd. (E507491), PA6, Type A3UT41G5(f1), black color, rated V-0, HWI=0, HAI=0, CTI=0, 115°C, minimum 1.5 mm thick. Secured to Plug by a ST2.9\*8 stainless steel screw. See ILL. 5 for overall dimensions.
6. Label (Top Enclosure) - R/C (QMFZ2/8), Formosa Idemitsu Petrochemical Corp(E238753), PC, Type IV2200R(f1), natural color, rated V-2, 125°C, minimum 0.5 mm thick. Secured on Body by adhesive. See ILL. 6 for overall dimensions.

Adhesive - R/C(PGGU2), 3M COMPANY (MH26206), type #9502, -40~+80°C.

7. Temperature Sensor(s) - One or two provided, fitted into Holder or attached to power contact. Manufactured by Shenzhen TOPOS Sensor Technology co,. LTD. Type 015-ASTL0072-W0001 or TPSBP-PT1000B-L205, -40°C~+200°C, wire size 22 AWG.

8. Contact Terminals - Weld type for power contacts and crimp type for PE/CC/PP contact. Nickel and silver plated copper alloy. Fitted into Holder. See Fig.9 for weld type contacts and ILLs. 7 thru 9 for different dimensions and ILL. 10 for Crimp Tool and Die information.

Cat. No.	Contact Terminals	Number of Terminal	Wire Size	ILL. No.
WB-TC-AC1.0-16A	L1/L2	2	14 AWG	7
	PE	1	14 AWG + 20 AWG	8
	CP	1	22 AWG	9
	PP	1	20 AWG	9
WB-TC-AC1.0-32A WB-TC-AC1.0-32AL	L1/L2	2	10 AWG	7
	PE	1	10 AWG + 20 AWG	8A
	CP	1	22 AWG	9
	PP	1	20 AWG	9
WB-TC-AC1.0-50A WB-TC-DC1.0-50A WB-TC-AC1.0-48A WB-TC-DC1.0-48A WB-TC-AC1.0-50AL WB-TC-DC1.0-50AL WB-TC-AC1.0-48AL WB-TC-DC1.0-48AL	L1/L2	2	8 AWG	7
	PE	1	10 AWG + 20 AWG	8A
	CP	1	22 AWG	9
	PP	1	20 AWG	9
	PP	1	20 AWG	9
	PP	1	20 AWG	9
	PP	1	20 AWG	9
WB-TC-AC1.0-40A WB-TC-DC1.0-40A WB-TC-AC1.0-50AX WB-TC-DC1.0-50AX WB-TC-AC1.0-48AX WB-TC-DC1.0-48AX	L1/L2	2	9 AWG	7
	PE	1	9 AWG + 20 AWG	8B
	CP	1	22 AWG	9
	PP	1	20 AWG	9
	PP	1	20 AWG	9

9. Power Contact Guideposts - Nickel and silver plated copper alloy. Secured to each power contact by screw thread. Provided with Guidepost Insulating Cap. See ILL. 11 for overall dimensions.

Guidepost Insulating Caps - R/C (QMFZ2/8), BASF Engineering Plastics (Shanghai) Co., Ltd. (E507491), PA6, Type A3UT41G5(f1), all color, rated V-0, HWI=0, HAI=0, CTI=0, 115°C, minimum 2.5 mm thick. Molded to each Power Contact Guidepost.

10. O-Rings - R/C (QMFZ2/8), SHIN-ETSU SILICONE INTERNATIONAL TRADING (SHANGHAI) CO LTD (E360537), SIR, Type KE-5612GU, black color, V-0, 150°C. Two provided for each contact terminal. See ILL. 12 for overall dimensions.



11. EV Cable - R/C (FFSO2/8), rated 1000 V, 105°C, Connected to Terminals by crimping or welding.

Cat. No.	File No.	Type	Power Conductor	PE Conductor	Signal Conductor	Nominal Cable Diameter
WB-TC-AC1.0-50A WB-TC-DC1.0-50A WB-TC-AC1.0-48A WB-TC-DC1.0-48A	E516181	EVH2001	8 AWG x 2	10 AWG x 1	22 AWG x 6	14.5 mm
WB-TC-AC1.0-50AL WB-TC-DC1.0-50AL WB-TC-AC1.0-48AL WB-TC-DC1.0-48AL	E343212	EVC1249	8 AWG x 2	10 AWG x 1	22 AWG x 6	15.0 mm
WB-TC-AC1.0-40A WB-TC-DC1.0-40A WB-TC-AC1.0-50AX WB-TC-DC1.0-50AX WB-TC-AC1.0-48AX WB-TC-DC1.0-48AX	E516181	EVH2003	9 AWG x 2	9 AWG x 1	22 AWG x 7	14.8 mm
WB-TC-AC1.0-32A	E516181	EVH2004	10 AWG x 2	10 AWG x 1	22 AWG x 4	12.0 mm
WB-TC-AC1.0-32AL	E343212	EVC1214	10 AWG x 2	10 AWG x 1	22 AWG x 4	12.0 mm
WB-TC-AC1.0-16A	E516181	EVH2005	14 AWG x 2	14 AWG x 1	22 AWG x 4	10.3 mm

12. Cable seal - R/C(QMFZ2/8), SHIN-ETSU SILICONE INTERNATIONAL TRADING (SHANGHAI) CO LTD(E360537), SIR, Type CHN-6(Y)00@(f1), black color, rated HB, 150°C. See ILL. 13 for overall dimensions.
13. Printed Wiring Board (PWB) - R/C (ZPMV2/8), rated V-0, 130°C. Overall 35 by 23 by 1.6 mm thick. Located in low-voltage circuit. See FIGs. 8 for details and ILL. 14 for PWB Layout.
14. Internal wires - R/C (AVLV2/8), rated Min. 300 V, 105 °C, Horizontal flame. See ILL. 15 for Internal Wire Connection.
15. Plug Cap - R/C(QMFZ2/8), SHIN-ETSU SILICONE INTERNATIONAL TRADING (SHANGHAI) CO LTD(E360537), SIR, Type CHN-6(Y)00@(f1), rated HB, 150°C. See ILL. 16 for overall dimensions.
16. Heat Shrinkable Tube - R/C (YDPU2/8), rated Min. 600 V, VW-1, 125°C.

## CONNECTOR, Cat. No. WB-TC-AC1.0-80A - FIGs.10, ILL. 17

General - FIGs. 10 shows the internal view and ILL. 17 depict the overall view of Cat. No. WB-TC-AC1.0-80A. Cat. No. WB-TC-AC1.0-80A is identical to Cat. No. WB-TC-AC1.0-16A except for below items. Also representative of Cat.No. WB-TC-DC1.0-80A, WB-TC-AC1.0-80AL, WB-TC-DC1.0-80AL and WB-TC-DC1.0-60A.

1. Contact Terminals - Weld type for power contacts and crimp type for PE/CC/PP contact. Nickel and silver plated copper alloy. Fitted into Holder. See Fig.9 for weld type contacts and ILLs. 7 thru 9 for different dimensions and ILL. 10 for Crimp Tool and Die information.

Cat. No.	Contact Terminals	Number of Terminal	Wire Size	ILL. No.
WB-TC-AC1.0-80A	L1/L2	2	6 AWG	7
WB-TC-DC1.0-80A	PE	1	8 AWG + 22 AWG	8C
WB-TC-AC1.0-80AL	CP	1	22 AWG	9
WB-TC-DC1.0-80AL	PP	1	22 AWG	9
WB-TC-DC1.0-60A	L1/L2	2	7 AWG	7
	PE	1	9 AWG + 22 AWG	8B
	CP	1	22 AWG	9
	PP	1	22 AWG	9

2. EV Cable - R/C (FFSO2/8), rated 1000 V, 105°C, Connected to Terminals by welding or crimping.

Cat. No.	File No.	Type	Power Conductor	PE Conductor	Signal Conductor	Nominal Cable Diameter
WB-TC-AC1.0-80A WB-TC-DC1.0-80A	E516181	EVH2002	6 AWG x 2	8 AWG x 1	22 AWG x 6	19.5 mm
WB-TC-AC1.0-80AL WB-TC-DC1.0-80AL	E343212	EVC1408	6 AWG x 2	8 AWG x 1	22 AWG x 6	19.4 mm
WB-TC-DC1.0-60A	E516181	EVH2006	7 AWG x 2	9 AWG x 1	22 AWG x 6	16.2 mm

3. Bushing - R/C(QMFZ2/8), SHIN-ETSU SILICONE INTERNATIONAL TRADING (SHANGHAI) CO LTD(E360537), SIR, Type CHN-6(Y)00@(f1), rated HB, 150°C. See ILL. 18A and ILL. 18B for overall dimensions.
4. Cable Clamps - Aluminum Alloy. Type 6061. Two parts provided, secured with each other through thread, replacing cable seals. See ILL. 19 for overall dimensions.