

Charging Connectors for Electric Vehicles

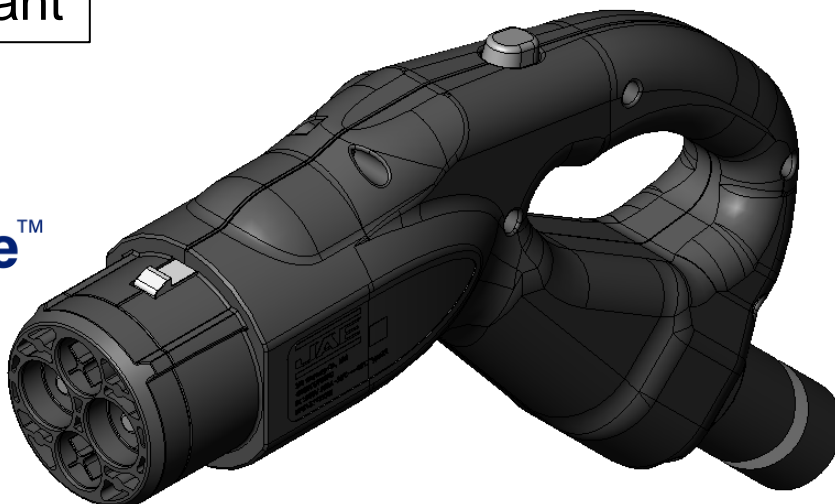
CONNECTOR

KW07C Series

MB-0393-2

Jan. 2024

RoHS Compliant



Powerlance branded EV charging connectors combine durability and high-quality performance to provide the industry's most dependable solutions.



The KW07C is an Electric Vehicle (EV) charging connector which is compatible with the CHAdeMO standard and supports a rated charging current of 200A. The product can be used in quick chargers with a rated output of 90kW.

As the charging current increases, the cables become thicker and heavier to mitigate temperature rise, making them cumbersome to handle. In order to solve this problem, this connector was developed with an emphasis on miniaturization, weight reduction, and cable flexibility, and has achieved almost the same ease of handling as an EV charging connector with a rated current of 125A. In addition, this connector has passed rigorous waterproof testing to acquire UL certification. Furthermore, the KW07C adopts an electromagnetic locking mechanism with a release button and emergency release mechanism. This locking mechanisms has been proven in the market having been adopted in other KW series connectors, so the product can be used with confidence.

Application

Quick Charger for EV (CHAdeMO protocol)

Features

- Compliant with CHAdeMO standard
- UL and cUL recognized products
- Highly reliable design using materials which various outdoor environments
- High-strength design, yet compact and light weight
- Compatible with DC quick chargers with a rated output of 90kW

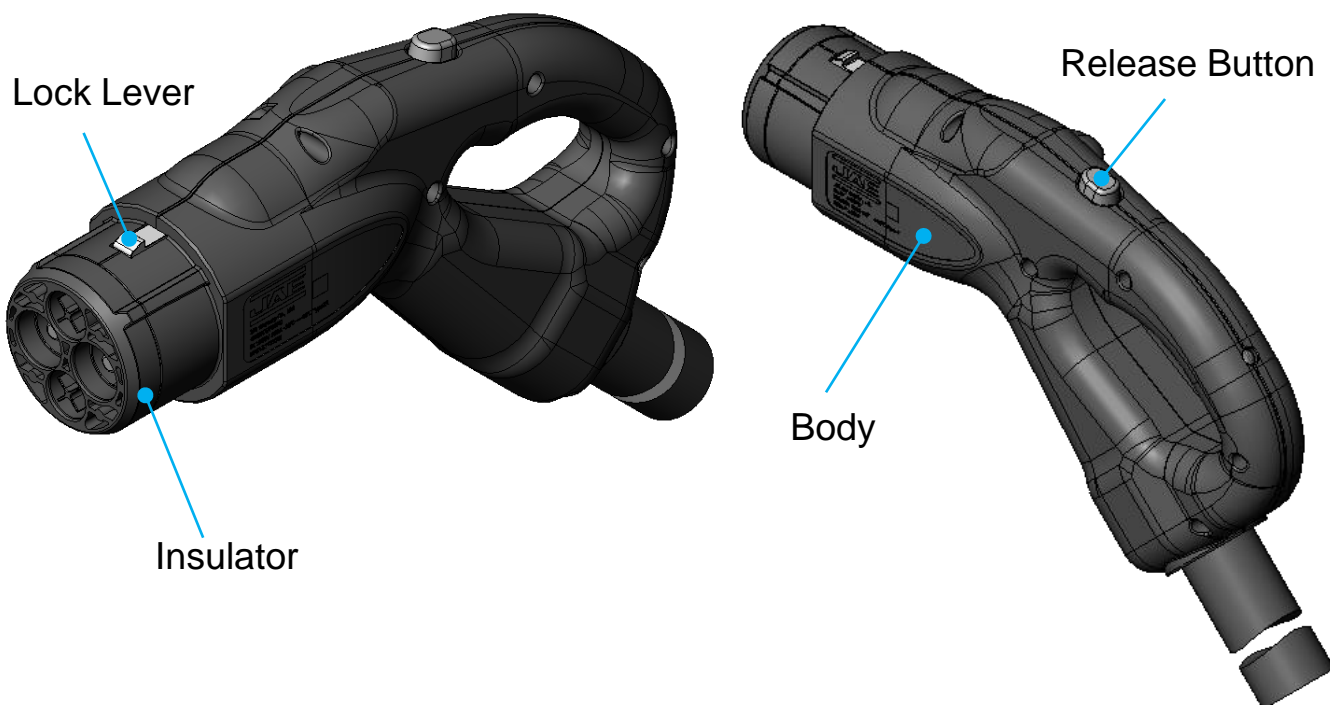
General Specifications

Number of Contacts	Power: 2 pos Signal: 7 pos
Rated Current	Power: 200A ¹ Signal: 2A
Rated Voltage	Power: DC750V Signal: DC16V max.
Insulation Resistance	100 MΩ min. (Apply DC1000V between adjacent contacts)
Dielectric Withstanding Voltage	AC 3,000V / 1 minute
Durability	10,000 times
Insertion Force	100N max.
Operating Temperature Range	-30°C to +40°C

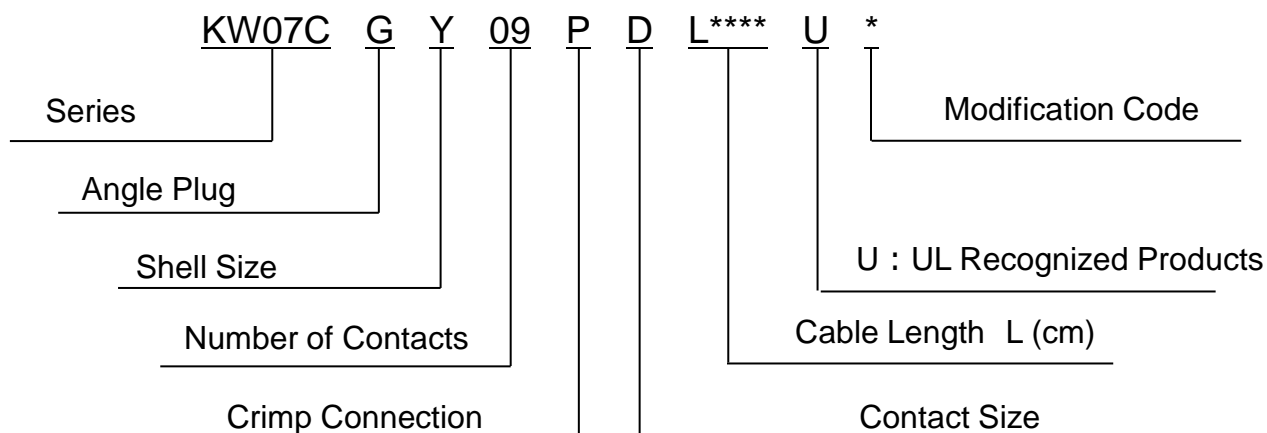
¹ Please contact us if higher current than the rated current is required.

Materials

Component	Material
Body	Environment Resistant Resin
Release Button	Environment Resistant Resin
Lock Lever	Stainless Steel
Insulator	Environment Resistant Resin



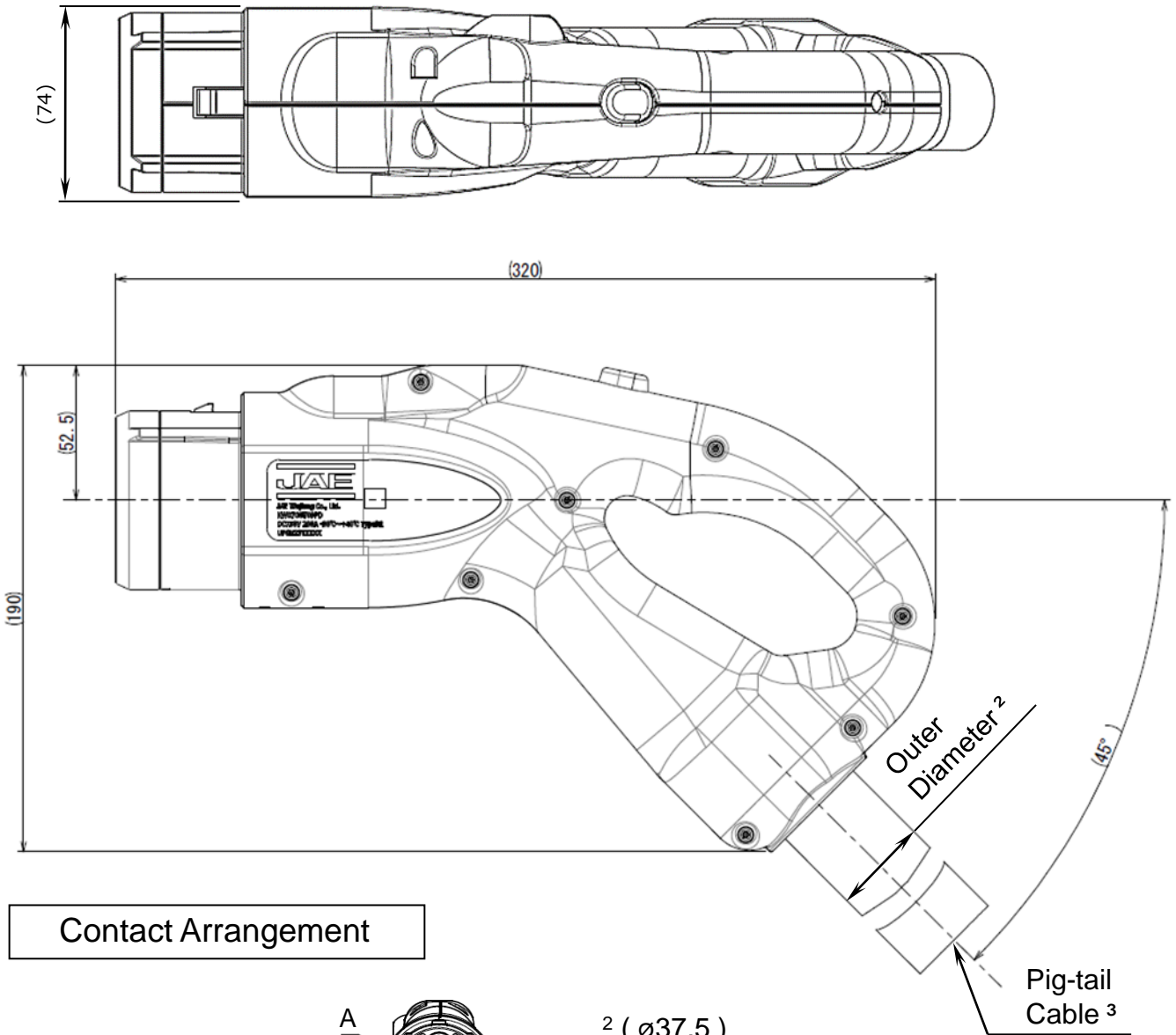
Ordering Information



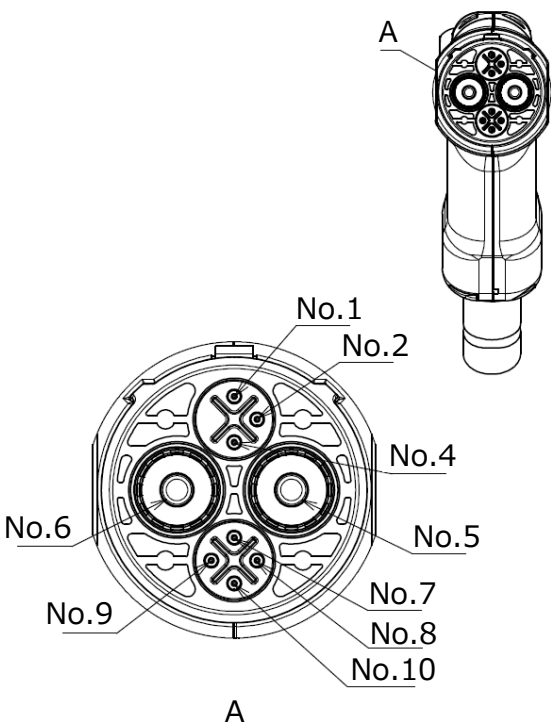
Part Number List

Part Number	Drawing No.	Cable Length	Specifications	Handling Instructions
KW07CGY09PDL0300UP	SJ126695	3.0m	JACS-40256	JAHL-40256
KW07CGY09PDL0350UP		3.5m		
KW07CGY09PDL0400UP		4.0m		
KW07CGY09PDL0450UP		4.5m		
KW07CGY09PDL0500UP		5.0m		
KW07CGY09PDL0550UP		5.5m		
KW07CGY09PDL0600UP		6.0m		
KW07CGY09PDL0650UP		6.5m		
KW07CGY09PDL0700UP		7.0m		
KW07CGY09PDL0750UP		7.5m		
KW07CGY09PDL0800UP		8.0m		

Outer Dimensions



Contact Arrangement

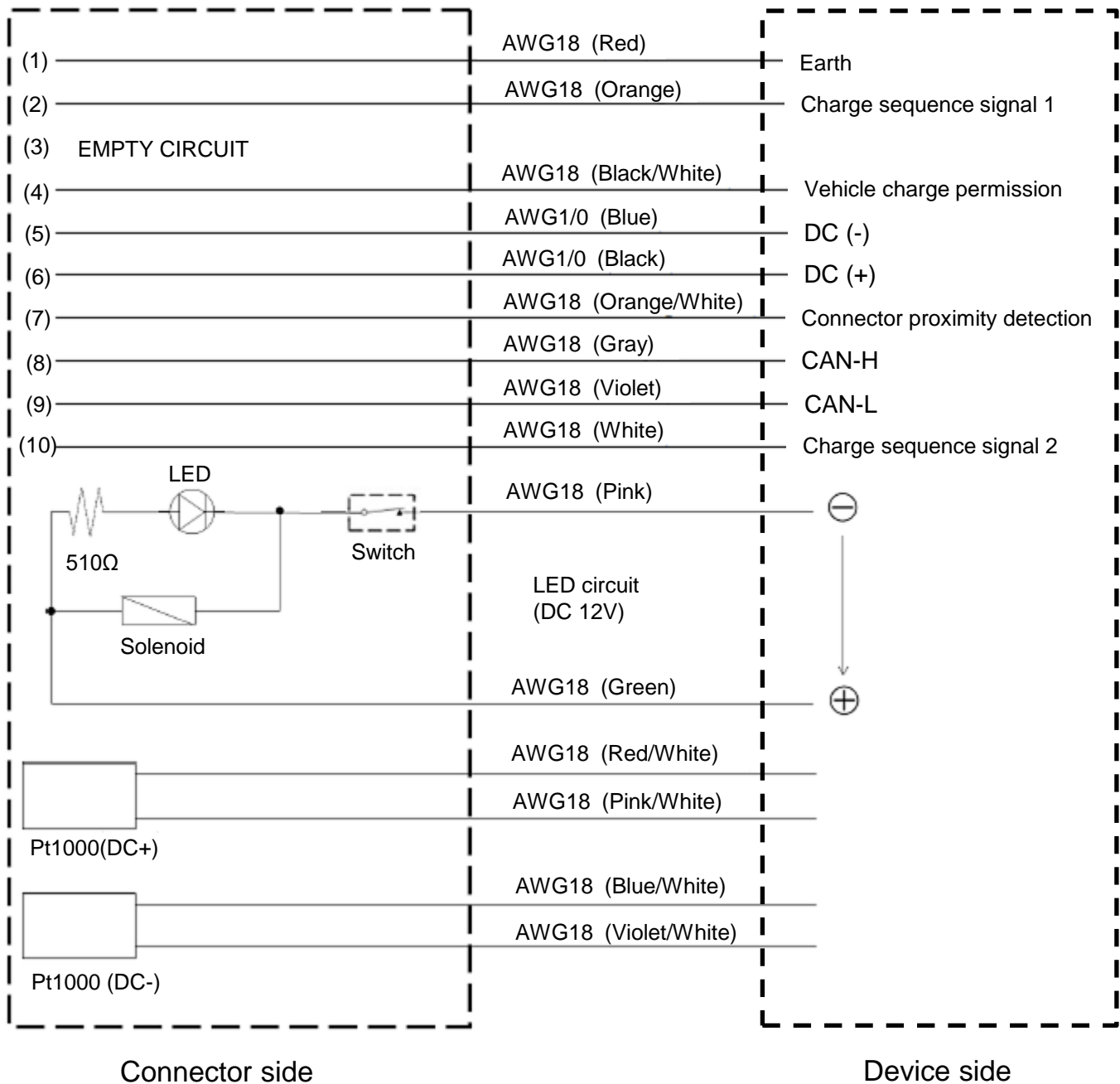


² (ø37.5)

³ The cable is pigtailed with no termination at the opposing end of the cable

No.	SIZE	WIRE COLOR
1	AWG18	Red
2	AWG18	Orange
3	(EMPTY)	-
4	AWG18	White/Black
5	AWG1/0	Blue
6	AWG1/0	Black
7	AWG18	Orange/White
8	AWG18	Gray
9	AWG18	Violet
10	AWG18	White

Connector Circuit Diagram



Temperature Sensor Specifications

Sensor Type	Pt1000
Standards	DIN EN 60751
Recommended Measured Current	0.1 to 0.3mA
Temperature Range	-50°C to +130°C
Temperature Coefficient	3850ppm/K
Shutdown Temperature	90°C (Equivalent to a Pt1000 value of 1347.04Ω)

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products. For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below. We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:

(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:

Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.

(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :

Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:

Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

Japan Aviation Electronics Industry, Limited

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