

Charging and Discharging System Connector for EV

CONNECTOR

KW02C series

MB-0382-1

(JCS standard compliant product)

Jun. 2022

RoHS Compliant



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

KW02C connectors are CHAdeMO compliant and are suitable for both V2H and V2G applications. This product has been designed with the user in mind, with an ergonomic handle and 20% reduction in size, and the weight compared to previous generation KW02 gives the customer a better operating experience. The output rating has been increased to enable faster charging and discharging.

This product complies with the JCS standard, and can be installed into products in Japan.

In accordance with CHAdeMO V2H guidelines a self-holding solenoid is used as the locking mechanism. It has its own lock detection system which allows the engagement status to be verified through the EVPS.

Features

- Compliant with CHAdeMO specifications Ver.2.0
- Compliant with the EV Charging and Discharging System Guidelines (EVPS-002) Ver.2.1
- Compatible with JCS standard
- Miniaturized design comes with higher rated current.
- Highly reliable design using environmentally withstanding materials
- Lightweight and highly reliable design.

Application

Charging and Discharging System for EV (CHAdeMO protocol)
(Vehicle to Home, Vehicle to Grid, and other communication systems)

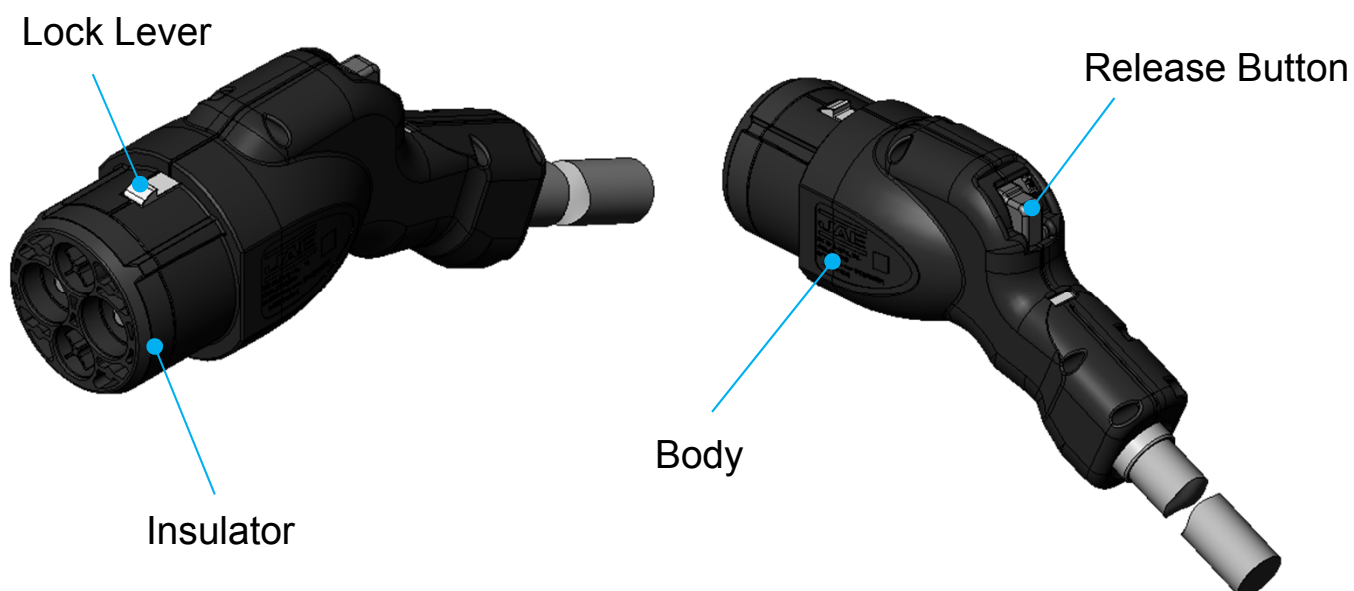
General Specifications

Number of Contacts	Power: 2 pos 12V Power: 2 pos Signal: 6 pos
Rated Current	Power: 37A max. ¹ 12V Power :6.4A Signal: 2A
Rated Voltage	Power: DC500V 12V Power & Signal: DC16V max
Insulation Resistance	100 MΩ min. (Apply DC500V between adjacent contacts)
Dielectric Withstand Voltage	AC3,000V / 1 minute
Durability	10,000 times
Insertion Force	100N max.
Operating Temperature Range ¹	-30°C to +50°C (Rated current: 30A) -30°C to +40°C (Rated current: 37A)

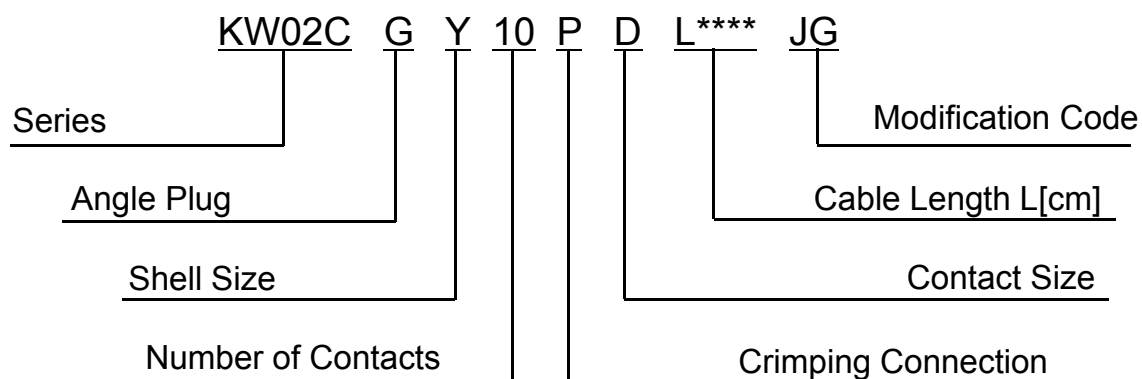
¹ Rated current is dependent on operating temperature.

Materials and Finishes

Component	Material	Finishing
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
KW02CGY10PDL0300JG	SJ124544	3.0m	JACS-40232	JAHL-40231
KW02CGY10PDL0350JG		3.5m		
KW02CGY10PDL0400JG		4.0m		
KW02CGY10PDL0450JG		4.5m		
KW02CGY10PDL0500JG		5.0m		
KW02CGY10PDL0550JG		5.5m		
KW02CGY10PDL0600JG		6.0m		
KW02CGY10PDL0650JG		6.5m		
KW02CGY10PDL0700JG		7.0m		
KW02CGY10PDL0750JG		7.5m		
KW02CGY10PDL0800JG		8.0m		

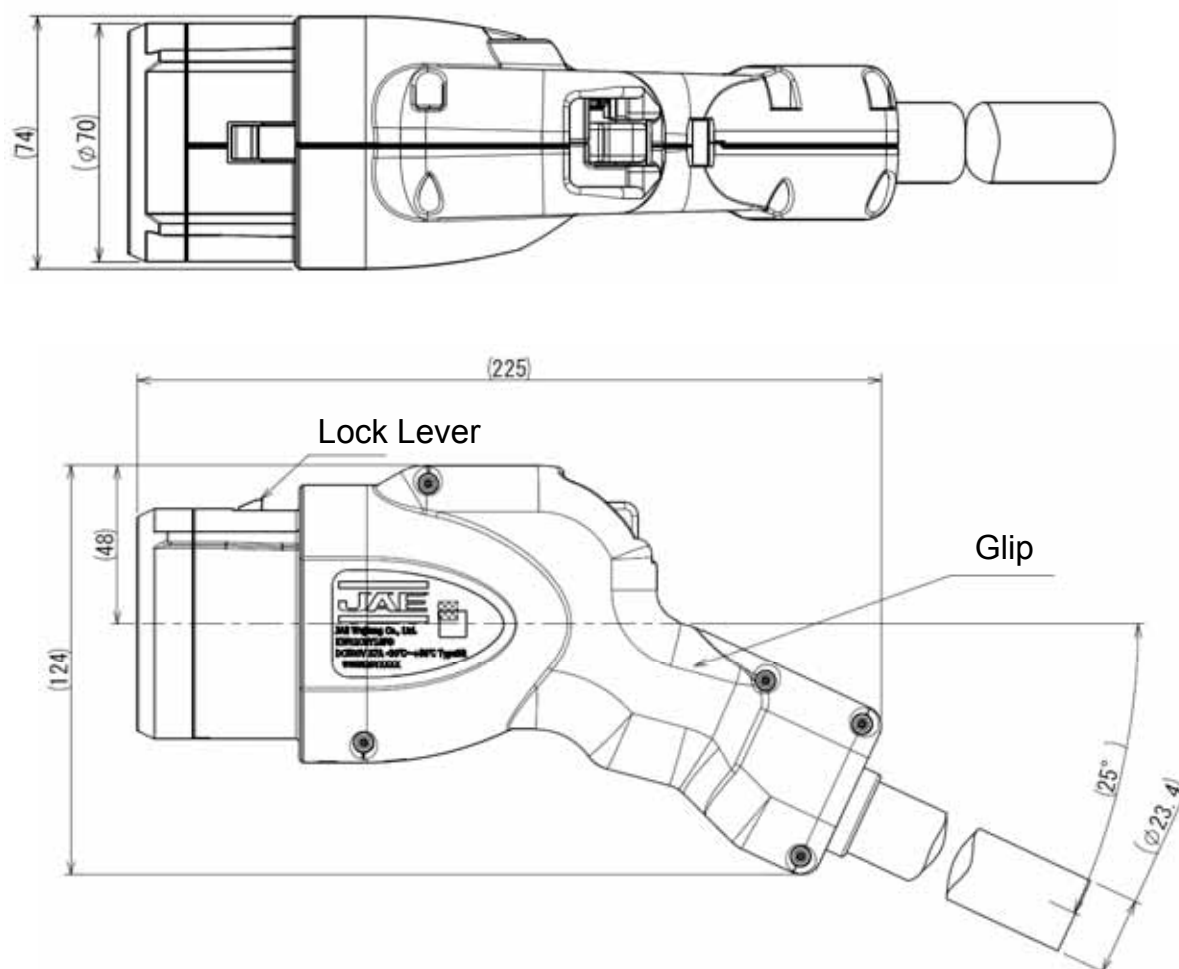
Exclusive Tool

This tool will be used in case of requiring an emergency release of connector and to reset connector after an emergency release.

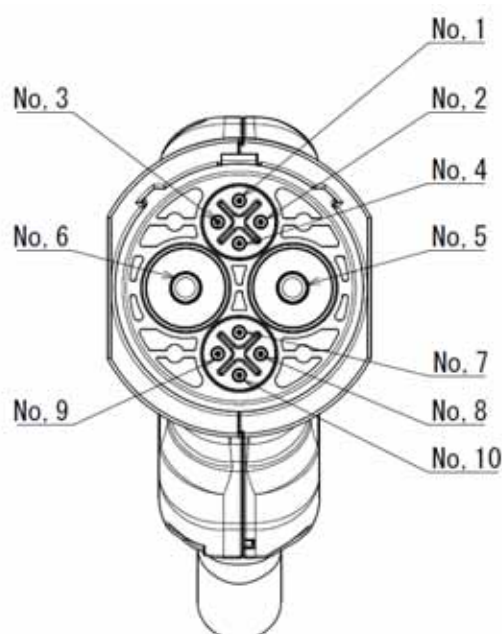
Please refer to the Emergency Release and Recovery Handling Instructions for emergency release and restoration method.

Part Number	Emergency Release and Recovery Handling Instructions	Tool Name
KW02CGY10PDL****JG	JAHL-40221-01	WT-KW02C-1
		WT-KW02C-2

Outer Dimensions

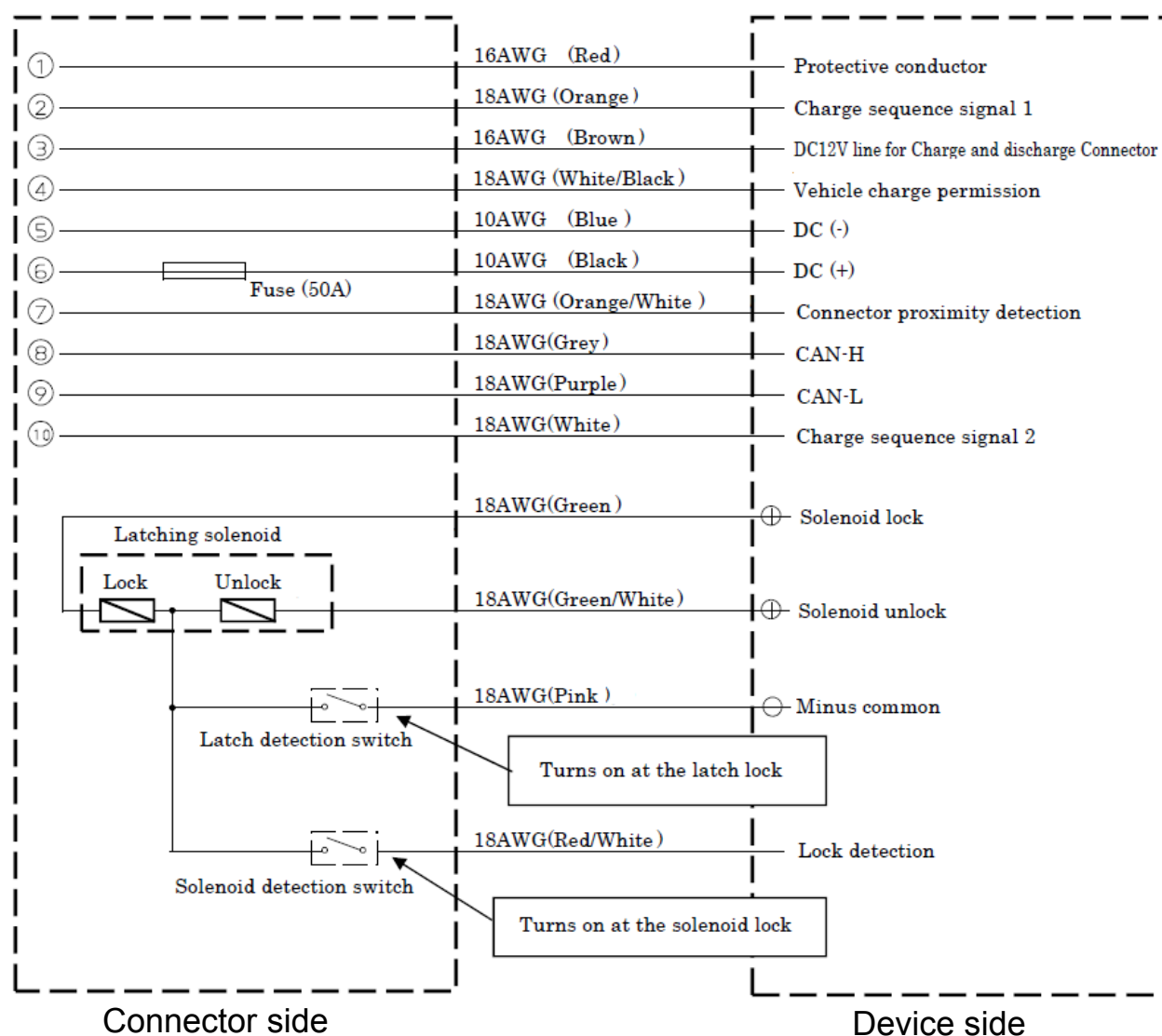


Contact Arrangement



No.	SIZE	WIRE COLOR
1	AWG16	Red
2	AWG18	Orange
3	AWG16	Brown
4	AWG18	White/Black
5	AWG10	Blue
6	AWG10	Black
7	AWG18	Orange/White
8	AWG18	Gray
9	AWG18	Purple
10	AWG18	White
-	AWG18	Green
-	AWG18	Green/White
-	AWG18	Pink
-	AWG18	Red/White

Connector Circuit Diagram



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