

Charging and Discharging System Connector for Electric Vehicles KW03 Series

CONNECTOR
MB-0334-3
Jun.2024

RoHS Compliant



Powerlance brand EV charging KW series connectors combine durability and high quality performance to provide the industries most dependable solutions.



KW03 Series is an electric vehicle (EV) cable connector developed for medium-speed charging infrastructure and V2G (Vehicle-2-Grid) system. This product was designed with ease of operation and safety in mind as it is to be used by the general public

The grip has been ergonomically designed for ease of handling with an intuitive single-action operation. Weather and flammability resistant resin used for the outer shell provides a highly reliable and environmentally resistant connector, while allowing for it to remain light and durable. In accordance with the widespread use of CHAdeMO specifications, this product have acquired world-wide safety standards, CE certified and UL recognized.

Application

- Electric Vehicle Charging and Discharging System (CHAdeMO protocol)
- Medium-Capacity Quick charger for EV (CHAdeMO protocol)

Features

- Compliant with CHAdeMO standard
- Compliant with the Electric Vehicle Charging and Discharging System Guidelines (EVPS-002)
- Use of highly reliable materials which are tough against various environmental conditions
- Grip design for ergonomic operation
- World-wide authentication: UL Recognized and CE compliant products

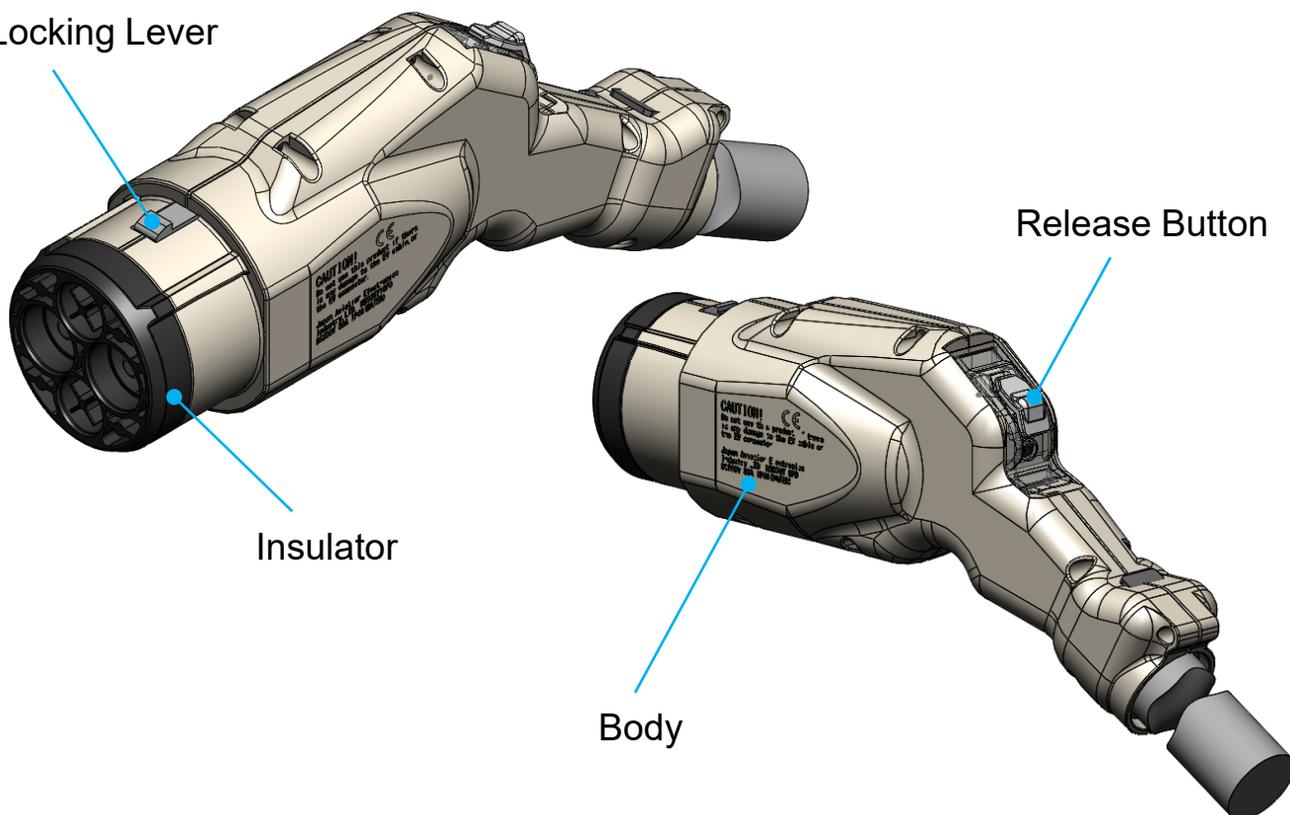
General Specifications

Number of Contacts	Power: 2 pos 12V Power : 1 pos GND: 1 pos Signal: 6 pos
Rated Current	Power: 80A , 12V Power: 6.4A, Signal: 2A
Rated Voltage	Power: DC500V
Insulation Resistance	100 MΩ min.
Dielectric Withstanding Voltage	AC 3,000V / 1 minute
Durability	10,000-cycles
Insertion Force	100N max.
Operating Temperature Range	-30° C to +50° C

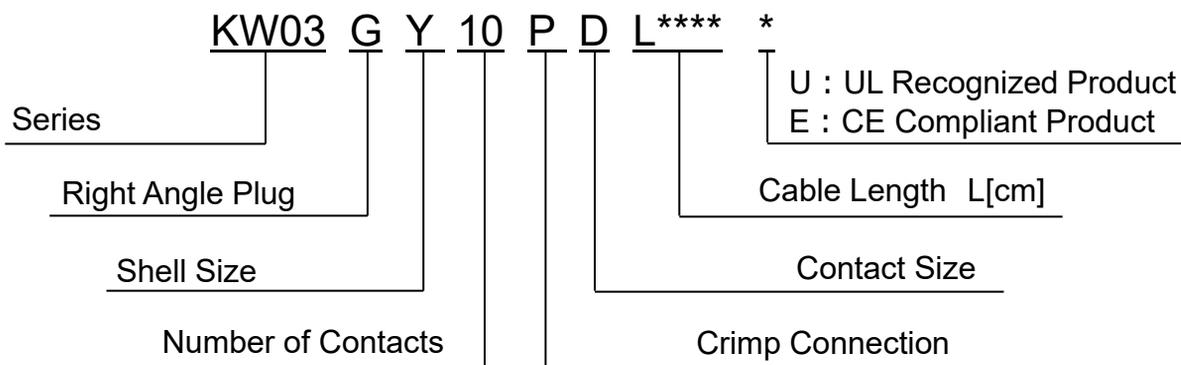
Materials and Finishes

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

Locking Lever



Ordering Information



Part Number List

■ UL Recognized Products

Part Number	Cable Length	Drawing No.	Specifications	Handling Instructions
KW03GY10PDL0200U	2.0m	SJ119473	JACS-40189	JAHL-40189
KW03GY10PDL0350U	3.5m			
KW03GY10PDL0400U	4.0m			
KW03GY10PDL0500U	5.0m			
KW03GY10PDL0540U	5.4m			
KW03GY10PDL0600U	6.0m			
KW03GY10PDL0700U	7.0m			
KW03GY10PDL0790U	7.9m			

■ CE Compliant Products ¹

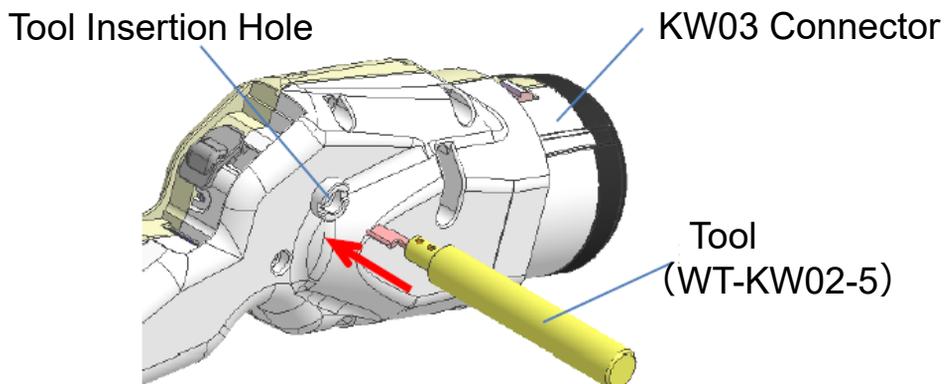
Part Number	Cable Length	Drawing No.	Specifications	Handling Instructions
KW03GY10PDL0200E	2.0m	SJ119493	JACS-40191	JAHL-40189
KW03GY10PDL0350E	3.5m			
KW03GY10PDL0400E	4.0m			
KW03GY10PDL0500E	5.0m			
KW03GY10PDL0540E	5.4m			
KW03GY10PDL0600E	6.0m			
KW03GY10PDL0700E	7.0m			
KW03GY10PDL0790E	7.9m			

¹ The cable of this product contains PIP (3:1), a substance banned under the U.S. Environmental Protection Agency (EPA), Toxic Substances Control Act (TSCA) regulation.

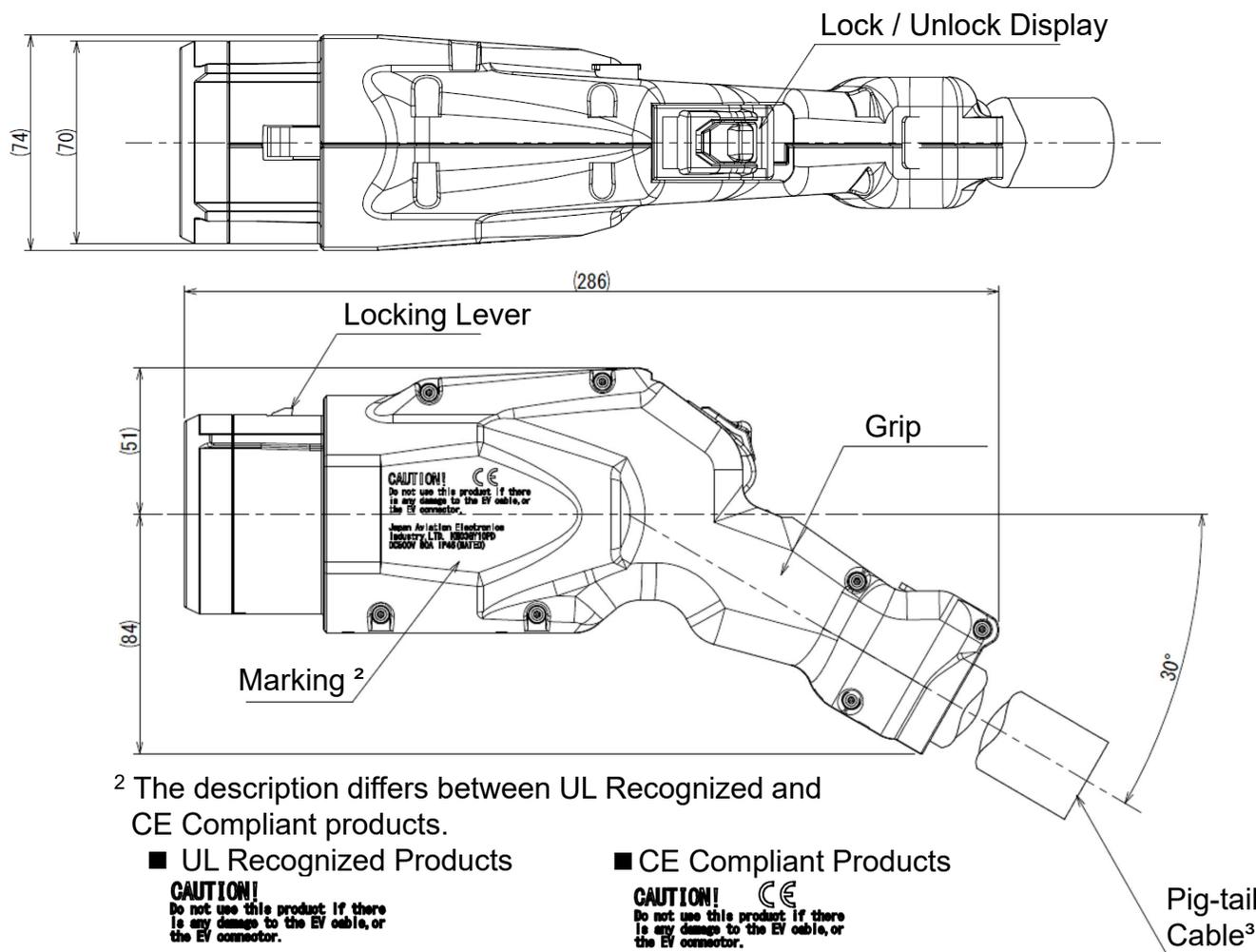
Exclusive Tool

This tool will be used in need of an emergency releasing of the connector.
Please refer to the Emergency Release Handling Instructions concerning emergency release, and the Tool Handling Instructions regarding the usage of tools.

Part Number	Emergency Release Handling Instructions	Tool Name	Tool Handling Instructions
KW03GY10PDL**** *	JABL-40189-01	WT-KW02-5	T714398



Outer Dimensions



² The description differs between UL Recognized and CE Compliant products.

■ UL Recognized Products

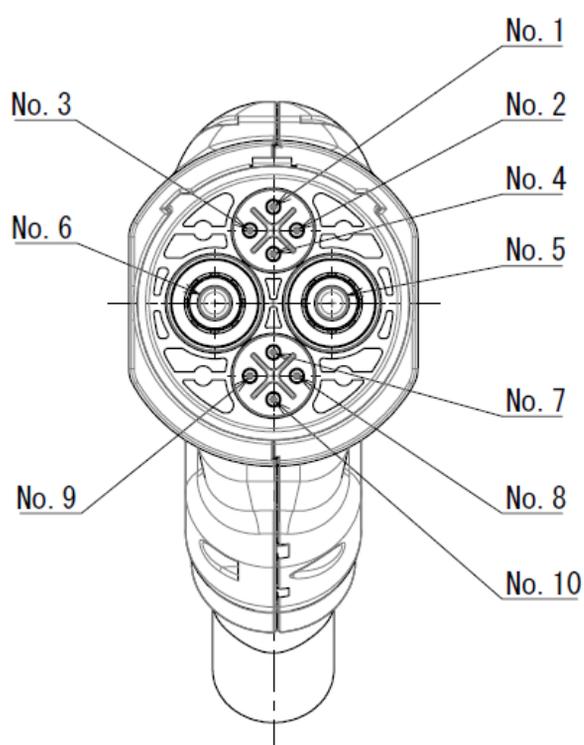
CAUTION!
Do not use this product if there is any damage to the EV cable, or the EV connector.
Japan Aviation Electronics Industry, LTD. KW03GY10PD DC500V 80A -30°C~+60°C Type3R

■ CE Compliant Products

CAUTION! 
Do not use this product if there is any damage to the EV cable, or the EV connector.
Japan Aviation Electronics Industry, LTD. KW03GY10PD DC500V 80A 1P46 (MATED)

³ Opposite the connector the cable is pigtailed

Contact Arrangement



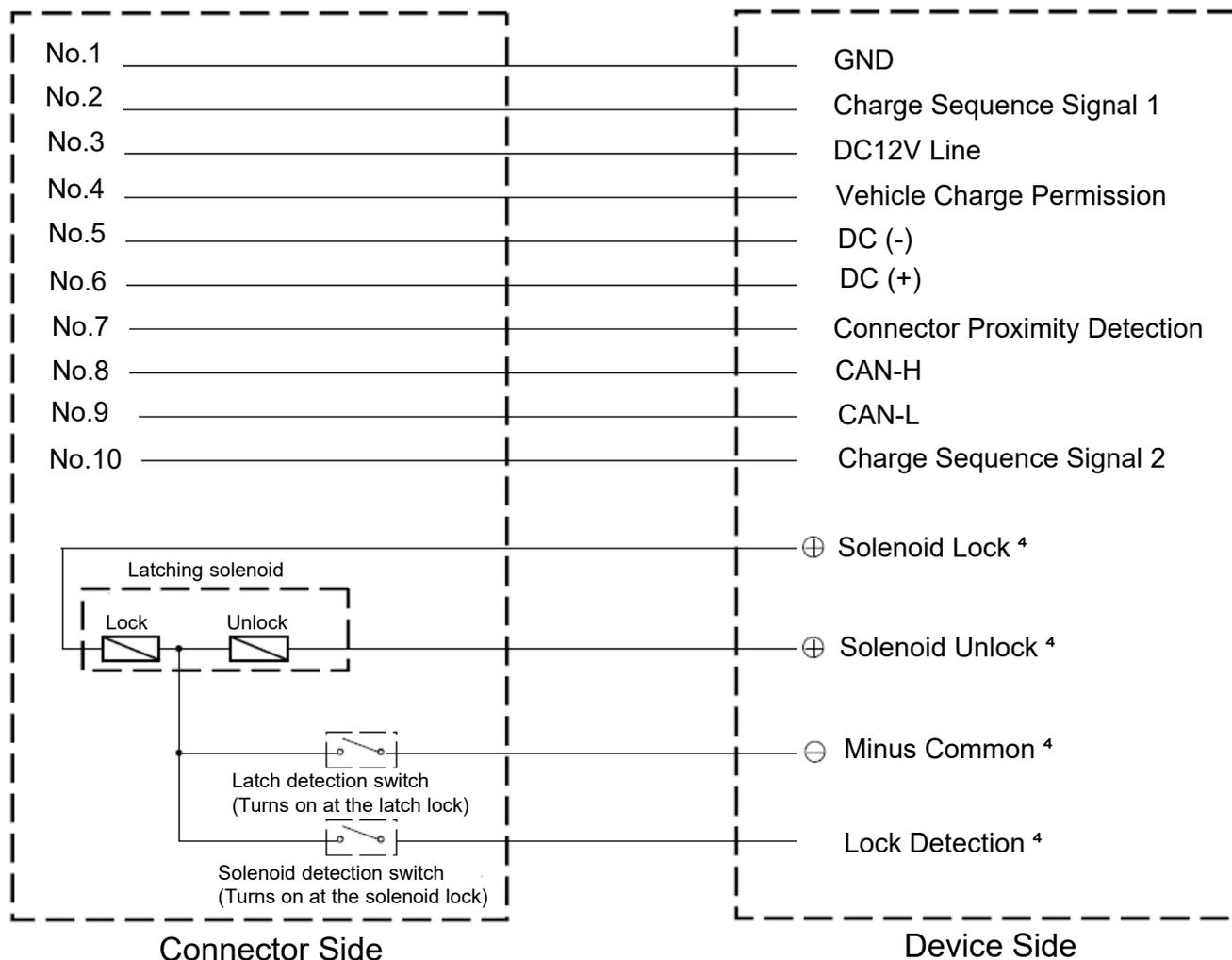
■ UL Recognized Products

No.	Size	Color / Marking
1	AWG16	Green
2	AWG18	Black
3	AWG16	Light blue
4	AWG18	Brown
5	AWG4	Black
6	AWG4	White
7	AWG18	Blue
8	AWG18	Orange
9	AWG18	Red
10	AWG18	Pink

■ CE Compliant Products

No.	Size	Color / Marking
1	1.5SQ	Black / 1
2	0.75SQ	Black / 2
3	1.5SQ	Black / 3
4	0.75SQ	Black / 4
5	25SQ	Black
6	25SQ	White
7	0.75SQ	Black / 7
8	0.75SQ	Black / 8
9	0.75SQ	Black / 9
10	0.75SQ	Black / 10

Connector Circuit Diagram



⁴ Please refer to the technical documents (JACS) for details on wire color and marking of solenoid connection.

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.