

**Charging Connectors Compatible with
the SAE J3400 (NACS) EV Fast Charging Standard**

CONNECTOR

MB-0400-1

KW51 Connector Harness

Feb.2025

RoHS Compliant

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

【Overview】

KW51 is a EV fast charging connector that supports NACS, the North American EV charging standard.

Until now, CCS1 has been used as the standard for EV charging in North America, but NACS has now been established as the new standard. NACS is lighter and more compact than CCS1, and is expected to become more widespread in North America in the future. KW51 has a rated current of 300A, and its light connector weight, compact size, ergonomic grip shape, and flexible cable specifications provide comfortable operability and ease of use. The waterproofness and robustness against drops are also reflected in the know-how cultivated in the development of various standard products (CHAdeMO, CCS1, CCS2) as part of the KW series.

【Application】

- NACS EV fast charger

【Features】

- Compatible with SAE J3400 TIR* (NACS)
- UL2251 Certification planned
- Mating durability: 30,000 times or more
- Ergonomic handle design
- Light connector weight and highly flexible cable

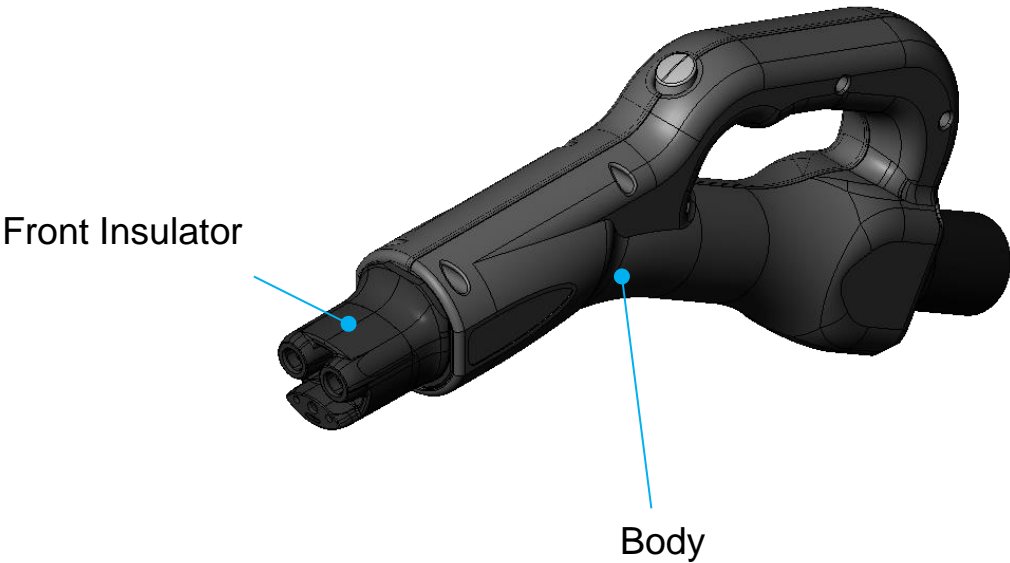
* As of January 2025, a Technical Information Report (TIR) has been issued by SAE.

General Specifications

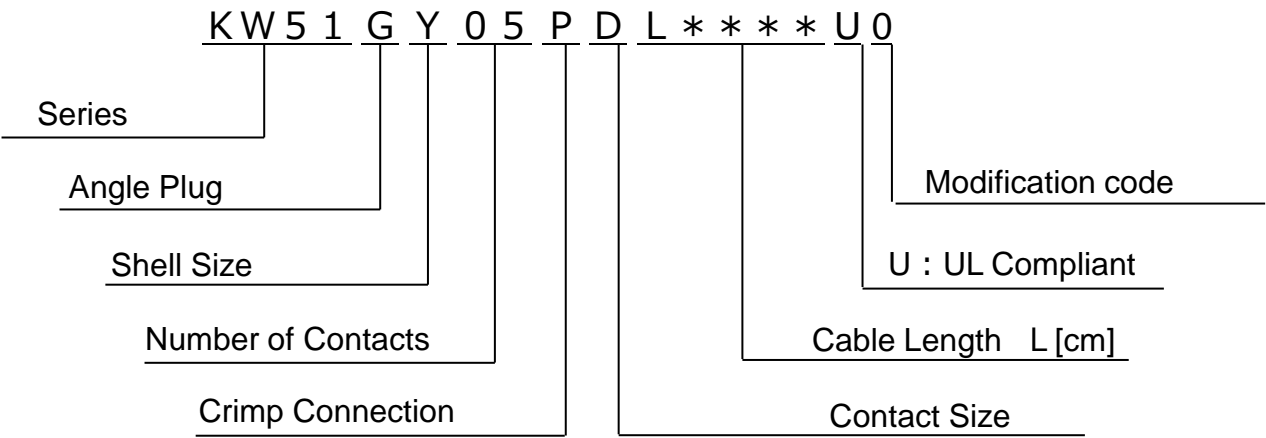
Number of Contacts	Power : 2pos. Ground:1pos., Signal:2pos.
Rated Current	DC300A
Rated Voltage	DC1,000V
Insulation Resistance	100MΩ min. (Apply DC1,000V between adjacent contacts)
Dielectric Withstanding Voltage	AC3,000Vr.m.s.(per minute)
Durability	30,000 cycles
Insertion Force	90N max.
Operating Temperature Range	- 30 deg C ~ + 40 deg C

Materials and Finishes

Component	Material
Front Insulator	Environment Resistant Resin
Body	Environment Resistant Resin

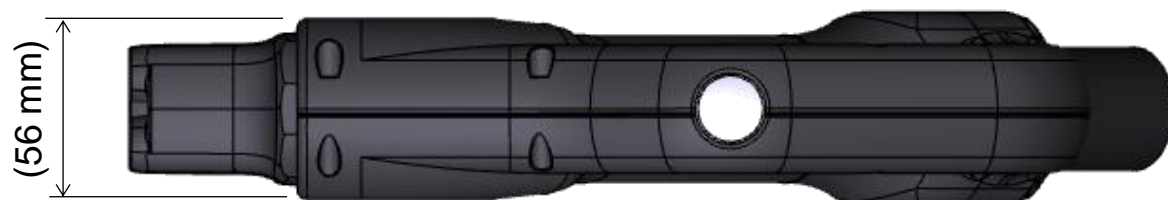


Part Number List

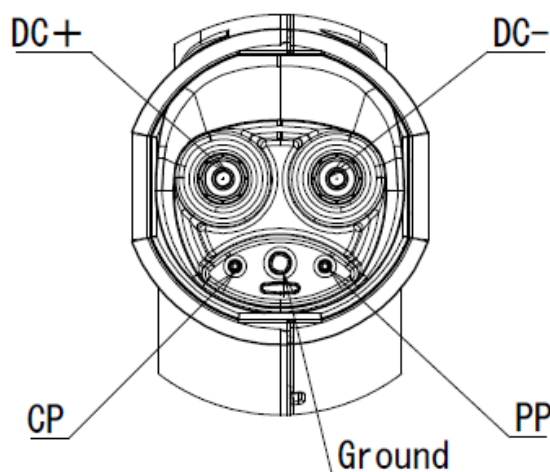
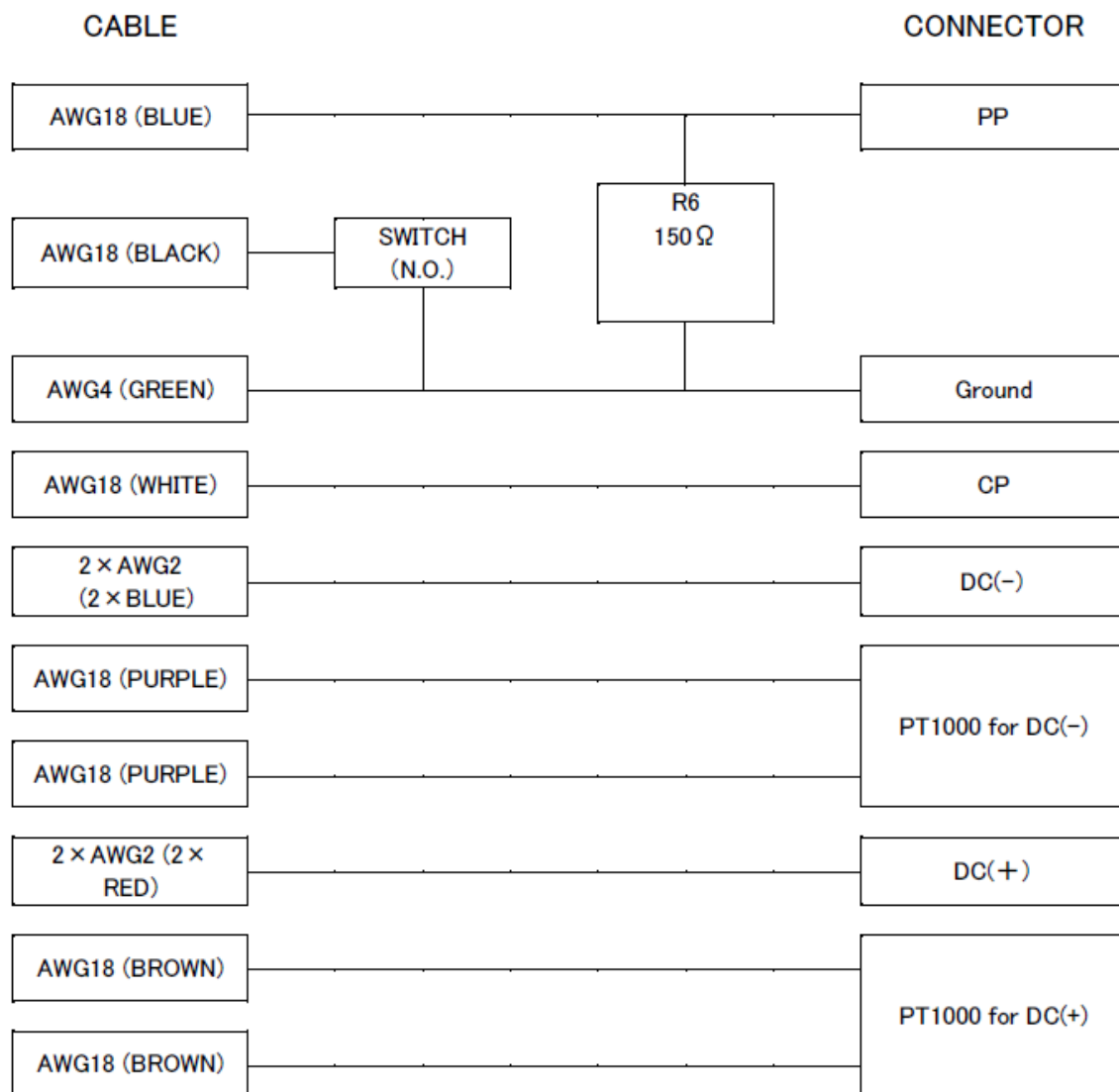


Part Number	Cable Length	Drawing No	Specifications	Handling Instructions
KW51GY05PDL0300U0	3.0m	SJ130532	JACS-40310	JAHL-40310
KW51GY05PDL0300U0	3.5m			
KW51GY05PDL0400U0	4.0m			
KW51GY05PDL0450U0	4.5m			
KW51GY05PDL0500U0	5.0m			
KW51GY05PDL0550U0	5.5m			
KW51GY05PDL0600U0	6.0m			
KW51GY05PDL0650U0	6.5m			
KW51GY05PDL0700U0	7.0m			
KW51GY05PDL0750U0	7.5m			
KW51GY05PDL0800U0	8.0m			

Outer Dimensions



Contact Arrangement



Temperature Sensor Specifications

Sensor Type	Pt 1000
Standards	DIN EN 60751
Measured Current	0.3mA
Temperature Range	- 50 deg C ~ + 200 deg C
Temperature Coefficient	3850ppm/K

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.

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