

RLC-IMS-61-050-0

6-pin Connection Cable for Railway Line gate driver family

Product Highlights

Highly Integrated, Compact Footprint

- Ready-to-use connection cable for Railway Line gate driver family
- 6-pin Connection from DC/DC-converter to main driver or from main to peripheral driver
- Mechanically locked
- Mechanical polarity inversion protection
- Supports multiple mating cycles
- -40 °C to +100 °C operating ambient temperature

Applications

- Railway inverter
- Industrial drives
- Other industrial applications

Description

This data sheet describes the connection cable from DC/DC-converter to main driver or from main to peripheral driver of the Railway Line gate driver families. This cable is available in a 6-pin-configuration.

Railway line gate drivers enable easy paralleling of up to three power modules providing high flexibility and system scalability with minimum development effort.

It is important to note that the cables between DC/DC-converter and main driver as well as the paralleling cables carry high potential. The user is fully responsible to apply sufficient isolation to the delivered cables and provide enough distance between cable and grounded surfaces in order to minimize parasitic common-mode capacitance.

Connectors

Erni 504898 (Female, 6pole, MicroBridge, 1.27 mm pitch, side locking, polarity protection)

Crimps

0.35 mm², AWG 22

Pinning of Cable

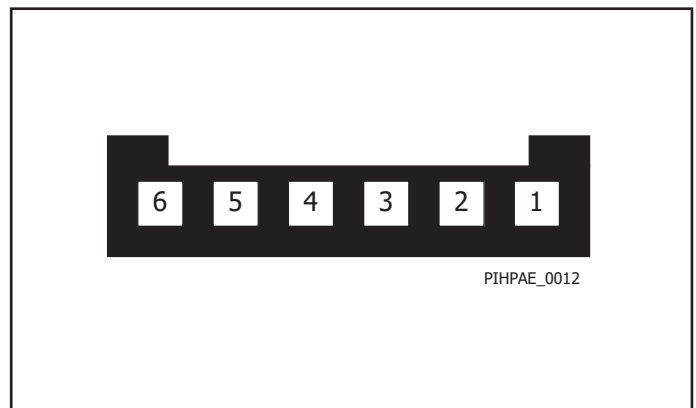


Figure 1. Pinning of 6-pin-Connector, top view, cable side.

Product Dimensions

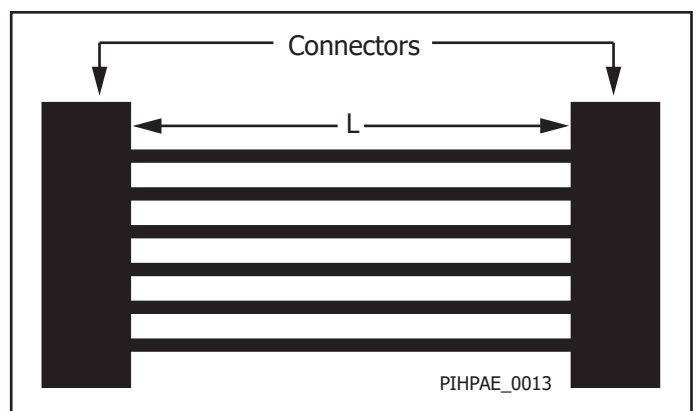


Figure 2. Definition of cable length.

Absolute Maximum Ratings

Parameter	Symbol	Conditions	Min	Max	Units
Absolute Maximum Ratings¹					
Storage temperature	T_{st}		-40	85	°C
Operating ambient temperature ²	T_A		-40	100	°C
Relative humidity	H_r	No condensation		93	%
Peak voltages between wires in cable	V_{max}		-200	200	V

Characteristics

Parameter	Symbol	Conditions $T_A = -40\text{ °C to }100\text{ °C}$	Min	Typ	Max	Units
Wire						
Wire Cross Section	D_{Cable}			22		AWG
Working voltage	V_{Work}			30		V
Wire						
Length	L	see Figure 2	495	500	505	mm

NOTES:

1. Stresses beyond those listed under absolute maximum ratings may cause permanent damage to the device.
2. The maximum ambient temperature of the final product is 85°C. Part of the cable may however be exposed to higher temperatures due to self-heating of the product.

Standards

RLC-IMS-61-050-0 fulfills the following standards in combination with 1SP0630x2x1R and 1SP0635x2x1R products:

- IEC 61373:2010, Railway applications - Rolling stock equipment - Shock and vibration tests, class 1B
- IEC 60721-3-5, Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities, 5M2
- Plastic materials compliant to EN45545-2, HL3 (Hazard Level 3)

Routine Test

The following tests are performed before delivery:

- Continuity test
- Minimum impedance test to neighbor wires
- IPC/sWHMA-A-620, class 2

Transportation and Storage Conditions

For transportation and storage conditions refer to Power Integrations' Application Note AN-1501.

RoHS Statement

We hereby confirm that the product supplied does not contain any of the restricted substances according Article 4 of the RoHS Directive 2011/65/EU in excess of the maximum concentration values tolerated by weight in any of their homogeneous materials.

Additionally, the product complies with RoHS Directive 2015/863/EU (known as RoHS 3) from 31 March 2015, which amends Annex II of Directive 2011/65/EU.

Notes

Revision	Notes	Date
A	Final Datasheet	05/21

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