

TRANSFORMER RANGE EASYPower SERIES

High Reliability Modular Connectors



- ▶ **High Density Modular Solution**
- ▶ **High Power, up to 700A**
- ▶ **Reliable Aluminium Power & Hyperboloid Contact Technologies**

INNOVATIVE MODULAR DESIGN

The EasyPower Series is part of the Transformer range, a comprehensive series of high density, modular connectors for all on-board power applications within the rail market.

The Transformer's modularity enables customers to design their own solution by supplying the elementary components of the whole connector. It employs a unique do-it-yourself system based on the building block principle. The connector is suitable for any applications requiring the transmission of very high currents such as power distribution, intercoaches and bogies.

HIGH RELIABILITY

The EasyPower Series is available in 1 to 4 pole versions, supporting up to 700A per pole and a voltage rating of 3600V. The EasyPower connectors can be supplied in a straight version, that allows for the easy mounting on the roof or under the car's

floor. A straight version with a shunt is also available to facilitate mounting between two cars.

The connector uses the Smiths Connectors' High Power Contact (HPC) technology in aluminum or in copper that allows for more contact points to reduce overheating and to achieve low mating force during the connection.

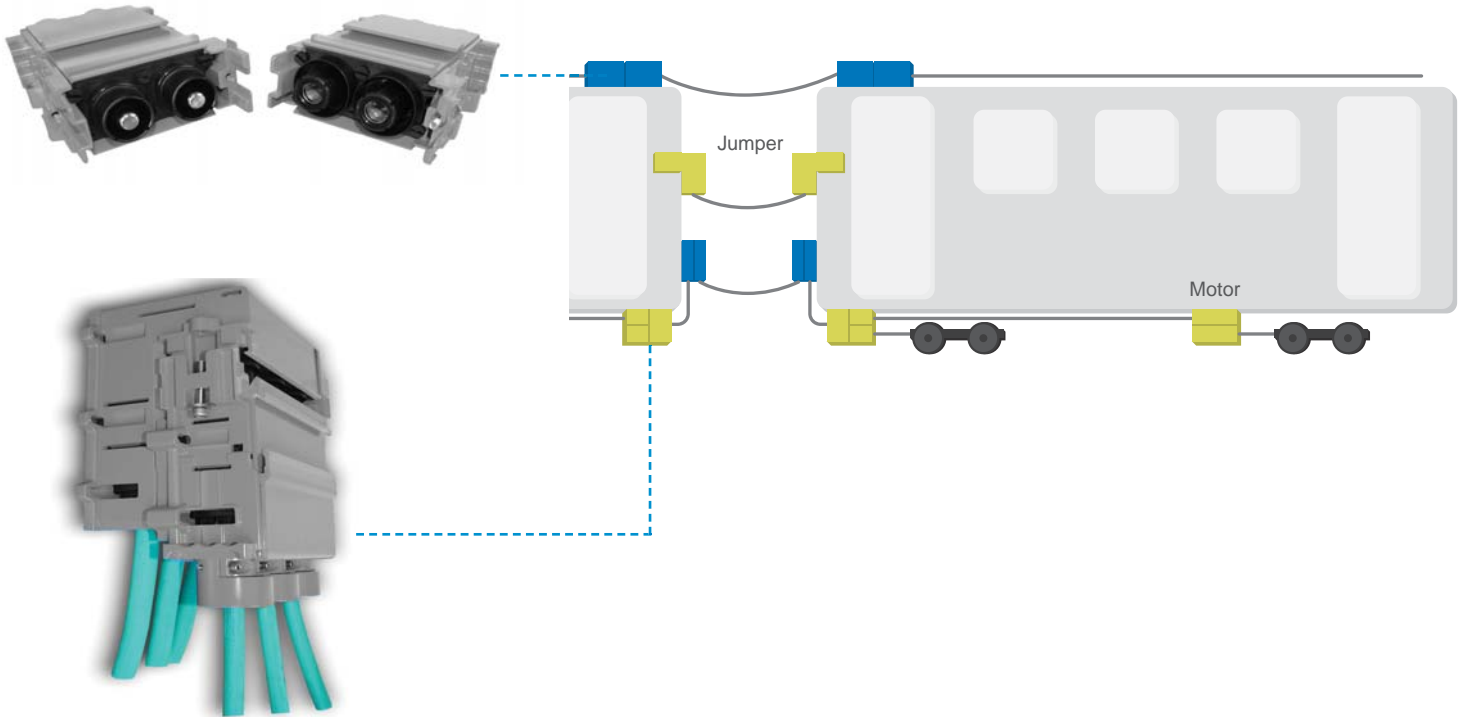
In addition, three contact sizes only are covering the cross section cables from 25mm² to 240mm², with consequent reduction of supply chain and cabling costs.

IDEAL FOR RAIL INDUSTRY

The EasyPower Series range is compliant with the main railway standards: NF F 61-030, EN 50647 and EN 60373. The connectors also conform to EN 45545 fire and smoke standards and are made of plastic materials following NF F 16-101/102.

APPLICATIONS

Meeting All On-Board Power Application Requirements



TECHNICAL CHARACTERISTICS

EasyPower Series Features & Specifications

FEATURES

- ▶ Rugged and modular connector
- ▶ Straight and shunt termination styles
- ▶ 4 coding keys
- ▶ Easy assembly with no special tooling
- ▶ Cable section size from 25mm² to 240mm²
- ▶ Locking by screws and coding devices according to 11.5.2.3 NF F 61030
- ▶ IP66, IP67 rating according to NF EN 60529
- ▶ High Power Contact (HPC) technology
- ▶ Fire and Smoke standards according to NF F 16-101, 16-102 and EN 45545-2 (HL3 for RV22 and RV23)

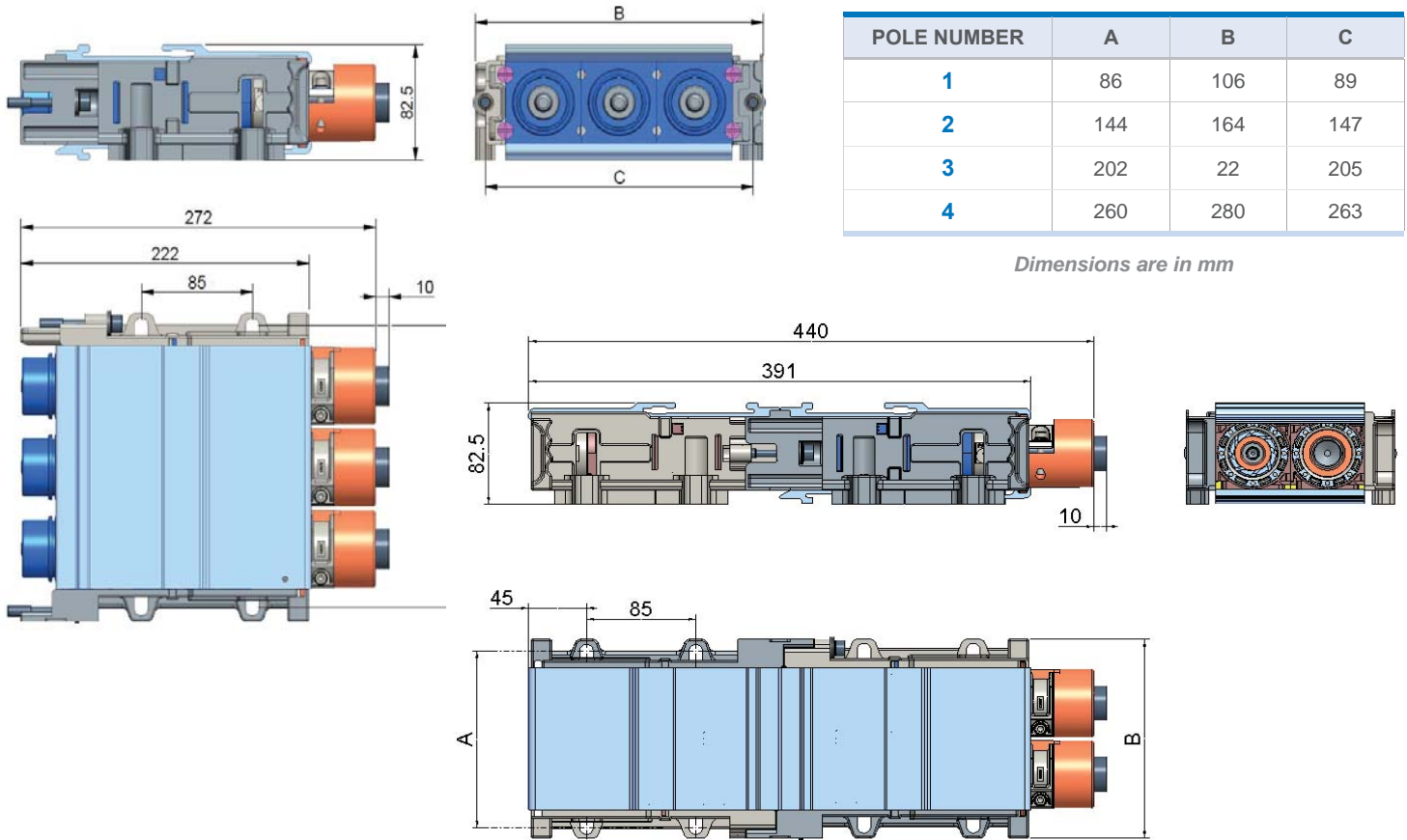
SPECIFICATIONS

- ▶ **Number of Contacts:** 1 to 4
- ▶ **Contact Pin Diameter:** 3 sizes
- ▶ **Current Rating:** up to 700A
- ▶ **Voltage Rating:** 3600V
- ▶ **Withstanding Voltage Rating:** 12KV
- ▶ **Temperature Rating:** -55°C to 125°C
- ▶ **Contact Material:** Copper or aluminum
- ▶ **Contact Retention:** acc. to 11.5.5 NF F 61 030
- ▶ **Connector Material:** Plastic and aluminum
- ▶ **Endurance:** 500 mating cycles
- ▶ **Dry Heat:** acc. to 11.6.2 NF F 61 030

DIMENSIONS

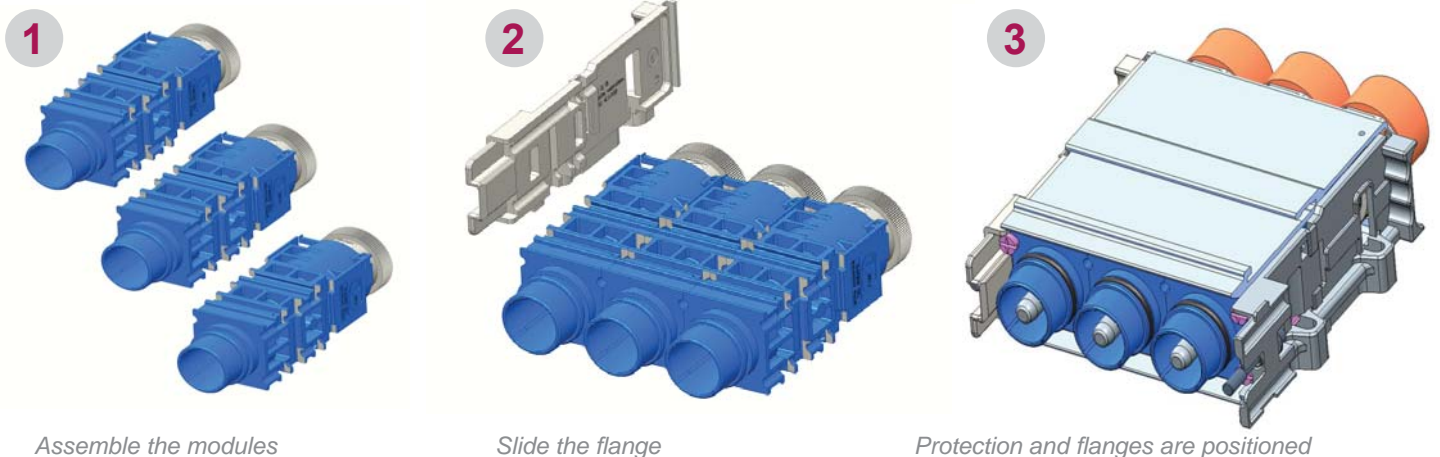
EasyPower Connectors

▶ EASYPower STRAIGHT TERMINATION



▶ CONNECTOR ASSEMBLY

A Unique Do-It-Yourself System Based on the Building Block Principle

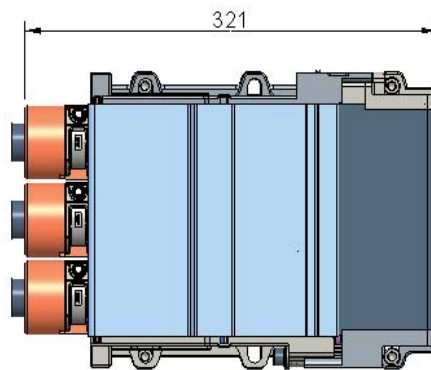
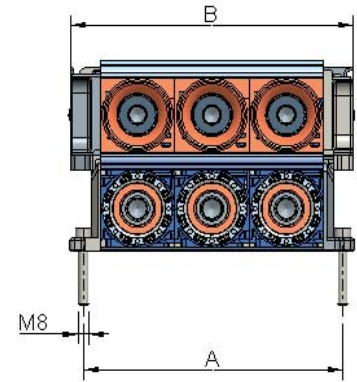
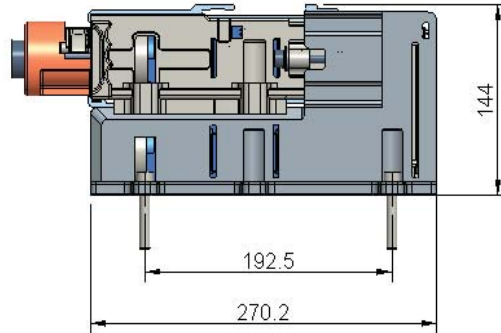
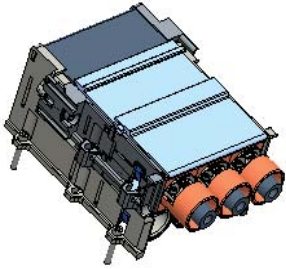


Assemble the modules

Slide the flange

Protection and flanges are positioned

▶ EASYPOWER STRAIGHT TERMINATION WITH A SHUNT



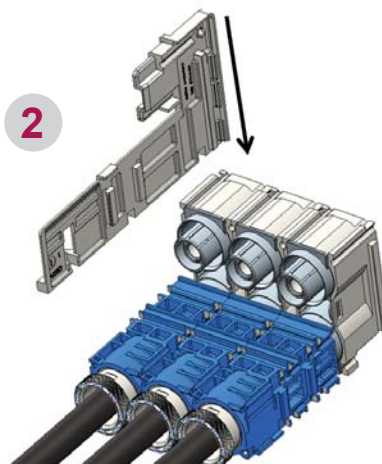
POLE NUMBER	A	B
2	86	106
4	144	164
6	202	22
8	260	280

Dimensions are in mm

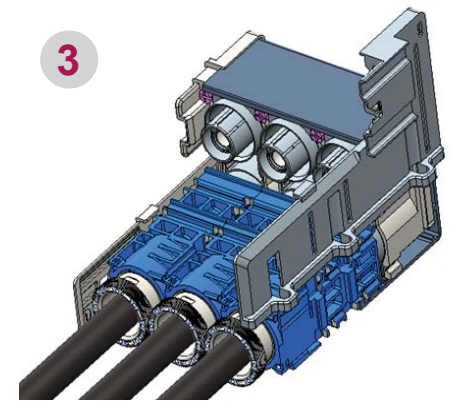
▶ CONNECTOR ASSEMBLY



Assemble the modules



Slide the flange



Protection is inserted and the opposite flange is positioned

TECHNOLOGIES

HYPERBOLOID

Excellent signal integrity
Exceptional mating cycles
Low contact resistance
Resistance to fretting



HPC (High Power Contact)

High current rating (from 100A to 1000A)
Light weight: copper or aluminum alloy materials
Low mating forces
Customizable



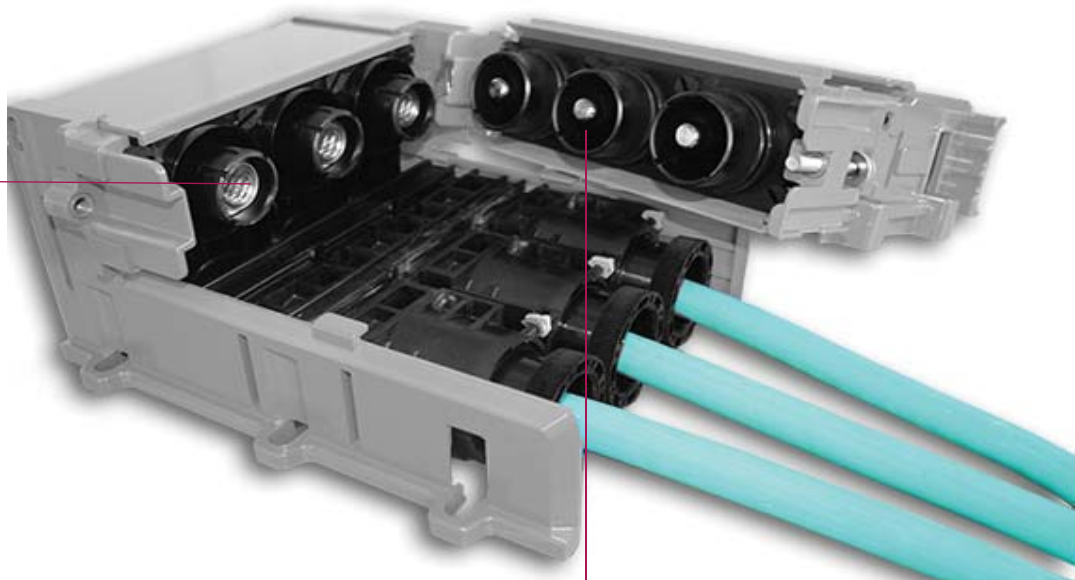
FEATURES & BENEFITS

▶ HIGH CURRENT

Up to 700A per pole

▶ DURABILITY

More than 500 mating/unmating cycles



▶ CUSTOMIZABLE

Innovative customer keyability and flexible design

▶ MODULARITY

Multiple configurations using common components

HOW TO ORDER



1 ▶ EASYPower CONNECTOR SERIES [Fixed]

2 ▶ CONNECTOR VERSION

P PLUG

R RECEPTACLE

S SHUNT

3 ▶ CONNECTOR TYPE

M MALE

F FEMALE

4 ▶ CONTACT ARRANGEMENT [Each digit corresponds to a pole, please configure each pole according to the requested cable section]

0 WITHOUT CONTACTS

X 185mm², crimp copper

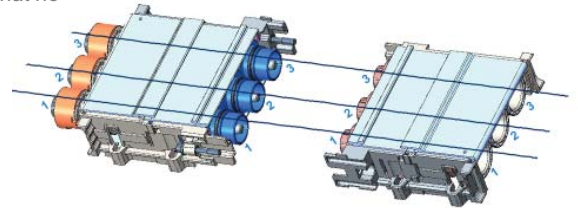
K 70mm², crimp copper

1 240mm², crimp copper

R 120mm², crimp copper

A 25mm², crimp copper

For example, the reference for the contact arrangement of a 3 pole version can be **1RA00**. This means that the 1st pole is equipped with a crimp contact for 240mm² cable section, the 2nd one for 120mm² and the 3rd one for 25mm². The last 00 digits indicate that no contact is required.



5 ▶ CABLE GLAND [Each digit corresponds to a pole, please configure each pole according to the requested cable gland]

0 WITHOUT CABLE GLAND

B Ø 24.5mm to 30.5mm

D Ø 16mm to 21mm

A Ø 30mm to 36mm

C Ø 19mm to 25mm

E Ø 12.5mm to 16.5mm

6 ▶ PROTECTION

0 WITHOUT PROTECTION

B BALAST

7 ▶ SWING EQUIPMENT

S WITH

0 WITHOUT

8 ▶ ACCESSORIES [Fixed]

smiths connectors

FOR MORE INFORMATION | smithsconnectors.com |



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