

Technical Data HVR®420 (Code HA)

Applicable Standards

Interface according to	RN_113-01
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Electrical Data

Insulation resistance	≥ 200 MΩ at 1000 V DC
Voltage class	B 60 V DC <U ≤ 1500 V DC 30 V AC <U ≤ 1000 V AC
Center contact resistance	≤ 0.22 mΩ
Outer contact resistance	≤ 2.00 mΩ
Current capacity for 120 mm ²	450 A at 85 °C (Cu-cable)
Test voltage	2500 V DC
Working voltage	1000 V DC
High-Voltage Interlock (HVIL)	yes

Mechanical Data

Mating cycles	≥ 50
Engagement force	≤ 100 N
Disengagement force	≤ 100 N
Coding efficiency	≥ 300 N
Cable cross sections	35 mm ² on request, 70 mm ² , 95 mm ² , 120 mm ²
Cable connection angle	90°
Vibration class	according to LV215 PG17 – II*
IP class (mated)	IP6K9K / IPX8
IP class (unmated)	IPXXB

* depending on cable fixation

Environmental Data

Temperature range	-40 °C to +125 °C
RoHS	compliant

Rosenberger connectors fulfill in principle the indicated data of the technical data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and execution. Specific data sheets for particular products can be provided on request from your Rosenberger sales partner.

HPK

The HPK series features 1-pole, 2-pole, or 3-pole connectors which can be used flexibly for copper or aluminum cables in four different cable cross sections. The product portfolio includes straight and angled cable couplers as well as the corresponding headers, either with or without HVIL (high-voltage interlock). The HPK system can achieve 270 A at up to 1000 V. Typical applications in electric vehicles include the connection between battery, inverter, and PDU.

Technical Properties

- IP class mated acc. to IP6K9K / IPX8 / IPXXD
- IP class unmated acc. to IPXX2B

Features and Benefits

- Highest power with minimum installation space
- Variability in cable cross section/HVIL/connection
- Effective EMI shielding
- Connectivity

Applications

- Battery connection
- Inverter
- E-machine



Cables

Copper

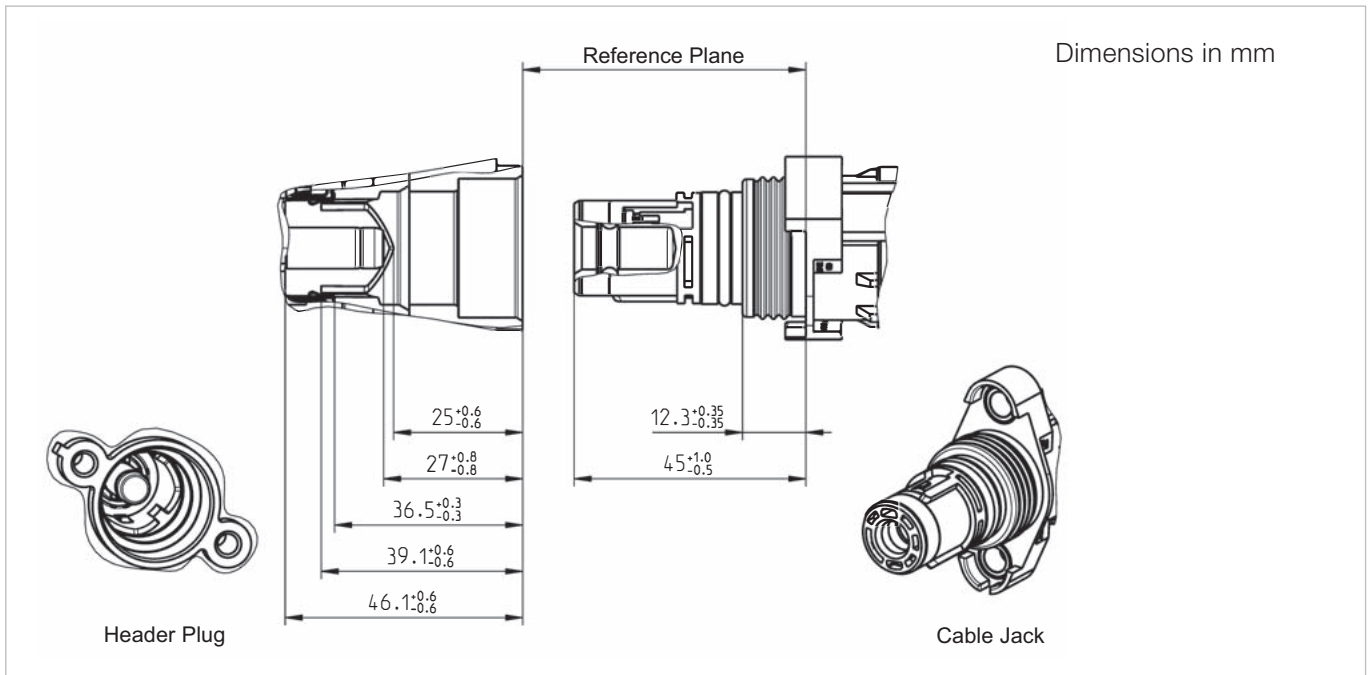
- FHLR2GCB2G 16 mm² / 0.21
- FHLR2GCB2G 25 mm² / 0.21
- FHLR2GCB2G 35 mm² / 0.21
- FHLR2GCB2G 50 mm² / 0.21

Aluminum

- FHLALR2GCB2G 35 mm²
- FHLALR2GCB2G 50 mm²



Interface Dimensions HPK (Code H4)



Coding HPK

Coding Housing		Coding Jack	Color/RAL-No. (Similar)		Jack
Z		A	Red/ 3001		
Z		B	Black/ 9005		
Z		C	Waterblue/ 5021		

Coding Housing		Coding Jack	Color/RAL-No. (Similar)		Jack
B		B	Black/ 9005		
		A	Red/ 3001		
C		B	Black/ 9005		
		C	Waterblue/ 5021		

Colors of the plastic housings are in accordance with the listed RAL colors, minor color differences during manufacturing are possible.