

ROLINX PowerCircuit[®] Solutions

Product Information

ROLINX PowerCircuit[®] Solutions are designed to fill the gap between PCBs and standard laminated busbars. Electrification in the automotive market is rapidly increasing as more and more electrical functionalities are integrated in the new cars to enhance the comfort and safety of driver and passengers. But more important is the electrification of the powertrain, from mild hybrid to the full EV car. The trend to more electrification results in the need for more power. Higher current voltage applications are required to drive all new electric functionalities within strict mechanical boundaries. Long term reliability in harsh environmental conditions and vibrations resistance are essential for under-the-hood applications.

While looking for a solution for the power distribution, designers might stumble on the boundaries of the technologies of PCBs and laminated busbars. PCBs are not suitable for the typical currents of 100A to 500A. A

switch to Power PCBs is necessary while this technology is not suitable for high volume production due to its labor intensiveness. A standard laminated busbar does not encounter issues with the given current range. However, the main limitation of a standard laminated busbar is the fit with high volume assembly processes (like wave soldering) and interconnection techniques. The ROLINX PowerCircuit solution provides an answer to this challenge and combines the advantages of a PCB for high volume assembly with the advantages of a standard laminated busbar for the current carrying capabilities.

ROLINX PowerCircuit Solutions can also be used in other applications where the designer is confronted with the boundaries of the known technologies. Examples of such applications are specific power ranges of solar inverters or variable frequency drives.

Advantages

- // Low inductance
- // Good thermal management
- // Fit for high volume assembly processes and interconnection techniques
- // Proven technology
- // Compact 3D design
- // Wave soldering capability

Typical Market Segments

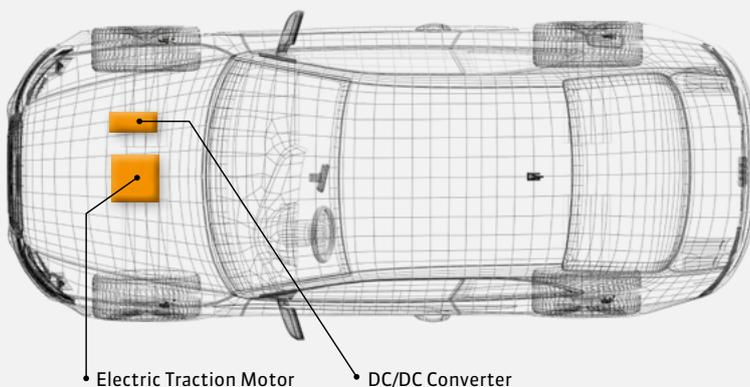
- // HEV/EV
- // DC/DC converters
- // Motor Drives
- // Clean energy
- // Industrial converters



Typical Technical Characteristics

Voltage	0.8 kV DC
Power	up to 200 kW
Temperature range	- 50°C / + 125°C
Relative humidity	55°C / 95% RH
Conductor material	Copper
Insulation material	Polyimide
Production test	High voltage, dimensional

Application Range (e.g.)



Rogers BVBA
Power Electronics Solutions - ROLINX
Noorwegenstraat 3
Havennummer 7998A
9940 Evergem
Belgium
Phone +32 9 235 36 - 11
Fax +32 9 235 36 - 58

Rogers Technology (Suzhou) Co., Ltd.
No. 18 West Shenhu Road
Suzhou Industrial Park
Suzhou, PRC, 215122
Phone +86 512 62 58 - 2700
Fax + 86 512 62 58 - 2858

europe@rogerscorp.com
www.rolinx.com
www.rogerscorp.com/pes

The information contained in this document is intended to assist you in designing with Rogers' Power Electronics Solutions Materials. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown in this document will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers ROLINX Busbars for each application. The Rogers logo, the ROLINX logo and ROLINX are trademarks of Rogers Corporation.