

ISSUE: September 2019

Liquid Cooled, 600-V Input DC-DC Converter Delivers Up To 2000 W

<u>ABSOPULSE Electronics'</u> LQC 2K-3U2LC is a liquid-cooled, industrial-quality dc-dc converter that uses field-proven technology to deliver up to 2000 W of output power. The unit accepts an input of 600 V (400 V to 800 V range) and provides 24-V/80-A output. A built-in output separation diode allows parallel connection of several units for higher system output. Custom input/output voltages are also available.

The LQC 2K-3U2LC converter is designed for dense enclosed spaces where heatsinks, fan or pure convection cooling are not feasible. The unit is typically used in vehicles, industrial automation and similar heavy-duty applications.

The converter is cooled entirely by liquid coolant. The cold plate has an embedded tube running a loop of coolant liquid which ensures a -25°C to +50°C coolant temperature range for full specification. The unit is connected to the external customer cooling system, which provides the liquid coolant. Optional internal temperature sensors can be installed to monitor the coolant temperature.

The LQC 2K-3U2LC is equipped with heavy filtering on the input and output, which contributes to low noise. This ensures that the converters can be used in EMI-sensitive environments without additional filtering. The input meets EN55032 Class A with wide margins; Class B is available as an option.

Contact the company at 613-836-3511 for further information on this and similar designs, for pricing and delivery. Or see the <u>website</u> for more information.



Figure. Measuring $5.2 \times 5.8 \times 15$ in., the LQC 2K-3U2LC liquid-cooled dc-dc converter operates from a wide input voltage range of 400 V to 800 V, while generating a 24-V output at up to 80 A. The output is floating and other output voltages are available on request.