Single-phase EMI filters for DIN rail also suitable for DC applications

TDK Corporation has expanded its portfolio of single-phase EMC filters with the B84742A*R725 series. These components are suitable for both AC and DC applications up to 250 V and rated currents from 6 A to 30 A. This means they are already predestined for the increasingly popular DC infrastructure in the industrial and building sectors. Available in five versions, the 97 x 60 x 34.5 mm (L x W x H) small single-phase filters, weighing no more than 310 g, can be snapped quickly and conveniently onto the TH35 DIN rail, also known as a top-hat rail. The conductors are fastened with M4 screws, and the screw connection is equipped with touch protection.

Particularly, the insertion loss of the filters is very high: Depending on the model, this is 40 dB for common mode and over 80 dB for differential mode noise at frequencies between 70 kHz and 10 MHz. At the same time, leakage currents are very low at less than 2 mA, which prevents unintentional tripping of RCDs. All types of this product family are UL-approved and specified for a rated temperature of up to 55 °C.

For short periods of time, the EMC filters can handle higher currents; 150% of the rated current is allowed for three minutes per hour and even 250% for 30 seconds per hour. This is particularly useful in drive applications when starting electric motors. Other typical applications are power supplies as well as ICT.

Main applications

- Power supplies
- Industrial electronics
- Information and communication technology (ICT)
- AC and DC applications

Main features and benefits

- High insertion loss
- Snap-in mounting for DIN rail TH35
- UL approval