

EMC Components

TDK presents single-phase EMI filters for DIN rail that can be used also in DC applications

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TDK Corporation (TSE:6762) has expanded its portfolio of single-phase EMC filters with the B84742A*R725 series. These components serve AC as well as DC applications up to 250 V and rated currents from 6 A to 30 A. This means they can be used for 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

Type	Dimensions [mm]	Rated current [A]	DC resistance [mΩ]	Weight [g]
B84742A0006R725	97 x 60 x 34.5	6	38	200
B84742A0010R725		10	16	220
B84742A0016R725		16	7.5	240
B84742A0020R725		20	4.5	240
B84742A0030R725		30	2.2	310

About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately “Attracting Tomorrow.” It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK’s comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2023, TDK posted total sales of USD 16.1 billion and employed about 103,000 people worldwide.

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Further information on the products can be found at https://www.tdk-electronics.tdk.com/en/EMC_DIN_Rail

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