

## Protection devices

### Extended series of inrush current limiters

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November 17, 2011

TDK-EPC, a group company of TDK Corporation, has extended its range of EPCOS inrush current limiters (ICL). The P11 series (B57211P\*) covers a resistance range from 4 to 25  $\Omega$  ( $R_{25}$ ). These types are designed for currents from 2.5 to 5 A in the temperature range between 0 °C and 25 °C. The P13 series (B57213P\*) with a resistance range from 3 to 5  $\Omega$  is designed for higher powers, i.e. for currents of 6 or 7 A.

The components of the new EPCOS ICL series are available with disk diameters of 13 and 14.5 mm (with coating). Overall, TDK-EPC now offers ICL types with disk diameters in the range between 8.5 and 26 mm (with coating).

ICLs are temperature-dependent resistors (NTC thermistors) and are used in applications such as the input circuits of power supplies. They limit the very high currents that occur at the moment of switch-on when charging the DC link circuit capacitors and thus protect diodes or rectifier bridges from destruction. Other applications are motors with slow-starting loads, such as pumps. In this case, ICLs prevent the high inrush currents from triggering line breakers. Compared to fixed resistors for current limitation, ICLs consume less power in continuous operation.

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#### Main applications

- Inrush current limitation in power supplies and motors

#### Main features and benefits

- Wide range of resistance values and rated currents
- Lower power consumption in continuous operation compared with fixed resistors

#### Key data

Series/Type	Resistance $R_{25}$ [ $\Omega$ ]	$I_{\max}$ 0 ... 25 °C [A]
P11/B57211P*	4 to 25	2.5 to 5
P13/B57213P*	3 to 5	6 or 7

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## About TDK-EPC Corporation

TDK-EPC Corporation (TDK-EPC), a TDK group company, is a leading manufacturer of electronic components, modules and systems headquartered in Tokyo, Japan. TDK-EPC has emerged from the combination of the electronic components business of TDK and the EPCOS Group and markets its products under the product brands, TDK and EPCOS.

The product portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites and inductors, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors. With this product spectrum TDK-EPC offers a broad range of products and solutions of outstanding value from a single source and focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has design and manufacturing locations and sales offices in Asia, Europe, and in North and South America.

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## Contacts for regional media

Region	Contact		Phone	Mail
<b>ASEAN</b>	Ms. A. LIEW	EPCOS PTE LTD SINGAPORE	+65 6845-7923	<a href="mailto:angelia.liew@epcos.com">angelia.liew@epcos.com</a>
<b>Greater China</b>	Ms. S. SUEN	EPCOS LTD HONG KONG	+852 3669-8224	<a href="mailto:stella.suen@epcos.com">stella.suen@epcos.com</a>
<b>Europe</b>	Mr. C. JEHLE	EPCOS Munich/ GERMANY	+49 89 636-24 615	<a href="mailto:christoph.jehle@epcos.com">christoph.jehle@epcos.com</a>
<b>India</b>	Mr. D. SAWANT	EPCOS India Private Ltd. Mumbai/ INDIA	+91 22 4256 0601	<a href="mailto:deepak.sawant@epcos.com">deepak.sawant@epcos.com</a>
<b>North America</b>	Ms. S. McSHEA	EPCOS Inc. Greenville, SC/ USA	+1 864 232-4240	<a href="mailto:mcsheap4@aol.com">mcsheap4@aol.com</a>
<b>South America</b>	Mr. C. DALL'AGNOL	EPCOS do Brasil Ltda. Gravataí/ BRAZIL	+55 51 3484-7158	<a href="mailto:candido.dallagnol@epcos.com">candido.dallagnol@epcos.com</a>