



## Film Capacitors – Power Factor Correction

Current limitation reactor

**Series/Type:** BD-050/BD-100/BD-200  
**Ordering code:** B44066T....E400/E480  
**Date:** December 2010  
**Version:** 1

**Characteristics**

- Single phase current limitation reactor for thyristor modules TSM-series in conventional dynamic PFC-systems without reactor
- Used for limitation of the pace of current increase  $di/dt$  in the thyristors to the maximum permissible value
- Protection of thyristor modules series TSM-LC10, TSM-LC25, TSM-LC50 and TSM-LC100 (two units per step required).

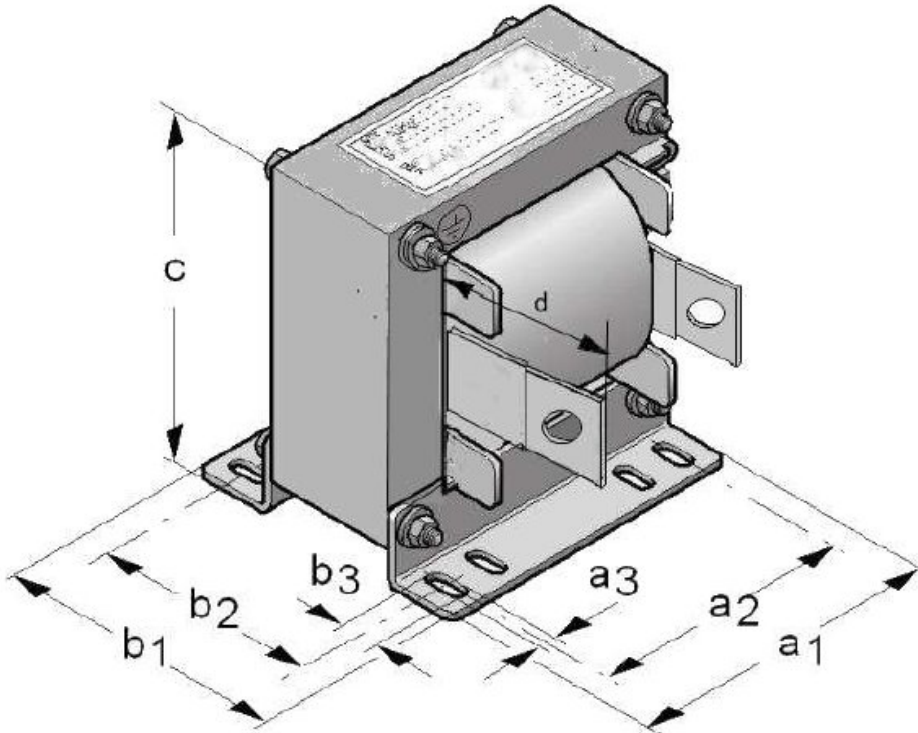


| <b>Characteristics</b>                |                    |                    |                     |
|---------------------------------------|--------------------|--------------------|---------------------|
| <b>400/440 V-type</b>                 | <b>BD-050*</b>     | <b>BD-100</b>      | <b>BD-200**</b>     |
| Nominal voltage                       | 400/440 V          | 400/440 V          | 400/440 V           |
| Nominal current                       | 50 A               | 85 A               | 170 A               |
| Linearity                             | 70 A               | 120 A              | 240 A               |
| Inductivity                           | 0.1 mH             | 0.1 mH             | 0.1 mH              |
| Frequency                             | 50/60 Hz           | 50/60 Hz           | 50/60 Hz            |
| Losses at $I_{eff}$ nominal current   | 21 W               | 26 W               | 55 W                |
| Connection                            | Cu bus bar         | Cu bus bar         | Cu bus bar          |
| Mode of operation                     | Continuous         | Continuous         | Continuous          |
| Maximum ambient operating temperature | 80 °C              | 80 °C              | 80 °C               |
| Ordering code                         | B44066T0050E400    | B44066T0100E400    | B44066T0200E400     |
| <b>480 V-type</b>                     | <b>BD-050/480*</b> | <b>BD-100/480*</b> | <b>BD-200/480**</b> |
| Nominal voltage                       | 480 V              | 480 V              | 480 V               |
| Nominal current                       | 50 A               | 85 A               | 170 A               |
| Linearity                             | 70 A               | 120 A              | 240 A               |
| Inductivity                           | 0.1 mH             | 0.1 mH             | 0.1 mH              |
| Frequency                             | 50/60 Hz           | 50/60 Hz           | 50/60 Hz            |
| Losses at $I_{eff}$ nominal current   | 23 W               | 28 W               | 55 W                |
| Mode of operation                     | Continuous         | Continuous         | Continuous          |
| Maximum ambient operating temperature | 80 °C              | 80 °C              | 80 °C               |
| Ordering code                         | B44066T0050E480    | B44066T0100E480    | B44066T0200E480     |

\*production only after ordering

\*\* only suitable for TSM-LC100

Dimensional drawing



| Dimensions in mm | B44066T0050E400 | B44066T0050E480 | B44066T0100E400<br>B44066T0100E480 | B44066T0200E400<br>B44066T0200E480 |
|------------------|-----------------|-----------------|------------------------------------|------------------------------------|
| a1               | 56              | 65              | 73                                 | 104                                |
| a2               | 44              | 50              | 56                                 | 84                                 |
| a3               | 3,6             | 4,8             | 4,8                                | 5,8                                |
| b1               | 61              | 58              | 74                                 | 114                                |
| b2               | 50              | 44,5            | 60                                 | 98                                 |
| b3               | 7               | 9               | 9                                  | 11                                 |
| c                | 70              | 82              | 88                                 | 125                                |
| d (ca.)          | 35              | 35              | 40                                 | 55                                 |
| Cu bus bar       | 15/D7           | 15/D7           | 20x2/D9                            | 20x3/D9                            |
| Weight (kg)      | ca. 1.5         | ca. 1.5         | ca. 2                              | ca. 6                              |

### Cautions and warnings

- The BD-xxx is designed exclusively for use in dynamic LV-PFC-systems without detuning reactors.
- **Do not use the current limitation reactors for TSM-LC200 and TSM-HV200!**
- **BD-200 is suitable for TSM-LC100 only.**
- The maximum permissible nominal voltage (see technical data) must not be exceeded!
- The equipment may be operated only by suitably trained personnel.
- A minimum distance of 50 mm towards the adjoining component set has to be kept.
- Mounting onto mounting plate.
- Mounting position random.

### Note

For detailed information about PFC capacitors and cautions, refer to the latest version of EPCOS PFC Product Profile.

Important: Please note that the „General Safety Recommendations for Power Capacitors“ by ZVEI (German Electrical and Electronic Manufacturers´ Association (ZVEI) have to be observed in addition to the caution guidelines stated in the data sheet (Internet: [www.epcos.com/pfc](http://www.epcos.com/pfc)).

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