EPCOS Product Brief 2018

Power Quality Solutions

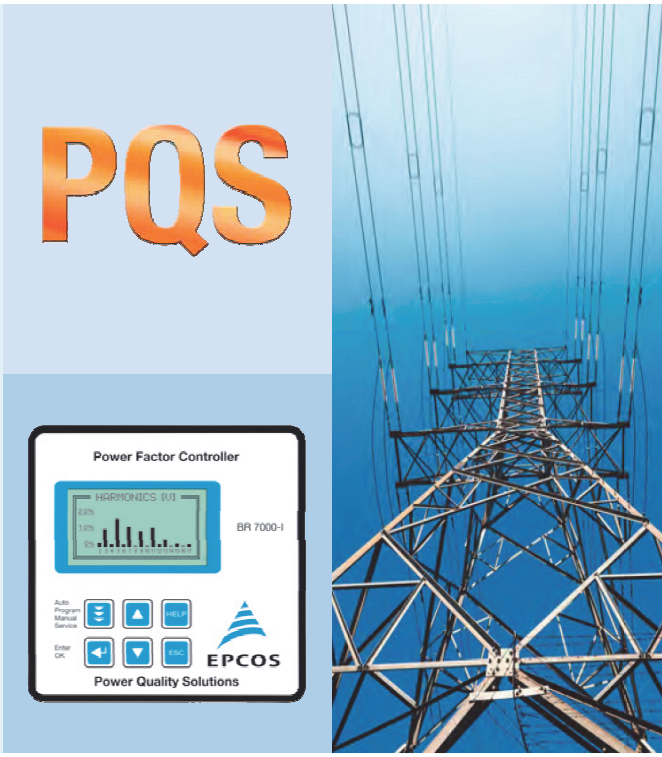
Power Factor Controller BR7000-I series

The single-phase PF controller BR7000-I has been introduced to the market in March 2012 and enlarges the product range of power factor control devices by a useful combination of the features known from the well-proven series BR6000 with the advantages of a better visualization of the BR7000-series and offers additional innovative characteristics. The RS485 interface allows the possibility of processing of measured values to a PC with the evaluation software BR7000-SOFT (included in the delivery).

The BR7000-I/S485 is equipped with an additional external input (function programmable), for example for a 2nd parameter set, and with an additional freely programmable message relay (e.g. for fan or status message).

The serial interface RS485 can be used for controller coupling or embedding into networks. The BR7000-I/S485 also features an internal clock which can mark all recorded values and messages with a time stamp. This enables a better evaluation of all values.

With the new type BR7000-I-TH with 12 relay and 12 transistor outputs, the series has now been completed with a controller for mixed and dynamic compensation. The BR7000-I-TH/S485 allows controlling and triggering of up to 32 thyristor modules type TSM-LC-S, also available in the EPCOS portfolio for dynamic PFC.



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Features

- Intelligent control
- Menu-driven handling, plain language: CZ/EN/ES/FR/GER/NL/PL/PT/RU/TR
- Self-optimized control capability
- Automatic initialization
- Test-run possible
- Large voltage measuring range
- Recall function for recorded values
- Four quadrant operation (e.g. standby generator)
- Powerful alarm output
- Second parameter set
- Control series editor
- Detailed expert modes
- Controlling of inductive compensation systems possible
- Large number of system parameters displayed
  - System voltage (V AC)
  - Reactive power (kvar)
  - Active power (kW)
  - Frequency
  - Apparent power (kVA)
  - Apparent current (A)
  - Temperature (°C)
  - Real-time cos-φ
  - Target cos-φ
  - kvar value to target cos-φ
  - Energy
  - Odd harmonics (3^{rd} … 33^{rd}) V (%), I (%)
  - Even and odd harmonics (2nd, 3rd, 4th – 17th)
- Standard service interface, e.g. for firmware-updates
- Extended supply voltage 110 … 440 V
- BR7000-I-TH and BR7000-I-TH/S485 for mixed and dynamic compensation
- BR7000-I-TH/S485 for direct triggering of up to 32 thyristor switches TSM-LC-S at the bus

Additional Features

- Illuminated graphical display (128 x 64 dots)
- HELP-button for context related help text
- ESCAPE-button allows backspace whilst navigating in the menu
- BR7000-I, BR7000-I/S485: 12 relay outputs plus 1 alarm output
- BR7000-I-TH, BR7000-I-TH/S485: 12 relay and 12 transistor outputs plus 1 alarm output
- 3-digit display of the power factor (cos ϕ)/switchable display as tan-φ
- Display-Mode
  - Simultaneous large display of 3 measuring values for additional usage as measuring and display device; the desired display values editable
  - Uneven harmonics measurable up to 33^{rd} harmonic
  - Even harmonics measurable up to 16^{th} harmonic
  - Graphical display of selected harmonics as bar graph
  - Storage of maximum values
  - Storage of switching operations and times (only relay outputs)
- Alarm relay programmable with shutter or opener function
- Code number (Password) programmable by the customer
- Option interface RS485 with evaluation software BR7000-SOFT included in the delivery
  - Option interface with additional external input and programmable message relay

Features BR7000-SOFT

- Connection to RS485-bus
- Administration of several PF controllers possible
- Convenient analysis of recorded values
- Direct connection to USB port of a PC via USB adapter
- CD-ROM included in the delivery of BR7000-I/S485 and BR7000-I-TH/S485

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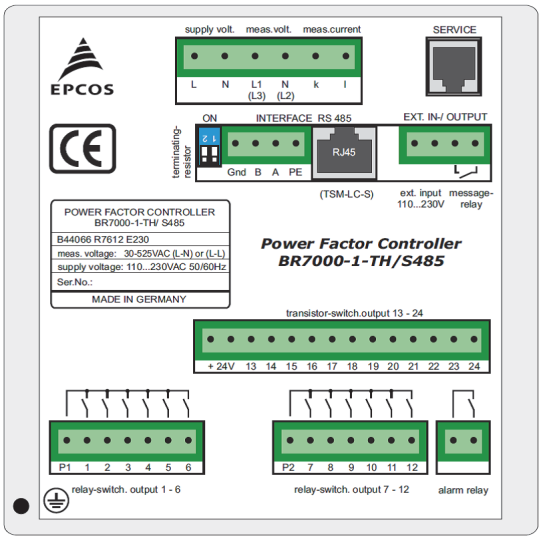
BR7000-I series front view

BR7000-I-TH/S485 rear view



Technical data	
Operating voltage	110 … 440 V AC +/- 15%, 50 and 60 Hz
Measuring voltage	30 … 440 V AC (L-N); 50 … 760 (L-L); 50/60 Hz
Measuring current	X: 5 A / X: 1 A, selectable
Power consumption	< 5 VA
Sensitivity	50 mA / 10 mA
Construction	Panel mounted instrument, DIN 43700, 144 x 144 x 55 mm, weight 1 kg
Ordering codes	BR7000-I B44066R7012E230 BR7000-I/S485 B44066R7112E230 BR7000-I-TH B44066R7412E230 BR7000-I-TH/S485 B44066R7612E230

Display of ordering codes for EPCOS products

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