

EPCOS Product Brief 2013

Power Factor Correction

Power Factor Controller BR7000-I, BR7000-I/S485

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.

Now, a new version even offers an RS485 interface that 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 allows a better evaluation of all values.

Features

- Intelligent control
- Menu-driven handling, 10 plain languages
- Self-optimizing 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
- Supply voltage 110 ... 230 V

PQS



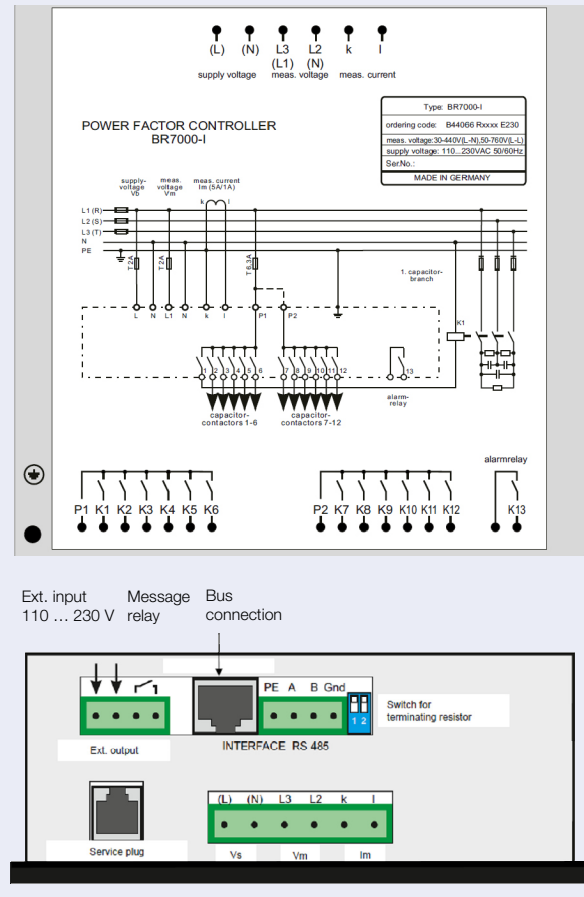
Power Factor Correction PF Controller BR7000-I, BR7000-I/S485



Additional features

- Graphical display (128 x 64 dots) – like PF controller series BR7000
- 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 $\cos\phi$
 - Target $\cos\phi$
 - kvar value to target $\cos\phi$
 - Harmonics (3rd ... 19th) V (%), I (%)
- HELP-button for context related help text
- ESCAPE-button allows backspace whilst navigating in the menu
- Always 12 respective 13 outputs
- 3-digit display of the power factor ($\cos\phi$)/switchable display as $\tan\phi$
- 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 33rd harmonic
 - Even harmonics measurable up to 16th harmonic
 - Graphical display of selected harmonics as bar graph
 - Message/alarm relay programmable with shutter or opener function
- Code number (Password) programmable by the customer
- NEW: Option interface RS485¹⁾ with evaluation software BR7000-SOFT included in the delivery

Connection diagram



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

Technical data	
Operating voltage	110 ... 230 V ~ +/- 15%, 50 and 60 Hz
Measuring voltage	30 ... 440 V ~ (L-N); 50 ... 760 V ~ (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 code	BR7000-I: B44066R7012E230 BR7000-I/S485: B44066R7112E230

1) With one additional external input and one additional message relay.

Important information: Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products. We expressly point out that these statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. It is incumbent on the customer to check and decide whether a product is suitable for use in a particular application. This publication is only a brief product survey which may be changed from time to time. Our products are described in detail in our data sheets. The Important notes (www.epcos.com/ImportantNotes) and the product-specific Cautions and warnings must be observed. All relevant information is available through our sales offices.