



## Power Factor Controller BR604

**Series/Type:** BR604  
**Ordering code:** B44066R6004E230  
Date: December 2006  
Version: 2

**Preliminary data**
**Characteristics**

- Intelligent control
- Menu driven handling (plain language; German/English)
- Self-optimizing control capability
- Recall function of recorded values
- Four-quadrant operation (e.g. stand by generator)


**Features**

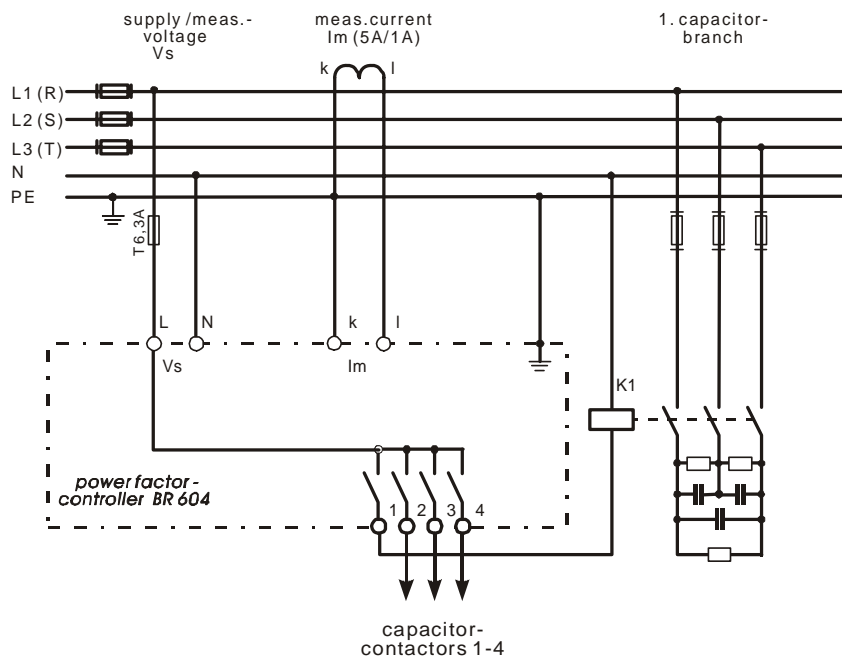
Display	<ul style="list-style-type: none"> <li>- Large and multifunctional LCD (2 x 16 characters)</li> <li>- Graphic and alphanumeric</li> </ul>
System parameters displayed	<ul style="list-style-type: none"> <li>- System voltage (VAC)</li> <li>- Reactive power (kvar)</li> <li>- Active power (kW)</li> <li>- Apparent power (kVA)</li> <li>- Apparent current (A)</li> <li>- Real-time cos phi</li> <li>- Target cos phi</li> <li>- kvar value to target cos phi</li> </ul>
Recall recorded values	<ul style="list-style-type: none"> <li>- Maximum voltage, (<math>V_{max}</math>)</li> <li>- Maximum reactive power, Q (kvar)</li> <li>- Maximum active power, P (kW)</li> <li>- Maximum apparent power, S (kVA)</li> </ul>

**Technical Data**

Weight	0.5 kg
Case	Panel-mounted instrument, 100 x 100 x 40 mm) (cut out 92 x 92 mm)
Ambient conditions	
<ul style="list-style-type: none"> <li>- Over-voltage class</li> <li>- Pollution degree</li> <li>- Operating temperature</li> <li>- Storage temperature</li> <li>- Sensitivity to inference (industrial areas)</li> <li>- Spurious radiation (residential areas)</li> <li>- Safety guidelines</li> <li>- Mounting position</li> <li>- Humidity class</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>III</li> <li>2</li> <li>-10 °C .... +70 °C</li> <li>-20 °C ... +75 °C</li> <li>EN55082-2.1995</li> <li>EN55011 10.1997</li> <li>EN61010-1 :2001</li> <li>Any</li> <li>15% to 95% without dew</li> </ul>

**Preliminary data**

<b>Protection class</b> <ul style="list-style-type: none"> <li>- Front plate</li> <li>- Rear side</li> </ul>	IP54 according to IEC60529 / DIN 40050 IP20 according to IEC60529 / DIN 40050
<b>Operation</b> <ul style="list-style-type: none"> <li>- Supply voltage</li> <li>- Target cos phi</li> <li>- Switching and discharge time range</li> <li>- Number of control series</li> <li>- Control modes</li> </ul>	230 VAC, 50 and 60 Hz power lines 0.8 ind. – 0.8 cap. 1 – 255 seconds 23 series preset Series switching (LIFO), circular switching (FIFO), self-optimized intelligent control mode
<b>Measurement</b> <ul style="list-style-type: none"> <li>- Measurement voltage range</li> <li>- Fundamental frequency</li> <li>- Measurement current (CT)</li> <li>- Minimum operating current</li> <li>- Maximum current</li> <li>- Zero voltage release</li> </ul>	= supply voltage: 230 VAC (L-N) 50 and 60 Hz x/1 and x/5 Ampere possible 40 mA 5.3 (sinusoidal) < 15 ms
<b>Switching outputs</b> <b>Relay outputs</b> <ul style="list-style-type: none"> <li>- Number of relays</li> <li>- Switching voltage/power</li> <li>- Expected mechanical life</li> <li>- Expected electrical life</li> </ul>	4 steps available max. 250 VAC, max. 1000 W > 30 x 10 <sup>6</sup> switching operations > 5 x 10 <sup>6</sup> switching operations (load = 200 VA, cosphi = 0.4)
<b>Ordering Code</b>	B44066R6004E230

**Preliminary data**
**Connection plan**

**⚠ Cautions:**

**Controller hunting:** When putting the capacitor bank into operation, it is required to avoid needless switching cycles (means permanent switching on and off of steps without significant change of consumer load). This so called "controller hunting" would increase the number of switching operations of the connected contactors and capacitors and decrease the expected life cycle (wear out) and, in worst case, capacitor bursting and fire, etc. This can be avoided by a proper programming of the BR604 with the actual system parameters (current transformer prim. and sec., first kvar step, control series, switching time).

**⚠ Please read cautions information about PFC capacitors and cautions as well as installation and maintenance instructions in the actual version of the Product Profile Power Factor Correction to ensure optimum performance and prevent products from failing, and in worst case, bursting and fire, etc. The actual Product Profile is available at [www.epcos.com/publications](http://www.epcos.com/publications).**

*Information given in the PFC-product profile and values given in the data sheet reflect typical specifications. You are kindly requested to approve our product specifications or request our approval for your specification before ordering.*

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