

Film Capacitors – Power Factor Correction

Data logger BR6000-R12/S485 / BR7000

Series/Type:DataLogSDOrdering code:B44066R1311E230Date:May 2011Version:1

© EPCOS AG 2015. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.



Film Capacitors – Power Factor Correction

Data logger BR6000-R12/S485 / BR7000

Features

- Data logger for PF controller BR6000-R12/S485 / BR7000
- Recording of grid parameters, switching behaviour and temperature values of a system on SD-card
- Visualisation and evaluation via comfortable Windows-based software
- Compact design in plastic casing
- Evaluation software, SD-card, connection cable included in the delivery
- No extra auxiliary voltage supply needed

Technical data and specifications

recipical data and specifications	
Dimensions	66 x 66 x 28 mm (h x w x d)
Weight	ca. 0.1 kg
Power supply	Self-supporting via interface BR6000-R12/S485 / BR7000
Power consumption	ca. 50 mA
Recorded grid parameters	Voltage, current, reactive, effective and apparent power, frequency, harmonics up to 31^{st} of V and I, power factor (cos ϕ), THD-V, THD-I, energy
Recorded parameters of the compensation system	System temperature, step output, control history of the system (switching operations, switching behavior, power-on-time)
Supported devices	BR6000-R12/S485 (version V5.0 onwards) BR7000
Recording interval/recording time	1 sec./10 sec. switchable
Connections	System interface RS485 (RJ45-jack)
Degree of protection (VDE 0470)	IP20
Extend of delivery	Compact device, SD-card 1 GB, Software-CD, patch cable 0.5 m
Max. ambient operating temperature	–10 +50 °C
Storage temperature	–20 +75 °C



FILM PFC PM

B44066R1311E230

DataLogSD





DataLogSD

Film Capacitors – Power Factor Correction

Data logger BR6000-R12/S485 / BR7000

Areas of usage

- Storage of grid parameters for a time interval for (graphical) evaluation via PC-software included in the delivery
- Recording and evaluation of minimum and maximum values
- Recording of voltage and power curves
- Recording and evaluation of harmonics in the grid

Evaluation of status and control behaviour of the compensation system by

- Investigation of the correlation between switching behaviour, cos φ and remaining reactive power thus fault detection and optimization of the system settings
- Evaluation of system dimensioning
- Recording of switching operations and switching times of all steps: detection of wear-off of switching devices
- Review of target output of switched steps compared to the measured reactive power detection of defective steps possible
- Recording of temperature in the compensation system, early detection of thermal problems

Evaluation software for PC (Windows-compatible) included in the delivery

The particular PC-software allows the comfortable evaluation of the measured data, assessment of grid parameters.

- **Display of grid parameters**, $\cos \varphi$, reactive power
- Reactive power of grid and system cos φ
- Reactive power of grid and system step status
- Comparative display of ACTUAL and TARGET cos φ
- Diagrams of switched reactive power of the system
- Harmonics
- Temperature curve of the system during measuring interval
- Number of switching operations and switching times of all steps as bar diagram – detection of wear-off



The acquired measurement results must be considered as values that should help the user to track errors or for evaluating a compensation system. The final rating is incumbent on the user.

<u>Note</u>

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).



B44066R1311E230

The following applies to all products named in this publication:

- 1. 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 in the areas of application concerned. We nevertheless expressly point out that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. As a rule we are either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether a product with the properties described in the product specification is suitable for use in a particular customer application.
- 2. We also point out that in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
- 3. The warnings, cautions and product-specific notes must be observed.
- 4. In order to satisfy certain technical requirements, some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous). Useful information on this will be found in our Material Data Sheets on the Internet (www.tdk-electronics.tdk.com/material). Should you have any more detailed questions, please contact our sales offices.
- 5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.

We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.

- 6. Unless otherwise agreed in individual contracts, all orders are subject to our General Terms and Conditions of Supply.
- 7. Our manufacturing sites serving the automotive business apply the IATF 16949 standard. The IATF certifications confirm our compliance with requirements regarding the quality management system in the automotive industry. Referring to customer requirements and customer specific requirements ("CSR") TDK always has and will continue to have the policy of respecting individual agreements. Even if IATF 16949 may appear to support the acceptance of unilateral requirements, we hereby like to emphasize that only requirements mutually agreed upon can and will be implemented in our Quality Management System. For clarification purposes we like to point out that obligations from IATF 16949 shall only become legally binding if individually agreed upon.
- 8. The trade names EPCOS, CeraCharge, CeraDiode, CeraLink, CeraPad, CeraPlas, CSMP, CTVS, DeltaCap, DigiSiMic, ExoCore, FilterCap, FormFit, LeaXield, MiniBlue, MiniCell, MKD, MKK, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, PowerHap, PQSine, PQvar, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, ThermoFuse, WindCap are trademarks registered or pending in Europe and in other countries. Further information will be found on the Internet at www.tdk-electronics.tdk.com/trademarks.

Release 2018-10