

BELUK

MPFC-PF MULTIUSE POWER FACTOR CONTROLLER AND GRID MONITOR CONTROL & PROTECTION



With the **MPFC-PF**, **BELUK** offers a compact device for measuring, monitoring and automatically controlling to optimize your power quality.

It was developed for single-phase and three-phase systems in utility power distribution networks and industrial distribution grids to control compensation systems.

Switches inductive as well as capacitive loads.

Voltage harmonic limits (THD-U) in accordance with EN50160 are the benchmark for alarm configuration. Integration into your energy management system is facilitated by the Modbus RTU protocol via the RS-485 interface and optionally by the IEC61850 protocol via the Ethernet interface.

Technical Information

CONTROL ALGORITHMS

BEST FIT, FIFO, LIFO UP, LIFO DOWN
PROGRESSIVE, FAST
Q-ALGORITHMS: Q(U), COSPHI(U),
COSPHI(P), STATIC Q

PROTECTION

of the power contactors against unnecessary switching cycles by taking into account operating hours and switching cycles via an alarm system with freely adjustable threshold values, delay times, and reset behavior.

MEASUREMENT

True RMS measurement
Determination of cos phi relative to the fundamental wave
Measurement category: IEC/EN/UL/CSA 61010-2-030 (VDE 0411-2-030)
CAT IV: <= 300 V
CAT III: > 300 V to 600 V

INTERFACES

IEC61850 Protocol
Modbus RTU 485
Configuration Software

DATALOGGING AND ANALYSIS

Step size monitoring, Operation Hours per Step, Number of operations, Event Data Recorder (including current and voltage values during and previous the event)

HMI FUNCTIONS

Display of current values and status messages
Monitoring of operating and process data
Color change display for status monitoring
Setting and saving parameters
Easy menu navigation via four push buttons

OVERVIEW SCREEN

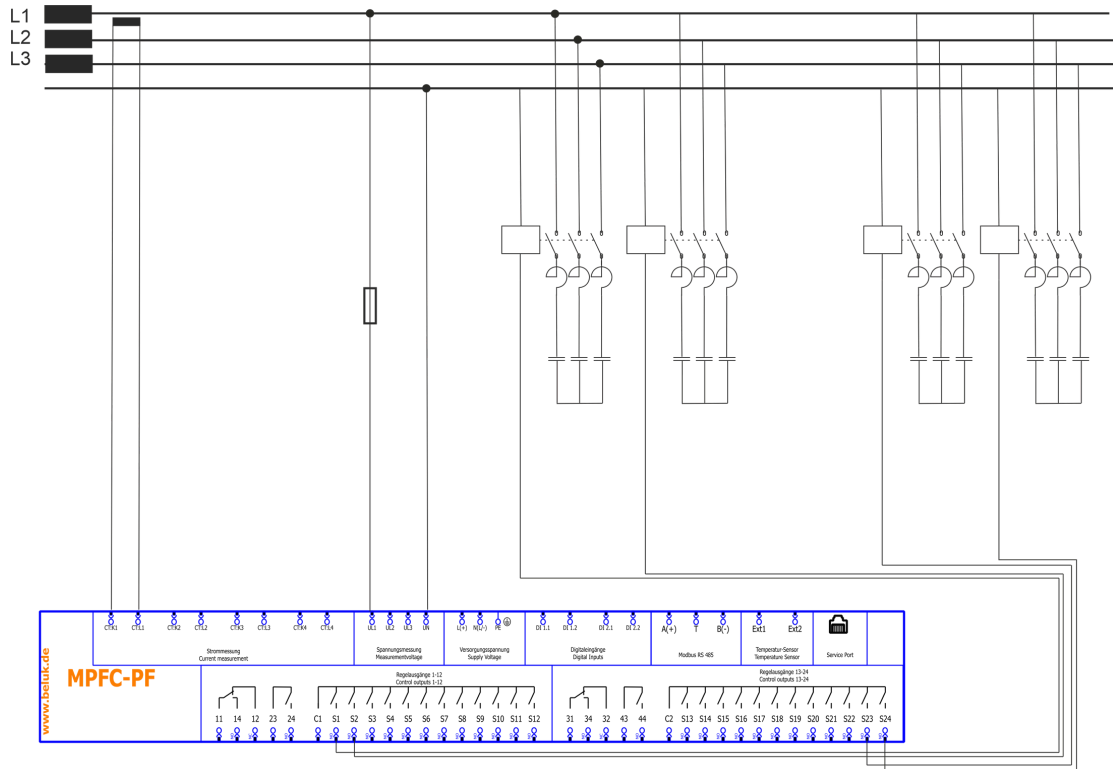
Current load data & cos phi
Step status (On / Off / Faulty)
Status of digital inputs and digital outputs
Direction of rotation
Time and Date

POWER SUPPLIES:

LN: 90-317 V AC / 50/60Hz
LL: 155-550V AC / 50/60Hz
40 - 240 V DC

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Wiring Diagram



BASE DEVICE:

Two Digital inputs

Data memory for recording of grid data

Measurement and monitoring of harmonics up to the 63rd order

Measurement voltage: 40-600V, 50/60Hz, 0.2VA

Current measurement : 4 x 10 mA-6A, 50/60Hz, 1VA

Switching outputs: 6-24 normally open contacts

Signalling outputs: 1 C/o and 1 n/o programmable

OPTION L:

Event recorder with adjustable pre- and post-trigger recordings incl. microSD-Card 8GB

OPTION I:

IEC61850 server (incl. CID file)

OPTION Q:

Additional control algorithms

FOR INQUIRIES AND OFFERS, PLEASE FEEL FREE TO CONTACT US.

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