Rugged – Reliable – Reasonable Our BELUK BLR CX is performing tremendously since years. We are constantly improving it, so it does not stop becoming even better.

THE BLR-CX Blindleistungsregler BLR-CX

The BLR CX Series is a user-friendly "plug'n'play" device, that is designed to start regulating Cos Phi with a minimum of user interaction. Should further settings in the areas of measuring, regulating or alarms become necessary, the BLR CX offers a password protected expert-setup. All adjustments are possible during operation. Malfunctions of the compensation unit will be highlighted in the display and optionally trigger an isolated alarm relay.

A fan can be controlled using one of the output relays. The "Best Fit" Algorithm is patented and has proven its performance over the years. In summary the BLR CX is a high-tech device with an affordable price tag.



# Models:

BLR CXR with 4, 6, 8, 10, 12 and 14 relay outputs BLR CXT with 6 and 12 transistor outputs

### Options:

- L pluggable temperature sensor
- MB Modbus RTU RS485
- V Separate supply voltage (voltage measuring range: 90-690V)



(22)



### **Automatic Initialization**

Advantage: During commissioning the CT ratio and the nomi-Advantage: Switching of the stages, which give optimum result nal voltage are the only parameters that need a manual input. in terms of shortest switching time. There is no restriction re-The BLR CX takes care of everything else. It also detects which garding sequence or size of attached capacitors. The patented outputs and what type of impedances are connected. A wrong "Best Fit" Algorithm will achieve the best results with the least setup is nearly impossible due to automatic phase angle coramount of switching. When equal sizes of steps are connected, rection. Thus commissioning becomes error- and hassle-free the controller will distribute the step switching equally. This and mistakes during installation are drastically reduced. prolongs the lifetime of the capacitors and protects your investment.

## Wide Range Power Supply

Advantage: The device can run on 90 to 550V AC, both 50 and 60 Hz. This covers normal power supplies all over the world. By using a switching power supply, the BLR CX is insensitive to harmonic distortions. This is an advantage when installed in networks with high degree of THD.

### 4 Quadrant Operation

Advantage: Either capacitors or inductors can be connected to this controller. This makes it universally suitable for classic compensations as well as for wind power networks or solar farms.

Technical Data	
Measuring- and supply voltage	90 – 550V AC, single phase, 45-65H
Current measurement	15mA – 6A, single phase, burden 2
Control exits Relays	14 n/o, with common point, max. fu
Static outputs	6 or 12 static outputs , open-collec
Temperature measurement	Optional by NTC
Fan control	by using one switching exit defined
	devices with transistor outputs use



# **Best Fit Algorithm**

### Automatic Step Size Detection

Advantage: The BLR-CX automatically detects the size of the attached capacitors/ reactors. The values measured are being verified regularly, so that regulation is performed with actual step sizes. Even the ageing of capacitors is detected and optionally an alarm is triggered before the capacitors fail.

### Modbus Retrofit

Advantage: Every BLR CX Power Factor Controller can be retrofit easily with a Modbus Communication Module. This Module can be attached to the back of the regulator, and connected by cable. An expensive exchange of the entire unit is avoided when integrating BLR CX controllers in a Modbus RS485 Network.

Hz, 5VA, max. fuse 6A VT, ratio from 1.0 -350 20m0hm, CT-ratio from 1-9600 use 6A, Breaking capacity: 250V AC/ 5A ctor, breaking capacity: 8 – 48V DC / 100mA

as "Alarm", e the contacts L / LF for fan control.control.