

Series RPH2

for synchronous switching of large transformers, shunt reactors, capacitors and uncharged overhead lines



Switching of transformers, shunt reactors, capacitors and uncharged overhead lines is normally a „three-phase“ process, where all three phases are switched simultaneously. The actual circuit closing or opening instant is left up to chance.

This results in high inrush currents or switching surges causing undue repercussions to switchgear equipment and network system.

By point-on-wave switching at the most appropriate moment, inrush currents or repercussions can be reduced to non-critical values.

Main features

- Microprocessor controlled device
- Switching function ON and OFF available in one device
- Graphic display for settings and measured values.
- Easy setting of parameters via keypad or via PC-interface.
- Comprehensive alarm and signal functions
- Archive function: The most important data of the last 1000 switching operations are stored in a non volatile memory.
- Comfortable PC-software for configuration and for reading of archive data
- Two voltage ranges for reference voltage L1-N and L1-2 including monitoring by software
- Fixed switching programs for main applications. One program for special applications can be defined by the user
- Housing for mounting in 19"-rack or wall mounting
- Optional: Current module for measuring and monitoring of current wave during switching
- Optional: Analogue modules for measuring of CB-control voltage, ambient temperature and pressure of hydraulic driving mechanisms and compensation for the resulting CB-operating times. Adaptive control facility to consider long time drift of the CB-mechanism drive
- Optional: RS 232 port for connection to a modem

Technical Data

> Reference voltage (V. T.-secondary) Operating range	100 $\sqrt{3}$ V, 220 $\sqrt{3}$ V AC 40 - 105 V, 90 - 230 V AC
> Rated frequency	16 2/3 Hz, 50 Hz, 60 Hz, ± 10 %
> CB-control voltage Operating range	48 - 250 V DC 35 - 300 V DC
> Power consumption	< 20 W
> Resolution of switching time	0.1 ms
> Switched current	max. 15 A, 1 sec
> Input current module	1 A oder 5 A, 100 xIn, 1 sec
> Input temperature transducer	4 ... 20 mA
> Input pressure transducer	4 ... 20 mA
> Temperature range	-55 °C bis +55 °C

Available Models

> RPH2-1	RPH2-1	Basic device, one switching function (ON or OFF), graphic display, LED "device ready", seven alarm-LEDs, remote signal contact "device ready", one remote alarm-contact
> RPH2-2		
> RPH2-1S		
> RPH2-2S		
> RPH2-1I	RPH2-2	As RPH2-1 but with two switching functions (ON and OFF)
> RPH2-2I		
> RPH2-1A0	S	Signal module with seven remote alarm contacts and inputs for monitoring of CB-operating times
> RPH2-2A0		
> RPH2-1A1		
> RPH2-2A1	I	Current measuring module
> RPH2-1A3		
> RPH2-2A3		
> RPH2-1SI	A0	Analogue module for measuring and compensation of CB-control voltage and ambient temperature
> RPH2-2SI		
> RPH2-1SA0	A1	As A0, with additional measuring and compensation of one hydraulic pressure
> RPH2-2SA0		
> RPH2-1SA1		
> RPH2-2SA1	A3	As A0, with additional measuring and compensation of three hydraulic pressures
> RPH2-1SA3		
> RPH2-2SA3		
> RPH2-1SIA0	R	As A0, with additional measuring and compensation of one hydraulic pressure
> RPH2-2SIA0		
> RPH2-1SIA1		
> RPH2-2SIA1	N	As A0, with additional measuring and compensation of three hydraulic pressures
> RPH2-1SIA3		
> RPH2-2SIA3		
> RPH2-.....R	R	RS 232 port at the rear for connection to a modem (available for all models)
> RPH2N-...	N	Negativ command impulse (on request)