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elektronik

- Full Colour Touchscreen Display
- 3 x Status LEDs
- 8 x Programmble LEDs
- USB Interfaces as Standard
- Stainless Steel Housing
- Pluggable Connections
- Multi Lingual
- Customisable Menu Screens
- Detached HMI (Option)
- Self Diagnostic
- 3 x Processors for Ultimate Reliability and Speed Off Operation
- All Protective Functions Included without Extra Charge
- Control of one Circuit Breaker
- IEC 61850, IEC 60870-5-103, Profibus DP, Modbus RTU, etc.
- SYMAP®-Compact Parameter Tool (SCPT)
- 4 Parameter Sets
- Numerous Protective Functions for Grid and DER protection

Technical Data of SYMAP®-Compact

Description	Specification	
Dimensions (H × W × D)	210 × 210 × 87 (mm)	
Cut Out (H × W)	192 × 192 (mm)	
Weight	2.2 kg	
Auxiliary Supply	1.9-36VDC, 2.40-160VDC, 3.120-320VDC/90-264VAC	
Power Consumption	< 20 W	
Climatic Conditions	Operation	-20°C to +70°C
	Maximum	-40°C to +70°C
	Shipping	-40°C to +70°C
	Rel. Humidity	< 80 %
Housing	Front	IP54 (IEC529)
	Rear	IP20 (IEC529)
Max. Connections	Spring Terminals	Max. 1,5 mm
	Current Terminals	Max. 6 mm

Stucke Elektronik GmbH

Stucke Elektronik have designed and manufactured premium quality, high performance electronic devices in Hamburg since 1968. Our systems provide supervision, protection and control to ensure optimum reliability for your electrical supply. To guarantee the highest quality all our products are manufactured exclusively in Hamburg, Germany.
Stucke have been specialists in electronic protection systems for over 40 years. Our company is certified according to DIN EN ISO 9001:2008.

Stucke Elektronik GmbH offers

- Future proof technical product solutions
- Full service support including on site commissining
- In depth product training
- Efficient after sales support and service
- Ultra fast delivery times
- Subsidiaries and partners in key locations worldwide

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Treviso · Belgrade · St. Petersburg
Los Angeles · Panama City
Seoul · Ulsan · Mumbai · Shanghai · Singapore
Brisbane

Stucke Elektronik GmbH
PROTECTION
MADE IN GERMANY
since 1968

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Dynamic Grid Support

- **ANSI 27T**
  Fault ride-through (FRT) – Static voltage scheduling in case of voltage drops caused by grid faults

- **ANSI 27Q**
  Reactive power feeding in case of mains undervoltage

certified KEMA according to BDEW-Guidelines

At the event of single or multiple short circuits in medium or high voltage networks immediate mains decoupling of distributed energy recourses (DER) is only allowed under specific defined conditions.
Equipped with the field management system SYMAP®-Compact, distributed energy recources (DER) connected to medium voltage networks are technically able to meet network operator's requirements at all times. This is to ride through grid fault and so contribute to the static voltage scheduling as well as support the feeding of reactive, inductive Power to the grid.
All Symap®-Compact-devices are Made in Germany.

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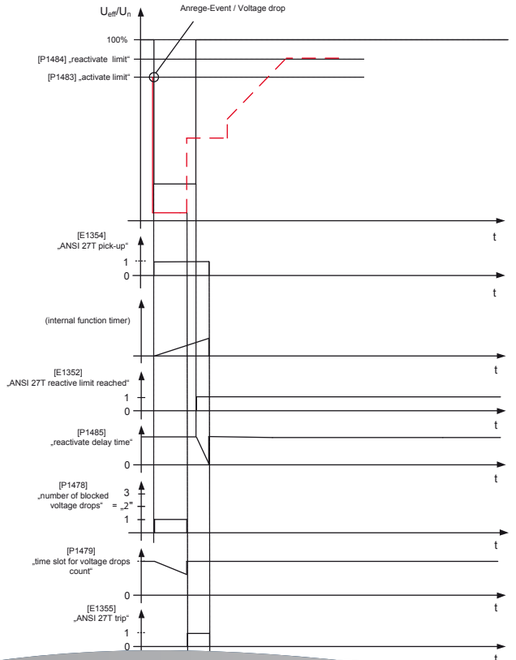
Monitoring supporting of voltage of public grids

Voltage maintenance in case of undervoltage caused by grid faults

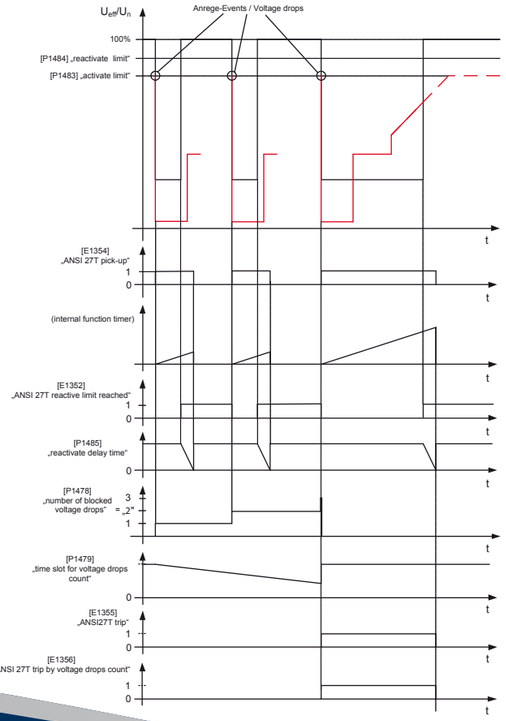
ANSI 27T

- Functional design accords to »Technical Guideline for Generating Plants of the Medium-Voltage Power Grid« of »Association of the German Energy and Water Industries« (BDEW)
- Configurable tripping curve by 10 set points
- Up to 10 tolerated voltage drops
- Time-dependent tripping characteristic
- Time-independent tripping characteristic

time-dependent protection trip



time-independent protection trip



Reactive, inductive power feeding during mains undervoltage

ANSI 27Q

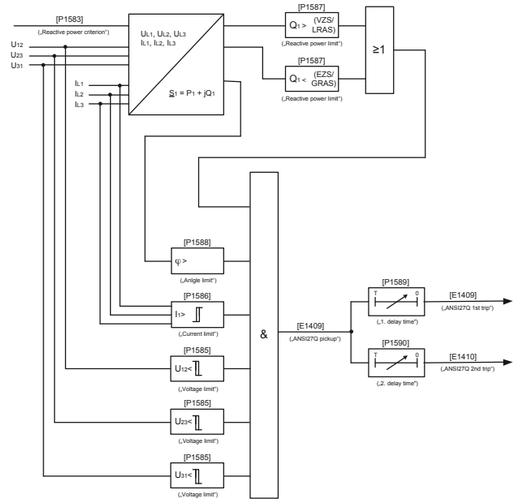
- Functional design accords to specification document reactive power direction protection (Q-U-protection), Forum Netztechnik/Netzbetrieb im VDE (FFN), February 2010
- Combined module for Q-U-protection and automatic reclosing of the distributed energy resource at the grid connection point
- Configurable reactive power direction according to the applied reference arrow system (GRAS or LRAS)
- Representation of both GRAS and LRAS in one device

Compact substations

- Current-based undervoltage protection
- Disconnecting the DER from the grid in a controlled manner: Mains decoupling caused by UPS faults in the compact substation

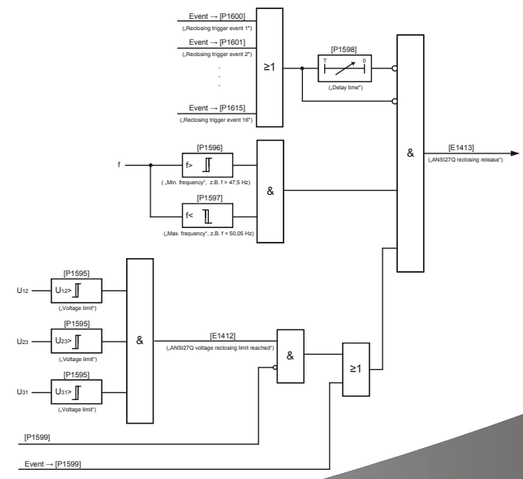
Mains decoupling of the DER in case of:

- Grid undervoltage at the grid connection point, and
- simultaneous consumption of reactive, inductive power by the DER



Automatic reclosing of the DER:

- Generation of release signal for reclosing at the grid connection point
- Up to 16 trigger events for reclosing



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