

Transformer protection (3 windings) 12 Current tr., 4 Voltage trans., 35 BI (standard), 16 BO (incl. 4 HDBO (Heavy Duty)), Standard interface: 1 x USB (front), RS485 (rear) + 2 x RJ45 interfaces, S12 enclosure incl. conformal coating



Figure similar

Product details	
number of function keys	7
number of LEDs	28
Product Functions	
type of measured value detection / of operational measured value / standard	Yes
type of measured value detection / expanded / min./max. values, mean values	Yes
switching statistics	Yes
circuit breaker monitoring	Yes
product feature / logic editor	Yes
control	Yes
fault recording for analog and digital signals	Yes
sequence-of-events recorder	Yes
monitoring	Yes
number of parameter sets	4
parameter set switchover	Yes
circuit breaker test	Yes
Protection Functions	
three-pole tripping	Yes
synchrocheck (ANSI 25)	Yes
undervoltage protection (ANSI 27)	Yes
directional power monitoring (ANSI 32)	Yes
forward power supervision (ANSI 32F)	Yes
reverse power protection (ANSI 32R)	Yes
undercurrent protection (ANSI 37)	Yes
unbalance protection (ANSI 46)	Yes
overcurrent-time protection negative sequence system (ANSI 46)	Yes
phase-rotation supervision (ANSI 47)	Yes
overvoltage protection negative-sequence system (ANSI 47)	Yes
thermal overload protection (ANSI 49)	Yes
definite overcurrent-time protection (ANSI 50/50N)	Yes
Switch On To Fault (ANSI SOTF)	No
arc protection (ANSI AFD)	Yes
sensitive ground current protection (ANSI 50Ns)	No
circuit breaker failure protection (ANSI 50BF)	Yes
dependent overcurrent-time protection (ANSI 51/51N)	Yes
dynamic response value changeover (ANSI 51C)	Yes

voltage-dependent overcurrent-time protection (ANSI 51V)	Yes
power factor (ANSI 55)	Yes
overvoltage protection (ANSI 59)	Yes
overvoltage protection zero-sequence system (ANSI 59N)	Yes
directional overcurrent-time protection, phases (ANSI 67)	Yes
directional ground fault protection (ANSI 67N)	Yes
directional sensitive ground-fault detection for resonant-grounded systems and isolated systems (ANSI 67Ns)	No
trip-circuit supervision (ANSI 74TC)	Yes
automatic reclosing (ANSI 79)	No
frequency protection (ANSI 81)	Yes
frequency variation protection (ANSI 81R)	Yes
vector step protection	Yes
closing lock-out (ANSI 86)	Yes
differential protection, transformer (ANSI 87T)	Yes
ground fault differential protection (ANSI 87N)	Yes
fault locator (ANSI FL)	No
inrush current detection	Yes
external trip initiation	Yes

Supply voltage	
supply voltage / at AC	100 ... 230 V
supply voltage / at DC	24 ... 250 V
type of voltage / of the supply voltage	AC/DC

Inputs / Outputs	
number of digital inputs / maximum	35
number of digital outputs / incl. signaling contact / maximum	16
number of voltage inputs / maximum	4
number of current inputs / maximum	12

Communication	
product component / operating interface (on the front)	Yes
protocol / is supported / Modbus TCP	Yes
protocol / is supported / IEC 60870-5-103	Yes
protocol / is supported / IEC 61850-8-1	Yes
protocol / is supported / Modbus RTU slave	Yes
protocol / is supported / DNP 3, serial	Yes
protocol / is supported / DNP 3.0 TCP as server	Yes
protocol / is supported / PRP	Yes
protocol / is supported / RSTP	Yes
protocol / is supported / HSR	Yes

Time synchronization	
type of time synchronization	Data comms or Digital input

Mechanical Design	
width	308 mm
height	177 mm
depth	217.5 mm
frame size of enclosure	S12
product function / hardware configuration expandable	No

Environmental conditions	
ambient temperature / during operation	-10 ... +55 °C

#### Further information

##### Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

##### Information- and Downloadcenter (catalogues, leaflets,...)

<https://www.siemens.com/energy-automation>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7SR5431-5BA16-1AA0>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/7SR5431-5BA16-1AA0>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7SR5431-5BA16-1AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7SR5431-5BA16-1AA0)

##### Tender specifications

