

<ul style="list-style-type: none"> • Cyclic measured value access • Acyclic measured value access • Fixed measured value sets • Freely definable measured value sets 	Yes Yes Yes Yes; For cyclic and acyclic measured value access
CiR - Configuration in RUN	
Reparameterization possible in RUN	Yes
Calibration possible in RUN	Yes
Installation type/mounting	
Mounting position	any
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	12.5 mA
Current consumption, max.	17 mA
Power loss	
Power loss, typ.	1.4 W; 4x 6 A input current, 3x 230 V AC
Address area	
Address space per module	
<ul style="list-style-type: none"> • Inputs • Outputs 	256 byte 20 byte
Hardware configuration	
Automatic encoding	Yes
<ul style="list-style-type: none"> • Mechanical coding element • Type of mechanical coding element 	Yes type C
Selection of BaseUnit for connection variants	
<ul style="list-style-type: none"> • 2-wire connection 	BU type U0
Time of day	
Operating hours counter	
<ul style="list-style-type: none"> • present 	Yes
Analog inputs	
Cycle time (all channels), typ.	50 ms; Time for consistent update of all measured and calculated values (cyclic und acyclic data)
Cable length	
<ul style="list-style-type: none"> • shielded, max. • unshielded, max. 	200 m 200 m
Analog value generation for the inputs	
Sampling frequency, max.	2 048 kHz
Interrupts/diagnostics/status information	
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm • Limit value alarm • Hardware interrupt 	Yes Yes Yes; Monitoring of up to 16 freely selectable process values (exceeding or undershooting of value)
Diagnoses	
<ul style="list-style-type: none"> • Line quality • Supply voltage • Hardware interrupt lost • Parameter assignment error • Module fault • Channel not available • Overflow/underflow • Overload current 	Yes Yes Yes Yes Yes Yes Yes Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics 	Yes Yes; green LED Yes; red Fn LED Yes; green/red DIAG LED
Integrated Functions	
Measuring functions	

<ul style="list-style-type: none"> • Measuring procedure for voltage measurement • Measuring procedure for current measurement • Type of measured value acquisition • Curve shape of voltage • Buffering of measured variables • Parameter length • Bandwidth of measured value acquisition 	TRMS TRMS seamless Sinusoidal or distorted Yes 128 byte 3.2 kHz; Harmonics: 63 / 50 Hz, 52 / 60 Hz
Measuring range	
— Frequency measurement, min.	40 Hz
— Frequency measurement, max.	70 Hz
Measuring inputs for voltage	
— Measurable line voltage between phase and neutral conductor	277 V
— Measurable line voltage between the line conductors	480 V
— Measurable line voltage between phase and neutral conductor, min.	3 V
— Measurable line voltage between phase and neutral conductor, max.	300 V
— Measurable line voltage between the line conductors, min.	6 V
— Measurable line voltage between the line conductors, max.	519 V
— Internal resistance line conductor and neutral conductor	1.5 MΩ
— Power consumption per phase	60 mW; 300 V AC
— Impulse voltage resistance 1,2/50μs	2.5 kV
— Measurement category for voltage measurement in accordance with IEC 61010-2-030	CAT II
Measuring inputs for current	
— measurable relative current (AC), min.	1 %; Relative to measuring range; 1 A, 5 A
— measurable relative current (AC), max.	120 %; Relative to the secondary rated current 5 A
— Continuous current with AC, maximum permissible	5 A; 6 A permanent thermal overload
— Apparent power consumption per phase for measuring range 5 A	0.6 VA
— Rated value short-time withstand current restricted to 1 s	100 A
— Input resistance measuring range 0 to 5 A	25 mΩ; At the terminal
— Surge strength	10 A; for 1 minute
— Zero point suppression	0 ... 20%, referred to the nominal current
Accuracy class according to IEC 61557-12	
— Measured variable voltage	0,2
— Measured variable current	0,2
— Measured variable apparent power	0.5
— Measured variable active power	0.5
— Measured variable reactive power	1
— Measured variable power factor	0.5
— Measured variable active energy	0.5
— Measured variable reactive energy	1
— Measured variable neutral current	0,2
— Measured variable phase angle	±0.5 °; not covered by IEC 61557-12
— Measured variable frequency	0.05; only valid for the permissible voltage measuring range
— Measured variable harmonic	1
— Measured variable THDU	1
— Measured variable THDI	1
Accuracy class line analysis acc. to IEC 61000-4-30	
— Measured variable voltage	Class S
— Measured variable current	Class S
— Measured variable frequency	Class S
— Measured variable voltage interruption	Class S
— Measured variable voltage dip and swell	Class S
— Measured variable harmonic voltage	Class S
— Measured variable harmonic current	Class S
Potential separation	

Potential separation channels	
<ul style="list-style-type: none"> • between the channels • between the channels and backplane bus • Between the channels and load voltage L+ 	No Yes Yes; Including FE
Isolation	
Isolation tested with	Between channels and backplane bus, 24 V supply: Routine test, 1 920 V AC, 2 s; between backplane bus and 24 V supply: Type test, 707 V DC
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	-30 °C 60 °C -30 °C 50 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. 	3 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	20 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	45 g
Other	
Data for selecting a voltage transformer	
<ul style="list-style-type: none"> • Secondary side, max. 	300 V
Data for selecting a current transformer	
<ul style="list-style-type: none"> • Burden power current transformer x/1A, min. • Burden power current transformer x/5A, min. 	As a function of cable length and cross section, see device manual As a function of cable length and cross section, see device manual
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