SIEMENS

6EP1437-3BA00 **Data sheet**

SITOP MODULAR/3AC/24VDC/40A

SITOP modular 40 A Stabilized power supply input: 400-500 V 3 AC output: 24 V DC/40 A *Ex approval no longer available*



Input

type of the power supply network supply voltage at AC

- minimum rated value
 - maximum rated value
 - initial value
 - full-scale value

design of input wide range input overvoltage overload capability

operating condition of the mains buffering

buffering time for rated value of the output current in the event of power failure minimum

operating condition of the mains buffering

line frequency

- 1 rated value
- 2 rated value

line frequency input current

• at rated input voltage 400 V

current limitation of inrush current at 25 °C maximum

12t value maximum fuse protection type

• in the feeder

3-phase AC

400 V

500 V

320 V; Starting from Vin > 340 V

550 V

Yes

2.3 × Vin rated, 1.3 ms

at Vin = 400 V

6 ms

at Vin = 400 V

50 Hz

60 Hz

47 ... 63 Hz

2.2 A

70 A

2.8 A²·s

none

Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)

Output

voltage curve at output

output voltage at DC rated value

output voltage

• at output 1 at DC rated value

relative overall tolerance of the voltage relative control precision of the output voltage

• on slow fluctuation of input voltage

• on slow fluctuation of ohm loading

residual ripple

• maximum

voltage peak

• maximum

adjustable output voltage

product function output voltage adjustable

type of output voltage setting display version for normal operation Controlled, isolated DC voltage

24 V

24 V

3 %

0.1 %

0.2 %

100 mV

200 mV

24 ... 28.8 V

Yes

via potentiometer; max. 960 W

Green LED for 24 V OK

bype of signal at output behavior of the output voltage when switching on response delay maximum voltage increase time of the output voltage • maximum output current • rated value • rated range supplied active power typical short-term overfoad current • at alt ort-call during operation typical duration of overdoad grapatibility for excess current • at short-cricuit during operation typical duration of overdoad grapatibility for excess current • at short-cricuit during operation combant overdoad grapatibility for excess current • on short-cricuit during operation combant overdoad grapatibility for excess current • on short-cricuiting operation combant overdoad grapatibility for excess current • on short-cricuiting operation combant overdoad current • on short-cricuiting operation vortices by the start-up typical for excess on the output voltage with rapid function of the input voltage for rated value of the output current typical Closed-boop control Closed-boop control relative control precision of the output voltage oad step of resistive load 50°10050's typical • load step 50 to 100% typical • load step 10 to 50% typical • load step 10 to 50% typical • load step 10 to 50% typical • load step 50 to 100% typical • load step 50 to 100% typical • load step 50 to 100% stypical • lo	type of signal at output	
response delay maximum voltage (**) maximum voltage (**) maximum voltage increase time of the output voltage (**) maximum voltage (**)		via signaling module (6EP1961-3BA10)
voltage increase time of the output voltage		
• maximum • orlated value • rated range • rated range • rated range • rated range supplied active power typical supplied active power typical substituted or workers during operation typical • of short-circuit during operation • on short-circuit during operation • on short-circuiting during the start-up typical • on short-circuiting out on the start-up typical • on short-circuiting out on the start-up typical • on short-circuiting out of the cutput voltage of the start-up typical • alread output voltage for rated value of the output voltage out to start output voltage for rated value of the output voltage output on the output voltage with rapid flucturation of the input voltage by **-15% typical relative control precision of the output voltage load step of resistive load 501/0005 % typical • load step 50 to 100% typical • load step 50 to 100% typical • load step 100 to 50% typical • load step 100 to 50% typical • load step 100 to 50% typical • load step 50 to 100% typical • load step 100 to 50% typical • load step 50 to 100% typical • load step 50 to 100% typical • load step 100 to 50% typical •		2.5 s
output current		
• rated value • rated range supplied active power typical subnited armound or and a control of the control of		500 ms
and a rated range supplied active power typical short-term overload current at short-circuit during operation typical duration of overloading capability for excess current at short-circuit guring operation on short-circuit guring peration on short-circuiting during the start-up typical product feature bridging of equipment number of parallel-switched equipment resources for increasing the power Efficiency efficiency efficiency in percent power loss (IV) at rated output voltage for rated value of the output current typical Closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by 4-1-5% typical relative control precision of the output voltage load step of resistine load 54tep 50 to 100% typical board step 100 to 50% typical board step 50 to 100% typical board step 50 to 50% typical board step 50 to 1000	·	
supplied active power typical short-term overload current • at short-circuit during operation typical duration of overloading capability for excess current • at short-circuit during operation constant overload during on the start-up typical product feature • on short-circuit during the start-up typical product feature • bridging of equipment resources for increasing the power of parallel-switched equipment resources for increasing the power of parallel-switched equipment resources for increasing the power of the cutput voltage for rated value of the output current typical of the output voltage for rated value of the output current typical closed-top control relative control precision of the output voltage with rapid fluctuation of the input voltage by ++ 15% typical relative control precision of the output voltage load step of resistive load 501/005/9 typical setting time • load step 50 to 100% typical 4 ms • load step 50 to 100% typical 4 ms • load step 50 to 100% typical 4 ms • load step 50 to 100% to 50% typical 4 ms • load step 50 to 100% to 50% typical 50 ms. • maximum 10 ms • rotestion and monitoring design of the overvoltage protection 40 ms. • typical of short-circuit protection 40 ms. • typical short-circuit current RMS value • typical short-circuit protection 40 ms. • typical display version for overload and short circuit 40 ms. • typical 46 A LED yellow for "overload", LED red for "latching shutdown" **Safety** galvanic isolation between input and output 40 ms. galvanic isolation between input and output 40 ms. • typical 50 ms. • Case approval 50 ms. • Case approval 70 ms. • C		
short-term overload current • at short-focuit during operation typical duration of overloading capability for excess current • at short-focutid during operation • on short-circuiting queration • on short-circuiting during the start-up typical • bridging of equipment • on short-circuiting during the start-up typical • bridging of equipment • bridging of equipment resources for increasing the power Efficiency • filliciency in percent power loss IVI) • at rated output voltage for rated value of the output current typical • closed-loop control • closed-loop control • closed-loop focution • clos	<u> </u>	0 40 A; +60 +70 °C: Derating 2%/K
at short-circuit during operation typical duration of overloading capability for excess current at short-circuit during operation constant overload current on short-circuiting during the start-up typical product feature on short-circuiting during the start-up typical product of parallel-switched equipment resources for increasing the power leaf during the power loss [W] on at roled output voltage for rated value of the output current typical Closed-Stop control of the input voltage by **-1.5%* typical relative control precision of the output voltage with rapid fluctuation of the input voltage by **-1.5%* typical relative control procession of the output voltage load step of resistive load 501/10050 % typical setting time oload step 50 to 100% typical oload s		960 W
duration of overloading capability for excess current		
a short-circuit during operation constant vorted during the start-up typical product feature bridging of equipment product feature christoping of equipment resources for increasing the power of parallet-switched equipment resources for increasing the power of the output voltage with rapid fluctuation of the input voltage by +1 15% typical increasing the profession of the output voltage load step of resistive control presistor of the output voltage load step of resistive control prosistor of the output voltage load step of resistive control prosistor of the output voltage load step of resistive bad 60/10050 % typical 4 ms setting time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% typical 4 ms existing time load step 50 to 100% ty		120 A
constant overload current on short-circuiting during the start-up typical product feature • bridging of equipment current special equipment resources for increasing the power feature power for increasing the power feature power loss [W] • at rated output voltage for rated value of the output current typical current typical current typical current typical current typical current product for sistive load 50 r000/5% typical relative control precision of the output voltage with rapid fluctuation of the input voltage by 4/- 15% typical relative control precision of the output voltage load step of resistive load 50 r000/5% typical setting time • load step 50 to 100% typical 4 ms • load step 50 to 100% typical 4 ms • load step 100 to 50% typical 4 ms • setting time • maximum 10 ms Protection and monitoring design of the output short-circuit proof design of short-circuit protection		
on short-circuiting during the start-up typical product feature obridging of equipment number of parallel-switched equipment resources for increasing the power Fifciency Fifciency 90 % 90	 at short-circuit during operation 	25 ms
product feature • bridging of equipment umber of parallel-switched equipment resources for increasing the power Efficiency efficiency in percent power loss [M] • at rated output voltage for rated value of the output current typical Closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by 4f- 15% typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load \$01/00/50 % typical relative control precision of the output voltage load step of resistive load step 100 to 50% typical relative control precision relative control recision flow typical relative control recision of the output voltage load step of resistive load step 100 to 50% typical relative control typical relative control typical relative control recision flow typical relative control recision of the output voltage load step of resistive load step 100 to 50% typical relative control recision flow typical relative control recision relative control recisi	constant overload current	
Printinging of equipment number of parallel-switched equipment resources for increasing the power Printing	 on short-circuiting during the start-up typical 	46 A
number of parallel-switched equipment resources for increasing the power loss [W] efficiency in percent power loss [W] e at rated output voltage for rated value of the output current typical current typical current typical current typical relative control precision of the output voltage with rapid fluctuation of the input voltage by +*- 15% typical relative control precision of the output voltage load step of resistive load 50100/50 % typical setting time e load step 50 to 100% typical 4 ms e load step 100 to 50% typical setting time e maximum 10 ms Protection and monitoring design of the overvoltage protection 4 ms and monitoring 46 ka A Yes 46 A A relatively, constant current characteristic approx. 46 A or latching shutdown enduring short circuit protection and terratively, constant current characteristic approx. 46 A or latching shutdown enduring short circuit current RMS value e typical display version for overload and short circuit by typical 45 A LED yellow for "overload", LED red for "latching shutdown" Safety galvanic isolation between input and output galvanic isolation between input and output qualvanic isolation operating resource protection class leakage current maximum 3.5 mA protection class IP Paproval Yes U-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) e CE marking Yes U-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No CSA approval Yes; U-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No CECIAS 2 No	product feature	
increasing the power Efficiency efficiency in percent power loss [W] at a rated output voltage for rated value of the output current typical Closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by ++ 15% typical relative control precision of the output voltage load step of resistive load 50/100/50 % typical setting time load step 50 to 100% typical loid setting time maximum 10 ms Protection and monitoring design of the overvoltage protection lypical or short-circuit proof design of short-circuit proof design of short-circuit protection shutdown enduring short circuit current RMS value lypical display version for overload and short circuit Estative galvanic isolation between input and output galvanic isolation class IP Approvals certificate of suitability CE maxing UL approval CSA approval CSA approval CCSA approval CCSA approval PSC CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No No No No No No No N	bridging of equipment	Yes; switchable characteristic
Efficiency efficiency in percent power loss [W] • at rated output voltage for rated value of the output current typical Closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by +*- 15% typical relative control precision of the output voltage load step of resistive load 501/0050 % typical setting time • load step 50 to 100% typical • load step 100 to 50% typical setting time • maximum * maximum * protection and monitoring design of the overvoltage protection • typical groperty of the output short-circuit proof design of the overvoltage protection • typical display version for overload and short circuit * property of the output short-circuit prodeficiency enduring short circuit current RMS value • typical display version for overload and short circuit * Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • CE shapproval • CSA approval • No No No No No No No **Operation of the output voltage output voltage Uout acc. to EN 60950-1 and EN 50178 CGZ2 2 No. 107-1) No No No No No No No **Operation of the output voltage output voltage Uout acc. to EN 60950-1 and EN 50178 CGZ2 2 No. 107-1) No No No **Operation of the output voltage Uout acc. to EN 60950-1 and EN 50178 CGZ2 2 No. 107-1) No No **Operation of the output voltage Uout acc. to EN 60950-1 and EN 50178 CGZ2 2 No. 107-1) No No **Operation of the output voltage Uout acc. to EN 60950-1 and EN 50178 CGZ2 2 No. 107-1) No No **Operation of the output voltage Uout acc. to EN 60950-1 and EN 50178 CGZ2 2 No. 107-1) No No **Operation		2
efficiency in percent power loss [W]	increasing the power	
power loss [W] a trated output voltage for rated value of the output current typical closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical relative control precision of the output voltage load step of resistive load 501/005/9 kypical setting time load step 50 to 100% typical load step 100 to 50% typical setting time naximum 10 ms Protection and monitoring design of the overvoltage protection typical design of short-circuit protection shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I Poporation class IP Approvals Cettificate of suitability Alternatively, constant current characteristic approx. 4	Efficiency	
at rated output voltage for rated value of the output current typical closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical relative control precision of the output voltage load step of resistive load 50/100/50 % typical setting time • load step 50 to 100% typical • load step 100 to 50% typical setting time • load step 100 to 50% typical setting time • waximum rotection and monitoring design of the overvoltage protection • typical property of the output short-circuit proof design of short-circuit protection anduring short circuit current RMS value • typical display version for overload and short circuit LED yellow for "overload", LED red for "latching shutdown" safety galvanic isolation between input and output galvanic isolation between input and output e maximum protection class IP Approvats certificate of suitability • CE marking • UL approval • CSA approval • CSCA (CSA C22.2 No. 14, CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSA CSB S 2 • VIL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSA CSB S 2 • VIL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSA CSB S 2 • VIL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSA CSB S 2 • VIL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSCA CSB S 2 • VIL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSCA CSB S 2 • VIL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSCA (CSCA CSCA CSCA CSCA CSCA CSCA CSC	,	90 %
Closed-loop control relative control precision of the output voltage with rapid fluctuation of the input voltage by 4+- 15% typical relative control precision of the output voltage load step of resistive load 50/100/50 % typical setting time • load step 50 to 100% typical • load step 100 to 55% typical setting time • maximum * maximum * maximum * maximum * maximum * maximum * overcition and monitoring design of the overvoltage protection • typical enduring short circuit current RMS value • typical display version for overload and short circuit enduring short circuit current RMS value • typical display version for overload and short circuit enduring short circuit current RMS value • typical display version for overload and short circuit * maximum * properting resource protection class leakage current • maximum * overloads IP * protection class IP * CEM arking * UL approval * CESA approval * CESA approval * CESA (CSA C22.2 No. 14, CSA C22.2 No. 14, CSA C22.2 No. 14, CSA C22.2 No. 107.1) * Protection class IP * Protection cla	power loss [W]	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical relative control precision of the output voltage load step of resistive load 50/100/50 % typical setting time • load step 50 to 100% typical • load step 100 to 50% typical setting time • maximum • maximum * Protection and monitoring design of the overvoltage protection • typical property of the output short-circuit proof design of short-circuit protection • typical • typical • typical enduring short circuit current RMS value • typical display version for overload and short circuit * Safety galvanic isolation between input and output galvanic isolation between input and output galvanic isolation between the same and short incomes a leakage current • maximum protection class IP * Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CSSAus, Class 1, Division 2 • ATEX • No * Cass 1 * UL Approval * CLIABACO * CASA CASA CASA CASA CASA CASA CASA CAS		106 W
relative control precision of the output voltage with rapid fluctuation of the input voltage by +1-15% typical relative control precision of the output voltage load step of resistive load 50/10/50 % typical setting time • load step 50 to 100% typical 4 ms • load step 100 to 50% typical 4 ms • load step 100 to 50% typical 4 ms • maximum 10 ms Protection and monitoring design of the overvoltage protection 5 typical 46 A ms • typical 46 A m	current typical	
fluctuation of the input voltage by +/- 15% typical relative control precision of the output voltage load step of resistive load 50/100/50 % typical setting time load step 50 to 100% typical	Closed-loop control	
relative control precision of the output voltage load step of resistive load 50/100/50 % typical setting time • load step 50 to 100% typical 4 ms • load step 50 to 50% typical 4 ms setting time • maximum 10 ms Protection and monitoring design of the overvoltage protection 5 typical 48 A yes esting time 6 typical 48 A yes esting time 7 yes • typical 48 A yes rendered the output short-circuit proof 48 A yes design of short-circuit protection 5 the output short-circuit proof 6 the output short-circuit protection 6 Alternatively, constant current characteristic approx. 46 A or latching shutdown 6 the output short-circuit current RMS value 6 typical 46 A LED yellow for "overload", LED red for "latching shutdown" Safety galvanic isolation between input and output 7 yes galvanic isolation between input and output 8 galvanic isolation 5 safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I leakage current 8 maximum 9 3.5 mA PDPTOVAIS certificate of suitability 7 yes • UL approval 7 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 7 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 7 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 8 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 8 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 9 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 9 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 9 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 9 yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval 9 yes; UL 4 yes; U		1 %
resistive load 50/100/50 % typical setting time load step 50 to 100% typical load step 50 to 100% typical load step 100 to 50% typical setting time maximum load monitoring design of the overvoltage protection load sign of the overvoltage protection load sign of short-circuit current RMS value load load load load load load load load	fluctuation of the input voltage by +/- 15% typical	
setting time • load step 50 to 100% typical • load step 100 to 50% typical setting time • maximum 10 ms Protection and monitoring design of the overvoltage protection • typical property of the output short-circuit proof design of short-circuit protection alternatively, constant current characteristic approx. 46 A or latching shutdown enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation solution operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CSSA us, Class 1, Division 2 • ATEX certificate of suitability • IECEX • NEC Class 2 • ULhazloc approval • No		2 %
● load step 50 to 100% typical ● load step 100 to 50% typical ● load step 100 to 50% typical ● maximum 10 ms Protection and monitoring design of the overvoltage protection ● typical property of the output short-circuit proof design of short-circuit protection ● typical ●		
• load step 100 to 50% typical setting time • maximum 10 ms Protection and monitoring design of the overvoltage protection	•	
setting time • maximum Protection and monitoring design of the overvoltage protection • typical property of the output short-circuit proof design of short-circuit protection • typical • typical • typical • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CSA approval • CSA, C22.2 No. 107.1) • CCSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEX • No • IECEX • NEC Class 2 • ULhazloc approval • ON • ULhazloc approval • ON • ULhazloc approval		4 ms
• maximum Protection and monitoring design of the overvoltage protection • typical property of the output short-circuit proof design of short-circuit protection • typical enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation between input and output galvanic presource protection class leakage current • maximum protection class IP Approvals Certificate of suitability • CE marking • UL approval • CSA approval • CSA, approval • CSA, c22.2 No. 107.1) • CSA approval • CSA, c25.2 No. 107.1) • CCSAus, Class 1, Division 2 • ATEX certificate of suitability • ICCSA • CCSCAUS, Class 1, Division 2 • ATEX certificate of suitability • ICC class 2 • ICC class 2 • ICC class 2 • ULhazloc approval		4 ms
Protection and monitoring design of the overvoltage protection	<u> </u>	
design of the overvoltage protection • typical property of the output short-circuit proof design of short-circuit protection alternatively, constant current characteristic approx. 46 A or latching shutdown enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation between input and output enaximum protection class I Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx • No • NEC Class 2 • ULhazloc approval • No • NEC Class 2 • ULhazloc approval 46 A Alternatively, constant current characteristic approx. 46 A or latching shutdown Yes Alternatively, constant current characteristic approx. 46 A or latching shutdown Yes Alternatively, constant current characteristic approx. 46 A or latching shutdown Yes Alternatively, constant current characteristic approx. 46 A or latching shutdown Yes Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Alternatively, constant current characteristic approx. 46 A or latching shutdown Safety 46 A LED yellow for "overload", LED red for "latching shutdown" Safety Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I LED yellow for "overload", LED red for "latching shutdown" Safety Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I LED yellow for "overload", LED red for "latching shutdown" Safety Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I LED yellow for "overload", LED red for "latching shutdown" Safety Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I LED y	maximum	10 ms
• typical property of the output short-circuit proof design of short-circuit protection Alternatively, constant current characteristic approx. 46 A or latching shutdown enduring short circuit current RMS value • typical 46 A display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class Class Class eakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval • cCSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx • No • NEC Class 2 • ULhazloc approval No	Protection and monitoring	
property of the output short-circuit proof design of short-circuit protection alternatively, constant current characteristic approx. 46 A or latching shutdown enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation between input and output • maximum protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEX • No No No No No No No Alternatively, constant current characteristic approx. 46 A or latching shutdown 4 At A correction class in proverload", LED red for "latching shutdown" Yes (LED yellow for "overload", LED red for "latching shutdown" Yes (Lass I leakage current output voltage Uout acc. to EN 60950-1 and EN 50178 Calss I leakage Current • maximum protection class IP Approvals certificate of suitability • CE marking • Ves (LL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No • CSAus, Class 1, Division 2 • ATEX No certificate of suitability • IECEX • No No No No ULhazloc approval	design of the overvoltage protection	< 35 V
design of short-circuit protection enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CESA approval	typical	46 A
enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CSA approval	property of the output short-circuit proof	Yes
enduring short circuit current RMS value • typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CSA approval • CCSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEX • No N	design of short-circuit protection	
• typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation between input and output operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEX • NEC Class 2 • NEC Class 2 • ULhazloc approval • NEC Class 2 • ULhazloc approval • NO • NEC Class 2 • ULhazloc approval • LED yellow for "overload", LED red for "latching shutdown" Safety LED yellow for "overload", LED red for "latching shutdown" Safety Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I Pes OLESS I • Class I • Pes • ULs approval • Class I • CSA (CSA C950-1 and EN 50178 • Class I • Pes • UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) • CSA approval • CSAus, Class 1, Division 2 • ATEX • No • No • NEC Class 2 • No • NO • NEC Class 2 • ULhazloc approval		shutdown
display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum more maximum protection class IP Approvals certificate of suitability • CSA approval • CSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx • No NEC Class 2 • ULhazloc approval LED yellow for "overload", LED red for "latching shutdown" Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I Yes ULass I Yes Yes Ves UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No No No No		
galvanic isolation between input and output galvanic isolation between input and output galvanic isolation Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CCSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEX • NEC Class 2 • ULhazloc approval No Ves Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class 1 Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Safety ex	-	
galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	• typical	
galvanic isolation operating resource protection class leakage current	• typical	
operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSA approval • CSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx • NEC Class 2 • ULhazloc approval Class I As Cla	typical display version for overload and short circuit	
leakage current	typical display version for overload and short circuit Safety	LED yellow for "overload", LED red for "latching shutdown"
 maximum protection class IP IP20 Approvals certificate of suitability CE marking UL approval Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) CSA approval Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) CCSAus, Class 1, Division 2 ATEX No certificate of suitability IECEx NC NC NC NC NC NC ULhazloc approval NO NO	typical display version for overload and short circuit Safety galvanic isolation between input and output	LED yellow for "overload", LED red for "latching shutdown" Yes
protection class IP Approvals certificate of suitability CE marking UL approval CSA approval CSA approval CCSAus, Class 1, Division 2 ATEX Certificate of suitability IP20 IP20 IP20 Yes Yes Yes Yes Yes Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No CCSAus, Class 1, Division 2 ATEX No Certificate of suitability IECEx No NEC Class 2 ULhazloc approval	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation	LED yellow for "overload", LED red for "latching shutdown" Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Approvals certificate of suitability	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class	LED yellow for "overload", LED red for "latching shutdown" Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
certificate of suitability CE marking UL approval CSA approval CSA approval CCSAus, Class 1, Division 2 ATEX Certificate of suitability IECEx No NEC Class 2 ULhaproval Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No No No No No No No N	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	LED yellow for "overload", LED red for "latching shutdown" Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I
certificate of suitability CE marking UL approval CSA approval CSA approval CCSAus, Class 1, Division 2 ATEX Certificate of suitability IECEx No NEC Class 2 ULhaproval Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No No No No No No No N	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current maximum	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA
 CE marking UL approval Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) CSA approval Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) CCSAus, Class 1, Division 2 ATEX No Certificate of suitability IECEx No NEC Class 2 ULhazloc approval No 	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current maximum protection class IP	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA
 UL approval Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) CSA approval Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) CCSAus, Class 1, Division 2 ATEX No Certificate of suitability IECEx NO NEC Class 2 ULhazloc approval Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current maximum protection class IP Approvals	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA
C22.2 No. 107.1) CSA approval CSA approval CSA approval CSA approval CCSAus, Class 1, Division 2 ATEX No certificate of suitability IECEX NEC Class 2 ULhazloc approval C22.2 No. 107.1) No No No No No No No No No N	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current maximum protection class IP Approvals certificate of suitability	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20
C22.2 No. 107.1) • cCSAus, Class 1, Division 2 • ATEX No certificate of suitability • IECEx • NEC Class 2 • ULhazloc approval	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes
 cCSAus, Class 1, Division 2 ATEX No certificate of suitability IECEX No NEC Class 2 ULhazloc approval No 	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
 ATEX No certificate of suitability IECEx No NEC Class 2 ULhazloc approval No 	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA
certificate of suitability IECEX No NEC Class 2 ULhazloc approval No	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
 IECEx NEC Class 2 ULhazloc approval No 	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No
 NEC Class 2 ULhazloc approval No 	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No
ULhazloc approval No	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • cCSAus, Class 1, Division 2 • ATEX certificate of suitability	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No
	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No
• FM registration No	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CCSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx • NEC Class 2	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No
	typical display version for overload and short circuit Safety galvanic isolation between input and output galvanic isolation operating resource protection class leakage current • maximum protection class IP Approvals certificate of suitability • CE marking • UL approval • CSA approval • CCSAus, Class 1, Division 2 • ATEX certificate of suitability • IECEx • NEC Class 2 • ULhazloc approval	Yes Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class I 3.5 mA IP20 Yes Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1) No No No No

type of certification CB-certificate	No
certificate of suitability	
 EAC approval 	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	
Marine classification association	
 American Bureau of Shipping Europe Ltd. (ABS) 	No
 French marine classification society (BV) 	No
DNV GL	No
 Lloyds Register of Shipping (LRS) 	No
 Nippon Kaiji Kyokai (NK) 	No
EMC	
standard	
for emitted interference	EN 55022 Class B
 for mains harmonics limitation 	EN 61000-3-2
 for interference immunity 	EN 61000-6-2
environmental conditions	
ambient temperature	
during operation	0 70 °C; with natural convection
during transport	-40 +85 °C
during storage	-40 +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
• at input	L1, L2, L3, PE: 1 screw terminal each for 0.2 4 mm² single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.33 10 mm²
for auxiliary contacts	-
width of the enclosure	240 mm
height of the enclosure	125 mm
depth of the enclosure	125 mm
required spacing	
• top	50 mm
• bottom	50 mm
● left	0 mm
• right	0 mm
net weight	3.2 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Buffer module, signaling module
MTBF at 40 °C	485 437 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

