6EP3337-8SB00-0AY0

## **Data sheet**



## SITOP PSU8200/1AC/24VDC/40A

SITOP PSU8200 24 V/40 A stabilized power supply input: 120/230 V AC output: 24 V DC/40 A \*Ex approval no longer available\*

ype of the power supply network supply voltage	Input	
initial value     supply voltage	type of the power supply network	1-phase and 2-phase AC
supply voltage  • 1 at AC rated value  • 2 at AC  design of input wide range input  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  at Vin = 230 V  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  • 2 rated value  • 30 Hz  60 Hz  input current  • at rated input voltage 120 V  • at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum  12 value maximum  fuse protection type  • in the feeder  • in the feeder  voltage curve at output  output voltage at DC rated value  output voltage at DC rated value  output voltage  • at output 1 at DC rated value  e on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple	supply voltage at AC	
* 2 at AC rated value	• initial value	Automatic selection; startup starting from Ue ≥ 90/180 V
2 at AC rated value     input voltage     • 1 at AC     • 2 at AC     design of input wide range input     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     at Vin = 230 V  25 ms  25 ms  25 ms  25 ms  25 ms  26 ms  27 ated value  1 rated value  2 rated value  50 Hz  60 Hz  60 Hz  1 rated value  2 rated value  1 rated input voltage 120 V  2 at rated input voltage 230 V  2 current limitation of inrush current at 25 °C maximum  12 value maximum  15 A  28 A*-s  12 seprotection type  in the feeder  vin the feeder  voltage curve at output  voltage curve at output  voltage curve at output  voltage curve at output  voltage at DC rated value  input voltage  at voltage at DC rated value  24 V  relative overall tolerance of the voltage  relative volvalion of ohm loading  residual ripple  230 V  25 ms  45 63 Hz  50 Hz  60 Hz  6	supply voltage	
Input voltage	<ul> <li>1 at AC rated value</li> </ul>	120 V
• 1 at AC     • 2 at AC     • 3 at V     • 2 at AC     • 2 at AC     • 3 at V     • 2 at AC     • 2 at AC     • 3 at V     • 2 at AC     • 3 at V     • 3 at ated input voltage 120 V     • 4 at rated input voltage 120 V     • 4 at rated input voltage 230 V     • 4 at rated input voltage 230 V     • 6 at rated input voltage 230 V     • 6 at nated input voltage 230 V     • 6 at nated input voltage 230 V     • 6 at nated input voltage 230 V     • 6 at rated input voltage 230 V     • 7 at 20 a	2 at AC rated value	230 V
• 2 at AC      design of input wide range input     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     at Vin = 230 V  Iline frequency     • 1 rated value     • 2 rated value     • 2 rated value     input current     • at rated input voltage 120 V     • at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum  12t value maximum     fuse protection type     • in the feeder     • in the feeder     • in the feeder     voltage curve at output     voltage curve at output     voltage at DC rated value     • at output 1 at DC rated value     • at output 1 at DC rated value     • on slow fluctuation of input voltage     • on slow fluctuation of ohm loading     residual ripple  170    170    264 V  At Vin = 230 V  25 ms  at Vin = 230 V  184    65 Hz  190    18    65 Hz  15    A  9    A  current limitation of inrush current at 25 °C maximum  18    A^2s  Yes  • in the feeder  • controlled, isolated miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  Cutput  Voltage curve at output  voltage curve at output  voltage  • at output 1 at DC rated value  • at output 1 at DC rated value  • at output 1 olderance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple	input voltage	
design of input wide range input 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 at Vin = 230 V  iline frequency • 1 rated value • 2 rated value • 2 rated value iline frequency • 1 trated input voltage 120 V • at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum 12t value maximum fuse protection type • in the feeder  • in the feeder  • in the feeder  output voltage at DC rated value  output voltage at DC rated value  • at output 1 at DC rated value  • at output 1 at DC rated value  • at output 1 at DC rated value  • on slow fluctuation of input voltage  • on slow fluctuation of input voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading residual ripple	• 1 at AC	85 132 V
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 50 Hz 60 Hz line frequency 150 Hz 15 A	• 2 at AC	170 264 V
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  • 2 rated value  ine frequency  • 1 frequency  • 1 rated input voltage 120 V  • at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum  12t value maximum fuse protection type  • in the feeder  • in the feeder  • in the feeder  voltage curve at output  voltage at DC rated value  • at output 1 at DC rated value  • at output 1 at DC rated value  • at output 1 at DC rated value  • on slow fluctuation of ohm loading  residual ripple	design of input wide range input	No
event of power failure minimum operating condition of the mains buffering line frequency  1 rated value 50 Hz 2 rated value 60 Hz line frequency 45 65 Hz input current • at rated input voltage 230 V 2 current limitation of inrush current at 25 °C maximum 12t value maximum 12t v	operating condition of the mains buffering	at Vin = 230 V
line frequency  1 rated value 2 rated value 50 Hz 60 Hz line frequency 45 65 Hz input current  1 at rated input voltage 120 V 15 A 15 A 16 at rated input voltage 230 V 2 current limitation of inrush current at 25 °C maximum 17 to value maximum 18 A <sup>2</sup> ···s 18 fuse protection type 19 in the feeder 10 in the feeder 10 in the feeder 10 in the feeder 10 connected or circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  10 cutput 10 controlled, isolated DC voltage 11 output voltage at DC rated value 12 output voltage 13 voltage curve at output 14 output voltage 15 output voltage 16 output voltage 17 output voltage 18 output voltage 19 output voltage 19 output voltage 10 output	· ·	25 ms
1 rated value     2 rated value     60 Hz  line frequency input current     at rated input voltage 120 V     at rated input voltage 230 V     remains fuse protection type     in the feeder     in the feeder      voltage curve at output  voltage curve at output  voltage curve at output  voltage at DC rated value output voltage     at DC rated value relative overall tolerance of the voltage     on slow fluctuation of input voltage     on slow fluctuation of ohm loading residual ripple      15 A     35 Hz     60 Hz	operating condition of the mains buffering	at Vin = 230 V
• 2 rated value   60 Hz	line frequency	
line frequency input current  • at rated input voltage 120 V • at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum  12t value maximum  8 A²-s  fuse protection type • in the feeder  • in the feeder  • in the feeder   Controlled, isolated DC voltage  output voltage at DC rated value  output voltage • at output 1 at DC rated value  • on slow fluctuation of input voltage • on slow fluctuation of ohm loading  residual ripple	1 rated value	50 Hz
input current  • at rated input voltage 120 V  • at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum  12t value maximum  8 A²-s  fuse protection type  • in the feeder  in the feeder  voltage curve at output  voltage curve at output  voltage at DC rated value  • at output 1 at DC rated value  • at output 1 at DC rated value  • at output 1 overall tolerance of the voltage  • on slow fluctuation of ohm loading  residual ripple	2 rated value	60 Hz
at rated input voltage 120 V at rated input voltage 230 V  current limitation of inrush current at 25 °C maximum  12t value maximum  fuse protection type  in the feeder  fuse protection type  in the feeder  fuse protection type  in the feeder  Connected or circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  cutput  voltage curve at output  voltage at DC rated value  output voltage  at output 1 at DC rated value  at output 1 at DC rated value  relative overall tolerance of the voltage  on slow fluctuation of input voltage  on slow fluctuation of ohm loading  residual ripple	line frequency	45 65 Hz
• at rated input voltage 230 V      current limitation of inrush current at 25 °C maximum        12t value maximum	input current	
current limitation of inrush current at 25 °C maximum    Sociation   Sociatio	<ul> <li>at rated input voltage 120 V</li> </ul>	15 A
12t value maximum   8 A²-s     fuse protection type   Yes     • in the feeder   Recommended miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)    Output	at rated input voltage 230 V	9 A
fuse protection type  • in the feeder  Recommended miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  Output  voltage curve at output  voltage at DC rated value  output voltage  • at output 1 at DC rated value  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple	current limitation of inrush current at 25 °C maximum	_ 50 A
Recommended miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  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  on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  Recommended miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3-RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  Controlled, isolated DC voltage  24 V  relative control precision of the output voltage  on slow fluctuation of input voltage  on slow fluctuation of ohm loading  residual ripple	I2t value maximum	8 A <sup>2</sup> ·s
characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)  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  on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple	fuse protection type	Yes
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  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  Controlled, isolated DC voltage  24 V  24 V  74 V  75 V  76 V  76 V  77 V  78	• in the feeder	characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-
output voltage at DC rated value 24 V output voltage  • at output 1 at DC rated value 24 V relative overall tolerance of the voltage 3 % relative control precision of the output voltage  • on slow fluctuation of input voltage 0.1 % • on slow fluctuation of ohm loading 0.1 % residual ripple	Output	
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	voltage curve at output	Controlled, isolated DC voltage
<ul> <li>at output 1 at DC rated value</li> <li>relative overall tolerance of the voltage</li> <li>3 %</li> <li>relative control precision of the output voltage</li> <li>on slow fluctuation of input voltage</li> <li>on slow fluctuation of ohm loading</li> <li>residual ripple</li> </ul> 24 V 3 % 0.1 % 0.1 % residual ripple	output voltage at DC rated value	24 V
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  3 %  0.1 %  0.1 %	output voltage	
relative control precision of the output voltage  on slow fluctuation of input voltage on slow fluctuation of ohm loading residual ripple  0.1 %  0.1 %	at output 1 at DC rated value	24 V
<ul> <li>on slow fluctuation of input voltage</li> <li>on slow fluctuation of ohm loading</li> <li>residual ripple</li> </ul> 0.1 % 0.1 %	relative overall tolerance of the voltage	3 %
● on slow fluctuation of ohm loading  residual ripple  0.1 %	relative control precision of the output voltage	
residual ripple	<ul> <li>on slow fluctuation of input voltage</li> </ul>	0.1 %
	on slow fluctuation of ohm loading	0.1 %
• maximum 100 mV	residual ripple	
	• maximum	100 mV

a tunical	50 m\/
• typical	50 mV
voltage peak	040 14
• maximum	240 mV
• typical	220 mV
adjustable output voltage	24 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer; max. 960 W
display version for normal operation	Green LED for 24 V OK; LED yellow for overload; LED red for short-circuit or latching shutdown
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
behavior of the output voltage when switching on	Overshoot of Vout approx. 3 %
response delay maximum	1.5 s
voltage increase time of the output voltage	
typical	30 ms
output current	
rated value	40 A
rated range	0 40 A; +60 +70 °C: Derating 3%/K
supplied active power typical	960 W
short-term overload current	
on short-circuiting during the start-up typical	120 A
at short-circuit during operation typical	120 A
duration of overloading capability for excess current	12071
	OE mo
on short-circuiting during the start-up     at short circuit during operation	25 ms 25 ms
at short-circuit during operation	25 ms
constant overload current	
on short-circuiting during the start-up typical	60 A
product feature	
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
Efficiency efficiency in percent	92 %
	92 %
efficiency in percent	92 % 82 W
efficiency in percent power loss [W]	
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output	
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical	82 W
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical  • during no-load operation maximum	82 W
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical  • during no-load operation maximum  Closed-loop control  relative control precision of the output voltage with rapid	82 W 6.8 W
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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	82 W 6.8 W
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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	82 W 6.8 W
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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	82 W 6.8 W 1 % 1.9 %
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step	82 W 6.8 W 1 % 1.9 %
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	82 W 6.8 W 1 % 1.9 % 2 ms 2 ms
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms
efficiency in percent  power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  • load step 90 to 10% typical	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • load step 90 to 10% typical • maximum	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical • load step 90 to 10% typical • maximum  Protection and monitoring	82 W 6.8 W 1 % 1.9 % 2 ms 2 ms 3.8 % 1 ms 1 ms 1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • load step 90 to 10% typical • maximum  Protection and monitoring  design of the overvoltage protection	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 ms 1 ms 1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • load step 90 to 10% typical • maximum  Protection and monitoring  design of the overvoltage protection response value current limitation typical	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 ms 1 ms 1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • maximum  Protection and monitoring  design of the overvoltage protection  response value current limitation typical  property of the output short-circuit proof	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 ms 1 ms 1 ms 1 ms 1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • load step 90 to 10% typical • maximum  Protection and monitoring  design of the overvoltage protection response value current limitation typical	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 ms 1 ms 1 ms
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • maximum  Protection and monitoring  design of the overvoltage protection  response value current limitation typical  property of the output short-circuit proof	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 m
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • load step 90 to 10% typical • maximum  Protection and monitoring  design of the overvoltage protection  response value current limitation typical  property of the output short-circuit proof  design of short-circuit protection	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 m
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical  setting time • load step 90 to 10% typical • load step 90 to 10% typical  protection and monitoring  design of the overvoltage protection response value current limitation typical property of the output short-circuit proof design of short-circuit protection enduring short circuit current RMS value	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 m
efficiency in percent power loss [W]  • at rated output voltage for rated value of the output current typical • during no-load operation maximum  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  relative control precision of the output voltage at load step of resistive load 10/90/10 % typical  setting time • load step 10 to 90% typical • load step 90 to 10% typical • load step 90 to 10% typical • maximum  Protection and monitoring design of the overvoltage protection response value current limitation typical property of the output short-circuit proof design of short-circuit protection  enduring short circuit current RMS value • typical	82 W 6.8 W  1 % 1.9 %  2 ms 2 ms 3.8 %  1 ms 1 ms 1 ms 1 ms 1 ms 4 Ms 1

Safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
• maximum	0.1 mA
• typical	0.1 mA
protection class IP	IP20
Approvals	
certificate of suitability	
CE marking	Yes
<ul> <li>UL approval</li> </ul>	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259;
	cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
<ul> <li>cCSAus, Class 1, Division 2</li> </ul>	No
• ATEX	No
certificate of suitability	
• IECEx	No
NEC Class 2	No
ULhazloc approval	No
FM registration	No
type of certification CB-certificate	Yes
certificate of suitability	
EAC approval	Yes
certificate of suitability shipbuilding approval	Yes ARC DANGOL
shipbuilding approval	ABS, DNV GL
Marine classification association	Ver
American Bureau of Shipping Europe Ltd. (ABS)      Transh marine placeification assists (DV)	Yes
French marine classification society (BV)	No Vas
DNV GL     Leads Pariston of Objection (4 DO)	Yes
Lloyds Register of Shipping (LRS)	No
Nippon Kaiji Kyokai (NK)	No
EMC	
standard	EN FF000 Class D
for emitted interference     for mains harmonical limitation	EN 55022 Class B
for mains harmonics limitation     for interference impunity.	- EN 61000 6 2
for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	05 170 00 1111 1111 11
during operation	-25 +70 °C; with natural convection
during transport	-40 +85 °C
during storage     anyiranmental astronomy and to IEC 60721	-40 +85 °C
environmental category acc. to IEC 60721	Climate class 3K3, 5 95% no condensation
Mechanics	a area with the a terminal a
type of electrical connection	screw-type terminals
at input	L, N, PE: 1 screw terminal each for 0.2 4 mm <sup>2</sup> single-core/finely stranded
at output	+, -: 2 screw terminals each for 0.5 10 mm <sup>2</sup>
for auxiliary contacts	13, 14 (alarm signal): 1 screw terminal each for 0.14 1.5 mm <sup>2</sup>
width of the enclosure	145 mm
height of the enclosure	145 mm
depth of the enclosure	150 mm
required spacing	
• top	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm
net weight	3.1 kg
not worght	

fastening method	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Buffer module, redundancy module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	838 156 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

