6EP3321-6SB00-0AY0

## **Data sheet**



LOGO!Power/1AC/12VDC/1.9A

LOGO!POWER 12 V / 1.9 A Stabilized power supply input: 100-240 V AC output: 12 V DC/ 1.9 A

Input	Input	
Voltage range AC       85 264 V         input voltage       • at DC         Wide-range input       Yes         Overvoltage resistance       300 V AC for 1 s         Mains buffering       at Vin = 187 V         Mains buffering at lout rated, min.       40 ms; at Vin = 187 V         Rated line frequency 1       50 Hz         Rated line frequency 2       60 Hz         Rated line range       47 63 Hz         input current       • at rated input voltage 230 V         • at rated input voltage 230 V       0.3 A         Switch-on current limiting (+25 °C), max.       25 A         Pt, max.       0.8 A²-s         Built-in incoming fuse       netwell         Protection in the mains power input (IEC 898)       Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C         Output       Controlled, isolated DC voltage         Rated voltage Vout DC       12 V         • output voltage at output 1 at DC rated value       12 V         Total tolerance, static ±       3 %         Static mains compensation, approx.       0.1 %         Static load balancing, approx.       0.1 %         Residual ripple peak-peak, max.       200 mV         Residual ripple peak-peak, max.       300 mV	Input	1-phase AC or DC
input voltage	Rated voltage value Vin rated	100 240 V
■ at DC     Wide-range input     Yes     Overvoltage resistance     Alians buffering     at Vin = 187 V     Alians buffering at lout rated, min.     Aleted line frequency 1     Rated line frequency 2     Rated line frequency 2     Alter line range     input current     • at rated input voltage 120 V     • at rated input voltage 230 V     • at rated input vol	Voltage range AC	85 264 V
Wide-range input  Overvoltage resistance  Mains buffering  Alt Vin = 187 V  Mains buffering at lout rated, min.  Rated line frequency 1  Rated line frequency 2  Rated line frequency 2  Rated line requency 2  Rated line range  input current  • at rated input voltage 120 V  • at rated input voltage 230 V  Switch-on current limiting (+25 °C), max.  IPt, max.  Built-in incoming fuse  Protection in the mains power input (IEC 898)  Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Output  Output  Controlled, isolated DC voltage  Rated voltage Vout DC  12 V  • output voltage at output 1 at DC rated value  Total tolerance, static ±  Static mains compensation, approx.  Static load balancing, approx.  Residual ripple peak-peak, max.  Residual ripp	input voltage	
Overvoltage resistance  Mains buffering  at Vin = 187 V  Mains buffering at lout rated, min.  Rated line frequency 1  Rated line frequency 2  Rated line range  input current  • at rated input voltage 120 V  • at rated input voltage 230 V  30.3 A  Switch-on current limiting (+25 °C), max.  Protection in the mains power input (IEC 898)  Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Output  Output  Controlled, isolated DC voltage  Rated voltage Vout DC  • output voltage at output 1 at DC rated value  Total tolerance, static ±  Static mains compensation, approx.  Static mains compensation, approx.  Static mains compensation, approx.  Static mains compensation, approx.  Residual ripple peak-peak, max.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, max. (bandwidth: 20 MHz)  Adjustment range  routput voltage setting  Status display  Green LED for output voltage OK  No overshoot of Vout (soft start)	• at DC	110 300 V
Mains buffering     at Vin = 187 V       Mains buffering at lout rated, min.     40 ms; at Vin = 187 V       Rated line frequency 1     50 Hz       Rated line range     47 63 Hz       input current     • at rated input voltage 120 V       • at rated input voltage 230 V     0.3 A       Switch-on current limiting (+25 °C), max.     25 A       I²t, max.     0.8 A²-s       Built-in incoming fuse     internal       Protection in the mains power input (IEC 898)     Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C       Output     Controlled, isolated DC voltage       Rated voltage Vout DC     12 V       • output voltage at output 1 at DC rated value     12 V       Total tolerance, static ±     3 %       Static mains compensation, approx.     0.1 %       Static load balancing, approx.     0.1 %       Residual ripple peak-peak, max.     200 mV       Residual ripple peak-peak, max. (bandwidth: 20 MHz)     30 mV       Spikes peak-peak, typ. (bandwidth: 20 MHz)     50 mV       Adjustment range     10.5 16.1 V       product function output voltage adjustable     Yes       Output voltage setting     via potentiometer       Status display     Green LED for output voltage OK       On/off behavior	Wide-range input	Yes
Mains buffering at lout rated, min.  Rated line frequency 1  Rated line frequency 2  Rated line frequency 2  Rated line frequency 2  Rated line requency 2  80 Hz  Rated line frequency 2  80 Hz  Rated line requency 2  80 Hz  Rated line range  input current  • at rated input voltage 120 V  • at rated input voltage 230 V  • at rated input voltage 230 V  • at rated inpit voltage 230 V  • 0.3 A  Switch-on current limiting (+25 °C), max.  □ 0.8 A²-s  Built-in incoming fuse  Protection in the mains power input (IEC 898)  Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Output  Output  Controlled, isolated DC voltage  Rated voltage Vout DC  • output voltage at output 1 at DC rated value  12 V  • output voltage at output 1 at DC rated value  12 V  Total tolerance, static ±  3 %  Static load balancing, approx.  0.1 %  Residual ripple peak-peak, max.  200 mV  Residual ripple peak-peak, max.  Residual ripple peak-peak, max.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic B or from 2 A characteristic C  Output voltage setting  10.1 %  11.	Overvoltage resistance	300 V AC for 1 s
Rated line frequency 1 Rated line frequency 2 Rated line range 47 63 Hz input current • at rated input voltage 120 V • at rated input voltage 230 V 9	Mains buffering	at Vin = 187 V
Rated line frequency 2 Rated line range 47 63 Hz  input current  • at rated input voltage 120 V • at rated input voltage 230 V  Switch-on current limiting (+25 °C), max.   Pt, max.   0.8 A²-s  Bullt-in incoming fuse   Internal   Protection in the mains power input (IEC 898)   Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Output   Controlled, isolated DC voltage   Rated voltage Vout DC     at voltage at output 1 at DC rated value     Total tolerance, static ±     Static load balancing, approx.     Static load balancing, approx.     Residual ripple peak-peak, max.     Residual ripple peak-peak, max.     Spikes peak-peak, typ.     Spikes peak-peak, typ. (bandwidth: 20 MHz)     Status display     Green LED for output voltage OK     No overshoot of Vout (soft start)	Mains buffering at lout rated, min.	40 ms; at Vin = 187 V
Rated line range input current • at rated input voltage 120 V • at rated input voltage 230 V 0.3 A  Switch-on current limiting (+25 °C), max.  Prt, max.  Built-in incoming fuse Protection in the mains power input (IEC 898)  Coutput  Coutput  Coutput  Controlled, isolated DC voltage  Rated voltage Vout DC 12 V • output voltage at output 1 at DC rated value Total tolerance, static ± 3 % Static mains compensation, approx.  Static load balancing, approx.  Residual ripple peak-peak, max.  Residual ripple peak-peak, max.  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz) Spikes peak-peak, may  Adjustment range Total voltage setting  Ves  Output voltage adjustable Yes  Output voltage adjustable Ore of the voltage adjustable Ore of the voltage adjust to the voltage of t	Rated line frequency 1	50 Hz
input current	Rated line frequency 2	60 Hz
<ul> <li>at rated input voltage 120 V</li> <li>at rated input voltage 230 V</li> <li>0.3 A</li> <li>Switch-on current limiting (+25 °C), max.</li> <li>1st, max.</li> <li>1st, max.</li> <li>1sternal</li> <li>Protection in the mains power input (IEC 898)</li> <li>Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C</li> <li>Output</li> <li>Output</li> <li>Controlled, isolated DC voltage</li> <li>Rated voltage Vout DC</li> <li>12 V</li> <li>output voltage at output 1 at DC rated value</li> <li>12 V</li> <li>Total tolerance, static ±</li> <li>3%</li> <li>Static mains compensation, approx.</li> <li>Out 1%</li> <li>Residual ripple peak-peak, max.</li> <li>Residual ripple peak-peak, max.</li> <li>200 mV</li> <li>Residual ripple peak-peak, typ.</li> <li>30 mV</li> <li>Spikes peak-peak, typ. (bandwidth: 20 MHz)</li> <li>30 mV</li> <li>Spikes peak-peak, typ. (bandwidth: 20 MHz)</li> <li>50 mV</li> <li>Adjustment range</li> <li>10.5 16.1 V</li> <li>product function output voltage adjustable</li> <li>Output voltage setting</li> <li>via potentiometer</li> <li>Status display</li> <li>Green LED for output voltage OK</li> <li>On/off behavior</li> <li>No overshoot of Vout (soft start)</li> </ul>	Rated line range	47 63 Hz
at rated input voltage 230 V  Switch-on current limiting (+25 °C), max.  Pt, max.  Built-in incoming fuse  Protection in the mains power input (IEC 898)  Controlled, isolated DC voltage  Rated voltage Vout DC  at output Voltage at output 1 at DC rated value  Total tolerance, static ±  Static mains compensation, approx.  Static load balancing, approx.  Static load balancing, approx.  Residual ripple peak-peak, max.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Adjustment range  Output voltage atdjustable  Product function output voltage adjustable  Ore output voltage adjustable  Ore output voltage adjustor  Ore output voltage ok  Ore output voltage OK  Ore output voltage OK  No overshoot of Vout (soft start)	input current	
Switch-on current limiting (+25 °C), max.    Pt, max.   Built-in incoming fuse   Protection in the mains power input (IEC 898)   Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C    Output	<ul> <li>at rated input voltage 120 V</li> </ul>	0.53 A
Prt, max.   0.8 A² s     Built-in incoming fuse   Internal     Protection in the mains power input (IEC 898)   Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C     Output   Controlled, isolated DC voltage     Rated voltage Vout DC   12 V     ■ output voltage at output 1 at DC rated value   12 V     Total tolerance, static ±   3 %     Static mains compensation, approx.   0.1 %     Static load balancing, approx.   0.1 %     Residual ripple peak-peak, max.   200 mV     Residual ripple peak-peak, typ.   30 mV     Spikes peak-peak, max. (bandwidth: 20 MHz)   300 mV     Spikes peak-peak, typ. (bandwidth: 20 MHz)   50 mV     Adjustment range   10.5 16.1 V     product function output voltage adjustable   Yes     Output voltage setting   Via potentiometer     Status display   Green LED for output voltage OK     On/off behavior   No overshoot of Vout (soft start)	at rated input voltage 230 V	0.3 A
Built-in incoming fuse internal Protection in the mains power input (IEC 898) Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Output Output Controlled, isolated DC voltage Rated voltage Vout DC 12 V  • output voltage at output 1 at DC rated value 12 V  Total tolerance, static ± 3 % Static mains compensation, approx. 0.1 % Static load balancing, approx. 0.1 % Residual ripple peak-peak, max. Residual ripple peak-peak, typ. Spikes peak-peak, max. (bandwidth: 20 MHz) Spikes peak-peak, typ. (bandwidth: 20 MHz) Spikes peak-peak, typ. (bandwidth: 20 MHz) Adjustment range 10.5 16.1 V product function output voltage adjustable Ves Output voltage setting Status display On/off behavior No overshoot of Vout (soft start)	Switch-on current limiting (+25 °C), max.	25 A
Protection in the mains power input (IEC 898)  Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Output  Output  Controlled, isolated DC voltage  Rated voltage Vout DC  output voltage at output 1 at DC rated value  12 V  Total tolerance, static ±  3 %  Static mains compensation, approx.  O.1 %  Static load balancing, approx.  Residual ripple peak-peak, max.  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  product function output voltage adjustable  Output voltage setting  Status display  On/off behavior  Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C  Controlled, isolated DC voltage  12 V  3 %  Spikes peak output 1 at DC rated value  12 V  0.1 %  Spakes peak-peak, max.  200 mV  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Yes  Output voltage setting  Via potentiometer  Status display  On/off behavior  No overshoot of Vout (soft start)	I²t, max.	0.8 A <sup>2</sup> ·s
Output  Output  Controlled, isolated DC voltage  Rated voltage Vout DC  ● output voltage at output 1 at DC rated value  Total tolerance, static ±  Static mains compensation, approx.  Static load balancing, approx.  Controlled, isolated DC voltage  12 V  12 V  Total tolerance, static ±  3 %  Static mains compensation, approx.  0.1 %  Residual ripple peak-peak, max.  Residual ripple peak-peak, max.  200 mV  Residual ripple peak-peak, typ.  30 mV  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Yes  Output voltage setting  Status display  Green LED for output voltage OK  On/off behavior	Built-in incoming fuse	internal
Output       Controlled, isolated DC voltage         Rated voltage Vout DC       12 V         ● output voltage at output 1 at DC rated value       12 V         Total tolerance, static ±       3 %         Static mains compensation, approx.       0.1 %         Static load balancing, approx.       0.1 %         Residual ripple peak-peak, max.       200 mV         Residual ripple peak-peak, typ.       30 mV         Spikes peak-peak, max. (bandwidth: 20 MHz)       300 mV         Spikes peak-peak, typ. (bandwidth: 20 MHz)       50 mV         Adjustment range       10.5 16.1 V         product function output voltage adjustable       Yes         Output voltage setting       via potentiometer         Status display       Green LED for output voltage OK         On/off behavior       No overshoot of Vout (soft start)	Protection in the mains power input (IEC 898)	
Rated voltage Vout DC  ● output voltage at output 1 at DC rated value  12 V  Total tolerance, static ±  3 %  Static mains compensation, approx.  O.1 %  Residual ripple peak-peak, max.  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  product function output voltage adjustable  Output voltage setting  Status display  Green LED for output voltage OK  No overshoot of Vout (soft start)	Output	
● output voltage at output 1 at DC rated value  Total tolerance, static ±  Static mains compensation, approx.  Static load balancing, approx.  Residual ripple peak-peak, max.  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Output voltage setting  Status display  Green LED for output voltage OK  On/off behavior  No overshoot of Vout (soft start)	Output	Controlled, isolated DC voltage
Total tolerance, static ± 3 %  Static mains compensation, approx. 0.1 %  Static load balancing, approx. 0.1 %  Residual ripple peak-peak, max. 200 mV  Residual ripple peak-peak, typ. 30 mV  Spikes peak-peak, max. (bandwidth: 20 MHz) 300 mV  Spikes peak-peak, typ. (bandwidth: 20 MHz) 50 mV  Adjustment range 10.5 16.1 V  product function output voltage adjustable Yes  Output voltage setting via potentiometer  Status display Green LED for output voltage OK  On/off behavior No overshoot of Vout (soft start)	Rated voltage Vout DC	12 V
Static mains compensation, approx.  Static load balancing, approx.  Residual ripple peak-peak, max.  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Output voltage setting  Status display  On/off behavior  O.1 %  0	output voltage at output 1 at DC rated value	12 V
Static load balancing, approx.  Residual ripple peak-peak, max.  200 mV  Residual ripple peak-peak, typ.  30 mV  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Output voltage setting  Via potentiometer  Status display  On/off behavior  No overshoot of Vout (soft start)	Total tolerance, static ±	3 %
Residual ripple peak-peak, max.  Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Yes  Output voltage setting  via potentiometer  Status display  Green LED for output voltage OK  On/off behavior  No overshoot of Vout (soft start)	Static mains compensation, approx.	0.1 %
Residual ripple peak-peak, typ.  Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Output voltage setting  Via potentiometer  Status display  On/off behavior  So mV  Adjustment range  10.5 16.1 V  Yes  Output voltage output voltag	Static load balancing, approx.	0.1 %
Spikes peak-peak, max. (bandwidth: 20 MHz)  Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Output voltage setting  Via potentiometer  Status display  Green LED for output voltage OK  On/off behavior  No overshoot of Vout (soft start)	Residual ripple peak-peak, max.	200 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)  Adjustment range  10.5 16.1 V  product function output voltage adjustable  Output voltage setting  Via potentiometer  Status display  On/off behavior  Status display  On overshoot of Vout (soft start)	Residual ripple peak-peak, typ.	30 mV
Adjustment range 10.5 16.1 V product function output voltage adjustable Yes Output voltage setting via potentiometer Status display Green LED for output voltage OK On/off behavior No overshoot of Vout (soft start)	Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV
product function output voltage adjustable  Output voltage setting  Via potentiometer  Status display  Green LED for output voltage OK  On/off behavior  No overshoot of Vout (soft start)	Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Output voltage setting  Via potentiometer  Status display  Green LED for output voltage OK  On/off behavior  No overshoot of Vout (soft start)	Adjustment range	10.5 16.1 V
Status display Green LED for output voltage OK On/off behavior No overshoot of Vout (soft start)	product function output voltage adjustable	Yes
On/off behavior No overshoot of Vout (soft start)	Output voltage setting	via potentiometer
	Status display	Green LED for output voltage OK
Startup delay, max. 0.5 s	On/off behavior	No overshoot of Vout (soft start)
	Startup delay, max.	0.5 s

Voltage rise, typ.	100 ms
Rated current value lout rated	1.9 A
	0 1.9 A
Current range  • Note	+55 +70 °C: Derating 2%/K
	22.8 W
supplied active power typical	Yes
Parallel switching for enhanced performance  Numbers of parallel switchable units for enhanced	2
performance	2
Efficiency	
Efficiency at Vout rated, lout rated, approx.	81 %
Power loss at Vout rated, lout rated, approx.	5 W
power loss [W] during no-load operation maximum	0.3 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.2 %
Dynamic load smoothing (lout: 10/90/10 %), Uout ± typ.	2 %
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 10 to 30%, typ.  Load step setting time 90 to 10%, typ.	1 ms
	THIS
Protection and monitoring	Voc. according to EN 600E0.1
Output overvoltage protection	Yes, according to EN 60950-1
Current limitation, typ.	2.5 A
property of the output short-circuit proof	Yes Constant current characteristic
Short-circuit protection	Constant current characteristic
enduring short circuit current RMS value	25 /
maximum  Oversurrent everleed conshility in normal eneration	2.5 A
overcurrent overload capability in normal operation  Overload/short-circuit indicator	overload capability 150% lout rated typ. 200 ms
measuring point for output current	50 mV =^ 1.9 A
overcurrent overload capability when switching on	150% lout rated typ. 200 ms
Safety	V
	Yes
Primary/secondary isolation	
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
galvanic isolation Protection class	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)
galvanic isolation Protection class Degree of protection (EN 60529)	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
galvanic isolation Protection class Degree of protection (EN 60529) Approvals	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)  IP20
galvanic isolation Protection class Degree of protection (EN 60529) Approvals CE mark	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20 Yes
galvanic isolation Protection class Degree of protection (EN 60529) Approvals	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)  IP20
galvanic isolation Protection class Degree of protection (EN 60529) Approvals CE mark	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection certificate of suitability NEC Class 2	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866 Yes
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310) ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866 Yes Class I, Div. 2, Group ABCD, T4 Yes Yes
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes  Yes ABS, BV, DNV GL, LRS
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes  Yes ABS, BV, DNV GL, LRS  EN 55022 Class B not applicable
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity environmental conditions	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes  Yes ABS, BV, DNV GL, LRS  EN 55022 Class B not applicable
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes Yes ABS, BV, DNV GL, LRS  EN 55022 Class B not applicable EN 61000-6-2
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature  • during operation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes Class I, Div. 2, Group ABCD, T4  Yes  Yes ABS, BV, DNV GL, LRS  EN 55022 Class B not applicable EN 61000-6-2
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature  • during operation — Note	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)  IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS  EN 55022 Class B  not applicable  EN 61000-6-2
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature  • during operation — Note • during transport	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)  IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS  EN 55022 Class B  not applicable  EN 61000-6-2  -25 +70 °C  with natural convection  -40 +85 °C
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC  Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature  • during operation  — Note • during transport • during storage	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)  IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS  EN 55022 Class B  not applicable  EN 61000-6-2  -25 +70 °C  with natural convection  -40 +85 °C  -40 +85 °C
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature  • during operation — Note • during transport	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178  Class II (without protective conductor)  IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS  EN 55022 Class B  not applicable  EN 61000-6-2  -25 +70 °C  with natural convection  -40 +85 °C
galvanic isolation Protection class Degree of protection (EN 60529)  Approvals CE mark UL/cUL (CSA) approval  Explosion protection  certificate of suitability NEC Class 2 FM approval CB approval certificate of suitability EAC approval Marine approval  EMC  Emitted interference Supply harmonics limitation Noise immunity environmental conditions ambient temperature  • during operation  — Note • during transport • during storage	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 Class II (without protective conductor) IP20  Yes  CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)  ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866  Yes  Class I, Div. 2, Group ABCD, T4  Yes  Yes  ABS, BV, DNV GL, LRS  EN 55022 Class B  not applicable EN 61000-6-2  -25 +70 °C  with natural convection  -40 +85 °C  -40 +85 °C

0 "	
Connections	
Supply input	L, N: 1 screw terminal each for 0.5 2.5 mm2 single-core/finely stranded
<ul><li>Output</li></ul>	+, -: 1 screw terminal each for 0.5 2.5 mm <sup>2</sup>
Auxiliary	-
width of the enclosure	36 mm
height of the enclosure	90 mm
depth of the enclosure	53 mm
required spacing	
• top	20 mm
• bottom	20 mm
• left	0 mm
● right	0 mm
Weight, approx.	0.12 kg
product feature of the enclosure housing can be lined up	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions
MTBF at 40 °C	2 938 542 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

