## **SIEMENS**

Data sheet 6EP1731-2BA00



SITOP POWER DC/DC 24 V/0.375 A SITOP POWER 0.375 A, DC/DC STABILIZED POWER SUPPLY INPUT: 48-220 V DC OUTPUT: 24 V DC/0.375 A

## Figure similar

Input	
Input	DC voltage
Supply voltage	
• for DC	48 220 V
Voltage range AC	30 187 V
Input voltage	
• for DC	30 264 V
Wide-range input	Yes
Overvoltage resistance	-
Mains buffering at lout rated, min.	10 ms; at Vin = 220 V
Input current	
<ul> <li>at rated input voltage 48 V</li> </ul>	0.3 A
<ul> <li>at rated input voltage 220 V</li> </ul>	0.06 A
Switch-on current limiting (+25 °C), max.	35 A
Duration of inrush current limiting at 25 °C	
• typical	3 ms
l²t, max.	1.2 A <sup>2</sup> ·s
Built-in incoming fuse	F 4 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 A characteristic C, suitable for DC

Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %

Static load balancing, approx.	0.1 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Product function Output voltage adjustable	No
Output voltage setting	-
Status display	Green LED for 24 V OK
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	2.5 s
Voltage rise, typ.	90 ms
Rated current value lout rated	0.375 A
Current range	0 0.375 A
• Note	+60 +70 °C: Derating 3%/K
Active power supplied typical	9 W
Short-term overload current	
<ul> <li>at short-circuit during operation typical</li> </ul>	2.7 A
Duration of overloading capability for excess current	
<ul> <li>at short-circuit during operation</li> </ul>	200 ms
Parallel switching for enhanced performance	No
Efficiency	
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Efficiency at Vout rated, lout rated, approx.	66 %
Efficiency at Vout rated, lout rated, approx.  Power loss at Vout rated, lout rated, approx.	66 % 4.6 W
Power loss at Vout rated, lout rated, approx.	
Power loss at Vout rated, lout rated, approx.	
Power loss at Vout rated, lout rated, approx.  Closed-loop control	4.6 W
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %),	4.6 W
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.	4.6 W  0.3 %  0.4 %
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.	4.6 W  0.3 %  0.4 %  2 ms
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.	4.6 W  0.3 %  0.4 %
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring	4.6 W  0.3 %  0.4 %  2 ms  2 ms
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection	4.6 W  0.3 %  0.4 %  2 ms
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A  Yes
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof  Short-circuit protection	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A  Yes  Electronic shutdown, automatic restart
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof  Short-circuit protection	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A  Yes
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof  Short-circuit protection  Enduring short circuit current RMS value	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A  Yes  Electronic shutdown, automatic restart
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof  Short-circuit protection  Enduring short circuit current RMS value  • maximum	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A  Yes  Electronic shutdown, automatic restart
Power loss at Vout rated, lout rated, approx.  Closed-loop control  Dynamic mains compensation (Vin rated ±15 %), max.  Dynamic load smoothing (lout: 50/100/50 %), Uout ± typ.  Load step setting time 50 to 100%, typ.  Load step setting time 100 to 50%, typ.  Protection and monitoring  Output overvoltage protection  Current limitation  Property of the output Short-circuit proof  Short-circuit protection  Enduring short circuit current RMS value  • maximum  Overload/short-circuit indicator	4.6 W  0.3 %  0.4 %  2 ms  2 ms  Yes, according to EN 60950-1  0.41 0.49 A  Yes  Electronic shutdown, automatic restart

Protection class	Class I
Leakage current	
• maximum	3.5 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289, cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273
Explosion protection	-
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	No
Marine approval	-
Degree of protection (EN 60529)	IP20
EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2
Operating data	
Ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +70 °C
— Note	with natural convection
during transport	-40 +70 °C
during storage	-40 +70 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation
Mechanics	
Connection technology	screw-type terminals
Connections	
Supply input	L+1, M1, PE: 1 screw terminal each for 0.5 2.5 mm² single-core/finely stranded
• Output	+: 1 screw terminal for 0.5 2.5 mm²; -: 2 screw terminals for 0.5 2.5 mm²
<ul><li>Auxiliary</li></ul>	-
Width of the enclosure	22.5 mm
Height of the enclosure	80 mm
Depth of the enclosure	91 mm
Weight, approx.	0.14 kg
Product property of the enclosure housing for side- by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)