

# SNP-Z07 series

70 Watt

- For medical and industrial applications
- Efficiency 75 %
- Operating temperature up to +70 °C

The units of the SNP-Z07 series are ideal power supplies for medical and industrial applications in an operating ambient temperature range from 0 °C to +70 °C. High-grade components are the basis for the high MTBF of the series. Optionally, casings and connector cables are available for all models.



## Technical data

Input voltage	90...264 VAC
Input frequency	47...63 Hz
Input current	2 A / 115 VAC, 1A / 230 VAC
Inrush current	<30 A / 115 VAC, <60 A / 230 VAC
Efficiency	75 % – 86 %, depending on model
Hold up time	App. 20 ms / 115 VAC
Protection	Short circuit protection: Switch off with auto-recovery Overload protection: Switch off with auto-recovery Overvoltage protection: Switch off (model / response threshold) SNP-Z07B / (4...5 V), SNP-Z076, -Z071, -Z073 / (5.7...7 V), SNP-Z077 / (13.1...15.1 V), SNP-Z078 / (17.6...20.1 V), SNP-Z79 / (26.2...31 V), SNP-Z07T / (55...62 V), SNP-Z07E / (3.6...5 V)
Line regulation	±1 % at rated load and input voltage change of ±10 %
Load regulation	±1 % (A1, A2 load step ±40 % related to 60 % rated load) ±3 % (A1, A2 load step ±40 % related to 60 % rated load) SNP-Z071, -Z073, -Z07E ±5 % (A3, A4 load step ±40 % related to 60 % rated load) SNP-Z071, -Z073, -Z07E
Earth leakage current	<300 µA max. (240 VAC / 60 Hz)
Safety / EMC	TÜV (IEC / EN60601-1, 60950) / UL (UL60601-1, 60950)
Operating temperature	0...+70 °C
Derating	In the range of +50...+70 °C, 2,5 % / K
MTBF	>217 000 h at +50 °C, according to MIL-HDBK-217F
Storage temperature	-40...+75 °C
Operating humidity	10...95 % RH, non-condensing
Dimensions	127 x 76.2 x 32.4 mm ±0.5 mm
Weight (net)	0.2 kg

## Product specific data

Remote sense	Regulation range 0.5 V (SNP-Z76, SNP-Z07B)
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## Optional accessories

Article No.	Description	Article No.	Description
CB-Z071	DC cable harness, 8-pole (SNP-Z071, -07T)	CB-Z079	DC cable harness, 8-pole (SNP-Z079)
CB-Z073	DC cable harness, 8-pole (SNP-Z073)	CB-Z07E	DC cable harness, 8-pole (SNP-Z07E)
CB-Z076	DC cable harness, 8-pole (SNP-Z076)	X1-024	AC cable harness, 2-pole (SNP-Z10 series)
CB-Z077	DC cable harness, 8-pole (SNP-Z077)	SNP-Z10-CHASSIS	Chassis for SNP-Z07, -10, -10M series
CB-Z078	DC cable harness, 8-pole (SNP-Z078)	SNP-Z10-COVER	Cover for SNP-Z07, -10, -10M series

Article No.	Load	Output	Output voltage	Output current			Ripple & Noise	Efficiency
				Min	Rated load	Peak load		
SNP-Z07B	50 W	A1	+3.3 V	0 A	15 A		<50 mV <sub>SS</sub>	75 %
SNP-Z076	70 W	A1	+5 V	0 A	14 A		<50 mV <sub>SS</sub>	79 %
SNP-Z077	70 W	A1	+12 V	0 A	5.6 A	9 A	<120 mV <sub>SS</sub>	81 %
		A2	+5 V	0 A	0.5 A		<50 mV <sub>SS</sub>	
SNP-Z078	75 W	A1	+15 V	0 A	4.8 A	8 A	<150 mV <sub>SS</sub>	82 %
		A2	+5 V	0 A	0.5 A		<50 mV <sub>SS</sub>	
SNP-Z079	75 W	A1	+24 V	0 A	3 A	5 A	<240 mV <sub>SS</sub>	84 %
		A2	+5 V	0 A	0.5 A		<50 mV <sub>SS</sub>	
SNP-Z07T	77 W	A1	+48 V	0 A	1.6 A		<480 mV <sub>SS</sub>	86 %
SNP-Z071	65 W	A1	+5 V	0 A	3.5 A	5 A	<50 mV <sub>SS</sub>	78 %
		A2	+12 V	0 A	3.5 A	9 A	<120 mV <sub>SS</sub>	
		A3	-12 V	0 A	0.3 A		<120 mV <sub>SS</sub>	
SNP-Z073	65W	A1	+5 V	0 A	3.5 A	5 A	<50 mV <sub>SS</sub>	78 %
		A2	+12V	0 A	4 A	9 A	<120 mV <sub>SS</sub>	
SNP-Z07E	71W*	A1	+3.3V	0 A	10 A		<50 mV <sub>SS</sub>	78 %
		A2	+5V	0 A	7 A		<50 mV <sub>SS</sub>	
		A3	+12V	0 A	2 A		<120 mV <sub>SS</sub>	
		A4	-12V	0 A	0.6 A		<120 mV <sub>SS</sub>	

\*SNP-Z07E: Max. load at +3.3 V and +5 V must not exceed 45 W. If load is >80 % at +3.3 V, a minimum load of 5 V / >2.4 A must be connected at +5 V. Peak load can be for max. 8 sec. (For SNP-Z071, -Z073 only A1 or A2). Ripple and Noise was measured by a 15 MHz bandwidth limited oscilloscope with connected 0.47 µF ceramic capacitor (SNP-Z076: 10 µF electrolytic capacitor and 0.47 µF ceramic capacitor, SNP-Z079: 39 µF electrolytic capacitor and 0.47 µF ceramic capacitor) at each output.

As a power component this PSU is for assembly purposes only and must not be operated in unassembled condition. The final assembly has to comply with the valid EMC and safety standards. In order to keep the EN61000-3-2 class D requirements an external passive PFC inductor is required.

## Drawing SNP-Z07 series

SNP-Z07B  
SNP-Z076

SNP-Z07B:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: fan / Molex 5045-02A  
TBD2: PIN1,2: +5 V, PIN3,4: GND, PIN5,6: +12 V,  
PIN7: -12 V, PIN8: n.c.

SNP-Z073:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A, T  
BD4: fan / Molex 5045-02A  
TBD2: PIN1,2: +5 V, PIN3,4,5,6: GND, PIN7,8: +12 V

SNP-Z07E:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: fan / Molex 5045-02A  
TBD2: PIN1,2: +3.3 V, PIN3,4: GND, PIN5,6: +5 V,  
PIN7: -12 V, PIN8: +12 V

Note:  
The remote sense connection (voltage readjustment) can be connected directly to the load via twisted cable.  
Fan connection: 12 V / 250 mA max.,  
SNP-Z079: 24 V / 250 mA  
LED connection: a series resistor is installed on the PCB

Tolerance ±0.5 mm

Connectors:

SNP-Z07B:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: Remote Sense / Molex 5045-02A  
TBD2: PIN1,2,3,4: +3.3 V, PIN5,6,7,8: GND

SNP-Z076:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: fan / Molex 5045-02A  
TBD2: PIN1,2,3,4: +12 V, PIN4,5,6,7: GND,  
PIN8: +5 V

SNP-Z077:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: fan / Molex 5045-02A  
TBD2: PIN1,2,3: +12 V, PIN4,5,6,7: GND,  
PIN8: +5 V

SNP-Z078:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: fan / Molex 5045-02A  
TBD2: PIN1,2,3: +15 V, PIN4,5,6,7: GND,  
PIN8: +5 V

SNP-Z079:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A,  
TBD4: fan / Molex 5045-02A  
TBD2: PIN1,2,3: +24 V, PIN4,5,6,7: GND,  
PIN8: +5 V

SNP-Z07T:  
TBD1: AC-input / Molex 5277-02A,  
TBD2: DC-output / Molex 5273-08A series,  
TBD3: LED / Molex 5045-02A  
TBD2: PIN1,2,3: +48 V, PIN4,5,6,7: GND,  
PIN8: n.c.