Product data sheet Characteristics

ABL7RP1205 regulated SMPS - 1 or 2-phase - 100.240 V AC- 12 V - 5 A

Complementary Input voltage limits

Network frequency Inrush current Cos phi Efficiency

Output voltage limits Power dissipation in W Current consumption

Line and load regulation

Connections - terminals

Residual ripple Holding time

Range of product	Phaseo
Product or component type	Power supply
Power supply type	Regulated switch mode
Input voltage	100240 V AC phase to phase, terminal(s): L1-L2 100240 V AC single phase, terminal(s): N-L1 110220 V DC
Output voltage	12 V DC
Rated power in W	60 W
Input protection type	Integrated fuse (not interchangeable)
Power supply output current	5 A
Output protection type	Against overload, protection technology: $1.1 \times \ln$ Against overvoltage, protection technology: tripping if U > 1.5 x Un Against short-circuits, protection technology: manual or automatic reset Against undervoltage, protection technology: tripping if U < 0.8 x Un
Ambient air tempera- ture for operation	060 °C without derating
 100250 V 85264 V	
4763 Hz	
<= 30 A	
0.00	
 0.98	
 0.98 > 85 %	
 0.98 > 85 % 100120 % adjustable	
 0.98 > 85 % 100120 % adjustable 10.6 W	
 0.98 > 85 % 100120 % adjustable 10.6 W 0.4 A at 240 V 0.8 A at 100 V	
 0.98 > 85 % 100120 % adjustable 10.6 W 0.4 A at 240 V 0.8 A at 100 V +/- 3 %	
 0.98 > 85 % 100120 % adjustable 10.6 W 0.4 A at 240 V 0.8 A at 100 V +/- 3 % <= 200 mV	
0.98 > 85 % 100120 % adjustable 10.6 W 0.4 A at 240 V 0.8 A at 100 V +/- 3 % <= 200 mV >= 20 ms at 100 V >= 20 ms at 240 V	
 0.98 > 85 % 100120 % adjustable 10.6 W 0.4 A at 240 V 0.8 A at 100 V +/- 3 % <= 200 mV >= 20 ms at 100 V >= 20 ms at 240 V Screw type terminals for i mm²AWG gauge2614 Screw type terminals for o 0.141 x 2.5 mm²AWG g 0.141 x 2.5 mm²AWG g	nput connection, connection capacity: 2 x 0.142 x 2.5 nput ground connection, connection capacity: 1 x auge2614 putput connection, connection capacity: 2 x 0.142 x 14 putput ground connection, connection capacity: 1 x auge2614

Marking

Mounting support

Operating position

Output coupling



Vertical Parallel

Series

35 x 7.5 mm symmetrical DIN rail 75 x 7.5 mm symmetrical DIN rail

Name of test	Conducted/Radiated emissions conforming to EN 55011 Conducted/Radiated emissions conforming to EN 55022 Class B Electrostatic discharges conforming to EN/IEC 61000-4-2 Emission conforming to EN 50081-1 Induced electromagnetic field conforming to EN/IEC 61000-4-6 Primary outage conforming to IEC 61000-4-11 Radiated electromagnetic field conforming to EN/IEC 61000-4-3 Rapid transient conforming to IEC 61000-4-4 Surge conforming to EN/IEC 61000-4-5
Status LED	1 LED green for output voltage 1 LED orange for input voltage
Depth	120 mm
Height	120 mm
Width	54 mm
Product weight	1 kg

Environment

Product certifications	CCSAus CSA 22-2 No 950-1 C-Tick CULus 508 TUV 60950-1
Environmental characteristic	EMC conforming to EN 50081-1 EMC conforming to EN 50082-2 EMC conforming to EN/IEC 61000-6-2 Safety conforming to EN/IEC 60950 Safety conforming to IEC 61496-1-2 Safety conforming to SELV
IP degree of protection	IP20 conforming to EN/IEC 60529
Ambient air temperature for storage	-2570 °C
Relative humidity	095 % without condensation or dripping water
Class of protection against electric shock	Class I conforming to VDE 0106-1
Dielectric strength	3000 V between input and ground 3000 V between input and output 500 V between output and ground 500 V between outputs
RoHS EUR status	Compliant
RoHS EUR conformity date	0623

ABL7RP1205

Regulated Switch Mode Power Supply

Dimensions and Mounting

Mounting on 35 mm/1.37 in. or 75 mm/2.95 in. Rail



ABL7RP1205

Regulated Switch Mode Power Supply

Internal Wiring Diagram



(1) Filter

Regulated Switch Mode Power Supplies

Series or Parallel Connection

Series Connection



(1) Two Shottky diodes Imin = power supply In and Vmin = 50 V

Parallel Connection



Family	Series	Parallel
ABL 8REM/7RP	2 products max.	2 products max.

Series or parallel connection is only recommended for products with identical references.

ABL7RP1205

Regulated Switch Mode Power Supplies

Derating

The ambient temperature is a determining factor that limits the power an electronic power supply can deliver continuously. If the temperature around the electronic components is too high, their life will be significantly reduced.

The nominal ambient temperature for the Optimum range of Phaseo power supplies is 50 °C. Above this temperature, derating is necessary up to a maximum temperature of 60 °C.

The graph below shows the power as a percentage of the nominal power that the power supply can deliver continuously, depending on the ambient temperature.



X Maximum operating temperature (°C)

(1) ABL 8REM, ABL 7RP mounted vertically

Derating should be considered in extreme operating conditions:

- Intensive operation (output current permanently close to the nominal current, combined with a high ambient temperature)
- Output voltage set above 24 Vdc (to compensate for line voltage drops, for example)
- · Parallel connection to increase the total power

Regulated Switch Mode Power Supply

Temporary Overloads

