

# Product data sheet

Specifications



## Regulated Switch Power Supply, 1 or 2-phase, 100..240V AC- 12V, 5 A

ABL7RP1205

! Discontinued on: 23 November 2020

! End-of-service on: 23 November 2020

! Discontinued

### Main

Range of product	Modicon Power Supply
Product or component type	Power supply
Power supply type	Regulated switch mode
Nominal input voltage	100...240 V AC phase to phase, terminal(s): L1-L2 100...240 V AC single phase, terminal(s): N-L1 110...220 V DC
Input voltage limits	100...250 V AC 85...264 V AC
Rated power in W	60 W
Output voltage	12 V DC
Power supply output current	5 A

### Complementary

Input protection type	Integrated fuse (not interchangeable)
Inrush current	30 A
Power factor	0.98 at 12 V DC
Efficiency	85 %
Output voltage adjustment	100...120 % adjustable
Power dissipation in W	10.6 W
Current consumption	0.4 A 240 V AC 0.8 A 100 V AC
Output protection type	Against overload, protection technology: $1.1 \times I_n$ Against overvoltage, protection technology: tripping if $U > 1.5 \times U_n$ Against short-circuits, protection technology: manual or automatic reset Against undervoltage, protection technology: tripping if $U < 0.8 \times U_n$
Connections - terminals	Screw type terminals: 2 x 0.14...2 x 2.5 mm <sup>2</sup> , (AWG 26...AWG 14) for input connection Screw type terminals: 1 x 0.14...1 x 2.5 mm <sup>2</sup> , (AWG 26...AWG 14) for input ground connection Screw type terminals: 2 x 0.14...2 x 2.5 mm <sup>2</sup> , (AWG 26...AWG 14) for output connection Screw type terminals: 1 x 0.14...1 x 2.5 mm <sup>2</sup> , (AWG 26...AWG 14) for output ground connection
Status LED	1 LED (green)output voltage 1 LED (orange)input voltage
Depth	120 mm
Height	120 mm
Width	54 mm

<b>Net weight</b>	1 kg
<b>Output coupling</b>	Parallel Series
<b>Marking</b>	CE
<b>Mounting support</b>	75 x 7.5 mm symmetrical DIN rail 35 x 15 mm symmetrical DIN rail 35 x 7.5 mm symmetrical DIN rail
<b>Operating position</b>	Vertical
<b>Supply</b>	SELV conforming to EN/IEC 60950-1 SELV conforming to EN/IEC 60204-1 SELV conforming to IEC 60364-4-41

## Environment

<b>Standards</b>	CSA C22.2 No 60950-1 UL 508 EN/IEC 62368-1
<b>Product certifications</b>	CSA 22-2 No 950 EAC CULus 508 RCM KC TÜV
<b>Environmental characteristic</b>	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
<b>Operating altitude</b>	2000 m
<b>IP degree of protection</b>	IP20 conforming to EN/IEC 60529
<b>Ambient air temperature for operation</b>	0...50 °C (without) 50...60 °C (with derating factor)
<b>Ambient air temperature for storage</b>	-25...70 °C
<b>Relative humidity</b>	0...95 % without condensation or dripping water
<b>Electrical energy source class conforming to IEC 62368-1</b>	ES1
<b>Dielectric strength</b>	3000 V between input and ground 3000 V between input and output 500 V between output and ground 500 V between outputs

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	1.073 kg
<b>Package 1 Height</b>	6.5 cm
<b>Package 1 width</b>	13.3 cm
<b>Package 1 Length</b>	14.5 cm
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	14
<b>Package 2 Weight</b>	15.634 kg
<b>Package 2 Height</b>	30 cm
<b>Package 2 width</b>	30 cm
<b>Package 2 Length</b>	40 cm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
PVC free	Yes

## Contractual warranty

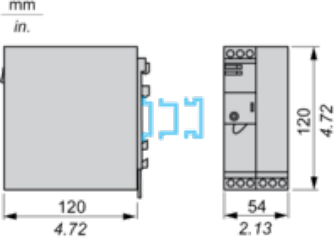
Warranty	18 months
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**Regulated Switch Mode Power Supply**

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**Dimensions and Mounting**

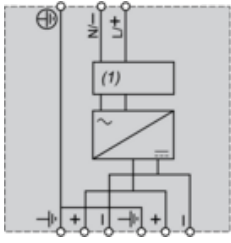
Mounting on 35 mm/1.37 in. or 75 mm/2.95 in. Rail



**Regulated Switch Mode Power Supply**

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**Internal Wiring Diagram**

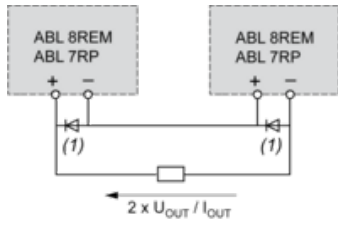


(1) Filter

**Regulated Switch Mode Power Supplies**

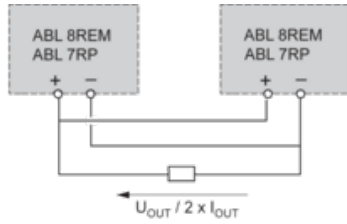
**Series or Parallel Connection**

**Series Connection**



(1) Two Schottky diodes  $I_{min}$  = power supply  $I_n$  and  $V_{min}$  = 50 V

**Parallel Connection**



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

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

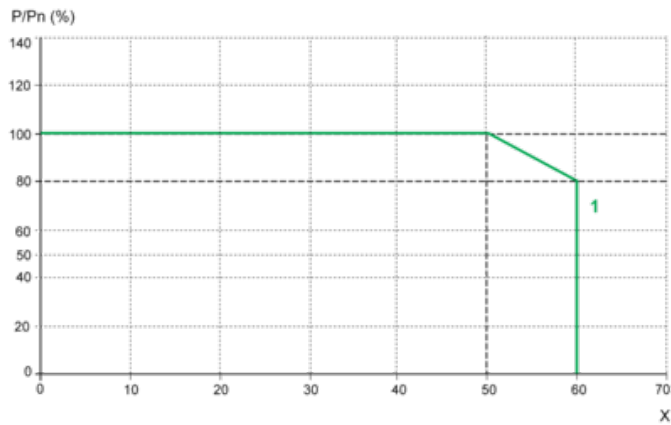
Regulated Switch Mode Power Supplies

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

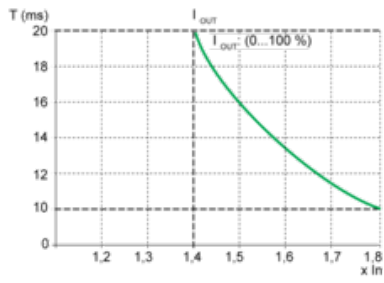
Derating should be considered in extreme operating conditions:

- 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**

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**Temporary Overloads**



**Recommended replacement(s)**

ABL7RP1205 is replaced by:

1x



Regulated Power Supply, 100-240V AC, 12V 6.2 A, single phase, Optimized  
ABLS1A12062

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