Product data sheet Characteristics

ABL8WPS24400

Regulated Switch Power Supply, 3-phase, 380..500V, 24V, 40 A

Product availability: Stock - Normally stocked in distribution facility



Price*: 1,173.00 USD



Main

		2
Range of product	Modicon Power Supply	
Product or component type	Power supply	9
Power supply type	Regulated switch mode	
Nominal input voltage	380500 V AC three phase L1, L2, L3	: <u>:</u> :2 :0
Input voltage limits	320550 V AC	2
Kw Rating	960 W	<u>}</u>
Output voltage	24 V DC	: :- :-
Power supply output current	40 A	
Permissible temporary current boost	1.5 x In for 4 s)	
Anti-harmonic filter	Low frequency harmonic currents	2.2

Complementary

Complementary		
Inrush current	25 A	
Power factor	0.85 at 24 V DC	
Efficiency	92 %	
Output voltage adjustment	2428.8 V adjustable	
Power dissipation in W	76.8 W	
Provided equipment	Power factor correction filter IEC 61000-3-2	
Output protection type	Against overload manual or automatic reset Against overvoltage 3032 V, manual reset Against short-circuits manual or automatic reset Against undervoltage tripping if U < 21.6 V Thermal automatic reset	
Connections - terminals	Removable screw terminal block 2 x 2.5 mm², diagnostic relay Screw type terminals 3 x 0.53 x 4 mm², AWG 22AWG 12) input connection Screw type terminals 1 x 0.51 x 4 mm², AWG 22AWG 12) input ground connection Screw type terminals 4 x 0.54 x 10 mm², AWG 22AWG 8) output connection	

^{*} Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Status LED	Output voltage 1 LED green and red) Output current 1 LED green, red and orange)	
Maximum Depth	6.30 in (160 mm)	
Height	5.63 in (143 mm)	
Maximum Width	6.54 in (166 mm)	
Net Weight	5.95 lb(US) (2.7 kg)	
Output coupling	Parallel Series	
Marking	CE	
Mounting support	35 x 7.5 mm symmetrical DIN rail 35 x 15 mm symmetrical DIN rail	
Operating position	Vertical	

Environment

Standards	CSA C22.2 No 60950-1	
	UL 508	
Product certifications	CCSAus EAC UL RCM	
Environmental characteristic	EMC EN 61000-6-1 EMC EN 61000-6-3 EMC EN 55024 EMC EN/IEC 61000-6-4 EMC EN/IEC 61204-3 Safety EN 61204-4 Safety EN/IEC 60950-1 Safety SELV	
Operating altitude	6561.68 ft (2000 m)	
IP degree of protection	IP20 conforming to EN/IEC 60529	
Ambient air temperature for operation	122140 °F (5060 °C) with derating factor) -13122 °F (-2550 °C) without)	
Ambient air temperature for storage	-40158 °F (-4070 °C)	
Relative humidity	090 % during operation 095 % in storage	
Dielectric strength	3500 V between input and ground 4000 V between input and output 500 V between output and ground	

Ordering and shipping details

Category	22525 - ABL8 AND ABL7 POWER SUPPLIE
Discount Schedule	CP12
GTIN	00785901666578
Nbr. of units in pkg.	1
Package weight(Lbs)	7 lb(US) (3.18 kg)
Returnability	Yes
Country of origin	PH

Packing Units

Package 1 Height	1.960 dm
Package 1 width	1.600 dm
Package 1 Length	1.860 dm

Offer Sustainability

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California proposition 65 WARNING: This product can expose you to chemicals including: Lead and lead composition is known to the State of California to cause cancer and birth defects or other reproduction more information go to www.P65Warnings.ca.gov		
REACh Regulation	REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
Mercury free	Yes	
RoHS exemption information	Yes	
China RoHS Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	
PVC free	Yes	

Contractual warranty

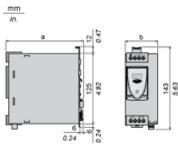
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Warranty		18 months

Product data sheet Dimensions Drawings

ABL8WPS24400

Regulated Switch Mode Power Supplies

Dimensions



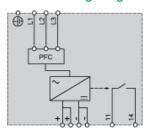
ABL 8	a in mm	a in in.	b in mm	b in in.
RPS24030	125	4.92	45	1.77
RPS24050	125	4.92	56	2.20
RPS24100	145	5.71	86	3.39
RPM24200	145	5.71	146	5.75
WPS24200	160	6.30	96	3.78
WPS24400	160	6.30	166	6.54

Product data sheet Connections and Schema

ABL8WPS24400

Regulated Switch Mode Power Supply

Internal Wiring Diagram



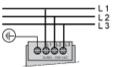
Product data sheet Connections and Schema

ABL8WPS24400

Regulated Switch Mode Power Supply

Line Supply Wiring Diagram

Three-phase (L1-L2-L3) 3 x 380 to 500 V $\,$

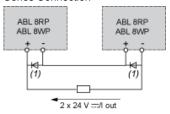


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Regulated Switch Mode Power Supplies

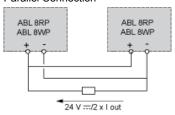
Series or Parallel Connection

Series Connection



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

Parallel Connection



Family	Series	Parallel
ABL 8RPS/8RPM/8WPS	2 products max. (1)	2 products max.

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

 $For better\ availability,\ the\ power\ supplies\ can\ also\ be\ connected\ in\ parallel\ using\ the\ ABL8RED24400\ Redundancy\ module.$

Product data sheet Performance Curves

ABL8WPS24400

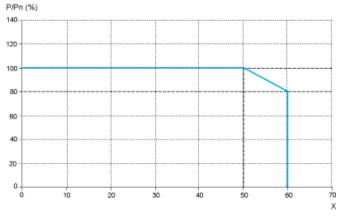
Regulated Switch Mode Power Supplies

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 Universal 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 (in relation to the nominal power) that the power supply can deliver continuously, depending on the ambient temperature.



X Maximum operating temperature (°C)

ABL 8RPM, ABL 8RPS, ABL 8WPS mounted vertically

Derating should be considered in extreme operating conditions:

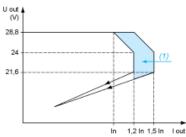
- Intensive operation (output current permanently close to the nominal current, combined with a high ambient temperature)
- Output voltage set above 24 Vdc (to compensate for line voltage drops, for example)
- Parallel connection to increase the total power

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Regulated Switch Mode Power Supply

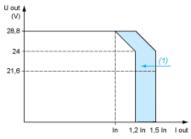
Load Limit

Manual Reset Protection Mode



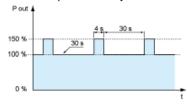
(1) Boost 4s





(1) Boost 4s

"Boost" Repeat Accuracy



This type of operation is described in detail in the user manual, which can be downloaded from the website.