

Regulated Power Supply, 380...500V AC, 48V, 10A, 3 phases, Universal

ABLU3A48100

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Modicon Power Supply	
Product or Component Type	Power supply	
Power supply type	Regulated switch mode	
Variant option	Universal	
Enclosure Material	Metal	
Nominal input voltage	380500 V AC three phase	
Kw Rating	480 W	
Output voltage	48 V DC	
Power supply output current	10 A	
Permissible temporary current boost	1.5 x In for 5 seconds)	

Complementary

Efficiency at full load	cy at full load 320575 V AC 3 phase	
Nominal network frequency	5060 Hz	
Network system compatibility	TN	
	TT	
	IT	
Maximum leakage current	2 mA 500 V AC	
Input protection type	Integrated fuse (not interchangeable) 3.15 A	
	External protection (recommended)	
Inrush current	35 A 380 V	
	35 A 500 V	
Power factor	0.90 at 380 V AC	
	0.88 at 500 V AC	
Efficiency	92 % 380 V AC	
	92 % 500 V AC	
Output voltage adjustment	4856 V	
Power dissipation in W	33 W	
Current consumption	< 0.85 A 380 V AC	
	< 0.73 A 500 V AC	
Turn-on time < 1 s		
Holding time	> 20 ms 380 V AC	
	> 20 ms 500 V AC	
Startup with capacitive loads	200000 μF	
Residual ripple	< 150 mV	

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

Meantime between failure [MTBF]	890200 h at 77 °F (25 °C), full load conforming to SR 332	
	346200 h at 131 °F (55 °C), 80 % load conforming to SR 332	
Outrot made attended		
Output protection type	Against overload and short-circuits, protection technology: manual or automatic reset	
	by switch Against over temperature, protection technology: automatic reset	
	Against overvoltage, protection technology: manual reset	
	- Aguillot overveltage, protection teermology. Manaar recet	
Connections - terminals	Screw connection 46 mm², AWG 12AWG 10) without wire end ferrule output	
	Screw connection 4 mm², AWG 12) with wire end ferrule output	
	Screw connection 0.756 mm², AWG 18AWG 10) without wire end ferrule input	
	Screw connection 0.754 mm², AWG 18AWG 12) with wire end ferrule input	
	Cage clamp 0.21.5 mm², AWG 22AWG 16) without wire end ferrule diagnostic	
	relay	
	Cage clamp 0.20.75 mm², AWG 22AWG 18) with wire end ferrule diagnostic	
	relay	
	Cage clamp 0.20.75 mm², AWG 22AWG 18) with wire end ferrule shut down	
	input	
Line and load regulation	4 0 47 0/ naturals 400 0/ lead in line at 77 °F (05 °C)	
Line and load regulation	< 0.17 % network 100 % load in line at 77 °F (25 °C)	
	< 0.6 % +/- 0.5 % network 150 % load at 77 °F (25 °C)	
Status LED 1 LED (green and red) product status		
	,,,	
5.008 in (127.2 mm)		
Height	4.9 in (124 mm)	
	2.6 in (65 mm)	
Product Weight 2.54 lb(US) (1.15 kg)		
Output counling Parallal		
Output coupling Parallel		
Marking	CE	
	UKCA	
Mounting support	Top hat type TH35-15 rail IEC 60715	
	Top hat type TH35-7.5 rail IEC 60715	
	Double-profile DIN rail	
Supply	SELV IEC 60950-1	
очрыу	SELV IEC 60204-1	
	SELV IEG 60264-1 SELV IEG 60364-4-41	
	<u> </u>	
Dielectric strength	4000 V AC with input to output	
	2000 V AC with input to ground	
	1500 V AC with output to ground	
	4000 V AC with input to diagnostic relay	
	500 V AC with output to diagnostic relay	
	1500 V AC with diagnostic relay to ground	
	with shutdown input not isolated from output	
Diagnostic relay Electromechanical relay 1000.0 mA 30 V		
Service life	10 year(s) 104 °F (40 °C) 80 % load	
Overvoltage category	Ⅲ	

Environment

Standards	IEC 62368-1	
	EN/IEC 61204-3	
	IEC 61000-6-1	
	IEC 61000-6-2	
	IEC 61000-6-3	
	IEC 61000-6-4	
	IEC 61000-3-2	
	EN 61000-3-3	
	UL 62368-1	
	CSA C22.2 No 62368-1	
	CSA C22.2 No. 107.1	

Product certifications	CE
	CUL Listed
	CUL Recognized
	RCM
	CB Scheme
	EAC
	KC
	UKCA
	CURus
Operating altitude	< 5000 m overvoltage category III
operating annual	overvoltage category II
	overvoitage category ii
Shock resistance	150 m/s² 11 ms
IP degree of protection	IP20
Ambient air temperature for	-13131 °F (-2555 °C) without current derating mounting position A < 6561.68 ft
operation	(2000 m)
	131158 °F (5570 °C) with current derating of 3.3 % per °C mounting position A <
	6561.68 ft (2000 m)
Electrical shock protection class Class	
· · · · · · · · · · · · · · · · · · ·	
pollution degree	2
Vibration resistance	3.5 mm (f= 311.9 Hz) conforming to IEC 60068-2-6
	20 m/s ² (f= 11.9150 Hz) conforming to IEC 60068-2-6
Electromagnetic immunity	Immunity to electrostatic discharge - test level: 8 kV (contact discharge) conforming
	to IEC 61000-4-2
	Immunity to electrostatic discharge - test level: 15 kV (air discharge) conforming to IEC 61000-4-2
	Immunity to conducted RF disturbances - test level: 15 V/m (80 MHz2 GHz)
	conforming to IEC 61000-4-3
	Immunity to conducted RF disturbances - test level: 5 V/m (22.7 GHz) conforming
	to IEC 61000-4-3
	Immunity to conducted RF disturbances - test level: 5 V/m (2.76 GHz) conforming to IEC 61000-4-3
	Immunity to fast transients - test level: 4 kV (on input-output) conforming to IEC 61000-4-4
	Surge immunity test - test level: 4 kV (between power supply and earth) conforming
	to IEC 61000-4-5
	Surge immunity test - test level: 3 kV (between phases) conforming to IEC 61000-4-5
	Immunity to conducted RF disturbances - test level: 15 V (0.1580 MHz) conforming
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	to IEC 61000-4-6
	Immunity to magnetic fields - test level: 30 A/m (5060 Hz) conforming to IEC 61000-4-8
	Immunity to voltage dips conforming to IEC 61000-4-11
	Disturbing field emission conforming to EN 55016-2-3
	Limits for harmonic current emissions conforming to IEC 61000-3-2
	conforming to EN 55016-1-2
	conforming to EN 55016-2-1
Electromognetic amicaian	Our dust a durationism IEO 04000 0 0
Electromagnetic emission	Conducted emissions IEC 61000-6-3

Ordering and shipping details

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Category	US1CP1222525
Discount Schedule	CP12
GTIN	3606482185265
Returnability	Yes
Country of origin	TH

Radiated emissions IEC 61000-6-4

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3 72 in (9 45 cm)

Package 1 Width	6.97 in (17.7 cm)	
Package 1 Length	7.36 in (18.7 cm)	
Package 1 Weight	3.333 lb(US) (1.512 kg)	
Unit Type of Package 2	S03	
Number of Units in Package 2	7	
Package 2 Height	11.81 in (30.0 cm)	
Package 2 Width	11.81 in (30.0 cm)	
Package 2 Length	15.75 in (40.0 cm)	
Package 2 Weight	24.7 lb(US) (11.2 kg)	



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability

Q	Environmental footprint	
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Environmental Disclosure

Product Environmental Profile

Use Better

Materials and Substances		
Packaging made with recycled cardboard	No	
Packaging without single use plastic	No	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
REACh Regulation	REACh Declaration	

Use Again

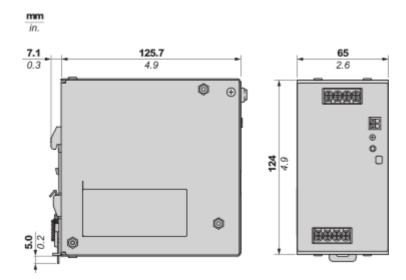
○ Repack and remanufacture		
Circularity Profile	End of Life Information	
Take-back	No	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.	

Product data sheet

ABLU3A48100

Dimensions Drawings

Dimensions

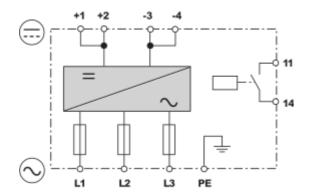


Product data sheet

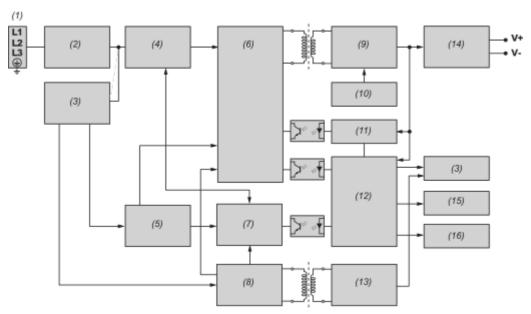
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Connections and Schema

Wiring



Block Diagram

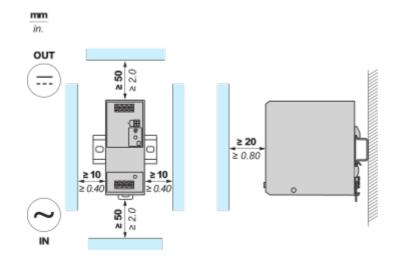


- (1): Input(2): EMI filter(3): Relay control
- (4) : Interleave PFC converter
- (5): Primary control(6): Main LLC converter(7): PFC controller
- (8) : Primary AUX
- (9) : Synchronous rectifier
- (10) : SR controller
- (11): CV & CC feedback
- (12): Secondary MCU
- (13): Secondary AUX
- (14) : Output filter
- (15): Automanual switch
- (16): LED control

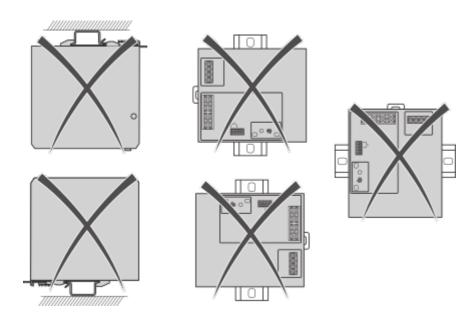
Mounting and Clearance

Mounting

Mounting Position

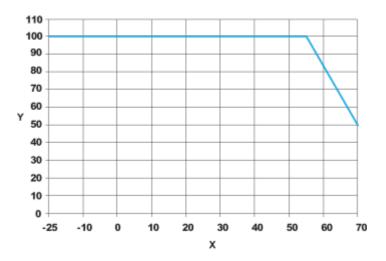


Incorrect Mounting



Performance Curves

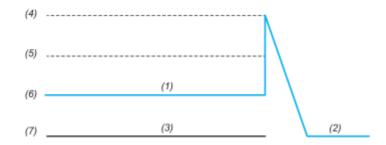
Performance Curve



X : Surrounding Air Temperature (°C)

Y: Percentage of Maximum Load (%)

Overvoltage Protection Behavior



Overvoltage range: 54...60 VDC, Latch mode

(1): Variable output voltage range

(2) : Latch

(3): Typical overvoltage condition as seen at the output

(4) : Maximum overvoltage protection level

(5) : Overvoltage protection(6) : Norminal output voltage

(7): Zero output