

Modicon Power Supply
Regulated power supply for industrial use, rail mounting

Input Voltage	100...240 Vac							
Nominal output power	10 W	12 W	15 W	18 W	25 W	30 W	50 W	60 W
								
Connection to world-wide line supplies	United States: 120 V (in phase-to-neutral) / 240 V (in phase-to-phase) Europe: 230 V (in phase-to-neutral) / 400 V (in phase-to-phase) United States: 277 V (in phase-to-neutral) / 480 V (in phase-to-phase)							
Protection against overloads and short-circuits	Single-phase (N-L1) or 2-phase (L1-L2) connection							
Diagnostic relay	Single-phase (N-L1) connection							
Certifications (1)	- CE marking - CB Scheme - cULus Listed - cURus Recognized - RCM - EAC							
Power supply type	Modicon ABLM Modular power supply							
Output voltage5V				ABLM1A05036				
12V		ABLM1A12010			ABLM1A12021		ABLM1A12042	
24V	ABLM1A24004		ABLM1A24006			ABLM1A24012		ABLM1A24025
48V								
Output rating	NEC Class 2, Limited Power Source							
Compatibility with functionnal modules	-							
Page	6							

(1) Consult detail on certification for each reference in the product data sheet, click on [product reference](#) to open it.

100...240 Vac, 140...340 Vdc (2)						100...120 Vac and 200...500 Vac			100...120 Vac, 200...240 Vac	380...500 Vac	
50 W	75 W	91.2 W	120 W	240 W	480 W	75 W	120 W	240 W	480 W	480 W	960 W
											
Single-phase (N-L1) or 2-phase (L1-L2) connection						Single-phase (N-L1) or 2-phase (L1-L2) connection				—	
Single-phase (N-L1) connection						Single-phase (N-L1) or 2-phase (L1-L2) connection				3-phase (L1-L2-L3) connection	
—						Single-phase (N-L1) or 2-phase (L1-L2) connection				3-phase (L1-L2-L3) connection	
Yes, with automatic restart after the source of overload/short-circuit has been corrected						Yes with 2 possible modes: - automatic restart after the source of overload/short-circuit has been corrected - manual restart, the input voltage must be interrupted after the source of overload/ short-circuit has been corrected					
— - CE marking - CB Scheme - cULus Listed - cURus Recognized - RCM - EAC						Yes, depending on model - CE marking - CB Scheme - cULus Listed - CSA - RCM - EAC					
Modicon ABLS Optimized power supply						Modicon ABL8RP/WP Universal power supply					
	ABLS1A12062		ABLS1A12100								
ABLS1A24021	ABLS1A24031	ABLS1A24038	ABLS1A24050	ABLS1A24100	ABLS1A24200	ABL8RPS24030	ABL8RPS24050	ABL8RPS24100	ABL8RPM24200	ABL8WPS24200	ABL8WPS24400
			ABLS1A48025								
NEC Class 2, Limited Power Source (except ABLS1A12062)			—	—	—	—	—	—	—	—	—
—						Yes, with: - Converter module for supplying 5 Vdc to 15 Vdc auxiliary voltage - Redundancy module for continuity of service after an outage of power supplies equipment - Battery control modules, Buffer module and Battery module for continuity of service: solutions to microbreaks and power outages - Protection module: solution for discriminating protection of the application, See page 16					
8						10					

(2) Except ABLS1A24021 and ABLS1A24038.

Note: Phaseo Universal power supplies shown in this document are identified as Modicon as they will undergo a future brand change. All other product documentation will reference Phaseo until the brand change occurs.

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Regulated power supply for industrial use, rail mounting

Modicon ABLS Optimized Power Supply

Modicon ABLS Optimized power supply

Selection of protection on the power supply primary

The device is designed, tested and approved for branch circuits up to 16 A (IEC) and 20 A (UL) without additional protection devices. If external protection is used, do not use circuit breakers smaller than those indicated in the table below to avoid spurious over-current/short-circuit detection by the circuit breaker. Use the Acti9 iC60 range of Miniature Circuit Breakers (1).

Modicon ABLS Optimized power supply	Type of protection
ABLS1A12062	10 A, C curve or 13 A, B-curve
ABLS1A12100	13 A, C-Curve
ABLS1A24021	6 A, C curve or 10 A, B-curve
ABLS1A24031	10 A, C curve or 13 A, B-curve
ABLS1A24038	6 A, C curve or 10 A, B-curve
ABLS1A24050	13 A, C-Curve
ABLS1A24100	6 A, B or C curve
ABLS1A24200	13 A, C curve or 16 A, B-curve
ABLS1A48025	13 A, C-Curve

References

Input voltage	Secondary Output voltage	Nominal power (3)	Nominal current	Housing	Reset after overload or short circuit (5)	Output voltage adjustment potentiometer	Reference	Weight kg/lb
100...240 Vac 140...340 Vdc (2) - 15%, + 10% 50/60 Hz	12 Vdc	75 W	6.25 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A12062	
		120 W	10 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A12100	
	24 Vdc	50 W (4)	2.1 A	Compact: 75 mm height (2.95 in)	Auto.	With	ABLS1A24021	
		75 W (4)	3.13 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A24031	
		91.2 W (4)	3.8 A	Compact: 75 mm height (2.95 in)	Auto.	Without	ABLS1A24038	
		120 W	5 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A24050	
		240 W	10 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A24100	
		480 W	20 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A24200	
	48 Vdc	120 W	2.5 A	Book: 124 mm height (4.88 in)	Auto.	With	ABLS1A48025	

Substitution of Phaseo ABL7/ABL8 with Modicon ABLS Optimized power supply

Old reference (End of commercialization)	Replaced with
ABL7RP1205	ABLS1A12062
ABL7RP4803	ABLS1A48025
ABL8REM24030	ABLS1A24031
ABL8REM24050	ABLS1A24050

Note: in case of substitution into an existing machine, the external protection has to be adapted also.

(1) More information on Acti9 iC60 range on our [website](#).

(2) Except ABLS1A24021 and ABLS1A24038.

(3) Nominal power given for mounting on horizontal rail, for 230 Vac input voltage and for +50°C (131°F) ambient temperature. For other temperatures and mounting positions, Consult the product data sheet ([click on product reference to open it](#)).

(4) Limited Power Source conforming IEC 62368-1 and NEC Class 2, except ABLS1A12062, ABLS1A12100, ABLS1A24050, ABLS1A24100, ABLS1A24200 and ABLS1A48025.

(5) In case of overtemperature or overvoltage the input power must be cycled to reset the detected error.

