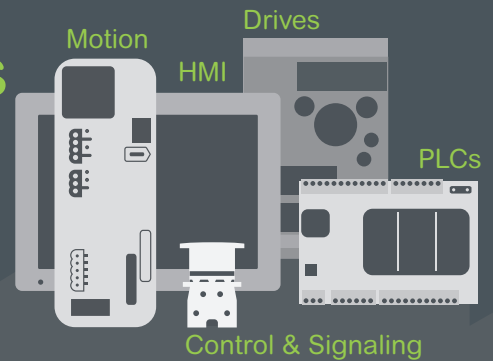




## Introducing the **Easy Series**

Essential automation & control products

*When just enough is just right!*



# Easy Modicon ABL2

Regulated switch mode power supplies

# General content

## Easy Modicon ABL2

### Regulated switch mode single-phase power supplies

#### ■ General presentation

- Presentation and applications..... [page 2](#)
- A user-oriented range of products..... [page 3](#)
- Control architecture ..... [page 3](#)

#### ■ Characteristics, description and dimensions

- Main characteristics..... [page 4](#)
- Description:
  - Power supplies with free air convection ..... [page 4](#)
  - Power supplies with forced air cooling by built-in DC fan ..... [page 4](#)
- Dimensions..... [page 4](#)

#### ■ References

- ABL2 regulated switch mode  $\overline{\text{AC}}$  24 V power supplies ..... [page 5](#)
- Options for ABL2 power supplies ..... [page 5](#)

- Product reference index..... [page 6](#)

## Easy Modicon ABL2

### Regulated switch mode single-phase power supplies

#### Presentation and applications



35, 50, and 100 W ABL2 power supplies



150 and 200 W ABL2 power supplies



250 and 350 W ABL2 power supplies

### Presentation

The Easy Modicon ABL2 electronic switch mode power supply offer is designed to provide the DC voltage necessary for electrical equipment operating in a low voltage automation and control system (PLC, HMI, sensors, etc.).

Our products incorporate advanced technology features: they are compact, and offer high performance and easy maintenance, thus reducing downtime.

■ ABL2 power supplies are fully electronic and have a regulated switch mode. The use of electronics makes it possible to significantly improve the efficiency of these power supplies, which offer:

- Compact dimensions <sup>(1)</sup>
- Wide power range (11 models from 35 to 350 W)
- High degree of output voltage stability (precision:  $\pm 1\%$ )
- Proven performance (MTBF over 600K hours)
- Diagnostics via LEDs at the output terminal
- 4 quick and simple mounting types

■ These power supplies also provide the following protection functions:

- Integrated output/overload/overvoltage and short-circuit protection with Hiccup restart for all models and overtemperature for models from 200 to 350 W
- Input overvoltage protection
- Protective terminal cover to prevent direct finger contact, helping to protect against electric shock hazards
- Specially designed hole in casing to help prevent risk of short-circuit with long screws

■ ABL2 power supplies have been awarded the following certifications:

- CE and EAC
- Safety standard: EN62368-1 compliant
- EMC standard: EN 61000-6-2, EN 61000-4-2, 3, 4, 5, 6, 8, 11, EN 55032 Class B

■ They also comply with RoHS directives.

### Applications

The Easy Modicon ABL2 power supplies range is able to meet the needs encountered in standard commercial machines and conforms to worldwide standards.

This range can be widely used with other electronic appliances and systems in the industry. OEMs and panel builders can easily integrate it into their machines or machine control panels.

■ OEMs can integrate these power supplies in simple machines used in the following fields:

- Material handling
- Textile machine
- Packaging
- Machine tools
- Food & Beverage

■ Panel builders can integrate them in control panels installed in the following fields:

- Construction
- Lift
- Automobile industry
- Chemical industry
- Municipal buildings
- Infrastructure

<sup>(1)</sup> See page 4.

## Easy Modicon ABL2

Regulated switch mode single-phase power supplies

A user-oriented range of products

Control architecture

### A user-oriented range of products

#### Fit for purpose

The Easy Modicon ABL2 range now features 11 models (from 35 to 350 W) whereas other equivalent ranges on the market typically offer 4 models.

- The new ABL2 power supplies are more compact than previous ABL2 versions (up to 20% smaller). They are also smaller than other models currently available on the market, thus saving space inside a cabinet for other electric appliances.
- Moreover, the high performance of these products (24 V DC stable output) means less downtime and their high-efficiency design means lower energy consumption.

#### Ease of use throughout the whole life cycle

- 4 types of mounting are available for more flexibility:
  - direct mounting on back panel
  - mounting on rear 35 mm (1.37 in.) U<sub>T</sub> rails
  - mounting with 4-corner bracket
  - mounting with L-type accessories
- ABL2 power supplies can be mounted quickly and easily owing to the specially designed mounting holes in their casing which help to prevent mistakes.
- New, improved labeling and packaging help to ensure quick identification and offer a better view of the products (their appearance is printed on the box).
- For existing installations, non-Schneider power supplies can easily be replaced (same installation dimensions, same mounting hole locations) (1).

#### Robustness

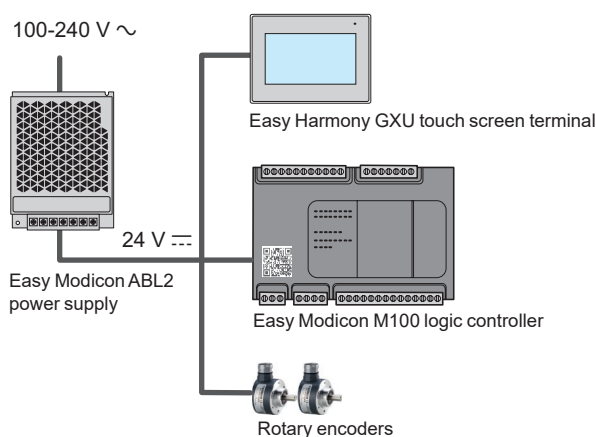
ABL2 power supplies have been designed to meet the majority of customer specifications:

- They feature short circuit protection as well as overload protection with an auto-recovery mode (automatic protection reset). This means that the protection resets itself automatically on elimination of the detected fault, which avoids the need to take any action or change a fuse.
- They are equipped with an input voltage (100-240 V AC) smart switch offering increased performance and durability.
- They can operate within a wide temperature range.

#### Widely available

- Fast delivery through a large distribution network
- Fast access to information and support through the Partner Relationship Management tool and a dedicated network of engineers

### Control architecture



(1) The position of the mounting holes on the casing varies slightly compared with previous ABL2 power supply ranges. Please see dimensions on our website <https://www.schneider-electric.cn>

# Easy Modicon ABL2

## Regulated switch mode single-phase power supplies

Main characteristics, description, and dimensions

### Main characteristics

#### Electrical characteristics

- Input voltage: 100-240 V AC, single-phase (240 V DC compliant)
- Output voltage: 24 V DC
- Efficiency > 88%
- Vibration resistance: 4 G

#### Environment characteristics

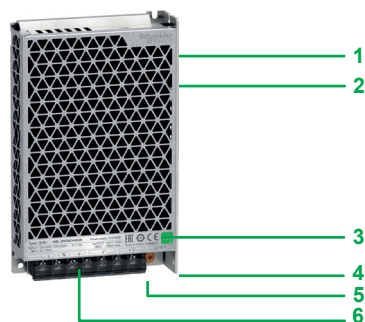
- Ambient air temperature for 150 W model:
  - -30... +45 °C (-22... 113 °F) without derating
  - 45... 70 °C (113... 158 °F) with derating (1)
- Ambient air temperature for 35 to 100 W models and 200 to 350 W models:
  - -30... +50 °C (-22... 122 °F) without derating
  - 50... 70 °C (122... 158 °F) with derating (1)
- Ambient humidity (around the device): 10...95%
- Degree of protection: IP 20 - Insulation class: I
- Altitude: 0...5,000 m (16404, 2 ft)(2)
- Thermal design: more efficient cooling with triangle hole

For more technical information, visit our website <https://www.schneider-electric.cn>

### Description

#### Power supplies with natural convection (ABL2REM240●●K, ABL2REM240●●KQ)

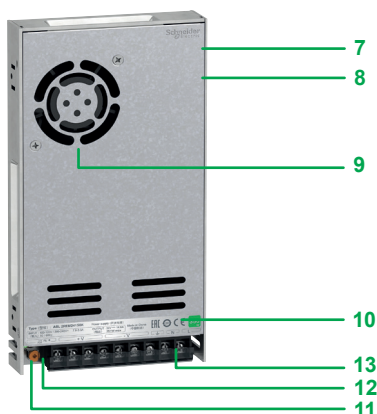
- 100/240 V AC input voltage selector (on 150 and 200 W models only)
- Fixing holes for panel mounting with M3 screws (excluding 200 W model).  
Four fixing holes for 4-corner bracket mounting with M4 screws (on 200 W model only)
- Technical information
- A green LED indicating status of the DC output voltages
- An output voltage adjustment potentiometer ( $\pm 15\%$ )
- A 4 mm<sup>2</sup> screw clamp terminal block (equipped with plastic protective cover as standard) for connection of the AC input voltage and DC output voltage



ABL2REM24065K, ABL2REM24065KQ  
(150 W models)

#### Power supplies with forced air cooling by built-in DC fan (ABL2REM241●0K)

- 100/240 V AC input voltage selector (on 250 and 350 W models)
- Four fixing holes for mounting with 4-corner bracket and M4 screws
- Built-in DC fan
- Technical information
- A green LED indicating status of the DC output voltages
- An output voltage adjustment potentiometer ( $\pm 15\%$ )
- A 4 mm<sup>2</sup> screw clamp terminal block (equipped with plastic protective cover as standard) for connection of the AC input voltage and DC output voltage



ABL2REM24100K  
(250 W and 350 W models)

### Dimensions (overall)

Model	Reference	Dimensions (W x H x D)	
		mm	in.
35 W	ABL2REM24015K ABL2REM24015KQ	99 x 82 x 30	3.90 x 3.23 x 1.17
50 W	ABL2REM24020K ABL2REM24020KQ		
100 W	ABL2REM24045K ABL2REM24045KQ	129 x 97 x 30	5.08 x 3.78 x 1.17
150 W	ABL2REM24065K, ABL2REM24065KQ	159 x 97 x 30	6.20 x 3.78 x 1.17
200 W	ABL2REM24085K	215 x 115 x 30	4.53 x 8.46 x 1.17
250 W	ABL2REM24100K		
350 W	ABL2REM24150K		

(1) Please visit our website <https://www.schneider-electric.cn> for more information about derating.

(2) The ambient temperature derating of 5 °C (41 °F)/1,000 m (3280.8 ft) is needed for operating altitude greater than 2,000 m (6561.7 ft).

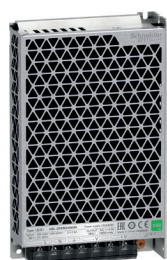
# Easy Modicon ABL2

## Regulated switch mode single-phase power supplies

### References and options



ABL2REM24015K  
ABL2REM24015KQ  
ABL2REM24020K  
ABL2REM24020KQ



ABL2REM24065K  
ABL2REM24065KQ



ABL2REM24085K



ABL2REM24100K



ABL2K01



ABL2K02



ABL2K03A



ABL2K03B

ABL2 regulated switch mode 24 V DC power supplies									
Model	Input voltage	Output voltage	Nominal power	Output current	Voltage switching	Cooling design	Overload hiccup protection	Reference	Weight kg lb
35 W	100...240 V AC	24 V DC	36 W	1.5 A	Automatic	Natural convection	110-160%	ABL2REM24015K	0.230 0.507
							170-190%	ABL2REM24015KQ	0.230 0.507
50 W	100...240 V AC	24 V DC	53 W	2.2 A	Automatic	Natural convection	110-160%	ABL2REM24020K	0.250 0.551
							170-190%	ABL2REM24020KQ	0.250 0.551
100 W	100...240 V AC	24 V DC	108 W	4.5 A	Automatic	Natural convection	110-160%	ABL2REM24045K	0.350 0.772
							170-190%	ABL2REM24045KQ	0.350 0.772
150 W	100...120 V AC 200...240 V AC	24 V DC	156 W	6.5 A	Manual	Natural convection	110-160%	ABL2REM24065K	0.440 0.970
							170-190%	ABL2REM24065KQ	0.440 0.970
200 W	100...120 V AC 200...240 V AC	24 V DC	200 W	8.3 A	Manual	Natural convection	110-150%	ABL2REM24085K	0.730 1.609
							110-150%	ABL2REM24100K	0.750 1.653
250 W	100...120 V AC 200...240 V AC	24 V DC	252 W	10.5 A	Manual	Forced air cooling by built-in DC fan	110-150%	ABL2REM24100K	0.750 1.653
							110-150%	ABL2REM24150K	0.790 1.742
350 W	100...120 V AC 200...240 V AC	24 V DC	351 W	14.6 A	Manual	Forced air cooling by built-in DC fan	110-150%	ABL2REM24150K	0.790 1.742
							110-150%	ABL2REM24150K	0.790 1.742

Options for ABL2 power supplies					
Type of mounting accessory	Description	For power supplies	Sold in lots of	Unit reference	Weight kg lb
4-corner bracket	For direct mounting on back panel Mounting screws not provided. Recommended use: M4 (6 mm/ 0.24 in) or M4 (8 mm/ 0.31 in) screws	ABL2REM24085K, ABL2REM24100K, ABL2REM24150K	40	ABL2K01	0.003 0.007
Clip-on mounting plate	For mounting on 35 mm (1.37 in.) DIN rail	All models	5 (1)	ABL2K02	0.028 0.062
L-type accessories	Size: Small L	ABL2REM24015K, ABL2REM24015KQ, ABL2REM24020K, ABL2REM24020KQ, ABL2REM24045K, ABL2REM24045KQ, ABL2REM24065K, ABL2REM24065KQ	1	ABL2K03A	0.110 0.240
	Size: Big L	ABL2REM24085K, ABL2REM24100K, ABL2REM24150K	1	ABL2K03B	0.150 0.331

(1) ABL2K02 is a pack of 5 accessories usable on 35 mm (1.37 in.) DIN rails. Please note that only 1 accessory is necessary for mounting a 35 to 150 W model but 2 accessories are needed for the other three models (200, 250, and 350 W).



A	
ABL2K01	5
ABL2K02	5
ABL2K03A	5
ABL2K03B	5
ABL2REM24015K	4 5
ABL2REM24015KQ	5
ABL2REM24020K	4 5
ABL2REM24020KQ	4 5
ABL2REM24045K	4 5
ABL2REM24045KQ	4 5
ABL2REM24065K	4 5
ABL2REM24065KQ	4 5
ABL2REM24085K	4 5
ABL2REM24100K	4 5
ABL2REM24150K	4 5
ABL2REM24100K	4
ABL2REM24150K	4 5
ABL2REM24085K	4 5
ABL2REM24100K	5
ABL2REM24100K	4
ABL2REM24150K	4 5

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