Easy UPS 24V DC DIN Rail Industrial

Reliable and extendable UPS for industrial automation and controls

Help protect your investment and avoid data loss with the new 24V DC DIN rail industrial Easy UPS from Schneider Electric.

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Introducing the new Easy UPS: the comprehensive solution for your control cabinet

Schneider Electric Easy UPS 24V DC DIN Rail Industrial enables machine builders and system integrators to efficiently manage their automation controls equipment in case of a power event.

The new 24V DC industrial din rail mounted Schneider Electric™ Easy UPS offers reliable power protection and battery backup during any power events. Equipped with DC input/output terminals to support PLCs and HMIs while offering extended battery pack support of up to 3 additional battery packs for extended runtime during power outages.

Easy UPS comes with relay contact terminals that enables remote management of connected equipment as well as monitoring of the UPS.

Why should you consider Schneider Electric Easy UPS 24V DC DIN Rail Industrial?

Minimize downtime and help protect investment

Helps reduce machine maintenance by allowing for safe equipment shutdown during a power event and eliminating the need to reset automation machines.
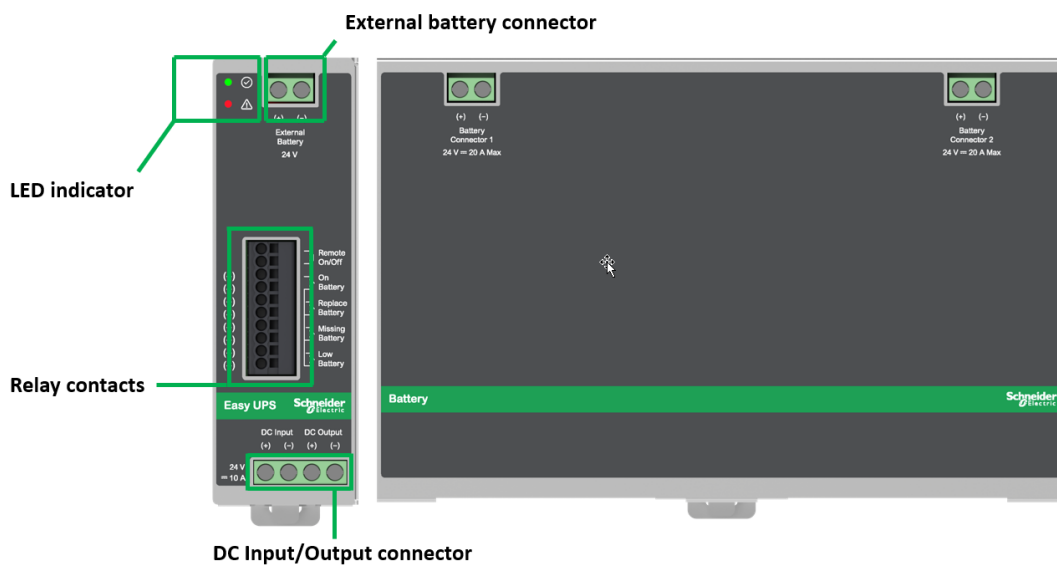
Gain better control over your industrial infrastructure with remote monitoring and management via relay contacts, external battery pack support and LED indicators.

Key features of Easy UPS BVS-PDR series

Reliable power protection, ideal for PLCs, HMIs and Industrial PCs.

External battery connector

LED indicator

Relay contacts

DC Input/Output connector

24 DC Input

Connect the appropriate AC/DC or DC/DC power supply for your application.

24 DC Output

Designed to support industrial equipment such as PLCs, HMIs, Industrial PCs that require 24V DC power supply.

Relay Contacts

Notify UPS status on battery, replace battery, missing battery, low battery.

Extended Battery Capability

Scale your runtime with up to 3 additional battery packs.

Remote On/Off

Switch on/off the power supply output using an external signal switch.
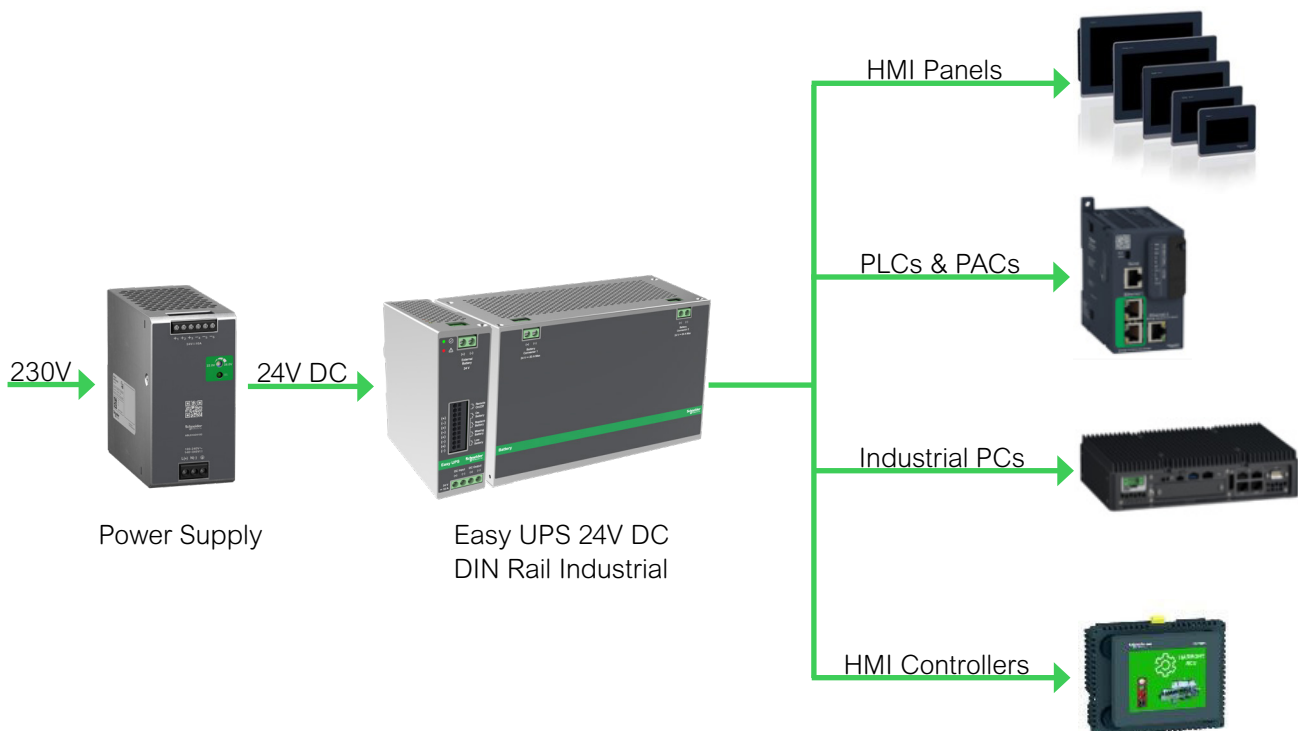
Warranty

Peace of mind with a 2-year warranty on UPS and 1-year warranty on batteries.

LED Indicators

Check UPS status using LEDs that change from green to red in case of an event.

Get your complete control cabinet solution using Schneider Electric's industrial controls portfolio

Schneider Electric automation control solution example:

230V → Power Supply → 24V DC → Easy UPS 24V DC DIN Rail Industrial →

- HMI Panels
- PLCs & PACs
- Industrial PCs
- HMI Controllers

Schneider Electric industrial controls porfolio

PLCs
Modicon M221, 241, 251, 262
Zelio Logic Smart Relay SR2/SR3

PACs & Dedicated Controllers
Modicon MC80, M340, 580, X80, M172

Industrial PCs
Harmony P6
Harmony iPC, Edgebox

Power Supply
Modicon ABLS
Modicon ABL8RP/WP

Basic HMI Panels
Harmony ST6, STO, STU, GTO
Magelis XBT N, R, RT

Advanced HMI Panels
Harmony GTU, GTUX, GK
Magelis XBT GH
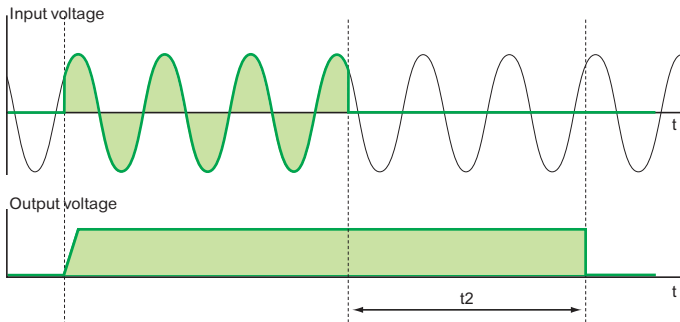
HMI Controllers
Harmony SCU
Magelis XBT GC

Easy UPS control module DC-DC

For applications that are sensitive to unintended stopping, Easy UPS control modules DC-DC offer a solution comprising:
- Electronic switch mode power supply and Buffer module for holding times t2 up to two seconds
- Electronic switch mode power supply, Battery control module and Battery module for holding times t2 of between two seconds and a few hours.

These solutions are used to supply voltage after loss of the line supply, thus enabling saving of current values or fallback of some actuators supplied with 24 Vdc.

The table below indicates the possible holding times according to the equipment combinations and the current required.

Input voltage

Output voltage

t2

Easy UPS control modules and Easy UPS battery modules associations

Holding current	Minutes															Hours			
	1	2	3	4	5	6	7	8	9	10	15	20	30	40	50	1	2	3	5
1 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3
2 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3+3
3 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3+3
4 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3	
5 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3	1+3+3+3+3	
6 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3	1+3+3+3	1+3+3+3+3	
7 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3	1+3+3+3		
8 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3	1+3+3+3	1+3+3+3+3		
10 A	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3	1+3+3	1+3+3	1+3+3	1+3+3+3	1+3+3+3	1+3+3+3	1+3+3+3+3		
15 A	2+3	2+3	2+3	2+3	2+3	2+3+3	2+3+3	2+3+3	2+3+3	2+3+3	2+3+3+3	2+3+3+3	2+3+3+3+3						
20 A	2+3	2+3	2+3	2+3+3	2+3+3	2+3+3	2+3+3	2+3+3	2+3+3	2+3+3+3	2+3+3+3	2+3+3+3+3							

Code	Designation	Reference
1	10 A Easy UPS control module DC-DC	BVS240XDPDR
2	20 A Easy UPS control module DC-DC	BVS480XDPDR
3	5 Ah Easy UPS battery module	XB005PDR

Functions

The main module functions are:
- Charging and checking the associated battery
- Automatic switching between the power supply and the battery in the event of a power outage.

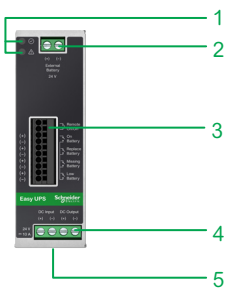The status of the product is given by 2 LED's (status and alarm).

These control modules also have 4 diagnostic relays (C/O contacts) relating to the battery state :
- DC output supplied by the battery
- Replacement needed
- Battery missing
- Low level of charge

Description

Easy UPS control module DC-DC
1. LED indicator for battery mode (Green), LED indicator for defaults (Red)
2. 4 mm² (0.006 in²) screw terminals for connection of the battery module
3. 10 mm² (0.015 in²) spring terminals for connection of remote input and diagnosis outputs
4. 4 mm² (0.006 in²) screw terminals for connection of 24 V input and 24 V output
5. Spring clip for 35 mm (1.37 in) 5 rail

Easy UPS battery module
1. 4 mm² (0.006 in²) screw terminals for connection to the BVS battery control module
2. 4 mm² (0.006 in²) screw terminals for connection to additional battery pack
3. Spring clip for 35 mm (1.37 in) 5 rail

BVS240XDPDR
BVS480XDPDR

XB005PDR

References

Designation	Holding time	Output current	Reference	Weight kg/lb
Easy UPS control modules DC-DC	20 min at 20 A to 5 hrs at 1 A (depending on use (1) and load)	10 A	BVS240XDPDR	0.500/ 1.10
		20 A	BVS480XDPDR	0.500/ 1.10

Designation	For use with	Capacity	Reference	Weight kg/lb
Easy UPS battery module	Easy UPS control module DC-DC (BVS240XDPDR, BVS480XDPDR)	5 Ah (2)	XB005PDR	5.500/ 12.12
Fuse	Easy UPS battery module XB005PDR	4x 20 A and 6x 30 A	ABL8FUS02	–

(1) Control module-battery unit association table with holding time according to the load, see page 14094/2.
(2) Supplied with 20 or 30 A fuse depending on model.

Easy UPS BVS-PDR

SKU technical specifications

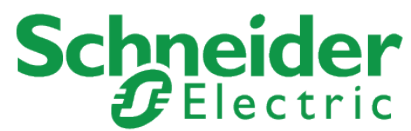|	BVS240XDPDR	BVS480XDPDR
Output		
Output power capacity	240 W	480 W
Nominal output voltage	24 VDC	
Output current	10 A	20 A
Output connections	Terminal Block_Dinkle ESK635V-04P	
Overcurrent / Short circuit protection	Yes	
Efficiency	≥ 95%	
Input		
Nominal input voltage	24 VDC	
Input voltage range	21.6 - 28.6 VDC	
Nominal input current	10 A	20 A
Input connections	Terminal Block_Dinkle ESK635V-04P	
Batteries and runtime		
External battery pack SKU	XB005XPDR	
Battery type	Sealed maintenance free valve regulated lead acid battery	
Runtime w/ 1 battery (full load / half load)	10 / 20 min	3 / 10 min
# of battery packs supported	4	
Typical recharge time (recover up to 90% capacity)	< 8 hours	
Charging current	0.75 A	
Battery capacity	2 x 12 V, 4.5 Ah	
Overcurrent / Short circuit protection	Yes	
Communications and management		
Display	LED	
Relay contact terminal connections	Yes (30 VDC and 1 A rated)	
Audible alarms	No	
Remote On/Off	Yes	
Physical		
Mount type	DIN rail	
Dimensions H x W x D (mm) (power module)	119 x 40 x 129	
Net weight (power module)	0.5 kg (1.1 lbs.)	
Dimension H x W x D (mm) (battery pack)	119 x 192.4 x 129	
Net weight (battery pack)	4.8 kg (10.6 lbs.)	
Environmental		
Operating environment	5 – 122 °F (-15 – 50 °C)	
Operating relative humidity	0 – 95% non-condensing	
Operating elevation	0-10000 feet (0-3000 meters)	
Audible noise at 1 meter from surface of unit	< 40 dB	
Regulatory		
Safety	IEC/EN/BS/UL 62368-1, CSA-C22.2 No. 62368-1, IEC/EN 60950-1, UL 508, CSA C22.2 No. 14, IEC/EN 61010-1	
EMC / EMI / RFI	EN 55032, EN55035, EN IEC 61000-6-2, EN IEC 61000-6-4, EN IEC 61204-3, FCC 47 CFR Part 15, Subpart B & ICES-003 Issue 7	
Markings	CE, UKCA, cTUVus	
Conformance		
RoHS, REACH and WEEE	Yes	
Standard warranty	2-year on UPS and 1-year on battery	

Easy UPS BVS-PDR Runtime Table

No. of battery modules	BVS240XDPDR (Max 10 A / 240 W)					BVS480XDPDR (Max 20 A / 480 W)					
	1 A	2 A	3 A	4 A	5 A	6 A	7 A	8 A	10 A	15 A	20 A
(1) XB005XPDR	3 hrs.	1 hr.	40 mins	30 mins	20 mins	15 mins	10 mins	10 mins	10 mins	5 mins	3 mins
(2) XB005XPDR	5 hrs.	3 hrs.	2 hrs.	1 hr.	1 hr.	40 mins	40 mins	30 mins	30 mins	10 mins	9 mins
(3) XB005XPDR	-	5 hrs.	3 hrs.	2 hrs.	-	2 hrs.	1 hr.	50 mins	50 mins	20 mins	15 mins
(4) XB005XPDR	-	-	5 hrs.	3 hrs.	2 hrs.	-	-	1 hr.	1 hr.	30 mins	20 mins

Note:

- Runtime in the table are approximate only.

- All measurements taken with new and fully charged batteries at ideal environmental conditions with no electrical input.

- Power modules do not come with internal batteries

- To extend battery life, the recommended operating temperature should be in the range of 15 to 25 °C.

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