

NEW PRODUCT



DIN rail 240W AC DC-UPS CSU series

Model	CSU1-220W/024V/AA
Code	XCSU1220W024VAA
Description	AC DC-UPS
Input	230 Vac
Output	24 Vdc 10A
Battery type	1,2...40 Ah VRLA

Main characteristics

The XCSU1220W024VAA is a new device designed for charging battery that has internally a power supply unit with 120-230Vac input. This device is able to supply the load and to charge a backup battery, in order to assure the service continuities.

When in backup mode (the load is supplied by the battery), the device continuously checks the battery voltage avoiding deep discharging situations.

Furthermore, this device is able to start the loads only with the batteries, therefore without the primary voltage.

This happens thanks to an input of the device where we can connect to an external button.

This product is the technical evolution of the existing XCSC.

Availability

September 2023

Series

the other UPS that are part of the series are:

- **XCSU5220W024VAA**, DC-DC UPS 24VDC 10A for max. 40Ah battery
- **XCSU5240W024VAA**, DC-DC UPS 12-12VDC 20A /24-24VDC 10A for max. 40Ah battery
- **XCSC120C**, AC-DC UPS 24VDC 5A, for max. 1.2Ah battery
- **XCSC120B**, AC-DC UPS 12VDC 5A, for max. 1.2Ah battery

Furthermore, we have the following battery pack modules:

- **XBPS01AHAA**, battery pack 2x12Vdc 1.2Ah
- **XBPS03AHAA**, battery pack 2x12Vdc 3.4Ah
- **XBPS07AHAA**, battery pack 2x12Vdc 7.2Ah
- **XBPS12AHAA**, battery pack 2x12Vdc 12Ah

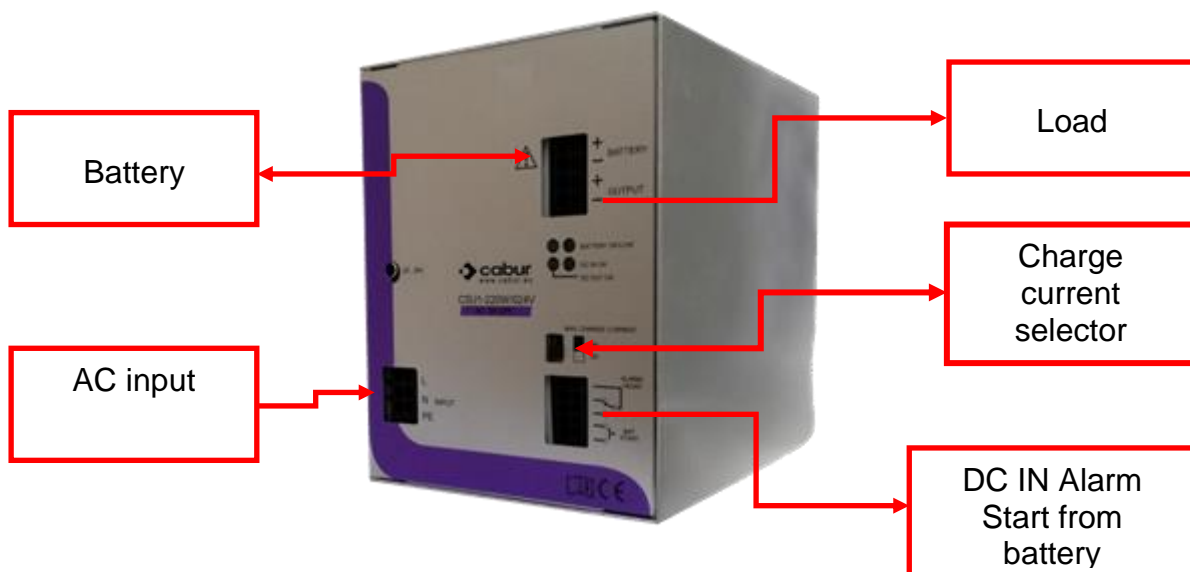
Strengths

- Integrated power supply
- Suitable for 1.2Ah up to 40Ah batteries in normal charge mode
- Switch selector for set the charge current (2A or 4A max)
- Battery start-up mode
- Alarm contact related to the input voltage status
- No software needed
- LED indications about the device status
- Protection fuse against load or battery damages
- Push-in connection mode, no need tools to install


Applications

- Industrial automation and process control
- Building and home automation
- All the applications where the service continuity must be guaranteed

Application scheme



Technical comparison

CODE	XCSU1220W024VAA
TYPE	CSU1-220W/024V/AA
INPUT TECHNICAL DATA	
Input rated voltage	120-230 Vac
Input voltage AC	85-264 Vac
Input voltage DC	90...370 Vdc (derating Uin<130 Vdc)
Frequency	50-60 Hz
Current consumption	2,73 A (120 Vac) / 1.17 A (230 Vac)
Inrush peak current	< 30 A
Power factor	> 0.9
Internal protection fuse	Yes. 2 A
External protection on AC line	MCCB: C-4 A / Fuse: T-4 A
OUTPUT TECHNICAL DATA	
Output rated voltage	24 Vdc
Output voltage range	26...28 Vdc normal operation, 17...26 Vdc battery operation
Nominal current	10 A @ 50°C
Maximum output current	20 A (boost mode, Ibatt+Ips)
Status indication	Green LED « DC IN OK », Yellow LED « DC OUT OK », Red LED « BATTERY LOW », Green « BATTERY OK »
Allarm contact	1 relay (ALARM)
Protections	short-circuit, battery overload
BATTERY TECHNICAL DATA	
Battery type	Lead-acid, lead gel
Voltage battery	24 Vdc
Battery protection fuse	15 A replaceable
Battery capacity	max. 40 Ah (24 Vdc)
Charging current	2 A – 4 A selectable
Battery disconnection voltage	≤ 18 Vdc ±0.5 V
Protections	reverse polarity, short-circuit, battery overload, battery deep discharge
GENERAL TECHNICAL DATA	
Operating temperature range	-20...+50°C
Input / output isolation	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN62368-1
EMC standard	EN 61000-6-2, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP20
Connection terminal IN / OUT	2.5mm ² / 1.5mm ² push-in
Housing material	aluminium
Dimension (LxHxP)	100x130x140 mm
Approximate weight	1,35 kg
Mounting information	vertical on a rail, 10 mm from adjacent components
APPROVALS	
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB

Notes about the technical comparison:

- 1) the output devices should be set to 26/27Vdc in order to allow a complete battery charge.
- 2) The CSU1-220W allows the battery start mode by means of a monostable switch connected to the dedicated frontal terminals
- 3) The push-in connectors allow a faster installation with no need for tools

Rapid suitable storage selection

load (A)	time																											
	second			minute															hour									
	10	15	30	1	2	3	4	5	6	7	8	9	10	15	20	25	30	40	45	50	1	2	3	5	8	10	15	20
< 0,5	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
3	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
5	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
7	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
10	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
15	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
20	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
25	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey

Cabur code	XBPS01AHAA	XBPS03AHAA	XBPS07AHAA	XBPS12AHAA
Battery pack capacity (Ah)	1,2	3,4	7,2	12

Example:

Let's consider having to maintain a 5A load in backup for 10 minutes, which battery should we use? Analyzing the quick selection grid, in the "Load" column we identify 5A, while in the "time" row we select "10 minutes".

From the row-column intersection we deduce that we will need a 3.4Ah battery pack to have the desired backup.