

Uninterruptible Power Supply

Bridge network failures of up to 30 hours with our modules for an uninterruptible power supply



Overview

The UPS control unit together with the associated battery module and the power supply unit form a complete DC UPS system. In normal operation, the input voltage from the UPS control unit is connected directly to the load. In the event of a mains failure (drop of the DC input voltage) the system switches instantly to battery operation. Once the mains supply has been restored, the system switches back to normal operation and the battery is fully recharged by the integrated charger.

Three relay outputs, as well as three additional active transistor outputs and a control input to lock battery operation, provide full remote control by means of SPS or DCS control. Numerous modes of operation and an easy-to-use status display provide rapid fault diagnosis and optimum customization to the application.

The benefits of our UPS product range

- **Long battery service life**
Temperature-compensated characteristic charge curve ensures the best battery charge for maximized battery life.
- **Choice of protection**
Protection from short/transient and/or long power failures.
- **Quick error analysis**
Charging level indicator, status and error indicators provide rapid error analysis.
- **Wide power functionality**
Modular design allows load distribution for reliable DC power
- **Power interruption protection**
Buffer module manages 24VDC interruptions up to 6s (1A).
Up to 10 years Service Life.

General Ordering Data

Version	UPS control unit
Order No.	1370040010
Type	CP DC UPS 24V 40A
Qty	1 pc(s)

Version	24V Battery Bank
Order No.	2789920000
Type	DURA ECO LA-BAT 24V 12AH
Qty	1 pc(s)

Version	Buffer Module
Order No.	2835430000
Type	PRO DC Buffer 24V 20A
Qty	1 pc(s)

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Technical Data

Technical specifications for UPS Control Module

Model		UPS 48V	UPS 24V	
Type		CU UPS 48V	CP DC UPS 24V 40A	CP DC UPS 24V 20A/10A
Main Input connection	Rated voltage (Vinput)	48Vdc	24Vdc	24Vdc
	Range voltage (Vinput)	46 to 60Vdc	21.5 to 30Vdc	21.5 to 30Vdc
	Max. current	11.5Amp	51A	15 or 27A (adjustable)
	Changing from Main input to Battery Mode	if Vinput = 43.5V (adjustable from 42.5 to 44.5V)	if Vinput < 21.5V	if Vinput < 21.5V
Battery connection	Type of Battery	VRLA (from market) must add temperature sensor 2671970000	VRLA Models DURA ECO... (includes temperature sensor)	VRLA Models DURA ECO... (includes temperature sensor)
	Rated voltage (Battery)	48V	24V	24V
	Capacity (C-Rate or CA)	7 to 24Ah	3.4Ah / 7.2Ah / 12Ah / 17Ah	1.3Ah / 3.4Ah / 7.2Ah / 12Ah / 17Ah
	Maximum Charging voltage (temperature compensated)	56 to 53.0V (must add temperature sensor on the battery)	27.6 V to 25.5V (Temperature sensor already embedded on battery - must be connected)	27.6 V to 25.5V (Temperature sensor already embedded on battery - must be connected)
	Charging current (adjustable and temperature depending)	0.5 to 1.0 Amp	0.15 x CA (max. 2.04Amp)	0.15 x CA (max. 2.04Amp)
	Protection against deep discharge damage	UPS turn-off if Vbatt <40Vdc	UPS turn-off if Vbatt <19.2 or 15 Vdc (adjustable)	UPS turn-off if Vbatt <19.2 or 15 Vdc (adjustable)
Load connections	Output voltage in charge mode	Vinput - 0.3V	Vinput - 0.25V	Vinput - 0.25V
	Output voltage in battery mode	55 to 40V	27.25 to 19.2 or 15V (adjustable)	27.25 to 19.2 or 15V (adjustable)
	Maximum output current (at 45° C)	10Amp	48Amp	12 or 24Amp (adjustable)
Dimensions	W x H x D [mm] [inches]	47 x 138 x 115 1.85"x5.43"x4.53"	66 x 130 x 150 2.60"x5.12"x5.91"	66 x 130 x 150 2.60"x5.12"x5.91"
Order number		2665670000	1370040010	1370050010

Technical specifications for 24V Battery Bank

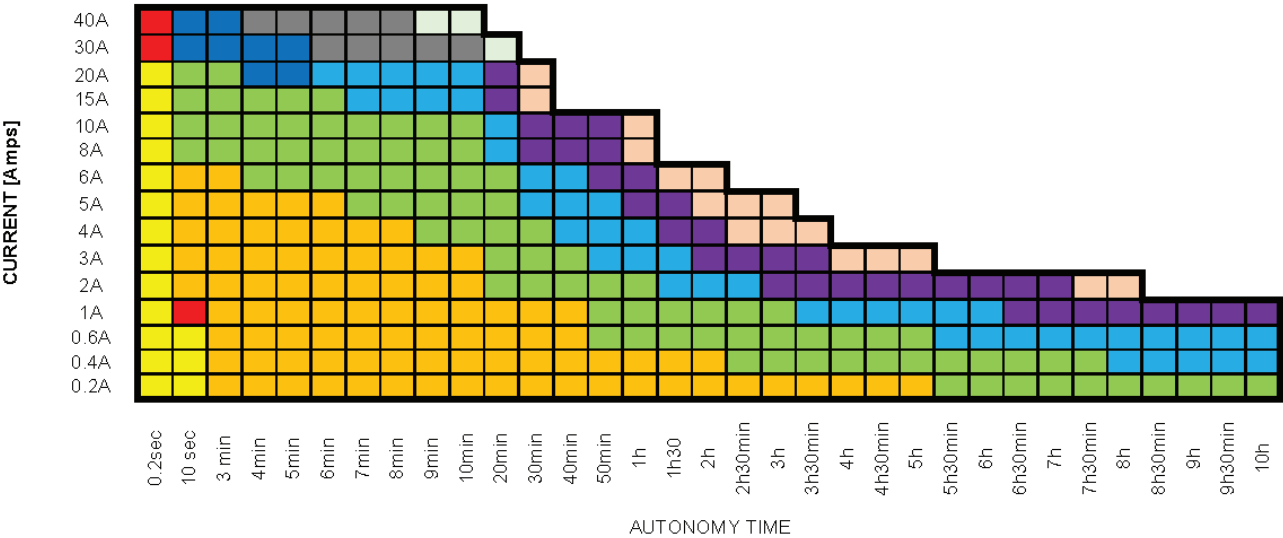
Type	Type of Battery	Model acc. manufacturer (EnerSys Genesis®)	Capacity (C-Rate or CA)	Series connection	Fuse (Automotive) blade fuse time-lag	Temperature sensor	Dimensions	Order number
DURA ECO LA-BAT 24V 1.2AH	VRLA - AGM (Valve Regulated Lead Acid - Absorbent Glass Mat)	2 x NP1.2-12FR	1.2Ah	Maximum 3 battery banks of same type	15A	Embedded: NTC 100k Ohms	52 x 149.5 x 124 2.05"x5.89"x4.88"	2789890000
DURA ECO LA-BAT 24V 3.4AH		2 x NP3.4-12FR	3.4Ah		25A		108 x 141 x 166 4.25"x5.55"x6.54"	2789900000
DURA ECO LA-BAT 24V 7AH		2 x NP7-12FR	7Ah		2 x 25A		162 x 158 x 135 6.38"x6.22"x5.31"	2789910000
DURA ECO LA-BAT 24V 12AH		2 x NP12-12FR	12 Ah		2 x 25A		229 x 158 x 135 9.02"x6.22"x5.31"	2789920000
DURA ECO LA-BAT 24V 17AH		2 x NP18-12FR	17.2 Ah		2 x 25A		242 x 178 x 189 9.53"x7.01"x7.44"	2789930000

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Technical specifications for Buffer Module (Uninterruptible Power Supply Based in Capacitor)

Model		Buffer Module	Buffer Module
Type		PRO DC BUFFER 24V 20A	PRO DC BUFFER 24V 40A
Charging mode	Rated voltage (Vinput)	24Vdc	24Vdc
	Range voltage (Vinput)	22.5 to 30Vdc	22.5 to 30Vdc
	Max. current	1A	1A
	Changing from Main input to Buffer Mode	if Vinput < 22V or if Vinput drops 1V (selectable)	if Vinput < 22V or if Vinput drops 1V (selectable)
Buffer mode	Output voltage in buffer mode	22.2V or previous Vinput - 1V (selectable)	22.2V or previous Vinput - 1V (selectable)
	Maximum output current (@45 oC)	45A	45A
Dimensions	W x H x D	55 x 125 x 130	65 x 125 x 130
	[mm] [inches]	2.17"x4.92"x5.12"	2.56"x4.92"x5.12"
Order number		2786240000	2786250000



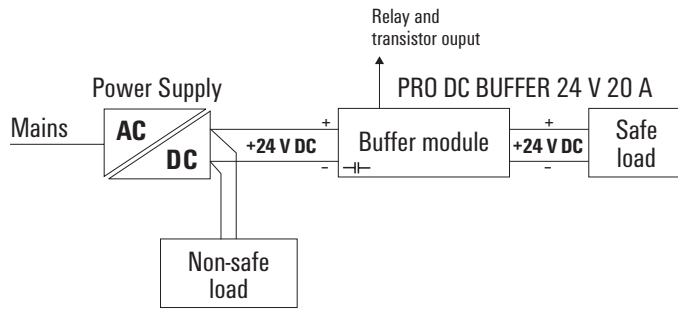
Graph depicts current over time for the buffer modules and battery modules.

PRO DC BUFFER 24V 20A	
PRO DC BUFFER 24V 40A	
DURA ECO LA-BAT 24V 1.2AH & CP DC UPS 24V 20A/10A	
DURA ECO LA-BAT 24V 3.4AH & CP DC UPS 24V 20A/10A	
DURA ECO LA-BAT 24V 7AH & CP DC UPS 24V 20A/10A	
DURA ECO LA-BAT 24V 7AH & CP DC UPS 24V 40A	
DURA ECO LA-BAT 24V 12AH & CP DC UPS 24V 20A/10A	
DURA ECO LA-BAT 24V 12AH & CP DC UPS 24V 40A	
DURA ECO LA-BAT 24V 17AH & CP DC UPS 24V 20A/10A	
DURA ECO LA-BAT 24V 17AH & CP DC UPS 24V 40A	

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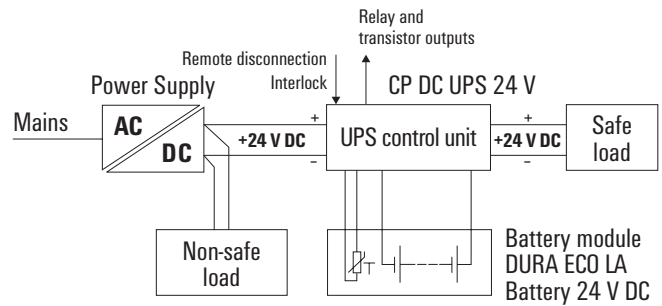
Drawings

Dimension Drawing



UPS with buffer module

Dimension Drawing



UPS with battery module

Approvals



For more information, visit our website:
www.weidmuller.com/powersupplies