# **Technical Datasheet**

## **S**3

### **DC-Ups series**

Charging unit 240W

Technical Data

Output voltage 12V (13,6V) . 24V (27,2V)

Intelligent battery protection

Multi alarm output with variable delay



S3-2/2/0

Input voltage190. 264V AC, 48-63HzOutput voltage13,6VDC27,2VDCOutput current16A8,8AMax. Contiual Load60% of output current with batteries(40Ah) in circuitEfficiency85% minimum at maximum loadPeak inrush current< 20A within 10msOperating temperature-10°C to +35°CStorage temperature-40°C to +85°CLoad regulation0.2% for specified input voltage variation at 50% output powerSwitch frequency40-60 kHz at maximum loadOutput ripple100mVp-p maximum at maximum loadOutput voltage limit16V + -6%MTBFMin. 100.000h at 25°C.Safety standardEN 60950Safety classI (With earth protection)Emission standardsEN50081-1Immunity standardsEN50082-1Harmonic emissionEN61000-3-2, class A <b>Power Factor Correction</b> YesBattery surveillanceAutomatic battery test every 24 hour (replacement notice after 3 years)Dimensions Weight825X255X192mm 12 KG (without battery)Mounting methodWall Mount CabinetIP 20Terminal Blocks (Rating 30A)Battery connection2 X 12V 40Ah (44Ah)	l echnical Data	53-12240	53-24240	
Output current16A8,8AMax. Contiual Load60% of output current with batteries(40Ah) in circuitEfficiency85% minimum at maximum loadPeak inrush current<20A within 10ms	Input voltage	190 . 264V AC, 48-63Hz		
Max. Contiual Load   60% of output current with batteries(40Ah) in circuit     Efficiency   85% minimum at maximum load     Peak inrush current   < 20A within 10ms	Output voltage	13,6VDC 27,2VDC		
Efficiency   85% minimum at maximum load     Peak inrush current   < 20A within 10ms	Output current	16A	8,8A	
Peak inrush current< 20A within 10ms	Max. Contiual Load	60% of output current with batteries(40Ah) in circuit		
Operating temperature-10°C to +35°CStorage temperature-40°C to +85°CLoad regulation0.5% for 0 to 100% load changeLine regulation0.2% for specified input voltage variation at 50% output powerSwitch frequency40-50 kHz at maximum loadOutput ripple100mVp-p maximum at maximum loadOutput current limit100% to 130% of max value.Output voltage limit16V + - 6%MTBFMin. 100.000h at 25°C.Safety standardEN 60950Safety classI (With earth protection)Emission standardsEN50081-1Immunity standardsEN50082-1Harmonic emissionAutomatic battery test every 24 hour (replacement notice after 3 years)Dimensions Weight825X255X192mm 12 KG (without battery)Mounting methodWall Mount CabinetIP classIP20TerminalsTerminal Blocks (Rating 30A)Battery connection2 X 3,3 sqmm RD/BK WIRE		85% minimum at maximum load		
Storage temperature   -40°C to +85°C     Load regulation   0.5% for 0 to 100% load change     Line regulation   0.2% for specified input voltage variation at 50% output power     Switch frequency   40-50 kHz at maximum load     Output ripple   100mVp-p maximum at maximum load     Output current limit   100% to 130% of max value.     Output voltage limit   16V + - 6%     MTBF   Min. 100.000h at 25°C.     Safety standard   EN 60950     Safety class   I     With earth protection)   Emission standards     Emission standards   EN50081-1     Immunity standards   EN61000-3-2, class A     Power Factor Correction   Yes     Battery surveillance   Automatic battery test every 24 hour (replacement notice after 3 years)     Dimensions Weight   825X25X192mm 12 KG (without battery)     Mounting method   Wall Mount Cabinet     IP 20   Terminal Blocks (Rating 30A)     Battery connection   2 X 3,3 sqmm RD/BK WIRE	Peak inrush current	< 20A within 10ms		
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IP class IP20   Terminals Terminal Blocks (Rating 30A)   Battery connection 2 X 3,3 sqmm RD/BK WIRE				
Terminals     Terminal Blocks (Rating 30A)       Battery connection     2 X 3,3 sqmm RD/BK WIRE		Wall Mount Cabinet		
Battery connection 2 X 3,3 sqmm RD/BK WIRE	IP class			
Max. Battery Capacity 2 x 12V 40Ah (44Ah)				
	Max. Battery Capacity	2 x 12V 40Ah (44Ah)		

S3-122/0

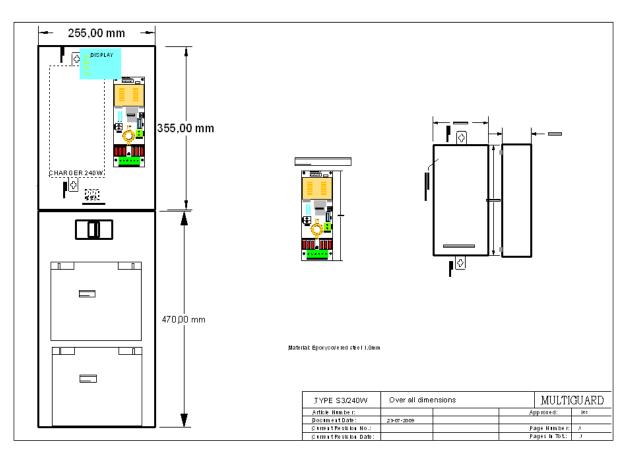
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#### **Battery Protection unit**

Technical Data	S3-12240	S3-24240		
Input voltage Connect to INPUT-Terminal +/-	13,6VDC 16A	27,2VDC 8,8A		
Output voltage Terminal Blocks -1,2/+1,2	2 x 13,6VDC 15A	2 x 27,2VDC 10A		
Output Fuses positive output FS3,FS4	2 x15A	2 x 10A		
Output Fuses negative output FS1,FS2	2 X 15A	2 x 10A		
Battery Fuse	20AT at 13,6VDC, <b>FS5</b>	15AT at 27,2VDC, <b>FS5</b>		
Battery Protection	Relay min. voltage 10VDC	Relay min. voltage 20VDC		
Battery input	Connect to BATTERY Terminal +/-			
Battery Connection				
Battery is connected to Load by RELAY,	10VDC	20VDC		
And will be disconnected when Battery Voltage is				
lower than				
Load Connection	2x15A <b>+1,+2</b> 2X15A <b>-1,-2</b>	2x10A <b>+1,+2</b> 2X10A <b>-1,-2</b>		
Alarm Relay Connection	n Relay Connection ALARM RELAY (NC/NO/C)			
Operating temperature	-10°C to +40°C			
Storage temperature	-40°C	-40°C to +85°C		



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### Controller board

The controller board is run by a microprocessor that handles all parameters from internal sensors, and sensors located on the battery- protection unit via the link cable.

Table bellow explains the input and output on the controller board.

### Front display functions

O Test button	D Test button Push to test battery (this is done automatically every 24 hours). Holding test button in more than 10 sec will put the UPS in service mode (all alarms disable).	
Normal	Continues green indicates 230Vac ok operation.	
Battery	Flashing green indicates 230Vac not present ups in backup mode	
Overload	Flashing red indicates maximum load has been reach in more than 20sec	
🔲 Hi Temp	Flashing red if temperature inside the UPS exceeded 55°C	
Battery	Green if battery OK. Red if battery failed test. Flashing red/green if battery is	
	older than 3 years	

### Dip switch setting

1. On/Off	Sound signal on or off
2. On/Off	On 15 min delay on alarm relay if 230Vac power out. Off no delay
3. On/Off	On 30 min delay on alarm relay if 230Vac power out. Off no delay
4. On/Off	On 60 min delay on alarm relay if 230Vac power out. Off no delay

### Sound signals in prioritized order (highest priority on top)

7 beeps break	Tamper (door is open)
6 beeps break	Power out UPS in backup mode
5 beeps break	Overload (maximum load has been reach in more than 20sec)
4 beeps break	High temp (temperature inside UPS exceeded 55°C)
3 beeps break	Battery failed last test
2 beeps break	Battery is older than 3 years