

CLASS B

- 48 VDC Heavy Duty
- Long Backup Time
- Line-Interactive
- Buck and boost
- Rack-mount and Tower Form
- DC to AC Galvanic Isolation



Features

- High efficiency
- RFI / EMI filtering
- Vocal alarm (optional)
- GSM modem (optional)
- Pure sine wave output
- IEC 62040-3 compliant
- Remote LCD panels (optional)
- Power generator compatible
- User friendly informative LCD
- Heavy duty & high MTBF design
- Input high impedance protection
- Inverter / charger short circuit protection
- Fully digitized microprocessor controlled
- Hot swappable battery, replaceable by user
- UPS powers and transformers overheat protection
- LAN support and remote managed via SNMP (optional)
- Mains connection to UPS output (inverter) protection
- Two phase (400 V) connection to UPS input protection
- Battery over / under voltage and reverse polarity protection
- Protection against positive feedback (input to output connection)
- Adjustable charge current, input voltage & frequency by software
- SCM (Spot Charging Management) and Advanced Battery Management

This is by far one of the most equipped and resistant UPS of its kind in the world. It can be connected to almost any type of single phase load with minimum 17 years MTBF. Most customers connect this UPS at the output of their electricity meter and when they have refrigerators and evaporative coolers, rather than normal loads, in the circuit.

There are almost no inadequate loads for this UPS. The 48 V battery bus, not only observes the SELV standard but also increases reliability with a higher level of safe operating area.

The internal power parts of the B series with more than 2 KVA are designed as parallel redundant, so that in case of internal power problems, the output power reduces 1 or 2 KVA, instead of causing damages to the entire unit.

Uninterruptible Power Supply Energy Efficiency Label		
Manufacturer / Licensor	Hyundai Corporation	
Brand	HYUNDAI	
Model	SB2-2000	
Nominal Power kW ¹ / kVA ²	1.4 / 2	
Mode of Operation		
Conversion Efficiency Categories ³	NORMAL	BYPASS
Conversion Efficiency > 98%	A	A
Conversion Efficiency > 96%	B	
Conversion Efficiency > 94%	C	
Conversion Efficiency > 92%	D	
Conversion Efficiency > 90%	E	
Conversion Efficiency > 88%	F	
Conversion Efficiency ≤ 88%	G	
Energy Losses kWh / year ⁴	125.1	118.8

¹ At resistive load
² At non-linear load according to EN/IEC 62040-3
³ The conversion efficiency was determined by the worst-case efficiency at the loading levels tested
⁴ Energy losses at resistive continuous load with 50% of nominal power operated at the normal mode

* Energy losses for: SB3-1500: Normal mode: 93.79 kWh/y; By-pass mode: 89.1 kWh/y
 SB3-2000: Normal mode: 125.1 kWh/y; By-pass mode: 118.8 kWh/y
 SB2-3000: Normal mode: 187.7 kWh/y; By-pass mode: 178.2 kWh/y
 SB2-5000: Normal mode: 312.8 kWh/y; By-pass mode: 296.9 kWh/y
 SB2-6000: Normal mode: 375.3 kWh/y; By-pass mode: 356.3 kWh/y

Applications

- Critical servers
- Small networks
- Home appliances
- Security equipment
- Telecom applications
- Critical IT applications
- Small motorized systems
- Process automation and control equipment

Technical data sheet

Model	SB3-1500	SB3-2000	SB2-2000	SB2-3000	SB2-5000	SB2-6000	Unit
Power rating (W/VA)	1500/1050	1400/2000	1400/2000	2100/3000	3500/5000	4200/6000	W/VA
Dimensions W*D*H	480*500*88.9 Rack-mounted		192*440*270 Tower Form		192*525*340 Tower Form		mm
Weight (approx.)	23	27	24	30	39	45	kg
Environmental							
Storage temperature	-20 to 70						°C
Operating temperature	0 to 40						°C
Altitude	<3000						m
Relative humidity	0 to 95 Without condensation						%
Degree of protection (IEC 60529)	20						IP
Normal mode acoustic noise at 1.0 m	<50						dBA
Stored energy mode acoustic noise at 1.0 m	<50						dBA
Electrical input characteristics							
Nominal AC voltage	220/230						V r.m.s.
Voltage range	170 to 255						V r.m.s.
Maximum range (adjustable by front panel)	150 to 270						
Frequency range	47 to 53						Hz
Phase	Single						
Electrical output characteristics							
Nominal AC voltage	220/230						V r.m.s.
Voltage variation	0.5 (Free running) 7 (Synchronous with input)						%
Nominal frequency	50						Hz
Frequency variation	± 0.01 (Free running) ± 0.5 to 3 (Normal mode, adjustable by front panel)						Hz
Linear load total voltage distortion	< 3						% THD
Non Linear load total voltage distortion	< 5						% THD
Waveform	Sinusoidal						
Efficiency	>98						%
Overload capability	150 @ Starting, 120 @ 80 sec.						%
Transfer time	0.00						sec
Battery characteristics							
DC voltage	48						V
Type	Sealed lead acid battery (maintenance free)						
Maximum charging current (adjustable by front panel)	6	8	12	20	24	A	
Communication interface							
Standard: Serial port (RS232) / Optional: SNMP adaptor, GSM modem, 8-channel free-contact relays							
Protections							
Battery over / under voltage and quantity	Audible alarm and LCD display						
Battery disconnection	Audible alarm and LCD display						
Battery connection inrush current	With DC soft start						
Battery reverse polarity	Audible alarm and LCD display						
Mains connection to UPS output	Shutdown after audible alarm and LCD display						
Two phase (400 V) connection to UPS input	Audible alarm and LCD display						
Overload	Ashutdown after audible alarm and LCD display						
Output short circuit	Ashutdown after audible alarm and LCD display						
Earth fault	Audible alarm and LCD display						
UPS powers and transformers overheat protection	Audible alarm and LCD display and sometimes Shutdown						
Advanced Battery Management							
Input high Impedance protection							
Tel/Modem spike protection							
DC to AC galvanic isolation							