

PS45

75W 100-240 Vac or 13.8 Vdc Battery to 15 Vdc Standalone or Supervised Backup Power Supply



Description

The PS45 is a 75W supervised or standalone backup battery multi-purpose power supply. Mainly designed to power up to 10 video cameras or any 13.8V rated devices. With up to 27 Ah battery backup capability, the PS45 will provide a reliable robust backup power solution.

AC input between 100 Vac to 240 Vac will connect worldwide to AC main supplies.

The PS45 provides a maximum of 4.5A continuous auxiliary power output of fixed 15 Vdc operating on AC or battery. The PS45 includes ultra-fast adaptive battery charge of 500 mA to up to 1500 mA when Aux output is not utilized to its maximum.

In box space for 7 Ah battery and up to a 20 Ah additional battery may be added in external box providing 27 Ah battery backup. Second battery and external box tamper connectors are on board.

When connected to Paradox control panel bus, it will monitor and provide feedback for Aux output voltage and current, battery voltage and tamper status As well as Battery low disconnect warning.

Troubles can be viewed on a keypad, BabyWare, reported or sent via push notifications to Insite GOLD application.

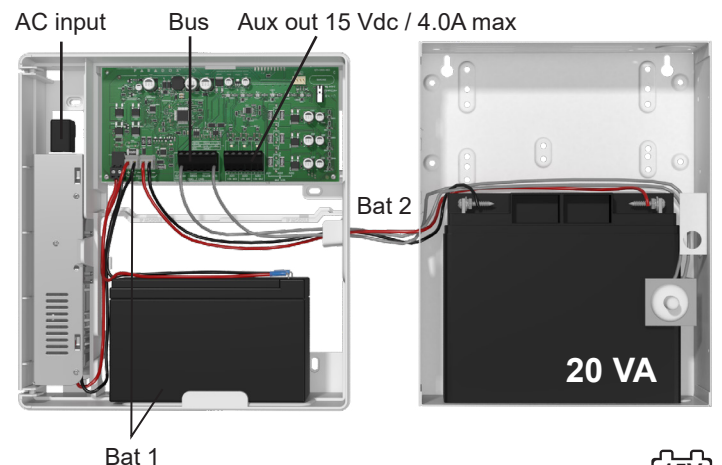
Power supply display for AC, Battery, and Aux consumption included.

Features

- AC input: 110 Vac to 240 Vac
- 75W total power
- 15 Vdc 4.0A continuous auxiliary output
- Standalone operation or Bus supervised with Paradox Security Systems
- On-board anti-tamper switch
- Application monitored notifications (when connected to Bus)

Specifications

AC Power	100 Vac to 240 Vac, 50-60 Hz
Auxiliary Voltage Output	15 Vdc +/- 5% AC or Battery Backup
Auxiliary Current Output	4.0A maximum continuous current, cut off at 4.5A
Battery	7 Ah in box mounted, 2 nd battery up to 20 Ah in external box, total 27 Ah
Indications	Ac, Battery, Bus, Output: 1A, 2.5A, 4.0A
Charging	500 mA to 1500 mA, adaptive
Operating Temperature	-20 to 50° C (-4 to 122° F)
Humidity	95% maximum
Bus Supervision	AC, Battery, Aux Voltage Status and Consumption, Tamper
Dimensions (H x W x D)	25.4 x 27.3 x 8.9 cm (10 x 10.75 x 3.5 in.)
Compatibility	EVO192, EVOHD all versions, MG5050, SP5500, SP6000, SP7000 V7.14 and higher



PS45 dual box installation





VRLA 12V7AH

SA12V7

Specifications

Nominal Voltage	12 V	
Nominal Capacity 20HR	7.0 AH	
Dimensions	Length	151±1mm (5.94 inches)
	Width	65±1mm (2.56 inches)
	Container Height	95±1mm (3.74 inches)
	Total Height (with terminal)	100±1mm (3.94 inches)
Approx Weight	Approx 2.10 kg (4.63 lbs)	
Terminal	F1	
Container Material	ABS Plastic	
Lead Material	Purity Lead 99.995%	
Sulfuric Acid	Distilled Sulfuric Acid (Zero metal content)	
Separator	AGM	
Rated Capacity	7.00 AH/0.350A	(20hr, 1.80V/cell, 25°C/77°F)
	6.53 AH/0.653A	(10hr, 1.80V/cell, 25°C/77°F)
	6.00 AH/1.20A	(5hr, 1.75V/cell, 25°C/77°F)
	5.37 AH/1.79A	(3hr, 1.75V/cell, 25°C/77°F)
	4.55 AH/4.55A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	105A (5s)	
Internal Resistance	Approx 23mΩ	
Operating Temp.Range	Discharge	: -15 - 50°C (5 - 122°F)
	Charge	: 0 - 40°C (32 - 104°F)
	Storage	: -15 - 40°C (5 - 104°F)
Nominal Operating Temp.Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 2.1A. Voltage 14.4V - 14.7V at 25°C (77°F) Temp.Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V - 13.8V at 25°C (77°F) Temp.Coefficient -20 mV/°C	
Capacity affected by Temperature	40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86%	
Self Discharge	Sentry AGM series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



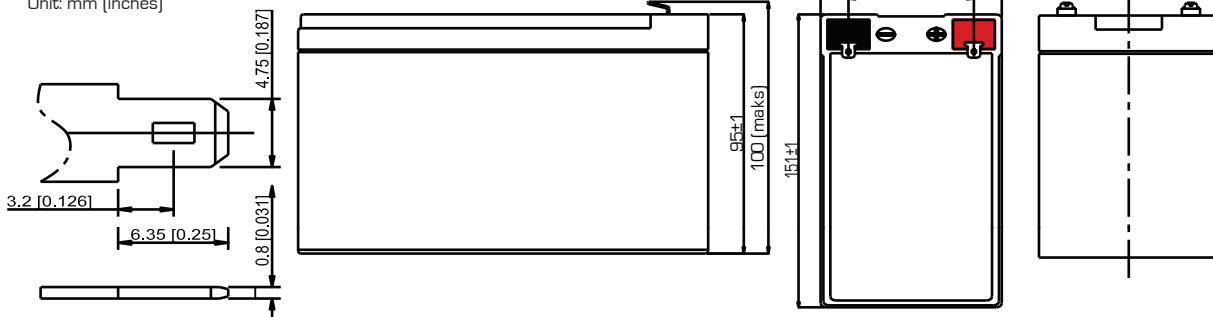
Applications

- All purpose
- Standby Applications
- Recreation Vehicles
- Uninterruptible Power Supply (UPS)
- Electric Power System (EPS)
- Fire & Security
- Generators
- Medical Equipment

Dimensions

F1 Terminal

Unit: mm (inches)



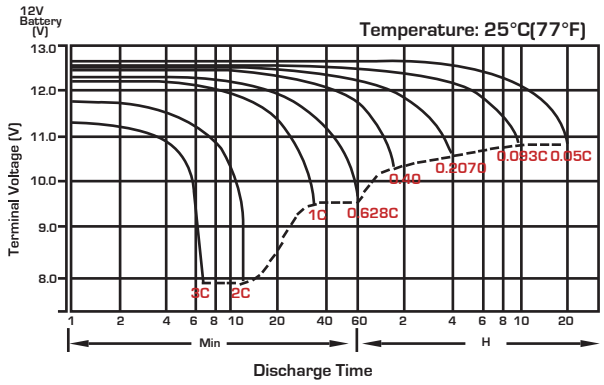
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V./Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	18.0	12.8	10.48	8.79	6.53	4.79	3.86	2.29	1.69	1.36	1.14	0.98	0.774	0.640	0.345
1.80V/cell	21.4	14.3	11.4	9.44	6.94	5.05	4.03	2.38	1.74	1.40	1.17	1.01	0.791	0.653	0.350
1.75V/cell	24.2	15.6	12.2	10.0	7.29	5.27	4.18	2.45	1.79	1.43	1.20	1.03	0.805	0.663	0.357
1.70V/cell	26.7	16.7	12.9	10.5	7.59	5.46	4.32	2.51	1.83	1.46	1.22	1.05	0.817	0.672	0.361
1.65V/cell	28.8	17.7	13.5	10.9	7.86	5.62	4.46	2.57	1.86	1.48	1.23	1.06	0.826	0.680	0.365
1.60V/cell	30.6	18.6	14.1	11.3	8.09	5.76	4.55	2.61	1.89	1.50	1.25	1.07	0.834	0.685	0.367

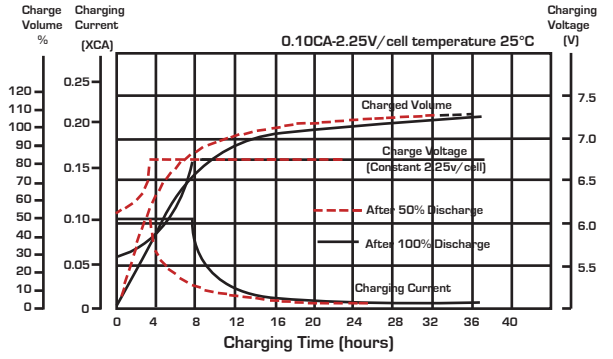
Constant Power Discharge (Watts/Cell) at 25°C (77°F)

F.V./Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	34.2	24.5	20.2	17.1	12.8	9.44	7.64	4.56	3.37	2.72	2.29	1.99	1.565	1.296	0.701
1.80V/cell	40.2	27.2	21.9	18.3	13.5	9.91	7.96	4.72	3.47	2.79	2.34	2.03	1.593	1.318	0.708
1.75V/cell	45.1	29.5	23.3	19.3	14.2	10.3	8.23	4.85	3.55	2.85	2.39	2.06	1.616	1.344	0.719
1.70V/cell	49.2	31.3	24.5	20.1	14.7	10.6	8.48	4.96	3.62	2.89	2.42	2.09	1.633	1.347	0.725
1.65V/cell	52.6	32.9	25.5	20.8	15.2	10.9	8.73	5.05	3.68	2.93	2.45	2.11	1.649	1.359	0.731
1.60V/cell	55.5	34.3	26.3	21.5	15.5	11.2	8.88	5.12	3.72	2.96	2.47	2.13	1.660	1.367	0.734

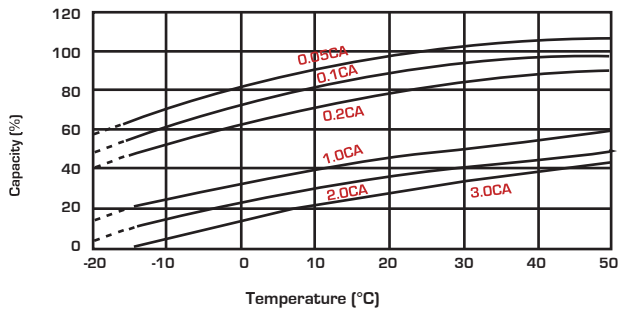
Discharge Characteristics



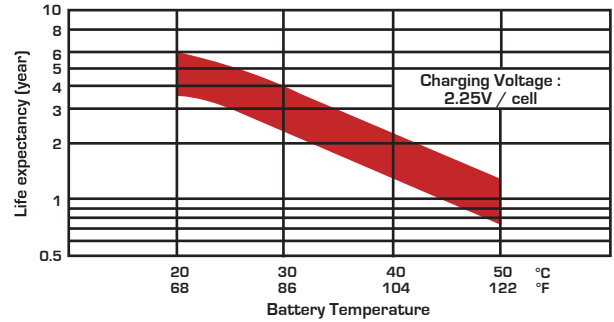
Float Charging Characteristics



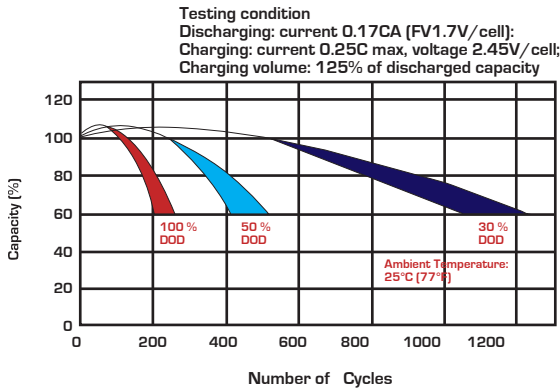
Temperature Effects in Relation to Battery Capacity



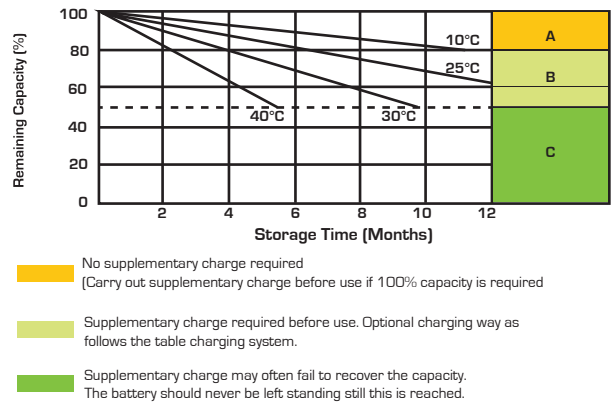
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Charging System

DOD	Current Limit (A)	Constant Voltage (V)	Fully Charged Time (h)
20	0.15C ₁₀	13.5-13.8 vpc (12V)	10
	0.20C ₁₀	6.75-6.9 vpc (6V)	8
50	0.15C ₁₀	13.5-13.8 vpc (12V)	15
	0.20C ₁₀	6.75-6.9 vpc (6V)	12
80	0.15C ₁₀	13.5-13.8 vpc (12V)	16
	0.20C ₁₀	6.75-6.9 vpc (6V)	14
100	0.15C ₁₀	13.5-13.8 vpc (12V)	20
	0.20C ₁₀	6.75-6.9 vpc (6V)	18

State of Charge (SOC)

Open Circuit Voltage (V/cell)	Open Circuit Voltage (12V/cell)	Open Circuit Voltage (6V/cell)	State of Charge (% of full charge capacity)
2.14-2.15	12.84-12.90	6.42-6.46	100
2.12-2.13	12.72-12.78	6.36-6.39	90
2.11	12.66	6.33	80
2.09	12.54	6.27	70
2.07	12.42	6.21	60
2.05	12.30	6.15	50



Sealed Performance Batteries

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