

41-7109UPS

**HIGH
RATE
SERIES**

UPS12-310 VALVE REGULATED LEAD ACID BATTERY

FOR UPS STANDBY POWER APPLICATIONS

12V 88 AH @ 20 HR RATE,
12V 329 WATTS/CELL @ 15 MIN. RATE



FEATURES

- 10 Year design life @ 25°C (77°F)
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
- Patented flame-arresting one-way pressure-relief vent providing vacuum and controlled backpressure for long life recombinant operation.
- Designed to comply with ANSI and Eurobat battery standards.
- Specifically designed for optimum performance in UPS applications.
- Proprietary computer modeled radial grid matrix using multiple conductors for providing the lowest internal resistance and highest current carrying efficiency.
- Proprietary Fixed Orifice Pasting technology applying active material on both sides of the grid for consistent cell-to-cell performance, highest paste packing efficiency and uniform grid protection.
- Lowest calcium levels among battery manufacturers minimizing grid growth and extended battery life.
- UL-recognized component.
- Thermally welded case-to-cover bond to eliminate leakage.
- Can be mounted in any orientation. Upright, side, or end mounting recommended.
- Not restricted for air transport – Complies with IATA/ICAO Special Provision A67.
- Not restricted for surface transport – Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.
- Flame retardant polypropylene case and cover compliant with UL 1778 (optional).

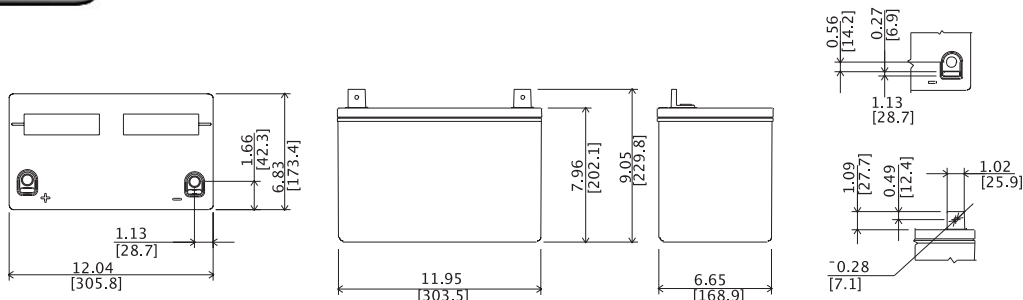
SPECIFICATIONS

12 Volts – 330 Watts Per Cell For 15 Minutes to 1.67 Volts per Cell

Constant Power Discharge Ratings – Watts Per Cell @ 77°F (25°C)

Operating Time to End Point Voltage (in Minutes)

End Point Volts/Cell	5	10	15	20	30	40	45	50	60	90
1.67	601	420	329	272	202	162	147	135	118	87



SPECIFICATIONS

Cells Per Unit	Voltage Per Unit	Weight	Electrolyte	Maximum Discharge Current	Short Circuit Current	Ohms Imped. 60 Hz (Ω)
6	12.84	67 lbs. 30 kg	Absorbed H ₂ SO ₄ SG = 1.300	800 Amps	4200 Amps @ 0.1 sec.	0.0027 Ohms

Capacity	329 watts per cell at the 15 minute rate to 1.67 volts per cell at 77°F (25°C). 88 Ah @ 20 hr. rate to 1.75 volts per cell @ 77°F (25°C). 76 Ah @ 10 hr. rate to 1.80 volts per cell @ 68°F (20°C).
Operating Temperature Range	Discharge; -40°F (-40°C) to +160°F (71°C), Charge; -10°F (-23°C) to +140°F (60°C). (with temperature compensation)
Nominal Operating Temperature Range	+74°F (23°C) to +80°F (27°C).
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 77°F (25°C).
Recommended Maximum Charging Current Limit	C/5 amperes (17.6 amperes @ 100% depth of discharge) @ 20 hour rate
Equalization and Cycle Service Charging Voltage	14.4 to 14.8 VDC/unit average at 77°F (25°C).
Maximum AC Ripple (Charger)	0.5% RMS or 1.5% P-P of float charge voltage recommended for best results. Maximum voltage allowed = 1.4% RMS (4% P-P). Maximum current allowed = 4.4 amperes rms (C/20).
Self Discharge	Dynasty UPS batteries may be stored for up to 6 months at 77°F (25°C) and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Accessories	Inter unit connectors, racks and cabinet systems are available.
Terminal	"L" terminal with 0.28" clearance hole to accept 0.25" (6mm) bolt.
Terminal Hardware Initial Torque	65 in.-lbs. (7.4 N-m).
Terminal Hardware Annual Retorque	52 in.-lbs. (5.88 N-m).

Constant Power Discharge Ratings – Watts Per Cell @ 77°F (25°C)

Operating Time to End Point Voltage (in minutes)

End Point Volts/Cell	5	10	15	20	30	40	45	50	60	90
1.75	556	395	313	261	194	154	140	128	111	80
1.70	592	404	321	266	198	158	145	133	115	84
1.67	601	420	329	272	202	162	147	135	118	87
1.65	616	425	332	272	204	164	150	138	120	89
1.60	633	434	336	277	207	166	152	139	121	90

Constant Current Discharge Ratings – Amperes @ 77°F (25°C)

Operating Time to End Point Voltage (in hours)

End Point Volts/Cell	.083	.25	.50	.75	1	2	3	5	8	10	12	20	24	72	100
1.90	169	118	76	56	45.0	26.8	19.3	12.8	8.69	7.27	6.28	3.99	3.35	1.13	0.82
1.85	206	132	84	61	48.7	28.3	20.5	13.3	9.00	7.50	6.50	4.11	3.46	1.17	0.85
1.80	246	145	90	65	52.0	30.3	21.5	14.0	9.40	7.80	6.71	4.25	3.60	1.21	0.87
1.75	301	163	100	72	56.5	31.8	22.7	14.7	9.84	8.10	6.92	4.40	3.69	1.24	0.90

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum and free air ventilation. Specifications subject to change without notification.