



# HIGH RATE SERIES

## UPS12-530FR VALVE REGULATED LEAD ACID BATTERY

### FOR UPS STANDBY POWER APPLICATIONS

12V 145 AH @ 20 HR RATE,  
12V 530 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

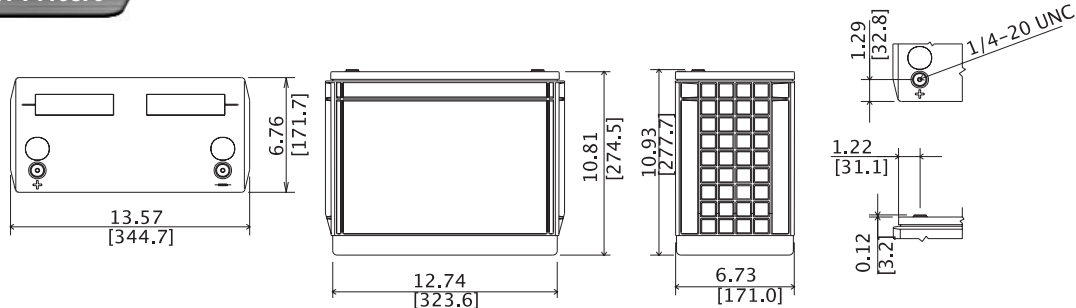
**12 Volts – 145 AH @ 20 Hour Rate**

**12 Volts – 530 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	856.7	645.5	530.0	444.2	339.5	273.4	248.7	227.0	195.4	137.2



**SPECIFICATIONS**

Cells Per Unit	Voltage Per Unit	Weight	Electrolyte	Maximum Discharge Current	Short Circuit Current	Ohms Imped. 60 Hz (Ω)
6	12.84	100 lbs. 45 kg	Absorbed H <sub>2</sub> SO <sub>4</sub> SG = 1.300	800 Amps	5000 Amps @ 0.1 sec.	0.0023 Ohms

<b>Capacity</b>	530 watts per cell at the 15 minute rate to 1.67 volts per cell at 77°F (25°C). 145 Ah @ 20 hr. rate to 1.75 volts per cell @ 77°F (25°C). 131 Ah @ 10 hr. rate to 1.80 volts per cell @ 68°F (20°C).
<b>Operating Temperature Range</b>	<b>Discharge;</b> -40°F (-40°C) to +160°F (71°C), <b>Charge;</b> -10°F (-23°C) to +140°F (60°C). (with temperature compensation)
<b>Nominal Operating Temperature Range</b>	+74°F (23°C) to +80°F (27°C).
<b>Float Charging Voltage</b>	13.5 to 13.8 VDC/unit Average at 77°F (25°C).
<b>Recommended Maximum Charging Current Limit</b>	C/5 amperes (29 amperes @ 100% depth of discharge) @ 20 hour rate
<b>Equalization and Cycle Service Charging Voltage</b>	14.4 to 14.8 VDC/unit average at 77°F (25°C).
<b>Maximum AC Ripple (Charger)</b>	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 = 7.25 amperes rms (C/20).
<b>Self Discharge</b>	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.
<b>Accessories</b>	Inter unit connectors, racks and cabinet systems are available.
<b>Terminal</b>	Threaded brass inserts to accept 0.25" (6mm) bolt.
<b>Terminal Hardware Torque</b>	110 in.-lbs. (12.4 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	713.6	556.7	465.9	399.8	315.8	257.6	235.9	217.1	187.5	134.2
1.70	814.3	616.9	505.3	426.4	329.7	266.5	243.8	223.1	190.5	135.7
1.67	856.7	645.5	530.0	444.2	339.5	273.4	248.7	227.0	195.4	137.2
1.65	892.2	670.2	546.8	453.1	345.5	278.3	252.7	231.0	197.4	139.2
1.60	939.7	687.0	556.7	459.0	349.4	280.3	254.6	233.9	199.4	141.1

**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	238	166	115	91	74.0	43.4	31.6	21.1	14.2	11.7	10.0	6.27	5.28	1.82	1.34
1.85	296	189	132	104	83.9	48.9	35.3	23.1	15.5	12.8	10.9	6.85	5.80	1.97	1.44
1.80	354	213	143	110	88.8	52.3	37.5	24.3	16.2	13.4	11.4	7.11	5.98	2.04	1.49
1.75	395	229	153	116	93.8	55.3	39.4	25.3	16.7	13.7	11.6	7.25	6.09	2.08	1.52

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