



GRANDEUR SERIES

GR12-110 VALVE-REGULATED LEAD-ACID BATTERY FOR COMMUNICATIONS STANDBY POWER APPLICATIONS

FEATURES

- **Plates and grids:** extra-thick plates with grids cast from high-purity lead-calcium tin alloy to ensure long and reliable life and low gas emission.
- **Separators:** microporous glass mat facilitates recombination and immobilizes the electrolyte.
- **Internal Connections:** heavy-duty internal straps and through-the-partition cell connections minimize internal resistance for increased energy density.
- **Terminals:** threaded female post terminals with brass inserts provide for high conductivity and maximum torque retention.
- **Post Seals:** state-of-the-art post seals prevent seepage over a wide temperature range.
- **Safety Valve:** each cell has its own one-way valve that opens at 5 psi and closes at 3 psi to allow excess gas to escape in case of overcharging.
- **Flame arrestor:** lets excess gas out while preventing any errant spark or flame from entering the battery.
- **Container and Cover:** made from thick-walled flame-retardant ABS plastic and designed for unsurpassed mechanical strength, the cases and covers have an LOI greater than 28% and meet the flame retardancy standards of UL 94 V-0 .
- **Handles:** tough rope handles with plastic inserts for better grip, to aid in handling, installing and removing the batteries.
- **Remote Venting System:** an optional Remote Venting System (RVS) is available for front terminal batteries in those applications requiring that the small amount of gasses generated during normal operation be vented to an external location.
- **Design Life:** 10 + years.

STANDARDS

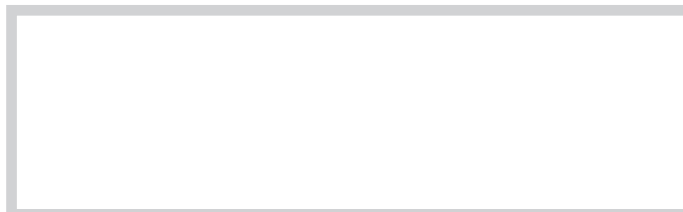
- Telcordia (Bellcore) SR-4228
- Telcordia (Bellcore) TR-NWT-001200
- Telcordia (Bellcore) TR-NWT-000909
- UL Recognized
- UL 94 Class V-0
- UL 1778

BATTERY TYPE	NOMINAL VOLTAGE (V)	CAPACITY Ah 8 hrs to 1.75 Vpc at 77°F	WEIGHT lbs.	DIMENSIONS in/(mm)			TERMINALS
				LENGTH	WIDTH	HEIGHT	
GR12-110	12	110	90.39	21.97/(558)	4.96/(126)	9.06/(230)	M6

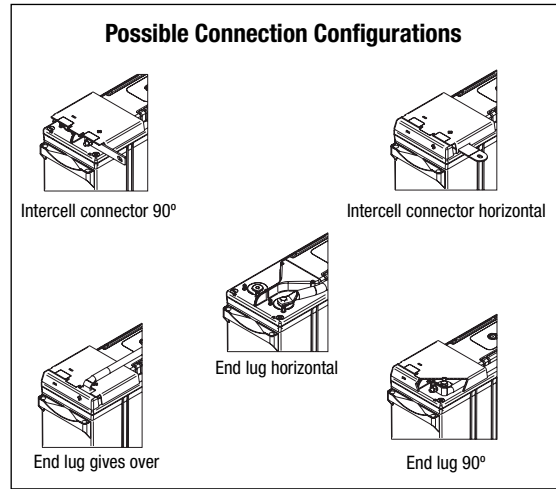
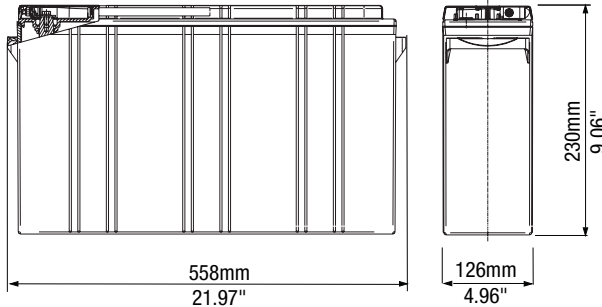
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GR12-110



*All dimensions in inches and (millimeters). All dimensions are for reference only. Contact an Interstate representative for complete dimensional information.

GR12-110 Specifications						
Cells per Unit	Full Charge OCV	Weight	Electrolyte	Max. Discharge Current (5 sec.)	Short Circuit Current	Ohms Imped. 60 Hz (mΩ)
6	12.84	90.4 lbs. 41 kg.	Absorbed H ₂ SO ₄	800 Amps	4023 Amps @ 0.1 sec.	2.98 mOhms

Capacity	110 Ah @ 8-hour rate to 1.75 volts per cell @ 77°F (25°C)
Operating Temperature Range	Discharge: -40°F (-40°C) to +160°F (71°C), Charge: -10°F(-23°C) to +140°F(60°C) (charge with temperature compensation -8.3 mV/°F per monobloc)
Nominal Operating Temperature Range	+74°F (23°C) to +80°F (27°C)
Float Charging Voltage	13.5 to 13.6 VDC/unit Average at 77°F (25°C).
Recommended Maximum Charging Current Limit	C/5 amperes (27.5 amperes @ 100% depth of discharge)
Self-Discharge	Interstate's Grandeur 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	Threaded brass-alloy insert terminal to accept 6 mm bolt.
Terminal Hardware Initial Torque	44-62 in.-lbs. (5-7 N-m).
Telecordia Codes	CLEI: PBMBK00BRA, CPR: 210414

Constant Current discharge rates Amperes at 77°F (25°C) – Discharge Time (minutes)									
EODV (Vpc)	60	120	180	240	300	360	480	600	1200
1.67 Vpc	72.30	43.90	31.90	25.40	21.00	17.90	14.20	11.90	6.70
1.75 Vpc	71.60	43.30	31.50	25.10	20.80	17.70	14.00	11.70	6.50
1.80 Vpc	70.80	43.00	31.20	24.90	20.60	17.50	13.90	11.60	6.40

Constant Power discharge rates Wpc at 77°F (25°C) – Discharge Time (minutes)									
EODV (Vpc)	60	120	180	240	300	360	480	600	1200
1.67 Vpc	136.00	82.98	60.70	48.46	40.20	34.26	27.21	22.83	12.93
1.75 Vpc	135.97	82.83	60.62	48.44	40.11	34.15	27.14	22.65	12.62
1.80 Vpc	135.22	82.40	60.59	48.43	40.11	34.12	27.12	22.64	12.52

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