



EverExceed® Patented Robust AGM Technology

**ST-12160**  
VALVE REGULATED  
LEAD ACID BATTERY  
FOR TELECOM / ELECTRIC  
UTILITY APPLICATIONS  
12V 160 AH @ 10 HR to 1.80VPC  
12V 180 AH @ 20 HR to 1.75VPC

**LONG  
DURATION**

**HIGH  
PERFORMANCE**



#### Innovative Features

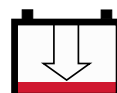
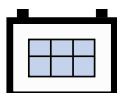
- ◆ Thick positive plate design for maximum service float life 12 years design life @ 20°C(68°F).
- ◆ Valve regulated lead acid battery (VRLA).
- ◆ High-Compression Absorbed Glass Mat technology (AGM) for greater than 99% recombination efficiency.
- ◆ Proprietary Fixed Orifice Plate Pasting technology applying active materials on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.
- ◆ Operates at a low internal pressure.
- ◆ Heavy duty insert copper alloy terminals for ease of assembly, reduced maintenance and increased safety.
- ◆ Advanced lead tin calcium alloy, reduces grid corrosion and promotes long battery life.
- ◆ Over-sized, through the partition inter-cell welds provide low resistance connections, with minimal power loss.
- ◆ Flame arresting, low pressure safety release venting system for individual cells, recognized per U.L. 924.
- ◆ Multicell design for ease of installation and maintenance
- ◆ Horizontal or vertical operation.
- ◆ **Standard:**  
Reinforced ABS (UL 94HB) container and cover  
**Optional:**  
Flame-retardant reinforced ABS container and cover compliant with U.L.94 V-0 with an Oxygen limiting Index of greater than 28%.

12 VOLTS - 160 AMPERE HOUR @ 10 HOUR RATE

AH Capacity to 1.80VPC @ 68°F (20°C)

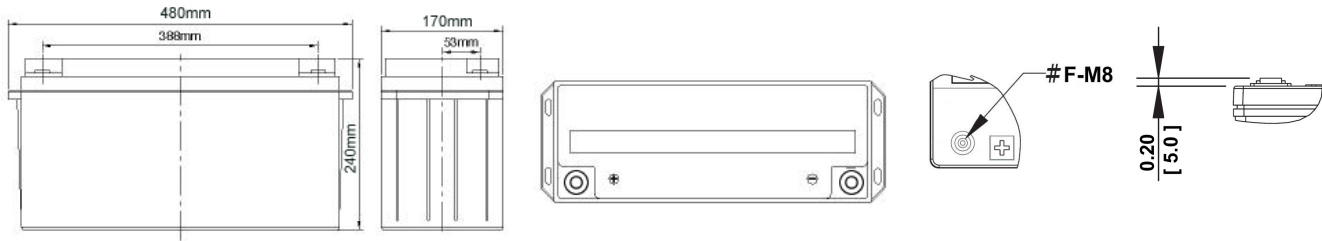
End Point Volts/Cell	60min	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr
1.80	103	115	122	126	136	141	153	160	163	176

**For Telecom / Electric Utility Applications**



# Standard Range VRLA

**EverExceed®**  
power your applications



Length: 480mm Width: 170mm Height: 240mm

Electrical Specifications						
Cells Per Unit	Voltage Per Unit	Weight	Electrolyte	Maximum Discharge Current@5s	Short Circuit Current	Internal Resistance (mΩ)
6	12.84	99.0lbs 45.0kg	SG = 1.300	1600 Amps	4700 Amps	3.5

<b>Capacity</b>	180 Ah @ 20 hr. rate to 1.75 volts per cell @ 68°F (20°C). 160 Ah @ 10 hr. rate to 1.80 volts per cell @ 68°F (20°C).
<b>Applicable Operating Temperature Range</b>	-40°F (-40°C) to +158°F (70°C).
<b>Ideal Operating Temperature Range</b>	+68°F (+20°C) to +82.4°F (28°C).
<b>Floating Charging Voltage</b>	13.5 to 13.8 VDC/unit Average at 68°F~77°F (20°C~25°C).
<b>Recommended Maximum Charging Current Limit</b>	40.0 Amperes ( 0.25C10 Amperes )
<b>Equalization and Cycle Service Charging Voltage</b>	14.1 to 14.4 VDC/unit Average at 68°F~77°F (20°C~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 = 0.80 amperes RMS (C/10).
<b>Self Discharge</b>	EverExceed Standard Range batteries may be stored for up to 12 months at 68°F~77°F (20°C~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: Inserted</b>	Threaded copper alloy insert terminal
<b>Terminal Hardware Initial Torque: Inserted Terminal</b>	11 N-m

Constant Power Discharging Ratings - Watts Per Cell @ 20°C (68°F)												
End Point Volts/Cell	15min	30min	60min	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr
1.85	473	305	195	138	111	77.8	64.3	53.2	36.5	30.4	25.8	17.2
1.80	483	311	199	147	118	80.8	66.5	55.3	38.1	31.6	27.1	17.7
1.75	510	323	206	150	120	82.9	68.1	56.5	38.7	32.3	27.5	18.1

Constant Current Discharging Ratings - Amperes Per Cell @ 20°C (68°F)												
End Point Volts/Cell	15min	30min	60min	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr
1.85	256	165	101	71.6	57.5	39.7	32.5	27.0	18.2	15.0	12.8	8.25
1.80	261	168	103	76.7	61.0	41.8	34.2	28.2	19.3	16.0	13.6	8.80
1.75	281	176	107	77.9	62.7	43.2	35.2	29.1	19.9	16.4	13.9	9.02

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

