



RANGE SUMMARY

NEBS Certified





PowerSafe™ mSeries batteries offer an ideal solution for large capacity, valve regulated lead-acid battery requirements. The **PowerSafe** mSeries battery's steel can (module) design concept, with its modular racking system, provides a battery system with a compact, quick and simple installation process for NEBS applications.

The **PowerSafe** mSeries battery system's cutting-edge technology incorporates an enhanced cell design. The enhanced cell incorporates thicker positive plates for longer life. The welded/epoxy, dual post seal design provides the highest integrity seal in the industry. The large copper post design also enhances the high rate performance. **PowerSafe** mSeries batteries are also available with catalyst vents to further extend the life of the cells.

Cells are encased in dedicated protective steel cans (modules) that maintain constant, uniform compression for the life of the cell. The racking system provides total flexibility for system configuration and allows fast, simple installation, while providing the necessary robustness for NEBS requirements.

PowerSafe mSeries cells, with their optimized recombination technology and extra thick plates, provide excellent performance and service life across a wide range of telecommunications applications.

Construction

- Positive plate - Thick 0.252" lead-calcium-tin grids minimize corrosion and prolong life.
- Negative plate - Balanced lead-calcium grids optimize recombination efficiency.
- AGM separator - Mechanically strong, low electrical resistance, microporous glass fiber which completely absorbs the electrolyte into its structure.
- Container/Cover - Flame retardant polypropylene standard. (UL94 V-0/L.O.I. 28%)
- Containers are single-piece construction.
- Electrolyte - Diluted sulfuric acid.
- Terminal post - Lead casting terminal. Threaded copper insert, with large surface area, to provide maximum conductivity.
- Terminal seal - Ring burn with secondary epoxy resin seal is 100% water bath tested in the factory and proven in service.
- Relief valve - Operates at 2-3 psi and is complete with integral flame arrestor.

Features

- 100% "out of box" initial battery capacity.
- VRLA recombinant technology - low maintenance - no watering required.
- Up to 2000 Ah in a single cell.
- Frame design allows for maximum heat dissipation.
- NEBS zone 2 and zone 4 certified*.
- Steel module design. Cells factory installed in permanent steel modules with 1 or 2 cells per can.
- Module can be configured 2, 3, 4 or 6 cells wide in single cell modules; 2, 4 or 6 cells wide in 2-cell modules for maximum flexibility.
- Simplified installation.
- Top termination standard.
- Clear flame retardant safety shields allow for easy visual inspection without removal.
- Optional catalyst vents.

Benefits of the steel can (module) design

- Ease of installation. Simply set up rack and install modules.
- Uniform and consistent compression.
- "Designed-In" thermal management allows maximum air flow.
- Flexible configuration.
- Cell protection from damage during transport.

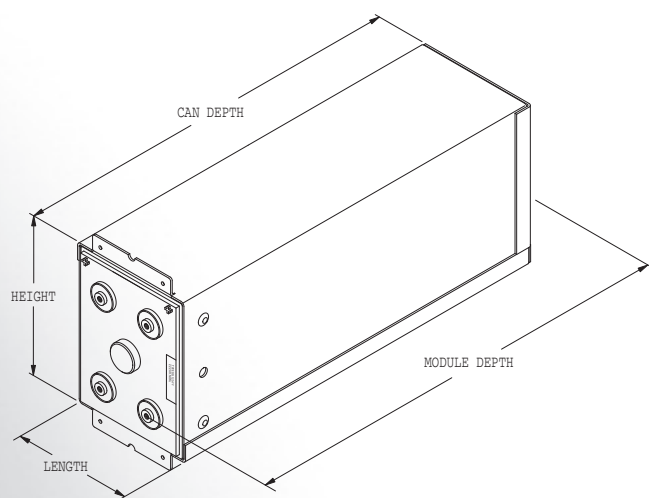
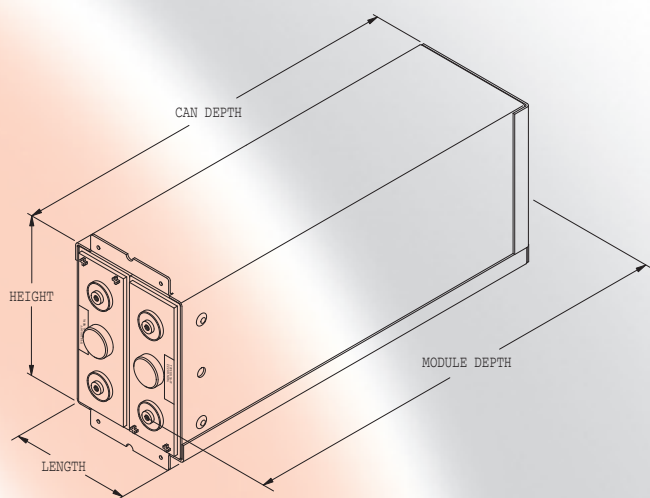
Installation

- Module rack design provides quick and easy assembly.
- Steel module design is easier to install. Does not require removal from protective steel cans (modules) during installation.
- Flexible configuration - 2, 3, 4 or 6 cells wide in single cell modules or 2, 4 or 6 cells wide in 2-cell modules.
- Total front access for easy maintenance.
- Floor anchoring - easy access during install, rack can be set before stowing modules.
- Top termination standard - optional side termination available.
- Transition kits available to mount relay rack above battery system.
- Grounding kits available for bonding of all steel components.

*Configurations to six high on m125 and eight high on m50, m85, and m100 sizes.

GENERAL SPECIFICATIONS

Type	Cells per Module	Nominal Voltage (V)	Nominal Capacity (Ah)		Nominal Dimensions								Typical Weight	
			10hr. rate 1.80Vpc @ 20°C	8hr. rate 1.75Vpc @ 77°F	Length		Height		Depth (can)		Depth (module)		kg	lbs
					mm	in	mm	in	mm	in	mm	in		
2m50-09	2	4	200	200	188	7.4	165	6.5	333	13.1	366	14.4	34.3	75.4
2m50-13	2	4	300	300	265	10.4	165	6.5	333	13.1	366	14.4	49.5	108.9
m50-17	1	2	400	400	176	6.9	165	6.5	333	13.1	366	14.4	34.0	74.7
2m85-13	2	4	510	510	265	10.4	165	6.5	519	20.4	554	21.8	75.7	166.5
2m85-15	2	4	595	595	303	11.9	165	6.5	519	20.4	554	21.8	88.5	194.8
m85-21	1	2	850	850	214	8.4	165	6.5	519	20.4	554	21.8	64.5	142.0
m85-25	1	2	1020	1020	252	9.9	165	6.5	519	20.4	554	21.8	74.4	163.7
m85-27	1	2	1105	1105	271	10.7	165	6.5	519	20.4	554	21.8	80.8	177.8
m85-33	1	2	1360	1360	328	12.9	165	6.5	519	20.4	554	21.8	97.9	217.5
m100-21	1	2	1000	1000	214	8.4	165	6.5	590	23.2	624	24.5	73.5	163.4
m100-25	1	2	1200	1200	252	9.9	165	6.5	590	23.2	624	24.5	86.5	192.1
m100-27	1	2	1300	1300	271	10.7	165	6.5	590	23.2	624	24.5	92.0	204.3
m100-33	1	2	1600	1600	328	12.9	165	6.5	590	23.2	624	24.5	115.3	256.3
m125-25	1	2	1500	1500	252	9.9	226	8.9	562	22.1	597	23.5	112.3	249.6
m125-27	1	2	1625	1625	271	10.7	226	8.9	562	22.1	597	23.5	120.8	268.4
m125-33	1	2	2000	2000	328	12.9	226	8.9	562	22.1	597	23.5	144.1	320.3



System Dimensions

Type	Ah Capacity	Cells per Module	Nominal Stack Dimensions							
			Nominal Stack Depth	2W x 6H (in)	3W x 4H (in)	3W x 8H (in)	4W x 3H (in)	4W x 6H (in)	6W x 2H (in)	6W x 4H (in)
2m50-09	200	2	18.00	10.5W x 61.5H	N/A	N/A	18.0W x 35.63H	18.0W x 61.5H	25.5W x 27.0H	25.5W x 44.25H
2m50-13	300	2	18.00	13.5W x 61.5H	N/A	N/A	24.0W x 35.63H	24.0W x 61.5H	34.5W x 27.0H	34.5W x 44.25H
m50-17	400	1	18.00	17.0W x 61.5H	24.0W x 44.25H	24.0W x 78.75H	31.0W x 35.63H	31.0W x 61.5H	45.0W x 27.0H	45.0W x 44.25H
2m85-13	510	2	25.25	13.5W x 61.5H	N/A	N/A	24.0W x 35.63H	24.0W x 61.5H	34.5W x 27.0H	34.5W x 44.25H
2m85-15	595	2	25.25	15.0W x 61.5H	N/A	N/A	27.0W x 35.63H	27.0W x 61.5H	39.0W x 27.0H	39.0W x 44.25H
m85-21	850	1	25.25	20.0W x 61.5H	28.5W x 44.25H	28.5W x 78.75H	37.0W x 35.63H	37.0W x 61.5H	57.0W x 27.0H	57.0W x 44.25H
m85-25	1020	1	25.25	23.0W x 61.5H	33.0W x 44.25H	33.0W x 78.75H	43.0W x 35.63H	43.0W x 61.5H	66.0W x 27.0H	66.0W x 44.25H
m85-27	1105	1	25.25	24.5W x 61.5H	35.2W x 44.25H	35.2W x 78.75H	46.0W x 35.63H	46.0W x 61.5H	70.5W x 27.0H	70.5W x 44.25H
m85-33	1360	1	25.25	29.0W x 61.5H	42.0W x 44.25H	42.0W x 78.75H	55.0W x 35.63H	55.0W x 61.5H	84.0W x 27.0H	84.0W x 44.25H
m100-21	1000	1	28.00	20.0W x 61.5H	28.5W x 44.25H	28.5W x 78.75H	37.0W x 35.63H	37.0W x 61.5H	57.0W x 27.0H	57.0W x 44.25H
m100-25	1200	1	28.00	23.0W x 61.5H	33.0W x 44.25H	33.0W x 78.75H	43.0W x 35.63H	43.0W x 61.5H	66.0W x 27.0H	66.0W x 44.25H
m100-27	1300	1	28.00	24.5W x 61.5H	35.2W x 44.25H	35.2W x 78.75H	46.0W x 35.63H	46.0W x 61.5H	70.5W x 27.0H	70.5W x 44.25H
m100-33	1600	1	28.00	29.0W x 61.5H	42.0W x 44.25H	42.0W x 78.75H	55.0W x 35.63H	55.0W x 61.5H	84.0W x 27.0H	84.0W x 44.25H
m125-25	1500	1	27.00	23.0W x 75.75H	33.0W x 53.75H	N/A	43.0W x 42.75H	43.0W x 75.75H	66.0W x 31.75H	66.0W x 53.75H
m125-27	1625	1	27.00	24.5W x 75.75H	35.2W x 53.75H	N/A	46.0W x 42.75H	46.0W x 75.75H	70.5W x 31.75H	70.5W x 53.75H
m125-33	2000	1	27.00	29.0W x 75.75H	42.0W x 53.75H	N/A	55.0W x 42.75H	55.0W x 75.75H	84.0W x 31.75H	84.0W x 53.75H



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