

DDm UPS Battery Range Summary

The PowerSafe[®] DDm battery range offers an ideal solution for large capacity Valve Regulated Lead Acid (VRLA) battery requirements. The PowerSafe DDm battery's steel can (module) design, with its integral racking system, provides a cost effective battery system. This creates a compact, quick and simple installation process.

The PowerSafe DDm battery system's cutting-edge technology incorporates an enhanced cell design with a superior racking system. 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.

Cells are encased in dedicated protective steel cans (modules) that maintain constant, uniform compression for the life of the cell. The easy to assemble racking system provides total flexibility for system configuration and its built-in thermal management allows air flow between the cells, resulting in fast, effortless installation even in the most difficult locations.

The PowerSafe DDm battery, with its optimized recombination technology and extra thick plates, provides excellent performance and service life for mission critical systems.

Features and Benefits

- Capacity: 292-4094 Watts per Cell (WPC) – 15 min. rate to 1.67 VPC @ 77°F (25°C)
- Steel module design, cells factory installed in permanent steel modules with one or two cells per can
- Standard top termination – optional side termination
- Clear flame retardant safety shields allow for easy visual inspection without removal
- Inter-unit connectors and terminal plates: tin-plated copper; optional lead-plated copper available
- Flexible module configuration – 2, 3, 4 or 6 cells wide in single cell modules; 2, 4 or 6 cells wide in 2-cell modules

Construction

- Positive plate - thick 0.252" lead-calcium-tin grids minimize corrosion and prolong life
- Negative plate - balanced lead-calcium plates optimize recombination efficiency
- Absorbed Glass Mat (AGM) separator - mechanically strong, low electrical resistance, absorbed glass mat which completely absorbs the electrolyte into its structure
- Container/cover - standard UL94 V-0 flame retardant polypropylene (LOI 28%)
- Terminal post - square lead-tin coated copper insert cross-drilled (0.25" holes) with large surface area, to provide maximum conductivity²
- 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

Installation and Operation

- Compact, quick and simple installation process
- Low maintenance – no watering required
- Thick plates, single piece container construction, robust construction for long life
- Welded/epoxy dual post seal design means zero leaks
- 100% "out of the box" initial capacity
- Operating temperature: -4°F (-20°C) to 122°F (50°C)
Recommended temperature: 68°F (20°C) to 86°F (30°C)
- Optional disconnect switches, wall or relay rack mounted
- Initial post torque 85 in - lb (7.1 ft - lb), 9.6 Newton meters (N-m) Re-torque to 80%; 2DDm35-07 post torque 60 in - lb (5 ft - lb), 6.8 N-m
- DDm System now featuring square post

Standards

- Non-spillable classification (UN2800)
- Approved for air transportation (IATA A67)
- Recognized by UL (UL standard 1989)
- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004 certified
- Certified to 1997 UBC Zone 4 to eight high on DDm125 and ten high on DDm35, DDm50, DDm85 and DDm100 sizes for certain configurations

General Specifications

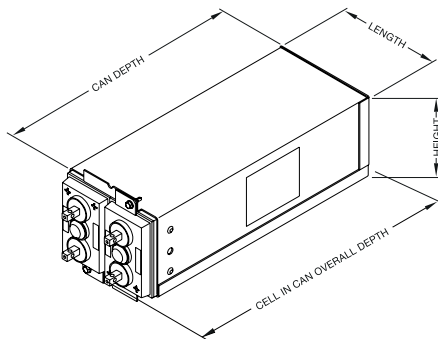
Battery Type	Cell Type	Ah Capacity	Cells per module	Nominal Voltage (V)	Nominal Row Height		Nominal Stack Depth		Nominal Stack Length**						Typical System Weight per Cell ¹					
					in	mm	in	mm	2 Wide	3 Wide	4 Wide	6 Wide	Unpacked		Packed					
					in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg		
DDm35-07 ²	2DDm35-07 ²	105	2	4	8.63	219.2	16.25	412.8	12.78*	324.6*	N/A	N/A	17.26*	483.4*	16.90	429.3	26.0	12.0	29.3	13.3
DDm50-09	2DDmP50-09	200	2	4	8.63	219.2	16.25	412.8	15.78*	400.8*	N/A	N/A	18.41	476.6	25.90	657.9	47.0	21.3	50.3	22.8
DDm50-13	2DDmP50-13	300	2	4	8.63	219.2	16.25	412.8	18.78*	477.0*	N/A	N/A	24.41	620.0	34.90	886.5	65.0	29.5	68.3	31.0
DDm50-17	DDmP50-17	400	1	2	8.63	219.2	16.25	412.8	17.38	441.5	24.37	619.0	31.15	791.2	45.06	1144.5	88.0	39.9	91.3	41.4
DDm85-13	2DDmP85-13	510	2	4	8.63	219.2	23.50	569.6	18.78*	477.0*	N/A	N/A	24.41	620.0	34.90	886.5	96.0	43.6	99.3	45.1
DDm85-15	2DDmP85-15	595	2	4	8.63	219.2	23.50	569.6	20.28*	515.1*	N/A	N/A	27.41	696.2	39.40	1000.8	111.0	50.4	114.3	51.9
DDm85-21	DDmP85-21	850	1	2	8.63	219.2	23.50	569.6	20.37	517.4	28.82	732.0	37.15	943.6	55.60	1412.2	159.0	72.1	162.3	73.6
DDm85-25	DDmP85-25	1020	1	2	8.63	219.2	23.50	569.6	23.37	593.6	33.32	846.3	43.15	1096.0	64.57	1640.1	183.0	83.0	186.3	84.5
DDm85-27	DDmP85-27	1105	1	2	8.63	219.2	23.50	569.6	24.87	631.7	35.58	903.7	46.16	1172.5	69.11	1755.4	199.0	90.3	202.3	91.8
DDm85-33	DDmP85-33	1360	1	2	8.63	219.2	23.50	569.6	29.37	746.0	42.32	1074.9	55.15	1400.8	82.60	2098.0	245.0	111.1	248.3	112.6
DDm100-21	DDmP100-21	1000	1	2	8.63	219.2	26.25	666.8	20.37	517.4	28.82	732.0	37.15	943.6	55.60	1412.2	185.0	83.9	188.3	85.4
DDm100-25	DDmP100-25	1200	1	2	8.63	219.2	26.25	666.8	23.37	593.6	33.32	846.3	43.15	1096.0	64.57	1640.1	219.0	99.3	222.3	100.9
DDm100-27	DDmP100-27	1300	1	2	8.63	219.2	26.25	666.8	24.87	631.7	35.58	903.7	46.16	1172.5	69.11	1172.5	236.0	107.1	239.3	108.6
DDm100-33	DDmP100-33	1600	1	2	8.63	219.2	26.25	666.8	29.37	746	42.32	1074.9	55.15	1400.8	82.60	2098.0	287.0	130.2	290.3	131.7
DDm125-25	DDmP125-25	1500	1	2	11.00	279.4	27.50	698.5	24.48	621.8	34.27	870.5	44.37	1127.0	65.68	1668.3	269.0	122.0	272.3	123.5
DDm125-27	DDmP125-27	1625	1	2	11.00	279.4	27.50	698.5	25.98	659.9	36.53	927.9	47.37	1203.2	70.22	1783.6	290.0	131.5	293.3	133.3
DDm125-33	DDmP125-33	2000	1	2	11.00	279.4	27.50	698.5	30.48	774.2	43.27	1099.0	56.37	1431.8	83.71	2126.2	355.0	161.0	358.3	162.5

* Standard top termination now available, stack length is with same side termination.

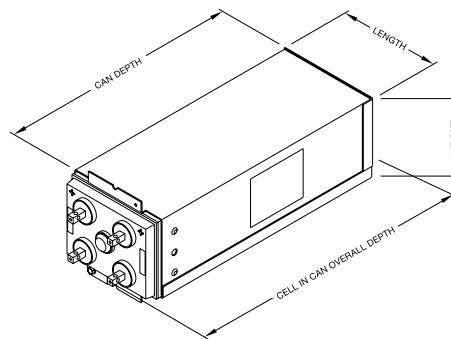
** Stack dimension representative of single stack configurations. Contact EnerSys® for seismic qualifications of systems.

¹ Includes hardware for calculating system weight.

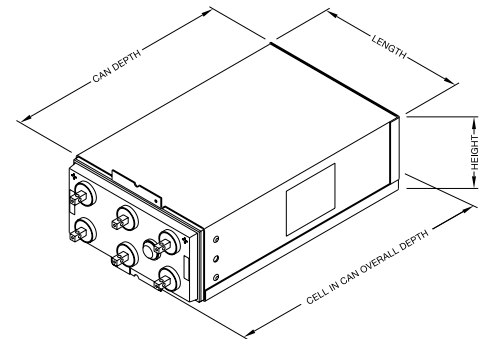
² DDm35-07 only available with round post.



2DDmP50-09
2DDmP50-13
2DDmP85-13
2DDmP85-15



DDmP50-17 DDmP85-27 DDmP100-27
DDmP85-21 DDmP100-21 DDmP125-25
DDmP85-25 DDmP100-25 DDmP125-27



DDmP85-33
DDmP100-33
DDmP125-33

DDm UBC System Configurator

DDm System	Cell Type	Ah Capacity	Cells per module	Nominal Voltage (V)	Nominal Row Height		Nominal Stack Depth		Nominal Stack Length**						Typical System Weight per Cell ¹					
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* Standard top termination now available, stack length is with same side termination.

** Stack dimensions representative of single stack configurations. Contact EnerSys[®] for seismic qualifications of systems.

¹ Includes hardware for calculating system weight.

² 2DDm35-07 only available with round post.

Formula

System Height = (Row Height x # of cells high) + 9.0"

System Length = Stack Length x # of stacks

System Weight = Cell Weight x # of cells

Formula 24-DDm85-21

4 cells wide per stack x 6 cells high per stack

System Height = (8.63" x 6) + 9.0" = 60.78"

System Length = 37.15" x 1 = 37.15"

System Weight = 159.0 lbs. x 24 = 3816.0 lbs

Formula 240-DDm125-25

4 cells wide per stack x 6 cells high per stack

System Height = (11.00" x 6) + 9.0" = 75.00"

System Length = 44.37" x 10 = 443.70"

System Weight = 269.0 lbs x 240 = 64,560.0 lbs.

Terminal Locations

Not all locations are possible for all configurations.

