

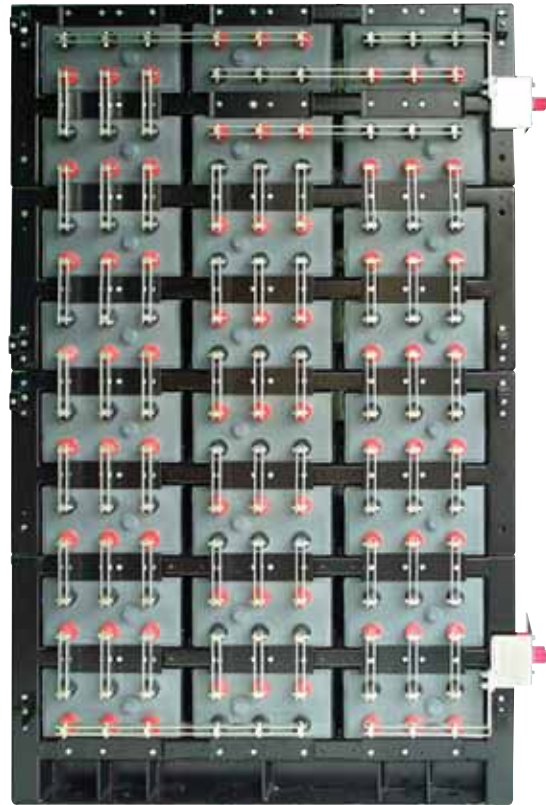
DOUGLAS SAFE GUARD[®] DMV

Douglas SafeGuard[®] DMV Offers Superior VRLA battery technology packed with a newly designed modular frame, greatly reducing installation costs. Improved installation speed by eliminating 50% of the assembly parts.

The 2-Volt SafeGuard[®] DMV cells & Modular Battery Rack have been tested and approved to NEBS Level 3, arranged 8 cells high and 3 cells wide for 48 VDC, up to and including 2000 AH capacity. NEBS Level 3 exceeds the Seismic Zone 4 analysis requirements.

Jars and covers are constructed of UL94 V0, LOI 28% flame-retardant halogen-free polypropylene plastic. The steel individual cell jacket eliminates the need for compression, reduces module installation weight and provides greater installation flexibility.

Douglas SafeGuard[®] DMV provides an extended design life of 20 years under normal operating conditions.



NEBS tested and approved as shown above

DESIGN FEATURES:

- **Post Seal.** Dual primary & dual secondary barrier seal eliminates acid leaks and post corrosion.
- **Terminal Post.** Heavy-duty 1/2" square post with tin-plated copper insert allows for very low resistance connections without the need for grease (NO-OX).
- **Plates.** Thick, pasted construction for both positive and negative plates, with special lead/calcium/tin alloy. Resists corrosion for up to 20 years life at 77°F (25°C).
- **Separators.** High-quality double "C" wrap microporous glass fibers facilitate gas diffusion, optimize acid absorption, eliminate mossing shorts, and lower electrical resistance. Separator maintains compression throughout life, giving excellent vibration resistance.
- **Electrolyte.** High-purity sulfuric acid, absorbed in separator, has 1.300 SG. No acid spillage, supplied filled and charged, no acid handling or exposure. No watering or hydrometer reading which cuts maintenance expense.
- **Float Voltage.** Douglas SafeGuard[®] batteries provide optimum performance when float charged at $2.25 \pm 1\%$ VPC at 77°F (25°C).
- **Safety Valve.** Every cell has a one-way valve which operates 2.5 ± 1 psi for safety in the event of abusive operating conditions. Valve-regulated operation controls internal pressure for safety, reliability and very low maintenance in service.
- **Flame Arrestor.** Built-in above every safety valve. Maximum safety in the event of abusive charging.
- **Container and Cover.** Flame retardant polypropylene to UL94 V0, 28% LOI. Enclosed in an individual steel jacket to maintain consistent cell compression, act as heat sink, and ease installation. Design allows air circulation for environmental control and optimum service life. In the event of fire, non-toxic materials offer personnel safety.
- **Dual Inter-cell Connectors and Side or Top Termination.** Heavy-duty tin-plated copper connectors minimize voltage drop in battery circuits. Connections do not require torque maintenance or grease (NO-OX).
- **Storage.** The shelf life of Douglas SafeGuard[®] batteries is affected by temperature. The lower the storage temperature, the longer the shelf life. At 77°F (25°C) batteries lose about 3% capacity per month.

ISO 9001:2000, NEBS Certified

DOUGLAS SAFEGUARD[®]
DMV


DOUGLAS BATTERY
Connect with a leader

Technical Specifications

Weights & Dimensions

CELL TYPE	MODEL NUMBER	NOMINAL AH CAPACITY	INDIVIDUAL CELL (including sleeve)				MODULE STACK					
			**Dimensions are in inches				24 VDC			48 VDC		
			L"	D"	H"	WEIGHT	L" **	D" ***	H" *	WEIGHT	H" *	WEIGHT
120-17	DMV 990	990	6.98	29.98	6.52	168	28.73	31.10	40.13	2557	73.95	4970
120-21	DMV 1240	1240	8.48	29.98	6.52	204	33.23	31.10	40.13	3056	73.95	5942
120-25	DMV 1485	1485	9.98	29.98	6.52	239	37.73	31.10	40.13	3492	73.95	6814
120-27	DMV 1610	1610	10.73	29.98	6.52	257	39.98	31.10	40.13	3730	73.95	7280
120-31	DMV 1860	1860	12.23	29.98	6.52	295	44.48	31.10	40.13	4230	73.95	8268
120-33	DMV 2000	2000	12.98	29.98	6.52	313	46.73	31.10	40.13	4470	73.95	8740

Per IEEE-1188 standard, rates listed are 100% of cells capacity, with a minimum of 90% initial capacity.

* Top Termination add 6.00" to Height (H) dimension.

** Side Termination add 2.88" to Length (L) dimension.

*** Depth dimension includes Front Safety Shield

Additional capacity batteries will be available within the next 12 months.

All data subject to change without notice.

Dimensions are in inches.

Weight may vary +/- 5%

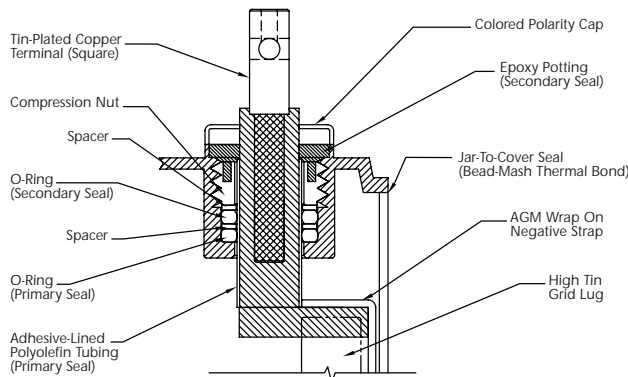
Weight is in lbs.

Performance Specifications

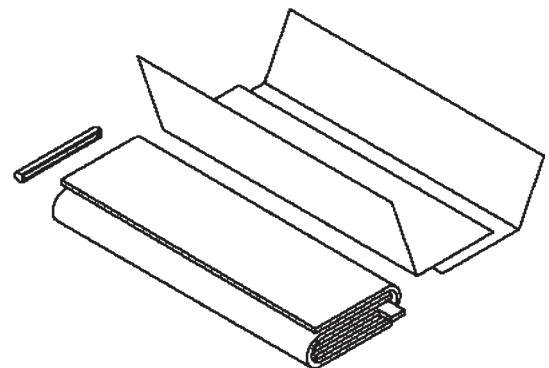
Amperes Discharge Rates @ 77°F, (25°C)

TYPE	Minutes		Hours											
	15	30	1	2	3	4	5	6	7	8	10	12	20	24
	DMV-990	800	627	492	338	257	209	178	155	138	124	103	87.5	56.5
DMV-1240	1000	784	615	422	321	261	222	194	172	155	128	109	70.6	59.4
DMV-1485	1200	941	738	506	385	314	266	233	208	186	154	131	85.0	71.3
DMV-1610	1300	1020	800	548	417	340	288	252	223	202	167	142	91.8	77.2
DMV-1860	1500	1177	923	633	481	392	333	291	258	233	192	164	106	89.1
DMV-2000	1600	1255	984	675	513	418	355	310	275	248	205	175	113	95.0

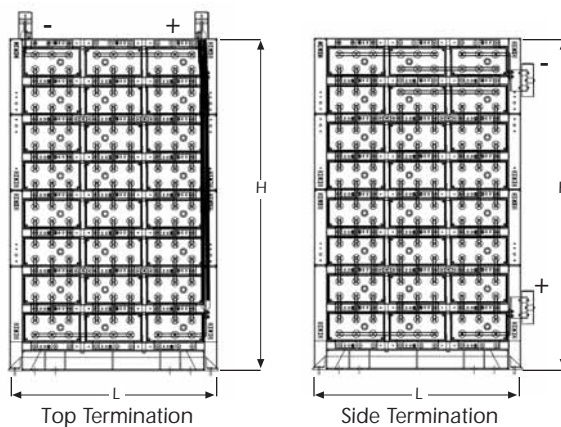
POST DETAIL



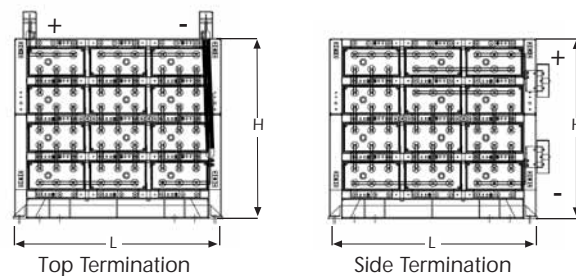
Patented AGM Double C Wrap



Protects plate edges from mousing shorts & increases electrolyte storage



48 VDC



24 VDC



NEBS
LEVEL 3
TESTED & CERTIFIED

