

## DOUGLAS SAFE GUARD<sup>®</sup> DSV

Douglas Safeguard<sup>®</sup> DSV Offers The Ultimate in VRLA battery technology that can be stacked in a modular, compact system, 4 and 8 high, and meet IBC 2000 seismic Zone 4 requirements. Safeguard<sup>®</sup> DSV batteries are installed horizontally and provide up to 60% more energy per unit volume than conventional batteries. The Safeguard<sup>®</sup> DSV 2-Volt cells provide a capacity up to 2,000 Ah, with a design life of 20 years under recommended operating conditions. Each jar and cover is constructed of flame-retardant halogen-free polypropylene plastic UL94 V0, with a LOI of 28%. The steel cell jacket construction eliminates the need for compression, reducing total weight and providing greater installation flexibility.



### 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<sup>®</sup> 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  $2.5 \pm 1$  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<sup>®</sup> 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.

DOUGLAS SAFEGUARD<sup>®</sup>  
DSV

## Technical Specifications

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	DSV 990	990	6.98	29.98	6.52	168	30.31	32.75	38.38	2381	72.38	4675
120-21	DSV 1240	1240	8.48	29.98	6.52	204	34.81	32.75	38.38	2875	72.38	5651
120-25	DSV 1485	1485	9.98	29.98	6.52	239	39.31	32.75	38.38	3332	72.38	6557
120-27	DSV 1610	1610	10.73	29.98	6.52	257	41.56	32.75	38.38	3566	72.38	7021
120-31	DSV 1860	1860	12.23	29.98	6.52	295	46.06	32.75	38.38	4059	72.38	8001
120-33	DSV 2000	2000	12.98	29.98	6.52	313	48.31	32.75	38.38	4293	72.38	8465

Per IEEE-1188 standard, rates listed are 100% of cells capacity, with a minimum of 90% initial capacity.  
 \* Height does not include top terminal plate (add 7.69" to Height (H) dimension).  
 \*\* Depth dimension includes Front Safety Shield.  
 Add 2.63" to Length (L) dimension for side termination. Weight may vary + - 5%.  
 Additional capacity batteries will be available within the next 12 months.

All data subject to change without notice.  
 Dimensions are in inches.  
 Weight is in lbs.

## Performance Specifications

### Amperes Discharge Rates @ 77F(25C)

TYPE	1.75 End VPC		Minutes												
	15	30	Hours												
	1	2	3	4	5	6	7	8	10	12	20	24			
DSV-990	800	627	492	338	257	209	178	155	138	124	103	87.5	56.5	47.5	
DSV-1240	1000	784	615	422	321	261	222	194	172	155	128	109	70.6	59.4	
DSV-1485	1200	941	738	506	385	314	266	233	208	186	154	131	85.0	71.3	
DSV-1610	1300	1020	800	548	417	340	288	252	223	202	167	142	91.8	77.2	
DSV-1860	1500	1177	923	633	481	392	333	291	258	233	192	164	106	89.1	
DSV-2000	1600	1255	984	675	513	418	355	310	275	248	205	175	113	95.0	

### POST DETAIL

