

100 - 465 Ah
0.379 - 1.599 KW/Cell

DOUGLAS® SAFEGUARD™ MB

THE DOUGLAS® SAFEGUARD™ MB SERIES

of valve-regulated lead-acid batteries provides high performance and reliability for your stand-by power applications. The use of thick-wall ABS containers eliminates the need for external compression and enhances air circulation between units to reduce the risk of thermal runaway.



The compact, space-saving design makes these 2, 4, and 6-Volt units ideal for your low and medium range stationary needs. Capacities range from 100 to 465 Ah and design life is 10+ years under recommended operating conditions. Units can be installed in standard or modular racks and cabinets that meet Zone 4 seismic requirements.

DESIGN FEATURES:

- **Post Seal.** Triple barrier seal eliminates acid leaks and post movement allowing for horizontal or vertical installation.
- **Terminal Post.** Large cross-section, heavy-duty post with tin-plated threaded copper or brass insert allows for very high discharge currents.
- **Plates.** Thick, pasted construction for both positive and negative plates, with special lead/calcium/tin alloy. Resists corrosion for up to 15 years life at 68° F (20° C).
- **Separators.** High-quality microporous glass fibers facilitate gas diffusion, optimize acid absorption and lower electrical resistance. Low internal resistance, high-energy density, separator maintains compression throughout life, giving excellent vibration resistance.
- **Electrolyte.** High-purity sulfuric acid absorbed in separator has 1.280 SG. No acid spill, easy to handle and install, supplied filled and charged, no acid handling.
- **Float Voltage.** Douglas Safeguard batteries provide optimum performance when float charged at 2.25 ± 1% Vpc for temperatures between 59° and 77° F (15° and 25° C). For installations where the battery will operate for extended periods outside this range, it is recommended that the float voltage be adjusted 1 to 2 mV/cell/°F (2 to 4 mV/cell/°C).
- **Safety Valve.** Every cell has its own one-way valve which operates between 1.45 – 2.20 psi for safety in the event of abusive operating conditions. Valve-regulated operation, with controllable internal pressure for safety and reliability and very low maintenance in service.
- **Flame Arrestor.** Built-in above every safety valve. Maximum safety in the event of abusive discharge.
- **Container and Cover.** Made of rigid, thick wall ABS with high mechanical strength and impact resistance. Available in flame-retardant rating of UL94 V0 and a LOI of 28%.
- **Inter-cell/unit Connectors.** Heavy-duty tin-plated copper connectors minimize voltage drop in battery circuits. Connections do not require torque maintenance nor 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.

DOUGLAS® SAFEGUARD™
MB


DOUGLAS BATTERY
Connect with a leader

Product Specifications

Item Number	Type	Ah ¹	Volts	Dimensions						Weight	
				Length		Width		Height		lb.	kg
				in.	mm	in.	mm	in.	mm		
24015	DGS6-100	100	6	8.1	205	7.0	177	11.1	283	59.5	27.0
24016	DGS6-115	115	6	11.1	282	7.0	177	11.1	283	70.5	32.0
24017	DGS6-135	135	6	11.1	282	7.0	177	11.1	283	78.3	35.5
24018	DGS6-155	155	6	11.1	282	7.0	177	11.1	283	86.0	39.0
24010	DGS4-185	185	4	11.1	282	7.0	177	11.1	283	70.5	32.0
24011	DGS4-205	205	4	11.1	282	7.0	177	11.1	283	77.2	35.0
24012	DGS4-225	225	4	11.1	282	7.0	177	11.1	283	83.8	38.0
24030	DGS2-180	180	2	8.1	205	7.0	177	11.1	283	40.8	18.5
24031	DGS2-240	240	2	8.1	205	7.0	177	11.1	283	48.5	22.0
24032	DGS2-300	300	2	8.1	205	7.0	177	11.1	283	58.4	26.5
24033	DGS2-345	345	2	11.1	282	7.0	177	11.1	283	68.3	31.0
24034	DGS2-405	405	2	11.1	282	7.0	177	11.1	283	78.3	35.5
24035	DGS2-465	465	2	11.1	282	7.0	177	11.1	283	87.1	39.5

1 - Based on 8-hour rate to 1.75 Vpc @ 77°F (25°C)

Performance Specifications

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

1.75 Vpc																
Type	Minutes					Hours										
	1	5	10	15	30	1	1.5	2	3	4	5	6	8	10	12	24
DGS6-100	435	340	247	196	123	72.7	51.5	40.7	28.9	22.7	18.7	16.1	12.6	10.3	8.9	4.8
DGS6-115	515	404	294	233	145	85.5	60.3	47.4	33.6	26.3	21.6	18.5	14.4	11.8	10.2	5.6
DGS6-135	602	472	344	272	170	99.7	69.9	54.9	38.8	30.4	25.1	21.5	16.9	14.0	11.9	6.5
DGS6-155	686	538	393	311	194	113	79.8	62.6	44.4	34.7	28.7	24.6	19.4	16.1	13.8	7.5
DGS4-185	782	609	443	351	221	130	92.3	72.8	51.9	40.8	33.9	29.1	23.0	19.2	16.5	9.2
DGS4-205	875	673	495	392	245	145	103	81.3	58.3	45.9	38.1	32.8	25.8	21.3	18.2	10.1
DGS4-225	985	731	549	437	272	160	113	89.6	64.2	50.6	42.0	36.1	28.2	23.3	19.9	10.7
DGS2-180	595	512	396	318	205	126	92.4	74.8	54.8	43.3	35.7	30.4	23.2	18.7	15.7	8.1
DGS2-240	793	683	527	424	273	168	124	99.7	73.0	57.7	47.7	40.5	31.0	25.0	20.9	10.9
DGS2-300	1002	860	669	537	341	210	156	127	93.2	73.9	60.9	51.5	39.0	31.2	26.0	13.4
DGS2-345	917	839	729	628	420	248	176	141	103	82.1	68.3	58.3	44.7	35.9	29.9	14.1
DGS2-405	1071	979	851	733	491	289	206	165	121	96.0	79.8	68.2	52.3	42.1	35.1	16.7
DGS2-465	1223	1119	972	838	560	330	235	188	138	110	91.6	78.3	60.2	48.4	40.3	19.2

Discharge Rates in Watts/Cell @ 77°F (25°C)

1.67 Vpc																
Type	Minutes					Hours										
	1	5	10	15	30	1	1.5	2	3	4	5	6	8	10	12	24
DGS6-100	887	679	484	379	236	140	99.6	79.0	56.3	44.3	36.7	31.2	24.4	19.9	16.8	8.9
DGS6-115	1052	809	579	452	279	164	116	91.7	65.2	51.2	41.9	35.7	27.8	22.7	19.2	10.3
DGS6-135	1226	943	674	527	326	192	136	107	75.9	59.4	48.8	41.5	31.9	26.1	22.3	11.7
DGS6-155	1402	1079	771	603	373	219	155	122	86.5	67.6	55.6	47.4	36.7	29.9	25.4	13.4
DGS4-185	1597	1222	871	682	424	252	179	142	101	79.8	65.9	56.7	43.8	36.1	30.9	16.5
DGS4-205	1769	1359	971	759	470	279	199	158	114	89.1	73.6	62.8	48.9	40.2	34.0	17.5
DGS4-225	1949	1437	1061	838	521	306	216	171	123	96.3	79.8	68.5	54.1	44.8	38.1	21.1
DGS2-180	1255	1060	800	635	400	246	180	145	106	83.4	69.0	57.7	43.3	35.0	28.8	14.4
DGS2-240	1670	1410	1063	851	541	327	235	187	135	107	88.6	75.2	58.7	48.4	41.2	21.6
DGS2-300	2094	1767	1332	1058	668	409	300	242	177	140	114	96.8	73.1	58.7	48.4	24.7
DGS2-345	1788	1645	1405	1193	800	483	346	275	199	158	131	111	84.5	68.0	55.6	22.7
DGS2-405	2072	1935	1640	1395	942	566	399	312	220	172	142	123	95.8	79.3	69.0	39.1
DGS2-465	2385	2201	1882	1599	1068	644	460	367	266	210	174	147	112	89.6	73.1	30.9

All data subject to change without notice.

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