

Douglas Guardian® VRLA Batteries



RELIABLE POWER. When You Need It. Wherever You Need It.

The need for batteries continues to grow. From toys, alarm systems, emergency lighting, machine operation, wheelchairs, medical equipment and back-up systems, just to name a few, the Douglas Guardian® line offers the right battery for your application needs. There are 4, 6 and 12 volt models that range from 1 Ah to 100 Ah. The valve regulated, spill-proof construction of the Guardian® line allows trouble-free safe operation in any position. Guardian® batteries use state of the art design, high-grade materials and a controlled platemaking process to provide excellent capacity output per cell. Reliable power. When you need it! Wherever you need it!

- **Maintenance-Free, Spill-Resistant Construction** — Never need to add water. Battery can be installed in any position without fear of leakage.
- **Longer Service Life** — Heavy-duty lead calcium alloy provides longer life and an extra margin of performance
- **Longer Shelf Life** — A fully charged battery can be stored up to a year without recharging. (Under normal operating conditions at room temperature)
- **Wide Operating Temperatures** — Battery can hold a minimum of 80% capacity at -40°F to 140°F (-40°C to 60°C)
- **High Recovery Capacity From Deep Discharge** — Special separators, advanced high density plate composition combined with balanced electrolyte have greatly improved recovery time
- **No Memory Effect** — Delivers full capacity when required whether used in cyclic or stand-by applications
- **Universal Terminal** — Available on some models to replace both the "J" and "S" terminals
- **Fold-Down Suitcase Handle** — See product photo above. Handle may be folded in either direction for maximum fit and ease of storage. See chart on back for availability.

Call Customer Service (1-888-368-4527) for ordering information!



dependability
strength
technology
Quality Power
performance
reliability
GUARDIAN

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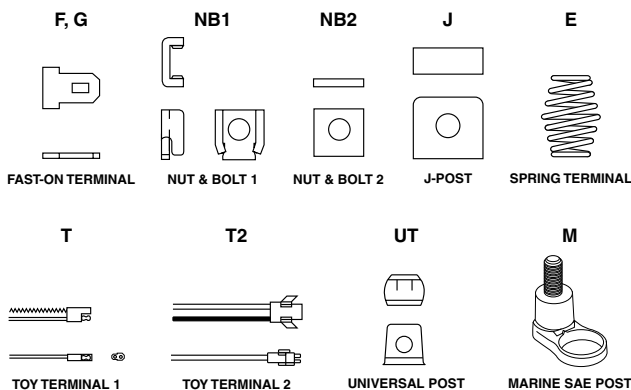
Product Specifications

Item No.	SLA Type	BCI Size	Volt	Capacity (Ah)		Case Qty.	Length		Width		Height		TH (mm.)	Weight		Handle	Terminal
				20 hr	8 hr		in.	mm.	in.	mm.	in.	mm.		lb.	kg.		
4 Volt Models																	
228	DG4-10F	N/A	4	9	8.8	10	4.02	102	1.73	44	3.74	95	101	1.90	1.24		F
6 Volt Models																	
229	DG6-1F	N/A	6	1	0.9	20	2.00	51	1.65	42	2.05	52	58	0.61	0.28		F
231	DG6-4F	N/A	6	4	3.5	10	2.64	67	2.64	67	3.74	95	101	2.27	1.03		F
232	DG6-4E	N/A	6	4	3.5	10	2.64	67	2.64	67	3.74	95	114	2.27	1.03		E
234	DG6-5F	N/A	6	4	4.4	20	2.76	70	1.89	48	4.01	102	108	2.07	0.94		F
233	DG6-7F	N/A	6	7	6.2	10	5.95	151	1.34	34	3.70	94	100	3.21	1.46		F
264	DG6-8F	N/A	6	8	7	10	3.90	99	2.25	57	4.65	118	118	3.56	1.62		F
236	DG6-9.5A	N/A	6	9.5	8.4	5	4.26	108	2.80	71	5.56	141	141	4.75	2.16		F
263	DG6-9.5T	N/A	6	9.5	8.4	5	4.26	108	2.80	71	5.56	141	141	4.71	2.14		T
250	DG6-9.5T2	N/A	6	9.5	8.4	5	4.26	108	2.80	71	5.56	141	141	4.71	2.14		T2
238	DG6-10F	N/A	6	10	9	10	5.95	151	1.97	50	3.70	94	100	4.80	2.18		F
239	DG6-12A	N/A	6	12	11	5	4.26	108	2.80	71	5.56	141	141	5.19	2.36		F
245	DG6-36G	N/A	6	36	32	2	6.34	161	3.43	87	6.38	162	174	14.41	6.55		G
246	DG6-36NB	N/A	6	36	32	2	6.34	161	3.43	87	6.38	162	174	14.41	6.55		NB2
12 Volt Models																	
247	DG12-1.2F	N/A	12	1.2	0.6	20	3.82	97	1.69	43	2.01	51	57	1.53	0.70		F
237	DG12-4.5F	N/A	12	4.5	4.4	10	3.55	90	2.76	70	4.02	102	108	3.96	1.80		F
252	DG12-7F	N/A	12	7	6.2	5	5.95	151	2.56	65	3.70	94	100	6.07	2.76		F
235	DG12-18NB	N/A	12	18	16	4	7.13	181	2.99	76	6.58	167	167	13.31	6.05		NB1
262	DG12-32JH	U1	12	35	28	1	7.72	196	5.10	130	6.10	155	179	25.74	11.70	✓	J
417	DG12-45UTR	22NF	12	45	38	1	8.98	228	5.44	138	8.00	203	224	41.80	19.00	✓	UT
418	DG12-55UTH	45	12	55	48	1	8.98	228	5.44	138	8.00	203	219	41.80	19.00	✓	UT
419	DG12-70UTH	24	12	70	62	1	10.24	260	6.62	168	5.12	206	222	48.84	22.20	✓	UT
420	DG12-80UTH	24	12	80	70	1	10.24	260	6.62	168	8.12	206	222	60.72	27.60	✓	UT
283	DG12-80M	24	12	80	70	1	10.24	260	6.62	168	8.12	206	222	60.72	27.60	✓	M
421	DG12-100UTH	27	12	100	88	1	12.10	307	6.58	167	8.16	207	229	78.14	35.52	✓	UT
444	DG12-100M	27	12	100	88	1	12.10	307	6.58	167	8.16	207	N/A	78.14	35.52	✓	M

* - Ah based on 1.75 Vpc @ 77°F (25°C). All data subject to change. Effective December 1, 2002.

"UT" is defined as universal terminal. "R" is defined as reverse polarity and "H" is defined as "with handle"

Terminal Types



Charge Voltage. Guardian batteries perform well both at low and high temperatures. For maximum life, temperature compensation is recommended when the operating temperature is outside the range of 68° to 77°F (20° to 25°C).

Storage. The shelf life of Guardian batteries is affected by temperature. The lower the storage temperature, the longer the shelf life. A low self-discharge rate (about 3% capacity per month) permits storage of fully charged batteries for up to 1 year at room temperature before charging is required.

Recharging. Recharge time depends on the current available and the depth of discharge. The initial charge current should not exceed 0.20 x C Amps and the charging voltage should conform to the table below. The battery is fully charged when the current drops to approximately 0.01 x C Amps (1.0% of rated capacity).

RECOMMENDED CHARGE VOLTAGE

Float Use	Cycle Use
2.25-2.30 Vpc	2.40-2.45 Vpc



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M-0529 Eff. 12-02 10K-HA