Long Duration GEL

7Ah – 190Ah

APPLICATIONS

- WIRELINE
- WIRELESS
- MICROWAVE
- MOBILE SWITCHING SYSTEMS
- PBX SYSTEMS
- BROADBAND HEADEND
- SWITCHGEAR
- DATA CENTERS
- ALTERNATIVE ENERGY

Long Duration Gel (LDG) Valve Regulated Lead Acid batteries are designed to provide the latest advancement in plate and battery technology offering high energy densities, exceptional service life, low self discharge, high cycling capabilities and low float charge current characteristics.

LDG VRLA batteries with a patented Nano-gel technology are specifically designed for outdoor applications where deep cycling and high temperatures are experienced while offering superior heat dissipation and the highest level of reliability and service longevity.

LDG VRLA batteries are manufactured in compliance with Telcordia, NEBS, GR, and SR standards, IEC, BS, and UL safety and performance standards.

LDG VRLA batteries can be integrated with Energy Storage Technologies modular, 4-post and industry standard 19" and 23" power distribution rack systems.

FEATURES

- 12-Year Design Life >20Ah; 8-Year Design Life<20Ah
- Initial capacity at 100%
- Advanced Nano-gel Technology
- Recombination efficiency of 99.9%
- Flame Retardant ABS Cover and Container, UL94 V-0, LOI>28%
- 6 month of storage at 77°F (25°C) capacity > 86%
- Low pressure one-way flame arresting valve(s) UL924
- High reliability tongue-n-groove case to cover seal
- Proprietary 3 part post-to-cover seal ensuring operating service life integrity
- Copper alloy insert front and top terminals
- UL Recognized Component
- Classified as Nonspillable UN 2800 (no air, ground, or sea transportation restrictions)
- Monoblock 6v & 12v construction

Pb

Recycling Services

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INDUSTRY COMPLIANCE

- NEBS Version 4, Level 3, EUROBAT Guide, BS6290 Part 4, IEC 60896-21/-22
- Telcordia GR-1089-CORE Issue 4, GR-63-CORE Issue 4, SR-4228, GR-1200-CORE Issue 1
- UL Recognized Component 924 & UL Certified Vertical Flame Test Rating 94V-0
- ISO9001:2000 ISO14001

SEISMIC

- NEBS Earthquake Risk Seismic Zone 4 Compliant
- Exceeds 1997 UBC Zone 4 seismic requirements for at or below grade installations
- Exceeds 2007 IBC requirements for 125% g level

TRANSPORTATION

- Classified as Nonspillable UN 2800 and meet the Nonspillable criteria listed in DOT-CFR Title 49, 171-189 (d) (3) (i) and (ii) and exempt from CFR 49, Subchapter C requirements
- Meets transportation conditions of IMDG exemption 238, IATA/ICAO Special Provision A67 (Not Restricted)

SPECIFICATIONS

Float Charging Voltage	Equalize /Cycle or Freshening at Installation Charging Voltage
2.25Vpc to 2.27Vpc @ 77°F (25°C)	2.35Vpc to 2.40Vpc @ 77°F (25°C)
See Operations and Maintenance Manual for specific guidelines and recharge times	

Charging Temperature Compensation	-2 mV/cell/°F > 77°F (-3.6 mV/cell /°C > 25°C)
	+2 mV/cell/°F < 77°F (+3.6 mV/cell/°C < 25°C)

Maximum AC Ripple (Charger)	Maximum Charge Current
0.5% RMS, 1.5% peak-to-peak for float charge voltage for best results	C_5 Rate Amps (5 hour rate @ 1.75vpc)

Electrolyte	Self Discharge Rate
Absorbed 1.300 s.g. H_2SO_4	<2% per month at 77°F (25°C)

Relief Valve	Self Resealing; Operates at 2 to 3 psi and is complete with integral flame arrestor

Terminal Type	Torque / Retorque
F2 (0.25" Tab Terminal)	N/A
M6-F (<70Ah)	60 in-lbs (7 Nm) / 48 in-lbs (5.6 Nm)
M6-M / M6-F (>70Ah)	90 in-lbs (10 Nm) / 78 in-lbs (8 Nm)
M6-M (Male)	60 in-lbs (7 Nm) / 48 in-lbs (5.6 Nm)
M8-F (Female)	90 in-lbs (10 Nm) / 78 in-lbs (8 Nm)

Operating Temperature Range	
Nominal	Discharge
+74°F (24°C) to 80°F (27°C)	-40ºF (-40ºC) to +140ºF (60ºC)
Charge	Storage Temperature Range
-20ºF (-28ºC) to +122ºF (50ºC)	-4ºF (-20ºC) to +104ºF (40ºC)

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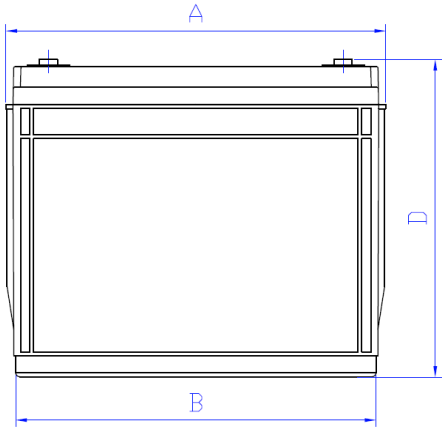
PHYSICAL PROPERTIES - DIMENSIONS

A



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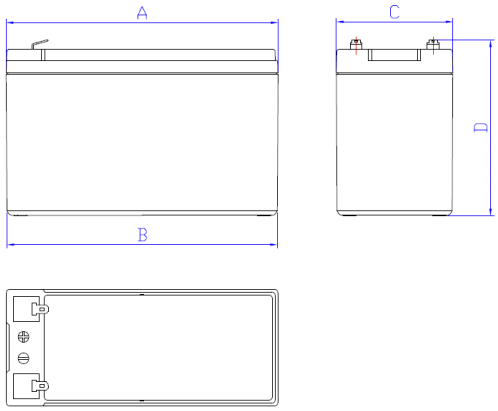

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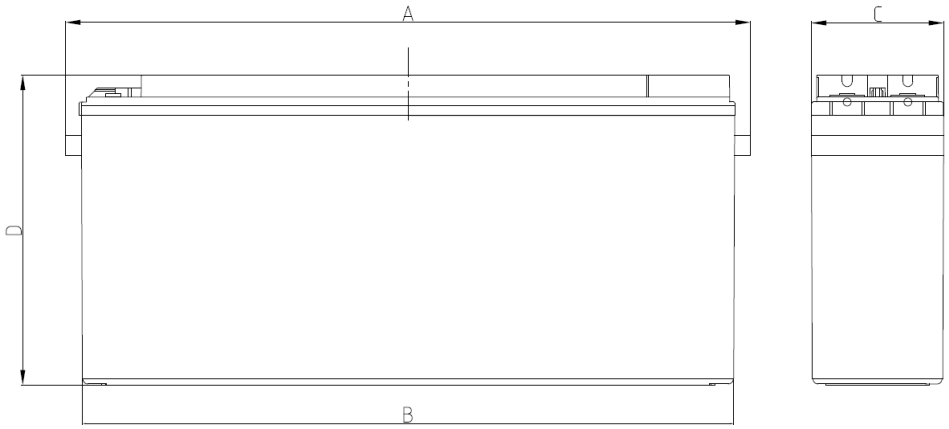

PHYSICAL PROPERTIES – DIMENSIONS

Model	V	Ah @ 8 hr to 1.75 77°F	Length (a)		Length Base (b)		Width (c)		Total Height (d)		Weight		Term. Type	Batt. Type
			in	mm	In	mm	in	mm	in	mm	lbs.	kg		
LDTG12-7	12	7	5.94	151	-	-	2.56	65	3.98	101	4.74	2.2	F2	C
LDTG12-28 ‡	12	26.6	6.50	165	-	-	4.93	125	6.89	175	22.0	10.0	M6-F	A
LDTG12-30 ‡	12	30.4	7.70	196	-	-	5.10	130	7.10	180	23.2	10.5	M6-F	A
LDTG12-45 ‡	12	49.4	9.02	229	-	-	5.44	138	8.46	215	40.0	18.0	M6-F	A
LDTG12-70	12	68.4	10.20	259	-	-	6.65	169	8.41	215	52.0	23.5	M6-F	A
LDTG12-80	12	81.7	12.09	307	-	-	6.65	169	8.50	216	64.0	29.0	M6-F	A
LDTG12-90 ‡	12	89.3	12.02	305	-	-	6.62	168	8.35	212	70.0	32.0	M6-F	A
LDTG12-100	12	91.2	12.64	321	-	-	6.78	172	8.75	222	70.4	32.0	M6-F	A
LDTG12-125	12	121.6	13.43	341	12.90	328	6.80	172.5	11.34	288	91.3	41.5	M6-F	A
LDTG6-200	6	190	12.68	322	-	-	6.93	176	9.09	231	70.6	32.0	M8-F	A

‡ Batteries available with SLC Harness (-S to suffix) or with a Charge Controller Harness (-C to suffix)

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Model No.	V	Ah @ 8 hr to 1.75 77°F	Length (A)		Length Base (B)		Width (C)		Total Height (D)		Weight		Term. Type	Batt Type
			in	mm	in	mm	in	mm	in	mm	lbs.	kg		
LDG12-55F	12	50	10.9	227	10.9	227	4.2	106	8.8	223	40	18.0	M6-F	B
LDG12-90F	12	89	15.6	395	14.3	362	4.1	105	10.6	270	66	30.0	M6-F	B
LDG12-100F	12	100	15.6	395	15.6	395	4.1	110	11.2	282	71	32.0	M6-F	B
LDG12-105F	12	100	21.7	552	21.7	552	4.3	110	9.4	239	72	33.0	M6-F	B
LDG12-125F	12	125	17.02	433	16.41	417	6.81	173	9.37	238	84	38.0	M6-F	B
LDG12-150F	12	150	21.7	551	21.7	551	4.3	110	11.2	282	100	45.0	M6-F	B
LDG12-155F	12	150	22.4	560	20.9	530	4.9	125	11.2	282	100	45.0	M6-F	B
LDG12-160F	12	152	17.02	433	16.41	417	6.81	173	9.37	238	84	38.0	M6-M	B
LDG12-170F	12	162	22.4	560	20.7	526	4.9	125	12.4	316	117	53.0	M6-F	B
LDG12-180F	12	172	23.4	561	21.7	527	5.9	126	13.4	317	118	54.0	M6-F	B
LDG12-190F	12	181	22.4	560	20.7	526	4.9	125	12.4	316	132	60.0	M6-F	B

Constant Current Discharge in Amps to 1.75vpc at 77°F (25°C)

Model	Operating Time (hours)										
	0.5	1	1.5	2	3	4	5	6	8	10	20
LDTG12-7	7.9	4.8	3.8	2.9	1.8	1.5	1.2	1.1	0.8	0.6	0.3
LDTG12-28	29.8	17.9	14.4	10.8	6.7	5.5	4.3	4.3	3.3	2.5	1.3
LDTG12-30	30.6	19.9	16.1	12.2	8	6.6	5.8	4.9	3.8	3.1	1.6
LDTG12-45	53.1	34.4	28.2	21.7	14.4	12.1	9.5	8.2	6.2	5.3	2.7
LDTG12-70	76.2	45.2	36.5	27.8	18.3	15.1	11.8	11.2	8.5	7.2	3.7
LDTG12-80	93.1	54.3	43.8	33.3	21.9	18.1	14.1	13.4	10.2	8.6	4.4
LDTG12-90	101.4	59	47.6	36.2	23.9	19.7	15.4	14.6	11.2	9.4	4.8
LDTG12-100	103.5	60.3	48.7	37	24.4	20.1	15.7	14.9	11.4	9.5	4.9
LDTG12-125	138.7	80.8	65.2	49.6	32.6	26.9	21	20	15.2	12.8	6.6
LDTG6-200	222.0	129	104.1	79.2	52.1	43	33.7	32	24.4	20.5	10.5

LDG12-55F	58.0	33.3	26.8	20.3	13.4	11.1	8.6	7.9	6.3	5.2	2.8
LDG12-90F	96.5	56.4	40.6	32.2	23.3	18.5	15.7	13.4	10.4	8.6	4.7
LDG12-100F	112.8	65.9	47.4	37.6	31.3	24.1	20.0	17.4	12.4	10.4	5.5
LDG12-105F	110.2	66.5	47.9	38.0	27.5	21.9	18.5	15.9	12.4	10.2	5.4
LDG12-125F	146.1	85.5	61.4	48.7	35.3	28.0	23.7	20.3	15.6	13.1	6.9
LDG12-150F	165.4	96.7	69.5	55.2	40.0	31.7	26.9	23.0	17.8	14.8	7.9
LDG12-155F	176.9	103.4	74.4	59.0	42.7	34.0	28.7	24.6	19.0	15.9	8.4
LDG12-160F	179.6	105.0	75.5	59.9	43.4	34.5	29.2	25.0	19.3	16.1	8.6
LDG12-170F	188.6	110.3	79.2	63.0	45.6	36.2	30.7	26.2	20.2	16.9	9.0
LDG12-180F	199.2	116.6	83.8	66.5	48.2	38.3	32.4	27.7	21.4	17.9	9.5
LDG12-190F	210.1	122.8	88.4	70.1	50.8	40.4	34.1	29.3	22.6	18.8	10.1

