

# PLH Series Long Standby Life Battery

## PLH190FT (12V190AH)

The Exponential Power PLH Series range of VRLA batteries are well suited to provide battery backup in outdoor application long duration or outside plant application.

All Exponential Power PLH Series batteries use CCPP plate technology offering exceptional service life.



Ah @ 8hr 1.75 vpc/77°F (25°C)	191 Ah		
Ah @ 10hr 1.80 vpc/77°F (25°C)	199 Ah		
Nominal Voltage	12V		
Max. Charge Current (A) (5 hour rate @ 1.75 vpc)	48 Amps		
Electrolyte Absorbed H <sub>2</sub> SO <sub>4</sub>	1.300		
Short Circuit Current (A)	2978 Amps		
Internal Resistance (mΩ)	4.26		
Terminal Type	Torque		
M6-M (Front L Bracket)	78 in-lbs (8 ±1 Nm)		
M6-F (Top Insert)	78 in-lbs (8 ±1 Nm)		
Dimension	in	mm	
Length	21.8	554	
Length Base	20.9	530	
Width	4.9	125	
Overall Height	12.4	316	
	Lbs.	Kg	
Weight	131	59.3	
CLEI	PBMYAGGSRA	CPR	217346

### Technical Features:

- Flame Retardant ABS Cover and Container, UL94 V-0, LOI>28%
- Epoxy TPS design for high reliability post seal
- 24 months of storage at 68°F (20°C)
- Initial capacity at 100%
- Low pressure one-way flame arresting valve(s) UL1989
- Absorbent Glass Mat (AGM) Sealed Technology, Recombination efficiency of 99.9%

### Compliance and Safety:

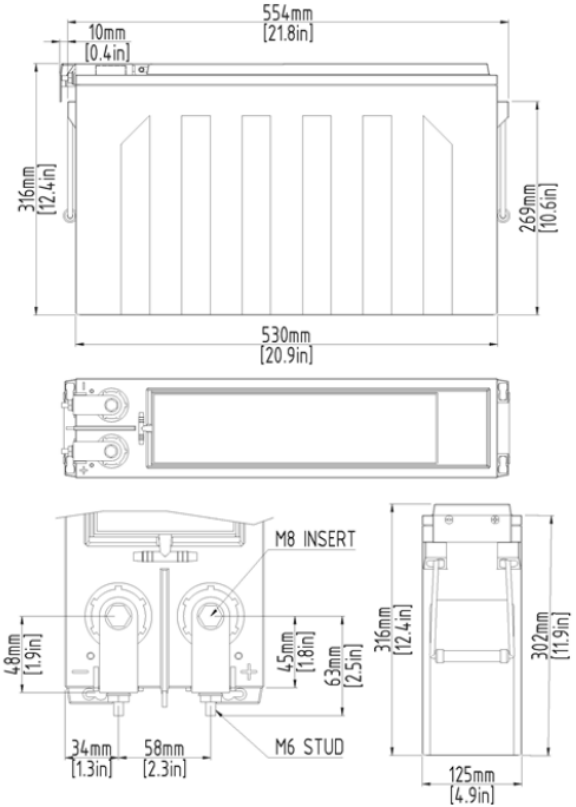
- **ISO 9001:2000 and ISO 14001:2004 certified facilities**
- UL Recognized Component 924, for use in or with listed UL1778, UL1989 and UL924 systems
- IEC60896-21/22 / BS6290 part 4
- Certified to NEBS Version 8, Level 3
- Telcordia GR-1089-CORE, Issue 6
- Telcordia GR-63-CORE, Issue 4
- **Manufactured under system ISO9001(TUV)**
- Battery installation compliant with: EN 50272-2 or local equivalents
- NEBS Earthquake Risk Seismic Zone 4 Compliant

### 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 IEC60896-21/22 / BS6290 part 4
- Meets transportation conditions of IMDG exemption 238, IATA/ICAO Special Provision A67 (Not Restricted)

# Operating Parameters

Floating Charging Voltage	13.5 V / 2.25vpc @ 77°F (25°C)
Equalize Cycle	14.0V – 14.3V 2.33Vpc to 2.38Vpc @ 77oF (25oC)
See Operations and Maintenance Manual for specific guidelines and recharge times	
Changing 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)	0.5% RMS, 1.5% peak-to-peak for float charge voltage for best results
Operating Temperature Range	
Nominal	+74°F (24°C) to 80°F (27°C)
Charge	-20°F (-28°C) to +122°F (50°C)
Discharge	40°F (-40°C) to +140°F (60°C)
Storage Temperature Range	-4°F (-20°C) to +104°F (40°C)



## Constant Current Discharge (Amps) at 77°F (25°C)

End vpc	5m	15m	30m	45m	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.67	481	309	206	157	127.6	74.8	53.6	42.1	34.8	29.7	23.2	20.8	17.8	11.4	9.7
1.70	465	302	203	155	126.6	74.6	53.6	42.1	34.8	29.6	23.1	20.6	17.5	11.2	9.5
1.75	425	273	191	150	124.6	74.4	53.5	42.0	34.7	29.5	22.9	20.0	16.6	9.5	7.8
1.80	352	246	180	145	121.6	74.3	53.4	41.8	34.6	29.3	22.3	19.1	15.6	8.5	6.7
1.83	328	233	172	140	117.6	74.1	53.1	41.6	34.4	29.1	21.8	18.7	15.3	8.5	6.7
1.85	312	220	163	133	112.6	71.1	52.2	41.1	33.8	28.5	21.5	18.6	15.3	8.3	6.6
1.86	304	214	158	129	110	69.5	51.7	40.9	33.5	28.2	21.4	18.5	15.1	8.21	6.48

## Constant Power Discharge (Watt/Cell) at 25°C (77°F)

End vpc	5m	15m	30m	45m	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.67	847	568	390	303	248.2	148.7	107.5	84.9	71.1	60.2	46.9	42.0	35.8	22.7	19.40
1.70	819	552	383	298	246.2	148.7	107.5	84.8	71.0	60.1	46.9	41.8	35.5	22.2	18.79
1.75	757	513	364	288	240.1	147.7	107.5	84.6	70.8	60.0	46.6	41.1	34.5	20.70	17.09
1.80	638	457	341	277	236.1	147.7	107.5	84.5	70.6	59.8	45.6	39.4	32.4	18.89	16.18
1.83	600	436	329	268	229.1	146.7	106.5	84.3	70.5	59.6	45.0	38.8	31.9	17.59	14.97
1.85	573	417	316	258	221.1	142.7	105.5	83.7	69.0	58.6	44.4	38.5	31.8	16.48	14.07
1.86	559	408	309	253	217	141	105	83.4	68.3	58.1	44.1	38.3	31.7	15.9	13.6