



PL-12420FT
Pure Lead
PL - Pure Lead



Thin Plate Pure Lead batteries designed for telecom and UPS racks. High energy density and robust grid design enable reliable backup with streamlined service access for telecom applications.

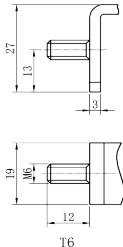
Performance Specs

Nominal Voltage	12.0 Volts, (6.0 cells)
Nominal Capacity	
20-hr. (2.1A to 10.8 Volts)	42.0Ah
10-hr. (3.8A to 10.8 Volts)	38.0Ah
5-hr. (7.090000000000001A to 10.2 Volts)	35.45Ah
1-hr. (27.4A to 9.6 Volts)	27.4Ah
Approximate Weight	27.55lbs, (12.5kg)
Dimensions	L: 11.76in, 298.7mm
+/- 0.08 in. (+/- 2mm) for length, width, and height dimensions	W: 3.82in, 97.0mm
	H: 7.24in, 184.0mm
	TH: 7.24in, 184.0mm
Internal Resistance (approx.) mΩ	6.0mΩ
Max Short Circuit Discharge Current	760.0A
Operating Temperature Range	
Charge	-4°F (-20°C) to 129°F (54°C)
Discharge	-40°F (-40°C) to 149°F (65°C)
Case	ABS+PC Plastic Rated to UL94:V0
Recommended Power-Sonic Charger	PSC-1212000ACX

Configuration Options

- PL-12420FT FR M6

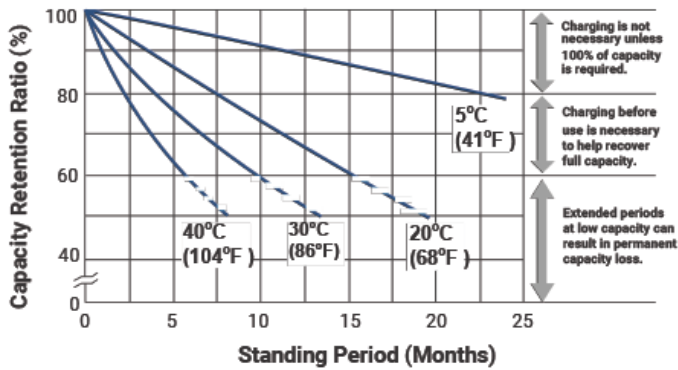
Available Terminals (mm)



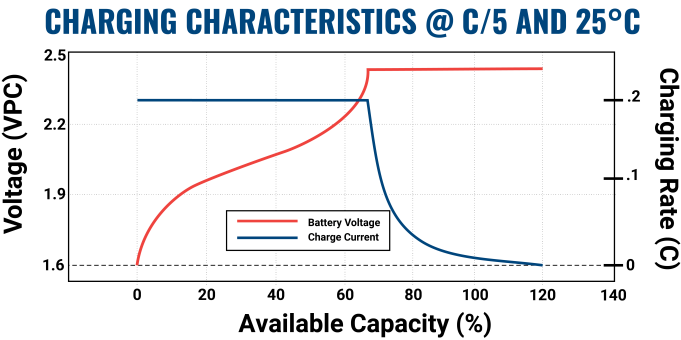
To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website. © 2026. Power-Sonic Corporation. All rights reserved. All trademarks are the property of their respective owners. All data subject to change without notice. E&O.

Graphs

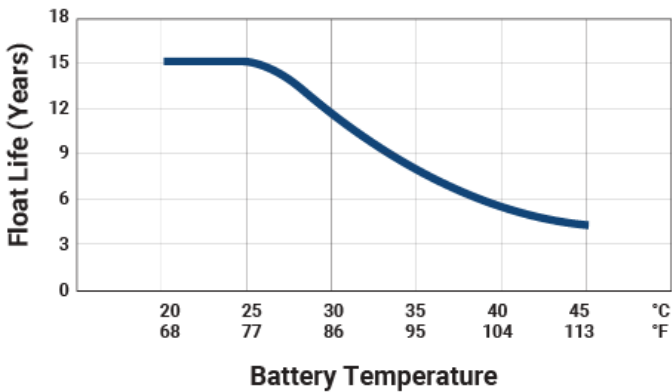
Capacity Retention TPPL



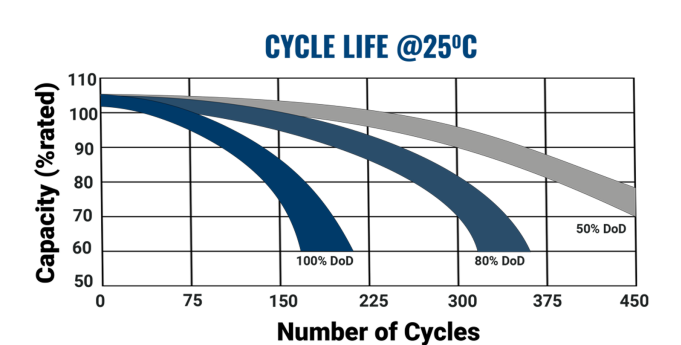
SLA Charging



SLA Float Life 20YR



TPPL Cycle Life



Constant Current

VoltageOverTime	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	110.6	85.1	69.0	50.0	35.7	27.4	20.2	16.6	11.1	8.69	7.31	6.23	4.93	3.97	2.26
1.65V/cell	107.5	83.2	67.6	49.3	35.4	27.3	20.1	16.5	11.0	8.7	7.2	6.17	4.89	3.95	2.22
1.67V/cell	104.9	81.6	66.5	48.8	35.1	27.2	20.1	16.5	11.0	8.65	7.2	6.13	4.86	3.94	2.18
1.70V/cell	96.7	76.8	63.5	47.5	34.5	26.8	19.9	16.4	10.9	8.63	7.09	6.04	4.8	3.86	2.17
1.75V/cell	91.9	73.7	61.6	46.2	33.8	26.3	19.6	16.2	10.8	8.59	6.96	5.95	4.75	3.86	2.15
1.80V/cell	86.7	70.5	59.0	44.8	32.9	25.6	19.3	16.1	10.7	8.56	6.8	5.82	4.66	3.8	2.12
1.85V/cell	77.7	64.2	55.1	42.7	31.7	24.7	18.8	15.9	10.6	8.5	6.63	5.68	4.57	3.72	2.08

Constant Power

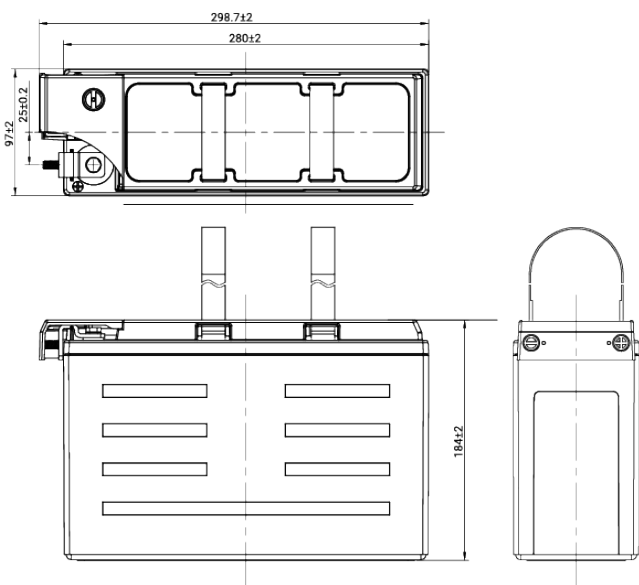
VoltageOverTime	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	194.0	152.4	126.0	93.5	68.2	52.7	39.2	32.4	21.8	17.2	14.5	12.4	9.82	7.94	4.57
1.65V/cell	191.2	150.6	124.5	92.9	68.0	52.8	39.2	32.4	21.7	17.2	14.4	12.3	9.8	7.93	4.48
1.67V/cell	189.0	149.2	123.4	92.4	67.8	52.8	39.2	32.4	21.7	17.2	14.4	12.3	9.76	7.92	4.41
1.70V/cell	176.0	141.9	118.8	90.4	66.9	52.2	38.9	32.3	21.7	17.2	14.2	12.1	9.66	7.79	4.4
1.75V/cell	169.8	137.8	116.4	88.6	65.9	51.6	38.5	32.0	21.5	17.2	13.9	11.9	9.57	7.8	4.36
1.80V/cell	161.9	133.1	112.4	86.6	64.7	50.4	38.1	32.0	21.4	17.1	13.7	11.7	9.4	7.72	4.32
1.85V/cell	147.4	122.8	106.0	83.1	62.6	49.0	37.5	31.8	21.2	17.1	13.4	11.5	9.26	7.58	4.25



Charging

Cycle Applications: Apply constant voltage charge at 2.35VPC – 2.45VPC (14.1 to 14.7 volts for 12V Monobloc) at 20°C. The initial charging current should be set at less than C/5 Amps. Switch to float charge when the current falls to a 3% capacity rate to avoid overcharging. **Stand-By or "Float" Service:** Apply constant voltage charge of 2.25VPC – 2.30VPC (13.5 to 13.8 volts for 12V Monobloc) at 20°C. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition. **Temperature Compensation:** Charging voltage for both cyclic and stand-by applications should be regulated in relation to ambient temperature. As temperature rises, charging voltage should be reduced to prevent overcharge and increased as the temperature falls to avoid undercharge. For further charging information, including temperature compensation factors, see the Power-Sonic Technical Manual.

Engineering Drawing



For Further Information

Please refer to our website, www.power-sonic.com, for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

Approvals



CE marking confirms a product meets EU safety, health, and environmental protection standards for battery and energy systems.



Conflict-free mineral certification ensuring ethical sourcing and transparent supply chain for responsible production.



Extended mineral reporting meets global supply chain transparency standards for responsible and ethical sourcing practices.



IEC 60896 standard ensures stationary lead-acid batteries meet safety, performance, and float charge application requirements.



ISO 9001:2015 certification ensures consistent quality management and manufacturing standards for energy storage products.



PFAS-free certification verifying environmentally responsible manufacturing of batteries and energy storage technologies.



California Proposition 65 compliant, providing consumer safety through reduced chemical exposure in battery manufacturing.



REACH compliant with EU chemical safety standards ensuring restricted substances are controlled in all battery components.



RoHS compliance ensures restriction of hazardous substances in electrical, electronic, and battery-powered products.



Sealed lead-acid batteries classified UN2800 non-spillable, certified safe for air, sea, and ground transport worldwide.



SVHC compliant with EU REACH regulations for Substances of Very High Concern used in electrical and energy storage products.



U.S. EPA TSCA compliance ensures toxic substances are regulated for safe manufacturing of batteries and electronic components.



UL 1989 certified for valve-regulated and vented lead-acid batteries used in UPS, emergency, and backup power applications.



UL Recognized mark certifies safety-tested components for electrical reliability in battery and energy storage systems.