



# PURE Pb+ PURE LEAD PLUS



Longer life VRLA battery reduces Total Cost of Ownership by up to 30% at operation up to 95 °F

## APPLICATIONS

- Data Centers
- Network Operations Centers
- Industrial Process Control Facilities
- Internet Housing Sites
- Semiconductor Manufacturing
- Banks & Financial Markets
- Power Generation Plants
- Hospitals & Testing Laboratories
- Emergency 911 Response Centers

## FEATURES & BENEFITS

- Advanced Pure Lead Paste Processing extends service life by 2 years compared with conventional VRLA technologies
- Published rates to 1 min at end of life
- Extended life at elevated ambient temperatures
- Store for 1 year at 77 °F without boost charging
- 12+ year design life @ 25°C
- Absorbent Glass Mat (AGM) technology for efficient gas recombination
- Patented Long Life Alloy
- Minimized grid growth, reduced gassing, and extended battery life
- Patented UL Recognized Flame-arresting vents in each cell for safety
- Designed with the same recombination, thermal runaway prevention, gassing and flame retardant characteristics of the Telcordia SR-4228 compliant TEL Series products
- Flame retardant polypropylene case and cover compliant with UL94-V2
- Advanced proprietary plate processing technology for high active material utilization - results in low float currents
- Thermally welded and helium leak tested case-to-cover bond ensures a robust leak proof seal
- Can be operated in any orientation.
- Not restricted for air transport - Complies with IATA/ICAO Special Provisions A67 for surface transport - Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189
- Not restricted for water transport - Classified as non-hazardous material per IMDG Amendment 27

## TECHNICAL DATA

Model	Cells Per Unit	Constant Power Ratings*		Capacity (Ah)*	Maximum Discharge Current (Amps)	Short Circuit Current (Amps @ 0.1 sec)	Ohms Impedance 60 Hz (Ω)**	Weight	
		5 min	15 min					lbs	kg
UPS12-305PLP	6	549.6	302.2	80	800	3600	0.0040	58.4	26.5
UPS12-355PLP	6	622.6	353.2	94	800	4200	0.0030	67.4	30.5
UPS12-405PLP	6	710.0	402.4	104	800	5100	0.0025	75.8	34.4
UPS12-495PLP	6	781.8	489.9	142	800	5000	0.0023	100.0	45.0
UPS12-545PLP	6	887.1	541.6	150	800	5000	0.0023	100.0	45.0
UPS12-605PLP	6	968.8	602.9	148	800	6448	0.0036	109.0	49.4

Note: Additional product details available on the C&D Battery Sizing Program at [www.cdstandbypower.net](http://www.cdstandbypower.net). Cabinet systems also available.

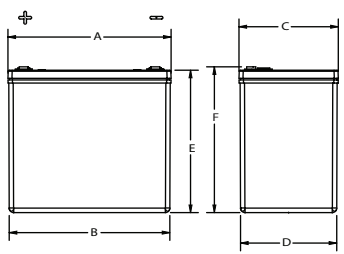
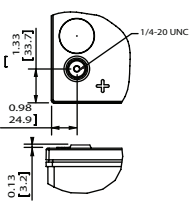
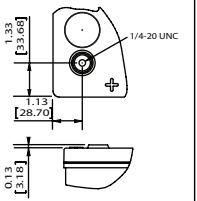
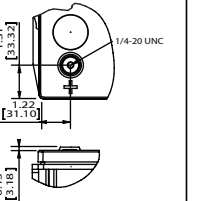
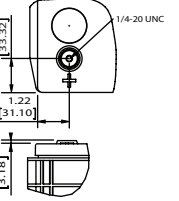
\* Constant power ratings are to 1.67 VPC @ 77°F (25°C) and capacity rated to 1.75 VPC @ 77°F (25°C). Above ratings do not include interunit connector voltage drops.

\*\* For reference only. Individual baselines recommended for diagnostic purposes.

## SPECIFICATIONS

<b>Operating Temperature Range with temperature compensation</b>	Discharge: -40°F (-40°C) to +160°F (+71°C) Charge: -10°F (-23°C) to +140°F (+60°C)
<b>Nominal Operating Temperature Range</b>	+74°F (+23°C) to +80°F (+27°C)
<b>Recommended Maximum Charging Current Limit</b>	C <sub>20</sub> /5 amperes (20 hr. rate)
<b>Float Charge Voltage</b>	13.65 ± 0.15 VDC average per 12V unit
<b>Maximum AC Ripple (Charger)</b>	0.5% RMS or 1.5% P-P of float charge voltage recommended for best results. Max voltage allowed = 1.4% RMS (4% P-P) Max current allowed = C/20 (20 hr. rate)
<b>Self Discharge</b>	Batteries can be stored up to 24 months at +77°F (+25°C) before freshening charge is required. Batteries stored at temperatures greater than +77°F (+25°C) will require recharge sooner than batteries stored at lower temperatures. See C&D brochure 41-7272, Self-Discharge and Inventory Control for details.
<b>Equalize and cycle service charge voltage</b>	14.40 to 14.80 VDC average per 12V unit @ +77°F (+25°C)
<b>Terminal: Inserted</b>	Threaded copper alloy insert terminal accepts 1/4-20 UNC bolt
<b>Terminal Hardware Initial Torque: Inserted Terminal</b>	110 in.-lbs. (12.4 N-m)

## DIMENSIONS

							Battery Termination			
							UPS 12-305PLP	UPS12-355PLP	UPS12-405PLP	UPS12-495PLP/UPS12-545PLP UPS12-605PLP
	A	B	C	D	E	F				
UPS12-305PLP	10.27 [260.9]	10.17 [258.4]	6.83 [173.4]	6.65 [168.9]	7.89 [200.3]	8.01 [203.5]				
UPS12-355PLP	12.04 [305.8]	11.95 [303.5]	6.83 [173.4]	6.65 [168.9]	7.94 [201.6]	8.06 [204.8]				
UPS12-405PLP	13.42 [340.9]	12.75 [323.7]	6.80 [172.7]	6.54 [166.0]	8.40 [213.2]	8.52 [216.4]				
UPS12-495PLP UPS12-545PLP UPS12-605PLP	13.57 [344.7]	12.74 [323.6]	6.80 [172.7]	6.63 [168.4]	10.81 [274.5]	10.93 [277.7]				

**Note:** All dimensions in inches [mm]. All dimensions are for reference only. Contact a C&D Representative for complete dimension information. Batteries to be mounted with 0.5 in [1.25 cm] spacing minimum and free air ventilation.

Pure Lead Plus Part Number	Manufacturer Approved Premium Replacement for:
UPS12-305PLP	UPS12-270FR, MR12-300 & UPS12-300MR
UPS12-355PLP	UPS12-310FR, MR12-350 & UPS12-350MR
UPS12-405PLP	UPS12-370FR, MR12-400 & UPS12-400MR
UPS12-495PLP	UPS12-475FR, MR12-490 & UPS12-490MR
UPS12-545PLP	UPS12-530FR, MR12-540 & UPS12-540MR
UPS12-605PLP	UPS12-540MR, UPS12-600MR & UPS12-600MRX

Note: Full string replacement only. Contact C&D for replacement of individual units within a string.

## UPS12-305PLP

End Point Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ +77°F (+25°C)										
	Operating Time to End Point Voltage (in minutes)										
	1	2	3	4	5	10	15	20	30	45	60
1.75	807.6	684.7	602.8	542.7	495.9	355.7	282.0	235	177.4	130.5	103.4
1.70	876.8	737.3	646.2	579.8	528.1	374.4	294.3	243.7	182.4	133.0	104.8
1.67	908.2	769.6	674.7	604.4	549.6	386.5	302.2	249.4	185.8	135.0	106.2
1.65	925.3	788.0	691.2	618.8	562.0	393.2	306.5	252.3	187.4	135.8	106.7
1.60	961.2	811.7	708.0	631.4	572.1	398.6	310.6	255.9	190.4	138.2	108.7

## UPS12-355PLP

End Point Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ +77°F (+25°C)										
	Operating Time to End Point Voltage (in minutes)										
	1	2	3	4	5	10	15	20	30	45	60
1.75	838.9	711.8	639.7	586.5	544.0	407.3	328.3	275.4	208.3	152.4	120.1
1.70	996.1	825.3	725.8	654.4	598.9	430.9	340.9	283.2	212.5	155.1	122.3
1.67	1,034.8	855.2	753.2	679.9	622.6	447.7	353.2	292.5	218.3	158.4	124.3
1.65	1,063.2	881.5	777.1	701.5	642.3	460.4	362.0	298.9	221.9	160.2	125.4
1.60	1,142.4	914.0	801.0	721.2	659.2	470.4	368.6	303.5	224.5	161.4	126.0

## UPS12-405PLP

End Point Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ +77°F (+25°C)										
	Operating Time to End Point Voltage (in minutes)										
	1	2	3	4	5	10	15	20	30	45	60
1.75	959.3	816.0	733.7	672.8	624.0	466.2	374.8	313.5	236.1	171.9	135.0
1.70	1,114.5	931.4	823.8	745.7	684.4	495.3	392.2	325.6	243.8	177.3	139.4
1.67	1,158.5	969.0	856.6	774.6	710.0	510.8	402.4	332.7	247.5	179.0	140.2
1.65	1,203.9	1,013.2	892.0	802.9	733.0	520.7	407.9	336.4	249.8	180.6	141.6
1.60	1,285.9	1,059.1	925.8	830.2	755.9	533.2	416.1	342.2	253.2	182.5	142.8

Note: Specifications subject to change without notification. Above ratings do not include interunit connector voltage drops.

## UPS12-495PLP

End Point Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ +77°F (+25°C)										
	Operating Time to End Point Voltage (in minutes)										
	1	2	3	4	5	10	15	20	30	45	60
1.75	980.9	827.3	758.0	707.3	666.4	529.8	445.0	384.8	303.3	230.0	185.0
1.70	1,128.9	957.9	866.6	799.9	746.7	574.8	473.5	404.2	313.8	235.5	188.6
1.67	1,190.8	1,008.1	910.2	838.8	781.8	597.8	489.9	416.3	321.1	239.4	190.9
1.65	1,211.0	1,037.3	937.1	863.0	803.6	611.9	499.8	423.8	325.8	242.3	192.9
1.60	1,337.7	1,101.6	985.0	901.6	836.0	628.6	510.2	431.0	329.9	244.5	194.4

## UPS12-545PLP

End Point Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ +77°F (+25°C)										
	Operating Time to End Point Voltage (in minutes)										
	1	2	3	4	5	10	15	20	30	45	60
1.75		937.9	850.5	787.8	737.8	575.0	477.3	409.4	319.7	240.8	193.1
1.70	1,331.9	1,105.8	990.9	908.2	842.9	635.5	516.5	436.5	334.4	247.9	197.1
1.67	1,401.7	1,158.4	1,040.3	954.9	887.1	668.8	541.6	455.8	346.2	254.0	200.4
1.65	1,469.0	1,220.4	1,091.9	998.8	925.0	690.0	555.4	465.6	352.1	257.6	203.0
1.60	1,508.7	1,259.2	1,123.9	1,025.7	947.9	701.8	562.4	470.2	354.4	258.8	203.8

## UPS12-605PLP

End Point Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ +77°F (+25°C)										
	Operating Time to End Point Voltage (in minutes)										
	1	2	3	4	5	10	15	20	30	45	60
1.75					868.2	689.7	556.9	465.0	351.8	260.9	208.8
1.70	1,142.0	1,084.5	1,029.9	978.2	929.4	726.6	582.1	479.1	357.7	263.4	210.4
1.67	1,198.2	1,136.3	1,077.3	1,021.4	968.8	752.7	602.9	496.0	366.0	266.8	212.1
1.60	1,299.1	1,228.3	1,161.6	1,098.8	1,040.0	798.8	629.8	518.3	378.6	273.1	215.9

Note: Specifications subject to change without notification. Above ratings do not include interunit connector voltage drops.

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