

# PLP

## PURE LEAD PLUS

The Smart Choice to Back You Up.

**C&D**  
**TECHNOLOGIES.**

**PLP**

**12-1121**



## BENEFITS



**Reduce Operating Costs** - Long life pure lead technology reduces battery replacements by up to 40% over traditional VRLA batteries\*



**Reduce Footprint** - Extensive portfolio to reduce footprint by up to 28% and battery quantity by up to 40% vs leading competitors



**Increased Reliability** - Designed specifically for safely handling sub-5 minutes of runtime without sacrificing long-term performance



**Reduce Cooling Costs** - Save on cooling costs and improve your environmental footprint with improved temperature on standard warranty

\*Assumes a replacement cycle based on standard warranty of 3 years for VRLA and 5 years for PLP over a 15-year UPS life

## FEATURES

- 12+ year design life @ 25°C (77°F) with storage capability of 2 years at 25°C (77°F) with minimum upkeep
- Standard warranty of 5 years at 30°C (86 F)
- MSE's Advanced proprietary paste processing for high active material utilization resulting in low float
- Patented Long-Life Alloy in the grids to minimize grid growth, reduce gassing, and extend battery life
- Available in both Top terminal and TFA (True Front Access) formats
- Our TFA design maximizes energy density and minimizes internal resistance by providing a direct connection from the plates to the terminals
- Published rates down to 1 minute
- Patented UL Recognized Flame-arresting vents in each cell for safety
- Thermally welded and helium leak tested case-to-cover bond ensures a robust leak proof seal
- Can be operated in any orientation

## TECHNICAL DATA

MODEL	VOLTAGE	CONSTANT POWER RATINGS		DIMENSIONS/MM (L*W*H*TOTAL HEIGHT)				WEIGHT	
		5 MIN	15 MIN	LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT	LBS	KG
UPS12-305PLP	12	571.3	315	260.9	173.4	200.3	203.5	58.4	26.5
UPS12-355PLP	12	685.3	365.5	305.8	173.4	201.6	204.8	67.4	30.5
UPS12-405PLP	12	710.0	402.4	340.9	172.7	213.2	216.4	75.8	34.4
UPS12-495PLP	12	812.8	492	344.7	172.7	274.5	277.7	100	45
UPS12-545PLP	12	920.1	542.0	344.7	172.7	274.5	277.7	100	45
UPS12-605PLP	12	968.8	602.9	344.7	172.7	274.5	277.7	109	49.4
UPS12-705PLPF	12	1,165.9	707	559	125	322	322	131	59.4
UPS12-1005PLPF	12	1,600.0	1010	559	154	322	322	188	85.3

## ADDITIONAL DATA

MODEL	TERMINAL	CELLS PER UNIT	MAXIMUM DISCHARGE CURRENT (AMPS)	SHORT CIRCUIT CURRENT (AMPS @ 0.1 SEC)	TERMINAL TYPE	TERMINAL TORQUE
UPS12-305PLP	Top	6	800	3600	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-355PLP	Top	6	800	4200	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-405PLP	Top	6	800	5100	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-495PLP	Top	6	800	5000	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-545PLP	Top	6	800	5000	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-605PLP	Top	6	800	6448	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-705PLPF	Front	6	900	7911	Insert (M8)	160 in.-lbs (18 N-m)
UPS12-1005PLPF	Front	6	1200	10109	Insert (M8)	160 in.-lbs (18 N-m)

**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>	C20/5 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>	Top Terminal Batteries: 1/4-20 UNC Bolt and Front Terminal Batteries: Insert (M8)
<b>TERMINAL HARDWARE INITIAL TORQUE: INSERTED TERMINAL</b>	Top Terminal Batteries: 110 in.-lbs (12.4 N-m) and Front Terminal Batteries 160 in.-lbs (18N-m)

## 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					515.5	362.4	293.9	235	177.4	130.5	103.4
1.70	868.9	742.7	666.9	592.6	549	381.5	306.8	243.7	182.4	133.0	104.8
1.67	900	775.2	696.3	617.7	571.3	393.8	315	249.4	185.8	135.0	106.2
1.65	916.9	793.7	713.3	632.4	584.2	400.6	319.5	252.3	187.4	135.8	106.7
1.60	952.5	817.6	730.7	645.3	594.7	406.1	323.8	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					598.8	429.1	339.7	275.4	208.3	152.4	120.1
1.70	1005.9	873.4	781.7	701	659.2	454	352.8	283.2	212.5	155.1	122.3
1.67	1045	905	811.2	728.3	685.3	471.7	365.5	292.5	218.3	158.4	124.3
1.65	1073.7	932.8	836.9	751.4	707	485.1	374.6	298.9	221.9	160.2	125.4
1.60	1153.7	967.2	862.7	772.5	725.6	495.6	381.4	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					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

## 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					701.3	542.5	445	384.8	303.3	230.0	185.0
1.70	1069.9	971.9	892.9	822.7	776.3	588.5	470.6	404.2	313.8	235.5	188.6
1.67	1128.6	1022.8	937.8	862.7	812.8	612.1	492	416.3	321.1	239.4	190.9
1.65	1147.7	1050.7	965.5	887.6	835.4	626.5	501.7	423.8	325.8	242.3	192.9
1.60	1268.1	1116.7	1014.8	927.2	869	643.6	512.4	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					765.2	581.8	477.3	409.4	319.7	240.8	193.1
1.70	1206.8	1105.8	1002.5	925.0	874.3	643.0	516.5	436.5	334.4	247.9	197.1
1.67	1270.0	1158.4	1052.5	972.6	920.1	676.7	542.0	455.8	346.2	254.0	200.4
1.65	1331.0	1220.4	1104.7	1017.3	959.4	698.2	555.4	465.6	352.1	257.6	203.0
1.60	1366.9	1259.2	1137.1	1044.7	983.2	710.1	562.4	470.2	354.4	258.8	203.8

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

## 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	351.8	260.9	208.8
1.70	1328.6	1201.6	1094.8	1006.2	945.8	726.6	582.1	479.1	357.7	263.4	210.4
1.67	1395.5	1260.7	1142.4	1047.1	968.8	752.7	602.9	496	366	266.8	212.1
1.65	1412.8	1277.4	1158.4	1061.3	989.6	761.1	605.8	499.4	368.2	268	212.8
1.60	1483.9	1336.8	1208.2	1105.7	1040	798.8	629.8	518.3	378.6	273.1	215.9

## UPS12-705PLPF

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					1,073.7	807.5	636.3	549.6	441.4	334.1	274.2
1.70	1,393.2	1,393.2	1,278.7	1,174.7	1,140.1	864.1	675.7	575.9	453.5	339.3	276.2
1.67	1,424.7	1,424.7	1,307.7	1,201.3	1,165.9	910.0	707.0	588.8	457.5	341.5	277.4
1.65	1,443.1	1,443.1	1,324.5	1,216.8	1,181.0	928.2	710.0	596.0	461.6	343.1	278.0

## UPS12-1005PLPF

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					1,440.8	1,112.4	916.8	771.4	595.6	435.5	348.8
1.70	1,898.2	1,898.2	1,748.4	1,611.8	1,553.4	1,195.4	992.8	809.7	612.2	446.4	356.8
1.67	1,955.1	1,955.1	1,800.9	1,660.1	1,600.0	1,230.0	1,010.0	831.9	622.3	452.2	360.5
1.65	1,991.8	1,991.8	1,834.7	1,691.3	1,630.0	1,250.5	1,024.6	842.4	628.5	455.9	363.0

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

World Headquarters  
200 Precision Road  
Horsham, PA 19044  
USA  
T: +1 (800) 543-8630 +1 (717) 553-7001



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