

PURE **Pb**  
MAX

## PURE LEAD MAX

Change your battery. Change your world.

**C&D**  
TECHNOLOGIES

**PLM**

**2023021**



## C&D Technologies Pure Lead Max batteries reduce total cost of ownership by offering a sustainable, single-replacement for a 15-year UPS system

### BENEFITS



#### Single Replacement

Proprietary PLP technology, combined with catalyst design which extends battery life.



#### Reduce Footprint

Extensive portfolio to reduce footprint by up to 28% and battery quantity by up to 40% vs leading competitor.



#### Up to 50% Less Maintenance Costs

Semi-Annual maintenance recommended instead of quarterly



#### Support Sustainability

Pure Lead Max batteries are 98% recyclable and manufactured with up to 80% of recycled materials

### FEATURES

- 16 year design life
- Storage capability of 2 years at 25°C (77°F) with minimum upkeep
- Eurobat: Very Long Life
- Catalyst technology extends service life
- MSE's Advanced proprietary paste processing for high active material utilization resulting in low float current
- 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
- 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
- Published rates down to 1 minute

## TECHNICAL DATA

MODEL	VOLTAGE	CONSTANT CURRENT AH 20HR	CONSTANT POWER RATINGS		DIMENSIONS/MM (L*W*H*TOTAL HEIGHT)				WEIGHT	
			5 MIN	15 MIN	LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT	LBS	KG
UPS12-305PLM	12	79	571	315	260	173	200	204	58	27
UPS12-355PLM	12	93	685	366	306	173	202	205	67	31
UPS12-405PLM	12	103	710	402	341	173	213	216	76	34
UPS12-495PLM	12	141	813	492	345	173	275	278	100	45
UPS12-545PLM	12	149	920	542	345	173	275	278	100	45
UPS12-605PLM	12	147	969	603	345	173	275	278	109	49
UPS12-615PLMF	12	172	1027	615	559	125	279	279	122	55
UPS12-705PLMF	12	201	1166	707	559	125	322	322	142	64
UPS12-1005PLMF	12	254	1600	1010	559	154	322	322	188	85

## ADDITIONAL DATA

MODEL	TERMINAL	CELLS PER UNIT	MAXIMUM DISCHARGE CURRENT (AMPS)	SHORT CIRCUIT CURRENT (AMPS @ 0.1 SEC)	TERMINAL TYPE	TERMINAL TORQUE
UPS12-305PLM	Top	6	800	3600	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-355PLM	Top	6	800	4200	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-405PLM	Top	6	800	5100	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-495PLM	Top	6	800	5000	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-545PLM	Top	6	800	5000	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-605PLM	Top	6	800	6448	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-615PLMF	Front	6	800	3700	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-705PLMF	Front	6	900	7911	1/4-20 UNC	110 in.-lbs. (12.3 N-m)
UPS12-1005PLMF	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 Front Terminal Batteries: 1/4-20 UNC Bolt / Insert (M8)
<b>TERMINAL HARDWARE INITIAL TORQUE: INSERTED TERMINAL</b>	Top Terminal Batteries: 110 in.-lbs (12.4 N-m) Front Terminal Batteries 160 in.-lbs (M8) or 110 in.-lbs (1/4-20)

## UPS12-615PLMF

# FRONT TERMINAL



END POINT VOLTS/CELL	CONSTANT POWER DISCHARGE RATINGS - WATTS PER CELL @ +77F (+25C)										
	OPERATING TIME TO END POINT VOLTAGE (IN MINUTES)										
	1	2	3	4	5	10	15	20	30	45	60
1.75					974	732	583	494	386	288	234
1.70	1216	1216	1146	1059	1010	759	605	508	391	291	237
1.67	1236	1236	1165	1076	1027	772	615	514	393	293	238
1.65	1246	1246	1174	1085	1035	778	620	514	394	293	238
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	91	55	40	26	17	14	12	8	6		
1.85	102	62	44	29	19	16	13	8	7		
1.80	109	65	47	30	20	16	14	9	7		
1.75	114	67	48	31	21	17	14	9	7		

## UPS12-705PLMF

END POINT VOLTS/CELL	CONSTANT POWER DISCHARGE RATINGS - WATTS PER CELL @ +77F (+25C)										
	OPERATING TIME TO END POINT VOLTAGE (IN MINUTES)										
	1	2	3	4	5	10	15	20	30	45	60
1.75					1074	808	636	550	441	334	274
1.70	1393	1393	1279	1175	1140	864	676	576	454	339	276
1.67	1425	1425	1308	1201	1166	810	707	589	458	342	277
1.65	1443	1443	1325	1217	1181	928	710	596	462	343	278
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	105	62	47	31	21	17	15	9	8		
1.85	121	70	50	33	22	18	16	10	8		
1.80	127	73	53	35	23	19	16	10	8		
1.75	135	75	54	36	24	20	17	10	9		

## UPS12-1005PLMF

END POINT VOLTS/CELL	CONSTANT POWER DISCHARGE RATINGS - WATTS PER CELL @ +77F (+25C)										
	OPERATING TIME TO END POINT VOLTAGE (IN MINUTES)										
	1	2	3	4	5	10	15	20	30	45	60
1.75					1441	1112	917	771	596	436	349
1.70	1898	1898	1784	1612	1553	1195	993	612	612	446	357
1.67	1955	1955	1801	1660	1600	1230	1010	622	622	452	361
1.65	1992	1992	1835	1691	1630	1251	1025	629	629	456	363
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	149	85	61	39	26	21	18	11	9		
1.85	168	96	68	43	28	23	19	12	10		
1.80	181	102	71	45	29	24	20	13	11		
1.75	188	104	72	45	30	24	21	13	11		

## UPS12-305PLM

# TOP TERMINAL



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					516	362	294	235	177	131	103
1.70	869	743	667	593	549	382	307	244	182	133	105
1.67	900	775	696	618	571	394	315	249	186	135	106
1.65	917	794	713	632	584	401	320	252	187	136	107
1.60	953	818	731	645	595	406	324	256	190	138	109
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	43	26	19	12	8	6	5	3	3		
1.85	49	29	20	13	8	7	6	4	3		
1.80	52	30	21	14	9	7	6	4	3		
1.75	53	30	22	14	9	8	6	4	3		

## UPS12-355PLM

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					599	429	340	275	208	152	120
1.70	1006	873	782	701	659	454	353	283	213	155	122
1.67	1045	905	811	728	685	472	366	293	218	158	124
1.65	1074	933	837	751	707	485	375	299	222	160	125
1.60	1154	967	863	773	726	496	381	304	225	161	126
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	48	28	20	13	8	7	6	3	3		
1.85	54	32	23	15	10	8	7	4	4		
1.80	60	35	25	16	11	9	7	5	4		
1.75	63	37	26	17	11	9	8	5	4		

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

# UPS12-405PLM

# TOP TERMINAL



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	466	375	314	236	172	135
1.70	1115	931	824	746	684	495	392	326	244	177	139
1.67	1159	969	857	775	710	511	402	333	248	179	140
1.65	1204	1013	892	803	733	521	408	336	250	181	142
1.60	1286	1059	926	830	756	533	416	342	253	183	143
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	51	30	22	15	10	8	7	4	4		
1.85	57	34	24	16	11	9	8	5	4		
1.80	63	37	26	17	11	9	8	5	4		
1.75	68	39	28	18	12	10	8	5	4		

# UPS12-495PLM

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	543	445	385	303	230	185
1.70	1070	972	893	823	776	589	471	404	314	236	189
1.67	1129	1023	938	863	813	612	492	416	321	239	191
1.65	1148	1051	966	888	835	627	502	424	326	242	193
1.60	1268	1117	1015	927	869	644	512	431	330	245	194
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	73	43	31	21	14	12	10	6	5		
1.85	82	49	35	23	15	13	11	7	6		
1.80	88	52	37	24	16	13	11	7	6		
1.75	92	54	38	25	16	13	11	7	6		

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

# UPS12-545PLM

# TOP TERMINAL



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	582	477	409	320	241	193
1.70	1207	1106	1003	925	874	727	582	479	358	263	210
1.67	1270	1158	1053	973	920	753	603	496	366	267	212
1.65	1331	1220	1105	1017	959	761	606	499	368	268	213
1.60	1367	1259	1137	1045	983	799	630	518	379	273	216
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	76	44	32	21	14	12	10	6	5		
1.85	84	50	36	23	16	13	11	7	6		
1.80	91	53	38	25	17	14	11	7	6		
1.75	100	57	40	26	17	14	12	7	6		

# UPS12-605PLM

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	690	557	465	352	261	209
1.70	1329	1202	1085	1006	946	727	582	479	358	263	210
1.67	1396	1261	1142	1047	969	753	603	496	366	267	212
1.65	1413	12774	1158	1061	990	761	606	499	368	268	213
1.60	1484	1337	1208	1106	1040	799	630	518	379	273	216
END POINT VOLTS/CELL	CONSTANT CURRENT DISCHARGE RATINGS - AMPS @ +77°F (+25°C)										
	OPERATING TIME TO END POINT VOLTAGE (IN HOURS)										
	1	2	3	5	8	10	12	20	24		
1.90	89	51	36	23	15	12	10	6	5		
1.85	98	55	39	25	17	13	11	7	6		
1.80	104	58	41	27	17	14	12	7	6		
1.75	105	59	42	27	17	14	12	7	6		

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 (215) 619-2700



Any data, descriptions or specifications presented herein are subject to revision by C&D Technologies, Inc. without notice. While such information is believed to be accurate as indicated herein, C&D Technologies, Inc. makes no warranty and hereby disclaims all warranties, express or implied, with regard to the accuracy or completeness of such information. Further, because the product(s) featured herein may be used under conditions beyond its control, C&D Technologies, Inc. hereby disclaims all warranties, either express or implied, concerning the fitness of suitability of such product(s) for any particular use or in any specific application or arising from any course of dealing or usage of trade. The user is solely responsible for determining the suitability of the product(s) featured herein for user's intended purpose and in user's specific application.

Copyright 2023 C&D TECHNOLOGIES, INC.  
[www.cdtechno.com](http://www.cdtechno.com)

