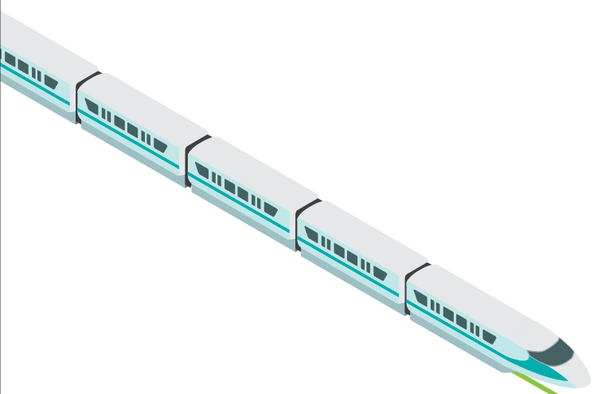
Power your life

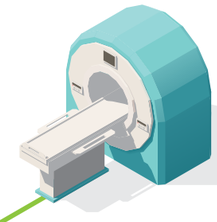
LONG®

LONG® BATTERY

Product Catalog



BACKUP POWER
For UPS, Security, Fire Alarm System



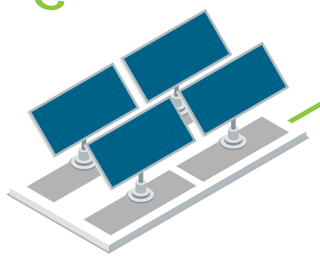
HIGH POWER
For IT/ Datacenter
Backup System

LONG LIFE POWER
For Telecommunication,
IT/ Datacenter Backup System

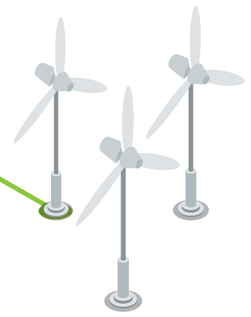
ELECTRIC VEHICLE POWER
For Mobility Scooter, Electric Vehicle,
Golf Trolley, Medical

LONG CITY

CYCLIC POWER
For Multi-Purpose

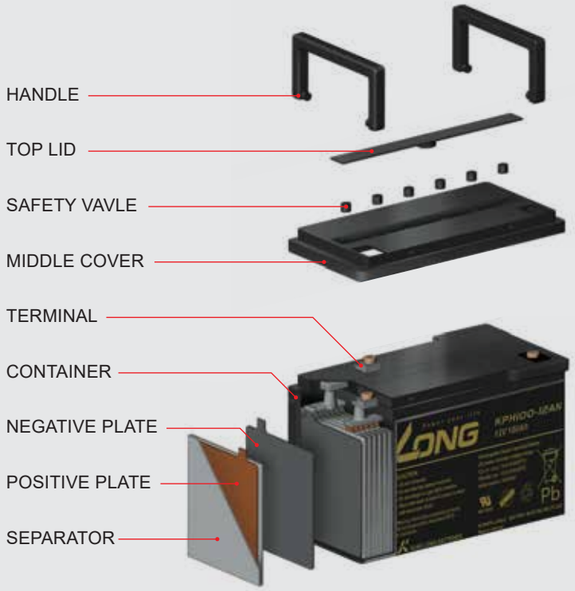


GREEN POWER
For Solar and Renewable Energy,
Deep Cycle

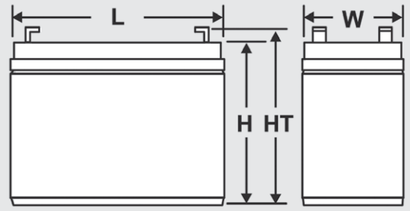


VRLA BATTERIES

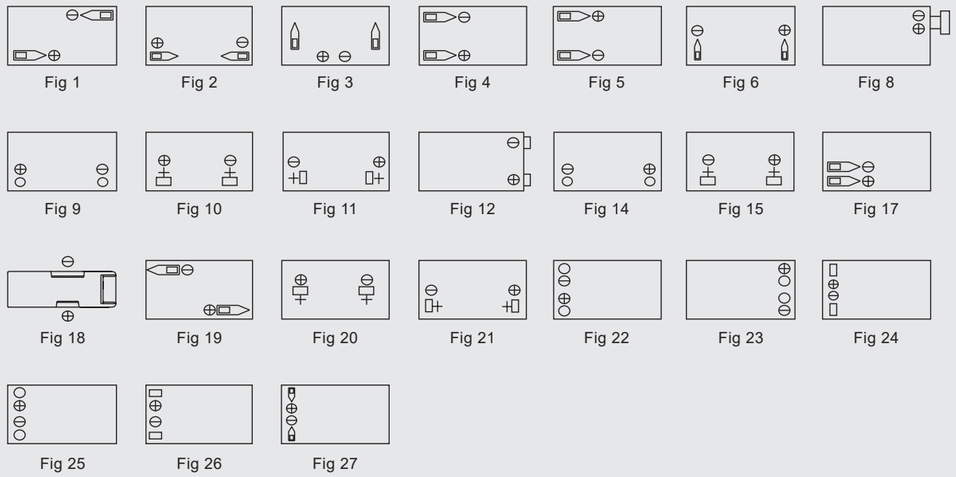
CONSTRUCTION



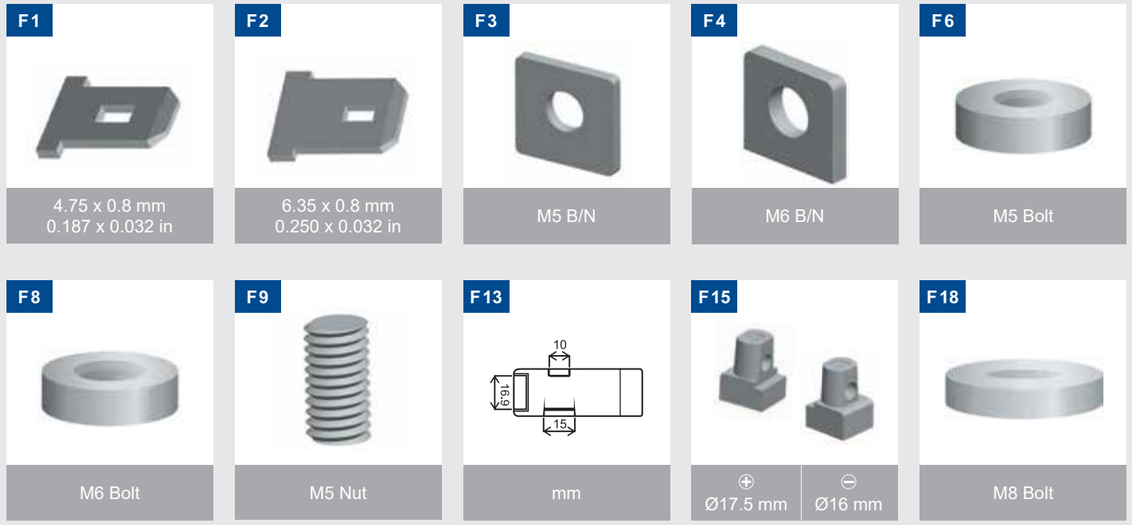
CASE DIMENSION



TERMINAL POSITION



TERMINAL TYPE



BATTERY NUMBERING SYSTEM

WP2.9-12TR

Battery Type

WP：Multi-Purpose
WPS：UPS Back UP Series
WPL：Long Life Series
U1：Sealed Battery with Conventional Dimension
KPH：High Power Type
22NF：BCI Group for Light Truck
MSK：2V Stationary Series
TPK：12V Front Terminal Series
LG：Gel Batteries Series
HTP：High Temperature Series
WPG：Green Power Series
PLG：Pure Gel Series

Battery Capacity At 20/10 Hr Rate

Battery Voltage

Battery Features

R：Negative Terminal Position
N：Type of Terminal, N: Nut
E：Electric Vehicle Power
W：Battery Capacity ST W/Cell at 15 Min. Rate
A, S, T：Same Capacity with Different Dimensions or Purpose
I：Inner Terminal Position
H：Handle Type

WP1236W

Battery Voltage

Battery Capacity ST W/Cell At 15 Min. Rate

SPECIFICATION

BATTERY TYPE	NOMINAL VOLTAGE (V)	NOMINAL CAPACITY (Ah)		DIMENSION								WEIGHT (APPROX.)		ASSEMBLY FIGURE	
		5HR	20HR / 10HR	L	W	H	L	W	H	HT OVER TERMINAL		lbs	kg	TERMINAL POSITION	TERMINAL TYPE
				in	in	in	mm	mm	mm	in	mm				
MULTI-PURPOSE BATTERIES SERIES															
WP4.5-4	4	3.825	4.5	1.91	2.07	3.70	48.5	52.5	94	3.94	100	1.39	0.63	3	F2
WP9-4	4	7.65	9	3.98	1.73	3.74	101	44	95	4.02	102	2.60	1.18	3	F2
WP1.2-6	6	1.02	1.2	3.82	0.98	2.05	97	25	52	2.24	57	0.65	0.297	2	F1
WP7-6	6	5.95	7	5.94	1.34	3.70	151	34	94	3.94	100	2.64	1.20	2	F1
WP7-6S	6	5.95	7	4.57	1.97	3.62	116	50	92	3.90	99	3.19	1.45	1	F1
WP9-6A	6	7.65	9	3.88	2.20	4.65	98.5	56	118	4.65	118	3.74	1.70	19	F1
WP10-6	6	8.5	10	5.94	1.97	3.7	151	50	94	3.94	100	3.74	1.70	2	F1
WP12-6S	6	10.2	12	5.94	1.97	3.7	151	50	94	3.90	99	4.05	1.84	2	F1
WP13-6	6	11.1	13	4.25	2.76	5.51	108	70	140	5.51	140	4.93	2.24	17	F1-, F2+
WP20-6	6	17	20	6.18	3.27	4.92	157	83	125	4.92	125	8.56	3.89	20	F3
WP0.7-12	12	0.6	0.7	3.78	0.98	2.44	96	25	62	2.44	62	0.80	0.36	8	Wire/A
WP0.7-12S	12	0.6	0.7	3.78	0.98	2.44	96	25	62	2.44	62	0.80	0.36	8	Wire/J
WP1.2-12 ★	12	1.02	1.2	3.82	1.69	2.09	97	43	53	2.32	59	1.21	0.55	4	F1
WP1.2-12T	12	1.02	1.2	3.82	1.89	1.97	97	48	50	2.20	56	1.28	0.58	4	F1
WP2.2-12 ★	12	1.87	2.2	7.01	1.34	2.36	178	34	60	2.60	66	2.29	1.04	2	F1
WP2.3-12	12	1.96	2.3	7.01	1.34	2.36	178	34	60	2.60	66	2.29	1.04	2	F1
WP2.6-12	12	2.21	2.6	7.01	1.36	2.36	178	34.5	60	2.60	66	2.20	1.00	2	F1
WP2.9-12T	12	2.465	2.9	3.11	2.20	3.90	79	56	99	4.21	107	2.62	1.19	6	F1
WP2.9-12TR	12	2.465	2.9	3.11	2.20	3.90	79	56	99	4.21	107	2.62	1.19	3	F1
WP3-12	12	2.55	3	5.28	2.64	2.34	134	67	59.5	2.58	65.5	2.86	1.30	4	F1
WP4.5-12	12	3.83	4.5	3.54	2.76	4.00	90	70	101.5	4.21	107	3.56	1.62	3	F1
WP5-12	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.18	1.90	3	F1
WP7.2-12 ★	12	6.12	7.2	5.94	2.56	3.70	151	65	94	4.02	102	5.28	2.40	5	F1
WP12-12A ★	12	10.2	12	5.94	3.86	3.66	151	98	93	3.86	98	8.25	3.75	5	F1
WP18-12I ★	12	15.3	18	7.13	2.99	6.57	181	76	167	6.57	167	13.86	6.30	11	F3
WP18-12N ★	12	15.3	18	7.13	2.99	6.57	181	76	167	6.57	167	13.86	6.30	14	F6
WP20-12I	12	17	20	7.13	2.99	6.57	181	76	167	6.57	167	13.09	5.95	11	F3
WP20-12N	12	17	20	7.13	2.99	6.57	181	76	167	6.57	167	13.09	5.95	14	F6
WP22-12N	12	18.7	22	7.13	2.99	6.57	181	76	167	6.57	167	15.18	6.90	14	F8
WP22-12NSHR	12	18.7	22	7.13	3.03	6.69	181	77	170	6.69	170	15.40	7.00	14	F6
WP24-12 (N) ★	12	20.4	24	6.54	6.89	4.92	166	175	125	4.92	125	17.60	8.00	21 (14)	F3 (F6)
WP26-12 (N) ★	12	22.1	26	6.54	6.89	4.92	166	175	125	4.92	125	20.46	9.30	21 (14)	F3 (F6)
WP26-12T	12	24.7	26	6.54	4.94	6.93	166	125.5	176	6.93	176	19.36	8.80	21	F3
WP28-12T	12	26.6	28	6.54	4.94	6.93	166	125.5	176	6.93	176	20.20	9.18	21	F3
WP30-12T	12	25.5	30	6.54	4.94	6.93	166	125.5	176	6.93	176	23.10	10.50	21	F3
WP40-12 (N)	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	29.7 (29.5)	13.5 (13.4)	11 (14)	F4 (F8)
WP45-12 (N) ★	12	38.25	45	7.83	6.54	6.73	199	166	171	6.73	171	31.90	14.50	11 (14)	F4 (F8)
WP50-12 (N)	12	42.5	50	7.83	6.54	6.73	199	166	171	6.73	171	33.22	15.10	11 (14)	F4 (F8)
WP55-12 (N)	12	46.75	55	8.90	5.31	8.15	226	135	207	9.02 (8.43)	229 (214)	37.40	17.00	10 (9)	F15 (F8)
WP65-12 (N) ★	12	55.25	65	13.78	6.54	6.85	350	166	174	6.85	174	51.30	23.30	15 (14)	F4 (F8)
KPH65-12N	12	55.25	65	10.24	6.69	7.95	260	170	202	8.15	207	47.30	21.50	9	F8
KPH75-12N	12	63.75	75	10.24	6.69	7.95	260	170	202	8.15	207	53.20	24.20	9	F8
KPH80-12N	12	68	80	10.24	6.69	7.95	260	170	202	8.15	207	53.20	24.20	9	F8
KPH100-12AN (AU)	12	85	100	12.09	6.61	8.19	307	168	208	8.43 (9.06)	214 (230)	64.90	29.50	9 (10)	F8 (F15)
KPH110-12N	12	93.5	110	13.31	6.69	8.35	338	170	212	8.54	217	71.50	32.50	9	F8
KPH130-12N	12	110.5	130	13.86	6.69	10.75	352	170	273	10.94	278	94.60	43.00	9	F8
KPH150-12N	12	127.5	150	13.86	6.69	10.75	352	170	273	10.94	278	101.00	46.00	9	F8
HIGH POWER BATTERIES SERIES															
WP634W	6	34W	8.5	5.94	1.34	3.70	151	34	94	3.94	100	2.86	1.30	2	F2
WP1213W	12	13W	3.3	5.28	2.64	2.34	134	67	59.5	2.58	65.5	2.86	1.30	4	F2
WP5-12	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.18	1.90	3	F2
WP5-12SHR	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.25	1.93	3	F2
WP1224W	12	24W	6	5.94	2.01	3.70	151	51	94	3.98	101	4.40	2.20	5	F2
WP7-12(28W)(T) ★	12	28W	7	5.94	2.56	3.70	151	65	94	4.02 (4.17)	102 (106)	4.93 (4.82)	2.24 (2.19)	5	F2 (F3)
WP1234W	12	34W	8.5	5.94	2.56	3.70	151	65	94	4.02	102	5.50	2.50	5	F2
WP1236W(T)	12	36W	9	5.94	2.56	3.70	151	65	94	4.02 (4.17)	102 (106)	5.94	2.70	5	F2 (F3)
WPS580	12	580W	9	5.94	2.56	3.70	151	65	94	4.02	102	6.27	2.85	5	F2
WP1251W ★	12	51W	12	5.94	3.86	3.66	151	98	93	3.86	98	7.92	3.60	5	F2
WP12-12A ★	12	10.2	12	5.94	3.86	3.66	151	98	93	3.86	98	8.25	3.75	5	F2
WP18-12 (N) SHR ★	12	15.3	18	7.13	2.99	6.57	181	76	167	6.57	167	12.32	5.60	11 (14)	F3 (F6)
WP20-12I	12	17	20	7.13	2.99	6.57	181	76	167	6.57	167	13.09	5.95	11	F3
WP20-12N	12	17	20	7.13	2.99	6.57	181	76	167	6.57	167	13.09	5.95	14	F6
WP22-12N	12	18.7	22	7.13	2.99	6.57	181	76	167	6.57	167	15.18	6.90	14	F8
WP22-12NSHR	12	18.7	22	7.13	3.03	6.69	181	77	170	6.69	170	15.40	7.00	14	F6
WP26-12 (N) ★	12	22.1	26	6.54	6.89	4.92	166	175	125	4.92	125	20.46	9.30	21 (14)	F3 (F6)
WP30-12T	12	25.5	30	6.54	4.94	6.93	166	125.5	176	6.93	176	23.10	10.50	21	F3
WP40-12 (N)	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	29.70 (29.50)	13.50 (13.40)	11 (14)	F4 (F8)
WP45-12 (N) ★	12	38.25	45	7.83	6.54	6.73	199	166	171	6.73	171	31.90	14.50	11 (14)	F4 (F8)
WP50-12 (N)	12	42.5	50	7.83	6.54	6.73	199	166	171	6.73	171	33.22	15.10	11 (14)	F4 (F8)
KPH100-12AN (AU)	12	85	100	12.09	6.61	8.19	307	168	208	8.43 (9.06)	214 (230)	64.90	29.50	9 (10)	F8 (F15)
KPH110-12N	12	93.5	110	13.31	6.69	8.35	338	170	212	8.54	217	71.50	32.50	9	F8
KPH130-12N	12	110.5	130	13.86	6.69	10.75	352	170	273	10.94	278	94.60	43.00	9	F8
KPH150-12N	12	127.5	150	13.86	6.69	10.75	352	170	273	10.94	278	101.00	46.00	9	F8
ELECTRIC VEHICLE BATTERIES SERIES															
WP5-12E	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.18	1.90	3	F2
WP10-12SE	12	8.5	10	5.94	2.56	4.41	151	65	112	4.67	118.5	7.24	3.29	5	F2
WP12-12E	12	10.2	12	5.94	3.86	3.66	151	98	93	3.86	98	8.84	4.02	5	F2
WP14-12SE	12	11.9	14	5.94	3.86	3.74	151	98	95	3.94	100	9.68	4.40	5	F2
WP14-12NE	12	11.9	14	5.94	3.86	3.74	151	98	95	3.74	95	9.68	4.40	25	F6
WP15-12(N)SE	12	12.75	15	5.94	3.90	3.86	151	99	98	4.05 (3.86)	103 (98)	9.90	4.50	27 (25)	F2 (F6)
WP20-12IE	12	17	20	7.13	2.99	6.57	181	76	167	6.57	167	13.09	5.95	11	F3
WP22-12NE	12	18.7	22	7.13	2.99	6.57	181	76	167	6.57	167	15.18	6.90	14	F8
WP24-12ANE	12	20.4	24	7.13	3.05	6.69	181	77.5	170	6.69	170	15.70	7.14	14	F6
WP26-12(N)E	12	24.7	26	6.54	6.89	4.92	166	175	125	4.92	125	20.50	9.30	14	F6
WP26-12TE	12	24.7	26	6.54	4.94	6.93	166	125.5	176	6.93	176	19.36	8.80	21	F3
WP30-12TNE	12	25.5	30	6.54	4.94	6.93	166	125.5	176	6.93	176	20.50	9.30	14	F8
WP40-12(N)E	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	29.70 (29.50)	13.50 (13.40)	11(14)	F4 (F8)
WP45-12NE	12	38.25	45	7.83	6.54	6.73	199	166	171	6.73	171	31.90	14.50	14	F8

• VdS Approved Model
• For batteries' capacity below 18Ah, all dimensions given are +/-1mm (0.04 inches)

• For batteries' capacity above 18Ah, all dimensions given are +2/-1mm (+0.08/-0.04 inches)
• Please refer to all the details of the specification sheet

SPECIFICATION

BATTERY TYPE	NOMINAL VOLTAGE (V)	NOMINAL CAPACITY (Ah)		DIMENSION								WEIGHT (APPROX.)		ASSEMBLY FIGURE	
		5HR	20HR	L	W	H	L	W	H	HT OVER TERMINAL		lbs	kg	TERMINAL POSITION	TERMINAL TYPE
			10HR	in	in	in	mm	mm	mm	in	mm				
ELECTRIC VEHICLE BATTERIES SERIES															
WP50-12NE	12	42.5	50	7.83	6.54	6.73	199	166	171	6.73	171	33.22	15.10	14	F8
WP55-12NE	12	46.75	55	8.90	5.31	8.15	226	135	207	8.43	214	37.40	17.00	9	F8
22NF305CN	12	52.7	62	8.90	5.31	8.15	226	135	207	8.43	214	41.10	18.70	14	F8
KPH75-12NE	12	63.75	75	10.24	6.69	7.95	260	170	202	8.15	207	53.68	24.40	9	F8
KPH100-12ANE	12	85	100	12.09	6.61	8.19	307	168	208	8.43	214	66.00	30.00	9	F8
U1-33H (N)	12	28.05	33	7.76	5.16	6.26	197	131	159	7.09 (6.69)	180 (170)	22.20	10.10	20 (9)	F4 (F6)
U1-34H (N)	12	28.9	34	7.76	5.16	6.26	197	131	159	7.09 (6.69)	180 (170)	23.10	10.50	20 (9)	F4 (F6)
U1-34HE	12	28.9	34	7.76	5.16	6.26	197	131	159	7.09	180	22.90	10.40	20	F4
U1-36HH ★	12	30.6	36	7.76	5.16	6.26	197	131	159	7.09	180	23.50	10.70	20	F4
U1-36NE	12	30.6	36	7.76	5.16	6.26	197	131	159	6.69	170	23.50	10.70	9	F8
GEL BATTERIES SERIES(AGM)															
LG7-12	12	5.95	7	5.94	2.56	3.70	151	65	94	4.02	102	5.39	2.45	5	F2
LG12-12	12	10.2	12	5.94	3.86	3.66	151	98	93	3.86	98	8.80	4.00	5	F2
LG17-12	12	14.45	17	7.13	2.99	6.57	181	76	167	6.57	167	13.86	6.30	21	F3
LG20-12N	12	17	20	7.13	2.99	6.57	181	76	167	6.57	167	14.74	6.70	14	F8
LG24-12	12	20.4	24	6.54	6.89	4.92	166	175	125	4.92	125	20.46	9.30	21	F3
LG32-12	12	27.2	32	7.76	5.16	6.26	197	131	159	7.09	180	22.90	10.40	20	F4
LG36-12N	12	30.6	36	7.76	5.16	6.26	197	131	159	6.69	170	23.50	10.70	9	F8
LG40-12 (N)	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	29.30	13.30	11 (14)	F4 (F8)
LG45-12 (N)	12	38.25	45	7.83	6.54	6.73	199	166	171	6.73	171	33.00	15.00	11 (14)	F4 (F8)
LG50-12 (N)	12	42.5	50	7.83	6.54	6.73	199	166	171	6.73	171	32.60	14.80	11 (14)	F4 (F8)
LG55-12N	12	46.75	55	8.90	5.31	8.15	226	135	207	8.43	214	37.40	17.00	9	F8
LG22NF305CN	12	52.7	62	8.90	5.31	8.15	226	135	207	8.43	214	40.70	18.50	14	F8
LG65-12	12	55.25	65	13.78	6.54	6.85	350	166	174	6.85	174	52.58	23.90	15	F4
LGK75-12N	12	63.75	75	10.24	6.69	7.95	260	170	202	8.15	207	54.60	24.80	9	F8
LGK100-12N	12	85	100	13.31	6.69	8.35	338	170	212	8.54	217	74.80	34.00	9	F8
LGL150-12N	12	127.5	150	19.02	6.69	9.45	483	170	240	9.45	240	101.00	45.80	9	F18
SPECIAL TYPE BATTERIES															
WP2-12	12	1.7	2	5.91	0.79	3.54	150	20	90	3.54	90	1.60	0.728	12	F1
WP1250	12	1.7	2	5.63	0.91	2.52	143	23	64	2.52	64	1.43	0.65	18	F13
WP1222A	12	1.7	2	7.17	0.91	2.40	182	23	61	2.40	61	1.52	0.69	18	F13
WP1223A	12	1.79	2.1	7.17	0.91	2.40	182	23	61	2.40	61	1.57	0.714	18	F13
UPS BACK UP POWER BATTERIES SERIES															
WP3-6	6	2.55	3	5.28	1.34	2.32	134	34	59	2.56	65	1.47	0.67	2	F1
WPS4-6	6	3.4	4	2.76	1.85	4.02	70	47	102	4.17	106	1.64	0.745	1	F1
WP4.5-6	6	3.825	4.5	2.76	1.85	4.02	70	47	102	4.17	106	1.80	0.82	1	F1
WP5-6	6	4.25	5	2.76	1.85	4.02	70	47	102	4.17	106	1.83	0.83	1	F1
WPS2.3-12 ★	12	1.96	2.3	7.01	1.36	2.36	178	34.5	60	2.60	66	1.91	0.87	2	F1
WPS4-12	12	3.4	4	3.54	2.76	4.00	90	70	101.5	4.21	107	3.30	1.50	3	F1
WPS5-12	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	3.56	1.62	3	F1
WPS7-12	12	5.65	7	5.94	2.56	3.70	151	65	94	4.02	102	4.40	2.00	5	F1
WP7.2-12A ★	12	6.12	7.2	5.94	2.56	3.70	151	65	94	4.02	102	5.17	2.35	5	F1

BATTERY TYPE	NOMINAL VOLTAGE (V)	NOMINAL CAPACITY (Ah)		DIMENSION								WEIGHT (APPROX.)		ASSEMBLY FIGURE	
		5HR	20HR	L	W	H	L	W	H	HT OVER TERMINAL		lbs	kg	TERMINAL POSITION	TERMINAL TYPE
			10HR	in	in	in	mm	mm	mm	in	mm				
UPS BACK UP POWER BATTERIES SERIES															
WPS8-12	12	6.8	8	5.94	2.56	3.70	151	65	94	4.02	102	5.06	2.30	5	F1
WPS12-12	12	10.2	12	5.94	3.86	3.66	151	98	93	3.86	98	8.03	3.65	5	F1
WPS17-12	12	13.73	17	7.13	2.99	6.57	181	76	167	6.57	167	10.58	4.81	11	F3
WPS26-12(N)	12	22.1	26	6.54	6.89	4.92	166	175	125	4.92	125	17.60	8.00	21 (14)	F3 (F6)
WPS40-12(N) ★	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	27.70	12.60	11 (14)	F4 (F8)
WPS45-12(N) ★	12	38.25	45	7.78	6.54	6.73	197.7	166	171	6.73	171	29.70	13.50	11 (14)	F4 (F8)
LONG LIFE POWER BATTERIES SERIES															
WPL5-12	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.18	1.90	3	F1
WPL5-12SHR	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.25	1.93	3	F2
WPL7.2-12	12	6.12	7.2	5.94	2.56	3.70	151	65	94	4.02	102	5.28	2.40	5	F1
WPL1235W	12	35W	8.5	5.94	2.56	3.70	151	65	94	4.02	102	5.94	2.70	5	F2
WPL12-12	12	10.2	12	5.94	3.86	3.66	151	98	93	3.86	98	8.84	4.02	5	F1
WPL14-12S	12	11.9	14	5.94	3.86	3.66	151	98	93	3.86	98	9.46	4.30	5	F2
WPL18-12(N)SHR	12	15.3	18	7.13	2.99	6.57	181	76	167	6.57	167	12.47	5.67	11 (14)	F3 (F6)
WPL26-12(N)B	12	22.1	26	6.54	6.89	4.92	166	175	125	4.92	125	17.60	8.00	21 (14)	F3 (F6)
WPL26-12 (N)	12	22.1	26	6.54	6.89	4.92	166	175	125	4.92	125	20.46	9.30	21 (14)	F3 (F6)
WPL28-12T	12	23.8	28	6.54	4.94	6.93	166	125.5	176	6.93	176	20.20	9.18	21	F3
WPL28-12TN	12	23.8	28	6.54	4.94	6.93	166	125.5	176	6.93	176	20.20	9.18	14	F6
WPL28-12TM	12	23.8	28	6.54	4.94	6.93	166	125.5	176	6.93	176	20.20	9.18	14	F9
WPL34-12N	12	28.9	34	7.76	5.16	6.26	197	131	159	6.69	170	23.10	10.50	9	F6
WPL36-12N	12	30.6	36	7.76	5.16	6.26	197	131	159	6.69	170	24.20	11.00	9	F8
WPL40-12 (N)	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	29.70 (29.50)	13.50 (13.40)	11 (14)	F4 (F8)
WPL45-12 (N)	12	38.25	45	7.83	6.54	6.73	199	166	171	6.73	171	32.10	14.60	11 (14)	F4 (F8)
WPL50-12 (N)	12	42.5	50	7.83	6.54	6.73	199	166	171	6.73	171	32.60	14.80	11 (14)	F4 (F8)
WPL55-12 (N)	12	46.75	55	8.90	5.31	8.15	226	135	207	9.02 (8.43)	229 (214)	37.40	17.00	10 (9)	F15 (F8)
WPL60-12AN	12	51	60	13.78	6.57	7.05	350	167	179	7.05	179	45.10	20.50	14	F8
WPL60-12ARN	12	51	60	13.78	6.57	7.05	350	167	179	7.05	179	45.10	20.50	9	F8
WPL65-12AN	12	55.25	65	13.78	6.57	7.05	350	167	179	7.05	179	46.00	20.90	14	F8
WPL65-12ARN	12	55.25	65	13.78	6.57	7.05	350	167	179	7.05	179	46.00	20.90	9	F8
WPL90-12RN	12	76.5	90	12.97	6.78	8.46	329.5	172.3	215	8.74	222	62.04	28.20	9	F18
WPL100-12N	12	85	100	12.97	6.78	8.46	329.5	172.3	215	8.74	222	68.90	31.30	14	F18
WPL100-12RN	12	85	100	12.97	6.78	8.46	329.5	172.3	215	8.74	222	68.90	31.30	9	F18
WPL120-12N	12	102	120	16.06	6.97	8.82	408	177	224	8.82	224	78.10	35.50	14	F18
WPL120-12RN	12	102	120	16.06	6.97	8.82	408	177	224	8.82	224	78.10	35.50	9	F18
WPL125-12RN	12	106.25	125	16.06	6.97	9.61	408	177	244	8.82	224	87.10	39.60	9	F18
WPL130-12N	12	110.5	130	19.02	6.69	9.45	483	170	240	9.45	240	93.70	42.60	9	F18
WPL150-12N	12	127.5	150	19.02	6.69	9.45	483	170	240	9.45	240	100.00	45.50	9	F18
WPL12550WN	12	550W	150	19.02	6.69	9.45	483	170	240	9.45	240	110.00	49.80	9	F18
WPL155-12N	12	131.75	155	19.02	6.69	9.45	483	170	240	9.45	240	106.00	48.20	9	F18
WPL200-12BN	12	170	200	20.55	9.37	8.62	522	238	219	8.82	224	135.00	61.50	22	F18
WPL200-12N	12	170	200	20.55	9.37	8.62	522	238	219	8.82	224	150.00	68.00	22	F18
WPL230-12N	12	195.5	230	20.55	9.37	8.62	522	238	219	8.82	224	161.00	73.20	22	F18

• VdS Approved Model
• For batteries' capacity below 18Ah, all dimensions given are +/-1mm (0.04 inches)

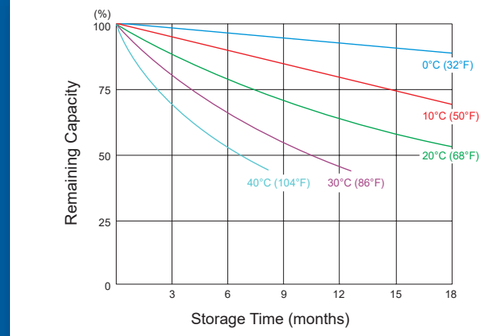
• For batteries' capacity above 18Ah, all dimensions given are +2/-1mm (+0.08/-0.04 inches)
• Please refer to all the details of the specification sheet

TECHNOLOGY

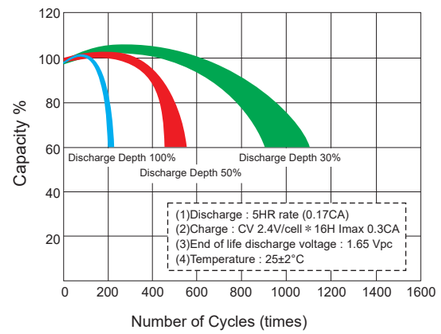
CHARACTERISTIC

Discharge Current (A)	Final Discharge Voltage (V/cell)
(A)≦0.2C	1.75
0.2C<(A)≦0.5C	1.70
0.5C<(A)≦3.0C	1.60
(A)>3.0C	1.40

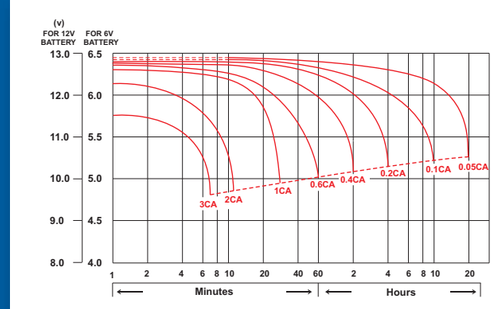
Discharge current and final discharge voltage



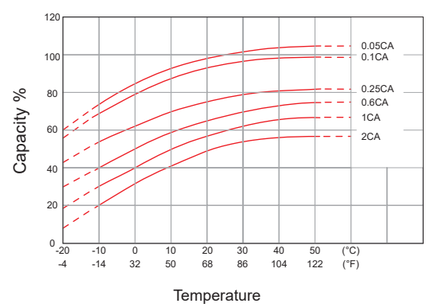
Capacity Retention Characteristic



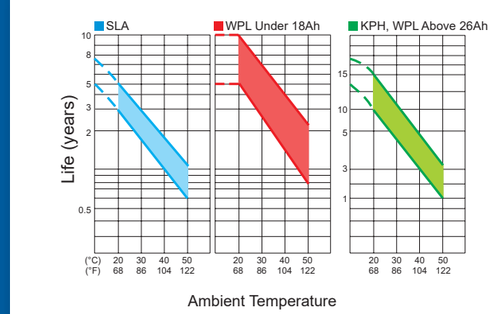
Cycle Service Life



Discharge Time VS. Discharge Current (25°C) (77°F)



Effect of Temperature on Capacity 25°C (77°F)



Trickle (or Float) Service Life

CHARGING METHOD

APPLICATION		STANDBY USE	CYCLE USE
Charging Method		Constant voltage	
Setting Voltage (V/cell)		2.25~2.30	2.40~2.50
Temperature Factor		-3.0mV/°C/cell	-5.0mV/°C/cell
Max. Charge Current (Ca)		0.3	0.3
Charge Time	Discharge 100%	24h	16h
	Discharge 50%	20h	10h
Temperature (°C)		-15°C~40°C	

CHARGING METHOD

High performance and long service life of LONG battery depend upon correct charging. Improper charging modes or inadequate charging equipment result in decreased battery life and/or unsatisfactory performance.

Any of the conventional charging techniques may be used, but to obtain maximum service life and capacity, along with acceptable recharge time, constant current/constant voltage charging is recommended.

A charge quantity of 105-120% of the previous discharged quantity is needed for fully charging the battery. The charging voltage of battery decreases with increasing temperature and increases with decreasing temperature. At a temperature below 5°C (41°F) or above 35°C (95°F), the temperature compensation for charging voltage is necessary. At ambient temperature the compensation will not be necessary.

Overcharging should be avoided : As a result of too high a charge voltage. Excessive current will flow after reaching full charge, causing decomposition of water in the electrolyte and, hence, premature aging.

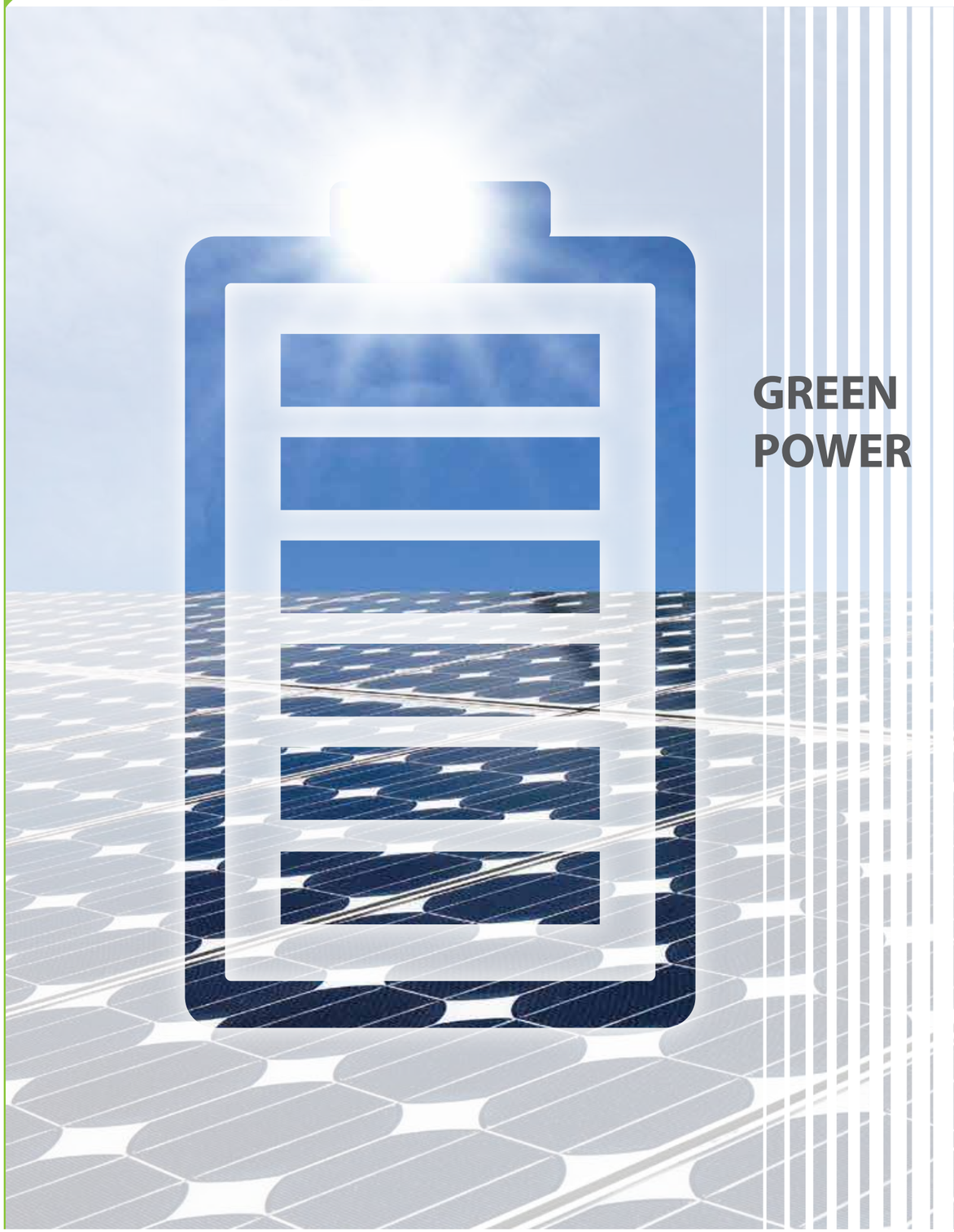
Undercharging should also be avoided : If too low a charge voltage is applied, the charger current output will essentially stop before the battery is fully charged. This allows some of the lead sulfate to remain on the plates which will eventually reduce capacity.

RECOMMENDED RECHARGING INTERVAL & METHOD	
STORAGE TEMPERATURE	RECHARGE INTERVAL & METHOD
Below 20 (68)	9 months, charge for 16~20 hrs at 2.4V/cell
20 -30 (68 -86)	6 months, charge for 16~20 hrs at 2.4V/cell
Above 30 (86) (avoid this storage condition)	3 months, charge for 16~20 hrs at 2.4V/cell

HANDLING INSTRUCTION

- Do not short the terminals.
- Do not place the battery near or in fires.
- Do not use the battery in a container or bag without proper ventilation.
- Operate at a temperature between -15°C to 50°C. But for cycle use, the 5°C to 35°C temperature range is recommended.
- To properly store the battery, remove battery from equipment or charge and store in a dry and cool place.
- Immediately recharge after discharging.
- If sulfuric acid from the battery is spilled on skin or clothing, wash immediately with water. If acid comes in contact with eyes, flush with large amounts of water and immediately see a doctor.
- To obtain maximum life, the ripple current at the RMS forward current of the charger should be regulated to 10% less than its output value.
- Avoid mixed use of batteries. Different capacities, histories, or manufacturers of batteries may cause damage to the batteries or other equipment's.

WPG & CWP

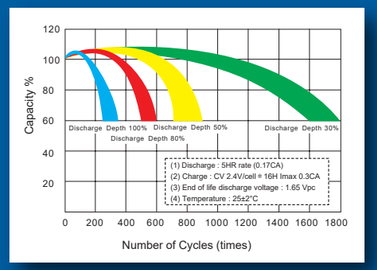


BATTERY TYPE	NOMINAL VOLTAGE (V)	NOMINAL CAPACITY (Ah)		DIMENSION								WEIGHT (APPROX.)		ASSEMBLY FIGURE	
		5HR	20HR	L	W	H	L	W	H	HT OVER TERMINAL		lbs	kg	TERMINAL POSITION	TERMINAL TYPE
			10HR	in	in	in	mm	mm	mm	in	mm				
CWP75-12N	12	62.75	75	10.24	6.69	7.95	260	170	202	8.15	207	53.20	24.20	9	F8
CWP100-12N	12	85	100	13.31	6.69	8.35	338	170	212	8.54	217	75.90	34.50	9	F8
CWP150-12N	12	127.5	150	19.02	6.69	9.45	483	170	240	9.45	240	106.00	48.40	9	F18
CWP200-12N	12	170	200	20.55	9.37	8.62	522	238	219	8.82	224	161.00	73.20	22	F18
WPG5-12	12	4.25	5	3.54	2.76	4.00	90	70	101.5	4.21	107	4.18	1.90	3	F2
WPG7.2-12	12	6.12	7.2	5.94	2.56	3.70	151	65	94	4.02	102	5.28	2.40	5	F2
WPG18-12N	12	15.3	18	7.13	2.99	6.57	181	76	167	6.57	167	13.86	6.30	14	F6
WPG26-12N	12	22.1	26	6.54	6.89	4.92	166	175	125	4.92	125	20.46	9.30	14	F6
WPG30-12T	12	25.5	30	6.54	4.94	6.93	166	125.5	176	6.93	176	23.10	10.50	21	F3
WPG40-12N	12	34	40	7.83	6.54	6.73	199	166	171	6.73	171	29.50	13.40	14	F8
WPG50-12N	12	42.5	50	7.83	6.54	6.73	199	166	171	6.73	171	33.22	15.10	14	F8
WPG55-12N	12	46.75	55	8.90	5.31	8.15	226	135	207	8.43	214	37.40	17.00	9	F8
WPG65-12N	12	55.25	65	13.78	6.54	6.85	350	166	174	6.85	174	51.30	23.30	14	F8
WPG100-12AN	12	85	100	12.09	6.61	8.19	307	168	208	8.43	214	66.00	30.00	9	F8
WPG110-12N	12	93.5	110	13.31	6.69	8.35	338	170	212	8.54	217	71.50	32.50	9	F8
WPG150-12N	12	127.5	150	19.02	6.69	9.45	483	170	240	9.45	240	100.00	45.50	9	F18
WPG200-12AN	12	170	200	20.55	9.37	8.62	522	238	219	8.82	224	138.60	63.00	22	F18

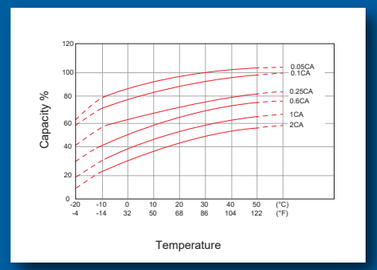
- For batteries' capacity above 18Ah, all dimensions given are +2/-1mm (+0.08/-0.04 inches)
- Please refer to all the details of the specification sheet

CHARACTERISTIC

CWP SERIES

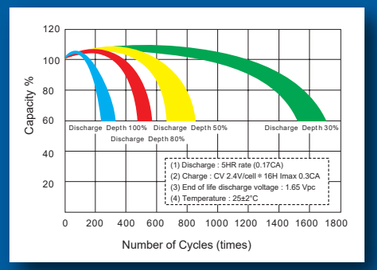


Cycle Service Life

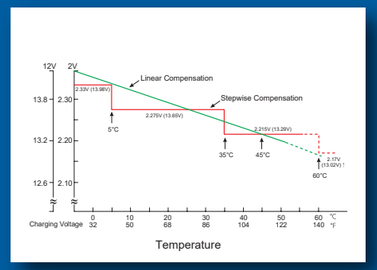


Effect of Temperature on Capacity 25°C (77°F)

WPG SERIES



Cycle Service Life



Relationship Between Temperature and Charging Voltage

TPK & MSK & HTP

COMMUNICATION & STATIONARY

BATTERY TYPE	NOMINAL VOLTAGE (V)	NOMINAL CAPACITY (Ah)		DIMENSION								WEIGHT (APPROX.)		ASSEMBLY FIGURE	
		5HR	10HR	L	W	H	L	W	H	HT OVER TERMINAL		lbs	kg	TERMINAL POSITION	TERMINAL TYPE
				in	in	in	mm	mm	mm	in	mm				
12V FRONT TERMINAL TYPE															
TPK12100A	12	85	100	19.96	4.17	9.25	507	106	235	9.25	235	66.00	30.00	23	F18
TPK12100HS	12	85	100	15.35	4.13	10.69	390	105	271.5	11.02	280	66.90	30.40	23	F18
TPK12125	12	106.3	125	21.65	4.33	11.34	550	110	288	11.34	288	85.80	39.00	23	F18
TPK12150NA	12	127.5	150	21.65	4.33	11.34	550	110	288	11.34	288	97.50	44.30	23	F18
TPK12150	12	127.5	150	21.65	4.33	11.34	550	110	288	11.34	288	111.00	50.50	23	F18
TPK12180	12	161.5	180	21.50	4.92	12.48	546	125	317	12.72	323	127.60	58.00	23	F18
2V STATIONARY BATTERIES TYPE															
MSK75	2	63.75	75	6.69	2.83	8.07	170	72	205	8.19	208	14.08	6.40	-	F18
MSK100A	2	85	100	6.69	2.83	8.07	170	72	205	8.19	208	16.50	7.50	-	F18
MSK200	2	170	200	6.69	4.17	13.11	170	106	333	13.48	342.5	30.80	14.00	-	F18
MSK265	2	225.3	265	6.69	5.91	13.11	170	150	333	13.48	342.5	39.60	18.00	-	F18
MSK300	2	255	300	6.69	5.91	13.11	170	150	333	13.48	342.5	46.60	21.20	-	F18
MSK400	2	340	400	7.76	6.69	13.11	197	170	333	13.48	342.5	56.10	25.50	-	F18
MSK440	2	374	440	7.76	6.69	13.11	197	170	333	13.48	342.5	65.30	29.70	-	F18
MSK500	2	425	500	9.49	6.77	12.97	241	172	329.5	13.39	340	73.70	33.50	-	F18
MSK600	2	510	600	9.49	6.77	12.97	241	172	329.5	13.39	340	78.54	35.70	-	F18
MSK800	2	680	800	18.67	6.85	13.31	474	174	338	13.94	354	121.25	55.00	-	F18
MSK1000	2	850	1000	18.67	6.85	13.31	474	174	338	13.94	354	136.69	62.00	-	F18
HIGH TEMPERATURE SERIES															
FRONT TERMINAL TYPE															
HTP12100A	12	85	100	19.96	4.17	9.25	507	106	235	9.25	235	74.80	34.00	23	F18
HTP12100H	12	90	100	15.55	4.33	11.26	395	110	286	11.26	286	69.30	31.50	23	F8
HTP12150	12	127.5	150	21.65	4.33	11.34	550	110	288	11.34	288	108.00	49.00	23	F18
TOP TERMINAL TYPE															
HTP100-12N	12	85	100	13.31	6.69	8.35	338	170	212	8.54	217	71.50	32.50	9	F8
HTP100-12RN	12	85	100	12.97	6.78	8.46	329.5	172.3	215	8.74	222	69.30	31.50	9	F18
HTP120-12N	12	102	120	16.06	6.97	8.82	408	177	224	8.82	224	81.40	37.00	14	F18
HTP150-12N	12	127.5	150	19.02	6.69	9.45	483	170	240	9.45	240	106.00	48.40	9	F18
HTP200-12N	12	170	200	20.55	9.37	8.62	522	238	219	8.82	224	161.00	73.20	22	F18

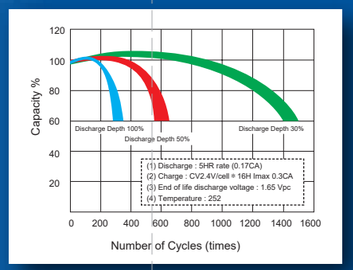
- For batteries' capacity above 18Ah, all dimensions given are +2/-1mm (+0.08/-0.04 inches)
- Please refer to all the details of the specification sheet
- In accordance with IEC60896-21/22: 2004

CHARACTERISTIC

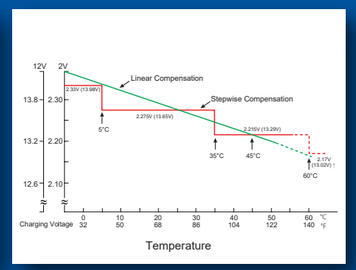
TPK & MSK SERIES

Cycle Service Life

HTP SERIES

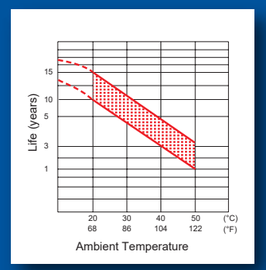


Cycle Service Life



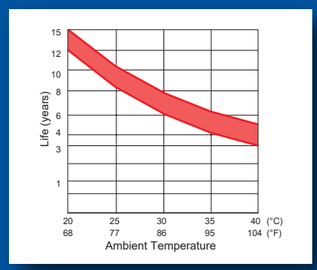
Relationship Between Temperature and Charging Voltage

TPK & HTP SERIES



Trickle (or Float) Service Life

MSK SERIES



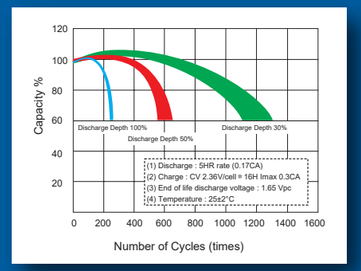
Trickle (or Float) Service Life

PLG (FULL GEL)

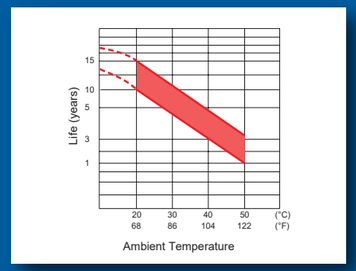
BATTERY TYPE	NOMINAL VOLTAGE (V)	NOMINAL CAPACITY (Ah)		DIMENSION								WEIGHT (APPROX.)		ASSEMBLY FIGURE	
		5HR	10HR	L	W	H	L	W	H	HT OVER TERMINAL		lbs	kg	TERMINAL POSITION	TERMINAL TYPE
				in	in	in	mm	mm	mm	in	mm				
STATIONARY BATTERIES SERIES															
FULL GEL TOP TERMINAL TYPE															
PLG100-12RN	12	85	100	12.97	6.78	8.46	329.5	172.3	215	8.74	222	68.90	31.30	9	F18
PLG120-12RN	12	102	120	16.06	6.97	8.82	408	177	224	8.82	224	81.40	37.00	9	F18
PLG150-12N	12	127.5	150	19.02	6.69	9.45	483	170	240	9.45	240	114.60	52.00	9	F18
PLG200-12AN	12	170	200	20.55	9.37	8.62	522	238	219	8.83	225	140.50	64.00	22	F18
PLG200-12N	12	170	200	20.55	9.37	8.62	522	238	219	8.83	225	146.00	66.50	22	F18
12V FULL GEL FRONT TERMINAL TYPE															
PLG12150	12	130	150	21.65	4.33	11.34	550	110	288	11.34	288	110.00	50.00	23	F18
2V FULL GEL TYPE															
PLG200A	2	170	200	6.69	4.17	13.11	170	106	333	13.31	338	30.80	14.00	-	F18
PLG300A	2	255	300	6.69	5.91	13.11	170	150	333	13.31	338	45.20	20.50	-	F18
PLG400A	2	340	400	7.76	6.69	13.11	197	170	333	13.31	338	63.90	29.00	-	F18
PLG500A	2	425	500	9.49	6.77	13.23	241	172	336	13.39	340	68.30	31.00	-	F18
PLG600A	2	510	600	9.49	6.77	13.23	241	172	336	13.39	340	79.37	36.00	-	F18
PLG800A	2	680	800	18.67	6.85	13.31	474	174	338	13.94	354	121.25	55.00	-	F18
PLG1000A	2	850	1000	18.67	6.85	13.31	474	174	338	13.94	354	136.69	62.00	-	F18

- For batteries' capacity above 18Ah, all dimensions given are +2/-1mm (+0.08/-0.04 inches)
- Please refer to all the details of the specification sheet
- In accordance with IEC60896-21/22: 2004

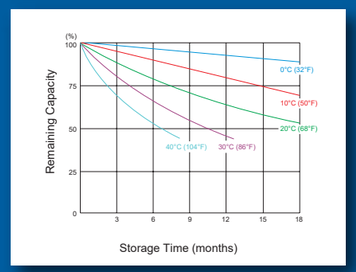
CHARACTERISTIC



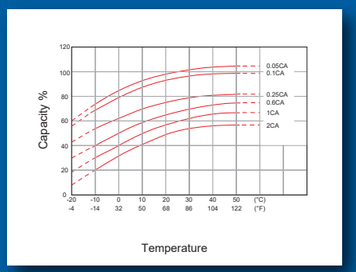
Cycle Service Life



Trickle (or Float) Service Life



Capacity Retention Characteristic



Effect of Temperature on Capacity 25°C (77°F)

COMPANY INTRODUCTION

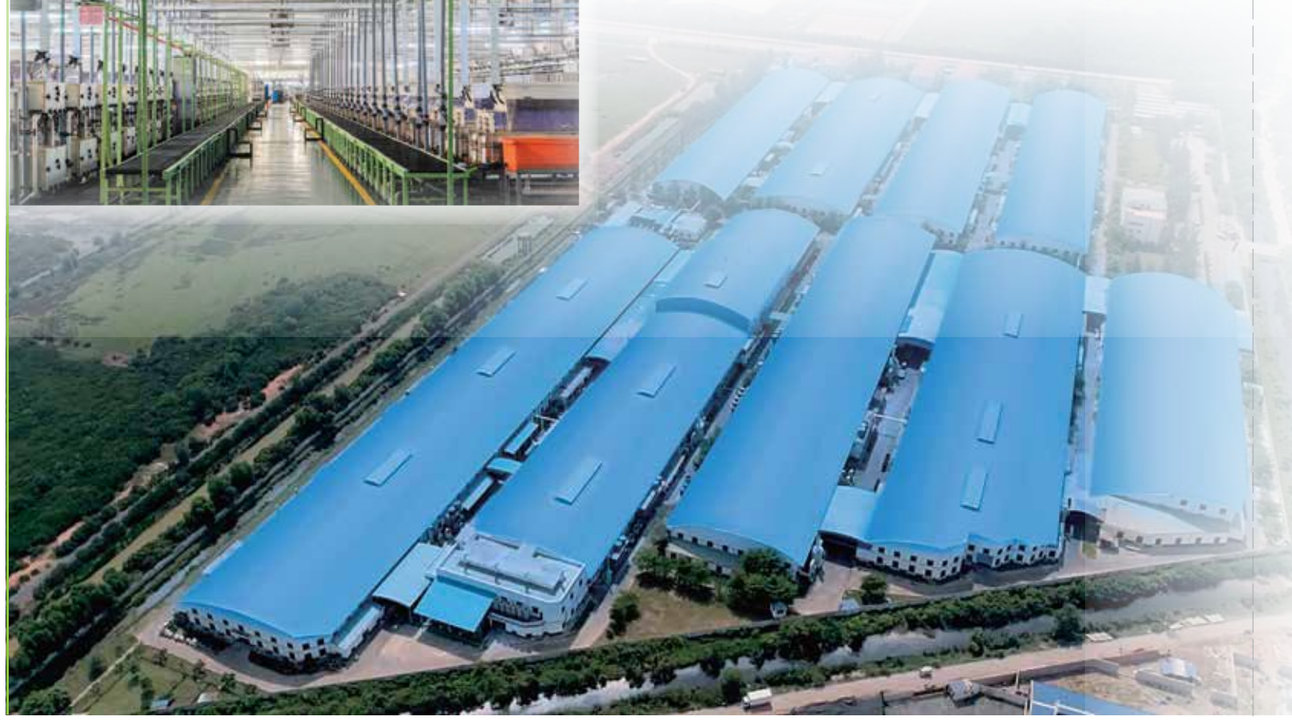
ABOUT KUNG LONG

Established in 1990, we are the only listed specialist lead-acid battery manufacturer in Taiwan. In addition to our first factory in Taiwan, we have two more modern production facilities in Vietnam. With a total developed area of 252,000m^2, each has passed ISO9001, TL9000, ISO14001, ISO17025,and ISO45001 certification.

In terms of product manufacturing, Kung Long possesses strict standards for each step of the manufacturing process, along with revolutionary innovations and implementations in the technology system, management methods and administrative procedures. Under precise manufacturing standards and insurance of product compliance of quality management systems, our entire collection of sealed battery products have passed UL safety standards. In addition, we have also passed German VdS certification to meet quality demands of the security system market in the European region. Renowned international corporations both domestic and overseas have voiced support and affirmation of our products' quality. We believe that customer satisfaction is not only from the product itself, but is also built from immediate service and establishment of a friendly working relationship with clients those are measures to provide extra value and enhance customer satisfaction. Thus, Kung Long earned the Gold Award for Customer Satisfaction, and also earned the honor of the Taiwan Excellence Award from the Ministry of Economic Affairs.

Our innovative developments stem from abundant experience and energy. With our competitive advantage of a broad, complete product line and flexible manufacturing technologies, Kung Long has developed more than 400 types of batteries for various usages. We continue developing batteries for renewable energy applications, such as electric vehicles, solar power and renewable energy. Because of our untiring efforts of product innovation and development and proactive attitude, since 1993 Kung Long has cooperated with the Industrial Technology Research Institute's Material & Chemical Research Laboratories on the development of deep-cycle sealed batteries, electric scooter batteries, and high-power surface modified batteries. We have also introduced new technologies from many sources and invested in a multitude of advanced facilities, demonstrating our mission and promise to provide state-of-the art services to customers whiles we are pursuing sustainable development.

Taiwanese Origins, Vietnamese Roots, and World Vision are Kung Long's main concern. Kung Long's goal is to provide clean energy for global consumers while upholding social and environmental responsibilities to promote continual growth, sustained development and untiring efforts within the company.



HISTORY

Our expertise comes from our ample experiences

2020 Awarded "TAIWAN EXCELLENCE" by Ministry of Economic Affairs

2019 Le Long Vietnam Co., Ltd. obtained ISO45001
Awarded Excellent Supplier by Honda Vietnam

2017 Obtained ISO17025 Certificate of Accreditation
Awarded CHAMPION of Excellent Supplier By APC by SE

2016 Developed and accomplished High Temperature Batteries, HTP Series.

2015 Le Long Vietnam Co., Ltd. obtained ISO14001 and OHSAS18001
Qualified by HONDA for ISS battery
Qualified as Green Supplier by APC by SE

2014 Applied new automatic equipment into production Idling motorcycle batteries obtained Japan's biggest central factory's approval

2012 Developed and accomplished Long Life Batteries, WPL Series

2011 BI (Business Intelligence) system on line

2010 Introduce new CI
Developed and accomplished Stationary Batteries, MSK & TPK Series

2008 Obtained TL9000 Quality Management System Certificate in Vietnam

2007 Established the 2nd Plant (Duc Hoa) in Vietnam where occupies 200,000 square meters

2003 Obtained CE Certificate for EU product Safety standard
Le Long Vietnam Co., Ltd. obtained VdS German Approval

2002 Obtained OHSAS18001 International Safety Management System Certificate

2001 Approved for a listed company in Taiwan. (TWSE:1537)

2000 Obtained ISO9001 International quality management system Certificate

1999 Obtained ISO14001 International environmental Certificate

1998 Awarded with the "Excellence of Taiwan Award" by the Ministry of Economic Affairs

1997 Awarded with the "Gold Award for Customer Satisfaction"

1996 Obtained VdS German product Safety approval
Became a bonded factory and passed National Defense appraisal in Taiwan
Established 1st LE LONG Vietnam plant

1994 ISO9002 International Quality Certificate was obtained

1993 Developed Deep-Cycle SLA batteries with Materials Research Laboratories of the Industrial Technology Research Institute

1991 Obtained UL mark for US product safety standards

1990 Kung Long was approved to establish in Nan Kang Industrial Park