

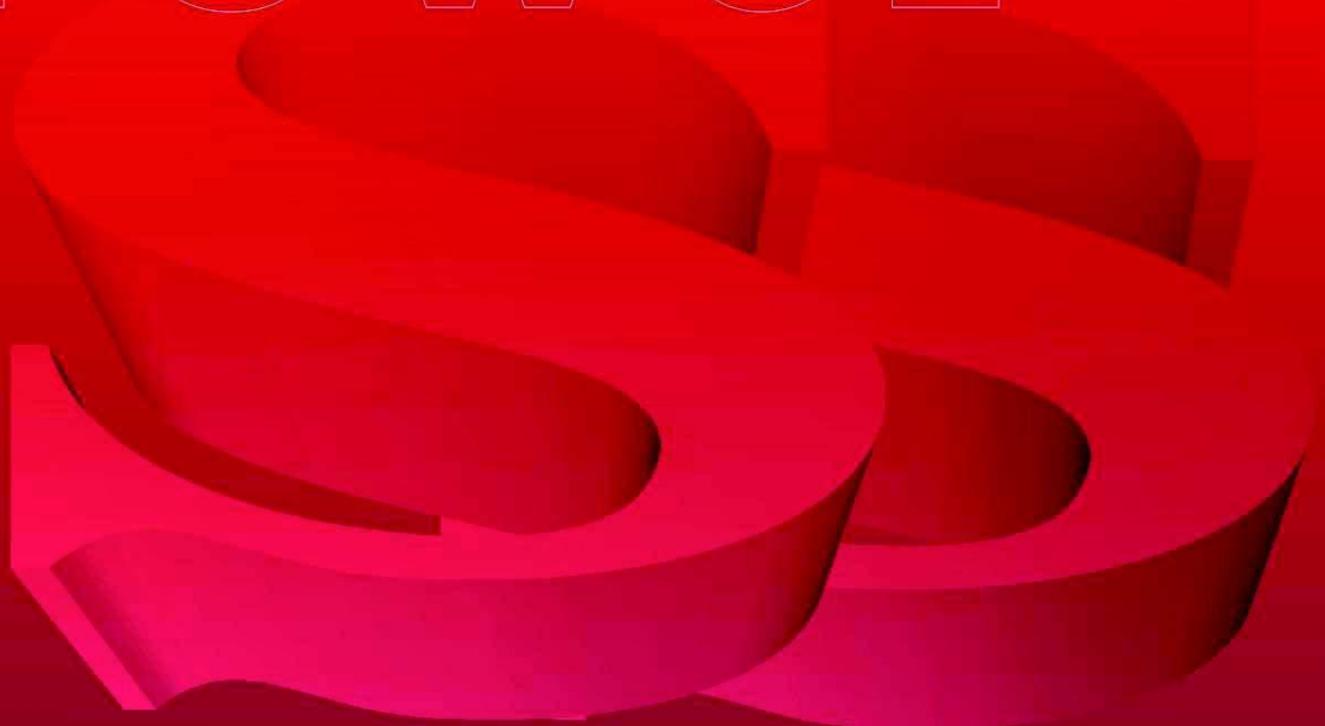


SunStonePower

SunStone

SUNSTONE POWER INDUSTRY CO., LTD.

Power

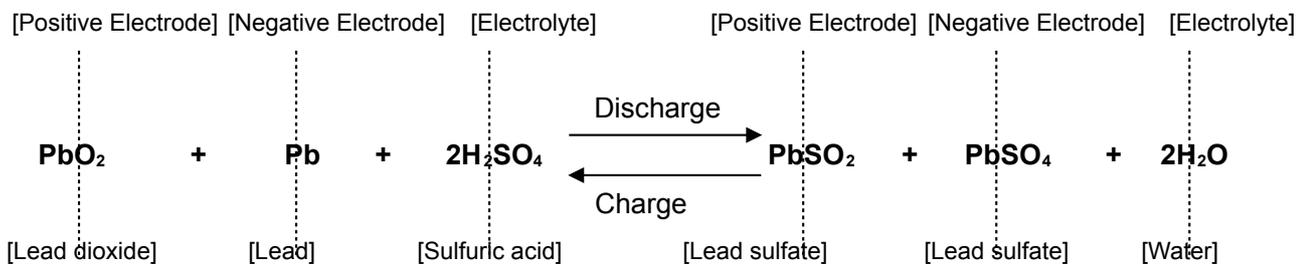


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Sunstone VRLA Battery Family

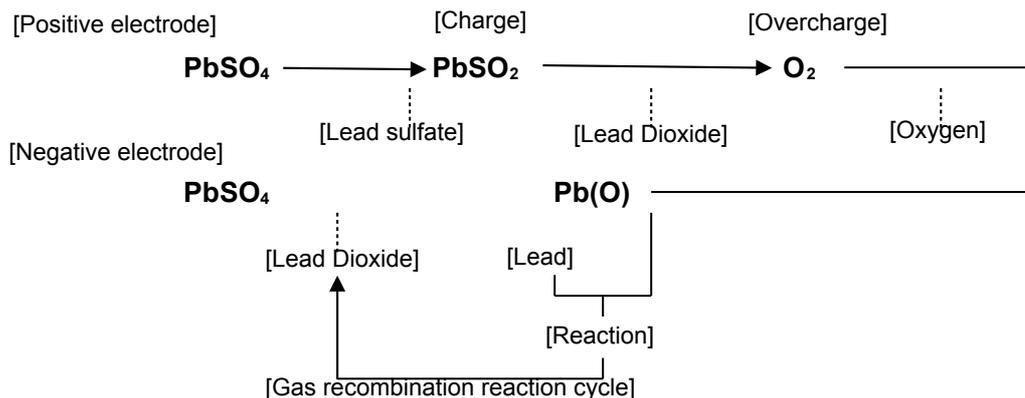
- //SPT series- -Standard AGM 6V/12V battery with 5 years design life
- //ML series- -High Tin alloy AGM 6V12V battery with 10 years design life
- //MLG series- - High Tin alloy Gel 6V12V battery with 12 years design life
- //VG series- - Front Terminal AGM 12V battery with 10 years design life
- //VGG series- - Front Terminal Gel 12V battery with 10 years design life
- //UC series- - Standard AGM 2V battery with 10 years design life
- //UCG series- - 2V Gel battery with 12 years design life
- //UCH series- -2V AGM Modular design battery with 20 years design life
- //OPG series- -2V Gel tubular plate battery with 25 years design life
- //OPS series- - 2V flooded tubular plates battery with 25 years design life

Working Rationale of Batteries



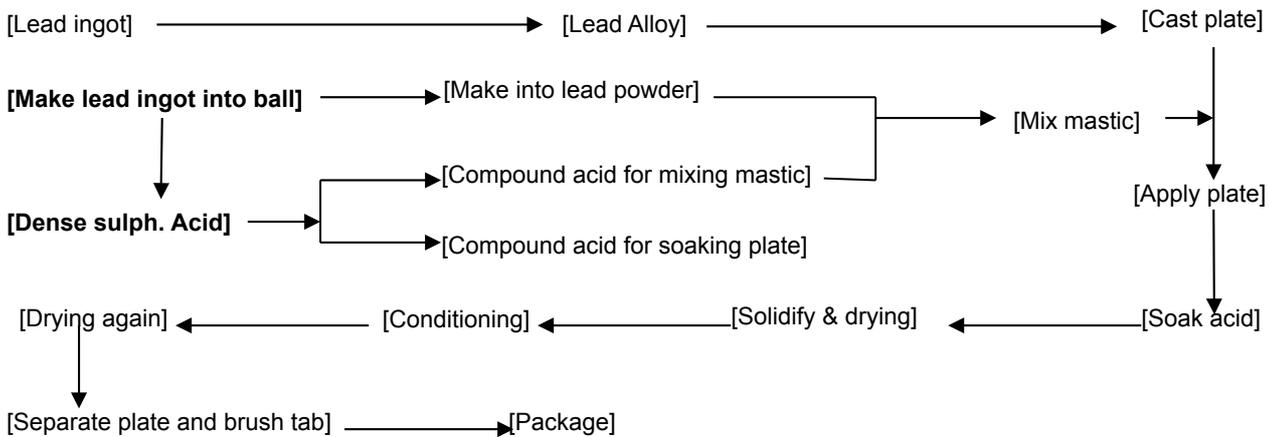
“Charge” is the operation of supplying the rechargeable battery with direct current from an external power sources to change the active material in the negative plate chemically, and thence to store in the battery electric energy in the form of chemical energy.

“Discharge” is the operation of drawing our electric energy from the battery to operate external equipment.

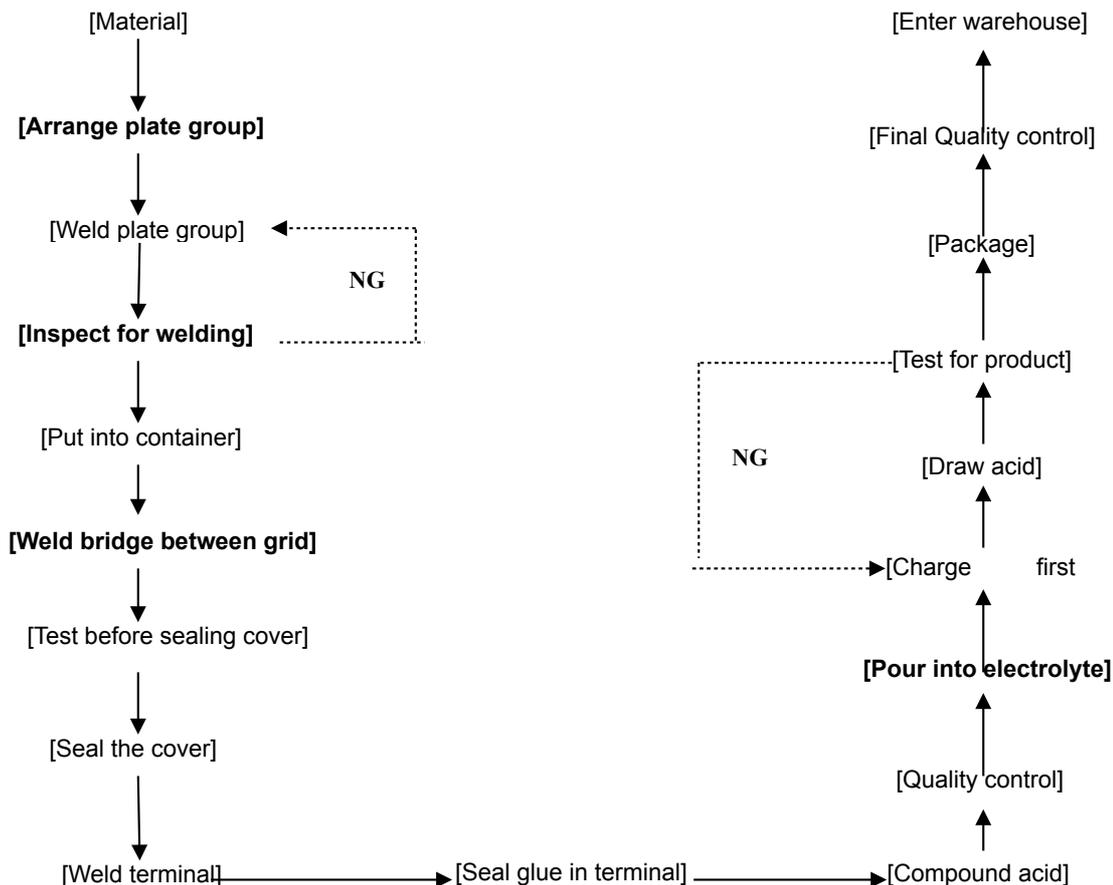


In the final stage of charging, an oxygen-generating reaction occurs at the positive plates. This oxygen transfers inside the battery, then is absorbed into the surface of the surface of the negative plates and consumed.

Electrode Plate Process Flow



Battery Process Flow



Feature

|| Sealed Construction and leakproof

SunStone batteries have special sealed and valve regulated construction. All the acid inside the battery is suspended in a formulated non-woven glass mat separator and it is absorbed in the manner. This construction ensure leakproof during normal operation.

|| Maintenance Free

For SunStone batteries, there is no need to check or add water or any other specific gravity during the whole service life of the batteries.

|| Electrolyte Suspension Design

SunStone batteries utilize an electrolyte suspension system consisting of a high porosity, glass fiber material which is in conjunction with plate, totally absorb and contain the electrolyte. No silica gels or any other contaminants are used.

|| Gas Generation

In the normal charge/discharge usage the gasses generated and recombined during the normal operation. More than 99% of the gases generated are efficiently recombined.

|| Safety and Automatic Valve System

If the pressure is over 2-5 psi the safety valve will automatically open and reseal. This promise that there is no any excessive accumulation of gas in the battery.

|| Heavy Duty Grids

The grids are made by heavy duty lead calcium tin alloy. This provides: Safety margin of performance condition, Excellent recovery capacity from deep discharge, Extra service life in either cycle or float application, Low self-discharge when it is not in working.

|| Operation in any position

Because SunStone batteries are sealed and all the acid is absorbed in the special separators, these batteries can be operated in both vertical and horizontal position.

|| Wide Operation Temperature Range

SunStone batteries can be used in wide temperature range from -35°C to 45°C. For Gel type it can be also up to 60°C

|| Available in flame retardant ABS material for the battery case V0

SunStone batteries cases can be made by flame retardant material V0. It depends on the requirement of customer.

Battery Construction

|| Positive Plate

Positive plates are plate electrodes of which a grid frame of lead-tin-calcium alloy holds porous lead dioxide as the active material

|| Negative Plate

Negative plates are plates electrodes of which a grid frame of lead -tin-calcium alloy holds spongy lead as the active material.

|| Electrolyte

Diluted sulfuric acid is used as the medium for conducting ions in the electrochemical reaction in the battery.

|| Separators

Separators, which retain electrolyte and prevent shorting between positive and negative plates, adopt a non-woven fabric of fine glass fibers which is chemically stable in the diluted sulfuric acid electrolyte. Being highly porous, separators retain electrolyte for the reaction of active materials in the plates.

|| Valve (One way valve)

The valve is comprised of one-way valve made of material such as neoprene. When gas is generated in the battery under extreme overcharge condition due to erroneous charging, charger malfunctions or other abnormalities, the vent valve opens to release excessive pressure in the battery and maintain the gas pressure within specific range(7.1 to 43.6 Kpa). During ordinary use of the battery, the vent valve is closed to shut out outside air and prevent oxygen in the air from reacting with the active material in the negative electrodes.

|| Positive and negative electrode terminals

Positive and negative electrode terminals may be Faston Tab Type, Bolt & Nuts Type, Copper Insert Type or Spring Type, depending on the type of the battery and requirement of customers. Sealing of the terminal is achieved by a structure which secures long adhesive-embedded paths and by the adoption of strong epoxy adhesives.

|| Battery case materials



Materials of the battery body and cover are ABS resins, unless otherwise specified.

Battery Storage

SunStone VRLA batteries have excellent charge retention characteristics, meaning that the self-discharge rate is low, less than 2% per month at 20°C(68°F). The state of discharge of a battery can be determined by the open circuit voltage of the battery to ensure the battery do not over discharge while in storage. To ensure the battery does not over discharge during storage, or when not in use, it is necessary to understand what is meant by fully discharge. Typically a battery is fully discharge when the open circuit voltage reaches 1.92VPC. The higher the discharge current the quicker the battery reaches a fully discharge state, and the lower current the longer it takes. When the battery has discharge the battery must be recharged immediately to 100% capacity.

Final Acceptable Discharge

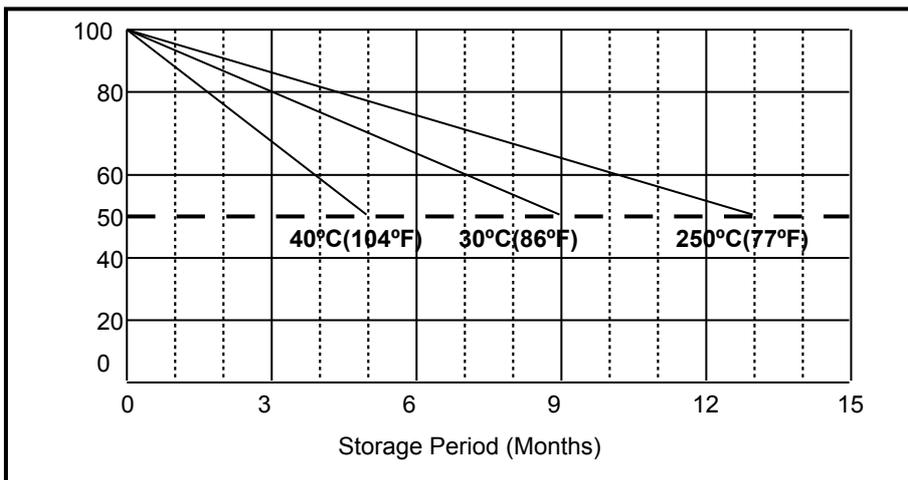
Discharge Current	Final Discharge Voltage Per Cell (VPC)
Up to 0.1CA	1.75
0.11CA to 0.17CA	1.70
0.18CA to 0.25CA	1.67
0.26CA to 0.6CA	1.60

In discharge a battery, lead sulphate (Sulphation) is formed. If the battery is recharged as soon as discharging is complete then the lead sulphate is converted to active material and acid. However, on self-discharge the lead sulphate that is formed may not become reversible again. That is it be recovered. The lower the voltage that a battery is allowed to fall to under self-discharge the more likely it is that the sulphate formation will not be able to reversed and the battery will be damaged beyond recovery.

Please pay attention to the following conditions of storage battery over self-discharge:

- * **The batteries should be stored in a cool, dry place 25°C or below**
- * **The batteries should not be stored in direct sunlight.**
- * **The batteries should not be subjected to an external heat source.**
- * **An adequate stock control system should be introduced.**

Residual Capacity Test Result



SPT Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (20hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
SPT4-3	4	3	66	2.60	33	1.30	75	2.96	80	3.15	0.34	0.75
SPT6-1.3	6	1.3	97	3.82	24	0.95	51.5	2.03	56.5	2.23	0.29	0.64
SPT6-2	6	2	66	2.60	33	1.30	75	2.96	80	3.15	0.35	0.77
SPT6-2.5	6	2.5	70	2.76	47	1.85	101	3.98	106	4.18	0.48	1.06
SPT6-2.8	6	2.8	66	2.60	33	1.30	96	3.78	101	3.98	0.5	1.10
SPT6-4.5	6	4.5	70	2.76	47	1.85	101	3.98	106	4.18	0.69	1.52
SPT6-5	6	5	47	1.85	70	2.76	101	3.98	107	4.22	0.79	1.74
SPT6-7	6	7	151	5.95	35	1.38	94	3.70	100	3.94	1.18	2.60
SPT6-9	6	9	151	5.95	35	1.38	94	3.70	100	3.94	1.3	2.87
SPT6-10	6	10	151	5.95	51	2.01	94	3.70	100	3.94	1.7	3.75
SPT6-12	6	12	151	5.95	51	2.01	94	3.70	100	3.94	1.8	3.97
SPT12-1.2	12	1.2	97	3.82	43	1.69	51.5	2.03	57.5	2.27	0.55	1.21
SPT12-2.2	12	2.2	178	7.01	35	1.38	60	2.36	66	2.60	0.92	2.03
SPT12-2.3	12	2.3	182	7.17	24	0.95	61	2.40	61	2.40	0.78	1.72
SPT12-3.2	12	3.2	134	5.28	67	2.64	60.5	2.38	66.5	2.62	1.28	2.82
SPT12-4	12	4	90	3.55	70	2.76	101	3.98	107	4.22	1.38	3.04
SPT12-4.5	12	4.5	90	3.55	70	2.76	101	3.98	107	4.22	1.4	3.09
SPT12-5	12	5	90	3.55	70	2.76	101	3.98	107	4.22	1.5	3.31
SPT12-5L	12	5	90	3.55	70	2.76	101	3.98	107	4.22	1.6	3.53
SPT12-5L	12	5	151	5.95	65	2.56	94	3.70	100	3.94	1.8	3.97
SPT12-5.4	12	5.4	90	3.55	70	2.76	101	3.98	107	4.22	1.65	3.64
SPT12-6	12	6	151	5.95	65	2.56	94	3.70	100	3.94	1.81	3.99
SPT12-7	12	7	151	5.95	65	2.56	94	3.70	100	3.94	1.98	4.37
SPT12-7	12	7	151	5.95	65	2.56	94	3.70	100	3.94	2.02	4.45
SPT12-7.2	12	7.2	151	5.95	65	2.56	94	3.70	100	3.94	2.08	4.59
SPT12-7.2	12	7.2	151	5.95	65	2.56	94	3.70	100	3.94	2.18	4.81
SPT12-7.5	12	7.5	151	5.95	65	2.56	94.5	3.72	100	3.94	2.22	4.90
SPT12-8	12	8	151	5.95	65	2.56	94	3.70	100	3.94	2.25	4.96
SPT12-9	12	9	151	5.95	65	2.56	94	3.70	100	3.94	2.5	5.51
SPT12-9	12	9	151	5.95	65	2.56	94	3.70	100	3.94	2.38	5.25
SPT12-9	12	9	151	5.95	65	2.56	94	3.70	100	3.94	2.43	5.36
SPT12-10	12	10	151	5.95	98	3.86	95	3.74	101	3.98	3.05	6.73
SPT12-12	12	12	151	5.95	98	3.86	95	3.74	101	3.98	3.25	7.17
SPT12-12	12	12	151	5.95	98	3.86	95	3.74	101	3.98	3.8	8.38
SPT12-14	12	14	151	5.95	98	3.86	95	3.74	101	3.98	3.6	7.94
SPT12-15	12	15	182	7.17	77	3.03	167.5	6.60	167.5	6.60	4.8	10.58
SPT12-18	12	18	182	7.17	77	3.03	167.5	6.60	167.5	6.60	5	11.03
SPT12-18	12	18	182	7.17	77	3.03	167.5	6.60	167.5	6.60	5.35	11.80
SPT12-20	12	20	182	7.17	77	3.03	167.5	6.60	167.5	6.60	5.8	12.79

ML Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
ML12-24	12	24	175	6.90	166	6.54	125	4.93	125	4.93	7.5	16.54
ML12-26	12	26	175	6.90	166	6.54	125	4.93	125	4.93	7.9	17.42
ML12-27	12	27	175	6.90	166	6.54	125	4.93	125	4.93	8.1	17.86
ML12-28	12	28	175	6.90	166	6.54	125	4.93	125	4.93	8.6	18.96
ML12-28	12	28	165	6.50	126	4.96	175	6.90	179	7.05	9.2	20.29
ML12-33	12	33	195	7.68	130	5.12	154	6.07	165	6.50	10.5	23.15
ML12-35	12	35	195	7.68	130	5.12	154	6.07	161	6.34	11.2	24.70
ML12-38	12	38	197	7.76	165	6.50	170	6.70	170	6.70	12.5	27.56
ML12-40	12	40	197	7.76	165	6.50	170	6.70	170	6.70	13	28.67
ML12-44	12	44	197	7.76	185	7.29	170	6.70	170	6.70	14	30.87
ML12-50	12	50	228	8.98	137	5.40	210	8.27	216	8.51	16.2	35.72
ML12-55	12	55	228	8.98	137	5.40	210	8.27	214	8.43	16.5	36.38
ML12-60	12	60	228	8.98	137	5.40	210	8.27	216	8.51	18	39.69
ML12-65	12	65	350	13.79	168	6.62	178	7.01	178	7.01	20.5	45.20
ML12-70	12	70	260	10.24	168	6.62	208	8.20	212	8.35	22	48.51
ML12-75	12	75	260	10.24	168	6.62	208	8.20	212	8.35	23.5	51.82
ML12-80	12	80	259	10.20	168	6.62	208	8.20	212	8.35	24.3	53.58
ML12-90	12	90	309	12.17	169	6.66	208	8.20	227	8.94	26.5	58.43
ML12-100	12	100	328	12.92	172	6.78	214	8.43	220	8.67	28.5	62.84
ML12-110	12	110	328	12.92	172	6.78	214	8.43	220	8.67	30	66.15
ML12-110	12	100	328	12.92	172	6.78	214	8.43	220	8.67	31	68.36
ML12-120	12	120	407	16.04	174	6.86	209	8.23	238	9.38	35.8	78.94
ML12-135	12	135	483	19.03	170	6.70	241	9.50	241	9.50	40.5	89.30
ML12-140	12	140	483	19.03	170	6.70	241	9.50	241	9.50	42	92.61
ML12-150	12	150	483	19.03	170	6.70	241	9.50	241	9.50	44	97.02
ML12-160	12	160	532	20.96	207	8.16	215	8.47	220	8.67	53	116.87
ML12-180	12	180	532	20.96	207	8.16	215	8.47	220	8.67	57.5	126.79
ML12-190	12	190	522	20.57	240	9.46	218	8.59	224	8.83	58.5	128.99
ML12-200	12	200	522	20.57	240	9.46	218	8.59	224	8.83	58.5	128.99
ML12-200	12	200	522	20.57	240	9.46	218	8.59	224	8.83	61.5	135.61
ML12-220	12	220	520	20.49	269	10.60	208	8.20	213	8.39	64.8	142.88
ML12-230	12	230	520	20.49	269	10.60	208	8.20	213	8.39	67	147.74
ML12-240	12	240	520	20.49	269	10.60	220	8.67	249	9.81	68	149.94
ML12-250	12	250	522	20.57	269	10.60	220	8.67	249	9.81	71.5	157.66
ML12-260	12	260	522	20.57	269	10.60	220	8.67	249	9.81	72.5	159.86
ML12-270	12	270	522	20.57	269	10.60	220	8.67	249	9.81	73	160.97
ML6-110	6	110	195	7.68	170	6.70	206	8.12	211	8.31	15.5	34.18
ML6-150	6	150	260	10.24	180	7.09	247	9.73	252	9.93	23.2	51.16
ML6-160	6	160	306	12.06	168	6.62	222	8.75	226	8.90	26	57.33
ML6-180	6	180	306	12.06	168	6.62	222	8.75	226	8.90	27	59.54
ML6-200	6	200	306	12.06	168	6.62	222	8.75	226	8.90	28.5	62.84
ML6-200	6	200	260	10.24	180	7.09	247	9.73	252	9.93	29	63.95
ML6-220	6	220	260	10.24	180	7.09	247	9.73	252	9.93	30.5	67.25
ML6-300	6	300	298	11.74	178	7.01	345	13.59	350	13.79	35	77.18

MLG Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (20hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
MLG12-24	12	24	175	6.90	166	6.54	125	4.93	125	4.93	7.6	16.70
MLG12-26	12	26	175	6.90	166	6.54	125	4.93	125	4.93	8.0	17.59
MLG12-27	12	27	175	6.90	166	6.54	125	4.93	125	4.93	8.2	18.04
MLG12-28	12	28	175	6.90	166	6.54	125	4.93	125	4.93	8.7	19.15
MLG12-28	12	28	165	6.50	126	4.96	175	6.90	179	7.05	9.3	20.49
MLG12-33	12	33	195	7.68	130	5.12	154	6.07	165	6.50	10.6	23.38
MLG12-35	12	35	195	7.68	130	5.12	154	6.07	161	6.34	11.3	24.94
MLG12-38	12	38	197	7.76	165	6.50	170	6.70	170	6.70	12.6	27.84
MLG12-40	12	40	197	7.76	165	6.50	170	6.70	170	6.70	13.1	28.95
MLG12-44	12	44	197	7.76	185	7.29	170	6.70	170	6.70	14.1	31.18
MLG12-50	12	50	228	8.98	137	5.40	210	8.27	216	8.51	16.4	36.08
MLG12-55	12	55	228	8.98	137	5.40	210	8.27	214	8.43	16.7	36.75
MLG12-60	12	60	228	8.98	137	5.40	210	8.27	216	8.51	18.2	40.09
MLG12-65	12	65	350	13.79	168	6.62	178	7.01	178	7.01	20.7	45.65
MLG12-70	12	70	260	10.24	168	6.62	208	8.20	212	8.35	22.2	49.00
MLG12-75	12	75	260	10.24	168	6.62	208	8.20	212	8.35	23.7	52.34
MLG12-80	12	80	259	10.20	168	6.62	208	8.20	212	8.35	24.5	54.12
MLG12-90	12	90	309	12.17	169	6.66	208	8.20	227	8.94	26.8	59.02
MLG12-100	12	100	328	12.92	172	6.78	214	8.43	220	8.67	28.8	63.47
MLG12-110	12	110	328	12.92	172	6.78	214	8.43	220	8.67	30.3	66.81
MLG12-110	12	100	328	12.92	172	6.78	214	8.43	220	8.67	31.3	69.04
MLG12-120	12	120	407	16.04	174	6.86	209	8.23	238	9.38	36.2	79.73
MLG12-135	12	135	483	19.03	170	6.70	241	9.50	241	9.50	40.9	90.20
MLG12-140	12	140	483	19.03	170	6.70	241	9.50	241	9.50	42.4	93.54
MLG12-150	12	150	483	19.03	170	6.70	241	9.50	241	9.50	44.4	97.99
MLG12-160	12	160	532	20.96	207	8.16	215	8.47	220	8.67	53.5	118.03
MLG12-180	12	180	532	20.96	207	8.16	215	8.47	220	8.67	58.1	128.06
MLG12-190	12	190	522	20.57	240	9.46	218	8.59	224	8.83	59.1	130.28
MLG12-200	12	200	522	20.57	240	9.46	218	8.59	224	8.83	59.1	130.28
MLG12-200	12	200	522	20.57	240	9.46	218	8.59	224	8.83	62.1	136.96
MLG12-220	12	220	520	20.49	269	10.60	208	8.20	213	8.39	65.4	144.31
MLG12-230	12	230	520	20.49	269	10.60	208	8.20	213	8.39	67.7	149.21
MLG12-240	12	240	520	20.49	269	10.60	220	8.67	249	9.81	68.7	151.44
MLG12-250	12	250	522	20.57	269	10.60	220	8.67	249	9.81	72.2	159.23
MLG12-260	12	260	522	20.57	269	10.60	220	8.67	249	9.81	73.2	161.46
MLG12-270	12	270	522	20.57	269	10.60	220	8.67	249	9.81	73.7	162.57
MLG6-110	6	110	195	7.68	170	6.70	206	8.12	211	8.31	15.7	34.52
MLG6-150	6	150	260	10.24	180	7.09	247	9.73	252	9.93	23.4	51.67
MLG6-160	6	160	306	12.06	168	6.62	222	8.75	226	8.90	26.3	57.90
MLG6-180	6	180	306	12.06	168	6.62	222	8.75	226	8.90	27.3	60.13
MLG6-200	6	200	306	12.06	168	6.62	222	8.75	226	8.90	28.8	63.47
MLG6-200	6	200	260	10.24	180	7.09	247	9.73	252	9.93	29.3	64.58
MLG6-220	6	220	260	10.24	180	7.09	247	9.73	252	9.93	30.8	67.93
MLG6-300	6	300	298	11.74	178	7.01	345	13.59	350	13.79	35.4	77.95

VG Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
VG12-55	12	55	227	8.94	106	4.18	222	8.75	222	8.75	17.5	38.59
VG12-75	12	75	563	22.18	115	4.53	188	7.41	188	7.41	28.5	62.84
VG12-80	12	80	394	15.52	110	4.33	285	11.23	285	11.23	31	68.36
VG12-100	12	100	394	15.52	110	4.33	285	11.23	285	11.23	35	77.18
VG12-100	12	100	560	22.06	125	4.93	222	8.75	222	8.75	31	68.36
VG12-125	12	125	551	21.71	110	4.33	287	11.31	287	11.31	41	90.41
VG12-130	12	130	551	21.71	110	4.33	287	11.31	287	11.31	43.5	95.92
VG12-150	12	150	551	21.71	110	4.33	287	11.31	287	11.31	46.5	102.53
VG12-155	12	155	551	21.71	110	4.33	287	11.31	287	11.31	48	105.84
VG12-180	12	180	521	20.53	125	4.93	316	12.45	316	12.45	54	119.07

VGG Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
VGG12-55	12	55	227	8.94	106	4.18	222	8.75	222	8.75	17.7	38.97
VGG12-80	12	75	563	22.18	115	4.53	188	7.41	188	7.41	28.8	63.47
VGG12-80	12	80	394	15.52	110	4.33	285	11.23	285	11.23	31.3	69.04
VGG12-100	12	100	394	15.52	110	4.33	285	11.23	285	11.23	35.4	77.95
VGG12-100	12	100	560	22.06	125	4.93	222	8.75	222	8.75	31.3	69.04
VGG12-125	12	125	551	21.71	110	4.33	287	11.31	287	11.31	41.4	91.31
VGG12-150	12	150	551	21.71	110	4.33	287	11.31	287	11.31	47.0	103.56
VGG12-180	12	180	521	20.53	125	4.93	316	12.45	316	12.45	54.5	120.26

UC Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
UC2-50	2	50	161	6.34	50	1.97	166	6.54	166	6.54	3.9	8.60
UC2-75	2	100	170	6.70	72	2.84	205	8.08	212	8.35	5.2	11.47
UC2-100	2	100	170	6.70	72	2.84	205	8.08	212	8.35	6.0	13.23
UC2-120	2	120	170	6.70	72	2.84	205	8.08	212	8.35	6.5	14.33
UC2-200	2	200	173	6.82	111	4.37	328	12.92	365	14.38	12.5	27.56
UC2-250	2	250	170	6.70	150	5.91	328	12.92	366	14.42	15.5	34.18
UC2-300	2	300	170	6.70	150	5.91	328	12.92	366	14.42	19.5	43.00
UC2-350	2	350	170	6.70	150	5.91	328	12.92	366	14.42	21.6	47.63
UC2-400	2	400	210	8.27	175	6.90	330	13.00	367	14.46	27.0	59.54
UC2-420	2	420	210	8.27	175	6.90	330	13.00	367	14.46	27.5	60.64
UC2-500	2	500	241	9.50	172	6.78	331	13.04	366	14.42	31.0	68.36
UC2-600	2	600	300	11.82	175	6.90	330	13.00	366	14.42	35.0	77.18
UC2-650	2	650	300	11.82	175	6.90	330	13.00	366	14.42	37.2	82.03
UC2-750	2	750	300	11.82	175	6.90	330	13.00	366	14.42	44.0	97.02
UC2-800	2	800	410	16.15	175	6.90	330	13.00	365	14.38	50.0	110.25
UC2-1000	2	1000	475	18.72	175	6.90	328	12.92	365	14.38	57.0	125.69
UC2-1200	2	1200	475	18.72	175	6.90	328	12.92	365	14.38	73.5	162.07
UC2-1300	2	1300	401	15.80	351	13.83	342	13.47	378	14.89	88.0	194.04
UC2-1500	2	1500	401	15.80	351	13.83	342	13.47	378	14.89	93.0	205.07
UC2-2000	2	2000	491	19.35	351	13.83	344	13.55	383	15.09	115.0	253.58
UC2-2500	2	2500	712	28.05	353	13.91	340	13.40	382	15.05	158.0	348.39
UC2-3000	2	3000	712	28.05	353	13.91	340	13.40	382	15.05	182.0	401.31

UCG Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
UCG2-50	2	50	161	6.34	50	1.97	166	6.54	166	6.54	3.9	8.69
UCG2-75	2	100	170	6.70	72	2.84	205	8.08	212	8.35	5.3	11.58
UCG2-100	2	100	170	6.70	72	2.84	205	8.08	212	8.35	6.1	13.36
UCG2-200	2	200	173	6.82	111	4.37	328	12.92	365	14.38	12.6	27.84
UCG2-250	2	250	170	6.70	150	5.91	328	12.92	366	14.42	15.7	34.52
UCG2-300	2	300	170	6.70	150	5.91	328	12.92	366	14.42	19.7	43.43
UCG2-350	2	350	170	6.70	150	5.91	328	12.92	366	14.42	21.8	48.10
UCG2-400	2	400	210	8.27	175	6.90	330	13.00	367	14.46	27.3	60.13
UCG2-500	2	500	241	9.50	172	6.78	331	13.04	366	14.42	31.3	69.04
UCG2-600	2	600	300	11.82	175	6.90	330	13.00	366	14.42	35.4	77.95
UCG2-650	2	650	300	11.82	175	6.90	330	13.00	366	14.42	37.6	82.85
UCG2-750	2	750	300	11.82	175	6.90	330	13.00	366	14.42	44.4	97.99
UCG2-800	2	800	410	16.15	175	6.90	330	13.00	365	14.38	50.5	111.35
UCG2-1000	2	1000	475	18.72	175	6.90	328	12.92	365	14.38	57.6	126.94
UCG2-1300	2	1300	401	15.80	351	13.83	342	13.47	378	14.89	88.9	195.98
UCG2-1500	2	1500	401	15.80	351	13.83	342	13.47	378	14.89	93.9	207.12
UCG2-2000	2	2000	491	19.35	351	13.83	344	13.55	383	15.09	116.2	256.11
UCG2-2500	2	2500	712	28.05	353	13.91	340	13.40	382	15.05	159.6	351.87
UCG2-3000	2	3000	712	28.05	353	13.91	340	13.40	382	15.05	183.8	405.32

UCH Series General Information

Model	System Volt. (V)	Nom. Capa. (10hr)(Ah)	Dimention						Modula Weight		System Weight	
			H		W		D		(Kg)	(Ib)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
UCH2-100	48	100	-	-	437	17.22	330	13.00	7.2	0.28	260	573.30
UCH2-150	48	150	-	-	538	21.20	330	13.00	9.4	0.37	316	696.78
UCH2-200	48	200	-	-	665	26.20	330	13.00	12	0.47	388	855.54
UCH2-300	48	300	-	-	893	35.18	330	13.00	18	0.71	546	1203.93
UCH2-400	48	400	-	-	779	30.69	516	20.33	24	0.95	700	1543.50
UCH2-500	48	500	-	-	957	37.71	516	20.33	30	1.18	856	1887.48
UCH2-600	48	600	-	-	1071	42.20	516	20.33	35	1.38	986	2174.13
UCH2-830	48	830	-	-	801	31.56	516	20.33	49	1.93	1356	2989.98
UCH2-1000	48	1000	-	-	915	36.05	516	20.33	59	2.32	1636	3607.38
UCH2-1100	48	1100	-	-	972	38.30	516	20.33	63	2.48	1780	3924.90
UCH2-1200	48	1200	-	-	972	38.30	516	20.33	67	2.64	1880	4145.40
UCH2-1500	48	1500	-	-	1147	45.19	465	18.32	90	3.55	2460	5424.30
UCH2-1600	48	1600	-	-	1147	45.19	465	18.32	96	3.78	2600	5733.00
UCH2-1800	48	1800	-	-	1147	45.19	562	22.14	110	4.33	3000	6615.00
UCH2-2000	48	2000	-	-	1147	45.19	562	22.14	118	4.65	3200	7056.00

OPG Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
OPG2-200	2	200	103	4.06	206	8.12	355	13.99	390	15.37	16.8	37.04
OPG2-250	2	250	124	4.89	206	8.12	355	13.99	390	15.37	20.5	45.20
OPG2-300	2	300	145	5.71	206	8.12	355	13.99	390	15.37	24.5	54.02
OPG2-350	2	350	124	4.89	206	8.12	471	18.56	506	19.94	28.5	62.84
OPG2-420	2	420	145	5.71	206	8.12	471	18.56	506	19.94	33.0	72.77
OPG2-490	2	490	166	6.54	206	8.12	471	18.56	506	19.94	38.5	84.89
OPG2-600	2	600	145	5.71	206	8.12	646	25.45	681	26.83	46.5	102.53
OPG2-770	2	770	253	9.97	210	8.27	471	18.56	506	19.94	56.0	123.48
OPG2-800	2	800	191	7.53	210	8.27	646	25.45	681	26.83	63.5	140.02
OPG2-1000	2	1000	233	9.18	210	8.27	646	25.45	681	26.83	77.0	169.79
OPG2-1200	2	1200	275	10.84	210	8.27	646	25.45	681	26.83	92.0	202.86
OPG2-1500	2	1500	275	10.84	210	8.27	796	31.36	831	32.74	110.0	242.55
OPG2-2000	2	2000	399	15.72	214	8.43	772	30.42	807	31.80	150.0	330.75
OPG2-2500	2	2500	487	19.19	212	8.35	772	30.42	807	31.80	190.0	418.95
OPG2-3000	2	3000	576	22.69	212	8.35	772	30.42	807	31.80	225.0	496.13

OPS Series General Information

Model	Nom. Volt.(V)	Nom. Capa. (10hr)(Ah)	Dimention						H Over Terminal		Weight Approx	
			L		W		H		(mm)	(in)	(Kg)	(Ib)
			(mm)	(in)	(mm)	(in)	(mm)	(in)				
OPS2-100	2	100	103	4.06	206	8.12	355	13.99	410	16.15	8.1	17.86
OPS2-150	2	150	103	4.06	206	8.12	355	13.99	410	16.15	10.8	23.81
OPS2-200	2	200	103	4.06	206	8.12	355	13.99	410	16.15	12.9	28.44
OPS2-250	2	250	124	4.89	206	8.12	355	13.99	410	16.15	15.4	33.96
OPS2-300	2	300	145	5.71	206	8.12	355	13.99	410	16.15	18.5	40.79
OPS2-350	2	350	124	4.89	206	8.12	471	18.56	526	20.72	21	46.31
OPS2-420	2	420	145	5.71	206	8.12	471	18.56	526	20.72	24.5	54.02
OPS2-490	2	490	166	6.54	206	8.12	471	18.56	526	20.72	28.2	62.18
OPS2-600	2	600	145	5.71	206	8.12	646	25.45	701	27.62	33.4	73.65
OPS2-800	2	800	191	7.53	210	8.27	646	25.45	701	27.62	46.9	103.41
OPS2-1000	2	1000	233	9.18	210	8.27	646	25.45	701	27.62	57.4	126.57
OPS2-1200	2	1200	275	10.84	210	8.27	646	25.45	701	27.62	67.7	149.28
OPS2-1500	2	1500	275	10.84	210	8.27	796	31.36	851	33.53	83.8	184.78
OPS2-2000	2	2000	399	15.72	214	8.43	772	30.42	827	32.58	110	242.55
OPS2-2500	2	2500	487	19.19	212	8.35	772	30.42	827	32.58	139.4	307.38
OPS2-3000	2	3000	576	22.69	212	8.35	772	30.42	827	32.58	164.8	363.38

Sunstone SPT Series



Sunstone ML Series



Sunstone MLG Series



Sunstone VG Series



Sunstone VGG Series



Sunstone UC Series



Sunstone UCG Series



Sunstone UCH Series



Sunstone OPG Series



Sunstone OPS Series

