



BATTERY

# CSB

- 
- 
- 
- 
- 
- 

**C**onfidence & Creativity

**S**ervice & Sincerity

**B**elief & Bravery

**Product Manual**

Energy Of Infinity



As a world leading manufacturer of Valve Regulated Lead-Acid (VRLA) batteries, CSB's products are utilized in over 52 countries in telecommunications, UPS, emergency lighting, security and more. Founded in 1986, CSB has evolved into an international company providing over 3 million batteries monthly.

CSB's demand for producing high quality batteries is the main reason for its' growth. The wide array of CSB customers have come to know and trust the quality and reliability of its' products and services. CSB is committed to developing next generation VRLA products and growing its'worldwide distribution network.

With over one thousand people, CSB is confident in providing you a better and more reliable solution.

- 
- 
- 



ISO 9001/2000 and ISO 140001 Certified  
OHSAS 18000 and TL 9000 Certified  
BS 6290 Part 4, 1987  
JIS C 8704-2, 1999

Bellcore, TR-NWT-000776  
NEBS Level 3 Certified, SR 4228 Compliant  
Eurobat Classifications

## GP series



- Characteristics: Wide range application provides hundreds to thousands of recharge cycles, 3 to 5 years.
- Application: UPS, emergency lighting, and security alarm, etc.
- Capacity : 1.3Ah ~ 100Ah (20h)

## EVX series



- Characteristics: Increased cycle life up to 122% versus standard lead acid battery
- Application: For machines that need rechargeable power supplies for intensive use, such as electric vehicle, portable machines, and camera, etc.
- Capacity : 7.2Ah ~ 100Ah (20h)

## HR series



- Characteristics: high rate discharge.
- Application: UPS, emergency lighting, and security alarm, etc.
- Capacity : 21W ~ 120W (15min)

## HC series



- Characteristics: Cassette designed, high rate discharge performance.
- Application: UPS, emergency lighting, and security alarm, etc.
- Capacity : 17W ~ 28W (15min)

# Energy Of Infinity

### GP Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (20Hr)(Ah)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Standby Use	Cycle Use
GP645	6	4.5	0.84	78.8	32.10	19.00	60/90	108.0±1.5	102.0±1.5	70.0±1.0	48.0±1.0	1.35	2.275V±0.025 /CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL°C	2.40V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL°C
GP672	6	7.2	1.27	89.5	34.00	13.50	100/130	100.0±1.0	94.0±1.0	151.0±2.0	34.0±1.0	2.16		
GP6120	6	12	1.94	101.5	37.10	7.50	150/180	100.0±1.0	94.0±1.0	151.0±2.0	50.0±1.0	3.60		
GP1222	12	2.2	0.90	72.7	29.30	63.00	40	66.0±1.0	60.0±1.0	178.0±0.5	34.0±0.5	0.66		
GP1245	12	4.5	1.66	81.6	32.50	40.50	60/90	108.0±1.5	102.0±1.5	92.8±1.0	69.9±1.0	1.35		
GP1272	12	7.2	2.55	93.6	33.90	21.00	100/130	100.0±1.0	94.0±1.0	151.0±2.0	65.0±1.0	2.16		
GP12120	12	12	3.84	103.2	37.50	14.00	150/180	100.0±1.0	94.0±1.0	151.0±2.0	98.0±1.0	3.60		
GP12170	12	17	5.85	88.6	34.90	14.50	230	167.0±2.0	165.5±2.0	181.0±2.0	76.2±1.0	5.10		
GP12200	12	20	6.40	104.2	37.50	13.00	230	167.0±2.0	160.0	181.0±2.0	76.2±1.0	6.00		
GP12260	12	26	9.18	88.0	34.00	9.40	350	125.0±1.5	122.0±1.5	166.0±2.0	175.0±2.0	7.80		
GP12340	12	34	11.33	103.7	36.00	8.00	380	178.3±2.0	154.8±2.0	195.6±2.0	130.0±1.5	10.20		
GP12400	12	40	14.50	87.6	33.10	8.70	400	170.0±2.0	168.5±2.0	197.0±2.0	165.0±2.0	12.00		
GP12650	12	65	21.50	78.0	36.30	8.00	500	174.0±2.0	172.5±2.0	349.4±2.5	166.0±2.0	19.50		
GP121000	12	100	35.00	77.6	34.30	6.00	500	174.0±2.0	172.5±2.0	511.8±2.5	175.2±2.0	30.00		

## GPL series



- Characteristics: Long life, wide range application (Ten years expected long life under normal float charge.)
- Application: UPS, emergency lighting, security alarm, telecommunication system etc.
- Capacity : 7.2Ah~135Ah (20h)

## HRL series



- Characteristics: Long life, high rate discharge. (Ten years expected long service life under normal float charge.)
- Application: UPS, emergency lighting, and security alarm, etc.
- Capacity : 10W~520W (15min)

## TPL series



- Characteristics: Front access, long life, space saving design
- Application: UPS, wireless, telecom and transmission
- Capacity : 50Ah~200Ah (8h)

## MSJ series



- Characteristics: 2V, long life. (15-20 years expected service life.)
- Application: UPS, emergency lighting, security alarm, telecommunication equipments, electric power receiving or transforming equipment in intelligent buildings, factories, power plants and substations, etc.
- Capacity : 150~3000Ah (10h)

## MU series



- Characteristics: 2V, long life, large capacity and less space. (15-20 years expected service life.)
- Application: UPS, emergency lighting, security alarm, telecommunication equipment in intelligent buildings, factories, power plants and substations, etc.
- Capacity: 220Ah~6000Ah (10h)

### EVX Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (20Hr)(Ah)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Standby Use	Cycle Use
EVX 1272	12	7.2	2.60	93.6	33.23	23.00	100/130	100.0±1.0	94.0±1.0	151.0±2.0	65.0±1.0	2.16	2.275V±0.025 /CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL/°C	2.40V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C
EVX 12120	12	12	4.20	103.2	34.29	16.00	150/180	100.0±1.0	94.0±1.0	151.0±2.0	98.0±1.0	3.60		
EVX 12140	12	14		120.8			150/180	100.0±1.0	94.0±1.0	151.0±2.0	98.0±1.0	4.20		
EVX 12170	12	17	6.05	88.6	33.72	15.00	230	167.0±2.0	165.5±2.0	181.0±2.0	76.2±1.0	5.10		
EVX 12200	12	20	6.70	104.2	35.82	14.00	230	167.0±2.0	160.0±2.0	181.0±2.0	76.2±1.0	6.00		
EVX 12260	12	26	9.46	85.9	32.98	10.00	350	125.0±1.5	122.0±1.5	166.0±2.0	175.0±2.0	7.80		
EVX 12300	12	30	10.40	99.1	34.62	9.00	400	175.0±2.0	175.0±2.0	166.0±2.0	125.0±1.5	9.00		
EVX 12340	12	34	11.74	103.7	34.75	8.50	400	178.3±2.0	154.8±2.0	195.6±2.0	130.0±1.5	10.20		
EVX 12400	12	40	14.60	86.9	32.88	10.00	400	170.0±2.0	168.5±2.0	197.0±2.0	165.0±2.0	12.00		
EVX 12520	12	52	17.90	94.0	34.86	6.00	500	219.3±2	210.3±2	228.0±2	138.4±2	15.60		
EVX 12650	12	65	22.20	77.6	35.14	8.00	500	174.0±2.0	172.5±2.0	349.4±2.5	166.0±2.0	19.50		
EVX 12700	12	75	26.80	86.1	31.34	4.50	500	232.0±2.5	211.2±2.5	274.0±2.5	175.2±2.0	30.00		
EVX 121000	12	100	35.50	76.9	33.80	8.00	500	174.0±2.0	172.5±2.0	511.8±2.5	175.2±2.0	21.00		

### HR Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (15Min.) (W/cell)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Standby Use	Cycle Use
HR 1221W	12	21	1.90	49.1	16.58	25.00	90	106.0±0.5	101.8±0.5	90.0±0.5	70.0±0.5	2.10	2.275V±0.025 /CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL/°C	2.40V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C
HR 1224W	12	24	2.06	49.7	17.48	21.00	90	98.3±1.0	94.0±1.0	151.0±2.0	51.0±1.2	2.40		
HR 1234W	12	34	2.62	55.3	19.47	19.00	130	100.0±1.0	94.0±1.0	151.0±2.0	65.0±1.0	3.40		
HR 1251W	12	51	3.90	55.0	19.62	13.00	180	100.0±1.0	94.0±1.0	151.0±2.0	98.0±1.0	5.10		
HR 12120W	12	120	10.20	52.4	17.65	9.00	400	175.0±2.0	165.5	166.0±2.0	125.0±1.5	12.00		

### HC Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (15Min.) (W/cell)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Standby Use	Cycle Use
HC1217W	12	17	1.64	37.3	15.55	42.00	60	103.5±1.5	102.0±1.5	139.7±1.5	48.0±1	1.70	2.275V±0.025 CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL/°C	2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C
HC1221W	12	21	1.90	46.1	16.58	25.00	103.5±1.5	102.0±1.5	139.7±1.5	48.0±1	2.10			
HC1225W	12	25	2.25	44.4	16.67	30.00	60	127.5±1.5	126.0±1.5	139.7±1.5	48.0±1	2.50		
HC1228W	12	28	2.51	49.7	16.73	21.00	60	127.5±1.5	126.0±1.5	139.7±1.5	48.0±1	2.80		

### GPL Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (20Hr)(Ah)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Standby Use	Cycle Use
GPL672	6	7.2	1.37	89.5	31.53	13.50	110	100.0±1.0	94.0±1.0	151.0±2.0	34.0±1.0	2.16	2.275V±0.025 CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL/°C	2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C
GPL1272	12	7.2	2.60	93.6	33.23	21.00	100/130	100.0±1.0	94.0±1.0	151.0±2.0	65.0±1.0	2.16		
GPL12750	12	75	26.70	97.6	33.71	4.50	800	214.2±2.5	211.2±2.5	261.0±2.5	168.5±2.0	22.50		
GPL12880	12	88	31.00	96.5	34.06	4.50	800	214.3±2.5	211.3±2.5	308.7±2.5	169.0±2.0	26.40		
GPL121000	12	100	35.20	96.8	34.09	3.50	800	217.6±2.5	214.6±2.5	342.0±2.5	170.0±2.0	30.00		

### HRL Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (15Min.) (W/cell)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Standby Use	Cycle Use
HRL634W	6	34	1.34	52.8	19.03	10.00	130	98.3±1	94.0±1	151.0±2.0	34.0±1.0	3.40	2.275V±0.025 CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL/°C	2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C
HRL1210W	12	10	1.10	38.7	13.64	35.00	40	70.0±1	64.0±1	178.0±2.0	34.0±1.0	1.00		
HRL1223W	12	23	2.10	53.8	16.43	19.00	130	106.0±1.5	101.8±1.5	90.0±1.0	70.0±1.0	2.30		
HRL1234W	12	34	2.64	55.3	19.32	17.00	130	98.3±1	94.0±1	151.0±2.0	60.5±1.0	3.40		
HRL1280W	12	80	6.60	52.6	18.18	9.00	300	167.0±2.0	160.0±2.0	181.0±2.0	76.2±1.0	2.30		
HRL12200W	12	200	17.60	45.9	17.04	5.70	300	207.3±2.5	204.8±2.5	228±2.5	138.4±1.5	2.00		
HRL12280W	12	280	27.10	45.2	15.50	4.00	800	214.2±2.5	211.2±2.5	261.0±2.5	168.5±2	28.00		
HRL12330W	12	330	31.60	44.9	15.66	4.00	800	214.3±2.5	211.3±2.5	308.7±2.5	169.0±2.0	33.00		
HRL12390W	12	390	35.50	46.9	16.48	4.00	800	217.6±2.5	214.6±2.5	342.0±2.5	170.0±2.0	39.00		
HRL12500W	12	500	45.70	46.8	65.65	3.70	800	277.7±2.5	274.7±2.5	343.0±2.5	170.0±2.0	50.00		

### TPL Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (8Hr)(Ah)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)			Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Length (L)	Width (W)		Standby Use	Cycle Use
TPL12800	12	80	36.00	67.0	26.67	4.50	800	254.5±2.5	511.1±2.5	110±1.5	16.00	2.275V±0.025 CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL/°C	2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C
TPL12900	12	90	36.00	75.4	30.00	4.50	800	254.5±2.5	511.1±2.5	110±1.5	18.00		
TPL121000	12	100	36.00	83.8	33.33	4.50	800	254.5±2.5	511.1±2.5	110±1.5	20.00		
TPL121250	12	125	47.00	67.2	31.91	4.10	800	321.3±2.5	557±2.5	124.8±1.5	25.00		
TPL121350	12	135	56.00	72.5	28.93	4.10	800	321.3±2.5	557±2.5	124.8±1.5	27.00		
TPL121500	12	150	56.00	80.6	32.14	4.10	800	321.3±2.5	557±2.5	124.8±1.5	30.00		

### MSJ Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (10Hr)(Ah)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Float Charge (v)	
MSJ150	2	150	13.00	50.4	23.08	0.74	900	365	330	106	170	45.00	2.23±0.02 Cell AT 25°C (77°F) Temp. Coefficient -3.3mV/°C (-1.8mV/°F)	
MSJ200	2	200	15.00	67.3	26.67	0.62	1,200	365	330	106	170	60.00		
MSJ300	2	300	21.00	71.3	28.57	0.44	1,800	365	330	150	170	90.00		
MSJ500	2	500	35.00	73.5	28.57	0.42	3,000	365	330	241	171	150.00		
MSJ1000	2	1000	70.00	75.2	28.57	0.41	6,000	365	330	471	171	300.00		
MSJ1500	2	1500	105.00	55.0	28.57	0.35	9,000	375	340	476	337	450.00		
MSJ2000	2	2000	140.00	73.3	28.57	0.29	12,000	375	340	476	337	600.00		
MSJ3000	2	3000	210.00	68.5	28.57	0.27	18,000	375	340	696	370	900.00		

### MU Series

Battery Type	Nominal Voltage(V)	Nominal Capacity (10Hr)(Ah)	Weight (Approx.Kg)	Energy Density (wh/l)	Specific Energy (wh/kg)	Internal Resistance Approx (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Max. Charging Current (A)	Charging (V)	
								Overall Height (H)	Container height (h)	Length (L)	Width (W)		Float Charge (v)	
MU220	2	220	15.50	57.2	28.39	0.5~1.2	1,320	497	486	92	172	66.00	2.23±0.02 Cell AT 25°C (77°F) Temp. Coefficient -3.3mV/°C (-1.8mV/°F)	
MU330	2	330	22.50	62.7	29.33	0.4~0.8	1,980	497	486	126	172	99.00		
MU660	2	660	42.00	68.7	31.43	0.2~0.5	3,960	497	486	230	172	198.00		
MU1000	2	1000	66.00	79.0	30.30	0.1~0.4	6,000	497	486	303	172	300.00		
MU1500	2	1500	96.00	82.1	31.25	0.1~0.4	9,000	497	486	437	172	450.00		

## SALES OFFICE

CSB BATTERY CO., LTD.  
10Fl, No.301, Sec. 2, Ti-Ding Blvd.,  
Nei Hu, Taipei 11493,  
Taiwan.  
Tel: +886-2-8751-5000  
Fax: +886-2-8751-6161  
E-mail: service@csb-battery.com.tw

CSB BATTERY (SINGAPORE) PTE., LTD.  
10 Ubi Crescent, #06-95,  
UBI Techpark, (Lobby E)  
Singapore 408564  
Tel: +65-6742-4944  
Fax: +65-6742-4744  
E-mail: sales@csb-battery.com.sg

CSB BATTERY TECHNOLOGIES, INC.  
USA OFFICE  
2901 White Settlement Rd.  
Ft. Worth TX 76107.  
U.S.A.  
Tel: +1-817-244-7777 / 1-800-3 CSBUSA(272872)  
Fax: +1-817-244-4445  
E-mail: csb@csb-battery.com

CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.  
Sec. A, 3Fl., No.6 Building, No.350, Xiya Rd.,  
Shanghai Waigaoqiao Free Trade Zone.  
Shanghai,  
P.R.C.  
Postcode: 200131  
Tel: +86-21-5046-1622, 5046-0833  
Fax: +86-21-5064-3314

CSB BATTERY LOGISTICS (SHANGHAI) CO., LTD.  
BEIJING OFFICE  
No. 1202, Jing Guang Centre Office Building,  
Hu Jialou, Chao Yang District,  
Beijing,  
P.R.C.  
Postcode: 100020  
Tel: +86-10-6597-8060, 6597-8070  
Fax: +86-10-6597-8050  
E-mail: chinasl@csb-battery.com

CSB BATTERY LOGISTIC (SHANGHAI) CO., LTD.  
SHENZHEN OFFICE.  
Room 802, Block C, Meijia Plaza, OTC,  
Nanshan District, Shenzhen City Zipcode: 518053  
Tel: +86-755-2694-2788/2606/2706  
Fax: +86-755-2694-2748  
E-mail: she@csb-battery.com.tw

CSB BATTERY OF NETHERLANDS B.V  
Ridderhaven 32  
2984BT Ridderkerk  
The Netherlands  
Tel: +31 (0) 180 418 140  
Fax: +31 (0) 180 418 327  
E-mail: eurosales@csb-battery.com

## FACTORY

CSB BATTERY (GUANGZHOU) CO., LTD.  
No. 97, Tianyuan Road, Yonghe Area,  
Guangzhou Economic Technology  
Development Zone, P.R. China

CSB TAINAN FACTORY (TAIWAN)  
No. 16, Gang Yeh West Rd., Ell Jenn Tsuen,  
Guan Tyan Hsiang, Tainan Hsien,  
Taiwan.