



Carbon Battery

Valve Regulated Lead Acid Battery
With DCS and Carbon Technology



Features and Benefits:

Applications:

- Unstable Grid
- Hybrid Systems
- Renewable Energy
- Energy Storage
- UPS



Long life cycle service design:

- Proven C&D DCS plate technology
- Maximum cycle life for deep cycle & hybrid applications
- Good PSoC cyclic performance

Maximum performance:

- Using exclusive positive plate design, improve the cyclic performance
- With Carbon enhanced negative plate, improve charged acceptance, and slow down the sulfating speed in PSoC operation, extended battery life.
- Superior output due to direct terminal connection,
- Low internal resistance.

Excellent wild temperature compatibility

- Operation temperature can be range from -20°C to 60°C
- With Lead-Carbon technology, maximum increase low temperature performance

High charging acceptance ability

- With Carbon enhanced negative design, improve higher charging acceptance ability. Maximum shorter recharge time, suitable for rapid recharge, increase reliability for those frequently discharge applications.

High rate discharge ability

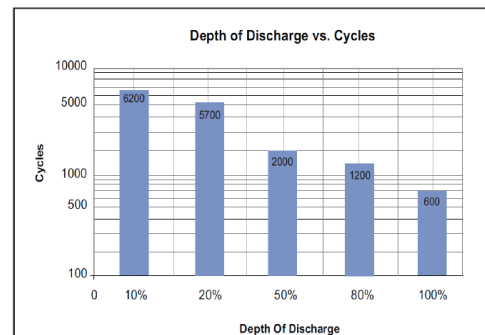
- Carbon as the capacitor to accept or release current, significant increase high rate discharge ability

Compliant to major global specifications

- BS 6290: Part 4:1997
- IEC 60896-21/22
- Telcordia SR-4228
- Bellcore GR-63-CORE & GR-1089-CORE
- UL 94 V-0 Flame Retardant Polypropylene



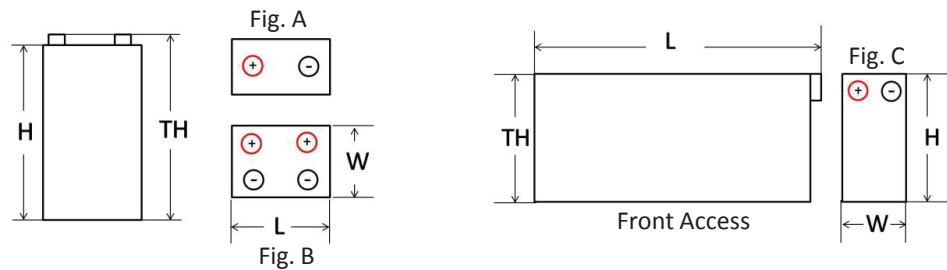
Industry Leading Cyclic Life



Telecom and Renewable Application:

Model	V	Capacity/Ah (C10, 1.8V@25°C)	Dimensions/mm (L*W*H*TH/ mm)				Weight/ Kg	Terminal Type (Bolt)	Fig.
SHC 2-300	2	300	165.7	114.4	360	378	18	Inserted (M6)	A
SHC 2-400	2	400	165.7	146.4	360	378	23	Inserted (M6)	A
SHC 2-600	2	600	165.7	209.5	360	378	33	Inserted (M6)	B
SHC 12-100FT	12	91	510.5	110.0	473.3	236.5	34	Inserted (M6)	C
SHC 12-150FT	12	140	558.5	125.7	515.6	285.0	50	Inserted (M8)	C
SHC 12-200FT	12	172	558.5	125.7	515.5	328.0	60	Inserted (M8)	C

Dimensions:



Specifications:

Operating Temperature Range with temperature compensation	Discharge: -40°C (-40°F) to + 71°C (160°F) Charge: -23°C (-10°F) to + 60°C (140°F)
Recommended Maximum Charging Current Limit	0.6 C ₁₀
Float Charging Voltage	2.25 to 2.27 V for 2V unit, and 13.65 ± 0.15V for 12V unit.
Self Discharge	Battery can be stored up to 6 months at 25°C (77°F) before a freshening charge is required. Batteries stored at temperatures greater than 25°C (77°F) will require recharge sooner than batteries stored at lower temperatures. See C&D brochure 41-7272, Self-Discharge and Inventory Control for details.
Equalize charge & cycle service voltage	2.35 ± 0.02 V for 2V unit, and 14.40 to 14.80 V for 12V unit @ 25°C (77°F)
Terminal	Threaded copper alloy insert terminal to accept: -M8 bolt (SHC12-150 FT, SHC12-200FT) -M6 bolt (SHC12-100 FT, SHC2-300, SHC2-400, SHC2-600)
Terminal Hardware Initial Torque	18 N-m (160 in.-lbs) for: SHC12-150 FT, SHC12-200FT 12 N-m (107 in.-lbs) for: SHC12-100 FT, SHC2-300, SHC2-400, SHC2-600

*All dimensions are for reference only. Contact a C&D Representative for complete dimensional information.

Constant Current Discharge Table – Amps @ 25°C (77°F)

	EPV	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	16hr	20hr	24hr
SHC2-300	1.75	274.9	224.8	162.1	106.4	80.5	65.1	54.9	47.5	37.5	31.0	26.5	20.5	16.7	14.1
SHC2-400	1.75	366.5	299.7	216.1	141.8	107.3	86.8	73.1	63.3	50	41.3	35.3	27.3	22.3	18.8
SHC2-600	1.75	549.7	449.5	324.1	212.7	160.9	130.2	109.7	94.9	74.9	62	52.9	40.9	33.4	28.2
SHC2-300	1.80	240	203.2	150.3	99.8	76.1	62	52.6	45.7	36.4	30.3	25.9	20.2	16.6	14.0
SHC2-400	1.80	320	270.9	200.3	133	101.5	82.7	70.1	60.9	48.5	40.3	34.5	26.9	22.1	18.7
SHC2-600	1.80	480	406.4	300.5	199.5	152.2	124	105.1	91.4	72.7	60.5	51.8	40.4	33.1	28
SHC2-300	1.85	199	173.8	135.4	93.2	71.7	58.6	49.6	43.2	34.3	28.5	24.4	19.0	15.5	13.2
SHC2-400	1.85	265.3	231.7	180.5	124.3	95.5	78.1	66.1	57.5	45.7	38.0	32.5	25.3	20.7	17.5
SHC2-600	1.85	398	347.5	270.7	186.4	143.3	117.1	99.2	86.3	68.5	57	48.8	37.9	31	26.3
SHC2-300	1.90	155.8	139.8	113.7	81.4	63.5	52.2	44.5	38.8	31.0	25.8	22.1	17.3	14.2	12.0
SHC2-400	1.90	207.7	186.3	151.5	108.5	84.6	69.6	59.3	51.7	41.3	34.4	29.5	23.0	18.9	16.0
SHC2-600	1.90	311.5	279.5	227.3	162.7	126.9	104.4	88.9	77.5	61.9	51.6	44.2	34.5	28.3	24

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

	EPV	5min	10min	15min	20min	30min	45min	1hr	2hr	3hr	4hr	5hr	6hr	8hr
SHC2-300	1.65	688	638	581.5	526	446.5								
SHC2-400	1.65	917.3	850.7	775.3	701.3	595.3								
SHC2-600	1.65	1376	1276	1163	1052	893								
SHC2-300	1.67	659	608.5	557.5	510	433	358.5	311						
SHC2-400	1.67	878.7	811.3	743.3	680	577.3	478	414.7						
SHC2-600	1.67	1318	1217	1115	1020	866	717	622						
SHC2-300	1.70	622	579	536	495	425.5	354.5	308						
SHC2-400	1.70	829.3	772	714.7	660	567.3	472.7	410.7						
SHC2-600	1.70	1244	1158	1072	990	851	709	616						
SHC2-300	1.75	556.5	524.5	494	464.5	412.5	350.5	304.5	203.5	155.5	126.5	107	93	74
SHC2-400	1.75	742	699.3	658.7	619.3	550	467.3	406	271.3	207.3	168.7	142.7	124	98.7
SHC2-600	1.75	1113	1049	988	929	825	701	609	407	311	253	214	186	148
SHC2-300	1.80	483	461	439.5	418	378.5	327	286.5	193.5	148.5	121.5	103	90	71.5
SHC2-400	1.80	644	614.7	586	557.3	504.7	436	382	258	198	162	137.3	120	95.3
SHC2-600	1.80	966	922	879	836	757	654	573	387	297	243	206	180	143

Constant Current Discharge Table – Amps @ 25°C (77°F)

SHC 12-100FT

EPV	15 min	30 min	1 hr	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr	36 hr	48 hr	72 hr	100 hr	120 hr
1.90	102.3	77.1	49.7	29.9	21.7	14.5	9.7	8.0	6.8	4.3	3.7	2.6	1.9	1.3	0.94	0.79
1.85	127.4	89.0	56.2	32.7	23.8	15.9	10.7	8.8	7.5	4.7	4.0	2.8	2.1	1.4	1.02	0.85
1.80	145.2	98.0	59.8	34.3	24.8	16.6	11.2	9.1	7.8	4.9	4.2	2.9	2.2	1.5	1.06	0.89
1.75	155.6	101.5	61.1	34.9	25.3	16.8	11.3	9.3	7.9	5.0	4.2	3.0	2.2	1.5	1.08	0.90
1.70	162.0	104.0	62.0	35.4	25.5	17.0	11.4	9.4	7.9	5.0	4.3	3.0	2.2	1.5	1.09	0.91

SHC 12-150FT

EPV	15 min	30 min	1 hr	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr	36 hr	48 hr	72 hr	100 hr	120 hr
1.90	130.8	107.0	72.0	45.1	32.9	22.1	15.3	12.6	10.8	6.8	5.8	4.0	3.0	2.0	1.47	1.24
1.85	171.9	124.1	81.1	49.6	36.0	24.0	16.5	13.5	11.5	7.3	6.3	4.4	3.2	2.2	1.59	1.33
1.80	196.1	137.0	86.8	51.1	37.1	25.0	17.1	14.0	12.0	7.6	6.5	4.5	3.4	2.3	1.65	1.38
1.75	210.0	145.0	89.2	52.1	37.8	25.4	17.4	14.3	12.2	7.7	6.6	4.6	3.4	2.3	1.67	1.40
1.70	224.0	151.0	90.7	53.1	38.3	25.7	17.5	14.4	12.2	7.8	6.6	4.6	3.4	2.3	1.69	1.41

SHC 12-200FT

EPV	15 min	30 min	1 hr	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr	36 hr	48 hr	72 hr	100 hr	120 hr
1.90	148.1	129.3	89.5	55.9	40.9	27.6	18.5	15.3	13.1	8.4	7.2	5.1	3.7	2.5	1.83	1.53
1.85	190.0	150.3	101.0	61.7	44.8	30.0	20.0	16.5	14.1	9.1	7.8	5.5	4.0	2.7	1.97	1.65
1.80	232.0	170.0	111.0	65.7	47.4	31.3	20.9	17.2	14.7	9.5	8.1	5.7	4.2	2.8	2.05	1.72
1.75	255.0	181.0	115.6	67.2	48.2	31.7	21.2	17.5	14.9	9.6	8.2	5.8	4.2	2.9	2.09	1.75
1.70	278.0	189.0	117.7	68.2	48.9	32.1	21.4	17.7	15.1	9.7	8.3	5.9	4.3	2.9	2.12	1.77

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

SHC 12-100FT

EPV	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.85	275.0	228.0	163.0	104.6	77.5	62.7	45.8	30.9	20.9	17.3	14.8	9.6	8.2
1.80	311.0	261.0	179.0	110.1	81.2	65.4	47.8	31.9	21.5	17.8	15.3	9.9	8.5
1.75	335.0	276.0	185.0	111.7	82.5	66.6	48.5	32.2	21.7	18.0	15.5	10.1	8.6
1.70	358.6	290.0	188.5	113.0	83.4	67.2	49.0	32.5	21.9	18.1	15.6	10.2	8.8
1.67	368.0	296.0	189.5	113.5	83.7	67.5	49.2	32.6	22.0	18.2	15.6	10.2	8.8

SHC 12-150FT

EPV	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.85	347.4	317.6	231.1	154.0	113.9	92.0	68.9	45.8	31.6	26.4	22.5	14.5	12.4
1.80	422.0	357.0	250.0	164.0	120.7	97.1	71.8	47.5	32.7	27.2	23.2	14.9	12.7
1.75	460.0	382.0	260.0	168.0	123.2	98.8	72.8	48.1	32.8	27.3	23.3	15.0	12.9
1.70	494.7	407.7	270.0	172.0	125.5	100.4	73.4	48.6	33.0	27.4	23.4	15.1	12.9
1.67	514.6	421.4	275.1	174.0	126.6	101.0	73.7	48.8	33.1	27.5	23.5	15.1	12.9

SHC 12-200FT

EPV	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.85	409.5	373.2	276.0	189.9	142.5	116.2	84.7	56.8	39.4	33.2	28.3	18.1	15.4
1.80	497.1	420.1	307.6	206.0	151.6	121.9	89.4	59.2	40.8	34.1	29.1	18.6	15.9
1.75	547.4	462.6	325.0	214.0	155.7	124.2	90.2	60.2	41.3	34.4	29.4	18.9	16.1
1.70	600.9	492.6	341.7	218.9	158.5	126.1	91.3	60.8	41.7	34.6	29.5	19.0	16.2
1.67	625.3	512.5	348.0	221.0	159.9	127.0	91.9	61.1	41.8	34.8	29.6	19.0	16.2

* All data shall be change without prior notice, C&D reserve the right to explain and update the information contained hereinto