



DC Series

Summary

DC series is specially designed for frequent cyclic performance. By using strong grids and specially designed active material, the DC series battery offers more cyclic life than standby series. It is suitable for solar energy systems, marine and RV etc.

Product Features

- Capacity range :26Ah —3000Ah
- Voltage class :2V/6V/12V
- Long design life (25 °C) : 5 years(≤28Ah)
10 years(>28Ah)
- Low self-discharge rate : ≤ 3%/month
- Good high rate discharge performance
- High sealed reaction efficiency : ≥ 99%
- Wide operation temperature range : -20°C ~60°C
- Structure: compact design,shorter internal connectors between cells, thus low internal resistance
- Plate: Pasted flat type, with patent deep cycle formula of AM
- Terminal: two or more types terminals are convenient for selection
- Vent system: gases can be vented through flame arrester/ filter;
- Separator: using improved AGM separator, makes lower resistance higher assembling pressure to increase deep cycle life;
- Battery case: made of high strength ABS(UL94-HB) and UL94-V0 is optional;
- Terminal sealing: double sealing technics(mechanical + epoxy gule).

* HS battery:

Container and lid is sealed with heat seal technology; automatic through the-partition welding between inter-cell.

Application

- Photovoltaic / Wind Energy
- UPS/EPS
- Marine / Boat
- Light Electric Power Supply

Compliant Standards

- IEC60896-21/22-2004
- DIN43539-T5
- YD/T1360-2005
- Passed ISO9001, ISO14001, OHSAS18001, UL, CE certificate

Main Parameters

Model	Nominal Voltage	Capacity *C ₂₀ /C ₁₀	Weight		Terminal Type	Dimension								Internal Resistance (mΩ@25°C)	Short Circuit Current (A)	Terminal Position
	(V)	(Ah)	Lbs	Kg		Length		Width		Height		Total Height				
						mm	inch	mm	inch	mm	inch	mm	inch			
DC12-26	12	26	17.86	8.1	F3/F13/T24	166	6.54	178	7.01	125	4.92	125	4.92	11.5	900	D
DC12-26S	12	26	18.30	8.3	F7/F11	165	6.50	125	4.92	174	6.85	174	6.85	11.5	850	D
DC12-28S	12	28	19.40	8.8	F7/F11	165	6.50	125	4.92	174	6.85	174	6.85	9.0	880	D
DC6-180	6	180	58.43	26.5	F12	306	12.05	168	6.61	220	8.66	227	8.94	3.0	3330	A
DC6-200	6	200	63.95	29	F16/F14	322	16.28	177.5	6.99	226	8.90	231	9.09	1.8	3700	A
DC6-225	6	225	68.36	31	F16/F14	322	16.28	177.5	6.99	226	8.90	231	9.09	1.5	4000	A
DC6-225S	6	225	70.56	32	F14	243	9.57	187	7.36	275	10.83	275	10.83	1.7	3980	B
DC12-40	12	40	28.67	13	F4/F11	198	7.80	166	6.54	169	6.65	169	6.65	8.0	1000	D
DC12-50	12	50	34.18	15.5	F15	250	9.84	160	6.30	178	7.01	183	7.20	7.0	1050	C
DC12-55	12	55	39.69	18	F15/F11	229	9.02	138	5.43	211	8.31	216	8.50	6.0	1100	C
DC12-65	12	65	46.31	21	F5/F11	350	13.78	167	6.57	182	7.17	182	7.17	6.0	1500	C
DC12-75	12	75	51.82	23.5	F15/F11	260	10.24	169	6.65	211	8.31	218	8.58	5.8	1720	C
DC12-75A	12	75	50.72	23	F15/F11	260	10.24	169	6.65	211	8.31	218	8.58	6.0	1720	C
DC12-80	12	80	52.92	24	F5/F11	350	13.78	167	6.57	182	7.17	182	7.17	5.5	1840	C
DC12-80A	12	80	50.05	22.7	F5/F11	350	13.78	167	6.57	182	7.17	182	7.17	5.5	1700	C
DC12-90	12	90	62.84	28.5	F15/F12	306	12.05	169	6.65	210	8.27	215	8.46	5.2	1940	C
DC12-90A	12	90	61.74	28	F15/F12	306	12.05	169	6.65	210	8.27	215	8.46	5.7	1850	C
DC12-100	12	100	66.15	30	F5/F12	328	12.91	172	6.77	215	8.46	220	8.66	5.0	2100	C
DC12-100A	12	100	63.95	29	F5/F12	328	12.91	172	6.77	215	8.46	220	8.66	5.0	2150	C
DC12-100S	12	100	63.95	29	F15/F12	306.5	12.07	168.5	6.63	210	8.27	215	8.46	4.8	2150	C
DC12-120	12	120	77.18	35	F5/F12	407	16.02	177	6.97	225	8.86	225	8.86	4.5	2220	C
DC12-120A	12	120	74.97	34	F5/F12	407	16.02	177	6.97	225	8.86	225	8.86	4.5	2220	C
DC12-120S	12	115	69.46	31.5	F5/F12	328	12.91	172	6.77	215	8.46	220	8.66	4.2	2130	C
DC12-134	12	134	91.51	41.5	F5/F12	340	13.39	173	6.81	280	11.02	287	11.30	4.5	2480	C
DC12-145	12	145	94.82	43	F5/F12	340	13.39	173	6.81	280	11.02	287	11.30	4.5	2630	C
DC12-150	12	150	98.12	44.5	F5/F12	483	19.02	170	6.69	241	9.49	241	9.49	4.2	2780	C
DC12-150A	12	150	96.36	43.7	F5/F12	483	19.02	170	6.69	241	9.49	241	9.49	4.5	2600	C
DC12-160	12	160	110.3	50	F16/F12	532	20.94	207	8.15	214	8.43	219	8.62	4.5	2960	E
DC12-180	12	180	116.9	53	F16/F12	532	20.94	207	8.15	214	8.43	219	8.62	4.0	3330	E
DC12-200	12	200	132.3	60	F16/F10	522	20.55	240	9.45	219	8.62	224	8.82	4.0	3700	E
DC12-200A	12	200	130.1	59	F16/F10	522	20.55	240	9.45	219	8.62	224	8.82	4.0	3430	E
DC12-225	12	225	143.33	65	F16/F10	522	20.55	240	9.45	219	8.62	240	9.45	3.7	3950	E
DC12-230	12	230	147.74	67	F12	521	20.51	269	10.59	204	8.03	209	8.23	3.0	4100	E
DC12-260	12	260	163.2	74	F14	520	20.47	268	10.55	220	8.66	225	8.86	3.5	4810	E
FT12-55D	12	55	39.69	18	F11	291	11.46	106	4.17	230	9.06	230	9.06	6.0	1460	E
FT12-90D	12	90	58.43	26.5	F6	562	22.13	114	4.49	188	7.40	188	7.40	5.8	2350	E
FT12-100D	12	100	66.15	30	F14	508	20.00	110	4.33	236	9.26	236	9.29	5.2	2400	E
FT12-100DA	12	100	63.95	29	F14	508	20.00	110	4.33	236	9.29	236	9.29	5.2	2400	E
FT12-100DS	12	110	68.36	31	F9	410	16.14	110	4.33	286	11.26	286	11.26	5.5	2850	E
FT12-105D	12	105	71.66	32.5	F14/F8	508	20.00	110	4.33	236	9.29	236	9.29	5.0	2400	E
FT12-110D	12	110	72.77	33	F9	410	16.14	110	4.33	286	11.26	286	11.26	5.0	2850	E
FT12-150D	12	150	95.92	43.5	F9	565	22.24	110	4.33	288	11.34	288	11.34	4.0	3250	E
FT12-160D	12	160	108.5	49	F9	565	22.24	110	4.33	288	11.34	288	11.34	4.0	3550	E
FT12-160DA	12	160	108.5	49	F9	565	22.24	110	4.33	288	11.34	288	11.34	4.0	3550	E
FT12-180D	12	180	114.7	52	F9	560	22.05	125	4.92	316	12.44	316	12.44	4.0	4150	E
FT12-185D	12	185	123.5	56	F9	560	22.05	125	4.92	316	12.44	316	12.44	4.0	4250	E
FT12-100DL	12	110	72.77	33	F9	410	16.14	110	4.33	286	11.26	286	11.26	4.8	2850	E
FT12-185DL	12	185	132.3	60	F9	560	22.05	125	4.92	316	12.44	316	12.44	4.0	4250	E

*Notice:

C₂₀ : The battery capacity <33Ah is at 20-hr rate.

C₁₀ : The battery capacity ≥33Ah is at 10-hr rate.

Model	Nominal Voltage	Capacity C ₁₀	Weight		Terminal Type	Dimensions								Internal Resistance	Short Circuit Current	Terminal Position
	(V)	(Ah)	Lbs	Kg		Length		Width		Height		Total Height				
						mm	inch	mm	inch	mm	inch	mm	inch	(mΩ@25°C)	(A)	
DC2-200	2	200	28.89	13.1	F10	172.5	6.79	110	4.33	328	12.91	351	13.82	0.80	2650	G
DC2-250	2	250	33.30	15.1	F10	172.5	6.79	110	4.33	328	12.91	351	13.82	0.76	2800	G
DC2-300	2	300	40.35	18.3	F10	171	6.73	150	5.91	330	12.99	353	13.90	0.75	2910	G
DC2-350	2	350	44.76	20.3	F10	171	6.73	150	5.91	330	12.99	353	13.90	0.70	3200	H
DC2-400	2	400	57.33	26	F10	211	8.31	176	6.93	330	12.99	353	13.90	0.70	3400	H
DC2-450	2	450	61.74	28	F10	211	8.31	176	6.93	330	12.99	353	13.90	0.67	3630	H
DC2-500	2	500	67.25	30.5	F10	242	9.53	172	6.77	330	12.99	353	13.90	0.62	4210	H
DC2-600	2	600	80.48	36.5	F10	304	11.97	175	6.89	330	12.99	353	13.90	0.63	5080	H
DC2-650	2	650	88.20	40	F10	302	11.89	175	6.89	330	12.99	353	13.90	0.61	5200	H
DC2-750	2	750	101.4	46	F10	409	16.10	175	6.89	330	12.99	353	13.90	0.60	6050	J
DC2-800	2	800	110.3	50	F10	409	16.10	175	6.89	330	12.99	353	13.90	0.60	6370	J
DC2-1000	2	1000	133.4	60.5	F10	475	18.70	174	6.85	328	12.91	351	13.82	0.55	6850	J
DC2-1200	2	1200	145.5	66	F10	475	18.70	174	6.85	328	12.91	351	13.82	0.53	7830	J
DC2-1500	2	1500	200.7	91	F10	401	15.79	350	13.78	341	13.43	364	14.33	0.50	10200	K
DC2-1800	2	1800	231.5	105	F10	401	15.79	350	13.78	341	13.43	364	14.33	0.50	12240	K
DC2-2000	2	2000	264.6	120	F10	490	19.29	350	13.78	341	13.42	364	14.33	0.40	13380	L
DC2-2500	2	2500	308.7	140	F10	490	19.29	350	13.78	341	13.42	364	14.33	0.33	18100	L
DC2-3000	2	3000	392.5	178	F10	710	27.95	353	13.90	341	13.43	364	14.33	0.30	23150	L

About VRLA battery (AGM & GEL)

What is VRLA battery?

VRLA(Valve Regulated Lead Acid) battery is sealed lead-acid battery. It includes GEL type and AGM type, both have the following characteristics:

- is sealed using special pressure valves and should never be opened.
- is completely maintenance-free, needn't topping in service life.
- all of its electrolyte are immobilized (absorbed in AGM or fixed in Gel structure).
- uses recombination reaction to prevent the escape of hydrogen and oxygen gases which normally lost in flooded lead-acid battery.
- is non-spillable, and therefore can be operated in virtually any position(except upside-down).

What is GEL battery?

Besides the characteristics of VRLA, GEL battery has:

- using thixotropic gelled electrolyte, it is in a solid state between the plates and separators.
- not like traditional AGM electrolyte "starve" design, GEL battery has more 15~25% electrolyte volume than AGM type.
- different type of separator, such as PE, PVC etc .

Differences between GEL batteries and absorbed glass mat(AGM) batteries?

- Both are sealed recombinant batteries. Both are sealed valve-regulated lead-acid (VRLA). AGM batteries and GEL batteries are both considered "acid-starved" and the electrolyte does not flow like a normal liquid.
- The gel electrolyte has the consistency and appearance of petroleum jelly. Like gelled electrolyte batteries, AGM batteries are also considered non-spillable – all of the liquid electrolyte is trapped in the sponge-like matted glass fiber separator material.
- Due to the physical properties of the gelled electrolyte, gel battery has higher internal resistance. Thus AGM batteries has excellent performance for high current/power discharge and GEL excels in high/lower temperature stability and lower current/power discharge applications.
- AGM batteries has higher specific energy density than GEL batteries. But GEL batteries has longer service life.

What is the difference between VRLA batteries and traditional wet/flooded batteries?

- Wet batteries do not have special pressurized sealing vents, as they do not work on the recombination principle(gases escaped inside the battery during charging).
- It contains liquid electrolyte that can spill/flow and cause corrosion if tipped or punctured. Therefore, they are not air transportable without special containers.
- It can only be installed "upright" and "acid protection" must be maintained at the same time.
- As the wet batteries will lose gases during charging ,it is need maintenance(topping) periodically.
- As the electrolyte can flow , "stratification" will occur and need more overcharge to mix .

SLA BATTERY CONSTRUCTION

Figure1 - Construction of 2V Series

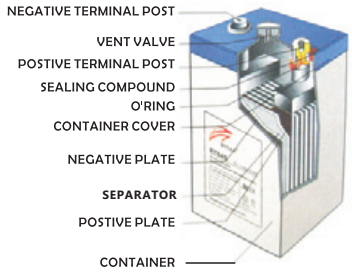


Figure2 - Construction of 12V Series

