# Marine Batteries

WORLD CLASS BATTERY ENGINEERING



MARINE SERIES • Flooded & AGM Range







#### **ROLLS MARINE SERIES - TECHNICAL SPECIFICATIONS**

Dout No.	Capacity in Ah CCA		CA	Dimensions (mm)	Weight			
Part No.	C20	@32°F	@0°F	Length x Width x Height	(Kg)			
Marine Series – 6 Volt (3 Cell) – Polypropylene Container								
6-FS-220	220	888	710	259 x 180 x 264	31			
6-FS-235	235	948	758	259 x 180 x 275	34			
6-FS-350	350	1333	1066	318 x 181 x 426	52			
6-FS-400	400	1523	1218	318 x 181 x 426	56			
6-FS-450	450	1713	1370	318 x 181 x 426	59			
Marine Serie	es – 6Volt (3 Cell) –	Dual Contain	ner					
6CS17P	546	1696	1357	559 x 210 x 464	100			
6CS21P	683	2175	1740	559 x 248 x 464	123			
6CS25P	820	2610	2088	559 x 286 x 464	145			
Marine Serie	es - 12 Volt (6 Cell)	<ul><li>Polypropy</li></ul>	lene Contain	er				
12-FS-80	80	405	324	280 x 172 x 241	23			
12-FS-95	98	506	405	317 x 172 x 241	28			
12-FS-125	125	493	394	335 x 172 x 248	33			
12-FS-135	136	640	512	335 x 172 x 286	41			
12-FS-200	200	810	648	391 x 178 x 365	57			
12-FS-221	221	1313	1050	527 x 279 x 254	75			
12-FS-275	275	1444	1155	527 x 279 x 254	82			
Marine Serie	es – 12 Volt (6 Cell)	- Dual Conta	ainer					
12CS11P	357	1056	845	559 x 286 x 464	124			

#### **Rolls Marine Series**

- Coupling of our thick plate design with highest density active material
- Enveloped separators
- Increased liquid reserve
- Greater rigidity

- Sediment chamber removed allowing higher plates to be used in the same sized cell, thus yielding greater capacity
- Less maintenance
- Greater durability

#### **ROLLS MARINE AGM SERIES - TECHNICAL SPECIFICATIONS**

Part No.	Capacity in Ah C20	CCA		Terminal	Dimensions (mm)	Weight
		@32°F	@0°F	Туре	Length x Width x Height	(Kg)
Rolls AGM 6	V Deep Cycle Serie	es				
S6-275AGM	250	1100	960	M8-TP08	262 x 181 x 273	35
S6-370AGM	335	1845	1550	DT	295 x 178 x 366	48
S6-460AGM	415	2180	1850	DT	295 x 178 x 424	56

Rolls AGM 12V	<b>Deep Cycle </b> \$	Series				
S12-95AGM	85	854	712	M6-TP08	260 x 169 x 237	25
S12-128AGM	115	1200	1000	M8-TP08	328 x 172 x 236	33
S12-160AGM	145	975	820	M8-TP08	341 x 173 x 309	44
S12-230AGM	210	1425	1180	LT	530 x 209 x 218	61
S12-240AGM	215	1646	1372	DT	381 x 178 x 371	60
S12-290AGM	260	1830	1525	LT	521 x 269 x 224	78

Rolls AGM 2V Deep Cycle Series						
S2-590AGM	550	***	***	M8	241 x 172 x 365	32
S2-945AGM	880	***	***	M8	414 x 175 x 365	54
S2-1180AGM	1100	***	***	M8	474 x 175 x 365	64
S2-1895AGM	1750	***	***	M8	401 x 347 x 378	104
S2-2375AGM	2200	***	***	M8	490 x 349 x 382	130
S2-3560AGM	3300	***	***	M8	711 x 353 x 382	196

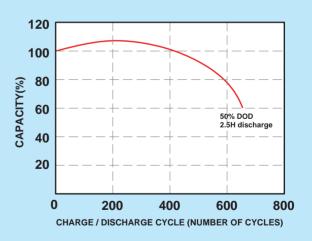
### **Rolls Deep Cycle AGM Series**

Features:	Benefits:
Sealed construction	Maintenance-free, spill proof, non hazardous
High density paste	High capacity and long life
Heavy duty thick grids	True deep cycle construction
ABS case and cover	Rugged construction, shock and vibration resistant
Low internal resistance	Faster recharge time
Microporous glass mat separator	Enhanced electrolyte retention maximises capacity
Available in all standard sizes	Meets all application requirements

#### **AGM Series**



## **Cycle Life vs. Depth of Discharge**







#### **Deep Cycle**

Specially designed deep-cycle batteries are much less susceptible to degradation due to cycling, and are required for applications where the batteries are regularly discharged, such as Marine. These batteries have thicker plates that can deliver slightly less peak current, but can withstand frequent discharging.

#### Sizing your Deep Cycle Battery:

The chart below shows some typical examples of calculations necessary when trying to size your deep cycle batteries.

Description	Watt @ 12V	Amps	X hrs/day	= Ah
Autopilot	20	1.67	5.0	8.33
Echo sounder	4	0.33	7.0	2.33
Instrument Lamp	10	0.83	5.0	4.17
Log	2	0.17	7.0	1.17
Nav. Lamps	80	6.67	6.0	40.00
VHF Transmission	50	4.17	0.2	0.83
VHF Reception	5	0.42	5.0	2.08
Fridge	55	4.58	8.0	36.67
Bilge Pump	50	4.17	0.1	0.42
Sink Pump	50	4.17	0.3	1.25
FM Radio	40	3.33	2.0	6.67
TV	40	3.33	2.0	6.67
Reading Lamp	15	1.25	3.0	3.75
Sundry	60	5.00	3.0	15.00
TOTAL				129.34

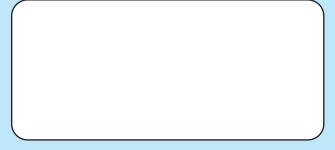
The total load in this scenario is 129.34Ah. Unfortunately you cannot use a 130Ah battery as the battery will not be able to provide a useful voltage at 100% discharge. Therefore in this example you should have a minimum battery capacity of 260Ah. This can be made up using one very large 12V battery or multiple smaller batteries.

It is important to remember most manufacturers recommend a maximum of three batteries in parallel. This is to avoid battery imbalance which can occur during normal cycling.

# A REPUTATION WELL EARNED!

Rolls batteries have been the batteries of choice by serious sailors for over 60 years. Specifically designed for the marine environment, Rolls batteries have the highest lead content and largest liquid reserve of any other deep cycle battery. This makes Rolls the battery with the longest useful life available.





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