

# DATASHEET DIN 4D1050 / N170 SMF



UN2794 wet cell lead acid battery

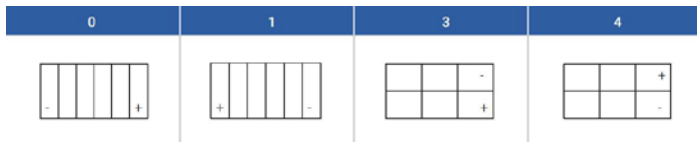


## Calcium maintenance free lead acid battery

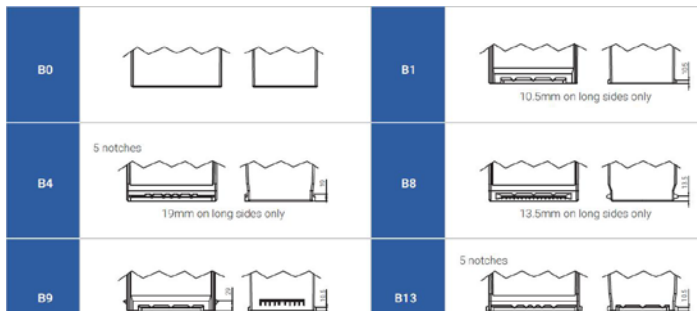
### Terminal: A type

	A(Standard)	B(Small)	STUD	TOP	DUAL	MARINE TWIN	SIDE
Positive Terminal			 3/8" - 16 THREADS			 5/16" - 18 THREADS	
Negative Terminal			 3/8" - 16 THREADS			 5/16" - 18 THREADS	

### Cell Layout: 4 (POS RIGHT)



### Bottom holddown: B0



### Specifications:

Nominal voltage & capacity	: 12 Volt 1700Ah
Cold Cranking performance	: 1050 AMP SAE EN
Dimensions $\pm 2$ mm	: L.506 * W.215 * H.213 * Th.233
Weight	: Approx 41 kg $\pm 3\%$
<ul style="list-style-type: none"> <li>Pb (kg)</li> <li>Acid (kg) (SG1.290)</li> <li>P.P (kg)</li> </ul>	<ul style="list-style-type: none"> <li>: wt% 0,57      23,2 Kg</li> <li>: wt% 0,36      14,8 Kg</li> <li>: wt% 0,06      2,4 Kg</li> </ul>

### Constant Voltage Charge (recommended Method)

Cycle service	: 14,4 Volt Unit Average at 77C (25C)
Floating Service	: 13,2 Volt Unit Average at 77C (25C)

*If the battery is fully charged please make sure that the voltage of the charger will go down!*

### Self discharge (remaining capacity @20C)

3 months: 91%    6 months: 82%    12 months: 64%

### Capacity versus temperature:

40C: 102%      25C: 100%      0C: 85%      -15C: 65%

**Always recycle 4D1050 / N170 SMF batteries!**



## **Instructions and conditions regarding delivery, assembly, use, maintenance and storage + warranty of AW ACCU**

AW ACCU can not be held liable for problems with the supplied batteries due to incorrect compliance with the provided and extra following instructions. Only connect the battery if you are qualified and have real sense of electronics. So only allow qualified persons to connect, charge and replace the battery. We provide no guarantee for consequential damage as a result of incorrect, inexperienced and improper use. Prevent short-circuit, work safely and above all, accurately! Always use protective goggles and protective clothing when working with a battery. The batteries are hazardous UN2794 and containing sulfuric acid and can leaking and/or explode. Work safely and exclusively according to the mentioned instructions and according to the instructions stated on the provide MSDS (Material Safety Datasheet).

- Never immerse the battery in water or allow it to become wet.
- Never store the battery near fire or heat sources.
- Never exchange the positive (+) battery terminal with the negative (-) terminal.
- Never connect the battery directly to a wall socket.
- Never throw the battery into a fire or expose it to a direct heat source.
- Never short-circuit the battery by connecting cables or other metals to the positive (+) and negative (-) terminals / battery terminals.
- Never puncture the housing of the battery with a nail or any other sharp object; never try to break open the battery or step on it.
- Never hit or throw on the battery or expose it to strong shocks or impacts. Never put the battery on its head or side and / or mount it on its head or side.
- Never weld in the environment of a battery
- Never attempt to disassemble or modify the battery.
- Never put the battery in a microwave oven or in a pressure cabine.
- Never allow the battery to come into contact with corrosive products.
- Never use the battery together with other batteries. Certainly not with other types of battery such as dry-cell batteries, but also not with batteries that have different capacities, different production dates or / of a different type or brand.
- Never use the battery when it spreads an unusual odor, feels warm, changes color or shape, or something else happens abnormally. If the above occurs during the use or charging of the battery, remove it immediately from the device or disconnect it from the charger and no longer use the battery. Then always consult expert staff.
- The battery is closed at the factory and maintenance free. Never try to open the battery! Note the battery contains sulfuric acid ! Do not disassemble the battery. Always recycle the sealed type SMF battery.

### **CHARGING:**

Only charge the battery with good safe and approved charging equipment. NEVER charge the battery in a completely enclosed room. Always ensure a well-ventilated area where smoking and fire is strictly forbidden! Stay away from all cables when charging. If you need to get to the battery or charger, make sure that the charger is always switched off. In addition, always avoid heat, sparking, short-circuiting and friction around a battery! Do not charge rapidly

- Regularly check the battery at acid level through the built-in magic eye. If the magic eye is black or white the battery is discharged and or defect. Please don't charge the battery unless you are sure that there is enough acid into the battery. If there is too little acid in the battery then do not use the battery anymore. Take account of evaporation of battery acid and keep an eye on the ambient temperature as well as the charging voltage. A too warm ambient temperature and too high charge voltage may cause an acid level that is too low.
- After charging the battery, let the battery rest for 1 to 2 hours before measuring the voltage. If the voltage is less than 12.4 V than additional recharging. A battery is fully charged when the voltage at rest is 12.8 Volts. A battery under 11.75V is completely discharged. Ensure that the used battery is always immediately and safely recharged. If the battery is less than 10 Volt it is completely discharged and in such a way that the warranty can no longer be granted. Make sure that the battery is always well charged. Under the 7 Volt, virtually no charger picks up the discharged battery. Be careful when charging a (deep discharged) battery and leave this to qualified personnel with qualified chargers. • If the battery feels hot, changes shape, or will emit an unusual odor, or when something else happens abnormally, than stop the charging immediately and don't use the battery anymore! Then allow the battery to cool down and consult an expert or qualified personnel immediately!

Cyclic use: approx 14,4 Volt average at 25C / Float charge 13,2 Volt average bat 25C. If the battery is fully charge please make sure that the voltage of the charger will go down. Continuous overcharging of the battery will make a runoff of acid!



#### **STORAGE:**

• The battery must be 100% charged before storage. Batteries should be stored in a clean, dry and well-ventilated room and always avoid any contact with corrosive products and do not expose the battery to heat, friction, pressure and / or fire. • When storing, the battery should be regularly checked for voltage and charged if necessary. If the voltage is less than 12.4 V than recharging is needed. A battery under 11.75V is completely discharged. Ensure that there is enough acid in the discharged battery and charge directly according to all instructions. Again only charge a battery if you ensured that there is enough acid into the battery. If the battery is less than 10 Volt it is completely discharged and in such a way that it's better to stop using the battery

#### **TRANSPORT:**

• The batteries are hazardous UN2794 and contain sulfuric acid. Therefore work safely according to the instructions and according to the MSDS (material safety data sheet) • When transporting, the battery must be fully charged for at least 80%. • The battery must be well insulated and shock-resistant to avoid damage from impact or shock. • During transport, the battery must be handled with care during loading and unloading. Do not throw the battery; avoid shocks and bumps. Never put the battery on its head or side. • Never transport batteries together with flammable, explosive substances or with sharp metal objects.

#### **MAINTENANCE:**

• If the battery is not used for a longer period of time, check the magic eye and voltage and charge if necessary, in accordance with the given instructions. • A battery and not used for a longer period of time must be recharged whenever the terminal voltage is less than 12.4V. A battery under 11.75V is discharged. Make sure that these discharged batteries are always immediately and safely recharged according the given charging instructions. Before charging always ensure that there is enough acid in the battery. If doubts please don't use the battery anymore. • Always ensure that the battery terminals are clean and clamps are secure..

#### **WARRANTY:**

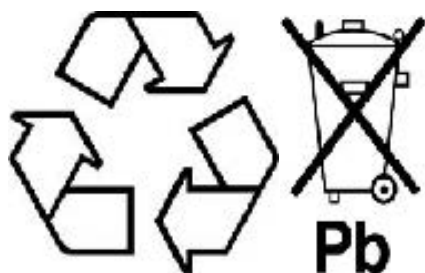
There is a 1 year warranty on the SMF batteries and then only on any factory and / or construction errors. So **NOT** for user errors. You should think of for example cell closure in case of construction faults. Explicitly excluded for warranty is for example too deep discharge and / or failure due to improper use and improper charging / discharging of the batteries / Faults caused by run out of acid.

We provide no guarantee for consequential damage as a result of incorrect, inexperienced and improper use. Prevent short-circuit, work safely and above all, accurately!

All sold and delivered AW batteries are accepted and executed according to our Terms & Conditions filed with the Clerk of the District Court of Rotterdam The Netherlands, latest version. Registered with the Chamber of Commerce in Rotterdam, The Netherlands, Trade register number 60938382. All offers, contracts and deliveries are exclusively Dutch law.

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**Always recycle AW SMF batteries!**

