

**+ STATIONARY BATTERIES**

**- BATERÍAS ESTACIONARIAS**

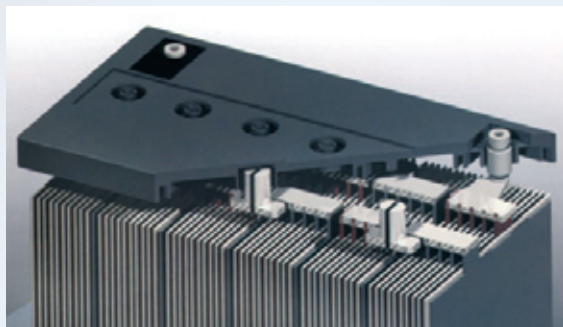
**+ VRLA - AGM BATTERIES**

**- BATERÍAS VRLA-AGM**



**100%**  
maintenance free  
Libre de  
mantenimiento

**DAS-SERIES**



Valve regulated lead acid (VRLA) batteries for standby applications (Floating-use) such as UPS systems, emergency centres, telephone exchanges, medical applications, solar panels, navy navigation ...

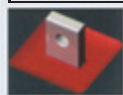
Baterías herméticas de plomo-ácido (VRLA) para aplicaciones de reserva (uso flotante): sistemas UPS, sistemas de alarma, telefonía, aplicaciones médicas, marina etc.

**5 year** Life Design "Floating Use"  
VRLA: Valve Regulated Lead-Acid  
SLA: Sealed Lead ACID  
AGM: Absorbed Glass Matt

Reference Referencia	Volt	Ah 20h	Ah 5h				Kg	Qty / box	Terminals Terminales
				X	Y	H			
DAS4-4.5	4V	4,5Ah	3,4Ah	47	47	106	0,5	40	C-T1
DAS4-5	4V	5Ah	3,9Ah	91	50	80	0,55	20	T1-C
DAS6-1	6V	1Ah	0,8Ah	51	42	56	0,23	40	B-T1
DAS6-1.3	6V	1,3Ah	1,1Ah	98	25	56	0,32	40	B-T1
DAS6-3.2	6V	3,2Ah	2,7Ah	134	34	66	0,73	20	B-T1
DAS6-4.5	6V	4,5Ah	3,4Ah	70	48	106	0,81	20	A-T1
DAS6-7.2	6V	7,2Ah	5,8Ah	150	34	100	1,4	10	B-T1
DAS6-10	6V	10Ah	8,5Ah	151	50	101	2,1	10	B-T1
DAS6-12	6V	12Ah	9,8Ah	151	50	101	2,2	10	B-T2
DAS6-14	6V	14Ah	11,6Ah	108	68,5	140	2,4	8	T2-B
DAS12-0.8	12V	0,8Ah	0,6Ah	96	25	62	0,4	20	T1
DAS12-1.3	12V	1,3Ah	1,1Ah	96,5	45	59	0,6	20	E-T1
DAS12-2	12V	2Ah	1,6Ah	150	20	89	0,9	50	T1
DAS12-2.2	12V	2,2Ah	1,8Ah	177,5	34	66	1	20	B-T1
DAS12-2.9	12V	2,9Ah	2,3Ah	79	56	105	1,1	40	C-T1
DAS12-3.3	12V	3,3Ah	2,8Ah	133,5	67	67	1,4	10	C-T1
DAS12-4	12V	4Ah	3,4Ah	90	70	107	1,8	10	T1-B
DAS12-5	12V	5Ah	3,9Ah	90	70	107	1,8	10	D-T1
DAS12-7.5*	12V	7,5Ah	6Ah	151	65	99	2,7	8	D-T1
DAS12-9	12V	9Ah	6,8Ah	151	65	99	2,8	8	D-T2
DAS12-12*	12V	12Ah	9,8Ah	150	97	99	4,2	4	D-T2
DAS12-14	12V	15Ah	12,3Ah	150	97	99	4,3	4	C-M5
DAS12-18	12V	18Ah	14,8Ah	180	76	167	6,3	2	C-M5
DAS12-26	12V	26Ah	22,3Ah	165	174,5	125	9,2	1	C-M5
DAS12-33	12V	33Ah	25,7Ah	193,5	130	166,5	10,9	1	B-M6
DAS12-44	12V	44Ah	33,2Ah	196	164	170,5	13,6	1	C-M6
DAS12-70	12V	70Ah	61,4Ah	350	167	174	21,5	1	C-M6
DAS12-100	12V	100Ah	78,1Ah	305	168	210	30	1	B-M6

\* VDS Approved

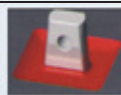
Terminals and adapter	J-type adaptor M6	<b>BAT/42019</b>	one set is 2 adaptors
	automot. adaptor M6	<b>BAT/33955</b>	one set is 2 adaptors
	automot. adaptor M8	<b>BAT/33956</b>	one set is 2 adaptors



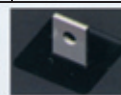
Lead Flag (F)



automotive (A)



J type



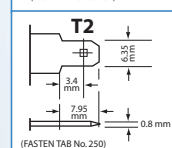
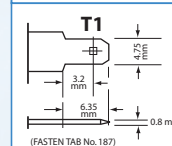
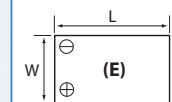
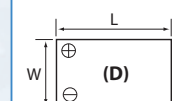
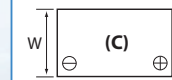
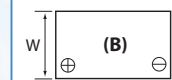
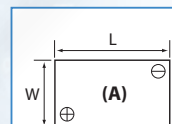
Copper Flag

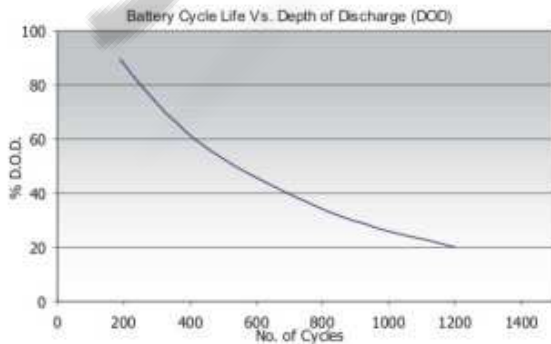
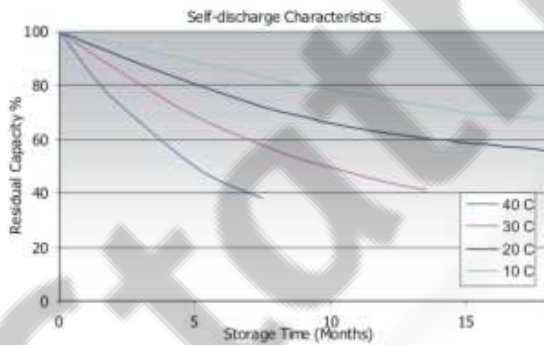
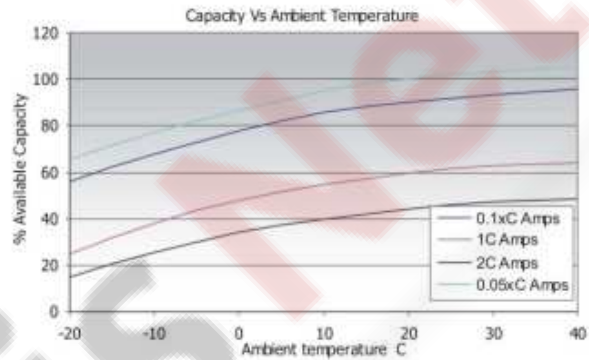
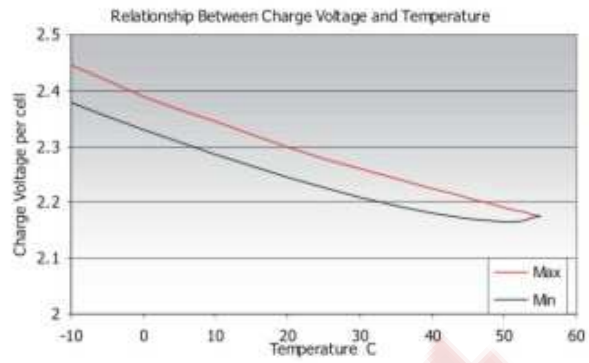


J-type



insert (M.)





### CHARGING CHARACTERISTICS

**Floating** - The optimum float voltage for a battery is temperature dependant, at 15 - 24°C the recommended value is 2.27 - 2.30V. It is recommended that battery installation sites are temperature controlled, however float voltage can be increased or decreased to compensate for temperature variations. Adjustment is calculated at +/- 3 mV per degree C.

Operating Temperature	Recommended Applied Float Voltage VPC
0-9	2.33 - 2.35
10-14	2.30 - 2.33
15-19	2.27 - 2.30
20-24	2.27 - 2.30
25-29	2.25 - 2.27
30-34	2.23 - 2.25
35-40	2.21 - 2.23

The most suitable charging method for battery life and performance is the constant voltage method with a limited initial current, usually limited to a maximum of  $C_{10}/4$ .

### Innovative Features

- Completely maintenance free, sealed construction eliminates the need for watering
- Increased durability and deep cycle ability for heavy demand applications
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Valve regulated Max internal pressure 2.5 psi
- Multi-position usage
- ABS Case and cover - V0 on request
- Low self discharge
- FAA and IATA approved as non-hazardous.



### Applications

- Float service
- Uninterruptible Power Supplies
- Medical
- Telecommunications
- Switch Gear
- Photovoltaic
- Solar
- Wind
- Control Systems
- Cellular Radio Stations
- Cathodic Protection
- Navigation Aids
- Marine equipment
- Electric Power Systems

Discharge Time	Capacity temperature correction Factor to be applied to Data at 20 Degrees C									
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C	
5 minutes to 59 minutes	0.8	0.86	0.91	0.96	1	1.037	1.063	1.085	1.1	
1 Hour to 100 Hours	0.86	0.9	0.93	0.97	1	1.028	1.05	1.063	1.07	

### Specifications

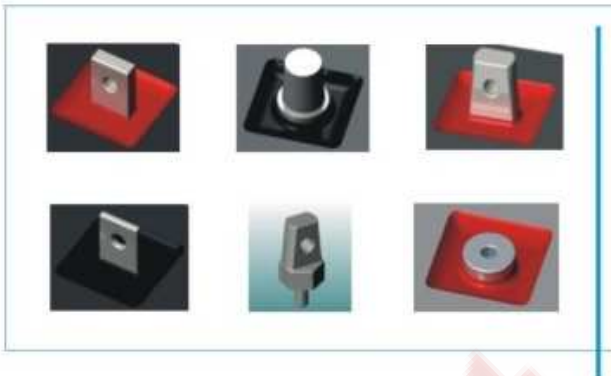
Nominal Voltage	4, 6 & 12 Volts
Design Life	5 Years
Operating Temperature	-20 °C to 50 °C (Recommended)
Grid alloy	Calcium / Tin lead alloy
Plates	Flat Pasted
Separator	Absorbant Glass Mat
Active material	High purity lead
Case and cover	ABS (VO on request)
Charge Voltage	Float 2.27 ~ 2.30 VPC @20 °C Cycling 2.4 @20 °C Max. 2.4 VPC Max ripple 0.05C (A)
Electrolyte	Sulphuric acid Low impurity
Venting Valve	EPDM Rubber 1.5 to 2 psi (10.5 ~ 14 KPa) release pressure. Resealing at 1 psi (7 KPa)
Terminal	Various types Epoxy sealed by extended mechanical paths
Torque setting	The recommended torque value for all screw types is 5-7 Nm
Cables	Insulated cables / connectors supplied on request.

Haze Battery Company keenly encourages environmental awareness; PLEASE follow guidelines for the recycling /disposal of lead.

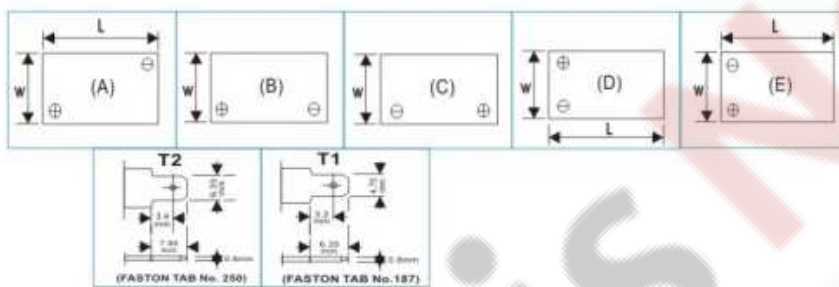
**Terminal Options** (left to right)

- [hex5.jpg](#)
- Automotive
- J Type
- Copper Flag
- J Type Adapter
- Insert

Insert are made from brass with copper, nickel and silver plating giving excellent mechanical, electrical and corrosion resistant properties.



**Terminal details**



[hex6.jpg](#)



**Terminal Covers**



- T1 to T2
- T2 to T1
- Insert to T1
- Insert to T2

All are made from tin plated brass for good electrical properties and corrosion resistance.