



## Sealed Lead Acid Batteries Gelled Electrolyte Range

**HZY 6 & 12V**

**Design life 12 years**



### Applications

- Cycling / Float service
- Telecommunications
- Switch Gear, Industrial Automation
- Utility
- Cellular base stations
- Uninterruptible Power Supplying Systems
- Marine Equipment / Navigation Aids
- Renewable Energy Systems ( Solar, Wind )
- Cathodic Protection
- Engine Starting
- Electric Vehicles
- Wheelchairs, Golf Caddies, Scissor Lifts
- Many other deep cycle applications

### Innovative Features

- Completely maintenance free ( sealed , no watering )
- Increased durability and deep cycle ability for heavy demand applications
- High purity electrolyte, gelled, thixotropic, no stratification
- Fully tank formed plates
- Spill proof / leak proof
- Valve regulated, max internal pressure 2.5PSI ( 17.5kPa)
- Multi-position usage
- ABS case and cover – V0 on request
- Low self discharge
- Built to comply with IEC 896-2, DIN 43534, BS 6290p.4, EUROBAT, UL 1989 approved
- FAA & IATA approved as non-hazardous
- Utilizing the latest in German gel technology

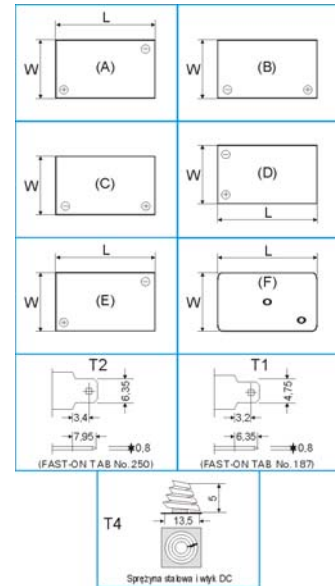
### Specifications

- Nominal voltage 6V & 12V
- Design life 12 years
- Technology Gel
- Operating temperature  $-20^{\circ}\text{C} \div 50^{\circ}\text{C}$
- Grid alloy Calcium / Tin lead alloy
- Plates Flat pasted
- Separator Microporous Duroplastic
- Active material Very high purity lead
- Case and cover ABS ( V0 on request)
- Charge voltage
  - float: 2.27÷2.30VPC (20°C)
  - cycling: 2.35VPC (20°C)
  - maximum 2.40VPC
- Max charge current ripple 0.05 C [A]
- Electrolyte Sulphuric acid of analytical grade purity
- Venting valve EPDM rubber, release pressure 1.5-2PSI (10÷15 kPa), resealing at 1PSI ( 7 kPa )
- Terminal Various types, epoxy sealed by extended mechanical paths
- Torque setting 5÷7 Nm

# HZY 6 & 12V

Battery model	Voltage [V]	Capacity C20 [Ah]	Length [mm]	Width [mm]	Height [mm]	Weight [kg]	Terminal type
HZY 6-7,5	6	7,7	150	34	96	1,3	B-T1
HZY 6-10	6	10,1	151	50	97	1,9	B-T1
HZY 6-12	6	13,1	151	50	98	2,0	B-T2
HZY 12-7,5	12	7,7	151	65	99	2,5	D-T1
HZY 12-12	12	13,1	150	97	100	4,0	D-T2
HZY 12-18	12	17,8	181	76	167	5,9	C-M5
HZY 12-26	12	26,7	166	176	126	8,8	C-M5
HZY 12-33	12	32,8	195	130	160	10,9	B-M6
HZY 12-44	12	40,6	197	165	170	14,0	C-M6
HZY 12-55	12	53,0	228	137	207	17,5	B-M6
HZY 12-70J	12	64,8	350	167	179	22,1	C-M6
HZY 12-70	12	66,1	259	168	208	21,5	B-M6
HZY 12-80	12	76,1	259	168	208	23,3	B-M6
HZY 12-90	12	86,3	305	168	208	27	B-M6
HZY 12-100	12	96	305	168	208	28,4	B-M6
HZY 12-110	12	107	332	174	213	32,2	B-M6
HZY 12-120	12	116	408	176	227	35,4	B-M6
HZY 12-135	12	128	340	173	280	39,8	C-M6
HZY 12-150	12	145	482	170	242	44,3	B-M6
HZY 12-160	12	160	530	209	214	57,4	E-M6
HZY 12-200	12	193	520	240	220	66,0	E-M8
HZY 12-230	12	223	521	269	203	71,0	E-M8
HZY 6-110	6	109	193	168	205	16,0	A-M6
HZY 6-160	6	167	298	171	226	26,0	A-M6
HZY 6-200	6	193	318	170	225	31,0	A-M8

## Terminal details



## Approvals



## Charging characteristics

**Floating** – The optimum voltage for a battery is temperature dependant. At 15÷24°C the recommended value is 2,27-2,30VPC. It is recommended that battery installation sites are temperature controlled, however float voltage can be increased or decreased to compensate for temperature variations as shown below ( -3mV per degree C ).

Operating temperature [°C]	Recommended float voltage [V/ogn.]
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 C20/4.

## Capacity temperature correction factor

Temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C
Discharge time									
5 ÷ 60 mins	0,8	0,86	0,91	0,96	1	1,037	1,063	1,085	1,1
1 +100 hr(s)	0,86	0,9	0,93	0,97	1	1,028	1,05	1,063	1,07

Available from:

**Marlec Engineering Co Ltd**  
 Rutland House, Trevithick Road, Corby, Northants, NN17 5XY  
 Tel +44 (0) 1536 201588 Fax +44 (0) 1536 400211  
 Email: [sales@marlec.co.uk](mailto:sales@marlec.co.uk) Web: [www.marlec.co.uk](http://www.marlec.co.uk)