

HZS12-18 Valve Regulated Lead Acid Battery.
5 year design life for stand by power applications only.
12 Volts 20 Ah (C20)

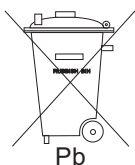
Innovative Features

- Completely maintenance free, sealed construction eliminates the need for watering
- Case formed plates
- Battery Grade electrolyte
- Spill proof / leak proof
- Valve regulated Max internal pressure 2.5 psi
- Multi-position usage
- ABS Case and cover - VO on request
- Low self discharge
- FAA and IATA approved as non-hazardous
- Built to comply with IEC 896-2, DIN 43534, BS 6290 Pt4, Eurobat.



Specifications

Nominal Voltage	12 Volts
Nominal Capacity	20 Ah (C20 @ 20 °C)
Design Life	5 Years
Operating Temperature	-20 °C to 50 °C
Grid alloy	Calcium / Tin lead alloy
Plates	Flat Pasted
Separator	Absorbant Glass Mat
Active material	Very high purity lead
Case and cover	ABS (VO on request)
Charge Voltage	Float 2.25 - 2.30 VPC @25 °C Cycling 2.35 @25 °C Max. 2.4 VPC Max ripple 0.05C (A)
Electrolyte	Sulphuric acid Analytical grade purity
Venting Valve	EPDM Rubber 1.5 to 2 psi (10.5 - 14 KPa) release pressure. Resealing at 1 psi (7 KPa)
Terminal	Copper Flag Nut-Bolt terminal. Epoxy sealed by extended mechanical paths
Torque setting	The recommended torque value for all types is 5-7 Nm
Cables	Connectors, cables, terminal covers on request.



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

Website: www.hazebatteryusa.com
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Sealed Lead Acid 12 Volt Bloc AGM Range
PRODUCT SHEET HZS12-18F

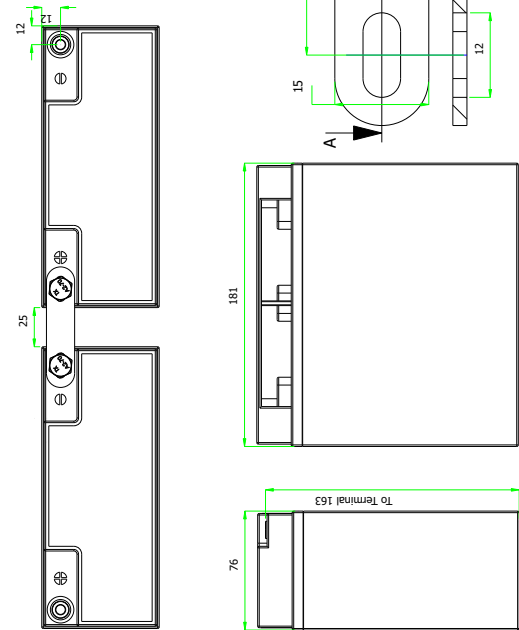
**12V
AGM**

Specifications

Nominal Voltage		12V	
Nominal Capacity		20.4 Ah	
Dimensions	Total Height	167 mm	6.57 inches
	(Inc. terminals)	168 mm	n/a inches
	Length	181 mm	7.13 inches
	Width	76 mm	2.99 inches
	Weight	5.4 Kg	11.93 lbs

Characteristics

Capacity 20-25 °C (68-77 °F) To 1.7 volts	20 hour rate	20.4 Ah
	10 hour rate	18.8 Ah
	5 hour rate	17.4 Ah
	1 hour rate	13.5 Ah
	15 min rate	9.6 Ah
	Internal Resistance	11 mOhms
Capacity correction for Temperature Variations (C20)	40 °C (104 °F)	102%
	20 °C (68 °F)	100%
	0 °C (32 °F)	85%
	-15 °C (5 °F)	65%
	Impedance	400 S
Self-Discharge 20 °C (68 °F)	Capacity after 1 months storage	98%
	Capacity after 3 months storage	94%
	Capacity after 6 months storage	86%
Short Circuit Current 20 °C (68 °F)	732	
Terminal	Standard	12mm Insert M5 thread
	Optional	Cu Flag
Charging (Constant Voltage)	Cyclic	2.35 - 2.40 VPC (20-25 °C)
	Float	2.27 - 2.30 VPC (15-25 °C)



Constant Power Discharge - Watts per Cell @ 20-25 °C

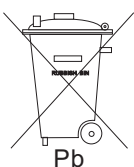
End V per Cell	5M	10M	15M	20M	25M	30M	35M	40M	45M	60M	90M	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr
1.85	152	87.2	63.6	52.0	44.3	38.6	34.4	31.0	28.5	22.8	16.4	12.8	9.06	7.16	5.98	5.12	4.48	3.98	3.22	2.71	1.69
1.80	162	93.2	68.0	55.5	47.3	41.2	36.7	33.1	30.5	24.4	17.5	13.7	9.68	7.65	6.39	5.47	4.78	4.25	3.44	2.89	1.81
1.75	173	99.1	72.3	59.0	50.3	43.9	39.0	35.2	32.4	25.9	18.6	14.6	10.3	8.14	6.80	5.81	5.09	4.52	3.66	3.08	1.92
1.70	177	101	73.9	60.3	51.4	44.8	39.9	36.0	33.1	26.5	19.1	14.9	10.5	8.31	6.95	5.94	5.20	4.62	3.74	3.15	1.96
1.65	179	103	74.9	61.1	52.1	45.4	40.4	36.4	33.6	26.8	19.3	15.1	10.7	8.4	-	-	-	-	-	-	-
1.60	179	103	74.9	61.1	52.1	45.4	40.4	36.4	33.6	26.8	19.3	15.1	10.7	8.42	-	-	-	-	-	-	-

Constant Amps Discharge - Amps @ 20-25 °C

End V per Cell	5M	10M	15M	20M	25M	30M	35M	40M	45M	60M	90M	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr
1.85	75.0	44.4	33.0	26.5	22.4	19.6	17.5	15.9	14.5	11.7	8.31	6.50	4.59	3.61	2.99	2.54	2.22	1.97	1.62	1.37	0.88
1.80	80.1	47.4	35.2	28.3	23.9	20.9	18.7	16.9	15.5	12.5	8.88	6.95	4.90	3.85	3.19	2.72	2.37	2.11	1.73	1.47	0.94
1.75	85.2	50.5	37.5	30.1	25.4	22.3	19.9	18.0	16.5	13.2	9.45	7.39	5.22	4.10	3.40	2.89	2.52	2.24	1.84	1.56	1.00
1.70	87.1	51.6	38.3	30.7	26.0	22.8	20.4	18.4	16.9	13.5	9.65	7.55	5.33	4.19	3.47	2.95	2.58	2.29	1.88	1.59	1.02
1.65	88.2	52.2	38.8	31.1	26.3	23.1	20.6	18.7	17.1	13.7	9.8	7.7	5.4	4.2	-	-	-	-	-	-	-
1.60	88.2	52.2	38.8	31.1	26.3	23.1	20.6	18.7	17.1	13.7	9.78	7.65	5.40	4.24	-	-	-	-	-	-	-

Ampere Hour @ 20-25 °C

End V per Cell	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr
1.85	12.5	13.0	13.8	14.4	15.0	15.3	15.5	15.8	16.2	16.5
1.80	13.9	14.7	15.4	16.0	16.3	16.6	16.9	17.3	17.6	18.8
1.75	14.8	15.6	16.4	17.0	17.3	17.7	17.9	18.4	18.7	20.0
1.70	15.1	16.0	16.7	17.4	17.7	18.1	18.3	18.8	19.1	20.4
1.65	15.3	16.2	17.0	-	-	-	-	-	-	-
1.60	15.4	16.4	17.1	-	-	-	-	-	-	-



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