

HZB12-33 Valve Regulated Lead Acid battery.  
 12 year design life for stand by power applications.  
 12 Volts 38 Ah

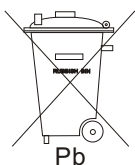
### Innovative Features

- Completely maintenance free, sealed construction eliminates the need for watering
- Special formation process
- Analytical Grade 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
- Built to comply with IEC 896-2, DIN 43534, BS 6290 Pt4, Eurobat.



### Specifications

Nominal Voltage	12 Volts
Nominal Capacity	38.8Ah (C20)
Design Life	12 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 See Haze Cyclic charging profile 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	Insert 14mm Dia M6 thread. 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.hazebattery.com](http://www.hazebattery.com)  
 E mail : [sales@hazebattery.com](mailto:sales@hazebattery.com)

Sealed Lead Acid 12 Volt Bloc    AGM Range  
 PRODUCT SHEET HZB12-33

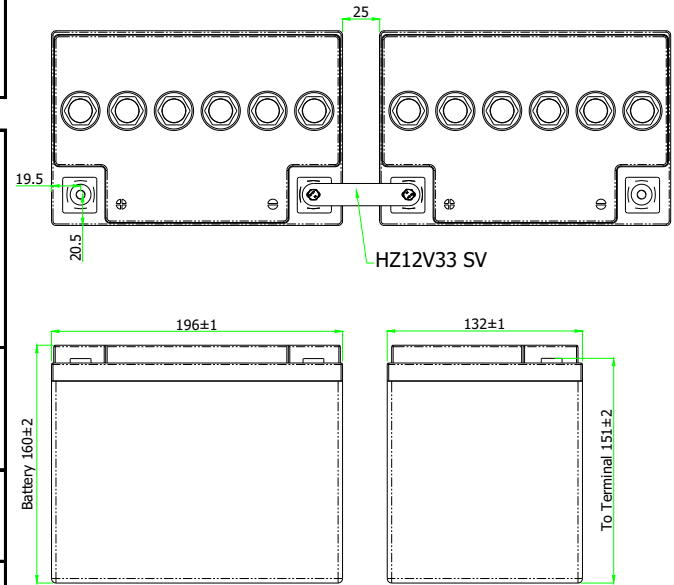
**12V  
AGM**

## Specifications

Nominal Voltage		12V	
Nominal Capacity		38 Ah	
Dimensions	Total Height	160 mm	6.30 inches
	(Inc. terminals)	n/a mm	n/a inches
	Length	195 mm	7.68 inches
	Width	130 mm	5.12 inches
	Weight	10.7 Kg	23.65 lbs

## Characteristics

Capacity 20-25 °C (68-77 °F) To 1.7 volts	20 hour rate	38.8 Ah
	10 hour rate	35.5 Ah
	5 hour rate	32.8 Ah
	1 hour rate	25.0 Ah
	15 min rate	17.7 Ah
	Internal Resistance	5.75 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%
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)	1100	
Terminal	Standard	14mm Insert M6 th read
	Optional	Lead 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	304	169	121	97.1	82.3	71.2	63.5	56.5	51.6	41.4	29.7	23.2	16.7	13.3	11.0	9.46	8.23	7.27	5.86	4.91	3.05
1.80	325	180	129	104	87.9	76.1	67.8	60.3	55.1	44.2	31.7	24.8	17.8	14.2	11.8	10.1	8.79	7.77	6.26	5.24	3.25
1.75	346	192	137	110	93.5	81.0	72.1	64.2	58.7	47.0	33.7	26.4	18.9	15.1	12.5	10.7	9.35	8.26	6.66	5.57	3.46
1.70	353	196	140	113	95.6	82.7	73.7	65.6	60.0	48.0	34.4	27.0	19.3	15.4	12.8	11.0	9.56	8.45	6.81	5.70	3.54
1.67	356	198	141	114	96.4	83.5	74.4	66.2	60.5	48.5	34.8	27.2	19.5	15.5	-	-	-	-	-	-	-
1.65	358	199	142	114	96.8	83.8	74.7	66.4	60.7	48.6	34.9	27.3	19.6	15.6	-	-	-	-	-	-	-
1.60	361	201	143	115	97.8	84.6	75.4	67.1	61.3	49.1	35.2	27.6	19.8	15.8	-	-	-	-	-	-	-

## 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	132	81.6	61.1	49.1	42.1	36.6	32.5	29.1	26.8	21.5	15.3	12.0	8.62	6.84	5.64	4.82	4.20	3.73	3.06	2.60	1.67
1.80	141	87.2	65.2	52.4	44.9	39.1	34.7	31.1	28.6	23.0	16.3	12.9	9.20	7.31	6.03	5.14	4.49	3.99	3.27	2.78	1.78
1.75	150	92.7	69.4	55.8	47.8	41.5	36.9	33.1	30.4	24.5	17.4	13.7	9.79	7.78	6.41	5.47	4.77	4.24	3.48	2.96	1.90
1.70	153	94.8	70.9	57.0	48.9	42.5	37.7	33.8	31.1	25.0	17.7	14.0	10.0	7.95	6.55	5.59	4.88	4.33	3.55	3.03	1.94
1.67	154	95.6	71.5	57.5	49.3	42.8	38.0	34.1	31.3	25.2	17.9	14.1	10.1	8.02	-	-	-	-	-	-	-
1.65	155	96.0	71.8	57.7	49.5	43.0	38.2	34.3	31.5	25.3	18.0	14.2	10.1	8.05	-	-	-	-	-	-	-
1.60	156	96.9	72.5	58.3	50.0	43.4	38.6	34.6	31.8	25.6	18.1	14.3	10.2	8.13	-	-	-	-	-	-	-

## 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	24.1	25.9	27.4	28.2	28.9	29.4	29.9	30.6	31.3	33.4
1.80	25.7	27.6	29.2	30.1	30.9	31.4	31.9	32.7	33.4	35.6
1.75	27.4	29.4	31.1	32.1	32.8	33.4	33.9	34.8	35.5	37.9
1.70	28.0	30.0	31.8	32.8	33.6	34.1	34.7	35.5	36.3	38.8
1.67	28.2	30.3	32.1	-	-	-	-	-	-	-
1.65	28.3	30.4	32.2	-	-	-	-	-	-	-
1.60	28.6	30.7	32.5	-	-	-	-	-	-	-

