



10 S-GEL-ET 1890

(2V 1568Ah @ 10hr)

Werbat valve regulated lead-acid batteries for the solar power and renewable energy market. With an innovative Gel-Technology design Werbat S-Gel batteries have a reliable maintenance-free and leakage-free construction.

Performance characteristics

Nominal Voltage	2V
Number of cells	1
Design Life	15 years
Nominal Capacity 20°C (68°F)	
10 hour rate (156A, 1.75V)	1568Ah
5 hour rate (261.5A, 1.75V)	1307Ah
1 hour rate (880A, 1.8V)	880Ah
Internal Resistance	
Fully Charged Battery 20°C (68°F)	0.20mOhm
Self-Discharge	
2% of capacity declined per month at 20°C (average)	
Operating Temperature Range	-20°C to +55°C
Maximum Discharge Current 20°C (68°F)	1600A
Charge Methods: Constant Voltage Charge 20°C (68°F)	
Cycle use	2.40V (time limited)
Maximum charging current	750A
Typical charging current	150-300A
Standby use	2.25V ± 1%
Temperature compensation	-5.0mV/°C/Cell
Terminal torque	23Nm

Discharge Constant Current (Amperes at 20°C)

Cells (V)	3 h	5 h	10 h	20 h	24 h	48 h	72 h	100 h	120 h
1.75	417.20	270.48	161.28	96.43	83.38	45.81	31.58	24.58	21.56
1.80	400.96	261.52	156.80	94.08	81.03	43.40	29.74	23.52	20.78
1.85	382.48	248.08	147.84	88.59	77.45	41.22	28.34	21.95	19.60
1.90	353.92	228.48	136.08	82.04	70.34	37.91	26.38	20.66	18.31

Discharge Constant Power (Watts at 20°C)

Cells (V)	3 h	5 h	10 h	20 h	24 h	48 h	72 h	100 h	120 h
1.75	730.10	473.34	282.24	168.76	145.92	80.16	52.27	43.02	37.73
1.80	721.73	470.74	282.24	169.34	145.86	78.12	54.52	42.34	37.40
1.85	707.59	458.95	273.50	163.90	143.28	76.25	52.42	40.61	36.26
1.90	672.45	434.11	258.55	155.88	133.64	72.03	50.11	39.26	34.79

Features

- High energy density cyclic performance

- Robust tubular positive electrode design

- 2000 cycles at 60% DOD & 3000 cycles at 40% DOD at 20°C

- Low self discharge rate allows up to 2 years shelf life

- Operating temperature -20°C to 50°C

- EUROBAT design life: Long Life > 12 years

- Fully recyclable with low CO₂ footprint

- Low self discharge rate

Applications

- Solar / Wind Power Stations

- Traffic Systems

- Hydro Power Generation

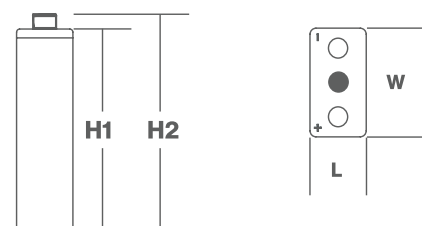
- Off Grid Solution

- Telecommunications/ Mobile Phone Stations

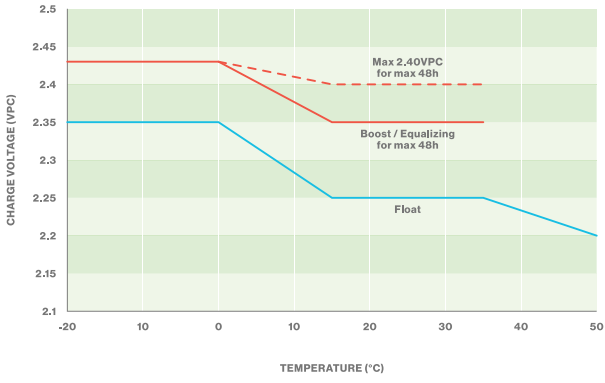
- Power Distribution Companies

Dimensions and weight

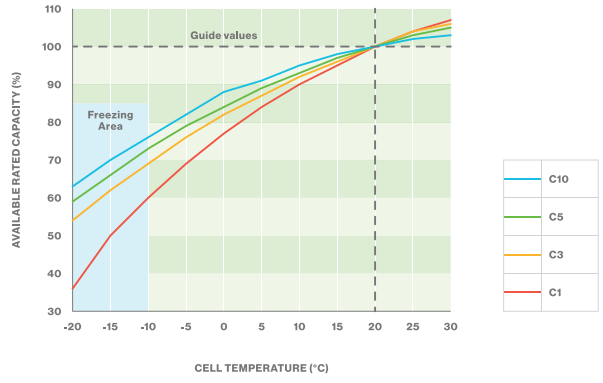
Length	191.0 mm
Width	198.0 mm
Height (H1)	713.5 mm
Total height (H2)	743.5 mm
Dry weight	80kg ± 5%



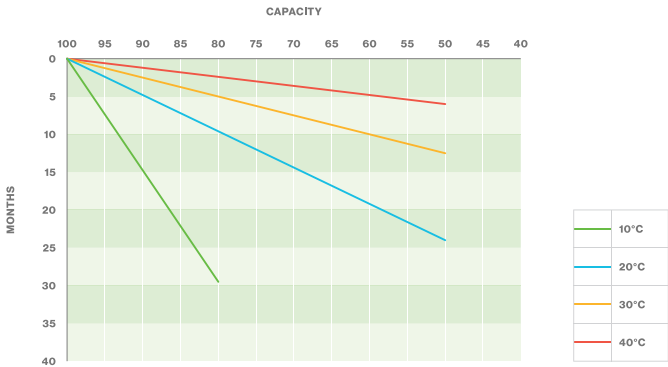
Charging voltage vs. Temperature



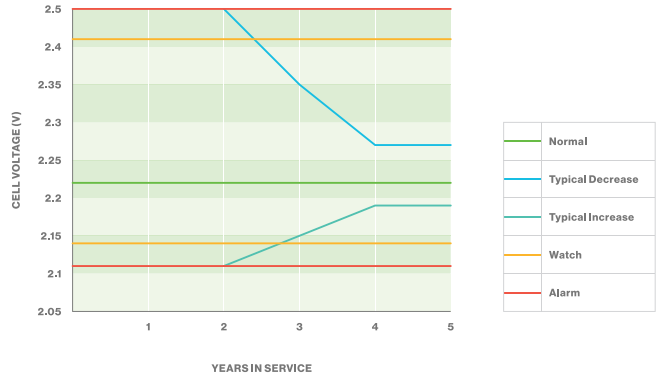
Capacity vs. Temperature



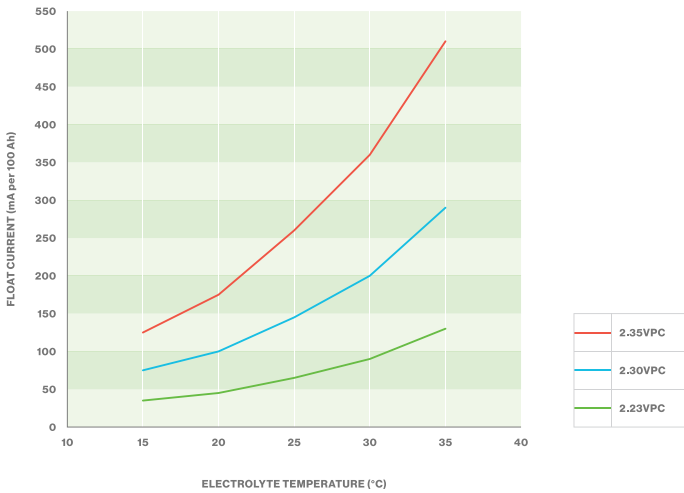
Self discharge at different temperatures



Float voltage deviation vs. Years in service



Float current: Residual charge current



Storage: Determine the state of charge

