



# HRL Series

## HRL 12540W Datasheet

12V Top Terminal VRLA-AGM



Valve Regulated Lead Acid (VRLA) Battery

Maintenance-Free, Absorbent Glass Mat (AGM) Technology for Efficient Gas Recombination of up to 99%

Pure Lead Construction and Proprietary Elements

Designed for High-Rate UPS, Float Service Standby Power Applications

Built in Accordance with IEC 60896-21/22:2004 and UL1989 Recognized (MH14533)



### Specifications

Voltage (Vdc)	12
Nominal Capacity (1.67 VPC @25°C)	540W @15min-rate
Watts Per Cell (30-Sec 1.67 VPC @ 25°C)	--
Watts Per Cell (5-Min 1.67 VPC @ 25°)	838
Watts Per Cell (15-Min 1.67 VPC @ 25°)	542
Max Charge Current (A)	54
Max Discharge Current (A)	800
Short Circuit Current (A)	3523
Internal Resistance (mΩ)	Approx. 2.60
Terminal Type	12 thread lead alloy terminal to accept M6 bolt
Terminal Torque	51.7±10.3 Kgf·cm / 44.9±9.0 Lbf·in / 5.10±1.0 N·m
Container Material	PP (UL 94-HB) & Flame Retardant (94-V0) available upon request
Weight (kg. / lb., Approx.)	43.90 / 96.76
Length (L) (mm / in)	343.0±2.5 / 13.50±0.10
Width (W) (mm / in)	170.0±2.0 / 6.69±0.08
Height (H) (mm / in)	275.7±2.5 / 10.85±0.10
Design Life	Up to 10 Years in Standby Service at 25°C Eurobat (20°C): >12 Years Very Long Life
Operating Temperature	Nominal: 25°C (77°F) Discharge: -15°C - 50°C (5°F-122°F) Charge/Storage: -15°C - 40°C (5°F - 104°F)
Float Charging Voltage	13.5 - 13.8 Vdc/battery 25°C (77°F)
Eq. Charging Voltage	14.4 - 15.0 Vdc/battery 25°C (77°F)
Self-Discharge	Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F); Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).



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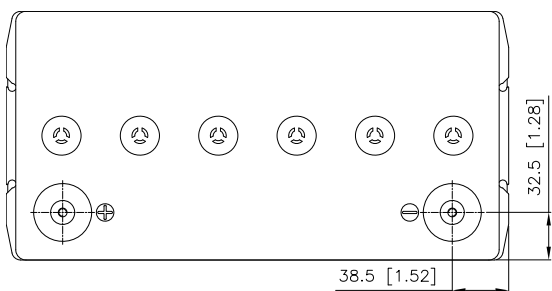
12V Top Terminal VRLA-AGM

### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
10.02V (1.67 VPC)	608	517	480	452	406	370	294	245	181	132	105	74.3
10.50V (1.75 VPC)	501	440	416	398	365	327	270	228	172	126	101	72.0
10.80V (1.80 VPC)	430	391	375	362	323	296	252	209	161	120	97.9	70.3

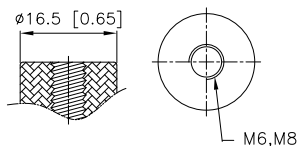
### Constant Power Discharge Characteristics Unit: W (25°C, 77°F)

F.V/Time	2MIN	4MIN	5MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	45MIN	60MIN	90MIN
10.02V (1.67 VPC)	6207	5325	5026	4794	4282	3885	3250	2630	2006	1492	1210	865
10.50V (1.75 VPC)	5225	4639	4390	4196	3766	3472	2951	2454	1925	1441	1174	849
10.80V (1.80 VPC)	4561	4310	4032	3818	3442	3233	2723	2306	1846	1385	1129	824



Detail A Drawing(4:1)

12,14



[M6, M8 bolt]

