

Power

AlphaCell™ 3.5 and 4.0HP

Pure Lead Top Terminal Batteries



AlphaCell™ 4.0 HP

- › Class leading batteries featuring pure lead technology providing up to 20% increased life expectancy
- › 3 to 5 times longer shelf life versus standard VRLA batteries
- › Up to 50% increased runtime in cold climates
- › Non-spillable UN2800 rating for ease of transportation
- › Higher runtime allows string count reduction
- › 5-year full, hassle-free warranty

AlphaCell HP Pure lead AGM batteries provide high power density and extended reliability for broadband applications. AlphaCell batteries enable using fewer strings in power systems compared to standard batteries while maintaining network runtime and reliability. For power supply loads that are less than 8 amps, 4 hours runtime can be achieved using a single string of AlphaCell 4.0 HP batteries, compared to using two strings of competitive products. Additionally, AlphaCell HP batteries provide up to 50% more runtime in colder climates compared to standard batteries.



AlphaCell 3.5 and 4.0HP Pure Lead Top Terminal Batteries

Nominal Specifications		
Model	3.5HP (P/N 1810077)	4.0HP (P/N 1810078)
Warranty*	5-year full replacement	
Service life	Extended	
Battery type	Pure lead AGM	
Heat resistant	Extreme	
Hydrogen emission	Low	
Capacity at 20hrs (to 1.75VPC)	104Ah	114Ah
Typical runtime (minutes)**	210	240
BCI group size	31	
Terminals	Threaded insert 1/4 - 20 UNC*	
Cells per unit	6	
Voltage per unit	12.8	
Conductance value	1700	2100
Impedance @ 60Hz (Ohms)	2.7	2.2
Max. discharge current (A)	800	900
Short circuit current (A)	2800	3200
10 second volts @ 100A	11.7	11.8

Mechanical		
Height w/terminals	mm (inches)	223.5H x 337.8W x 172.7D (8.5H x 13.4W x 6.8D)
Weight		30.8kg (68lbs)
		35.6kg (74lbs)
Environmental		
Discharge		-40 to 60°C (-40 to 140°F)
Charge (w/temperature compensation)		-40 to 60°C (-9.4 to 140°F)
Float charging voltage		13.5 to 13.8Vdc
AC ripple charger		0.5% RMS or 1.5% of float charge voltage recommended for best results. Max. allowed = 4%V pk to pk

AlphaCell HP current discharge ratings in Amps (end voltage 1.75VPC @ 25°C/77°F)

Hours		1	2	3	4	8	10	20
3.5HP	End voltage 1.75VPC:	70.2	40.3	28.6	22.3	12.1	9.9	5.2
	End voltage 1.70VPC:	72.0	41.1	29.2	22.7	12.3	10.0	5.3
4.0HP	End voltage 1.75VPC:	81.9	45.8	32.2	25.0	13.1	10.6	5.7
	End voltage 1.70VPC:	83.7	46.7	32.8	25.4	13.3	10.7	5.8

AlphaCell HP Amp hour ratings in Amps (end voltage 1.75VPC @ 25°C/77°F)

Hours		1	2	3	4	8	10	20
3.5HP	End voltage 1.75VPC:	70.2	80.6	85.8	89.2	96.8	99	104
	End voltage 1.70VPC:	72.0	82.2	87.6	90.8	98.4	100	106
4.0HP	End voltage 1.75VPC:	81.9	91.6	96.6	100	104.8	106	114
	End voltage 1.70VPC:	83.7	93.3	98.3	101.5	106.3	107	115.8

* Warranty varies by country and region. Warranty valid only when used with Alpha approved power supplies, chargers and enclosures. Consult your salesperson for details.

** Runtimes calculated using a 25A DC constant current load to 1.75Vdc @ 25 °C


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