



# AlphaCell™ 3.5HP and 4.0HP

PURE LEAD BATTERIES




- Pure lead technology provides up to 20% increased life expectancy
- Up to 5-year full warranty<sup>2</sup>
- Non-spillable UN2800 rating for ease of transportation
- 12-year design life
- 4.0HP offering 240 cable runtime minutes
- String Count Reduction to Reduce OpEx



AlphaCell 3.5 and 4.0HP

You can use fewer AlphaCell HP batteries compared to standard batteries, while maintaining network runtime reliability. For power supply loads that are less than 8 Amps you can achieve a 4 hour runtime using a single string of 4.0HP batteries compared to using two strings of competitive batteries. Consult your Alpha sales engineer for a free network analysis on how to potentially reduce your OpEx by up to 25 percent while increasing the reliability of the batteries in your network.

### AlphaCell 3.5HP and 4.0HP

Models:	3.5HP	4.0HP
<b>Specifications<sup>1</sup></b>		
Warranty <sup>2</sup> :	4 to 5 year full replacement	4 to 5 year full replacement
Service Life:	Extended	Extended
Typical Runtime (minutes) <sup>3</sup> :	210	240
Sealed VRLA:	Valve regulated lead acid	Valve regulated lead acid
Heat Resistant:	Extreme	Extreme
Hydrogen Emission:	Low	Low
Terminals:	Threaded insert 1/4" - 20 UNC	Threaded insert 1/4" - 20 UNC
<b>Electrical</b>		
Cell Per Unit:	6	6
Voltage Per Unit:	12.8	12.8
Conductance Value:	1700	2100
Max. Discharge Current (A):	800	900
Short Circuit Current (A):	2800	3200
10 Second Volts @ 100A:	11.7	11.8
Ohms Impedance 60Hz:	2.7	2.2
BCI Group Size:	31	31
<b>Mechanical</b>		
Dimensions H <sup>4</sup> x W <sup>5</sup> x D <sup>5</sup> (in/mm):	8.8 x 13.4 x 6.8 / 223.5 x 337.8 x 172.7	8.8 x 13.4 x 6.8 / 223.5 x 337.8 x 172.7
Weight (lb/kg):	68 / 30.8	74 / 35.6
<b>Operating Temperature Range</b>		
Discharge:	-40 to 60°C / -40 to 140°F	-40 to 60°C / -40 to 140°F
Charge (with Temp compensation):	-40 to 60°C / -40 to 140°F	-40 to 60°C / -40 to 140°F
Float Charging Voltage (Vdc):	13.5 to 13.8	13.5 to 13.8
AC Ripple Charge:	0.5% RMS or 1.5% of float charge voltage recommended for best results. Max. allowed = 4%V pk to pk	
		

Notes:

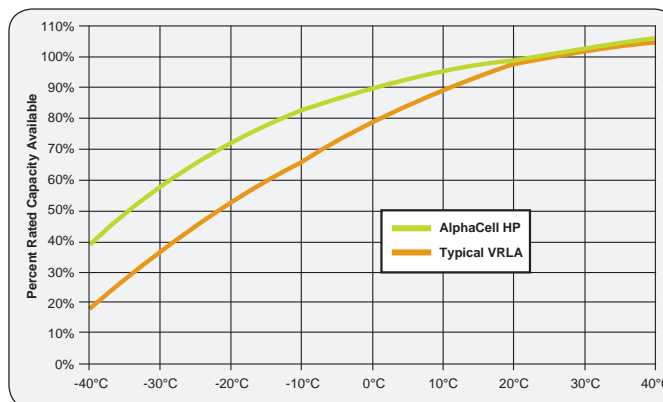
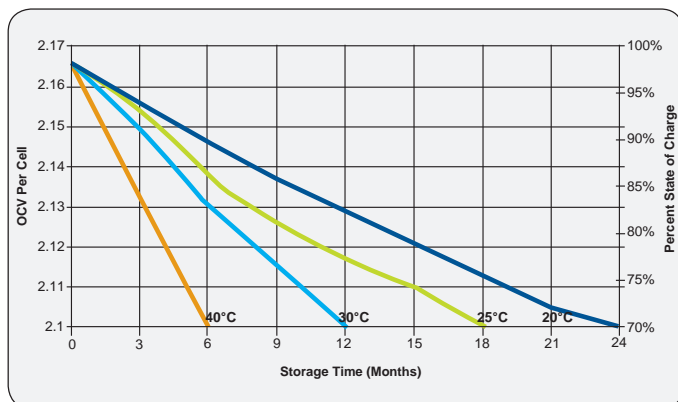
<sup>1</sup> See AlphaCell Users Guide for Additional Details. <sup>2</sup> Warranty varies by country and region. Warranty valid only when used with Alpha approved Power Supplies, Chargers and Enclosures. Consult your salesperson for details. <sup>3</sup> Runtimes calculated using a 25A DC constant current load to 1.75Vdc @ 25°C. <sup>4</sup> Height with terminals <sup>5</sup> Dimensions at top of battery

# AlphaCell™ HP Runtime

## Pure Lead Batteries

➤ 3 to 5 times longer shelf life vs. standard VRLA

➤ Provides up to 50% increased runtime in coldest climates



### AlphaCell HP Runtime XM2-915, XM2-922 and GMX Runtime (minutes)

90Vac @	4A		6A		8A		10A	
Model:	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP
3 batteries:	490	533	310	344	229	260	182	211
4 batteries:	672	732	429	469	320	353	255	286
6 batteries:	1041	1146	672	732	504	548	404	442
8 batteries:	1413	1576	917	1006	691	752	556	605
9 batteries:	1601	1795	1041	1146	785	875	632	688
90Vac @	12A		14A		16A		18A	
Model:	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP
3 batteries:	146	174	118	144	100	124	87	109
4 batteries:	206	236	167	195	142	170	123	150
6 batteries:	329	363	268	300	229	260	200	230
8 batteries:	454	495	372	408	320	353	279	311
9 batteries:	518	563	424	463	365	401	320	353

Above calculations based on an AC load with a .92 cable plant power factor

60Vac @	4A		6A		8A		10A	
Model:	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP
3 batteries:	746	833	490	533	365	401	291	324
4 batteries:	1041	1146	672	732	504	548	404	442
6 batteries:	1601	1795	1041	1146	785	857	632	688
8 batteries:	2165	2465	1413	1576	1069	1178	864	946
9 batteries:	2448	2806	1601	1795	1212	1343	981	1078
60Vac @	12A		14A		16A		18A	
Model:	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP
3 batteries:	236	267	192	221	164	192	142	170
4 batteries:	329	363	268	300	229	260	200	230
6 batteries:	518	563	424	463	365	401	320	353
8 batteries:	709	773	583	635	504	548	442	482
9 batteries:	806	881	664	723	573	624	504	548

Above calculations based on an AC load with a .92 cable plant power factor

### AlphaCell HP Current Discharge Ratings in Amps

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

### AlphaCell HP Amp Hour Ratings

Hours*		1	2	3	4	8	10	20
3.5HP	End Voltage 1.75VPC:	70.2	80.6	<b>85.8</b>	<b>89.2</b>	96.8	99.0	104.0
	End Voltage 1.70VPC:	72.0	82.2	<b>87.6</b>	<b>90.8</b>	98.4	100.0	106.0
4.0HP	End Voltage 1.75VPC:	81.9	91.6	<b>96.6</b>	<b>100.0</b>	104.8	106.0	114.0
	End Voltage 1.70VPC:	83.7	93.3	<b>98.3</b>	<b>101.5</b>	106.3	107.0	115.8

\* Use hours column above which closest models your desired runtime.