STANDARD BATTERY SOLUTIONS

EVOLUTION™

THE SMART BATTERY SOLUTION

HAWKER®

STANDARD BATTERY SOLUTIONS

evolution

SUPERIOR
EFFICIENT
RELIABLE

HAWKER® EVOLUTION™ MOTIVE POWER BATTERIES PROVIDE A HIGH LEVEL OF POWER AND RELIABILITY FOR MANY INDUSTRIAL TRUCK APPLICATIONS

CELL CONSTRUCTION

The Hawker® evolution™ gel electrolyte motive power battery is the result of considerable research and development and combines the features of a valve regulated battery which requires no water with the robust design of a traction cell with tubular positive plates (PzS type).
The lead calcium / tin positive plate alloy, the active mass and the separators are adapted for the performance requirements of the battery.
The valve of the Hawker evolution cell has a pressure working range with low tolerances ensuring a highly efficient internal oxygen circuit.
This specific design allows a high gas recombination rate, preventing any premature electrolyte dry out. Through this, the optimum life cycle for maintenance free batteries can be achieved.
The cells are joined by fully insulated, flexible and halogen free connectors. The bolt on connectors allow cells to be replaced or moved without excessive work and without the use of heat welding equipment.

POWERFUL FEATURES

The gelled electrolyte of the Hawker evolution battery is based on a highly dispersed mixture of sulphuric acid, water and silica. It not only prevents any acid leakage, but also ensures that there is no stratification of the acid during cycling.
Hawker evolution batteries are virtually maintenance free over the whole operational life. Water topping up is not required. Absolutely no acid spills or clean up.

Through the internal oxygen circulation and the special charging regime contained in our Hawker Life series modular chargers, **the Evolution battery has very low gas emission permitting decentralised charging of the truck or machine which can simplify your warehouse, helping lower your investment and operational costs.**

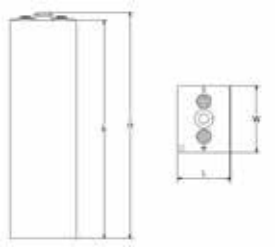
Hawker has developed specially designed charging profiles for our modular chargers which ensure a safe, gentle full charge of the battery using a very low charging factor.
With these chargers the charging time can be reduced to 8 hours with 60% DOD with an automatic equalise charge once per week. Through the high efficiency of the Hawker modular chargers, additional energy cost savings can be realised.

PzV cells Hawker® Evolution™, bolt-on connectors, dimensions to DIN/EN 60254-2, IEC 60254-2, GBT 7403.2, IS 5154.2, AS2402.2.1

Cell designation	Nominal capacity	Length	Width	Height (H)	Weight +/-5%
	C5 Ah	mm	mm	mm	kg
2 PzV 84	84	47	198	305	6.9
3 PzV 126	126	65	198	305	9.7
4 PzV 168	168	83	198	305	12.4
5 PzV 210	210	101	198	305	15.3
6 PzV 252	252	119	198	305	18.1
7 PzV 294	294	137	198	305	20.9
8 PzV 336	336	155	198	305	23.7
2 PzV 120	120	47	198	370	8.9
3 PzV 180	180	65	198	370	12.6
4 PzV 240	240	83	198	370	16.3
5 PzV 300	300	101	198	370	20.0
6 PzV 360	360	119	198	370	23.7
7 PzV 420	420	137	198	370	27.4
8 PzV 480	480	155	198	370	31.1
2 PzV 150	150	47	198	435	10.5
3 PzV 225	225	65	198	435	14.9
4 PzV 300	300	83	198	435	19.3
5 PzV 375	375	101	198	435	23.7
6 PzV 450	450	119	198	435	28.1
7 PzV 525	525	137	198	435	32.5
8 PzV 600	600	155	198	435	36.9
2 PzV 174	174	47	198	505	12.5
3 PzV 261	261	65	198	505	18.0
4 PzV 348	348	83	198	505	23.2
5 PzV 435	435	101	198	505	28.5
6 PzV 522	522	119	198	505	33.8
7 PzV 609	609	137	198	505	39.0
8 PzV 696	696	155	198	505	44.4
2 PzV 190	190	47	198	541	13.6
3 PzV 285	285	65	198	541	19.4
4 PzV 380	380	83	198	541	25.2
5 PzV 475	475	101	198	541	31.0
6 PzV 570	570	119	198	541	36.9
7 PzV 665	665	137	198	541	42.6
8 PzV 760	760	155	198	541	48.5
2 PzV 220	220	47	198	600	15.1
3 PzV 330	330	65	198	600	21.6
4 PzV 440	440	83	198	600	27.9
5 PzV 550	550	101	198	600	34.3
6 PzV 660	660	119	198	600	40.8
7 PzV 770	770	137	198	600	47.1
8 PzV 880	880	155	198	600	53.6
2 PzV 250	250	47	198	715	19.8
3 PzV 375	375	65	198	715	27.6
4 PzV 500	500	83	198	715	35.6
5 PzV 625	625	101	198	715	43.8
6 PzV 750	750	119	198	715	51.9
7 PzV 875	875	137	198	715	60.0
8 PzV 1000	1000	155	198	715	68.1
2 PzV 280	280	47	198	750	20.3
3 PzV 420	420	65	198	750	28.6
4 PzV 560	560	83	198	750	36.9
5 PzV 700	700	101	198	750	45.2
6 PzV 840	840	119	198	750	53.7
7 PzV 980	980	137	198	750	62.1
8 PzV 1120	1120	155	198	750	70.4

PzVB cells Hawker® Evolution™, bolt-on connectors, dimensions to IEC 60254-2, GBT 7403.2, IS 5154.2, AS2402.2.1

Cell designation	Nominal capacity	Length	Width	Height (H)	Weight +/-5%
	C5 Ah	mm	mm	mm	kg
2 PzVB 134	134	45	157.5	541	11.1
3 PzVB 201	201	61	157.5	541	15.2
4 PzVB 268	268	77	157.5	541	19.4
5 PzVB 335	335	93	157.5	541	23.6
6 PzVB 402	402	109	157.5	541	27.7
7 PzVB 469	469	125	157.5	541	32.0
2 PzVB 162	162	45	157.5	642	12.9
3 PzVB 243	243	61	157.5	642	17.9
4 PzVB 324	324	77	157.5	642	22.7
5 PzVB 405	405	93	157.5	642	27.6
6 PzVB 486	486	109	157.5	642	32.6
7 PzVB 567	567	125	157.5	642	37.6



Cell lid height (h) is overall height (H) minus 30mm
Terminals are F-M10 at 25Nm +/- 2

DEFINITION OF APPLICATION FIELDS

LOW DUTY
Single shift with light operation
60% Depth of Discharge.
Electrolyte around 30 °C

NORMAL DUTY
Single shift
80% Depth of Discharge.
Electrolyte around 30 °C

HEAVY DUTY
Single shift
Multi Shift with / without battery change
Opportunity charging to augment usable capacity
80% Depth of Discharge.
Discharge current higher than 0.20 C5
Higher or Lower ambient temperatures

1. LOW DUTY	2. NORMAL DUTY	3. HEAVY DUTY
IRONCLAD		
NEXSYS		
HAWKER EVOLUTION		
HAWKER PERFECT PLUS		
HAWKER PERFECT PLUS WITH ELECTROLYTE MIXING		

HAWKER®

ABOUT ENERSYS®

EnerSys®, the global leader in stored energy solutions for industrial applications, manufactures and distributes reserve power and motive power batteries, battery chargers, power equipment, battery accessories and outdoor equipment enclosure solutions to customers worldwide.

Motive power batteries and chargers are utilised in electric forklift trucks and other commercial electric powered vehicles.

Reserve power batteries are used in the telecommunication and utility industries, uninterruptible power supplies, and numerous applications requiring stored energy solutions including medical, aerospace and defence systems.

Outdoor equipment enclosure products are utilised in the telecommunication, cable, utility, transportation industries and by government and defence customers.

The company also provides aftermarket and customer support services to its customers from over 100 countries through its sales and manufacturing locations around the world.

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