

INDUSTRIAL BATTERY AND CHARGER SERVICES LTD

Evolution GEL Battery Range

The Hawker[®] evolution is a new maintenance free valve regulated gas recombination battery with gelled electrolyte, accepting up to 80% DOD/C5. This PSV range complements the IBCS strong product range further to the logistics and materials handling industries.

APPLICATIONS

- PzV batteries can be used for forklift trucks, cleaning machines and other electric vehicles.
- Warehouse areas which are governed by strict emission regulations or where liquid electrolyte leakage would not be acceptable environmentally.
- Storage areas with limited charging space or without specially equipped charging station.
- Where maintenance-free operation is a must, either for practical or financial reasons.
- Designed for medium and light applications on a single shift operation.
- For new applications a survey must be carried out by the IBCS Technical Team.



TECHNICAL FEATURES & BENEFITS

- The specialist make-up of the Hawker evolution gel battery not only prevents any acid leakage, but also ensures that there is no stratification of the acid during cycling.
- The battery is maintenance free over the whole operational life; water topping up is not required. Through the internal oxygen circulation and the special charging regime, the very low gas emission permits decentralised charging of the truck or equipped machine, or makes the use of a simplified charging room possible. From this significant cost benefits arise, because of low investment and operational costs.
- Minimum maintenance cost: sealed battery and topping up is not required.
- User and Environmental friendly: with the electrolyte in GEL form there is no acid leakage and no danger of corrosion and contamination.
- Operational flexibility: very low gas emissions, low ventilation requirements, large expensive charging stations are not required. Operational temperature ranges from -10C to +40C.
- Flexibility and interchangeability: corresponding dimensions and weight according to DIN and BS standards, safe and easy switch from old PzS to PzV battery.
- High Performance: tubular plate design ideal for deep cycling applications. PbCaSn lead alloy, suitable for VRLA battery.
- High operational safety and long life: recombination valve with regulated internal pressure limits prevents high temperatures. GEL electrolyte prevents acid stratification during daily chargedischarge operation. Both prolong the life of the battery.
- Alloys used are recyclable with lead poles with brass insert and M10 thread. Poles have copper connectors are bolt-on type and fully insulated.

Enersys® Hawker™ Evolution Gel™ Din Standard

Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight	Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight
2 PzV84	47	198	275	305	6.9	2PzV190	47	198	511	541	13.6
3 PzV126	65	198	275	305	9.7	3PzV2285	65	198	511	541	19.4
4 PzV168	83	198	275	305	12.4	4PzV380	83	198	511	541	25.2
5 PzV210	101	198	275	305	15.3	5PzV475	101	198	511	541	31.0
6 PzV252	119	198	275	305	18.1	6PzV570	119	198	511	541	36.9
7 PzV294	137	198	275	305	20.9	7PzV665	137	198	511	541	42.6
8 PzV336	155	198	275	305	23.7	8PzV760	155	198	511	541	48.5
Cell Type	Length (b)	Width (l)	Height 1	Height 2	Weight	Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight
2PzV120	47	198	340	370	8.9	2PzV220	47	198	570	600	15.1
3PzV180	65	198	340	370	12.6	3PzV330	65	198	570	600	21.6
4PzV240	83	198	340	370	16.3	4PzV440	83	198	570	600	27.9
5PzV300	101	198	340	370	20.0	5PzV550	101	198	570	600	34.3
6PzV360	119	198	340	370	23.7	6PzV660	119	198	570	600	40.8
7PzV420	137	198	340	370	27.4	7PzV770	137	198	570	600	47.1
8PzV480	155	198	340	370	31.1	8Pz\/880	155	198	570	600	53.6
Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight	Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight
Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight	Cell Type	Length (b)		Height 1	Height 2	Weight
2PzV150	47	198	405	435	10.5	2PzV250	47	198	685	715	19.8
2PzV150 3PzV225	47 65	198 198	405 405	435 435	10.5 14.9	2PzV250 3PzV375	47 65	198 198	685 685	715 715	19.8 27.6
2PzV150 3PzV225 4PzV300	47 65 83	198 198 198	405 405 405	435 435 435 435	10.5 14.9 19.3	2PzV250 3PzV375 4PzV500	47 65 83	198 198 198	685 685 685	715 715 715 715	19.8 27.6 35.6
2PzV150 3PzV225 4PzV300 5PzV375	47 65 83 101	198 198 198 198 198	405 405 405 405	435 435 435 435 435	10.5 14.9 19.3 23.7	2PzV250 3PzV375 4PzV500 5PzV625	47 65 83 101	198 198 198 198	685 685 685 685	715 715 715 715 715	19.8 27.6 35.6 43.8
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450	47 65 83 101 119	198 198 198 198 198 198	405 405 405 405 405 405	435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750	47 65 83 101 119	198 198 198 198 198 198	685 685 685 685 685 685	715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525	47 65 83 101 119 137	198 198 198 198 198 198 198	405 405 405 405 405 405 405	435 435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1 32.5	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875	47 65 83 101 119 137	198 198 198 198 198 198 198	685 685 685 685 685 685 685	715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450	47 65 83 101 119	198 198 198 198 198 198	405 405 405 405 405 405	435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750	47 65 83 101 119	198 198 198 198 198 198	685 685 685 685 685 685	715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525	47 65 83 101 119 137	198 198 198 198 198 198 198	405 405 405 405 405 405 405	435 435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1 32.5	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875	47 65 83 101 119 137	198 198 198 198 198 198 198	685 685 685 685 685 685 685	715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525 8PzV600	47 65 83 101 119 137 155	198 198 198 198 198 198 198 198	405 405 405 405 405 405 405	435 435 435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1 32.5 36.9	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875 8PzV1000	47 65 83 101 119 137 155	198 198 198 198 198 198 198 198	685 685 685 685 685 685 685 685	715 715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0 68.1
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525 8PzV600	47 65 83 101 119 137 155 Length (b)	198 198 198 198 198 198 198 198 Width (I)	405 405 405 405 405 405 405 Height 1	435 435 435 435 435 435 435 435 Height 2	10.5 14.9 19.3 23.7 28.1 32.5 36.9 Weight	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875 8PzV1000	47 65 83 101 119 137 155 Length (b)	198 198 198 198 198 198 198 198 198 Width (I)	685 685 685 685 685 685 685 685 Height 1	715 715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0 68.1 Weight
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525 8PzV600	47 65 83 101 119 137 155 Length (b) 47	198 198 198 198 198 198 198 198 Width (I)	405 405 405 405 405 405 405 405 Height 1	435 435 435 435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1 32.5 36.9 Weight 12.5	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875 8PzV1000	47 65 83 101 119 137 155 Length (b) 47	198 198 198 198 198 198 198 198 Width (I) 198	685 685 685 685 685 685 685 685 685 Height 1	715 715 715 715 715 715 715 715 715 Height 2 750	19.8 27.6 35.6 43.8 51.9 60.0 68.1 Weight 20.3
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525 8PzV600 8PzV600 2PzV174 3PzV261	47 65 83 101 119 137 155 Length (b) 47 65	198 198 198 198 198 198 198 198 Width (I) 198	405 405 405 405 405 405 405 405 Height 1 475 475	435 435 435 435 435 435 435 435 435 435	10.5 14.9 19.3 23.7 28.1 32.5 36.9 Weight 12.5 18.0	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875 8PzV1000 Cell Type 2PzV800 3PzV420	47 65 83 101 119 137 155 Length (b) 47 65	198 198 198 198 198 198 198 198 Width (I) 198 198	 685 685 685 685 685 685 685 685 Height 1 720 720 	715 715 715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0 68.1 Weight 20.3 28.6
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525 8PzV600 8PzV600 2PzV174 3PzV261 4PzV348	47 65 83 101 119 137 155 Length (b) 47 65 83	198 198 198 198 198 198 198 Width (I) 198 198 198	405 405 405 405 405 405 405 405 Height 1 475 475 475	435 435 435 435 435 435 435 435 505 505 505	10.5 14.9 19.3 23.7 28.1 32.5 36.9 Weight 12.5 18.0 23.2	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875 8PzV1000 8PzV1000 2PzV800 3PzV420 4PzV560	47 65 83 101 119 137 155 Length (b) 47 65 83	198 198 198 198 198 198 198 198 Width (I) 198 198 198	 685 685 685 685 685 685 685 685 4 720 720 720 720 720 	715 715 715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0 68.1 Weight 20.3 28.6 36.9
2PzV150 3PzV225 4PzV300 5PzV375 6PzV450 7PzV525 8PzV600 8PzV600 2PzV174 3PzV261 4PzV348 5PzV435	47 65 83 101 119 137 155 Length (b) 47 65 83 101	198 198 198 198 198 198 198 198 Width (I) 198 198 198 198	405 405 405 405 405 405 405 405 4 05 4 05 4 05 4 05 4 05	435 435 435 435 435 435 435 435 505 505 505 505 505	10.5 14.9 19.3 23.7 28.1 32.5 36.9 Weight 12.5 18.0 23.2 28.5	2PzV250 3PzV375 4PzV500 5PzV625 6PzV750 7PzV875 8PzV1000 8PzV1000 2PzV800 3PzV420 4PzV560 5PzV700	47 65 83 101 119 137 155 Length (b) 47 65 83 101	198 198 198 198 198 198 198 198 Width (I) 198 198 198 198	 685 685 685 685 685 685 685 685 4 720 720 720 720 720 720 720 	715 715 715 715 715 715 715 715 715 715	19.8 27.6 35.6 43.8 51.9 60.0 68.1 Weight 20.3 28.6 36.9 45.2

PzVB - BS PRODUCT RANGE

Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight
2 PzVB134	45	157.5	511	541	11.1
3 PzVB201	61	157.5	511	541	15.2
4 PzVB268	77	157.5	511	541	19.4
5 PzVB335	93	157.5	511	541	23.6
6 PzVB402	109	157.5	511	541	27.7
7 PzB469	125	157.5	511	541	32.0

Cell Type	Length (b)	Width (I)	Height 1	Height 2	Weight
2 PzVB162	45	157.5	612	642	12.9
3 PzVB243	61	157.5	612	642	17.9
4 PzVB324	77	157.5	612	642	22.7
5 PzVB405	93	157.5	612	642	27.6
6 PzB486	109	157.5	612	642	32.6
7 PzVB567	125	157.5	612	642	37.5