

MOTIVE POWER



Eternity
TECHNOLOGIES



QUASAR™

Carbon Nano Motive Battery



HIGH ENERGY ON DEMAND™

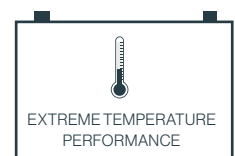
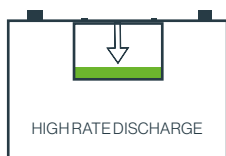
QUASAR™ - High Energy On Demand

With an extensive product range available, Eternity Technologies prides itself on world-class product design, production processes, technical development, cost structure and global location.

Eternity Technologies ongoing commitment to delivering industry leading product, at the cutting edge of product development delivers QUASAR.

QUASAR batteries deliver increased performance for today's demand for high performance in energy demanding applications.

Developed by Eternity Technologies, QUASAR utilises industry leading thin tube positive plate technology along with carbon nanotube technology in the negative plate to deliver high energy density, improved high rate discharge performance with fast charging capability.



**2x faster
recharge**

**up to 25%
increased run time**

**up to 50% higher
performance at cold temperature**



Applications:

Multi Shift Applications - 24/7

VNA Applications

Cold Storage Applications

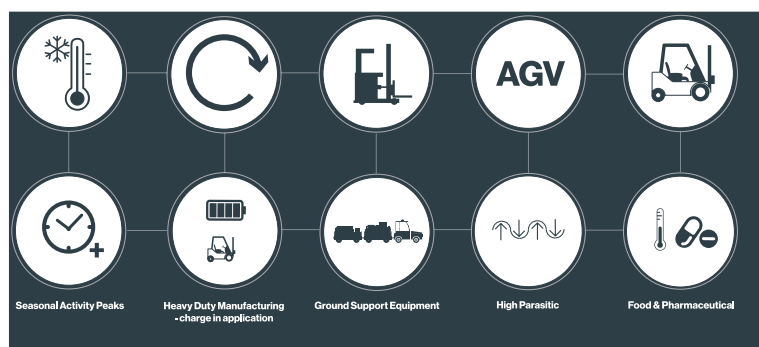
Seasonal Activity Peaks

Ground Support Equipment

**Heavy Duty Manufacturing -
charge in application**

High Parasitic Loads

AGV Applications



Compliant with EN60-254-1 & EN60-254-2, IEC254-1 & IEC254-2



QUASAR Carbon Nanotube Technology

1. Positive plate

The QUASAR positive plate utilises thin tube technology. The advantages of this are:

- Higher discharge rates due to increase in active material surface area
- Higher energy density vs PZS
- Increased active material utilisation vs PZS
- Gauntlet - increased fabric thickness vs PZS

2. Negative plate

The QUASAR negative plate contains CNT (Carbon Nanotube Technology).

Carbon Nanotubes increase the negative plates fast charge capability. The Carbon Nanotubes work as conductors to the charging current and accepts charge easily with little resistance. The advantages of this are:

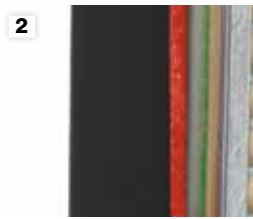
- Fast charging (40% start current) with no degradation to life
- Improves thermal operational ranges
- Improves charge acceptance



3. Separator

QUASAR uses a market leading phenolic resin separator made in Germany. Different than standard PZS separator, this separator is used due to the heavy-duty operating demands placed on the QUASAR product. The advantages of this are:

- Higher porosity leading to higher electrolyte volume resulting in higher energy density
- Lower internal resistance
- Excellent oxidation resistance



DIN Standard QUASAR - Weight, Capacity and Dimension Charts

Standard cell configuration			QUASAR cell configuration							
DIN Cell Type	Height H1 (mm) Height H2 (mm)	Length (mm)	QUASAR Cell Type	Weight (kg)	QUASAR (Ah)	QUASAR Energy Output (Wh)*	24V (kWh)	36V (kWh)	48V (kWh)	80V (kWh)
3 PzS-ET 180	333.5 / 363.5	65	QUA390	11.5	195	390	4.7	7.0	9.4	15.6
4 PzS-ET 240	333.5 / 363.5	83	QUA530	14.3	265	530	6.4	9.5	12.7	21.2
5 PzS-ET 300	333.5 / 363.5	101	QUA650	18.7	325	650	7.8	11.7	15.6	26.0
6 PzS-ET 360	333.5 / 363.5	119	QUA790	21.7	395	790	9.5	14.2	19.0	31.6
7 PzS-ET 420	333.5 / 363.5	137	QUA920	24.6	460	920	11.0	16.6	22.1	36.8
8 PzS-ET 480	333.5 / 363.5	155	QUA1020	29.0	510	1020	12.2	18.4	24.5	40.8
9 PzS-ET 540	333.5 / 363.5	173	QUA1170	31.8	585	1170	14.0	21.1	28.1	46.8
10 PzS-ET 600	333.5 / 363.5	191	QUA1300	34.7	650	1300	15.6	23.4	31.2	52.0
12 PzS-ET 720*	333.5 / 363.5	227	QUA1512*	47.7	756	1512	18.1	27.2	36.3	60.5
3 PzS-ET 240	396.5 / 426.5	65	QUA520	13.9	260	520	6.2	9.4	12.5	20.8
4 PzS-ET 320	396.5 / 426.5	83	QUA690	17.5	345	690	8.3	12.4	16.6	27.6
5 PzS-ET 400	396.5 / 426.5	101	QUA850	22.8	425	850	10.2	15.3	20.4	34.0
6 PzS-ET 480	396.5 / 426.5	119	QUA1030	26.4	515	1030	12.4	18.5	24.7	41.2
7 PzS-ET 560	396.5 / 426.5	137	QUA1220	29.9	610	1220	14.6	22.0	29.3	48.8
8 PzS-ET 640	396.5 / 426.5	155	QUA1370	35.3	685	1370	16.4	24.7	32.9	54.8
9 PzS-ET 720	396.5 / 426.5	173	QUA1540	38.8	770	1540	18.5	27.7	37.0	61.6
10 PzS-ET 800	396.5 / 426.5	191	QUA1730	42.4	865	1730	20.8	31.1	41.5	69.2
12 PzS-ET 960*	396.5 / 426.5	227	QUA2016*	55.4	1008	2016	24.2	36.3	48.4	80.6
3 PzS-ET 270	463.5 / 493.5	65	QUA600	16.5	300	600	7.2	10.8	14.4	24.0
4 PzS-ET 360	463.5 / 493.5	83	QUA800	20.6	400	800	9.6	14.4	19.2	32.0
5 PzS-ET 450	463.5 / 493.5	101	QUA1050	26.9	525	1050	12.6	18.9	25.2	42.0
6 PzS-ET 540	463.5 / 493.5	119	QUA1200	31.0	600	1200	14.4	21.6	28.8	48.0
7 PzS-ET 630	463.5 / 493.5	137	QUA1350	35.2	675	1350	16.2	24.3	32.4	54.0
8 PzS-ET 720	463.5 / 493.5	155	QUA1650	41.6	825	1650	19.8	29.7	39.6	66.0
9 PzS-ET 810	463.5 / 493.5	173	QUA1800	45.6	900	1800	21.6	32.4	43.2	72.0
10 PzS-ET 900	463.5 / 493.5	191	QUA2100	49.8	1050	2100	25.2	37.8	50.4	84.0
12 PzS-ET 1080*	463.5 / 493.5	227	QUA2376*	62.8	1188	2376	28.5	42.8	57.0	95.0

DIN Standard QUASAR - Weight, Capacity and Dimension Charts c.t.d

Standard cell configuration			QUASAR cell configuration							
DIN Cell Type	Height H1 (mm) Height H2 (mm)	Length (mm)	QUASAR Cell Type	Weight (kg)	QUASAR (Ah)	QUASAR Energy Output (Wh)*	24V (kWh)	36V (kWh)	48V (kWh)	80V (kWh)
3 PzS-ET 315	511.5 / 541.5	65	QUA680	17.9	340	680	8.2	12.2	16.3	27.2
4 PzS-ET 420	511.5 / 541.5	83	QUA900	22.3	450	900	10.8	16.2	21.6	36.0
5 PzS-ET 525	511.5 / 541.5	101	QUA1130	29.2	565	1130	13.6	20.3	27.1	45.2
6 PzS-ET 630	511.5 / 541.5	119	QUA1360	33.7	680	1360	16.3	24.5	32.6	54.4
7 PzS-ET 735	511.5 / 541.5	137	QUA1570	38.3	785	1570	18.8	28.3	37.7	62.8
8 PzS-ET 840	511.5 / 541.5	155	QUA1820	45.1	910	1820	21.8	32.8	43.7	72.8
9 PzS-ET 945	511.5 / 541.5	173	QUA2020	49.6	1010	2020	24.2	36.4	48.5	80.8
10 PzS-ET 1050	511.5 / 541.5	191	QUA2250	54.2	1125	2250	27.0	40.5	54.0	90.0
12 PzS-ET 1260*	511.5 / 541.5	227	QUA 2646*	67.2	1323	2646	31.8	47.6	63.5	105.8
3 PzS-ET 345	542.5 / 572.5	65	QUA740	19.2	370	740	8.9	13.3	17.8	29.6
4 PzS-ET 460	542.5 / 572.5	83	QUA1000	23.9	500	1000	12.0	18.0	24.0	40.0
5 PzS-ET 575	542.5 / 572.5	101	QUA1240	31.3	620	1240	14.9	22.3	29.8	49.6
6 PzS-ET 690	542.5 / 572.5	119	QUA1480	36.1	740	1480	17.8	26.6	35.5	59.2
7 PzS-ET 805	542.5 / 572.5	137	QUA1720	40.9	860	1720	20.6	31.0	41.3	68.8
8 PzS-ET 920	542.5 / 572.5	155	QUA1970	48.4	985	1970	23.6	35.5	47.3	78.8
9 PzS-ET 1035	542.5 / 572.5	173	QUA2220	53.1	1110	2220	26.6	40.0	53.3	88.8
10 PzS-ET 1150	542.5 / 572.5	191	QUA2460	58.0	1230	2460	29.5	44.3	59.0	98.4
12 PzS-ET 1380*	542.5 / 572.5	227	QUA2898*	71.0	1449	2898	34.8	52.2	69.6	115.9
3 PzS-ET 375	569.0 / 599.0	65	QUA780	20.7	390	780	9.4	14.0	18.7	31.2
4 PzS-ET 500	569.0 / 599.0	83	QUA1040	25.8	520	1040	12.5	18.7	25.0	41.6
5 PzS-ET 625	569.0 / 599.0	101	QUA1320	33.8	660	1320	15.8	23.8	31.7	52.8
6 PzS-ET 750	569.0 / 599.0	119	QUA1560	39.0	780	1560	18.7	28.1	37.4	62.4
7 PzS-ET 875	569.0 / 599.0	137	QUA1760	44.3	880	1760	21.1	31.7	42.2	70.4
8 PzS-ET 1000	569.0 / 599.0	155	QUA2080	52.3	1040	2080	25.0	37.4	49.9	83.2
9 PzS-ET 1125	569.0 / 599.0	173	QUA2320	57.4	1160	2320	27.8	41.8	55.7	92.8
10 PzS-ET 1250	569.0 / 599.0	191	QUA2650	62.6	1325	2650	31.8	47.7	63.6	106.0
12 PzS-ET 1500*	569.0 / 599.0	227	QUA3150*	75.6	1575	3150	37.8	56.7	75.6	126.0
3 PzS-ET 420	683.5 / 713.5	65	QUA910	23.7	455	910	10.9	16.4	21.8	36.4
4 PzS-ET 560	683.5 / 713.5	83	QUA1210	29.6	605	1210	14.5	21.8	29.0	48.4
5 PzS-ET 700	683.5 / 713.5	101	QUA1500	38.7	750	1500	18.0	27.0	36.0	60.0
6 PzS-ET 840	683.5 / 713.5	119	QUA1810	44.6	905	1810	21.7	32.6	43.4	72.4
7 PzS-ET 980	683.5 / 713.5	137	QUA2110	50.5	1055	2110	25.3	38.0	50.6	84.4
8 PzS-ET 1120	683.5 / 713.5	155	QUA2400	59.6	1200	2400	28.8	43.2	57.6	96.0
9 PzS-ET 1260	683.5 / 713.5	173	QUA2700	65.6	1350	2700	32.4	48.6	64.8	108.0
10 PzS-ET 1400	683.5 / 713.5	191	QUA3000	71.5	1500	3000	36.0	54.0	72.0	120.0
12 PzS-ET 1680*	683.5 / 713.5	227	QUA 3528*	84.5	1764	3528	42.3	63.5	84.7	141.1
3 PzS-ET 465	713.5 / 743.5	65	QUA990	25.8	495	990	11.9	17.8	23.8	39.6
4 PzS-ET 620	713.5 / 743.5	83	QUA1280	32.3	640	1280	15.4	23.0	30.7	51.2
5 PzS-ET 775	713.5 / 743.5	101	QUA1680	42.2	840	1680	20.2	30.2	40.3	67.2
6 PzS-ET 930	713.5 / 743.5	119	QUA1980	48.7	990	1980	23.8	35.6	47.5	79.2
7 PzS-ET 1085	713.5 / 743.5	137	QUA2270	55.1	1135	2270	27.2	40.9	54.5	90.8
8 PzS-ET 1240	713.5 / 743.5	155	QUA2640	65.1	1320	2640	31.7	47.5	63.4	105.6
9 PzS-ET 1395	713.5 / 743.5	173	QUA2950	71.6	1475	2950	35.4	53.1	70.8	118.0
10 PzS-ET 1550	713.5 / 743.5	191	QUA3360	78.1	1680	3360	40.3	60.5	80.6	134.4
12 PzS-ET 1860*	713.5 / 743.5	227	QUA3940*	91.1	1970	3940	47.3	70.9	94.6	157.6

* Double pillar

BS Standard QUASAR - Weight, Capacity and Dimension Charts

Standard cell configuration			QUASAR cell configuration							
BS Cell Type	Height H1 (mm) Height H2 (mm)	Length (mm)	QUASAR Cell Type	Weight (kg)	QUASAR (Ah)	QUASAR Energy Output (Wh)*	24V (kWh)	36V (kWh)	48V (kWh)	80V (kWh)
3 PzB-ET 165	402 / 432	62	QUA-BS346	10.8	173	346	4.2	6.2	8.3	13.8
4 PzB-ET 220	402 / 432	78	QUA-BS448	13.5	224	448	5.4	8.1	10.8	17.9
5 PzB-ET 275	402 / 432	94	QUA-BS562	16.6	281	562	6.7	10.1	13.5	22.5
6 PzB-ET 330	402 / 432	110	QUA-BS660	19.3	330	660	7.9	11.9	15.8	26.4
7 PzB-ET 385	402 / 432	126	QUA-BS808	22.8	404	808	9.7	14.5	19.4	32.3
8 PzB-ET 440	402 / 432	142	QUA-BS898	25.4	449	898	10.8	16.2	21.6	35.9
9 PzB-ET 495	402 / 432	158	QUA-BS1010	28.9	505	1010	12.1	18.2	24.2	40.4
10 PzB-ET 550	402 / 432	174	QUA-BS1100	30.5	550	1100	13.2	19.8	26.4	44.0
11 PzB-ET 605	402 / 432	190	QUA-BS1270	35.8	635	1270	15.2	22.9	30.5	50.8
12 PzB-ET 660	402 / 432	206	QUA-BS1346	36.9	673	1346	16.2	24.2	32.3	53.8
13 PzB-ET 715*	402 / 432	221	QUA-BS1458*	40.7	729	1458	17.5	26.2	35.0	58.3
14 PzB-ET 770*	402 / 432	237	QUA-BS1540*	42.8	770	1540	18.5	27.7	37.0	61.6
3 PzB-ET 195	454 / 484	62	QUA-BS410	12.5	205	410	4.9	7.4	9.8	16.4
4 PzB-ET 260	454 / 484	78	QUA-BS530	15.4	265	530	6.4	9.5	12.7	21.2
5 PzB-ET 325	454 / 484	94	QUA-BS664	18.9	332	664	8.0	12.0	15.9	26.6
6 PzB-ET 390	454 / 484	110	QUA-BS780	21.8	390	780	9.4	14.0	18.7	31.2
7 PzB-ET 455	454 / 484	126	QUA-BS956	26.6	478	956	11.5	17.2	22.9	38.2
8 PzB-ET 520	454 / 484	142	QUA-BS1060	28.8	530	1060	12.7	19.1	25.4	42.4
9 PzB-ET 585	454 / 484	158	QUA-BS1194	32.6	597	1194	14.3	21.5	28.7	47.8
10 PzB-ET 650	454 / 484	174	QUA-BS1300	35.6	650	1300	15.6	23.4	31.2	52.0
11 PzB-ET 715	454 / 484	190	QUA-BS1502	40.8	751	1502	18.0	27.0	36.0	60.1
12 PzB-ET 780	454 / 484	206	QUA-BS1592	42.8	796	1592	19.1	28.7	38.2	63.7
13 PzB-ET 845*	454 / 484	221	QUA-BS1724*	46.7	862	1724	20.7	31.0	41.4	69.0
14 PzB-ET 910*	454 / 484	237	QUA-BS1820*	49.1	910	1820	21.8	32.8	43.7	72.8
3 PzB-ET 225	515 / 545	62	QUA-BS472	13.8	236	472	5.7	8.5	11.3	18.9
4 PzB-ET 300	515 / 545	78	QUA-BS612	17.5	306	612	7.3	11.0	14.7	24.5
5 PzB-ET 375	515 / 545	94	QUA-BS766	21.5	383	766	9.2	13.8	18.4	30.6
6 PzB-ET 450	515 / 545	110	QUA-BS900	24.9	450	900	10.8	16.2	21.6	36.0
7 PzB-ET 525	515 / 545	126	QUA-BS1110	30.2	555	1110	13.3	20.0	26.6	44.4
8 PzB-ET 600	515 / 545	142	QUA-BS1224	33.5	612	1224	14.7	22.0	29.4	49.0
9 PzB-ET 675	515 / 545	158	QUA-BS1378	36.9	689	1378	16.5	24.8	33.1	55.1
10 PzB-ET 750	515 / 545	174	QUA-BS1500	40.2	750	1500	18.0	27.0	36.0	60.0
11 PzB-ET 825	515 / 545	190	QUA-BS1732	45.7	866	1732	20.8	31.2	41.6	69.3
12 PzB-ET 900	515 / 545	206	QUA-BS1836	49.3	918	1836	22.0	33.0	44.1	73.4
13 PzB-ET 975*	515 / 545	221	QUA-BS1990*	52.9	995	1990	23.9	35.8	47.8	79.6
14 PzB-ET 1050*	515 / 545	237	QUA-BS2100*	55.9	1050	2100	25.2	37.8	50.4	84.0
3 PzB-ET 240	515 / 545	62	QUA-BS504	14.4	252	504	6.0	9.1	12.1	20.2
4 PzB-ET 320	515 / 545	78	QUA-BS652	18.0	326	652	7.8	11.7	15.6	26.1
5 PzB-ET 400	515 / 545	94	QUA-BS816	21.7	408	816	9.8	14.7	19.6	32.6
6 PzB-ET 480	515 / 545	110	QUA-BS960	25.5	480	960	11.5	17.3	23.0	38.4
7 PzB-ET 560	515 / 545	126	QUA-BS1176	30.8	588	1176	14.1	21.2	28.2	47.0
8 PzB-ET 640	515 / 545	142	QUA-BS1306	34.1	653	1306	15.7	23.5	31.3	52.2
9 PzB-ET 720	515 / 545	158	QUA-BS1468	38.0	734	1468	17.6	26.4	35.2	58.7
10 PzB-ET 800	515 / 545	174	QUA-BS1600	41.5	800	1600	19.2	28.8	38.4	64.0
11 PzB-ET 880	515 / 545	190	QUA-BS1848	47.6	924	1848	22.2	33.3	44.4	73.9
12 PzB-ET 960	515 / 545	206	QUA-BS1958	49.5	979	1958	23.5	35.2	47.0	78.3
13 PzB-ET 1040*	515 / 545	221	QUA-BS2122*	53.0	1061	2122	25.5	38.2	50.9	84.9
14 PzB-ET 1120*	515 / 545	237	QUA-BS2240*	55.5	1120	2240	26.9	40.3	53.8	89.6

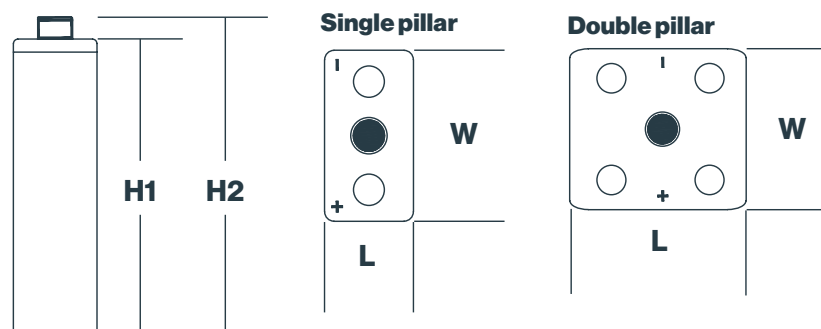
BS Standard QUASAR - Weight, Capacity and Dimension Charts c.t.d

Standard cell configuration			QUASAR cell configuration							
BS Cell Type	Height H1 (mm) Height H2 (mm)	Length (mm)	QUASAR Cell Type	Weight (kg)	QUASAR (Ah)	QUASAR Energy Output (Wh)*	24V (kWh)	36V (kWh)	48V (kWh)	80V (kWh)
3 PzB-ET 258	568 / 598	62	QUA-BS542	15.6	271	542	6.5	9.8	13.0	21.7
4 PzB-ET 344	568 / 598	78	QUA-BS702	19.7	351	702	8.4	12.6	16.8	28.1
5 PzB-ET 430	568 / 598	94	QUA-BS878	24.1	439	878	10.5	15.8	21.1	35.1
6 PzB-ET 516	568 / 598	110	QUA-BS1032	28.0	516	1032	12.4	18.6	24.8	41.3
7 PzB-ET 602	568 / 598	126	QUA-BS1264	33.5	632	1264	15.2	22.8	30.3	50.6
8 PzB-ET 688	568 / 598	142	QUA-BS1404	37.0	702	1404	16.8	25.3	33.7	56.2
9 PzB-ET 774	568 / 598	158	QUA-BS1578	41.4	789	1578	18.9	28.4	37.9	63.1
10 PzB-ET 860	568 / 598	174	QUA-BS1720	45.1	860	1720	20.6	31.0	41.3	68.8
11 PzB-ET 946	568 / 598	190	QUA-BS1986	51.7	993	1986	23.8	35.7	47.7	79.4
12 PzB-ET 1032	568 / 598	206	QUA-BS2106	54.4	1053	2106	25.3	37.9	50.5	84.2
13 PzB-ET 1118*	568 / 598	221	QUA-BS2280*	57.9	1140	2280	27.4	41.0	54.7	91.2
14 PzB-ET 1204*	568 / 598	237	QUA-BS2408*	60.3	1204	2408	28.9	43.3	57.8	96.3
3 PzB-ET 300	600.5 / 630.5	62	QUA-BS636	17.4	318	636	7.6	11.4	15.3	25.4
4 PzB-ET 400	600.5 / 630.5	78	QUA-BS830	21.5	415	830	10.0	14.9	19.9	33.2
5 PzB-ET 500	600.5 / 630.5	94	QUA-BS1020	25.5	510	1020	12.2	18.4	24.5	40.8
6 PzB-ET 600	600.5 / 630.5	110	QUA-BS1200	29.6	600	1200	14.4	21.6	28.8	48.0
7 PzB-ET 700	600.5 / 630.5	126	QUA-BS1470	36.1	735	1470	17.6	26.5	35.3	58.8
8 PzB-ET 800	600.5 / 630.5	142	QUA-BS1632	40.1	816	1632	19.6	29.4	39.2	65.3
9 PzB-ET 900	600.5 / 630.5	158	QUA-BS1840	44.5	920	1840	22.1	33.1	44.2	73.6
10 PzB-ET 1000	600.5 / 630.5	174	QUA-BS2000	48.7	1000	2000	24.0	36.0	48.0	80.0
11 PzB-ET 1100	600.5 / 630.5	190	QUA-BS2310	55.9	1155	2310	27.7	41.6	55.4	92.4
12 PzB-ET 1200	600.5 / 630.5	206	QUA-BS2448	58.7	1224	2448	29.4	44.1	58.8	97.9
13 PzB-ET 1300*	600.5 / 630.5	221	QUA-BS2652*	62.2	1326	2652	31.8	47.7	63.6	106.1
14 PzB-ET 1400*	600.5 / 630.5	237	QUA-BS2800*	65.0	1400	2800	33.6	50.4	67.2	112.0
3 PzB-ET 324	687 / 717	62	QUA-BS680	19.0	340	680	8.2	12.2	16.3	27.2
4 PzB-ET 432	687 / 717	78	QUA-BS882	23.7	441	882	10.6	15.9	21.2	35.3
5 PzB-ET 540	687 / 717	94	QUA-BS1102	28.8	551	1102	13.2	19.8	26.4	44.1
6 PzB-ET 648	687 / 717	110	QUA-BS1296	33.5	648	1296	15.6	23.3	31.1	51.8
7 PzB-ET 756	687 / 717	126	QUA-BS1588	40.8	794	1588	19.1	28.6	38.1	63.5
8 PzB-ET 864	687 / 717	142	QUA-BS1762	45.5	881	1762	21.1	31.7	42.3	70.5
9 PzB-ET 972	687 / 717	158	QUA-BS1982	50.5	991	1982	23.8	35.7	47.6	79.3
10 PzB-ET 1080	687 / 717	174	QUA-BS2160	54.8	1080	2160	25.9	38.9	51.8	86.4
11 PzB-ET 1188	687 / 717	190	QUA-BS2494	63.1	1247	2494	29.9	44.9	59.9	99.8
12 PzB-ET 1296	687 / 717	206	QUA-BS2644	66.6	1322	2644	31.7	47.6	63.5	105.8
13 PzB-ET 1404*	687 / 717	221	QUA-BS2864*	70.2	1432	2864	34.4	51.6	68.7	114.6
14 PzB-ET 1512*	687 / 717	237	QUA-BS3024*	72.8	1512	3024	36.3	54.4	72.6	121.0

* Double pillar

± 5% weight tolerance
H1: Height over lid
H2: Overall height including connector and bolt
Torque: 23Nm

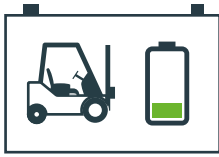
Not to scale



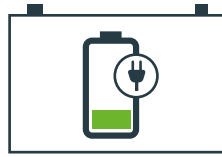
QUASAR - High Performing Charging

Fast Charging QUASAR Battery

The QUASAR battery can be fully charged in only 4 hours from 80% depth of discharge.



Fast charge profile



Approved charger



Fully charged in 4 hours



Increased running time

Fast charge allows for maximum output with a reduced initial investment suitable for multi-shift applications...

Standard lead acid battery

Shift (8hrs)	Battery1	Battery2	Battery3
SHIFT 1			
SHIFT 2			
SHIFT 3			



In use



On charge



Cooling

QUASAR

Shift (8hrs)	Battery1	Battery2
SHIFT 1		4hrs + 4hrs
SHIFT 2	4hrs + 4hrs	
SHIFT 3		4hrs + 4hrs

Opportunity Charging

Unlike standard batteries, QUASAR batteries allow for opportunity charging to give you those extra running times when required.

This allows the user to charge during breaks in production to give maximum flexibility.

Cold Storage

In standard batteries, the lower the operating temperature results in a lower capacity. QUASAR has increased initial capacity and is therefore suitable for extreme temperature variants, for example, cold stores and outdoor applications such as ground support.



cold stores

+



=

**up to 50% higher
run time at cold temperature vs PZS**



High temperatures

The lower operating temperature of the QUASAR product makes it also the ideal battery for outdoor applications in extreme high temperatures.

Increased running hours

Increased operating hours & lower operating temperatures result in a significant increased battery life. This results in more truck hours than a standard lead acid battery.



Advantages over traditional lead acid batteries...

Higher energy density resulting in increased performance

Extra long running times due to increased capacity

Ultra energy efficient due to low resistance

Reduced operating temperatures for increased cycle life and battery lifetime

Cost savings due to increased efficiency

Fast charging from 20 to 100% SOC in 4 hours

Suitable for opportunity charging



THINK GREEN THINK ETERNITY