

▶ OPzS Batteries



Solutions for the toughest requirements

▶ TRIATHLON® OPzS Batteries Blocks and Cells



Proven energy suppliers with long service life, highest reliability even for critical applications and cyclic operation.

OPzS batteries are sealed lead acid batteries with liquid electrolyte. They consist of positive tubular plates and negative grid plates.

They are optimally suited for applications with high cyclic and capacitive loads, such as power supply systems, safety power supplies according to VDE 0100-710 and VDE 0100-718, telecommunications facilities or as storage for regenerative energies.

TRIATHLON® OPzS batteries are characterized by low maintenance requirements, long life and excellent performance. They therefore offer a high-quality, efficient and cost-effective energy solution for high temperatures or unstable power grids.

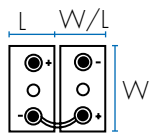
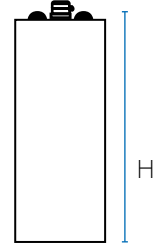
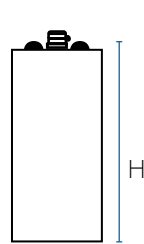
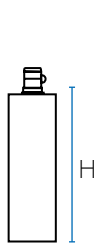
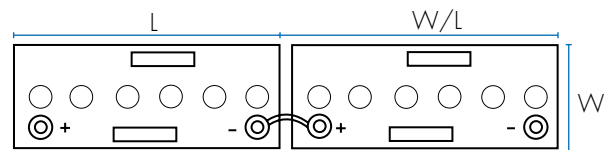
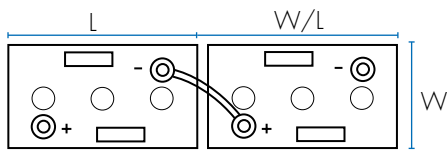
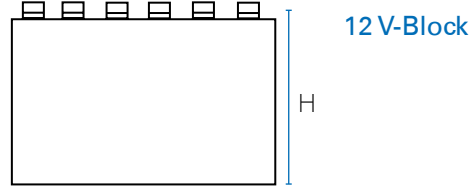
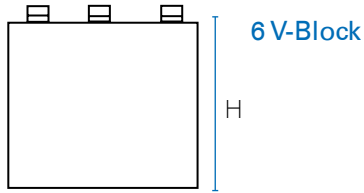
Optimal design, robust construction, high quality raw materials and state-of-the-art production processes make the OPzS series the ideal solution for stand-by applications, with a high degree of safety and reliability.

QUALITY FEATURES

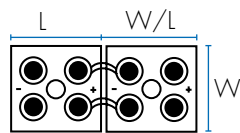
- ▶ Very high operational reliability even under harsh environmental conditions
- ▶ Very good standby and cycle behaviour
- ▶ Optimal design
- ▶ High capacities
- ▶ Low maintenance due to reduced antimony content and large electrolyte reservoir
- ▶ Up to 20 years design life at an ambient temperature of 20 °C (80 % residual capacity C10)
- ▶ Housing material made of high-quality plastic
- ▶ Tubular plates in block design and as single cell
- ▶ Also available dry pre-charged with separate electrolyte
- ▶ Low gassing due to low antimony alloy < 2 % (EN 50272-2)
- ▶ Developed under consideration of IEC 60896-11, DIN 40736, DIN 40737 T3
- ▶ Electrolyte:
Diluted sulphuric acid dN = 1.24 kg/l
- ▶ Manufactured in Europe in our ISO 9001 certified production facilities
- ▶ Completely recyclable



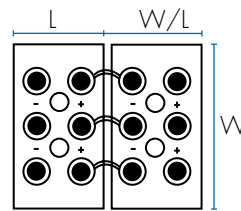
Technical Drawings



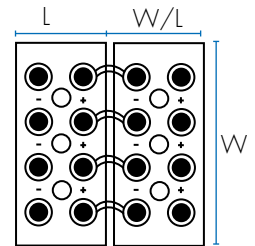
2 OPzS 100 -
6 OPzS 600



7 OPzS 700 -
12 OPzS 1500



16 OPzS 2000



20 OPzS 2500 -
26 OPzS 3250

Technical Data

Type description	Rated voltage	Rated capacity C ₁₀ according to DIN Ah	Actual capacity C ₁₀ 1.80 V/Z 20°C Ah	Length (L) max. mm	Width (W) max. mm	Height* (H) max. mm	Installed length (W/L) mm	Weight dry kg	Weight filled and charged** kg	Internal resistance mOhm	Short circuit current A	Con-nection	Pole pairs
according to DIN Blocks: 40 737-3 Cells: 40 736-1													
OPzS single cells 200-490 Ah													
2 OPzS 100	2	100	126	103	206	370	113	8.2	15.5	1.43	1420	M10	1
3 OPzS 150	2	150	180	103	206	370	113	10.6	17	0.95	2120	M10	1
4 OPzS 200	2	200	215	103	206	370	113	12.8	17.5	0.74	2720	M10	1
5 OPzS 250	2	250	270	124	206	370	134	15.3	21.2	0.59	3420	M10	1
6 OPzS 300	2	300	324	145	206	370	155	18	24.9	0.51	3940	M10	1
5 OPzS 350	2	350	396	124	206	486	134	20.6	28.6	0.54	3750	M10	1
6 OPzS 420	2	420	474	145	206	486	155	24.2	33.5	0.46	4400	M10	1
7 OPzS 490	2	490	541	166	206	486	175	27.6	38.5	0.41	4950	M10	1
OPzS single cells 600-3000 Ah													
6 OPzS 600	2	600	672	145	206	661	155	33.7	46.5	0.43	4700	M10	1
7 OPzS 700	2	700	836	210	191	661	220	42.3	59.4	0.36	5600	M10	2
8 OPzS 800	2	800	893	210	191	661	220	46.7	63.5	0.31	6500	M10	2
9 OPzS 900	2	900	1028	210	233	661	220	52.3	73.5	0.28	7250	M10	2
10 OPzS 1000	2	1000	1114	210	233	661	220	56.7	77.7	0.25	8100	M10	2
12 OPzS 1200	2	1200	1329	210	275	661	220	66.8	91.9	0.2	9250	M10	2
12 OPzS 1500	2	1500	1630	210	275	812	220	82.4	114.0	0.22	9200	M10	2
16 OPzS 2000	2	2000	2186	214	399	787	224	111.4	156.1	0.16	12950	M10	3
20 OPzS 2500	2	2500	2926	212	487	787	222	139.5	194.0	0.12	16550	M10	4
22 OPzS 2750	2	2750	3191	212	576	787	222	153.7	219.6	0.11	17700	M10	4
24 OPzS 3000	2	3000	3361	212	576	787	222	164.9	229.8	0.11	19250	M10	4
26 OPzS 3250	2	3250	3510	212	576	787	222	175.8	240.1	0.10	20600	M10	4
OPzS block batteries													
12V 1 OPzS 50	12	50	63	272	205	362	282	34.1	46.4	2.52	24.2	M10	1
12V 2 OPzS 100	12	100	103	272	205	362	282	42.0	59.8	2.13	2860	M10	1
12V 3 OPzS 150	12	150	150	380	205	362	390	49.3	66.8	1.86	3260	M10	1
6V 4 OPzS 200	6	200	215	272	205	362	282	27.8	41.0	17.20	700	M10	1
6V 5 OPzS 250	6	250	287	380	205	362	390	37.0	48.4	8.61	1400	M10	1
6V 6 OPzS 300	6	300	312	380	205	362	390	52.2	68.7	6.09	2000	M10	1

* Height including pole without connector

Other intermediate sizes on request. All types optionally available with V0 housing

** Weight specifications ± 5 %

**1.90 V/Z - Discharge data in Amperes at 20 °C**

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	58.3	58.0	50.4	44.4	39.9	29.2	23.5	19.9	17.3	15.4	13.9	12.7	10.9	9.5	6.5
3 OPzS 150	89.8	87.2	73.6	64.4	57.7	41.8	33.4	28.1	24.4	21.7	19.6	17.8	15.2	13.4	9.1
4 OPzS 200	111.0	108.9	91.3	79.3	70.6	50.3	39.9	33.3	28.8	25.5	22.9	20.8	17.7	15.5	10.4
5 OPzS 250	142.0	136.8	115.0	100.0	88.9	63.4	50.2	42.0	36.3	32.1	28.8	26.2	22.3	19.5	13.2
6 OPzS 300	167.2	161.7	135.6	118.1	105.3	75.3	59.8	50.1	43.3	38.3	34.4	31.4	26.7	23.3	15.8
5 OPzS 350	144.6	143.4	134.4	120.4	109.4	81.8	66.4	56.4	49.2	43.8	39.6	36.1	30.9	27.1	18.5
6 OPzS 420	168.7	167.4	157.5	142.0	129.3	96.9	78.9	67.0	58.5	52.1	47.1	43.0	36.8	32.3	22.0
7 OPzS 490	185.4	184.3	180.2	161.7	147.0	110.3	89.6	76.1	66.4	59.1	53.4	48.8	41.8	36.6	25.0
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	192.8	191.7	188.3	176.6	162.9	125.8	103.9	89.2	78.5	70.3	63.9	58.6	50.5	44.5	30.8
7 OPzS 700	226.3	223.4	218.5	213.6	197.3	154.0	128.1	110.5	97.7	87.8	79.9	73.4	63.5	56.1	39.0
8 OPzS 800	266.8	265.1	254.7	240.8	221.3	170.0	140.0	119.9	105.4	94.3	85.5	78.4	67.5	59.5	41.1
9 OPzS 900	298.3	296.5	284.2	272.1	250.5	193.4	159.8	137.2	120.8	108.2	98.3	90.2	77.7	68.6	47.4
10 OPzS 1000	333.8	331.8	319.1	301.0	276.5	212.2	174.7	149.6	131.4	117.6	106.7	97.8	84.2	74.1	51.2
12 OPzS 1200	373.7	371.5	357.1	345.6	318.3	246.3	203.7	175.1	154.2	138.1	125.5	115.1	99.3	87.6	60.6
12 OPzS 1500	423.2	421.1	415.3	406.2	379.6	301.0	251.8	217.6	192.3	172.6	156.9	144.0	124.0	109.2	75.0
16 OPzS 2000	603.6	600.5	591.6	567.4	528.2	415.2	345.6	297.6	262.3	235.0	213.3	195.5	168.1	147.8	101.2
20 OPzS 2500	781.9	778.1	756.8	731.7	693.2	549.7	460.3	398.1	352.0	316.3	287.6	264.2	227.8	200.8	138.1
22 OPzS 2750	823.6	819.6	808.2	790.4	740.1	589.7	495.1	429.1	379.9	341.7	311.1	285.8	246.7	217.7	150.1
24 OPzS 3000	897.8	893.3	880.6	849.5	795.9	629.8	526.3	454.4	401.2	360.2	327.3	300.3	258.6	227.8	156.4
26 OPzS 3250	1032.3	1026.7	1010.5	950.7	880.9	685.8	567.3	486.4	427.3	382.1	346.1	316.8	271.8	238.6	162.7

1.87 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	74.8	69.8	58.6	51.2	45.6	32.7	26.0	21.7	18.8	16.7	15.0	13.7	11.7	10.2	6.9
3 OPzS 150	111.0	102.8	85.7	74.4	66.1	46.9	37.1	31.0	26.8	23.7	21.3	19.4	16.5	14.4	9.8
4 OPzS 200	140.1	129.3	106.8	92.0	81.3	56.8	44.5	37.0	31.8	28.1	25.1	22.8	19.4	16.9	11.3
5 OPzS 250	175.2	163.1	134.6	115.8	102.3	71.6	56.1	46.6	40.1	35.3	31.7	28.8	24.4	21.3	14.3
6 OPzS 300	206.1	191.3	158.7	137.1	121.3	85.2	66.9	55.7	47.9	42.3	37.9	34.4	29.2	25.5	17.1
5 OPzS 350	186.0	184.1	160.9	142.9	129.1	95.0	76.2	64.2	55.7	49.4	44.5	40.5	34.5	30.2	20.4
6 OPzS 420	217.5	215.5	189.9	168.9	152.7	112.8	90.7	76.4	66.4	58.9	53.0	48.3	41.2	36.0	24.4
7 OPzS 490	241.0	237.7	216.3	192.6	174.2	128.5	103.3	87.0	75.6	67.0	60.3	55.0	46.8	40.9	27.7
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	244.1	241.8	234.7	212.4	194.6	148.0	121.0	103.1	90.2	80.5	72.8	66.6	57.1	50.2	34.3
7 OPzS 700	297.5	294.6	279.4	256.0	235.4	181.0	149.0	127.5	111.9	100.1	90.8	83.2	71.5	63.0	43.3
8 OPzS 800	345.9	343.5	320.0	288.5	263.9	199.4	162.5	138.2	120.8	107.6	97.3	88.9	76.1	66.8	45.7
9 OPzS 900	387.0	384.4	360.5	326.0	298.7	227.1	185.6	158.2	138.4	123.5	111.7	102.2	87.7	77.0	52.7
10 OPzS 1000	432.8	429.8	400.0	360.5	329.7	249.0	202.9	172.4	150.6	134.2	121.3	110.8	94.9	83.3	56.9
12 OPzS 1200	487.2	484.0	458.5	415.7	381.0	290.5	237.9	202.8	177.6	158.4	143.4	131.1	112.5	98.8	67.7
12 OPzS 1500	540.1	537.3	526.8	486.0	450.5	352.6	292.1	250.5	219.9	196.4	177.8	162.6	139.3	122.1	82.9
16 OPzS 2000	767.3	763.0	737.4	676.1	625.0	484.5	399.2	340.9	298.6	266.2	240.6	219.8	188.0	164.7	111.5
20 OPzS 2500	992.7	973.2	940.0	883.5	818.9	640.0	530.1	454.5	399.3	356.9	323.2	295.8	253.7	222.7	151.6
22 OPzS 2750	1047.8	1042.4	1019.1	943.2	875.4	688.0	571.6	491.3	432.1	386.6	350.5	320.9	275.5	242.0	165.0
24 OPzS 3000	1142.0	1135.9	1103.1	1016.9	942.0	734.8	607.8	520.7	456.9	408.0	369.2	337.7	289.2	253.7	172.3
26 OPzS 3250	1308.4	1300.8	1233.4	1129.3	1038.8	797.2	652.7	555.3	484.9	431.4	389.3	355.2	303.2	265.2	179.0

1.85 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	82.6	76.5	63.8	55.3	49.0	34.5	27.2	22.7	19.6	17.3	15.6	14.2	12.1	10.5	7.1
3 OPzS 150	122.2	113.0	93.4	80.4	71.1	49.7	39.0	32.4	28.0	24.7	22.1	20.1	17.1	14.9	10.1
4 OPzS 200	154.5	142.2	116.6	99.8	87.7	60.5	47.1	38.9	33.4	29.4	26.3	23.9	20.2	17.6	11.8
5 OPzS 250	194.8	179.2	146.8	125.6	110.3	76.1	59.3	49.0	42.1	37.0	33.1	30.0	25.4	22.1	14.8
6 OPzS 300	228.4	210.9	173.5	148.8	131.0	90.7	70.8	58.6	50.3	44.3	39.7	36.0	30.5	26.5	17.8
5 OPzS 350	208.2	204.0	178.0	157.3	141.4	102.7	81.8	68.6	59.3	52.4	47.1	42.9	36.4	31.8	21.4
6 OPzS 420	249.9	243.7	209.9	185.9	167.6	122.1	97.4	81.7	70.7	62.6	56.2	51.2	43.5	38.0	25.6
7 OPzS 490	284.4	273.9	239.6	212.2	191.2	139.4	111.2	93.2	80.6	71.3	64.1	58.3	49.5	43.2	29.1
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	289.6	286.8	261.0	235.3	214.8	161.6	131.1	111.1	96.9	86.2	77.8	71.0	60.7	53.2	36.2
7 OPzS 700	343.2	340.8	313.4	283.4	259.8	197.4	161.2	137.2	120.0	107.0	96.8	88.5	75.9	66.6	45.6
8 OPzS 800	398.7	395.7	355.5	319.5	290.8	217.6	175.9	148.8	129.5	115.0	103.8	94.7	80.9	70.8	48.1
9 OPzS 900	446.1	442.9	400.9	361.0	329.4	247.7	200.9	170.3	148.5	132.0	119.2	108.8	93.1	81.6	55.6
10 OPzS 1000	498.8	495.1	444.4	399.2	363.3	271.6	219.5	185.6	161.5	143.5	129.4	118.0	100.8	88.3	60.0
12 OPzS 1200	563.0	559.1	511.1	460.9	421.5	317.8	258.2	219.0	191.0	169.9	153.4	140.0	119.7	105.0	71.4
12 OPzS 1500	618.2	614.8	586.2	537.0	496.8	384.9	316.4	269.7	235.8	209.9	189.5	172.9	147.6	129.2	87.2
16 OPzS 2000	876.5	871.4	817.5	746.7	687.2	527.2	431.0	366.1	319.3	283.8	255.9	233.3	198.9	173.8	117.0
20 OPzS 2500	1133.0	1126.6	1060.9	973.2	898.7	695.0	571.3	487.1	426.1	379.6	342.9	313.1	267.7	234.4	158.6
22 OPzS 2750	1197.5	1190.9	1134.0	1040.6	963.7	749.0	617.4	527.3	461.9	411.9	372.4	340.2	291.1	255.1	172.8
24 OPzS 3000	1305.0	1297.6	1225.9	1123.2	1036.4	800.0	656.5	559.3	488.7	435.0	392.6	358.3	305.9	267.7	180.7
26 OPzS 3250	1492.5	1483.3	1371.3	1243.1	1141.4	865.8	703.3	595.1	517.6	459.1	413.3	376.4	320.3	279.5	187.6

1.83 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	90.2	83.2	68.6	59.0	51.9	36.1	28.2	23.4	20.2	17.8	16.0	14.5	12.3	10.7	7.3
3 OPzS 150	133.5	122.8	100.5	86.0	75.4	52.0	40.5	33.6	28.9	25.4	22.8	20.7	17.5	15.3	10.3
4 OPzS 200	169.1	154.9	125.8	106.9	93.4	63.6	49.2	40.5	34.7	30.5	27.2	24.7	20.8	18.1	12.1
5 OPzS 250	212.9	195.2	158.4	134.6	117.5	80.0	61.9	51.0	43.7	38.3	34.3	31.0	26.2	22.8	15.2
6 OPzS 300	249.9	229.6	187.4	159.6	139.7	95.4	74.0	61.0	52.3	45.9	41.0	37.2	31.4	27.3	18.2
5 OPzS 350	233.3	227.5	194.4	170.9	153.0	109.6	86.7	72.3	62.3	55.0	49.3	44.8	38.0	33.1	22.2
6 OPzS 420	282.0	267.7	229.8	202.4	181.4	130.5	103.3	86.2	74.4	65.6	58.9	53.5	45.4	39.5	26.5
7 OPzS 490	319.7	304.8	262.3	231.2	207.4	149.1	118.0	98.5	84.9	74.9	67.2	61.0	51.7	45.0	30.2
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	328.3	323.2	287.3	257.6	234.3	174.2	140.2	118.2	102.7	91.0	82.0	74.7	63.7	55.7	37.7
7 OPzS 700	388.9	385.8	343.9	310.1	283.0	212.6	172.1	145.7	126.9	112.8	101.8	93.0	79.5	69.7	47.4
8 OPzS 800	451.5	444.6	390.3	349.1	316.9	234.1	187.8	158.0	137.0	121.4	109.3	99.5	84.8	74.1	50.1
9 OPzS 900	505.3	499.1	440.1	394.7	359.0	266.6	214.5	180.8	157.1	139.3	125.5	114.4	97.6	85.4	57.8
10 OPzS 1000	564.9	556.1	487.8	436.2	395.9	292.2	234.3	197.1	170.9	151.4	136.3	124.1	105.7	92.4	62.5
12 OPzS 1200	638.8	632.8	562.0	505.5	459.9	343.0	276.4	233.2	202.6	179.7	161.9	147.5	125.8	110.1	74.5
12 OPzS 1500	696.3	692.3	643.0	587.4	541.1	414.8	338.4	286.8	249.7	221.7	199.6	181.8	154.7	135.0	90.6
16 OPzS 2000	985.9	979.8	896.7	814.1	747.9	566.9	459.8	388.4	337.4	299.0	269.0	244.7	208.0	181.4	121.4
20 OPzS 2500	1261.9	1234.6	1163.6	1061.8	976.7	746.2	608.3	515.8	449.3	399.1	359.7	327.8	279.3	244.0	164.1
22 OPzS 2750	1347.3	1339.5	1243.7	1135.6	1047.4	805.1	658.5	559.2	487.8	433.6	391.1	356.6	304.1	265.8	179.0
24 OPzS 3000	1468.2	1459.5	1345.8	1224.9	1127.7	860.6	700.5	593.4	516.4	458.3	412.7	375.9	319.9	279.3	187.4
26 OPzS 3250	1677.1	1665.9	1498.1	1355.4	1238.7	929.2	748.8	630.2	546.1	483.0	433.8	394.3	334.6	291.4	194.4

TRIATHLON® OPzS: Discharge data in Amperes

1.80 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	101.1	92.7	75.3	63.8	55.6	37.8	29.3	24.2	20.7	18.2	16.3	14.8	12.6	11.0	7.4
3 OPzS 150	149.7	137.0	110.4	93.1	81.0	54.7	42.2	34.8	29.8	26.2	23.4	21.2	18.0	15.6	10.5
4 OPzS 200	190.0	173.2	138.7	116.4	100.7	67.2	51.5	42.3	36.0	31.6	28.1	25.5	21.5	18.6	12.4
5 OPzS 250	239.5	218.1	174.5	146.3	126.6	84.5	64.8	53.1	45.3	39.7	35.4	32.0	27.0	23.5	15.6
6 OPzS 300	281.0	257.0	206.7	174.0	150.8	101.1	77.6	63.7	54.3	47.6	42.4	38.4	32.4	28.1	18.7
5 OPzS 350	275.5	257.9	218.2	190.2	168.9	118.4	92.6	76.7	65.8	57.9	51.7	46.9	39.6	34.4	22.9
6 OPzS 420	321.2	303.7	258.2	225.4	200.6	141.1	110.5	91.6	78.7	69.2	61.9	56.1	47.4	41.2	27.4
7 OPzS 490	370.4	347.1	295.0	257.8	229.5	161.6	126.5	104.8	89.9	79.0	70.7	64.0	54.1	47.0	31.3
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	386.2	372.5	325.2	289.7	261.7	190.9	151.8	127.0	109.8	97.0	87.1	79.1	67.2	58.6	39.4
7 OPzS 700	448.9	437.0	389.1	348.3	316.1	232.7	186.1	156.3	135.5	119.9	107.9	98.2	83.6	73.1	49.3
8 OPzS 800	530.5	506.7	441.3	391.9	353.3	256.0	203.0	169.5	146.3	129.1	115.9	105.3	89.3	77.9	52.3
9 OPzS 900	594.2	568.9	497.7	443.1	400.4	291.6	231.9	194.0	167.7	148.2	133.0	120.9	102.8	89.6	60.3
10 OPzS 1000	663.7	633.8	551.6	489.7	441.4	319.5	253.3	211.5	182.5	161.0	144.5	131.2	111.4	97.1	65.1
12 OPzS 1200	752.5	727.6	637.0	569.0	514.8	376.5	299.8	251.0	217.0	191.7	172.1	156.5	132.9	115.9	77.9
12 OPzS 1500	805.1	785.6	727.0	660.1	605.3	455.6	367.2	308.7	267.2	236.1	211.9	192.4	163.0	141.7	94.2
16 OPzS 2000	1121.6	1102.3	1010.9	913.1	833.6	620.6	497.1	416.7	360.0	317.6	284.7	258.4	218.6	189.9	126.0
20 OPzS 2500	1483.9	1469.4	1310.8	1188.6	1087.0	815.1	656.1	552.0	478.1	422.8	379.6	345.0	292.6	254.7	169.9
22 OPzS 2750	1572.1	1560.6	1403.6	1273.3	1168.7	881.0	711.5	599.6	520.0	460.2	413.5	376.0	319.1	277.9	185.5
24 OPzS 3000	1713.1	1695.5	1517.5	1374.2	1257.9	942.1	757.7	636.8	550.9	486.8	436.8	396.7	336.1	292.3	194.5
26 OPzS 3250	1953.1	1910.0	1687.4	1516.3	1378.9	1014.0	807.6	674.6	581.3	512.1	458.4	415.5	351.0	304.7	201.6

1.75 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	118.3	107.4	84.3	69.9	60.0	39.5	30.3	24.9	21.3	18.7	16.7	15.1	12.8	11.2	7.5
3 OPzS 150	175.6	158.7	123.8	102.2	87.6	57.4	43.8	35.9	30.6	26.9	24.0	21.7	18.4	16.0	10.7
4 OPzS 200	223.4	201.7	156.6	128.6	109.7	71.0	53.7	43.8	37.2	32.5	29.0	26.2	22.0	19.1	12.7
5 OPzS 250	281.3	253.9	196.8	161.5	137.7	89.2	67.5	55.1	46.8	40.9	36.4	32.9	27.7	24.0	16.0
6 OPzS 300	331.1	299.6	233.8	192.5	164.5	106.8	81.0	66.0	56.1	49.1	43.7	39.5	33.3	28.9	19.2
5 OPzS 350	329.7	306.6	254.6	217.8	190.6	129.1	99.2	81.3	69.3	60.6	54.0	48.8	41.1	35.7	23.6
6 OPzS 420	388.2	361.9	301.6	258.9	226.9	154.2	118.6	97.3	82.9	72.6	64.7	58.5	49.3	42.7	28.3
7 OPzS 490	444.3	414.6	345.8	296.9	260.3	177.0	136.1	111.5	95.0	83.1	74.0	66.9	56.3	48.8	32.3
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	473.3	447.5	385.0	338.6	302.3	213.0	166.3	137.5	117.8	103.4	92.4	83.6	70.6	61.4	40.9
7 OPzS 700	562.7	531.6	461.0	406.9	364.3	259.1	203.5	168.7	144.9	127.5	114.1	103.5	87.6	76.3	51.1
8 OPzS 800	646.3	608.4	522.1	457.2	406.9	284.8	221.8	183.0	156.6	137.4	122.7	111.1	93.8	81.4	54.2
9 OPzS 900	725.9	684.1	589.2	517.3	461.3	324.5	253.4	209.4	179.5	157.6	140.8	127.6	107.8	93.7	62.5
10 OPzS 1000	795.0	760.7	652.6	571.2	508.3	355.5	276.7	228.3	195.3	171.3	153.0	138.5	116.9	101.5	67.6
12 OPzS 1200	907.4	875.2	756.3	666.5	595.9	421.3	329.3	272.3	233.3	204.8	183.0	165.7	139.9	121.6	81.0
12 OPzS 1500	1165.9	1128.9	1004.0	906.0	824.9	606.3	481.6	401.4	345.1	303.4	271.2	245.6	207.2	179.7	119.0
16 OPzS 2000	1418.8	1354.0	1193.6	1066.7	963.5	693.5	545.0	451.1	385.9	338.1	301.4	272.3	229.0	198.1	130.4
20 OPzS 2500	1758.8	1750.0	1547.7	1384.6	1252.9	908.0	716.7	595.3	510.7	448.3	400.4	362.3	305.5	264.9	175.2
22 OPzS 2750	1944.9	1866.0	1656.0	1489.2	1350.1	984.7	779.5	648.5	556.8	489.2	437.0	395.6	333.6	289.4	191.5
24 OPzS 3000	2117.6	2025.9	1792.1	1606.6	1454.3	1053.8	830.9	689.3	590.7	518.1	462.4	418.0	352.0	304.8	201.1
26 OPzS 3250	2370.5	2277.6	1989.9	1767.1	1586.1	1128.7	882.0	727.6	621.3	543.5	484.0	437.0	367.0	317.3	208.4

1.70 V/Z - Discharge data in Amperes at 25 °C

Type designation	10 Min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	134.3	120.0	90.8	73.5	62.2	40.3	30.7	25.2	21.5	18.9	16.9	15.3	13.0	11.3	7.6
3 OPzS 150	199.4	177.5	133.6	107.8	91.1	58.6	44.5	36.4	31.1	27.2	24.3	22.0	18.6	16.2	10.8
4 OPzS 200	254.6	226.6	169.8	136.4	114.6	72.7	54.8	44.6	37.8	33.0	29.4	26.6	22.4	19.4	12.9
5 OPzS 250	320.4	285.0	213.2	171.1	143.9	91.3	68.9	56.0	47.6	41.5	37.0	33.4	28.1	24.4	16.2
6 OPzS 300	377.8	337.2	254.2	204.6	172.3	109.5	82.6	67.2	57.1	49.8	44.4	40.1	33.7	29.3	19.4
5 OPzS 350	382.9	353.3	285.9	239.6	206.5	135.2	102.5	83.6	71.0	62.0	55.2	49.8	41.9	36.3	24.0
6 OPzS 420	451.4	417.2	339.6	285.3	246.4	161.8	122.8	100.1	85.0	74.2	66.1	59.7	50.2	43.5	28.8
7 OPzS 490	515.9	477.9	390.1	328.0	283.5	186.0	141.0	114.8	97.5	85.1	75.7	68.3	57.4	49.7	32.8
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	551.9	519.2	440.5	380.9	335.3	228.3	175.0	143.2	121.9	106.6	95.0	85.9	72.4	62.8	41.7
7 OPzS 700	655.4	617.8	526.4	457.2	403.8	277.3	213.7	175.4	149.8	131.3	117.2	106.1	89.6	77.9	52.0
8 OPzS 800	753.0	706.7	596.2	512.9	450.0	304.5	232.9	190.3	161.9	141.5	126.1	113.9	96.0	83.2	55.2
9 OPzS 900	845.7	794.8	672.7	580.5	510.4	347.1	266.2	217.8	185.6	162.3	144.7	130.9	110.3	95.7	63.7
10 OPzS 1000	941.8	883.6	745.0	640.7	562.0	380.0	290.6	237.4	202.0	176.5	157.2	142.1	119.6	103.7	68.9
12 OPzS 1200	1081.4	1019.9	866.6	751.7	662.7	452.5	347.2	284.0	241.8	211.4	188.4	170.3	143.4	124.4	82.6
12 OPzS 1500	1184.8	1128.1	990.0	878.2	786.9	554.1	428.9	351.6	299.0	260.9	232.0	209.2	175.5	151.6	99.4
16 OPzS 2000	1651.6	1572.3	1365.8	1203.6	1073.3	746.9	575.3	470.7	399.9	348.8	310.0	279.5	234.3	202.4	132.7
20 OPzS 2500	2136.3	2025.7	1766.4	1559.3	1392.4	975.3	754.7	619.6	528.0	461.6	411.1	371.2	312.1	270.2	178.2
22 OPzS 2750	2265.2	2167.6	1895.6	1680.5	1505.5	1060.6	822.9	676.3	576.6	504.2	449.1	405.7	341.1	295.3	194.9
24 OPzS 3000	2461.9	2352.6	2051.7	1813.9	1621.8	1135.4	877.7	719.5	612.2	534.5	475.5	429.0	360.1	311.3	204.7
26 OPzS 3250	2785.1	2631.3	2271.3	1985.7	1760.8	1210.9	928.1	757.4	642.6	559.9	497.3	448.0	375.3	324.0	212.1

1.65 V/Z - Discharge data in Amperes at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	148.7	130.2	94.7	75.3	63.3	40.7	31.0	25.4	21.7	19.1	17.0	15.4	13.1	11.4	7.6
3 OPzS 150	220.7	192.8	139.5	110.6	92.8	59.3	45.0	36.8	31.4	27.5	24.5	22.2	18.8	16.3	10.9
4 OPzS 200	283.0	247.4	178.2	140.4	117.1	73.7	55.4	45.0	38.2	33.4	29.7	26.8	22.6	19.6	13.0
5 OPzS 250	355.8	310.7	223.5	176.0	146.9	92.5	69.6	56.6	48.0	41.9	37.3	33.7	28.4	24.6	16.3
6 OPzS 300	420.7	368.9	267.3	210.9	176.1	111.0	83.5	67.9	57.6	50.3	44.8	40.5	34.1	29.5	19.6
5 OPzS 350	433.8	396.3	311.5	255.3	216.6	138.4	104.3	84.8	72.0	62.8	55.9	50.4	42.4	36.7	24.3
6 OPzS 420	511.9	468.9	370.7	304.8	259.0	165.7	125.0	101.6	86.2	75.2	66.9	60.4	50.8	44.0	29.1
7 OPzS 490	585.7	538.2	426.5	351.1	298.4	190.7	143.6	116.7	98.9	86.2	76.7	69.2	58.1	50.3	33.2
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	629.9	589.2	489.7	415.9	360.7	237.3	179.7	146.2	124.2	108.4	96.5	87.2	73.4	63.6	42.2
7 OPzS 700	747.9	700.4	584.9	498.4	433.9	287.9	219.2	179.0	152.4	133.4	119.0	107.6	90.8	78.9	52.6
8 OPzS 800	859.1	800.8	660.8	558.6	482.8	315.8	238.8	194.2	164.8	143.9	128.0	115.6	97.3	84.3	55.9
9 OPzS 900	964.9	900.8	746.2	632.6	548.0	360.2	273.0	222.3	188.9	165.0	146.9	132.8	111.8	97.0	64.4
10 OPzS 1000	1074.4	1001.2	825.8	697.8	602.9	394.2	298.0	242.2	205.6	179.4	159.7	144.2	121.3	105.1	69.7
12 OPzS 1200	1236.4	1158.4	965.9	822.3	714.4	471.1	356.8	290.2	246.4	215.1	191.4	172.9	145.5	126.1	83.6
12 OPzS 1500	1352.2	1281.0	1108.1	968.2	856.5	581.9	442.8	360.3	305.2	265.7	235.9	212.5	178.0	153.6	100.6
16 OPzS 2000	1881.5	1781.7	1523.6	1321.9	1162.6	781.0	592.5	481.5	407.7	354.9	315.0	283.7	237.6	205.0	134.3
20 OPzS 2500	2422.4	2293.3	1967.1	1707.5	1504.5	1017.7	776.1	633.1	537.8	469.2	417.3	376.5	316.2	273.5	180.2
22 OPzS 2750	2586.4	2456.2	2114.2	1844.8	1630.6	1109.6	847.4	691.7	587.7	512.9	456.2	411.6	345.7	299.1	197.0
24 OPzS 3000	2811.5	2666.6	2289.8	1993.0	1757.4	1188.3	904.0	736.1	624.1	543.8	483.1	435.5	365.1	315.4	207.0
26 OPzS 3250	3159.0	2977.8	2523.3	2171.1	1899.2	1262.0	954.0	774.0	654.6	569.4	505.0	454.6	380.4	328.1	214.5

▶ TRIATHLON® OPzS: Discharge data in Amperes

1.60 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS singel cells 100 - 490 Ah															
2 OPzS 100	160.5	137.7	96.6	76.3	64.0	41.0	31.2	25.6	21.9	19.2	17.1	15.5	13.1	11.4	7.7
3 OPzS 150	238.7	204.1	142.5	112.1	93.8	59.8	45.3	37.0	31.6	27.6	24.7	22.3	18.9	16.4	11.0
4 OPzS 200	307.2	263.2	182.5	142.4	118.5	74.3	55.9	45.4	38.5	33.6	29.9	27.0	22.7	19.7	13.1
5 OPzS 250	386.0	330.3	228.8	178.6	148.6	93.3	70.2	57.0	48.4	42.2	37.6	33.9	28.6	24.8	16.4
6 OPzS 300	457.2	393.3	274.1	214.1	178.2	112.0	84.2	68.4	58.1	50.7	45.1	40.7	34.3	29.7	19.7
5 OPzS 350	482.0	435.5	330.8	264.9	222.1	140.3	105.5	85.7	72.6	63.4	56.3	50.9	42.7	37.0	24.5
6 OPzS 420	569.1	516.6	394.5	316.9	265.9	168.0	126.4	102.6	87.0	75.9	67.5	60.9	51.2	44.3	29.3
7 OPzS 490	652.9	592.8	454.8	365.8	306.8	193.5	145.3	117.9	99.8	87.0	77.3	69.8	58.6	50.7	33.4
OPzS singel cells 600 - 3250 Ah															
6 OPzS 600	706.2	656.6	532.3	442.9	378.1	242.3	182.4	148.1	125.6	109.6	97.5	88.0	74.0	64.2	42.5
7 OPzS 700	837.0	778.7	635.0	530.4	454.4	293.8	222.4	181.2	154.2	134.8	120.1	108.6	91.6	79.5	53.0
8 OPzS 800	960.9	889.8	716.8	593.2	504.8	322.2	242.3	196.6	166.7	145.4	129.3	116.7	98.2	85.1	56.4
9 OPzS 900	1079.4	1001.1	809.9	672.3	573.2	367.5	277.0	225.1	191.0	166.7	148.4	134.1	112.8	97.8	65.0
10 OPzS 1000	1201.6	1112.5	895.6	741.0	630.3	402.2	302.4	245.3	207.9	181.3	161.3	145.6	122.4	106.0	70.2
12 OPzS 1200	1389.2	1290.6	1051.5	877.6	750.5	481.5	362.4	294.1	249.3	217.5	193.4	174.6	146.8	127.2	84.3
12 OPzS 1500	1512.5	1430.8	1214.5	1044.4	910.6	598.6	451.0	365.6	309.2	268.9	238.5	214.8	179.7	155.1	101.5
16 OPzS 2000	2104.1	1981.1	1665.0	1418.4	1230.0	801.2	602.7	488.3	412.8	358.9	318.4	286.6	239.9	206.9	135.4
20 OPzS 2500	2717.3	2555.4	2143.8	1828.9	1588.4	1042.8	788.8	641.6	544.1	474.3	421.6	380.2	319.1	275.9	181.6
22 OPzS 2750	2892.1	2730.3	2312.8	1981.1	1726.4	1138.5	861.9	701.2	594.8	518.6	460.9	415.7	349.0	301.7	198.6
24 OPzS 3000	3145.5	2966.2	2504.3	2140.2	1861.1	1219.3	919.7	746.4	631.9	550.0	488.3	439.9	368.5	318.2	208.7
26 OPzS 3250	3539.9	3316.2	2749.9	2321.3	2001.7	1292.4	969.7	784.5	662.5	575.7	510.3	459.2	384.0	331.1	216.3

1.90 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	27.2	26.5	24.4	21.7	19.7	14.6	11.8	9.9	8.6	7.6	6.9	6.2	5.3	4.6	3.1
12V 2 OPzS 100	54.4	52.4	45.4	39.6	35.3	25	19.6	16.2	13.9	12.2	10.9	9.8	8.3	7.2	4.7
12V 3 OPzS 150	75.2	73.3	64.7	56.6	50.5	36	28.3	23.4	20.1	17.6	15.7	14.2	12	10.4	6.8
6V 4 OPzS 200	100	97.6	86.2	75.7	67.9	49.1	39.1	32.7	28.3	25.0	22.4	20.4	17.3	15.0	10.1
6V 5 OPzS 250	116.3	114.5	105.8	93.9	85	62.9	50.8	42.8	37.2	33.0	29.8	27.1	23.1	20.2	13.6
6V 6 OPzS 300	130.6	128.7	118	104.4	94.1	68.9	55.1	46.3	40.1	35.4	31.8	28.9	24.6	21.4	14.3

1.87 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	33.3	32.9	28.8	25.5	22.9	16.7	13.2	11.0	9.5	8.4	7.5	6.8	5.8	5.0	3.3
12V 2 OPzS 100	66.4	64.0	53.6	46.5	41.2	28.7	22.3	18.3	15.6	13.6	12.1	10.9	9.2	7.9	5.2
12V 3 OPzS 150	93.1	91.2	76.8	66.8	59.3	41.5	32.2	26.5	22.6	19.7	17.6	15.8	13.3	11.5	7.5
6V 4 OPzS 200	124.0	120.7	101.8	88.7	79.1	56.3	44.3	36.8	31.7	27.9	24.9	22.6	19.1	16.6	11.0
6V 5 OPzS 250	150.5	146.1	125.0	110.4	99.4	72.3	57.7	48.3	41.7	36.9	33.1	30.1	25.5	22.2	14.9
6V 6 OPzS 300	169.8	164.5	140.2	123.2	110.5	79.6	63.1	52.6	45.3	39.9	35.7	32.4	27.4	23.8	15.8

1.85 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	37.9	36.9	31.5	27.8	24.9	17.8	14.0	11.6	10.0	8.8	7.8	7.1	6.0	5.2	3.4
12V 2 OPzS 100	75.1	70.8	58.9	50.9	44.9	30.8	23.7	19.4	16.5	14.4	12.7	11.5	9.6	8.3	5.4
12V 3 OPzS 150	105.9	100.9	84.5	73.2	64.8	44.7	34.5	28.2	24.0	20.9	18.5	16.7	14.0	12.0	7.9
6V 4 OPzS 200	140.8	133.4	111.7	97.0	86.0	60.4	47.2	39.1	33.5	29.4	26.2	23.7	20.0	17.4	11.5
6V 5 OPzS 250	166.0	161.5	137.5	120.9	108.2	77.7	61.5	51.2	44.1	38.9	34.8	31.6	26.8	23.3	15.5
6V 6 OPzS 300	187.7	182.2	154.6	135.3	120.8	85.9	67.5	56.0	48.1	42.2	37.7	34.2	28.8	25.0	16.5

1.83 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	43.0	40.3	34.2	30.0	26.7	18.8	14.7	12.1	10.3	9.0	8.1	7.3	6.1	5.3	3.5
12V 2 OPzS 100	83.6	77.4	64.1	55.0	48.3	32.7	25.0	20.3	17.2	15.0	13.3	11.9	10.0	8.6	5.6
12V 3 OPzS 150	119.2	110.6	92.1	79.3	69.8	47.6	36.4	29.6	25.1	21.8	19.3	17.4	14.5	12.5	8.1
6V 4 OPzS 200	157.3	145.8	121.3	104.7	92.4	64.0	49.6	40.9	34.9	30.6	27.3	24.7	20.8	18.0	11.9
6V 5 OPzS 250	189.3	176.8	149.6	130.7	116.5	82.5	64.7	53.7	46.1	40.5	36.2	32.8	27.7	24.1	16.0
6V 6 OPzS 300	210.3	199.8	168.4	146.8	130.4	91.5	71.4	58.9	50.4	44.2	39.4	35.6	30.0	26.0	17.1

TRIATHLON® OPzS: Discharge data in Amperes

1.80 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	48.5	45.3	38.0	33.0	29.1	20.0	15.4	12.6	10.7	9.3	8.3	7.5	6.3	5.4	3.6
12V 2 OPzS 100	94.4	87.1	71.4	60.6	52.7	34.9	26.4	21.3	18.0	15.6	13.8	12.4	10.3	8.9	5.7
12V 3 OPzS 150	134.8	124.7	102.9	87.9	76.7	51.0	38.6	31.2	26.3	22.8	20.1	18.1	15.0	12.9	8.4
6V 4 OPzS 200	177.6	163.9	134.9	115.3	100.9	68.3	52.4	42.9	36.5	31.9	28.4	25.6	21.5	18.6	12.2
6V 5 OPzS 250	213.8	199.3	166.8	144.5	127.7	88.3	68.5	56.4	48.2	42.2	37.6	34.0	28.7	24.8	16.4
6V 6 OPzS 300	242.3	225.7	188.5	162.9	143.5	98.5	75.9	62.3	53.0	46.3	41.2	37.2	31.2	27.0	17.7

1.75 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	57.4	53.1	43.6	37.0	32.1	21.1	16.0	13.0	11.0	9.6	8.5	7.6	6.4	5.5	3.6
12V 2 OPzS 100	111.8	102.6	82.2	68.3	58.5	37.3	27.7	22.2	18.6	16.1	14.2	12.8	10.6	9.1	5.9
12V 3 OPzS 150	160.0	147.2	119.3	99.7	85.6	54.8	40.7	32.6	27.3	23.6	20.8	18.7	15.5	13.3	8.6
6V 4 OPzS 200	210.3	193.0	155.0	129.7	111.6	72.9	55.1	44.8	37.9	33.0	29.3	26.4	22.1	19.1	12.5
6V 5 OPzS 250	254.4	234.9	192.6	163.5	142.1	94.6	72.1	58.9	50.0	43.7	38.9	35.1	29.5	25.5	16.8
6V 6 OPzS 300	289.2	267.3	219.0	185.5	160.9	106.3	80.5	65.4	55.4	48.2	42.8	38.5	32.2	27.8	18.2

1.70 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	65.8	60.3	48.1	39.8	33.8	21.6	16.2	13.2	11.1	9.7	8.6	7.7	6.5	5.6	3.7
12V 2 OPzS 100	128.4	116.7	90.8	73.7	61.8	38.3	28.3	22.6	19.0	16.4	14.5	13.0	10.8	9.2	6.0
12V 3 OPzS 150	184.6	168.3	132.5	108.2	91.1	56.5	41.6	33.3	27.9	24.0	21.2	19.0	15.8	13.5	8.7
6V 4 OPzS 200	241.7	219.6	171	139.7	118.2	75.1	56.4	45.7	38.6	33.6	29.8	26.8	22.5	19.4	12.7
6V 5 OPzS 250	292.7	268.3	213.9	177.2	151.3	97.6	73.8	60.0	50.9	44.4	39.5	35.6	29.9	25.9	17.1
6V 6 OPzS 300	333.7	306.6	244.5	202.3	172.5	110.2	82.6	66.9	56.5	49.1	43.6	39.2	32.8	28.3	18.5

1.65 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	73.6	66.6	51.2	41.2	34.6	21.9	16.4	13.3	11.2	9.8	8.7	7.8	6.5	5.6	3.7
12V 2 OPzS 100	143.8	129.1	96.7	76.4	63.4	38.8	28.6	22.9	19.2	16.6	14.6	13.1	10.9	9.3	6.0
12V 3 OPzS 150	207.3	187.2	142.3	113.0	93.8	57.3	42.2	33.7	28.2	24.3	21.4	19.2	15.9	13.7	8.8
6V 4 OPzS 200	271.2	243.1	182.3	145.2	121.4	76.2	57.1	46.2	39.0	33.9	30.1	27.1	22.7	19.6	12.8
6V 5 OPzS 250	329.6	298.3	229.5	185.3	156.0	99.1	74.7	60.7	51.5	44.9	39.9	36.0	30.2	26.1	17.2
6V 6 OPzS 300	376.7	342.2	264.0	212.9	178.5	112.1	83.8	67.7	57.2	49.7	44.0	39.6	33.1	28.6	18.7

1.60 V/Z - Discharge data in Amperes at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	80.6	71.8	52.8	41.8	35.0	22.0	16.5	13.4	11.3	9.8	8.7	7.9	6.6	5.7	3.7
12V 2 OPzS 100	157.9	139.3	99.8	77.7	64.2	39.2	28.9	23.1	19.3	16.7	14.7	13.2	11.0	9.4	6.1
12V 3 OPzS 150	228.3	203.1	147.8	115.2	95.1	57.9	42.5	33.9	28.4	24.5	21.6	19.3	16.1	13.8	8.9
6V 4 OPzS 200	298.5	262.7	188.6	147.9	123.1	76.9	57.5	46.5	39.3	34.2	30.3	27.3	22.9	19.7	12.9
6V 5 OPzS 250	363.1	324.2	239.2	189.3	158.3	100.1	75.3	61.2	51.9	45.2	40.2	36.3	30.4	26.3	17.3
6V 6 OPzS 300	417.5	373.7	276.6	218.1	181.6	113.2	84.5	68.3	57.6	50.1	44.4	39.9	33.4	28.8	18.8

TRIATHLON® OPzS: Discharge data in Watts

1.90 V/Z - Discharge data in Watts at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	116.2	110.6	93.5	82.3	74.0	54.5	44.1	37.5	32.7	29.2	26.4	24.2	20.8	18.3	12.6
3 OPzS 150	173.6	163.0	136.7	119.5	107.1	78.0	62.7	53.1	46.3	41.2	37.2	34.0	29.2	25.7	17.6
4 OPzS 200	214.8	204.4	169.7	147.2	131.1	94.0	74.9	62.9	54.5	48.4	43.6	39.7	33.9	29.7	20.2
5 OPzS 250	270.9	257.6	213.9	185.5	165.2	118.4	94.3	79.3	68.8	61.0	54.9	50.1	42.8	37.5	25.5
6 OPzS 300	323.3	302.7	252.0	219.2	195.4	140.7	112.3	94.4	82.0	72.8	65.6	59.8	51.1	44.8	30.5
5 OPzS 350	279.4	277.0	251.7	224.5	203.9	152.8	124.5	106.0	92.8	82.8	75.0	68.7	59.0	51.9	35.7
6 OPzS 420	320.1	315.9	296.6	264.9	240.8	181.0	147.7	125.9	110.3	98.5	89.2	81.7	70.2	61.8	42.5
7 OPzS 490	369.8	366.7	337.7	301.7	274.1	205.7	167.9	143.0	125.2	111.8	101.2	92.7	79.6	70.0	48.1
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	372.1	369.8	354.0	331.0	304.3	234.8	194.5	167.5	147.8	132.8	120.8	111.1	96.1	85.0	59.3
7 OPzS 700	441.6	438.9	431.3	399.7	368.7	287.6	239.8	207.5	183.8	165.5	151.0	139.1	120.7	107.0	75.0
8 OPzS 800	503.1	498.9	491.9	450.5	413.5	317.2	262.1	225.1	198.4	178.0	161.9	148.7	128.5	113.5	79.0
9 OPzS 900	575.4	571.7	558.6	509.1	468.0	361.1	299.2	257.6	227.4	204.3	186.0	171.0	147.9	130.8	91.3
10 OPzS 1000	631.2	625.1	615.0	563.0	516.6	396.1	327.1	280.9	247.5	222.1	201.9	185.4	160.2	141.5	98.5
12 OPzS 1200	720.7	716.2	702.4	646.9	594.9	460.2	381.4	328.6	290.2	260.7	237.3	218.2	188.7	167.0	116.6
12 OPzS 1500	815.8	811.9	782.7	765.3	710.9	562.9	471.9	408.9	362.2	326.0	297.0	273.2	236.1	208.7	144.6
16 OPzS 2000	1163.9	1157.9	1116.1	1066.9	988.5	776.4	647.8	559.5	494.4	444.2	404.1	371.2	320.4	282.7	195.3
20 OPzS 2500	1507.5	1499.6	1477.0	1394.5	1297.5	1027.7	862.4	748.0	663.3	597.5	544.8	501.4	434.0	383.8	266.5
22 OPzS 2750	1588.2	1570.7	1522.1	1489.6	1385.3	1102.7	927.8	806.0	715.6	645.4	588.8	542.4	469.9	415.9	289.4
24 OPzS 3000	1731.4	1710.2	1656.5	1604.7	1489.9	1177.0	986.2	853.8	756.1	680.5	619.8	570.0	492.8	435.4	301.7
26 OPzS 3250	1991.7	1964.5	1895.2	1784.4	1647.0	1281.7	1063.2	914.8	806.1	722.7	656.2	602.1	518.4	456.7	314.3

1.87 V/Z - Discharge data in Watts at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	138.0	128.0	106.9	93.3	83.4	60.3	48.3	40.7	35.4	31.5	28.4	26.0	22.3	19.5	13.4
3 OPzS 150	204.5	188.6	156.4	135.8	120.8	86.5	69.0	58.0	50.3	44.7	40.3	36.7	31.4	27.6	18.8
4 OPzS 200	258.1	237.3	194.9	168.0	148.7	105.0	82.9	69.2	59.8	52.9	47.6	43.3	36.9	32.2	21.8
5 OPzS 250	325.3	299.2	245.6	211.6	187.3	132.2	104.4	87.2	75.4	66.7	59.9	54.6	46.5	40.6	27.5
6 OPzS 300	381.9	351.4	289.9	250.4	222.0	157.4	124.5	104.1	90.0	79.7	71.6	65.2	55.6	48.6	33.0
5 OPzS 350	353.8	343.9	295.5	261.9	236.5	174.8	141.2	119.5	104.1	92.6	83.6	76.4	65.4	57.4	39.1
6 OPzS 420	412.2	397.9	348.9	309.6	280.0	207.5	167.9	142.2	124.0	110.4	99.7	91.1	78.0	68.4	46.7
7 OPzS 490	470.1	460.5	397.6	353.0	319.3	236.6	191.2	161.9	141.1	125.5	113.4	103.5	88.6	77.7	53.0
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	565.2	561.3	519.7	470.7	432.5	332.8	275.1	236.4	208.4	187.0	170.0	156.2	134.9	119.1	82.8
7 OPzS 700	657.5	645.1	589.9	530.4	484.3	367.1	300.5	256.6	225.1	201.2	182.4	167.1	143.8	126.6	87.4
8 OPzS 800	731.0	714.9	665.1	599.4	548.5	417.8	343.1	293.6	257.9	230.9	209.5	192.1	165.5	145.9	100.9
9 OPzS 900	822.7	809.4	737.3	662.7	605.1	458.4	375.1	320.2	280.8	251.0	227.5	208.4	179.3	157.9	108.9
10 OPzS 1000	925.9	907.9	846.4	764.5	700.2	534.4	439.6	376.3	330.8	296.0	268.6	246.3	212.2	187.0	129.3
12 OPzS 1200	1456.8	1448.8	1367.3	1245.9	1150.3	891.9	738.2	633.3	556.9	498.2	451.7	413.8	355.5	312.6	213.9
12 OPzS 1500	1985.0	1947.7	1885.5	1738.3	1611.1	1266.7	1056.5	911.7	805.1	722.9	657.3	603.6	520.5	458.9	316.2
16 OPzS 2000	2104.1	1981.1	1665.0	1418.4	1230.0	801.2	602.7	488.3	412.8	358.9	318.4	286.6	239.9	206.9	135.4
20 OPzS 2500	2717.3	2555.4	2143.8	1828.9	1588.4	1042.8	788.8	641.6	544.1	474.3	421.6	380.2	319.1	275.9	181.6
22 OPzS 2750	2892.1	2730.3	2312.8	1981.1	1726.4	1138.5	861.9	701.2	594.8	518.6	460.9	415.7	349.0	301.7	198.6
24 OPzS 3000	3145.5	2966.2	2504.3	2140.2	1861.1	1219.3	919.7	746.4	631.9	550.0	488.3	439.9	368.5	318.2	208.7
26 OPzS 3250	3539.9	3316.2	2749.9	2321.3	2001.7	1292.4	969.7	784.5	662.5	575.7	510.3	459.2	384.0	331.1	216.3



TRIATHLON® OPzS: Discharge data in Watts

1.85 V/Z - Discharge data in Watts at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	150.3	138.5	115.0	99.7	88.7	63.3	50.4	42.3	36.7	32.6	29.4	26.8	22.9	20.1	13.7
3 OPzS 150	222.4	204.5	168.3	145.3	128.7	91.1	72.2	60.5	52.4	46.4	41.8	38.1	32.5	28.5	19.4
4 OPzS 200	281.4	257.7	210.4	180.4	159.0	111.0	87.2	72.6	62.6	55.2	49.6	45.1	38.3	33.5	22.6
5 OPzS 250	354.9	324.7	264.9	227.0	200.1	139.7	109.7	91.4	78.8	69.6	62.5	56.8	48.3	42.2	28.5
6 OPzS 300	416.1	382.2	313.0	269.1	237.5	166.5	131.0	109.2	94.2	83.2	74.7	68.0	57.8	50.5	34.1
5 OPzS 350	389.9	377.7	322.8	284.8	256.4	187.5	150.5	126.8	110.3	97.9	88.2	80.5	68.7	60.2	40.9
6 OPzS 420	470.0	444.7	381.1	336.9	303.7	222.9	179.2	151.1	131.4	116.7	105.2	96.0	82.0	71.8	48.8
7 OPzS 490	522.6	507.9	435.1	384.8	346.7	254.4	204.4	172.3	149.7	132.9	119.8	109.3	93.3	81.7	55.5
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	533.2	524.5	475.7	427.5	390.2	294.6	240.5	204.8	179.4	160.1	145.0	132.7	114.0	100.3	69.0
7 OPzS 700	645.2	635.7	571.0	515.2	471.5	359.9	295.4	252.7	222.0	198.7	180.3	165.3	142.4	125.6	86.8
8 OPzS 800	749.5	739.1	647.5	580.3	528.0	396.6	322.7	274.4	239.9	213.9	193.6	177.1	152.0	133.6	91.7
9 OPzS 900	838.7	829.9	730.3	656.0	597.9	451.5	368.4	313.9	274.9	245.4	222.3	203.5	174.9	153.9	105.9
10 OPzS 1000	937.7	924.4	809.3	725.1	659.7	495.2	402.7	342.3	299.3	266.8	241.4	220.8	189.5	166.6	114.3
12 OPzS 1200	1058.1	1049.4	931.6	838.0	765.3	579.5	473.4	403.5	353.4	315.6	285.8	261.6	224.8	197.8	136.0
12 OPzS 1500	1160.5	1154.2	1072.3	978.8	904.0	701.6	579.9	497.0	436.5	390.2	353.4	323.5	277.6	243.8	166.4
16 OPzS 2000	1646.0	1636.3	1493.5	1358.9	1249.7	961.8	790.8	675.4	591.8	528.1	477.8	437.0	374.4	328.5	223.6
20 OPzS 2500	2067.3	2051.4	1942.8	1771.2	1634.6	1267.1	1047.5	898.1	789.4	706.1	640.2	586.5	503.9	443.1	303.1
22 OPzS 2750	2248.7	2236.3	2073.1	1895.7	1751.4	1364.6	1131.2	971.7	855.1	765.7	694.7	636.7	547.5	481.8	330.1
24 OPzS 3000	2450.8	2437.0	2241.5	2045.2	1884.4	1459.0	1203.9	1031.0	905.2	809.0	732.9	670.8	575.7	505.7	345.2
26 OPzS 3250	2804.0	2752.8	2501.7	2262.4	2073.8	1580.1	1291.4	1099.1	960.4	855.5	772.8	705.8	603.7	528.9	358.8

1.83 V/Z - Discharge data in Watts at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	161.7	148.6	122.3	105.4	93.3	65.8	52.1	43.6	37.7	33.4	30.1	27.4	23.4	20.5	13.9
3 OPzS 150	239.7	219.3	179.3	153.7	135.6	94.9	74.8	62.4	53.9	47.7	42.9	39.0	33.3	29.1	19.8
4 OPzS 200	303.4	277.0	224.6	191.5	168.0	116.0	90.7	75.3	64.7	57.1	51.2	46.5	39.5	34.4	23.2
5 OPzS 250	382.2	349.0	282.8	240.9	211.4	146.0	114.1	94.7	81.5	71.8	64.4	58.5	49.7	43.4	29.2
6 OPzS 300	449.5	410.9	334.4	285.8	251.2	174.2	136.3	113.2	97.5	86.0	77.1	70.1	59.5	51.9	35.0
5 OPzS 350	434.1	410.5	348.6	306.2	274.6	198.7	158.5	133.0	115.3	102.2	91.9	83.7	71.4	62.4	42.2
6 OPzS 420	516.5	483.4	411.9	362.5	325.6	236.4	188.8	158.6	137.6	121.9	109.8	100.0	85.2	74.6	50.5
7 OPzS 490	581.4	551.6	470.4	414.3	372.0	270.1	215.6	181.1	156.9	139.0	125.1	114.0	97.1	84.9	57.4
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	600.5	584.8	516.9	462.8	420.7	314.8	255.3	216.5	189.0	168.4	152.2	139.1	119.2	104.7	71.6
7 OPzS 700	723.0	703.4	619.1	556.7	508.3	384.0	313.3	266.8	233.7	208.6	188.9	173.0	148.6	130.8	90.0
8 OPzS 800	839.1	806.7	702.3	626.9	568.8	423.2	342.1	289.7	252.5	224.7	202.9	185.4	158.7	139.3	95.2
9 OPzS 900	939.4	906.8	792.0	708.7	644.3	481.8	390.6	331.4	289.3	257.7	233.0	213.0	182.6	160.4	109.9
10 OPzS 1000	1049.8	1008.7	877.8	783.4	710.6	528.3	427.0	361.4	315.0	280.3	253.1	231.2	197.9	173.7	118.7
12 OPzS 1200	1187.2	1157.2	1012.1	907.6	826.5	619.8	503.1	427.0	372.9	332.2	300.2	274.5	235.3	206.6	141.4
12 OPzS 1500	1292.7	1284.8	1161.1	1057.3	973.8	749.3	615.5	525.2	459.6	409.8	370.5	338.6	289.7	254.0	172.3
16 OPzS 2000	1830.7	1812.4	1617.5	1465.0	1344.0	1025.0	837.5	712.0	622.0	553.7	499.9	456.5	390.1	341.6	231.3
20 OPzS 2500	2364.2	2340.7	2098.8	1908.8	1754.9	1348.2	1107.3	945.2	828.1	738.9	668.5	611.4	523.9	459.8	312.9
22 OPzS 2750	2501.9	2482.4	2243.5	2043.1	1884.2	1453.7	1197.5	1023.9	898.1	802.1	726.2	664.5	569.9	500.4	341.0
24 OPzS 3000	2726.5	2701.5	2428.2	2204.5	2027.2	1554.8	1275.0	1087.0	951.2	848.0	766.7	700.7	599.7	525.8	357.0
26 OPzS 3250	3097.4	3004.8	2700.5	2436.2	2227.9	1680.7	1365.2	1156.9	1007.9	895.6	807.6	736.5	628.3	549.5	370.9

1.80 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	177.7	162.5	132.0	112.6	98.9	68.7	53.8	44.8	38.7	34.2	30.7	28.0	23.8	20.9	14.2
3 OPzS 150	263.3	240.2	193.7	164.5	144.1	99.3	77.6	64.5	55.5	49.0	44.0	40.0	34.0	29.7	20.1
4 OPzS 200	334.6	304.0	243.6	205.7	179.3	122.0	94.6	78.2	67.0	58.9	52.8	47.9	40.6	35.3	23.7
5 OPzS 250	421.4	382.7	306.4	258.7	225.4	153.4	119.0	98.3	84.3	74.2	66.4	60.2	51.1	44.5	29.9
6 OPzS 300	495.3	451.4	363.0	307.3	268.3	183.2	142.3	117.7	101.0	88.8	79.6	72.2	61.2	53.3	35.8
5 OPzS 350	489.3	456.4	384.2	335.0	298.6	212.6	168.1	140.4	121.2	107.0	96.1	87.4	74.2	64.8	43.6
6 OPzS 420	576.8	537.7	454.3	397.2	354.5	253.2	200.5	167.6	144.7	127.9	114.8	104.4	88.7	77.4	52.1
7 OPzS 490	657.9	614.5	519.7	454.8	406.0	289.8	229.3	191.5	165.4	146.0	131.1	119.2	101.2	88.3	59.4
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	699.7	661.1	574.2	511.2	462.7	341.0	273.9	231.0	200.8	178.2	160.7	146.6	125.2	109.7	74.5
7 OPzS 700	811.1	788.1	687.5	614.6	558.0	415.2	335.6	284.0	247.7	220.4	199.1	181.9	155.7	136.7	93.4
8 OPzS 800	955.8	901.8	779.7	692.1	624.5	457.6	366.5	308.5	267.9	237.6	214.0	195.1	166.5	145.8	98.9
9 OPzS 900	1068.5	1014.1	879.3	782.4	707.4	521.1	418.5	352.9	306.8	272.5	245.7	224.1	191.5	167.8	114.1
10 OPzS 1000	1195.4	1127.5	974.5	864.7	780.2	571.3	457.4	384.9	334.1	296.3	266.9	243.3	207.6	181.8	123.3
12 OPzS 1200	1368.7	1295.6	1126.1	1004.1	909.8	672.2	540.6	456.1	396.6	352.2	317.5	289.6	247.4	216.7	147.3
12 OPzS 1500	1439.8	1426.4	1288.4	1167.4	1070.8	812.7	661.2	560.5	488.3	433.8	391.0	356.4	303.8	265.5	178.7
16 OPzS 2000	2028.1	2016.5	1789.4	1614.5	1473.8	1107.5	896.6	757.8	659.0	584.6	526.4	479.4	408.2	356.3	239.4
20 OPzS 2500	2707.9	2612.2	2320.1	2098.3	1922.3	1454.4	1183.0	1003.6	875.2	778.2	702.0	640.4	546.6	478.2	322.9
22 OPzS 2750	2867.9	2790.1	2484.2	2251.0	2064.6	1571.3	1281.5	1089.0	950.7	846.0	763.7	697.1	595.3	521.1	352.3
24 OPzS 3000	3125.1	3028.7	2686.6	2430.4	2223.0	1680.7	1365.4	1157.0	1007.9	895.3	807.0	735.8	627.3	548.3	369.3
26 OPzS 3250	3558.3	3394.0	2985.6	2679.1	2436.7	1812.1	1458.9	1228.9	1066.0	944.0	848.8	772.3	656.4	572.4	383.6

1.75 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	201.3	182.4	144.7	121.4	105.4	71.4	55.4	45.9	39.5	34.9	31.3	28.5	24.2	21.2	14.4
3 OPzS 150	298.8	269.8	212.7	177.8	153.9	103.6	80.1	66.2	56.9	50.1	44.9	40.8	34.7	30.3	20.5
4 OPzS 200	380.6	343.1	269.0	223.6	192.7	128.0	98.2	80.7	69.0	60.6	54.2	49.1	41.5	36.1	24.2
5 OPzS 250	479.1	431.7	338.1	280.9	242.1	160.9	123.5	101.5	86.8	76.2	68.1	61.8	52.3	45.5	30.5
6 OPzS 300	564.4	509.9	401.5	334.5	288.8	192.5	147.9	121.6	104.0	91.3	81.7	74.0	62.7	54.6	36.6
5 OPzS 350	567.4	525.0	435.7	374.8	330.4	229.2	178.7	147.9	127.0	111.7	100.0	90.7	76.8	66.9	44.8
6 OPzS 420	668.3	620.0	516.3	445.2	393.1	273.5	213.5	176.8	151.8	133.6	119.6	108.5	91.9	80.0	53.6
7 OPzS 490	763.9	710.2	591.5	510.8	450.9	313.6	244.7	202.5	173.8	152.8	136.7	124.0	105.0	91.3	61.1
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	816.7	769.1	659.8	581.7	521.4	374.6	296.7	247.7	213.8	188.8	169.5	154.1	131.0	114.3	77.1
7 OPzS 700	970.5	915.0	789.1	697.9	627.8	455.4	362.7	303.9	263.1	232.9	209.4	190.7	162.5	142.1	96.4
8 OPzS 800	1114.6	1046.6	894.0	785.2	702.1	501.5	396.2	330.2	284.8	251.3	225.4	204.9	174.0	151.8	102.3
9 OPzS 900	1251.9	1177.1	1008.6	887.9	795.4	571.1	452.4	377.8	326.2	288.1	258.7	235.3	200.0	174.7	118.0
10 OPzS 1000	1393.9	1308.6	1117.4	981.0	877.0	626.1	494.4	412.0	355.2	313.4	281.2	255.5	217.0	189.3	127.5
12 OPzS 1200	1600.6	1508.5	1297.3	1144.9	1027.7	740.2	586.8	490.2	423.2	373.8	335.5	305.1	259.3	226.3	152.6
12 OPzS 1500	1761.3	1677.2	1480.1	1330.5	1210.8	896.7	718.7	603.2	521.5	460.4	413.0	375.0	317.8	276.5	184.6
16 OPzS 2000	2460.2	2338.4	2048.8	1832.0	1659.4	1217.3	970.7	812.5	701.2	618.3	554.1	502.8	425.7	370.3	246.9
20 OPzS 2500	3137.3	3017.7	2653.1	2377.1	2158.4	1593.2	1276.8	1072.4	928.1	820.2	736.5	669.4	568.3	495.3	332.1
22 OPzS 2750	3383.3	3224.3	2841.6	2554.1	2324.6	1725.6	1386.7	1166.6	1010.4	893.7	802.8	730.0	620.0	540.6	362.7
24 OPzS 3000	3676.3	3499.5	3076.4	2758.1	2504.1	1847.8	1478.9	1240.7	1072.4	946.9	849.5	771.5	654.1	569.5	380.7
26 OPzS 3250	4128.8	3918.9	3410.7	3032.2	2735.0	1985.2	1575.1	1313.8	1131.1	996.0	891.6	808.4	683.5	594.0	395.1

TRIATHLON® OPzS: Discharge data in Watts

1.70 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	221.4	198.4	153.4	126.7	108.8	72.6	56.2	46.5	40.0	35.3	31.6	28.8	24.5	21.4	14.5
3 OPzS 150	328.6	293.6	225.9	185.9	159.3	105.5	81.4	67.1	57.6	50.7	45.5	41.3	35.1	30.6	20.7
4 OPzS 200	420.2	375.2	287.0	234.8	200.3	130.8	100.0	82.0	70.0	61.4	54.9	49.7	42.0	36.6	24.5
5 OPzS 250	528.7	471.7	360.4	294.9	251.4	164.3	125.6	103.1	88.1	77.2	69.0	62.5	52.9	46.0	30.9
6 OPzS 300	623.8	558.3	428.9	351.9	300.5	196.8	150.5	123.5	105.6	92.6	82.8	75.0	63.5	55.2	37.0
5 OPzS 350	635.8	585.4	477.0	404.7	352.9	238.7	184.1	151.6	129.7	113.9	101.8	92.3	78.1	67.9	45.4
6 OPzS 420	751.0	692.0	566.2	481.5	420.6	285.2	220.1	181.3	155.2	136.3	121.9	110.4	93.4	81.3	54.4
7 OPzS 490	858.8	793.3	649.9	553.2	483.4	327.6	252.6	207.9	177.8	156.0	139.4	126.3	106.8	92.9	62.0
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	923.3	864.8	733.1	638.5	566.8	397.3	310.3	256.8	220.6	194.1	173.8	157.8	133.8	116.6	78.4
7 OPzS 700	1096.6	1028.7	875.5	765.6	681.9	482.4	378.8	314.7	271.0	239.0	214.5	195.0	165.8	144.8	97.9
8 OPzS 800	1258.5	1176.3	991.5	860.5	761.7	530.9	413.6	341.9	293.4	258.0	231.0	209.6	177.6	154.8	104.0
9 OPzS 900	1413.8	1323.1	1118.7	973.6	863.5	604.7	472.4	391.1	336.1	295.8	265.1	240.6	204.2	178.0	119.9
10 OPzS 1000	1573.7	1470.7	1239.1	1075.1	951.4	662.8	516.1	426.6	366.0	321.8	288.1	261.4	221.5	193.0	129.7
12 OPzS 1200	1808.4	1697.8	1443.5	1259.1	1119.3	786.6	614.7	509.0	437.0	384.6	344.4	312.6	265.0	230.9	155.3
12 OPzS 1500	1981.0	1882.8	1647.6	1467.2	1323.7	957.7	756.1	628.3	539.5	474.3	424.2	384.3	324.7	282.1	187.6
16 OPzS 2000	2768.0	2622.7	2274.0	2014.5	1808.9	1295.1	1017.7	843.7	723.7	635.7	568.1	514.6	434.6	377.4	250.8
20 OPzS 2500	3565.5	3378.3	2938.5	2606.2	2345.3	1691.2	1335.5	1111.2	955.9	841.7	753.8	684.0	579.3	504.2	337.1
22 OPzS 2750	3805.9	3613.9	3153.4	2807.5	2532.3	1835.7	1453.2	1210.7	1042.3	918.1	822.6	746.4	632.3	550.5	368.2
24 OPzS 3000	4139.2	3926.5	3415.4	3033.7	2730.2	1966.6	1550.7	1288.5	1107.0	973.5	871.0	789.4	667.5	580.3	386.6
26 OPzS 3250	4647.5	4386.3	3776.6	3324.4	2971.9	2106.1	1646.5	1361.3	1165.7	1022.7	913.2	826.5	697.2	605.0	401.3

1.65 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	237.5	210.5	158.7	129.3	110.5	73.3	56.6	46.8	40.3	35.5	31.9	29.0	24.6	21.5	14.6
3 OPzS 150	353.0	311.9	234.0	190.0	161.9	106.6	82.1	67.7	58.1	51.1	45.8	41.6	35.3	30.8	20.8
4 OPzS 200	453.1	399.9	298.4	240.7	203.9	132.3	100.9	82.7	70.6	61.9	55.3	50.1	42.4	36.9	24.7
5 OPzS 250	569.8	502.4	374.5	302.1	256.0	166.2	126.8	104.0	88.8	77.9	69.6	63.0	53.3	46.4	31.1
6 OPzS 300	672.9	595.7	446.7	361.1	306.3	199.1	152.0	124.7	106.5	93.4	83.5	75.6	64.0	55.7	37.3
5 OPzS 350	696.9	637.1	509.2	425.6	367.2	243.5	186.9	153.6	131.3	115.2	102.9	93.2	78.8	68.6	45.8
6 OPzS 420	822.8	754.3	605.2	507.3	438.3	291.3	223.6	183.8	157.1	137.8	123.2	111.6	94.4	82.1	54.9
7 OPzS 490	942.3	865.2	695.7	583.7	504.5	334.8	256.7	210.8	180.1	157.9	141.0	127.7	107.9	93.8	62.6
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	1018.0	949.6	794.1	683.3	600.6	410.8	317.5	261.6	224.1	197.0	176.2	159.8	135.4	117.9	79.2
7 OPzS 700	1208.3	1127.9	947.3	818.0	721.8	498.1	387.2	320.3	275.2	242.4	217.3	197.4	167.7	146.4	98.9
8 OPzS 800	1386.5	1289.6	1072.6	918.9	805.6	548.1	422.8	348.0	298.0	261.7	234.1	212.3	179.7	156.5	105.1
9 OPzS 900	1557.7	1450.6	1210.4	1039.6	913.5	624.4	482.9	398.2	341.3	300.1	268.6	243.7	206.6	180.0	121.1
10 OPzS 1000	1733.8	1612.4	1340.4	1148.1	1006.2	684.1	527.6	434.2	371.7	326.4	292.0	264.7	224.1	195.2	131.0
12 OPzS 1200	1995.8	1866.7	1564.8	1349.4	1187.9	814.3	629.6	518.7	444.3	390.4	349.3	316.7	268.2	233.6	156.9
12 OPzS 1500	2182.1	2067.4	1790.4	1580.1	1413.1	997.8	777.4	641.8	549.3	481.9	430.4	389.6	328.7	285.4	189.5
16 OPzS 2000	3044.3	2874.0	2465.8	2160.1	1923.5	1344.8	1044.0	860.6	736.0	645.3	576.1	521.3	439.7	381.6	253.3
20 OPzS 2500	3916.5	3697.5	3179.0	2791.6	2489.9	1753.1	1368.0	1132.1	971.3	853.7	763.8	692.4	585.8	509.5	340.2
22 OPzS 2750	4185.1	3961.4	3420.7	3011.6	2693.4	1906.7	1490.7	1234.5	1059.6	931.7	833.7	755.9	639.7	556.4	371.7
24 OPzS 3000	4552.6	4302.3	3705.1	3254.6	2904.6	2043.4	1591.3	1314.4	1125.8	988.3	883.1	799.7	675.4	586.7	390.4
26 OPzS 3250	5104.4	4800.6	4086.9	3556.8	3152.2	2181.2	1686.4	1387.3	1184.6	1037.6	925.6	837.0	705.4	611.6	405.2

1.60 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS single cells 100 - 490 Ah															
2 OPzS 100	250.4	219.1	161.5	130.7	111.4	73.7	57.0	47.1	40.5	35.7	32.0	29.1	24.8	21.7	14.7
3 OPzS 150	372.3	324.9	238.2	192.1	163.3	107.3	82.5	68.1	58.4	51.4	46.0	41.8	35.5	31.0	20.9
4 OPzS 200	479.5	418.1	304.4	243.8	206.0	133.3	101.6	83.2	71.1	62.3	55.6	50.4	42.6	37.1	24.8
5 OPzS 250	602.7	525.0	381.9	305.9	258.5	167.4	127.7	104.6	89.3	78.3	70.0	63.4	53.6	46.7	31.3
6 OPzS 300	712.9	623.7	456.1	365.8	309.4	200.5	153.0	125.4	107.1	93.9	83.9	76.0	64.3	56.0	37.5
5 OPzS 350	749.1	680.1	532.5	438.7	375.1	246.3	188.6	154.8	132.3	116.0	103.7	93.9	79.4	69.0	46.1
6 OPzS 420	885.4	805.7	633.9	523.6	448.2	294.7	225.7	185.3	158.3	138.9	124.1	112.4	95.0	82.6	55.2
7 OPzS 490	1016.1	925.7	729.9	603.5	516.4	338.9	259.2	212.6	181.5	159.1	142.1	128.6	108.6	94.4	63.0
OPzS single cells 600 - 3250 Ah															
6 OPzS 600	1101.5	1023.9	843.4	716.6	623.6	418.2	321.6	264.5	226.3	198.7	177.7	161.2	136.5	118.8	79.8
7 OPzS 700	1305.7	1215.0	1004.8	857.4	748.9	506.9	392.1	323.7	277.8	244.5	219.1	199.0	168.9	147.4	99.5
8 OPzS 800	1498.8	1389.0	1136.9	962.3	835.0	557.5	428.2	351.7	300.8	264.1	236.1	214.0	181.1	157.7	105.8
9 OPzS 900	1683.7	1562.4	1283.2	1089.1	947.1	635.2	489.0	402.4	344.5	302.7	270.9	245.7	208.1	181.4	121.9
10 OPzS 1000	1874.2	1736.6	1420.8	1202.1	1042.9	695.9	534.3	438.8	375.3	329.4	294.5	266.9	225.9	196.6	131.9
12 OPzS 1200	2163.3	2012.2	1664.3	1417.4	1235.5	829.7	638.1	524.5	448.8	394.0	352.3	319.4	270.4	235.4	158.0
12 OPzS 1500	2362.3	2231.8	1911.0	1669.2	1480.0	1021.9	789.7	649.9	555.4	486.7	434.4	393.0	331.4	287.6	190.8
16 OPzS 2000	3289.4	3091.5	2624.8	2275.3	2008.7	1374.3	1059.4	870.8	743.7	651.5	581.2	525.7	443.2	384.5	255.0
20 OPzS 2500	4228.5	3979.9	3378.0	2935.2	2595.5	1789.5	1387.1	1144.8	980.9	861.5	770.3	698.0	590.2	513.2	342.4
22 OPzS 2750	4521.6	4259.2	3638.6	3172.3	2813.1	1948.4	1512.3	1249.0	1070.4	940.4	840.9	762.2	644.6	560.5	374.2
24 OPzS 3000	4917.5	4628.7	3944.1	3429.4	3034.9	2088.4	1614.7	1330.1	1137.4	997.6	890.9	806.5	680.8	591.1	393.1
26 OPzS 3250	5510.6	5164.8	4339.3	3737.5	3283.7	2225.9	1709.9	1403.1	1196.6	1047.3	933.7	844.0	710.9	616.2	408.0



TRIATHLON® OPzS: Discharge data in Watts

1.90 V/Z - Discharge data in Watts at 20 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	51.2	50.8	45.5	40.5	36.7	27.3	22.1	18.7	16.3	14.5	13.0	11.9	10.1	8.9	6.0
12V 2 OPzS 100	102.7	100.8	84.7	73.7	65.7	46.7	36.8	30.6	26.3	23.2	20.7	18.8	15.9	13.8	9.2
12V 3 OPzS 150	143.4	142.0	120.8	105.5	94.2	67.3	53.1	44.2	38.0	33.4	29.9	27.1	22.9	19.9	13.2
6V 4 OPzS 200	191.1	189.3	160.7	140.9	126.3	91.8	73.4	61.7	53.5	47.4	42.6	38.8	33.0	28.9	19.4
6V 5 OPzS 250	229.3	226.6	197.4	175.0	158.2	117.5	95.2	80.7	70.4	62.6	56.5	51.6	44.1	38.7	26.3
6V 6 OPzS 300	258.0	255.0	220.5	194.6	175.3	128.6	103.4	87.1	75.7	67.1	60.4	55.1	46.9	41.0	27.7

1.87 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	126.7	118.1	98.2	85.1	75.5	53.0	41.4	34.2	29.3	25.7	22.9	20.7	17.4	15.1	10.0
12V 2 OPzS 100	181.3	168.4	140.8	122.3	108.7	76.7	60.0	49.6	42.4	37.2	33.2	30.0	25.3	21.9	14.5
12V 3 OPzS 150	239.8	222.4	186.2	162.3	144.9	103.8	82.3	68.8	59.4	52.4	47.1	42.8	36.3	31.6	21.2
6V 4 OPzS 200	285.9	269.3	229.2	202.1	181.9	133.2	106.9	90.0	78.2	69.3	62.4	56.8	48.5	42.4	28.6
6V 5 OPzS 250	322.7	303.5	257.2	225.8	202.5	146.8	117.0	98.0	84.7	74.9	67.3	61.1	51.9	45.3	30.3
6V 6 OPzS 300	417.5	373.7	276.6	218.1	181.6	113.2	84.5	68.3	57.6	50.1	44.4	39.9	33.4	28.8	18.8

1.85 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	71.3	67.2	57.1	50.2	45.1	32.6	25.9	21.6	18.6	16.4	14.7	13.4	11.3	9.9	6.6
12V 2 OPzS 100	139.4	128.8	106.8	92.1	81.4	56.6	43.9	36.1	30.8	26.9	24.0	21.7	18.2	15.8	10.4
12V 3 OPzS 150	198.6	183.9	153.2	132.7	117.5	82.0	63.7	52.4	44.8	39.2	34.9	31.5	26.5	22.9	15.1
6V 4 OPzS 200	262.1	242.5	202.1	175.4	156.0	110.6	87.2	72.6	62.5	55.1	49.4	44.8	37.9	33.0	22.1
6V 5 OPzS 250	313.4	294.3	249.2	218.7	196.2	142.1	113.3	95.0	82.3	72.8	65.4	59.5	50.6	44.2	29.7
6V 6 OPzS 300	353.4	332.5	280.3	245.0	219.1	157.2	124.5	103.9	89.6	79.0	70.8	64.3	54.5	47.4	31.7

1.83 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	77.6	72.3	61.2	53.6	47.9	34.2	26.9	22.4	19.2	16.9	15.1	13.7	11.6	10.1	6.7
12V 2 OPzS 100	150.9	139.1	114.7	98.5	86.7	59.6	45.9	37.7	32.0	28.0	24.9	22.4	18.8	16.3	10.7
12V 3 OPzS 150	215.0	199.0	164.9	142.3	125.6	86.6	66.9	54.8	46.7	40.7	36.2	32.7	27.4	23.7	15.5
6V 4 OPzS 200	283.6	261.8	216.9	187.5	166.0	116.4	91.2	75.7	65.0	57.2	51.1	46.4	39.2	34.1	22.7
6V 5 OPzS 250	341.6	317.8	267.7	234.1	209.1	149.8	118.6	99.1	85.6	75.5	67.8	61.6	52.3	45.6	30.5
6V 6 OPzS 300	386.9	359.6	301.8	263.0	234.2	166.2	130.8	108.8	93.5	82.3	73.7	66.8	56.5	49.1	32.7

1.80 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	85.8	79.7	66.8	58.0	51.5	36.0	28.1	23.2	19.8	17.4	15.5	14.0	11.9	10.3	6.8
12V 2 OPzS 100	167.1	153.4	125.6	107.1	93.6	63.2	48.3	39.3	33.4	29.0	25.8	23.2	19.4	16.8	11.0
12V 3 OPzS 150	238.6	220.0	181.1	155.1	136.0	92.2	70.5	57.5	48.7	42.4	37.6	33.9	28.4	24.5	16.0
6V 4 OPzS 200	314.2	288.7	237.3	203.4	178.9	123.4	95.8	79.1	67.7	59.4	53.0	48.0	40.5	35.1	23.3
6V 5 OPzS 250	378.7	351.3	293.3	254.5	225.9	159.0	124.8	103.7	89.1	78.4	70.2	63.7	53.9	46.9	31.3
6V 6 OPzS 300	430.0	398.5	331.9	287.1	254.1	177.3	138.3	114.3	97.9	85.9	76.8	69.5	58.6	50.8	33.7

1.75 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	98.1	90.5	74.6	63.8	55.9	37.8	29.1	23.8	20.3	17.8	15.9	14.3	12.1	10.5	7.0
12V 2 OPzS 100	191.2	174.9	140.8	118.3	102.2	66.9	50.5	40.8	34.5	30.0	26.5	23.9	20.0	17.2	11.2
12V 3 OPzS 150	274.2	251.6	204.1	172.3	149.3	98.1	74.0	59.8	50.5	43.9	38.8	34.9	29.2	25.1	16.4
6V 4 OPzS 200	359.7	329.1	265.6	224.2	194.9	130.7	100.3	82.2	70.0	61.3	54.6	49.4	41.6	36.0	23.9
6V 5 OPzS 250	435.4	400.9	329.7	281.8	247.1	169.0	130.8	107.8	92.2	80.9	72.3	65.5	55.3	48.1	32.0
6V 6 OPzS 300	495.7	456.8	374.9	319.7	279.8	189.7	145.8	119.6	101.9	89.1	79.4	71.8	60.4	52.3	34.6

1.70 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	108.7	99.6	80.4	67.6	58.4	38.6	29.5	24.2	20.6	18.0	16.0	14.5	12.2	10.6	7.0
12V 2 OPzS 100	212.3	192.9	152.2	125.8	107.2	68.6	51.4	41.5	35.0	30.4	26.9	24.2	20.2	17.4	11.4
12V 3 OPzS 150	305.4	278.6	221.9	184.2	157.4	100.9	75.5	60.9	51.4	44.5	39.4	35.4	29.6	25.5	16.6
6V 4 OPzS 200	399.9	363.1	286.8	238.3	204.6	134.2	102.3	83.6	71.2	62.2	55.4	50.1	42.1	36.5	24.2
6V 5 OPzS 250	484.8	443.7	357.4	300.8	260.5	173.7	133.4	109.7	93.7	82.2	73.4	66.4	56.1	48.7	32.4
6V 6 OPzS 300	553.6	507.3	408.6	343.1	296.5	195.7	149.2	121.9	103.7	90.6	80.7	72.9	61.3	53.1	35.1

1.65 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	117.6	106.9	84.4	69.6	59.6	39.0	29.8	24.4	20.7	18.1	16.2	14.6	12.3	10.7	7.1
12V 2 OPzS 100	230.3	207.6	160.0	129.7	109.5	69.4	52.0	41.9	35.3	30.7	27.2	24.4	20.4	17.6	11.5
12V 3 OPzS 150	331.9	300.9	234.4	191.0	161.4	102.2	76.4	61.5	51.8	45.0	39.8	35.8	29.8	25.7	16.8
6V 4 OPzS 200	434.5	391.1	301.5	246.1	209.3	135.9	103.3	84.4	71.8	62.8	55.9	50.5	42.5	36.8	24.4
6V 5 OPzS 250	527.7	479.5	377.4	312.2	267.4	176.1	134.9	110.7	94.6	82.9	74.0	67.0	56.5	49.1	32.7
6V 6 OPzS 300	604.6	549.9	433.4	357.7	305.4	198.7	151.0	123.3	104.8	91.5	81.5	73.6	61.9	53.6	35.4

1.60 V/Z - Discharge data in Watts at 25 °C

Type designation	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	10 h	12 h	20 h
OPzS block batteries															
12V 1 OPzS 50	124.9	112.6	86.5	70.6	60.2	39.3	30.0	24.5	20.9	18.2	16.2	14.7	12.4	10.7	7.1
12V 2 OPzS 100	245.0	218.8	164.2	131.6	110.7	69.9	52.3	42.2	35.6	30.9	27.3	24.6	20.5	17.7	11.5
12V 3 OPzS 150	354.6	318.5	241.7	194.2	163.3	103.0	76.9	61.9	52.2	45.2	40.0	36.0	30.0	25.9	16.9
6V 4 OPzS 200	463.3	412.7	309.9	250.1	211.8	136.9	104.1	85.0	72.3	63.2	56.2	50.8	42.8	37.0	24.5
6V 5 OPzS 250	563.9	507.8	389.9	317.8	270.8	177.5	135.8	111.5	95.2	83.4	74.4	67.4	56.9	49.4	32.9
6V 6 OPzS 300	647.9	584.5	449.4	365.1	309.8	200.4	152.2	124.1	105.5	92.1	82.0	74.0	62.2	53.9	35.6



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