

# PowerSafe<sup>®</sup> TS

**Discharge data  
Batteries for renewable energy  
Applications – Vented technology**

**Tableaux de performances pour  
Batteries énergies Renouvelables  
technologie Plomb ouvert**

**Elektrische Leistung  
Batterien für erneuerbare Energien  
Sources - Vented Technologie**

**Tablas tecnicas - Baterias para  
las energias renovables  
Tecnologia plomo abierto**

## Performance Data

**Tableaux des Performances  
Entladedaten  
Datos de descarga**



**End voltage/cell**

1.85 V

Tension d'arrêt par élément  
Entladeschlußspannung/Zelle  
Tensión final por elemento

Temperature: 25°C

discharge currents / courants de décharge / Entladestrom / Corriente de descarga (Amp)										
Type	50h	70h	100h	120h	150h	200h	240h	300h	400h	Type
TLS 4	5.52	4.08	2.95	2.50	2.03	1.55	1.31	1.06	0.80	TLS 4
TLS 5	6.76	4.99	3.61	3.06	2.48	1.90	1.60	1.29	0.99	TLS 5
TLS 6	8.11	5.99	4.33	3.67	2.98	2.28	1.92	1.55	1.18	TLS 6
TVS 4	8.46	6.25	4.52	3.83	3.11	2.38	2.00	1.62	1.23	TVS 4
TVS 5	9.72	7.18	5.19	4.40	3.57	2.73	2.30	1.86	1.42	TVS 5
TVS 6	11.74	8.68	6.27	5.31	4.32	3.30	2.77	2.25	1.71	TVS 6
TVS 7	13.68	10.11	7.31	6.19	5.03	3.85	3.23	2.62	1.99	TVS 7
TYS 5	14.79	10.93	7.90	6.69	5.44	4.16	3.50	2.83	2.15	TYS 5
TYS 6	16.85	12.45	9.00	7.62	6.20	4.74	3.98	3.23	2.45	TYS 6
TYS 7	20.61	15.23	11.01	9.32	7.58	5.80	4.87	3.95	3.00	TYS 7
TYS 8	22.46	16.60	12.00	10.16	8.26	6.32	5.31	4.30	3.27	TYS 8
TYS 9	26.09	19.28	13.94	11.80	9.59	7.34	6.17	5.00	3.80	TYS 9
TYS 10	28.08	20.75	15.00	12.70	10.33	7.90	6.64	5.38	4.09	TYS 10
TYS 11	31.55	23.32	16.85	14.27	11.60	8.87	7.46	6.04	4.60	TYS 11
TYS 12	33.67	24.89	17.99	15.23	12.38	9.47	7.96	6.45	4.90	TYS 12
TZS 11	39.12	28.92	20.90	17.70	14.39	11.00	9.25	7.49	5.70	TZS 11
TZS 12	43.06	31.82	23.00	19.48	15.83	12.11	10.18	8.24	6.27	TZS 12
TZS 13	48.67	35.97	26.00	22.02	17.90	13.69	11.51	9.32	7.09	TZS 13
TZS 14	51.08	37.75	27.29	23.11	18.78	14.36	12.07	9.78	7.44	TZS 14
TZS 15	53.91	39.85	28.80	24.39	19.82	15.16	12.74	10.32	7.85	TZS 15
TZS 16	56.16	41.51	30.00	25.41	20.65	15.79	13.28	10.75	8.18	TZS 16
TZS 17	60.98	45.07	32.58	27.59	22.42	17.15	14.42	11.68	8.88	TZS 17
TZS 18	64.16	47.42	34.27	29.02	23.59	18.04	15.17	12.28	9.35	TZS 18
TZS 20	70.25	51.92	37.53	31.78	25.83	19.76	16.61	13.45	10.23	TZS 20
TZS 22	77.57	57.33	41.44	35.09	28.53	21.81	18.34	14.85	11.30	TZS 22
TZS 24	84.33	62.33	45.05	38.15	31.01	23.72	19.93	16.15	12.29	TZS 24

**End voltage/cell**

1.90 V

Tension d'arrêt par élément  
Entladeschlußspannung/Zelle  
Tensión final por elemento

Temperature: 25°C

discharge currents / courants de décharge / Entladestrom / Corriente de descarga (Amp)										
Type	50h	70h	100h	120h	150h	200h	240h	300h	400h	Type
TLS 4	4.85	3.62	2.64	2.24	1.84	1.42	1.20	0.97	0.74	TLS 4
TLS 5	5.93	4.43	3.23	2.74	2.25	1.73	1.46	1.19	0.90	TLS 5
TLS 6	7.12	5.31	3.87	3.29	2.70	2.08	1.76	1.42	1.08	TLS 6
TVS 4	7.53	5.58	4.04	3.42	2.80	2.16	1.83	1.48	1.13	TVS 4
TVS 5	8.71	6.45	4.67	3.96	3.24	2.50	2.11	1.71	1.31	TVS 5
TVS 6	10.51	7.78	5.64	4.78	3.91	3.01	2.55	2.07	1.58	TVS 6
TVS 7	12.27	9.08	6.58	5.57	4.56	3.52	2.98	2.41	1.84	TVS 7
TYS 5	13.18	9.76	7.07	5.99	4.90	3.78	3.20	2.59	1.98	TYS 5
TYS 6	14.87	11.01	7.97	6.75	5.52	4.26	3.61	2.92	2.23	TYS 6
TYS 7	18.38	13.61	9.86	8.35	6.83	5.27	4.46	3.61	2.75	TYS 7
TYS 8	19.83	14.68	10.64	9.01	7.37	5.69	4.81	3.90	2.97	TYS 8
TYS 9	23.23	17.20	12.46	10.55	8.63	6.66	5.64	4.56	3.48	TYS 9
TYS 10	24.80	18.36	13.30	11.26	9.21	7.11	6.02	4.87	3.71	TYS 10
TYS 11	28.05	20.77	15.04	12.74	10.42	8.04	6.80	5.51	4.20	TYS 11
TYS 12	29.71	21.99	15.93	13.49	11.04	8.52	7.21	5.84	4.45	TYS 12
TZS 11	34.86	25.81	18.70	15.84	12.95	10.00	8.46	6.85	5.22	TZS 11
TZS 12	37.75	27.95	20.25	17.15	14.03	10.83	9.16	7.42	5.66	TZS 12
TZS 13	43.05	31.88	23.09	19.56	15.99	12.35	10.44	8.46	6.45	TZS 13
TZS 14	45.42	33.62	24.36	20.63	16.87	13.02	11.02	8.92	6.80	TZS 14
TZS 15	47.96	35.51	25.72	21.79	17.82	13.75	11.64	9.42	7.19	TZS 15
TZS 16	50.21	37.17	26.93	22.81	18.65	14.40	12.18	9.86	7.52	TZS 16
TZS 17	54.59	40.42	29.28	24.80	20.28	15.65	13.24	10.73	8.18	TZS 17
TZS 18	57.09	42.27	30.62	25.93	21.21	16.37	13.85	11.22	8.55	TZS 18
TZS 20	62.57	46.32	33.55	28.42	23.24	17.94	15.18	12.29	9.37	TZS 20
TZS 22	68.88	50.99	36.94	31.29	25.59	19.75	16.71	13.53	10.32	TZS 22
TZS 24	75.53	55.92	40.51	34.31	28.06	21.66	18.32	14.84	11.32	TZS 24

**End voltage/cell**

1.92 V

Tension d'arrêt par élément  
Entladeschlussspannung/Zelle  
Tensión final por elemento

Temperature: 25°C

discharge currents / courants de décharge / Entladestrom / Corriente de descarga (Amp)										
Type	50h	70h	100h	120h	150h	200h	240h	300h	400h	Type
TLS 4	4.54	3.36	2.45	2.08	1.70	1.31	1.10	0.90	0.69	TLS 4
TLS 5	5.56	4.11	3.00	2.54	2.08	1.60	1.35	1.10	0.84	TLS 5
TLS 6	6.67	4.94	3.59	3.05	2.49	1.92	1.62	1.32	1.01	TLS 6
TVS 4	6.95	5.13	3.74	3.18	2.60	2.00	1.69	1.37	1.05	TVS 4
TVS 5	8.06	5.96	4.34	3.69	3.02	2.32	1.96	1.59	1.22	TVS 5
TVS 6	9.73	7.19	5.24	4.45	3.64	2.80	2.36	1.92	1.47	TVS 6
TVS 7	11.35	8.39	6.12	5.19	4.24	3.26	2.76	2.24	1.71	TVS 7
TYS 5	12.17	8.99	6.56	5.57	4.55	3.50	2.96	2.40	1.84	TYS 5
TYS 6	13.67	10.10	7.36	6.25	5.11	3.93	3.32	2.70	2.06	TYS 6
TYS 7	16.98	12.54	9.15	7.76	6.35	4.88	4.13	3.35	2.56	TYS 7
TYS 8	18.24	13.47	9.82	8.34	6.82	5.24	4.43	3.60	2.75	TYS 8
TYS 9	21.44	15.84	11.55	9.80	8.02	6.16	5.21	4.23	3.24	TYS 9
TYS 10	22.80	16.85	12.29	10.43	8.53	6.55	5.54	4.50	3.44	TYS 10
TYS 11	25.87	19.11	13.94	11.83	9.67	7.44	6.29	5.11	3.91	TYS 11
TYS 12	27.32	20.18	14.72	12.49	10.21	7.85	6.64	5.39	4.13	TYS 12
TZS 11	32.18	23.78	17.34	14.72	12.03	9.25	7.82	6.35	4.86	TZS 11
TZS 12	34.62	25.58	18.65	15.83	12.95	9.95	8.41	6.84	5.23	TZS 12
TZS 13	39.63	29.28	21.35	18.12	14.82	11.39	9.63	7.82	5.99	TZS 13
TZS 14	41.89	30.95	22.57	19.16	15.66	12.04	10.18	8.27	6.33	TZS 14
TZS 15	44.25	32.69	23.84	20.24	16.54	12.72	10.75	8.74	6.68	TZS 15
TZS 16	46.41	34.29	25.00	21.22	17.35	13.34	11.28	9.16	7.01	TZS 16
TZS 17	50.49	37.30	27.20	23.09	18.88	14.51	12.27	9.97	7.63	TZS 17
TZS 18	52.68	38.92	28.38	24.09	19.70	15.14	12.80	10.40	7.96	TZS 18
TZS 20	57.74	42.66	31.11	26.41	21.59	16.60	14.03	11.40	8.72	TZS 20
TZS 22	63.49	46.91	34.20	29.04	23.74	18.25	15.43	12.54	9.59	TZS 22
TZS 24	69.87	51.62	37.64	31.95	26.12	20.08	16.97	13.79	10.55	TZS 24

**End voltage/cell**

1.95 V

Tension d'arrêt par élément  
Entladeschlussspannung/Zelle  
Tensión final por elemento

Temperature: 25°C

discharge currents / courants de décharge / Entladestrom / Corriente de descarga (Amp)										
Type	50h	70h	100h	120h	150h	200h	240h	300h	400h	Type
TLS 4	3.85	2.86	2.08	1.77	1.47	1.15	0.98	0.80	0.61	TLS 4
TLS 5	4.71	3.49	2.55	2.17	1.80	1.40	1.20	0.98	0.75	TLS 5
TLS 6	5.65	4.19	3.05	2.60	2.16	1.69	1.44	1.17	0.90	TLS 6
TVS 4	5.88	4.34	3.17	2.71	2.24	1.75	1.49	1.22	0.93	TVS 4
TVS 5	6.85	5.06	3.70	3.16	2.61	2.04	1.74	1.42	1.09	TVS 5
TVS 6	8.26	6.10	4.46	3.81	3.15	2.46	2.10	1.72	1.31	TVS 6
TVS 7	9.64	7.12	5.20	4.44	3.67	2.87	2.45	2.00	1.53	TVS 7
TYS 5	10.31	7.61	5.56	4.75	3.93	3.07	2.62	2.14	1.64	TYS 5
TYS 6	11.50	8.49	6.20	5.30	4.38	3.43	2.92	2.39	1.83	TYS 6
TYS 7	14.39	10.62	7.76	6.63	5.48	4.29	3.65	2.99	2.29	TYS 7
TYS 8	15.35	11.34	8.28	7.07	5.85	4.57	3.90	3.19	2.44	TYS 8
TYS 9	18.14	13.40	9.79	8.36	6.91	5.41	4.60	3.77	2.88	TYS 9
TYS 10	19.20	14.18	10.36	8.85	7.32	5.72	4.87	3.99	3.05	TYS 10
TYS 11	21.88	16.15	11.80	10.08	8.33	6.52	5.55	4.55	3.48	TYS 11
TYS 12	22.99	16.97	12.40	10.59	8.76	6.85	5.83	4.78	3.65	TYS 12
TZS 11	27.25	20.12	14.70	12.56	10.38	8.12	6.92	5.66	4.33	TZS 11
TZS 12	29.02	21.43	15.65	13.37	11.06	8.65	7.37	6.03	4.61	TZS 12
TZS 13	33.40	24.66	18.02	15.39	12.73	9.95	8.48	6.94	5.31	TZS 13
TZS 14	35.42	26.15	19.10	16.32	13.49	10.55	8.99	7.36	5.63	TZS 14
TZS 15	37.43	27.64	20.19	17.25	14.26	11.15	9.50	7.78	5.95	TZS 15
TZS 16	39.38	29.07	21.24	18.14	15.00	11.73	9.99	8.18	6.26	TZS 16
TZS 17	42.87	31.65	23.12	19.76	16.33	12.77	10.88	8.91	6.81	TZS 17
TZS 18	44.57	32.91	24.04	20.54	16.98	13.28	11.31	9.26	7.08	TZS 18
TZS 20	48.88	36.09	26.36	22.52	18.62	14.56	12.40	10.16	7.77	TZS 20
TZS 22	53.64	39.61	28.93	24.72	20.44	15.98	13.61	11.15	8.52	TZS 22
TZS 24	59.34	43.81	32.01	27.34	22.61	17.68	15.06	12.33	9.43	TZS 24

**End voltage/cell**

2.00 V

Tension d'arrêt par élément  
Entladeschlusspannung/Zelle  
Tensión final por elemento

Temperature: 25°C

discharge currents / courants de décharge / Entladestrom / Corriente de descarga (Amp)										
Type	50h	70h	100h	120h	150h	200h	240h	300h	400h	Type
<b>TLS 4</b>	2.49	1.88	1.40	1.21	1.01	0.80	0.68	0.55	0.42	<b>TLS 4</b>
<b>TLS 5</b>	3.05	2.29	1.71	1.48	1.24	0.98	0.83	0.68	0.52	<b>TLS 5</b>
<b>TLS 6</b>	3.66	2.75	2.06	1.77	1.48	1.17	1.00	0.81	0.62	<b>TLS 6</b>
<b>TVS 4</b>	3.80	2.88	2.14	1.84	1.54	1.21	1.04	0.85	0.64	<b>TVS 4</b>
<b>TVS 5</b>	4.47	3.38	2.51	2.17	1.80	1.42	1.22	1.00	0.76	<b>TVS 5</b>
<b>TVS 6</b>	5.38	4.07	3.02	2.61	2.17	1.71	1.47	1.20	0.91	<b>TVS 6</b>
<b>TVS 7</b>	6.28	4.75	3.53	3.04	2.53	2.00	1.71	1.40	1.06	<b>TVS 7</b>
<b>TYS 5</b>	6.68	5.05	3.75	3.24	2.70	2.13	1.82	1.49	1.13	<b>TYS 5</b>
<b>TYS 6</b>	7.37	5.58	4.14	3.57	2.98	2.35	2.01	1.64	1.25	<b>TYS 6</b>
<b>TYS 7</b>	9.33	7.06	5.24	4.52	3.77	2.97	2.55	2.08	1.58	<b>TYS 7</b>
<b>TYS 8</b>	9.85	7.45	5.53	4.77	3.97	3.14	2.69	2.20	1.67	<b>TYS 8</b>
<b>TYS 9</b>	11.74	8.88	6.60	5.69	4.74	3.74	3.20	2.62	1.99	<b>TYS 9</b>
<b>TYS 10</b>	12.32	9.32	6.92	5.97	4.97	3.92	3.36	2.75	2.08	<b>TYS 10</b>
<b>TYS 11</b>	14.14	10.70	7.94	6.85	5.71	4.50	3.86	3.15	2.39	<b>TYS 11</b>
<b>TYS 12</b>	14.74	11.15	8.28	7.14	5.95	4.69	4.02	3.29	2.49	<b>TYS 12</b>
<b>TZS 11</b>	17.65	13.36	9.92	8.56	7.13	5.62	4.82	3.94	2.99	<b>TZS 11</b>
<b>TZS 12</b>	18.48	13.98	10.38	8.96	7.46	5.89	5.04	4.12	3.13	<b>TZS 12</b>
<b>TZS 13</b>	21.47	16.25	12.06	10.41	8.67	6.84	5.86	4.79	3.63	<b>TZS 13</b>
<b>TZS 14</b>	22.89	17.32	12.86	11.10	9.24	7.29	6.25	5.11	3.87	<b>TZS 14</b>
<b>TZS 15</b>	24.20	18.31	13.60	11.73	9.77	7.71	6.61	5.40	4.09	<b>TZS 15</b>
<b>TZS 16</b>	25.59	19.36	14.38	12.41	10.33	8.15	6.98	5.71	4.33	<b>TZS 16</b>
<b>TZS 17</b>	27.90	21.11	15.68	13.53	11.26	8.89	7.62	6.22	4.72	<b>TZS 17</b>
<b>TZS 18</b>	28.83	21.81	16.20	13.98	11.64	9.18	7.87	6.43	4.88	<b>TZS 18</b>
<b>TZS 20</b>	31.64	23.94	17.78	15.34	12.77	10.08	8.64	7.06	5.35	<b>TZS 20</b>
<b>TZS 22</b>	34.62	26.19	19.45	16.78	13.97	11.03	9.45	7.72	5.86	<b>TZS 22</b>
<b>TZS 24</b>	38.64	29.23	21.71	18.73	15.59	12.31	10.55	8.62	6.54	<b>TZS 24</b>

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easy to do business with, while supplying  
the highest quality products and services  
on time and in the most cost-effective manner.”**



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