

# Sonnenschein A500

## Technical data sheet

### Technical features:

- Nominal capacity 1.20-200 Ah C<sub>20</sub>
- Excellent energy storage capacity combined with high reliability
- Grid plate construction with high quality lead calcium alloy, specially designed for enhanced energy density
- Very low gassing due to the internal gas recombination
- Superior cycling performance
- Shelf life up to 2 years at 20 °C without recharge due to the very low self discharge rate

### Standards & certifications:

- EUROBAT 2015 classification: 10-12 years – long life
- Designed in accordance with IEC 60896-21/22
- Trouble-free transport of operational blocks, no restrictions for rail, road, sea, and air transportation (IATA, DGR, clause A67)
- Manufactured in Europe in our ISO 9001 certified production facilities
- Approval: UL (Underwriters Laboratories, USA), VdS, DNV GL (Germanischer Lloyd), DIN-GOST TÜV (Russia)



Design life  
10-12 years –  
long life



Nominal capacity  
1.20-200 Ah C<sub>20</sub>



Block battery



Grid plate



Recyclable



Valve regulated  
lead-acid  
batteries



Proof against  
deep discharge

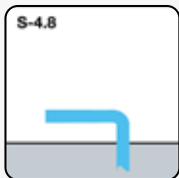


Maintenance free  
(no topping up)

### Container, terminal and torque

1.2-16 Ah = ABS

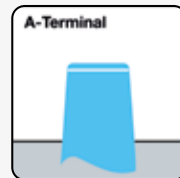
25-200 Ah = Polypropylene (PP)



5 Nm



6 Nm



8 Nm

# Sonnenschein A500

## Technical data sheet

### Technical characteristics and data

Type	Part number	Nom. voltage	Nominal capacity	Length	Width	Height	Height	Weight**	Internal resistance	Short circuit current	Terminal
		V	C <sub>20</sub> 1.75 Vpc 20 °C	(l)	(w)	(h1)	(h2)	approx. kg	mOhm	A***	
			Ah	max. mm	max. mm	max. mm	max. mm				
A502/10 S	NGA5020010HS0SA	2	10.0	52.9	50.5	94.5	98.4	0.70	11.2	189	S-4.8
A504/3.5 S	NGA50403D5HS0SA	4	3.50	90.5	34.5	60.5	64.4	0.50	48.0	88.0	S-4.8
A506/1.2 S	NGA50601D2HS0SA	6	1.20	97.3	25.5	51.0	55.6	0.33	165	38.0	S-4.8
A506/3.5 S	NGA50603D5HS0SA	6	3.50	135	34.8	60.5	64.4	0.70	71.0	88.0	S-4.8
A506/6.5 S	NGA50606D5HS0SA	6	6.50	152	34.5	94.5	98.4	1.30	48.0	131	S-4.8
A506/10 S*	NGA5060010HS0SA	6	10.0	152	50.5	94.5	98.4	2.10	34.0	189	S-4.8
A508/3.5 S	NGA50803D5HS0SA	8	3.50	179	34.1	60.5	64.4	1.00	95.0	88.0	S-4.8
A512/1.2 S*	NGA51201D2HS0SA	12	1.20	97.5	49.5	51.0	54.9	0.65	330	38.0	S-4.8
A512/2 S*	NGA5120002HS0SA	12	2.00	179	34.1	60.5	64.4	1.00	172	73.0	S-4.8
A512/3.5 S*	NGA51203D5HS0SA	12	3.50	135	66.8	60.5	64.4	1.50	142	88.0	S-4.8
A512/6.5 S*	NGA51206D5HS0SA	12	6.50	152	65.5	94.5	98.4	2.60	95.0	131	S-4.8
A512/10 S*	NGA5120010HS0SA	12	10.0	152	98.0	94.5	98.4	4.00	66.0	189	S-4.8
A512/16 G5*	NGA5120016HS0BA	12	16.0	181	76.0	167	167	6.00	37.8	340	G-M5
A512/25 G5*	NGA5120025HS0BA	12	25.0	167	176	126	126	9.60	28.0	463	G-M5
A512/30 G6*	NGA5120030HS0BA	12	30.0	197	132	161	180	11.1	21.8	586	G-M6
A512/40 A*	NGA5120040HS0CA	12	40.0	210	175	175	175	14.2	16.5	770	A-Terminal
A512/40 G6*	NGA5120040HS0BA	12	40.0	210	175	175	175	14.2	16.5	770	G-M6
A512/55 A	NGA5120055HS0CA	12	55.0	261	135	208	230	18.1	10.9	1147	A-Terminal
A512/60 A	NGA5120060HS0CA	12	60.0	278	175	190	190	20.3	14.0	936	A-Terminal
A512/60 G6	NGA5120060HS0BA	12	60.0	278	175	190	190	20.3	14.0	936	G-M6
A512/65 A	NGA5120065HS0CA	12	65.0	353	175	190	190	23.0	8.30	1471	A-Terminal
A512/65 G6	NGA5120065HS0BA	12	65.0	353	175	190	190	23.0	8.30	1471	G-M6
A512/85 A*	NGA5120085HS0CA	12	85.0	330	171	213	236	29.2	7.40	1693	A-Terminal
A512/115 A	NGA5120115HS0CA	12	115	286	269	208	230	37.5	5.50	2275	A-Terminal
A512/120 A	NGA5120120HS0CA	12	120	513	189	195	219	39.0	5.10	2475	A-Terminal
A512/140 A	NGA5120140HS0CA	12	140	513	223	195	219	47.0	4.10	3132	A-Terminal
A512/200 A	NGA5120200HS0CA	12	200	518	274	216	238	63.5	3.80	3370	A-Terminal

\* VDS approval

\*\* Actual weight may differ by ±5%

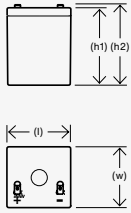
\*\*\* max. load with suitable matching contacts

# Sonnenschein A500

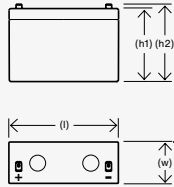
## Technical data sheet

### Drawings

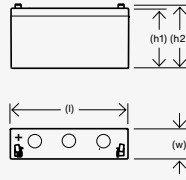
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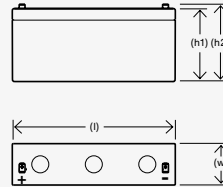
A504/3.5 S



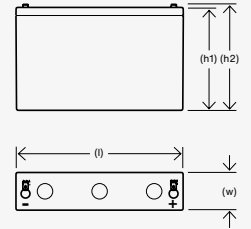
A506/1.2 S



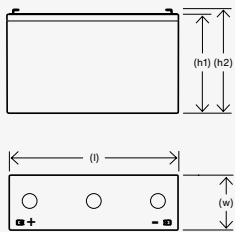
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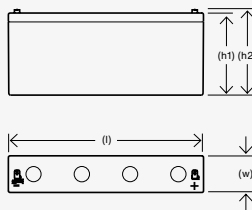
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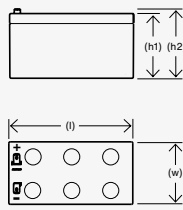
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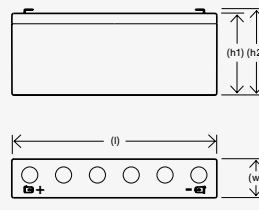
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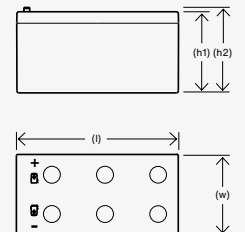
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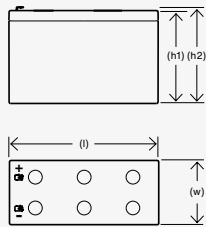
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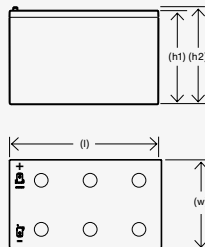
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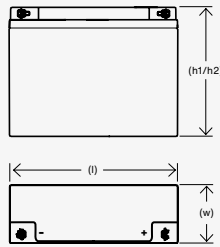
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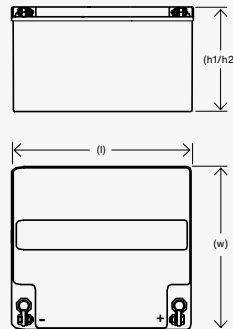
A512/10 S



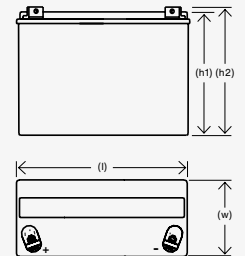
A512/16 G5



A512/25 G5



A512/30 G6



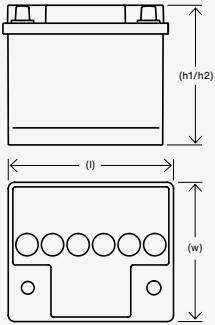
Not to scale!

# Sonnenschein A500

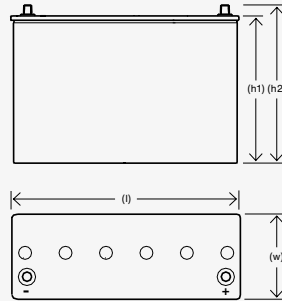
## Technical data sheet

### Drawings

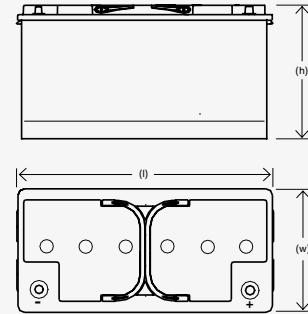
**A512/40 A**  
(A512/40 G6)\*



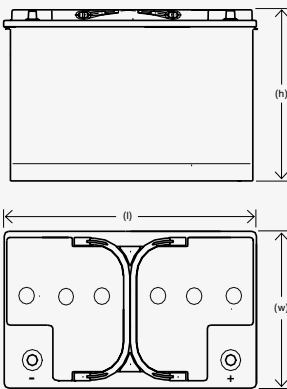
**A512/55 A**



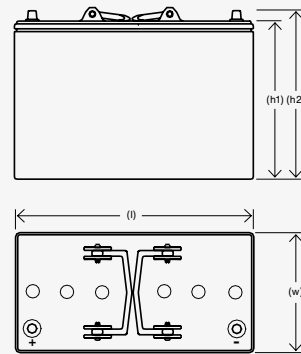
**A512/60 A**  
(A512/60 G6)\*



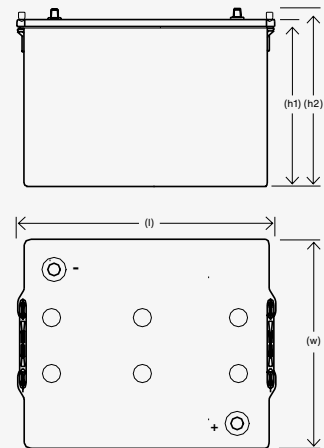
**A512/65 A**  
(A512/65 G6)\*



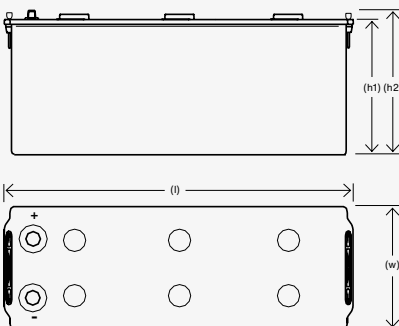
**A512/85 A**



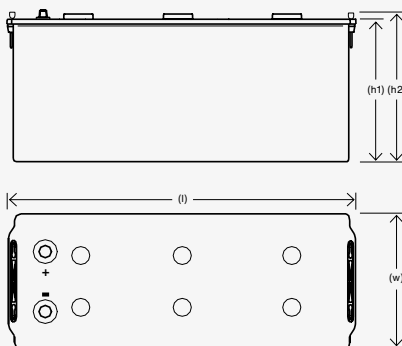
**A512/115 A**



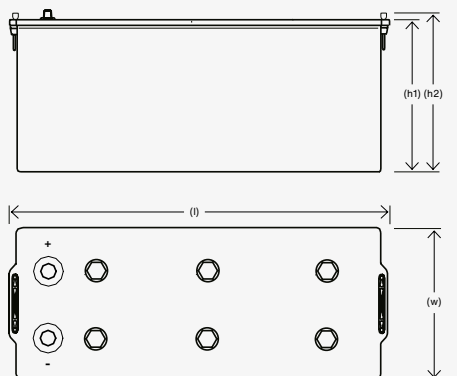
**A512/120 A**



**A512/140 A**



**A512/200 A**



Not to scale!

\* Dimensions are also valid for other terminals.

# Sonnenschein A500

## Constant current discharge

Type	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
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### 1.85 Vpc – Discharge in A at 20 °C

A502/10 S	NGA5020010HS0SA	30.0	22.0	18.0	15.0	11.2	6.40	3.90	2.80	1.80	1.18	0.96
A504/3.5 S	NGA50403D5HS0SA	9.50	6.70	5.50	4.50	3.40	2.10	1.40	0.95	0.60	0.39	0.32
A506/1.2 S	NGA50601D2HS0SA	3.52	2.44	1.92	1.58	1.20	0.75	0.49	0.34	0.21	0.13	0.10
A506/3.5 S	NGA50603D5HS0SA	9.50	6.70	5.50	4.50	3.40	2.10	1.40	0.95	0.60	0.39	0.32
A506/6.5 S	NGA50606D5HS0SA	17.0	12.0	10.0	8.10	6.10	3.60	2.10	1.50	1.10	0.73	0.61
A506/10 S	NGA5060010HS0SA	30.0	22.0	18.0	15.0	11.2	6.40	3.90	2.80	1.80	1.18	0.96
A508/3.5 S	NGA50803D5HS0SA	9.50	6.70	5.50	4.50	3.40	2.10	1.40	0.95	0.60	0.39	0.32
A512/1.2 S	NGA51201D2HS0SA	3.52	2.44	1.92	1.58	1.20	0.75	0.49	0.34	0.21	0.13	0.10
A512/2 S	NGA5120002HS0SA	5.40	3.70	3.20	2.60	2.00	1.50	0.82	0.56	0.34	0.22	0.18
A512/3.5 S	NGA51203D5HS0SA	9.50	6.70	5.50	4.50	3.40	2.10	1.40	0.95	0.60	0.39	0.32
A512/6.5 S	NGA51206D5HS0SA	17.0	12.0	10.0	8.10	6.10	3.60	2.10	1.50	1.10	0.73	0.61
A512/10 S	NGA5120010HS0SA	30.0	22.0	18.0	15.0	11.2	6.40	3.90	2.80	1.80	1.18	0.96
A512/16 G5	NGA5120016HS0BA	40.0	29.0	24.0	20.0	15.0	9.80	6.21	4.34	2.70	1.80	1.40
A512/25 G5	NGA5120025HS0BA	41.1	36.2	29.0	24.8	20.5	13.1	8.00	5.80	3.90	2.50	2.10
A512/30 G6	NGA5120030HS0BA	60.7	49.3	44.0	36.5	28.0	18.0	10.6	7.60	4.90	3.20	2.60
A512/40 A	NGA5120040HS0CA*	75.0	63.0	50.0	42.0	34.0	22.0	12.0	8.80	6.40	4.30	3.50
A512/55 A	NGA5120055HS0CA	99.2	83.1	70.1	59.1	46.4	32.7	18.9	13.6	9.00	6.00	4.90
A512/60 A	NGA5120060HS0CA*	122	100	82.4	69.2	54.2	33.8	21.5	15.3	9.90	6.60	5.40
A512/65 A	NGA5120065HS0CA*	95.8	83.1	73.9	65.8	56.4	35.8	23.0	16.6	11.0	7.40	6.10
A512/85 A	NGA5120085HS0CA	168	141	119	100	78.0	53.0	30.0	22.0	14.2	9.40	7.70
A512/115 A	NGA5120115HS0CA	210	179	152	128	100	60.0	36.0	26.0	18.0	12.0	10.1
A512/120 A	NGA5120120HS0CA	257	201	162	135	104	65.5	39.3	27.8	18.1	11.9	9.80
A512/140 A	NGA5120140HS0CA	275	220	178	151	118	75.1	45.7	32.5	21.3	14.0	11.5
A512/200 A	NGA5120200HS0CA	329	274	226	196	160	104	65.1	46.6	31.0	20.4	16.7

### 1.80 Vpc – Discharge in A at 20 °C

A502/10 S	NGA5020010HS0SA	33.0	24.0	19.0	16.0	11.9	6.80	4.10	2.90	1.90	1.23	1.00
A504/3.5 S	NGA50403D5HS0SA	10.6	7.40	6.00	4.90	3.70	2.20	1.40	0.98	0.62	0.40	0.33
A506/1.2 S	NGA50601D2HS0SA	3.92	2.67	2.07	1.69	1.26	0.77	0.51	0.35	0.21	0.13	0.10
A506/3.5 S	NGA50603D5HS0SA	10.6	7.40	6.00	4.90	3.70	2.20	1.40	0.98	0.62	0.40	0.33
A506/6.5 S	NGA50606D5HS0SA	19.0	13.0	11.0	8.80	6.50	3.80	2.20	1.60	1.10	0.75	0.63
A506/10 S	NGA5060010HS0SA	33.0	24.0	19.0	16.0	11.9	6.80	4.10	2.90	1.90	1.23	1.00
A508/3.5 S	NGA50803D5HS0SA	10.6	7.40	6.00	4.90	3.70	2.20	1.40	0.98	0.62	0.40	0.33
A512/1.2 S	NGA51201D2HS0SA	3.92	2.67	2.07	1.69	1.26	0.77	0.51	0.35	0.21	0.13	0.10
A512/2 S	NGA5120002HS0SA	6.20	4.20	3.40	2.80	2.10	1.50	0.86	0.58	0.36	0.23	0.19
A512/3.5 S	NGA51203D5HS0SA	10.6	7.40	6.00	4.90	3.70	2.20	1.40	0.98	0.62	0.40	0.33
A512/6.5 S	NGA51206D5HS0SA	19.0	13.0	11.0	8.80	6.50	3.80	2.20	1.60	1.10	0.75	0.63
A512/10 S	NGA5120010HS0SA	33.0	24.0	19.0	16.0	11.9	6.80	4.10	2.90	1.90	1.23	1.00
A512/16 G5	NGA5120016HS0BA	47.0	33.0	27.0	22.0	16.0	10.2	6.43	4.40	2.80	1.80	1.50
A512/25 G5	NGA5120025HS0BA	46.1	38.8	32.1	27.0	21.3	13.8	8.30	6.00	4.00	2.60	2.20
A512/30 G6	NGA5120030HS0BA	75.5	54.8	47.2	39.9	30.0	19.1	11.2	7.90	5.10	3.30	2.70
A512/40 A	NGA5120040HS0CA*	86.0	69.0	57.0	47.0	36.0	23.0	13.0	9.20	6.70	4.40	3.60
A512/55 A	NGA5120055HS0CA	114	89.8	78.7	65.3	50.2	34.2	19.5	14.0	9.20	6.10	5.00
A512/60 A	NGA5120060HS0CA*	145	108	91.9	75.9	58.1	35.5	22.3	15.8	10.3	6.80	5.60
A512/65 A	NGA5120065HS0CA*	120	100	88.1	75.4	60.4	38.6	24.3	17.4	11.5	7.50	6.20
A512/85 A	NGA5120085HS0CA	193	154	135	112	85.0	56.0	32.0	23.0	14.7	9.80	8.00
A512/115 A	NGA5120115HS0CA	244	192	170	140	107	64.0	38.0	27.0	18.0	13.0	10.4
A512/120 A	NGA5120120HS0CA	293	221	178	147	112	69.5	40.9	28.9	18.6	12.3	10.2
A512/140 A	NGA5120140HS0CA	315	244	198	166	128	79.7	47.7	33.8	22.0	14.5	11.9
A512/200 A	NGA5120200HS0CA	381	313	258	222	176	110	68.1	48.5	32.0	21.1	17.3

\* Discharge data are also valid for other terminals/containers.

# Sonnenschein A500

## Constant current discharge

Type	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
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### 1.75 Vpc – Discharge in A at 20 °C

A502/10 S	NGA5020010HS0SA	35.0	26.0	20.0	17.0	12.3	6.90	4.20	3.00	1.90	1.25	1.02
A504/3.5 S	NGA50403D5HS0SA	11.3	7.90	6.20	5.10	3.80	2.30	1.40	0.99	0.62	0.41	0.34
A506/1.2 S	NGA50601D2HS0SA	4.12	2.82	2.15	1.74	1.30	0.78	0.51	0.35	0.22	0.13	0.10
A506/3.5 S	NGA50603D5HS0SA	11.3	7.90	6.20	5.10	3.80	2.30	1.40	0.99	0.62	0.41	0.34
A506/6.5 S	NGA50606D5HS0SA	20.0	14.0	11.0	9.20	6.80	3.90	2.30	1.60	1.10	0.76	0.63
A506/10 S	NGA5060010HS0SA	35.0	26.0	20.0	17.0	12.3	6.90	4.20	3.00	1.90	1.25	1.02
A508/3.5 S	NGA50803D5HS0SA	11.3	7.90	6.20	5.10	3.80	2.30	1.40	0.99	0.62	0.41	0.34
A512/1.2 S	NGA51201D2HS0SA	4.12	2.82	2.15	1.74	1.30	0.78	0.51	0.35	0.22	0.13	0.10
A512/2 S	NGA5120002HS0SA	6.80	4.60	3.50	2.90	2.20	1.50	0.87	0.59	0.36	0.24	0.19
A512/3.5 S	NGA51203D5HS0SA	11.3	7.90	6.20	5.10	3.80	2.30	1.40	0.99	0.62	0.41	0.34
A512/6.5 S	NGA51206D5HS0SA	20.0	14.0	11.0	9.20	6.80	3.90	2.30	1.60	1.10	0.76	0.63
A512/10 S	NGA5120010HS0SA	35.0	26.0	20.0	17.0	12.3	6.90	4.20	3.00	1.90	1.25	1.02
A512/16 G5	NGA5120016HS0BA	51.0	36.0	28.0	23.0	17.0	10.4	6.53	4.50	2.90	1.80	1.54
A512/25 G5	NGA5120025HS0BA	54.2	41.4	34.5	28.6	21.9	14.2	8.50	6.10	4.00	2.70	2.20
A512/30 G6	NGA5120030HS0BA	84.7	60.3	49.0	42.0	31.3	19.7	11.5	8.10	5.20	3.40	2.80
A512/40 A	NGA5120040HS0CA*	103	74.0	61.0	50.0	37.0	24.0	13.0	9.40	6.80	4.50	3.70
A512/55 A	NGA5120055HS0CA	139	99.0	84.3	69.5	52.5	35.0	19.9	14.2	9.30	6.20	5.10
A512/60 A	NGA5120060HS0CA*	168	118	98.3	80.4	60.5	36.4	22.7	16.1	10.4	6.90	5.60
A512/65 A	NGA5120065HS0CA*	140	111	95.7	81.9	63.8	40.0	24.9	17.8	11.7	7.60	6.30
A512/85 A	NGA5120085HS0CA	226	169	144	120	90.0	58.0	33.0	23.0	15.0	9.90	8.10
A512/115 A	NGA5120115HS0CA	282	204	179	148	112	66.0	39.0	28.0	19.0	13.0	10.5
A512/120 A	NGA5120120HS0CA	330	235	188	155	116	71.6	41.9	29.5	19.0	12.6	10.5
A512/140 A	NGA5120140HS0CA	357	264	211	176	133	82.3	48.9	34.5	22.3	14.8	12.2
A512/200 A	NGA5120200HS0CA	437	349	282	237	183	115	70.0	49.7	32.3	21.5	17.7

### 1.70 Vpc – Discharge in A at 20 °C

A502/10 S	NGA5020010HS0SA	37.0	27.0	20.0	17.0	12.6	7.00	4.20	3.00	1.90	1.25	1.02
A504/3.5 S	NGA50403D5HS0SA	12.1	8.30	6.30	5.20	3.90	2.30	1.40	1.00	0.63	0.41	0.34
A506/1.2 S	NGA50601D2HS0SA	4.32	2.91	2.19	1.77	1.31	0.79	0.52	0.35	0.22	0.13	0.10
A506/3.5 S	NGA50603D5HS0SA	12.1	8.30	6.30	5.20	3.90	2.30	1.40	1.00	0.63	0.41	0.34
A506/6.5 S	NGA50606D5HS0SA	21.0	15.0	12.0	9.50	6.90	3.90	2.30	1.60	1.10	0.76	0.63
A506/10 S	NGA5060010HS0SA	37.0	27.0	20.0	17.0	12.6	7.00	4.20	3.00	1.90	1.25	1.02
A508/3.5 S	NGA50803D5HS0SA	12.1	8.30	6.30	5.20	3.90	2.30	1.40	1.00	0.63	0.41	0.34
A512/1.2 S	NGA51201D2HS0SA	4.32	2.91	2.19	1.77	1.31	0.79	0.52	0.35	0.22	0.13	0.10
A512/2 S	NGA5120002HS0SA	7.40	4.80	3.60	3.00	2.20	1.50	0.88	0.60	0.37	0.24	0.19
A512/3.5 S	NGA51203D5HS0SA	12.1	8.30	6.30	5.20	3.90	2.30	1.40	1.00	0.63	0.41	0.34
A512/6.5 S	NGA51206D5HS0SA	21.0	15.0	12.0	9.50	6.90	3.90	2.30	1.60	1.10	0.76	0.63
A512/10 S	NGA5120010HS0SA	37.0	27.0	20.0	17.0	12.6	7.00	4.20	3.00	1.90	1.25	1.02
A512/16 G5	NGA5120016HS0BA	54.0	39.0	30.0	24.0	17.0	10.5	6.57	4.60	2.92	1.80	1.54
A512/25 G5	NGA5120025HS0BA	61.7	43.3	36.1	29.6	22.4	14.4	8.60	6.20	4.10	2.70	2.20
A512/30 G6	NGA5120030HS0BA	92.0	64.3	50.1	43.3	32.0	20.0	11.6	8.20	5.30	3.40	2.80
A512/40 A	NGA5120040HS0CA*	115	79.0	64.0	52.0	38.0	24.0	13.0	9.50	6.80	4.50	3.70
A512/55 A	NGA5120055HS0CA	151	106	86.8	72.0	53.9	35.5	20.1	14.3	9.30	6.20	5.10
A512/60 A	NGA5120060HS0CA*	178	125	101	82.6	61.6	36.9	22.9	16.2	10.4	6.90	5.60
A512/65 A	NGA5120065HS0CA*	158	121	104	86.2	65.9	40.6	25.1	17.9	11.7	7.60	6.30
A512/85 A	NGA5120085HS0CA	244	182	149	125	93.0	59.0	33.0	23.0	15.1	9.90	8.10
A512/115 A	NGA5120115HS0CA	310	215	183	153	114	67.0	39.0	28.0	19.0	13.0	10.5
A512/120 A	NGA5120120HS0CA	367	249	196	161	119	73.1	42.7	29.9	19.2	12.8	10.5
A512/140 A	NGA5120140HS0CA	397	282	222	183	137	84.1	49.9	35.1	22.6	15.0	12.2
A512/200 A	NGA5120200HS0CA	486	380	300	251	191	117	71.4	50.6	32.8	21.8	17.7

\* Discharge data are also valid for other terminals/containers.

# Sonnenschein A500

## Constant current discharge

Type	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
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### 1.65 Vpc – Discharge in A at 20 °C

A502/10 S	NGA5020010HS0SA	39.0	28.0	21.0	17.0	12.7	7.10	4.30	3.00	1.90	1.25	1.02
A504/3.5 S	NGA50403D5HS0SA	12.7	8.50	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A506/1.2 S	NGA50601D2HS0SA	4.52	2.96	2.22	1.79	1.32	0.80	0.52	0.36	0.22	0.13	0.10
A506/3.5 S	NGA50603D5HS0SA	12.7	8.50	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A506/6.5 S	NGA50606D5HS0SA	23.0	15.0	12.0	9.60	7.00	4.00	2.30	1.60	1.10	0.76	0.63
A506/10 S	NGA5060010HS0SA	39.0	28.0	21.0	17.0	12.7	7.10	4.30	3.00	1.90	1.25	1.02
A508/3.5 S	NGA50803D5HS0SA	12.7	8.50	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A512/1.2 S	NGA51201D2HS0SA	4.52	2.96	2.22	1.79	1.32	0.80	0.52	0.36	0.22	0.13	0.10
A512/2 S	NGA5120002HS0SA	7.80	4.90	3.70	3.00	2.20	1.50	0.88	0.60	0.37	0.24	0.19
A512/3.5 S	NGA51203D5HS0SA	12.7	8.50	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A512/6.5 S	NGA51206D5HS0SA	23.0	15.0	12.0	9.60	7.00	4.00	2.30	1.60	1.10	0.76	0.63
A512/10 S	NGA5120010HS0SA	39.0	28.0	21.0	17.0	12.7	7.10	4.30	3.00	1.90	1.25	1.02
A512/16 G5	NGA5120016HS0BA	58.0	41.0	30.0	24.0	18.0	10.6	6.61	4.60	2.92	1.80	1.54
A512/25 G5	NGA5120025HS0BA	67.5	45.4	37.1	30.2	22.7	14.4	8.60	6.20	4.10	2.70	2.20
A512/30 G6	NGA5120030HS0BA	98.9	67.0	51.1	44.0	32.4	20.1	11.7	8.20	5.30	3.40	2.80
A512/40 A	NGA5120040HS0CA*	121	82.0	66.0	53.0	39.0	24.0	13.0	9.50	6.80	4.50	3.70
A512/55 A	NGA5120055HS0CA	161	112	88.4	73.6	54.7	35.7	20.2	14.4	9.30	6.20	5.10
A512/60 A	NGA5120060HS0CA*	185	130	102	83.2	61.7	37.1	23.0	16.2	10.4	6.90	5.60
A512/65 A	NGA5120065HS0CA*	178	129	108	88.8	67.0	40.9	25.2	17.9	11.7	7.60	6.30
A512/85 A	NGA5120085HS0CA	259	192	152	128	94.0	59.0	33.0	24.0	15.1	9.90	8.10
A512/115 A	NGA5120115HS0CA	332	222	186	156	116	67.0	39.0	28.0	19.0	13.0	10.5
A512/120 A	NGA5120120HS0CA	387	260	201	165	122	74.0	43.1	30.1	19.2	12.8	10.5
A512/140 A	NGA5120140HS0CA	423	294	229	189	141	85.4	50.3	35.4	22.6	15.0	12.2
A512/200 A	NGA5120200HS0CA	531	395	313	262	198	120	72.1	51.0	32.8	21.8	17.7

### 1.60 Vpc – Discharge in A at 20 °C

A502/10 S	NGA5020010HS0SA	42.0	29.0	21.0	17.0	12.8	7.10	4.30	3.00	1.90	1.25	1.02
A504/3.5 S	NGA50403D5HS0SA	13.1	8.70	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A506/1.2 S	NGA50601D2HS0SA	4.66	3.00	2.24	1.80	1.33	0.80	0.52	0.36	0.22	0.13	0.10
A506/3.5 S	NGA50603D5HS0SA	13.1	8.70	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A506/6.5 S	NGA50606D5HS0SA	24.0	16.0	12.0	9.70	7.00	4.00	2.30	1.60	1.10	0.76	0.63
A506/10 S	NGA5060010HS0SA	42.0	29.0	21.0	17.0	12.8	7.10	4.30	3.00	1.90	1.25	1.02
A508/3.5 S	NGA50803D5HS0SA	13.1	8.70	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A512/1.2 S	NGA51201D2HS0SA	4.66	3.00	2.24	1.80	1.33	0.80	0.52	0.36	0.22	0.13	0.10
A512/2 S	NGA5120002HS0SA	8.20	5.00	3.70	3.10	2.20	1.50	0.89	0.60	0.37	0.24	0.19
A512/3.5 S	NGA51203D5HS0SA	13.1	8.70	6.50	5.30	3.90	2.30	1.40	1.01	0.63	0.41	0.34
A512/6.5 S	NGA51206D5HS0SA	24.0	16.0	12.0	9.70	7.00	4.00	2.30	1.60	1.10	0.76	0.63
A512/10 S	NGA5120010HS0SA	42.0	29.0	21.0	17.0	12.8	7.10	4.30	3.00	1.90	1.25	1.02
A512/16 G5	NGA5120016HS0BA	61.0	42.0	31.0	25.0	18.0	10.7	6.62	4.61	2.92	1.80	1.54
A512/25 G5	NGA5120025HS0BA	71.8	46.9	37.7	30.7	22.9	14.5	8.60	6.20	4.10	2.70	2.20
A512/30 G6	NGA5120030HS0BA	105	68.7	51.8	44.4	32.6	20.1	11.7	8.20	5.30	3.40	2.80
A512/40 A	NGA5120040HS0CA*	127	85.0	67.0	54.0	39.0	24.0	13.0	9.50	6.80	4.50	3.70
A512/55 A	NGA5120055HS0CA	169	116	89.3	74.6	55.2	35.8	20.2	14.4	9.30	6.20	5.10
A512/60 A	NGA5120060HS0CA*	191	133	103	83.5	61.8	37.2	23.0	16.2	10.4	6.90	5.60
A512/65 A	NGA5120065HS0CA*	193	135	110	90.3	67.7	41.1	25.2	18.0	11.7	7.60	6.30
A512/85 A	NGA5120085HS0CA	273	199	155	130	95.0	60.0	33.0	24.0	15.1	9.90	8.10
A512/115 A	NGA5120115HS0CA	343	227	187	158	117	68.0	40.0	28.0	19.0	13.0	10.5
A512/120 A	NGA5120120HS0CA	409	267	205	168	124	74.7	43.3	30.2	19.2	12.8	10.5
A512/140 A	NGA5120140HS0CA	452	303	235	193	143	86.3	50.6	35.4	22.6	15.0	12.2
A512/200 A	NGA5120200HS0CA	581	411	323	269	202	121	72.4	51.1	32.8	21.8	17.7

\* Discharge data are also valid for other terminals/containers.

# Sonnenschein A500

## Constant power discharge

Type	Part number	3 min	5 min	10 min	15 min	20 min	30 min	45 min	1 h	1.5 h
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### 1.85 Vpc – Discharge in W/block at 20 °C

A502/10 S	NGA5020010HS0SA	56.0	50.0	41.0	33.0	27.0	20.0	16.0	13.0	9.00
A504/3.5 S	NGA50403D5HS0SA	41.0	34.0	26.0	21.0	17.0	13.0	11.0	9.00	6.00
A506/1.2 S	NGA50601D2HS0SA	21.4	17.2	12.2	10.3	8.60	6.60	4.90	4.00	3.00
A506/3.5 S	NGA50603D5HS0SA	62.0	51.0	38.0	32.0	26.0	20.0	16.0	13.0	9.00
A506/6.5 S	NGA50606D5HS0SA	120	100	73.0	60.0	51.0	38.0	28.0	23.0	16.0
A506/10 S	NGA5060010HS0SA	167	149	124	98.0	80.0	60.0	49.0	39.0	28.0
A508/3.5 S	NGA50803D5HS0SA	83.0	68.0	51.0	42.0	35.0	27.0	22.0	17.0	12.0
A512/1.2 S	NGA51201D2HS0SA	42.7	34.4	24.3	20.7	17.2	13.2	9.80	8.00	5.90
A512/2 S	NGA5120002HS0SA	74.0	60.0	44.0	36.0	30.0	23.0	17.0	14.0	10.0
A512/3.5 S	NGA51203D5HS0SA	124	102	77.0	63.0	52.0	40.0	33.0	26.0	18.0
A512/6.5 S	NGA51206D5HS0SA	240	200	146	120	102	76.0	56.0	46.0	32.0
A512/10 S	NGA5120010HS0SA	335	298	248	195	160	120	98.0	78.0	56.0
A512/16 G5	NGA5120016HS0BA	485	433	352	295	252	192	150	119	87.0
A512/25 G5	NGA5120025HS0BA	535	463	387	324	278	225	170	140	105
A512/30 G6	NGA5120030HS0BA	857	751	568	479	400	310	251	200	144
A512/40 A	NGA5120040HS0CA*	958	848	703	578	490	395	300	243	178
A512/55 A	NGA5120055HS0CA	1348	1172	922	844	718	572	457	367	269
A512/60 A	NGA5120060HS0CA*	1618	1414	1096	963	807	625	459	369	271
A512/65 A	NGA5120065HS0CA*	1180	1113	991	861	763	659	500	411	307
A512/85 A	NGA5120085HS0CA	1979	1802	1527	1310	1118	905	690	565	425
A512/115 A	NGA5120115HS0CA	2808	2531	2009	1705	1439	1155	872	702	512
A512/120 A	NGA5120120HS0CA	3350	2862	2300	1895	1583	1200	938	757	583
A512/140 A	NGA5120140HS0CA	3674	3172	2549	2101	1755	1330	1040	839	647
A512/200 A	NGA5120200HS0CA	4690	4102	3449	2843	2375	1800	1408	1135	875

### 1.80 Vpc – Discharge in W/block at 20 °C

A502/10 S	NGA5020010HS0SA	56.0	53.0	44.0	35.0	29.0	21.0	17.0	14.0	10.0
A504/3.5 S	NGA50403D5HS0SA	45.0	38.0	28.0	22.0	19.0	14.0	11.0	9.00	6.00
A506/1.2 S	NGA50601D2HS0SA	23.5	19.1	13.3	10.9	9.10	6.90	5.10	4.10	3.00
A506/3.5 S	NGA50603D5HS0SA	68.0	57.0	42.0	33.0	28.0	21.0	17.0	13.0	10.0
A506/6.5 S	NGA50606D5HS0SA	128	112	80.0	63.0	54.0	40.0	30.0	24.0	17.0
A506/10 S	NGA5060010HS0SA	168	159	131	104	86.0	64.0	51.0	41.0	29.0
A508/3.5 S	NGA50803D5HS0SA	91.0	76.0	56.0	44.0	37.0	28.0	23.0	18.0	13.0
A512/1.2 S	NGA51201D2HS0SA	47.0	38.3	26.5	21.7	18.1	13.7	10.2	8.20	6.00
A512/2 S	NGA5120002HS0SA	83.0	68.0	49.0	38.0	32.0	24.0	18.0	15.0	11.0
A512/3.5 S	NGA51203D5HS0SA	136	114	84.0	66.0	56.0	42.0	34.0	27.0	19.0
A512/6.5 S	NGA51206D5HS0SA	256	224	160	126	108	80.0	60.0	48.0	34.0
A512/10 S	NGA5120010HS0SA	336	318	261	209	172	128	101	81.0	59.0
A512/16 G5	NGA5120016HS0BA	584	485	384	309	269	203	156	124	90.0
A512/25 G5	NGA5120025HS0BA	623	555	418	360	303	240	180	146	109
A512/30 G6	NGA5120030HS0BA	1036	850	637	517	433	330	264	210	151
A512/40 A	NGA5120040HS0CA*	1092	1007	758	646	538	415	318	255	186
A512/55 A	NGA5120055HS0CA	1555	1362	1014	888	777	606	478	382	278
A512/60 A	NGA5120060HS0CA*	1955	1634	1181	1041	873	669	489	390	283
A512/65 A	NGA5120065HS0CA*	1459	1316	1109	989	851	693	544	441	327
A512/85 A	NGA5120085HS0CA	2279	2132	1684	1487	1245	970	740	600	447
A512/115 A	NGA5120115HS0CA	3189	2873	2190	1888	1569	1209	926	739	535
A512/120 A	NGA5120120HS0CA	3763	3276	2543	2027	1720	1285	966	794	608
A512/140 A	NGA5120140HS0CA	4127	3631	2819	2246	1906	1424	1070	880	674
A512/200 A	NGA5120200HS0CA	5268	4695	3815	3040	2580	1928	1449	1191	912

\* Discharge data are also valid for other terminals/containers.



# Sonnenschein A500

## Constant power discharge

Type	Part number	3 min	5 min	10 min	15 min	20 min	30 min	45 min	1 h	1.5 h
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### 1.75 Vpc – Discharge in W/block at 20 °C

A502/10 S	NGA5020010HS0SA	60.0	58.0	45.0	36.0	30.0	22.0	17.0	14.0	10.0
A504/3.5 S	NGA50403D5HS0SA	49.0	41.0	30.0	23.0	20.0	15.0	12.0	9.00	6.00
A506/1.2 S	NGA50601D2HS0SA	25.1	20.7	14.0	11.1	9.30	7.00	5.20	4.20	3.00
A506/3.5 S	NGA50603D5HS0SA	73.0	62.0	45.0	35.0	29.0	22.0	18.0	14.0	10.0
A506/6.5 S	NGA50606D5HS0SA	138	121	86.0	66.0	57.0	42.0	30.0	24.0	17.0
A506/10 S	NGA5060010HS0SA	181	173	135	109	90.0	66.0	51.0	42.0	30.0
A508/3.5 S	NGA50803D5HS0SA	97.0	82.0	60.0	46.0	39.0	29.0	23.0	18.0	13.0
A512/1.2 S	NGA51201D2HS0SA	50.1	41.4	28.0	22.2	18.6	14.0	10.3	8.30	6.10
A512/2 S	NGA5120002HS0SA	91.0	75.0	52.0	40.0	33.0	25.0	18.0	15.0	11.0
A512/3.5 S	NGA51203D5HS0SA	146	123	89.0	69.0	59.0	44.0	35.0	27.0	19.0
A512/6.5 S	NGA51206D5HS0SA	276	242	172	132	114	84.0	60.0	48.0	34.0
A512/10 S	NGA5120010HS0SA	361	346	270	219	179	132	103	83.0	60.0
A512/16 G5	NGA5120016HS0BA	636	534	407	322	280	209	159	126	91.0
A512/25 G5	NGA5120025HS0BA	689	616	454	385	320	248	185	150	111
A512/30 G6	NGA5120030HS0BA	1118	951	690	538	453	341	271	214	153
A512/40 A	NGA5120040HS0CA*	1226	1074	822	691	569	432	326	261	189
A512/55 A	NGA5120055HS0CA	1799	1496	1102	917	813	626	489	388	281
A512/60 A	NGA5120060HS0CA*	2267	1837	1274	1071	915	693	505	400	288
A512/65 A	NGA5120065HS0CA*	1757	1591	1223	1083	914	721	567	457	336
A512/85 A	NGA5120085HS0CA	2561	2292	1847	1557	1329	1018	768	621	460
A512/115 A	NGA5120115HS0CA	3642	3101	2374	1986	1653	1255	956	759	547
A512/120 A	NGA5120120HS0CA	4237	3552	2627	2134	1800	1334	989	815	622
A512/140 A	NGA5120140HS0CA	4647	3937	2912	2365	1995	1479	1096	904	689
A512/200 A	NGA5120200HS0CA	5932	5092	3941	3201	2700	2002	1484	1223	933

### 1.70 Vpc – Discharge in W/block at 20 °C

A502/10 S	NGA5020010HS0SA	64.0	60.0	46.0	38.0	31.0	22.0	17.0	14.0	10.0
A504/3.5 S	NGA50403D5HS0SA	53.0	44.0	31.0	24.0	20.0	15.0	12.0	9.00	7.00
A506/1.2 S	NGA50601D2HS0SA	26.8	21.9	14.4	11.2	9.40	7.10	5.20	4.20	3.10
A506/3.5 S	NGA50603D5HS0SA	80.0	66.0	46.0	36.0	30.0	22.0	18.0	14.0	10.0
A506/6.5 S	NGA50606D5HS0SA	150	126	88.0	68.0	58.0	42.0	31.0	24.0	17.0
A506/10 S	NGA5060010HS0SA	193	180	139	113	92.0	67.0	52.0	42.0	30.0
A508/3.5 S	NGA50803D5HS0SA	106	88.0	61.0	48.0	40.0	30.0	24.0	19.0	13.0
A512/1.2 S	NGA51201D2HS0SA	53.7	43.7	28.8	22.4	18.8	14.1	10.4	8.40	6.10
A512/2 S	NGA5120002HS0SA	99.0	80.0	53.0	41.0	34.0	25.0	19.0	15.0	11.0
A512/3.5 S	NGA51203D5HS0SA	159	131	92.0	72.0	60.0	45.0	35.0	28.0	20.0
A512/6.5 S	NGA51206D5HS0SA	300	252	176	136	116	84.0	62.0	48.0	34.0
A512/10 S	NGA5120010HS0SA	385	360	278	226	185	135	103	84.0	60.0
A512/16 G5	NGA5120016HS0BA	688	573	418	331	285	212	161	127	91.0
A512/25 G5	NGA5120025HS0BA	776	652	482	395	330	253	187	151	112
A512/30 G6	NGA5120030HS0BA	1214	1037	726	558	465	347	274	216	155
A512/40 A	NGA5120040HS0CA*	1391	1157	870	719	587	441	331	264	191
A512/55 A	NGA5120055HS0CA	1912	1624	1163	935	834	636	493	392	283
A512/60 A	NGA5120060HS0CA*	2406	2022	1348	1088	940	707	514	405	290
A512/65 A	NGA5120065HS0CA*	1959	1739	1322	1142	954	739	577	464	340
A512/85 A	NGA5120085HS0CA	2900	2486	1993	1607	1381	1045	786	634	469
A512/115 A	NGA5120115HS0CA	4106	3361	2511	2030	1703	1281	971	770	553
A512/120 A	NGA5120120HS0CA	4536	3800	2690	2201	1849	1365	1008	830	632
A512/140 A	NGA5120140HS0CA	4974	4211	2981	2440	2050	1513	1117	920	700
A512/200 A	NGA5120200HS0CA	6350	5446	4034	3302	2774	2048	1512	1245	948

\* Discharge data are also valid for other terminals/containers.

# Sonnenschein A500

## Constant power discharge

Type	Part number	3 min	5 min	10 min	15 min	20 min	30 min	45 min	1 h	1.5 h
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### 1.65 Vpc – Discharge in W/block at 20 °C

A502/10 S	NGA5020010HS0SA	68.0	62.0	47.0	38.0	31.0	23.0	17.0	14.0	10.0
A504/3.5 S	NGA50403D5HS0SA	57.0	46.0	31.0	24.0	20.0	15.0	12.0	9.00	7.00
A506/1.2 S	NGA50601D2HS0SA	28.2	22.6	14.7	11.2	9.50	7.10	5.20	4.20	3.10
A506/3.5 S	NGA50603D5HS0SA	85.0	68.0	47.0	36.0	30.0	23.0	18.0	14.0	10.0
A506/6.5 S	NGA50606D5HS0SA	160	129	90.0	69.0	59.0	43.0	31.0	25.0	18.0
A506/10 S	NGA5060010HS0SA	205	186	142	114	93.0	68.0	52.0	42.0	30.0
A508/3.5 S	NGA50803D5HS0SA	113	91.0	62.0	49.0	41.0	30.0	24.0	19.0	13.0
A512/1.2 S	NGA51201D2HS0SA	56.4	45.3	29.4	22.5	18.9	14.2	10.5	8.40	6.10
A512/2 S	NGA5120002HS0SA	103	82.0	54.0	41.0	34.0	25.0	19.0	15.0	11.0
A512/3.5 S	NGA51203D5HS0SA	170	137	93.0	73.0	61.0	45.0	35.0	28.0	20.0
A512/6.5 S	NGA51206D5HS0SA	320	258	180	138	118	86.0	62.0	50.0	36.0
A512/10 S	NGA5120010HS0SA	410	371	283	229	187	136	104	84.0	61.0
A512/16 G5	NGA5120016HS0BA	741	601	423	335	288	213	161	128	92.0
A512/25 G5	NGA5120025HS0BA	854	693	501	400	335	255	188	152	112
A512/30 G6	NGA5120030HS0BA	1310	1095	746	569	471	351	276	217	155
A512/40 A	NGA5120040HS0CA*	1514	1235	902	729	597	446	333	265	192
A512/55 A	NGA5120055HS0CA	2005	1726	1204	945	845	642	496	394	284
A512/60 A	NGA5120060HS0CA*	2548	2176	1404	1098	954	715	519	409	292
A512/65 A	NGA5120065HS0CA*	2139	1853	1395	1171	976	749	582	466	341
A512/85 A	NGA5120085HS0CA	3115	2719	2109	1663	1410	1060	797	642	474
A512/115 A	NGA5120115HS0CA	4304	3582	2603	2057	1732	1296	980	776	557
A512/120 A	NGA5120120HS0CA	4847	4002	2761	2246	1883	1387	1022	843	640
A512/140 A	NGA5120140HS0CA	5316	4435	3060	2489	2087	1538	1133	934	709
A512/200 A	NGA5120200HS0CA	6786	5736	4142	3369	2825	2081	1533	1264	959

### 1.60 Vpc – Discharge in W/block at 20 °C

A502/10 S	NGA5020010HS0SA	73.0	63.0	48.0	38.0	31.0	23.0	17.0	14.0	10.0
A504/3.5 S	NGA50403D5HS0SA	59.0	46.0	32.0	25.0	20.0	15.0	12.0	9.00	7.00
A506/1.2 S	NGA50601D2HS0SA	29.2	23.1	14.8	11.3	9.50	7.10	5.20	4.20	3.10
A506/3.5 S	NGA50603D5HS0SA	89.0	69.0	47.0	37.0	31.0	23.0	18.0	14.0	10.0
A506/6.5 S	NGA50606D5HS0SA	168	132	92.0	70.0	59.0	43.0	31.0	25.0	18.0
A506/10 S	NGA5060010HS0SA	218	190	144	115	94.0	68.0	52.0	42.0	30.0
A508/3.5 S	NGA50803D5HS0SA	119	93.0	63.0	49.0	41.0	30.0	24.0	19.0	13.0
A512/1.2 S	NGA51201D2HS0SA	58.4	46.2	29.7	22.5	19.0	14.2	10.5	8.40	6.20
A512/2 S	NGA5120002HS0SA	106	84.0	55.0	42.0	34.0	25.0	19.0	15.0	11.0
A512/3.5 S	NGA51203D5HS0SA	178	139	95.0	74.0	61.0	45.0	36.0	28.0	20.0
A512/6.5 S	NGA51206D5HS0SA	336	264	184	140	118	86.0	62.0	50.0	36.0
A512/10 S	NGA5120010HS0SA	437	381	287	231	188	136	104	85.0	61.0
A512/16 G5	NGA5120016HS0BA	783	621	426	338	289	214	162	128	92.0
A512/25 G5	NGA5120025HS0BA	908	725	514	403	339	256	189	153	113
A512/30 G6	NGA5120030HS0BA	1393	1121	755	576	474	352	276	218	156
A512/40 A	NGA5120040HS0CA*	1577	1299	923	735	603	449	334	266	192
A512/55 A	NGA5120055HS0CA	2107	1800	1231	957	851	645	498	395	285
A512/60 A	NGA5120060HS0CA*	2680	2279	1439	1104	963	719	522	410	293
A512/65 A	NGA5120065HS0CA*	2315	1976	1443	1183	987	754	584	468	342
A512/85 A	NGA5120085HS0CA	3264	2923	2190	1700	1427	1069	804	648	477
A512/115 A	NGA5120115HS0CA	4467	3755	2665	2073	1750	1306	985	780	560
A512/120 A	NGA5120120HS0CA	5135	4156	2812	2276	1906	1403	1032	852	646
A512/140 A	NGA5120140HS0CA	5631	4606	3117	2522	2113	1555	1144	945	716
A512/200 A	NGA5120200HS0CA	7189	5957	4218	3413	2860	2104	1548	1279	969

\* Discharge data are also valid for other terminals/containers.