

**abs**

**Advanced Battery Systems Inc**

Master stocking distributor for North America

**GNB<sup>®</sup>**  
**INDUSTRIAL POWER**  
*A Division of Exide Technologies*

Industrial Batteries / Network Power

**Sonnenschein A600**



*»Premium quality for  
uninterrupted communication«*



  
**Sonnenschein**

## Sonnenschein A600

### More than just OPzV

Sonnenschein A600 has extraordinary energy-saving features in addition with robust reliability, proven for decades in many installations worldwide.

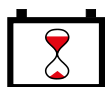
#### Your benefits:

- > **dryfit Gel** – VRLA technology
- > **Lowest energy consumption** – saving costs
- > **Robust design** – resilient in harsh conditions
- > **Proof against deep discharge** – greater long-term energy delivery
- > **Strong tubular plate design** – extremely long design life
- > **Horizontal mounting possible** – easy installation and maintenance
- > **Completely recyclable** – low CO<sub>2</sub> footprint



#### Specifications:

- > Very low gassing due to internal gas recombination
- > Nominal capacity 100 – 3286 Ah C<sub>10</sub>
- > Design life: 15 years for 6/12 V blocks and 20 years for 2 V cells at 20 °C (80 % remaining capacity from C<sub>10</sub>)
- > Available as standard or flame retardant version (UL 94-V0)
- > Long shelf life up to 2 years at 20 °C without recharge due to the very low self discharge rate
- > Cells in compliance with DIN 40 742
- > Blocks in compliance with DIN 40 744
- > Designed in accordance with IEC 60896-21/-22
- > Manufactured in Europe in our ISO 9001 certified production plants



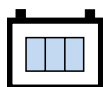
Design life in years:  
15 for blocks  
20 for cells



Nominal capacity  
100 – 3286 Ah



Block battery /  
single cell



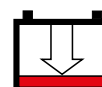
Tubular plate



Recyclable



Valve regulated  
lead-acid  
batteries



Proof  
against deep  
discharge



Maintenance-  
free (no  
topping up)

## Sonnenschein A600

### Technical data

#### Technical characteristics and data

| Type       | Part number     | Type acc. to<br>1DIN 40 742<br>2DIN 40 744 | Nom.<br>voltage<br><br>V | Nominal<br>capacity<br>C <sub>10</sub> 1.80<br>Vpc 20 °C<br>Ah | Length (l)<br><br>max. mm | Width<br>(b/w)<br><br>max. mm | Height<br>(h1)<br><br>max. mm | Height*<br>(h2)<br><br>max. mm | Weight<br><br>approx. kg | Internal<br>resistance<br><br>mOhm | Short<br>circuit<br>current<br><br>A | Terminal | Pole<br>pairs |
|------------|-----------------|--------------------------------------------|--------------------------|----------------------------------------------------------------|---------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------|------------------------------------|--------------------------------------|----------|---------------|
| A602/225   | NGA6020225HS0FA | 4 OPzV 200 <sup>1</sup>                    | 2                        | 224                                                            | 105                       | 208                           | 357                           | 399                            | 17.4                     | 0.95                               | 2200                                 | F-M8     | 1             |
| A602/280   | NGA6020280HS0FA | 5 OPzV 250 <sup>1</sup>                    | 2                        | 280                                                            | 126                       | 208                           | 357                           | 399                            | 22.0                     | 0.79                               | 2700                                 | F-M8     | 1             |
| A602/335   | NGA6020335HS0FA | 6 OPzV 300 <sup>1</sup>                    | 2                        | 337                                                            | 147                       | 208                           | 357                           | 399                            | 25.0                     | 0.61                               | 3350                                 | F-M8     | 1             |
| A602/415   | NGA6020415HS0FA | 5 OPzV 350 <sup>1</sup>                    | 2                        | 416                                                            | 126                       | 208                           | 473                           | 515                            | 30.0                     | 0.62                               | 3300                                 | F-M8     | 1             |
| A602/500   | NGA6020500HS0FA | 6 OPzV 420 <sup>1</sup>                    | 2                        | 499                                                            | 147                       | 208                           | 473                           | 515                            | 35.0                     | 0.53                               | 3950                                 | F-M8     | 1             |
| A602/580   | NGA6020580HS0FA | 7 OPzV 490 <sup>1</sup>                    | 2                        | 582                                                            | 168                       | 208                           | 473                           | 515                            | 39.0                     | 0.47                               | 4400                                 | F-M8     | 1             |
| A602/750   | NGA6020750HS0FA | 6 OPzV 600 <sup>1</sup>                    | 2                        | 748                                                            | 147                       | 208                           | 648                           | 690                            | 49.0                     | 0.48                               | 4300                                 | F-M8     | 1             |
| A602/1010  | NGA6021010HS0FA | 8 OPzV 800 <sup>1</sup>                    | 2                        | 998                                                            | 212                       | 193                           | 648                           | 690                            | 66.0                     | 0.38                               | 4850                                 | F-M8     | 2             |
| A602/1250  | NGA6021250HS0FA | 10 OPzV 1000 <sup>1</sup>                  | 2                        | 1248                                                           | 212                       | 235                           | 648                           | 690                            | 80.0                     | 0.33                               | 6250                                 | F-M8     | 2             |
| A602/1510  | NGA6021510HS0FA | 12 OPzV 1200 <sup>1</sup>                  | 2                        | 1497                                                           | 212                       | 277                           | 648                           | 690                            | 95.0                     | 0.29                               | 7850                                 | F-M8     | 2             |
| A602/1650C | NGA6021650HS0FA | 12 OPzV 1500 <sup>1</sup>                  | 2                        | 1643                                                           | 212                       | 277                           | 717                           | 759                            | 106                      | 0.23                               | 9000                                 | F-M8     | 2             |
| A602/2200  | NGA6022200HS0FA | 16 OPzV 2000 <sup>1</sup>                  | 2                        | 2190                                                           | 216                       | 400                           | 775                           | 816                            | 149                      | 0.19                               | 10750                                | F-M8     | 3             |
| A602/2740  | NGA6022740HS0FA | 20 OPzV 2500 <sup>1</sup>                  | 2                        | 2738                                                           | 214                       | 489                           | 774                           | 816                            | 190                      | 0.16                               | 13400                                | F-M8     | 4             |
| A602/3300  | NGA6023300HS0FA | 24 OPzV 3000 <sup>1</sup>                  | 2                        | 3286                                                           | 214                       | 578                           | 774                           | 816                            | 238                      | 0.13                               | 16100                                | F-M8     | 4             |
| A606/200   | NGA6060200HS0FB | 6V 4 OPzV 200 <sup>2</sup>                 | 6                        | 200                                                            | 272                       | 206                           | 323                           | 347                            | 45.7                     | 2.71                               | 1707                                 | F-M8     | 1             |
| A606/300   | NGA6060300HS0FB | 6V 6 OPzV 300 <sup>2</sup>                 | 6                        | 300                                                            | 380                       | 206                           | 323                           | 347                            | 65.4                     | 1.90                               | 2614                                 | F-M8     | 1             |
| A612/100   | NGA6120100HS0FB | 12V 2 OPzV 100 <sup>2</sup>                | 12                       | 100                                                            | 272                       | 206                           | 323                           | 347                            | 46.2                     | 9.68                               | 1934                                 | F-M8     | 1             |
| A612/150   | NGA6120150HS0FB | 12V 3 OPzV 150 <sup>2</sup>                | 12                       | 150                                                            | 380                       | 206                           | 323                           | 347                            | 66.9                     | 6.43                               | 2896                                 | F-M8     | 1             |

\*includes installed connector

#### Approval, container, terminal and torque

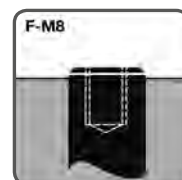
##### > Approval:

##### Blocks:

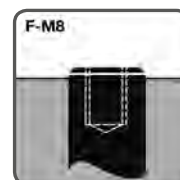
- DIN/Gost/TÜV, Russia

##### Cells:

- Underwriters Laboratories (UL), USA  
 - DNV GL (Germanischer Lloyd)  
 - DIN/Gost/TÜV, Russia  
 - By many Telecom organisations worldwide



blocks – 12 Nm



cells – 20 Nm

Data are also valid for UL 94-V0 version.

Change »H« to »V« in the part number. E.g.:

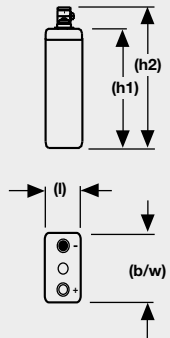
> **Standard:** NGA6120100 H S0FB

> **UL 94-V0:** NGA6120100 V S0FB

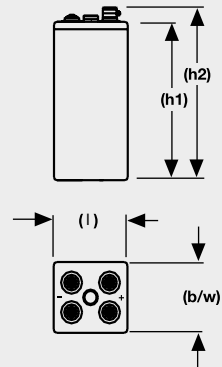
## Sonnenschein A600

### Drawings

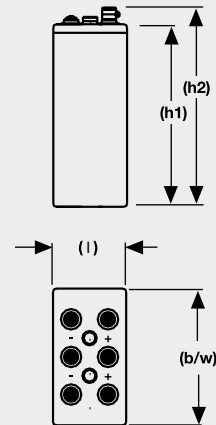
**A602/225 -  
A602/750**



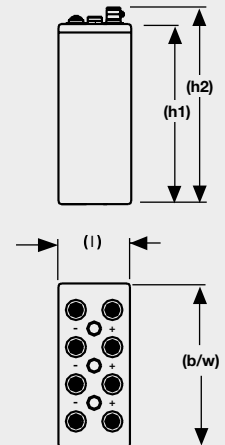
**A602/1010 -  
A602/1650C**



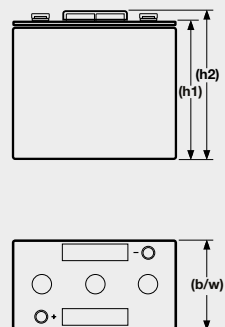
**A602/2200**



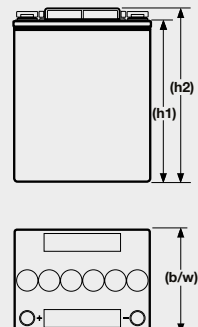
**A602/2740 -  
A602/3300**



**A606/200 -  
A606/300**



**A612/100 -  
A612/150**



## Sonnenschein A600

### Constant current discharge · A600 blocks

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 171   | 157    | 145    | 120    | 89.1 | 59.3 | 45.1 | 36.8 | 31.3 | 22.0 | 18.6 |
| A606/300 | NGA6060300HS0FB | 252   | 233    | 217    | 181    | 136  | 91.2 | 69.2 | 56.2 | 47.6 | 33.1 | 27.8 |
| A612/100 | NGA6120100HS0FB | 95.3  | 87.6   | 81.0   | 66.0   | 47.7 | 30.9 | 23.2 | 18.8 | 15.9 | 11.1 | 9.30 |
| A612/150 | NGA6120150HS0FB | 143   | 132    | 122    | 99.8   | 71.5 | 45.9 | 34.4 | 27.9 | 23.6 | 16.6 | 14.0 |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 205   | 187    | 172    | 139    | 100  | 64.8 | 48.6 | 39.3 | 33.3 | 23.2 | 19.5 |
| A606/300 | NGA6060300HS0FB | 298   | 273    | 253    | 208    | 153  | 99.9 | 74.8 | 60.2 | 50.7 | 35.0 | 29.2 |
| A612/100 | NGA6120100HS0FB | 113   | 103    | 95.2   | 76.3   | 53.5 | 33.6 | 24.9 | 20.0 | 16.9 | 11.7 | 9.80 |
| A612/150 | NGA6120150HS0FB | 171   | 157    | 145    | 115    | 80.1 | 49.7 | 36.8 | 29.6 | 25.0 | 17.4 | 14.7 |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 231   | 209    | 192    | 152    | 107  | 67.9 | 50.5 | 40.7 | 34.3 | 23.8 | 20.0 |
| A606/300 | NGA6060300HS0FB | 332   | 303    | 280    | 228    | 164  | 105  | 78.0 | 62.5 | 52.4 | 36.0 | 30.0 |
| A612/100 | NGA6120100HS0FB | 126   | 115    | 105    | 83.4   | 57.0 | 34.9 | 25.6 | 20.5 | 17.3 | 11.9 | 10.0 |
| A612/150 | NGA6120150HS0FB | 192   | 176    | 161    | 126    | 85.1 | 51.7 | 38.0 | 30.5 | 25.7 | 17.9 | 15.0 |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 274   | 246    | 223    | 172    | 116  | 71.5 | 52.7 | 42.2 | 35.5 | 24.5 | 20.5 |
| A606/300 | NGA6060300HS0FB | 389   | 353    | 324    | 258    | 180  | 111  | 81.8 | 65.1 | 54.4 | 37.1 | 30.9 |
| A612/100 | NGA6120100HS0FB | 148   | 134    | 122    | 93.6   | 60.7 | 36.0 | 26.2 | 21.0 | 17.6 | 12.1 | 10.2 |
| A612/150 | NGA6120150HS0FB | 227   | 207    | 188    | 142    | 90.9 | 53.7 | 39.1 | 31.3 | 26.3 | 18.2 | 15.3 |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 317   | 281    | 251    | 187    | 122  | 73.6 | 53.9 | 43.0 | 36.1 | 24.9 | 20.8 |
| A606/300 | NGA6060300HS0FB | 447   | 402    | 366    | 284    | 191  | 115  | 84.1 | 66.6 | 55.5 | 37.7 | 31.3 |
| A612/100 | NGA6120100HS0FB | 171   | 153    | 138    | 101    | 62.5 | 36.4 | 26.5 | 21.1 | 17.7 | 12.2 | 10.2 |
| A612/150 | NGA6120150HS0FB | 262   | 236    | 212    | 153    | 94.2 | 54.6 | 39.7 | 31.6 | 26.6 | 18.4 | 15.5 |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 359   | 313    | 276    | 198    | 126  | 74.8 | 54.5 | 43.5 | 36.4 | 25.1 | 20.9 |
| A606/300 | NGA6060300HS0FB | 504   | 449    | 405    | 305    | 199  | 118  | 85.4 | 67.5 | 56.1 | 38.0 | 31.6 |
| A612/100 | NGA6120100HS0FB | 193   | 172    | 152    | 105    | 63.1 | 36.6 | 26.5 | 21.1 | 17.7 | 12.2 | 10.2 |
| A612/150 | NGA6120150HS0FB | 297   | 265    | 234    | 161    | 95.8 | 55.1 | 39.9 | 31.8 | 26.7 | 18.5 | 15.5 |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h |
|----------|-----------------|-------|--------|--------|--------|------|------|------|------|------|------|------|
| A606/200 | NGA6060200HS0FB | 399   | 343    | 297    | 206    | 128  | 75.5 | 54.9 | 43.7 | 36.6 | 25.2 | 21.0 |
| A606/300 | NGA6060300HS0FB | 560   | 494    | 439    | 320    | 203  | 119  | 86.1 | 67.9 | 56.5 | 38.2 | 31.7 |
| A612/100 | NGA6120100HS0FB | 215   | 188    | 163    | 107    | 63.3 | 36.6 | 26.6 | 21.2 | 17.8 | 12.2 | 10.2 |
| A612/150 | NGA6120150HS0FB | 331   | 292    | 253    | 165    | 96.6 | 55.3 | 40.0 | 31.9 | 26.8 | 18.5 | 15.6 |

## Sonnenschein A600

### Constant current discharge · A600 cells

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 144    | 126    | 107    | 76.2 | 59.6 | 45.7 | 31.2 | 21.4 | 18.3 |
| A602/280   | NGA6020280HS0FA | 180    | 158    | 134    | 95.3 | 74.5 | 57.1 | 39.0 | 26.8 | 22.9 |
| A602/335   | NGA6020335HS0FA | 216    | 189    | 161    | 114  | 89.4 | 68.6 | 46.8 | 32.1 | 22.5 |
| A602/415   | NGA6020415HS0FA | 244    | 231    | 187    | 143  | 112  | 90.0 | 65.3 | 44.8 | 36.7 |
| A602/500   | NGA6020500HS0FA | 293    | 277    | 224    | 172  | 134  | 108  | 78.4 | 53.8 | 44.0 |
| A602/580   | NGA6020580HS0FA | 342    | 323    | 262    | 200  | 157  | 126  | 91.4 | 62.7 | 51.4 |
| A602/750   | NGA6020750HS0FA | 270    | 258    | 243    | 214  | 167  | 138  | 102  | 71.9 | 60.3 |
| A602/1010  | NGA6021010HS0FA | 360    | 344    | 324    | 285  | 223  | 184  | 136  | 95.9 | 80.4 |
| A602/1250  | NGA6021250HS0FA | 450    | 430    | 405    | 357  | 278  | 230  | 171  | 120  | 101  |
| A602/1510  | NGA6021510HS0FA | 517    | 516    | 486    | 428  | 334  | 276  | 205  | 144  | 121  |
| A602/1650C | NGA6021650HS0FA | 518    | 518    | 507    | 420  | 312  | 261  | 205  | 155  | 129  |
| A602/2200  | NGA6022200HS0FA | 691    | 669    | 639    | 581  | 469  | 381  | 284  | 207  | 172  |
| A602/2740  | NGA6022740HS0FA | 863    | 837    | 798    | 727  | 587  | 477  | 355  | 259  | 216  |
| A602/3300  | NGA6023300HS0FA | 1036   | 1004   | 958    | 872  | 704  | 572  | 427  | 310  | 259  |

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 173    | 156    | 124    | 83.9 | 64.7 | 49.5 | 34.7 | 24.2 | 20.5 |
| A602/280   | NGA6020280HS0FA | 216    | 195    | 155    | 105  | 80.9 | 61.9 | 43.4 | 30.3 | 25.6 |
| A602/335   | NGA6020335HS0FA | 260    | 234    | 186    | 126  | 97.1 | 74.3 | 52.1 | 36.3 | 30.8 |
| A602/415   | NGA6020415HS0FA | 308    | 284    | 223    | 163  | 119  | 96.6 | 69.4 | 47.8 | 39.6 |
| A602/500   | NGA6020500HS0FA | 370    | 341    | 268    | 196  | 143  | 116  | 83.3 | 57.4 | 47.5 |
| A602/580   | NGA6020580HS0FA | 431    | 398    | 313    | 228  | 167  | 135  | 97.2 | 66.9 | 55.4 |
| A602/750   | NGA6020750HS0FA | 340    | 327    | 305    | 248  | 190  | 154  | 113  | 78.0 | 64.5 |
| A602/1010  | NGA6021010HS0FA | 453    | 436    | 407    | 331  | 253  | 205  | 150  | 104  | 86.0 |
| A602/1250  | NGA6021250HS0FA | 567    | 545    | 508    | 413  | 317  | 257  | 188  | 130  | 108  |
| A602/1510  | NGA6021510HS0FA | 623    | 623    | 610    | 496  | 380  | 308  | 226  | 156  | 129  |
| A602/1650C | NGA6021650HS0FA | 624    | 624    | 615    | 548  | 380  | 319  | 227  | 167  | 139  |
| A602/2200  | NGA6022200HS0FA | 832    | 817    | 793    | 632  | 520  | 437  | 313  | 223  | 185  |
| A602/2740  | NGA6022740HS0FA | 1040   | 1022   | 992    | 790  | 650  | 547  | 391  | 278  | 231  |
| A602/3300  | NGA6023300HS0FA | 1248   | 1226   | 1190   | 948  | 780  | 656  | 469  | 334  | 277  |

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 194    | 171    | 137    | 90.0 | 68.1 | 52.0 | 36.3 | 25.2 | 21.3 |
| A602/280   | NGA6020280HS0FA | 243    | 214    | 171    | 113  | 85.1 | 65.0 | 45.4 | 31.5 | 26.6 |
| A602/335   | NGA6020335HS0FA | 291    | 257    | 206    | 135  | 102  | 78.0 | 54.5 | 37.8 | 32.0 |
| A602/415   | NGA6020415HS0FA | 332    | 308    | 249    | 176  | 124  | 101  | 71.3 | 49.1 | 40.0 |
| A602/500   | NGA6020500HS0FA | 398    | 370    | 299    | 211  | 149  | 121  | 85.6 | 58.9 | 48.5 |
| A602/580   | NGA6020580HS0FA | 465    | 431    | 349    | 246  | 174  | 141  | 100  | 68.7 | 56.6 |
| A602/750   | NGA6020750HS0FA | 389    | 368    | 336    | 269  | 202  | 165  | 119  | 82.1 | 67.6 |
| A602/1010  | NGA6021010HS0FA | 519    | 491    | 448    | 359  | 269  | 220  | 159  | 109  | 90.1 |
| A602/1250  | NGA6021250HS0FA | 648    | 613    | 560    | 448  | 337  | 275  | 199  | 137  | 113  |
| A602/1510  | NGA6021510HS0FA | 701    | 701    | 672    | 538  | 404  | 330  | 238  | 164  | 135  |
| A602/1650C | NGA6021650HS0FA | 702    | 702    | 683    | 597  | 431  | 339  | 252  | 181  | 150  |
| A602/2200  | NGA6022200HS0FA | 1031   | 972    | 864    | 680  | 555  | 463  | 335  | 241  | 200  |
| A602/2740  | NGA6022740HS0FA | 1288   | 1215   | 1080   | 850  | 693  | 578  | 419  | 302  | 249  |
| A602/3300  | NGA6023300HS0FA | 1546   | 1458   | 1296   | 1020 | 832  | 694  | 503  | 362  | 299  |

## Sonnenschein A600

### Constant current discharge · A600 cells

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 209    | 182    | 148    | 97.7 | 71.4 | 54.9 | 38.0 | 26.2 | 22.0 |
| A602/280   | NGA6020280HS0FA | 261    | 228    | 185    | 122  | 89.3 | 68.6 | 47.5 | 32.8 | 27.5 |
| A602/335   | NGA6020335HS0FA | 314    | 273    | 222    | 147  | 107  | 82.4 | 57.0 | 39.3 | 33.0 |
| A602/415   | NGA6020415HS0FA | 350    | 337    | 265    | 187  | 130  | 104  | 72.9 | 49.8 | 40.9 |
| A602/500   | NGA6020500HS0FA | 420    | 404    | 318    | 224  | 156  | 125  | 87.5 | 59.8 | 49.1 |
| A602/580   | NGA6020580HS0FA | 490    | 472    | 371    | 262  | 182  | 146  | 102  | 69.7 | 57.3 |
| A602/750   | NGA6020750HS0FA | 421    | 404    | 365    | 290  | 216  | 175  | 125  | 86.3 | 70.4 |
| A602/1010  | NGA6021010HS0FA | 561    | 539    | 487    | 387  | 288  | 233  | 167  | 115  | 93.9 |
| A602/1250  | NGA6021250HS0FA | 702    | 673    | 608    | 483  | 360  | 292  | 208  | 144  | 117  |
| A602/1510  | NGA6021510HS0FA | 755    | 755    | 716    | 580  | 432  | 350  | 250  | 173  | 141  |
| A602/1650C | NGA6021650HS0FA | 756    | 756    | 717    | 645  | 480  | 374  | 268  | 190  | 157  |
| A602/2200  | NGA6022200HS0FA | 1123   | 1077   | 944    | 733  | 589  | 497  | 358  | 254  | 210  |
| A602/2740  | NGA6022740HS0FA | 1403   | 1347   | 1180   | 917  | 737  | 622  | 447  | 317  | 262  |
| A602/3300  | NGA6023300HS0FA | 1684   | 1616   | 1416   | 1100 | 884  | 746  | 537  | 381  | 314  |

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 232    | 196    | 162    | 106  | 75.6 | 58.0 | 39.2 | 26.6 | 22.4 |
| A602/280   | NGA6020280HS0FA | 290    | 245    | 203    | 133  | 94.5 | 72.5 | 49.0 | 33.3 | 28.0 |
| A602/335   | NGA6020335HS0FA | 348    | 294    | 243    | 159  | 113  | 87.0 | 58.8 | 39.9 | 33.7 |
| A602/415   | NGA6020415HS0FA | 397    | 364    | 280    | 201  | 135  | 107  | 75.1 | 50.8 | 41.6 |
| A602/500   | NGA6020500HS0FA | 476    | 437    | 336    | 241  | 162  | 128  | 90.1 | 61.0 | 49.9 |
| A602/580   | NGA6020580HS0FA | 556    | 510    | 392    | 281  | 189  | 149  | 105  | 71.1 | 58.2 |
| A602/750   | NGA6020750HS0FA | 478    | 458    | 388    | 314  | 228  | 182  | 131  | 90.5 | 74.8 |
| A602/1010  | NGA6021010HS0FA | 637    | 611    | 517    | 419  | 304  | 243  | 175  | 121  | 99.8 |
| A602/1250  | NGA6021250HS0FA | 797    | 763    | 647    | 523  | 380  | 303  | 218  | 151  | 125  |
| A602/1510  | NGA6021510HS0FA | 858    | 858    | 776    | 628  | 456  | 364  | 262  | 181  | 150  |
| A602/1650C | NGA6021650HS0FA | 859    | 859    | 808    | 694  | 526  | 410  | 287  | 199  | 164  |
| A602/2200  | NGA6022200HS0FA | 1279   | 1197   | 1076   | 863  | 657  | 531  | 378  | 266  | 219  |
| A602/2740  | NGA6022740HS0FA | 1598   | 1497   | 1345   | 1078 | 822  | 663  | 473  | 332  | 274  |
| A602/3300  | NGA6023300HS0FA | 1918   | 1796   | 1614   | 1294 | 986  | 796  | 567  | 399  | 329  |

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 265    | 229    | 182    | 115  | 79.9 | 60.3 | 39.8 | 27.0 | 22.6 |
| A602/280   | NGA6020280HS0FA | 331    | 286    | 228    | 144  | 100  | 75.4 | 49.8 | 33.8 | 28.3 |
| A602/335   | NGA6020335HS0FA | 398    | 344    | 273    | 173  | 120  | 90.5 | 59.7 | 40.5 | 33.9 |
| A602/415   | NGA6020415HS0FA | 423    | 389    | 300    | 215  | 139  | 109  | 76.6 | 51.8 | 42.6 |
| A602/500   | NGA6020500HS0FA | 508    | 467    | 360    | 258  | 167  | 131  | 91.9 | 62.2 | 51.1 |
| A602/580   | NGA6020580HS0FA | 592    | 545    | 420    | 301  | 195  | 153  | 107  | 72.5 | 59.6 |
| A602/750   | NGA6020750HS0FA | 561    | 534    | 463    | 354  | 240  | 190  | 135  | 92.2 | 75.9 |
| A602/1010  | NGA6021010HS0FA | 748    | 712    | 617    | 472  | 320  | 253  | 180  | 123  | 101  |
| A602/1250  | NGA6021250HS0FA | 935    | 890    | 772    | 590  | 400  | 317  | 225  | 154  | 127  |
| A602/1510  | NGA6021510HS0FA | 1048   | 1048   | 926    | 708  | 480  | 380  | 269  | 184  | 152  |
| A602/1650C | NGA6021650HS0FA | 1049   | 1049   | 982    | 777  | 585  | 452  | 309  | 209  | 172  |
| A602/2200  | NGA6022200HS0FA | 1356   | 1313   | 1237   | 1012 | 712  | 567  | 397  | 278  | 229  |
| A602/2740  | NGA6022740HS0FA | 1695   | 1642   | 1547   | 1265 | 890  | 708  | 496  | 348  | 287  |
| A602/3300  | NGA6023300HS0FA | 2034   | 1970   | 1856   | 1518 | 1068 | 850  | 596  | 418  | 344  |

## Sonnenschein A600

### Constant current discharge · A600 cells

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 290    | 258    | 201    | 120  | 81.6 | 60.8 | 40.2 | 27.3 | 22.7 |
| A602/280   | NGA6020280HS0FA | 363    | 323    | 251    | 150  | 102  | 76.0 | 50.3 | 34.1 | 28.4 |
| A602/335   | NGA6020335HS0FA | 435    | 387    | 302    | 180  | 122  | 91.2 | 60.3 | 41.0 | 34.1 |
| A602/415   | NGA6020415HS0FA | 468    | 425    | 334    | 220  | 142  | 111  | 78.2 | 52.4 | 43.0 |
| A602/500   | NGA6020500HS0FA | 562    | 510    | 401    | 264  | 170  | 133  | 93.8 | 62.9 | 51.6 |
| A602/580   | NGA6020580HS0FA | 655    | 595    | 468    | 308  | 199  | 155  | 109  | 73.4 | 60.2 |
| A602/750   | NGA6020750HS0FA | 639    | 615    | 527    | 388  | 252  | 195  | 136  | 92.7 | 76.4 |
| A602/1010  | NGA6021010HS0FA | 852    | 820    | 703    | 517  | 336  | 260  | 181  | 124  | 102  |
| A602/1250  | NGA6021250HS0FA | 1065   | 1025   | 878    | 647  | 420  | 325  | 226  | 155  | 127  |
| A602/1510  | NGA6021510HS0FA | 1267   | 1230   | 1054   | 776  | 504  | 390  | 271  | 185  | 153  |
| A602/1650C | NGA6021650HS0FA | 1268   | 1260   | 1135   | 903  | 623  | 479  | 322  | 222  | 176  |
| A602/2200  | NGA6022200HS0FA | 1557   | 1480   | 1365   | 1140 | 753  | 580  | 406  | 285  | 234  |
| A602/2740  | NGA6022740HS0FA | 1947   | 1850   | 1707   | 1425 | 942  | 725  | 507  | 356  | 293  |
| A602/3300  | NGA6023300HS0FA | 2336   | 2220   | 2048   | 1710 | 1130 | 870  | 608  | 427  | 351  |

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 314    | 278    | 212    | 122  | 82.5 | 61.0 | 40.4 | 27.5 | 22.8 |
| A602/280   | NGA6020280HS0FA | 393    | 348    | 265    | 153  | 103  | 76.3 | 50.5 | 34.4 | 28.5 |
| A602/335   | NGA6020335HS0FA | 471    | 417    | 318    | 183  | 124  | 91.5 | 60.6 | 41.3 | 34.2 |
| A602/415   | NGA6020415HS0FA | 488    | 458    | 354    | 230  | 144  | 112  | 79.3 | 52.8 | 43.4 |
| A602/500   | NGA6020500HS0FA | 586    | 550    | 425    | 276  | 173  | 134  | 95.2 | 63.4 | 52.1 |
| A602/580   | NGA6020580HS0FA | 683    | 641    | 496    | 322  | 202  | 157  | 111  | 73.9 | 60.8 |
| A602/750   | NGA6020750HS0FA | 715    | 696    | 583    | 411  | 255  | 197  | 136  | 93.2 | 76.8 |
| A602/1010  | NGA6021010HS0FA | 953    | 928    | 777    | 548  | 340  | 262  | 182  | 124  | 102  |
| A602/1250  | NGA6021250HS0FA | 1192   | 1160   | 972    | 685  | 425  | 328  | 227  | 155  | 128  |
| A602/1510  | NGA6021510HS0FA | 1430   | 1392   | 1166   | 822  | 510  | 394  | 272  | 186  | 154  |
| A602/1650C | NGA6021650HS0FA | 1463   | 1446   | 1249   | 960  | 645  | 491  | 328  | 225  | 178  |
| A602/2200  | NGA6022200HS0FA | 1760   | 1608   | 1476   | 1208 | 777  | 596  | 413  | 289  | 238  |
| A602/2740  | NGA6022740HS0FA | 2200   | 2010   | 1845   | 1510 | 972  | 745  | 516  | 361  | 297  |
| A602/3300  | NGA6023300HS0FA | 2640   | 2412   | 2214   | 1812 | 1166 | 894  | 619  | 433  | 356  |

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

| Type       | Part number     | 10 min | 15 min | 30 min | 1 h  | 2 h  | 3 h  | 5 h  | 8 h  | 10 h |
|------------|-----------------|--------|--------|--------|------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 326    | 300    | 222    | 123  | 82.8 | 61.2 | 40.6 | 27.6 | 22.9 |
| A602/280   | NGA6020280HS0FA | 408    | 375    | 278    | 154  | 104  | 76.5 | 50.8 | 34.5 | 28.6 |
| A602/335   | NGA6020335HS0FA | 489    | 450    | 333    | 185  | 124  | 91.8 | 60.9 | 41.4 | 34.4 |
| A602/415   | NGA6020415HS0FA | 500    | 478    | 382    | 238  | 146  | 113  | 80.2 | 53.2 | 43.8 |
| A602/500   | NGA6020500HS0FA | 600    | 574    | 458    | 286  | 175  | 136  | 96.2 | 63.8 | 52.6 |
| A602/580   | NGA6020580HS0FA | 700    | 669    | 535    | 333  | 204  | 158  | 112  | 74.5 | 61.3 |
| A602/750   | NGA6020750HS0FA | 786    | 767    | 632    | 429  | 260  | 198  | 137  | 93.6 | 77.2 |
| A602/1010  | NGA6021010HS0FA | 1048   | 1023   | 843    | 572  | 347  | 264  | 182  | 125  | 103  |
| A602/1250  | NGA6021250HS0FA | 1310   | 1278   | 1053   | 715  | 433  | 330  | 228  | 156  | 129  |
| A602/1510  | NGA6021510HS0FA | 1572   | 1534   | 1264   | 858  | 520  | 396  | 273  | 187  | 154  |
| A602/1650C | NGA6021650HS0FA | 1604   | 1480   | 1295   | 992  | 662  | 497  | 332  | 226  | 180  |
| A602/2200  | NGA6022200HS0FA | 2059   | 1872   | 1664   | 1267 | 807  | 607  | 417  | 292  | 240  |
| A602/2740  | NGA6022740HS0FA | 2573   | 2340   | 2080   | 1583 | 1008 | 758  | 522  | 365  | 300  |
| A602/3300  | NGA6023300HS0FA | 3088   | 2808   | 2496   | 1900 | 1210 | 910  | 626  | 438  | 360  |

## Sonnenschein A600

### Constant power discharge · A600 blocks

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h | 2 h | 3 h | 4 h | 5 h | 8 h | 10 h |
|----------|-----------------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|
| A606/200 | NGA6060200HS0FB | 999   | 915    | 774    | 654    | 468 | 324 | 247 | 201 | 171 | 118 | 98.0 |
| A606/300 | NGA6060300HS0FB | 1500  | 1341   | 1206   | 918    | 687 | 480 | 372 | 300 | 256 | 177 | 147  |
| A612/100 | NGA6120100HS0FB | 1092  | 978    | 858    | 726    | 490 | 329 | 247 | 200 | 170 | 118 | 98.0 |
| A612/150 | NGA6120150HS0FB | 1566  | 1422   | 1218   | 1032   | 720 | 491 | 370 | 301 | 255 | 177 | 146  |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h | 2 h | 3 h | 4 h | 5 h | 8 h | 10 h |
|----------|-----------------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|
| A606/200 | NGA6060200HS0FB | 1131  | 999    | 900    | 729    | 516 | 342 | 261 | 211 | 179 | 124 | 102  |
| A606/300 | NGA6060300HS0FB | 1551  | 1374   | 1227   | 1056   | 756 | 507 | 393 | 315 | 268 | 183 | 153  |
| A612/100 | NGA6120100HS0FB | 1236  | 1068   | 984    | 792    | 536 | 347 | 261 | 211 | 179 | 124 | 101  |
| A612/150 | NGA6120150HS0FB | 1788  | 1554   | 1398   | 1146   | 786 | 517 | 392 | 316 | 268 | 187 | 153  |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h | 2 h | 3 h | 4 h | 5 h | 8 h | 10 h |
|----------|-----------------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|
| A606/200 | NGA6060200HS0FB | 1254  | 1098   | 993    | 816    | 567 | 363 | 277 | 220 | 185 | 128 | 106  |
| A606/300 | NGA6060300HS0FB | 1704  | 1533   | 1368   | 1188   | 831 | 537 | 414 | 330 | 277 | 192 | 159  |
| A612/100 | NGA6120100HS0FB | 1368  | 1188   | 1062   | 834    | 587 | 364 | 276 | 215 | 185 | 127 | 106  |
| A612/150 | NGA6120150HS0FB | 1968  | 1716   | 1548   | 1212   | 864 | 542 | 415 | 329 | 277 | 191 | 159  |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h | 2 h | 3 h | 4 h | 5 h | 8 h | 10 h |
|----------|-----------------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|
| A606/200 | NGA6060200HS0FB | 1335  | 1206   | 999    | 834    | 597 | 372 | 280 | 224 | 189 | 129 | 106  |
| A606/300 | NGA6060300HS0FB | 1827  | 1695   | 1383   | 1221   | 882 | 549 | 420 | 333 | 284 | 193 | 159  |
| A612/100 | NGA6120100HS0FB | 1470  | 1314   | 1122   | 894    | 618 | 377 | 280 | 223 | 188 | 128 | 106  |
| A612/150 | NGA6120150HS0FB | 2112  | 1902   | 1578   | 1296   | 912 | 562 | 419 | 335 | 283 | 193 | 159  |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h | 2 h | 3 h | 4 h | 5 h | 8 h | 10 h |
|----------|-----------------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|
| A606/200 | NGA6060200HS0FB | 1428  | 1314   | 1170   | 918    | 627 | 390 | 284 | 225 | 190 | 129 | 106  |
| A606/300 | NGA6060300HS0FB | 2037  | 1854   | 1650   | 1347   | 921 | 582 | 426 | 336 | 284 | 193 | 159  |
| A612/100 | NGA6120100HS0FB | 1560  | 1422   | 1290   | 972    | 648 | 400 | 284 | 226 | 190 | 129 | 106  |
| A612/150 | NGA6120150HS0FB | 2262  | 2058   | 1848   | 1410   | 948 | 593 | 427 | 339 | 285 | 193 | 159  |

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

| Type     | Part number     | 5 min | 10 min | 15 min | 30 min | 1 h | 2 h | 3 h | 4 h | 5 h | 8 h | 10 h |
|----------|-----------------|-------|--------|--------|--------|-----|-----|-----|-----|-----|-----|------|
| A606/200 | NGA6060200HS0FB | 1575  | 1386   | 1230   | 933    | 627 | 390 | 284 | 225 | 190 | 129 | 106  |
| A606/300 | NGA6060300HS0FB | 2211  | 1974   | 1743   | 1368   | 921 | 582 | 426 | 336 | 284 | 193 | 159  |
| A612/100 | NGA6120100HS0FB | 1686  | 1512   | 1344   | 990    | 648 | 400 | 284 | 226 | 190 | 129 | 106  |
| A612/150 | NGA6120150HS0FB | 2454  | 2196   | 1944   | 1422   | 948 | 593 | 427 | 339 | 285 | 193 | 159  |

## Sonnenschein A600

### Constant power discharge · A600 cells

#### 1.90 Vpc – Discharge in W/cell at 20 °C

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 265   | 258   | 248    | 236    | 219    | 197    | 158  | 122  | 101  | 83.2 | 69.6 |
| A602/280   | NGA6020280HS0FA | 331   | 323   | 310    | 295    | 274    | 246    | 198  | 153  | 126  | 104  | 87.0 |
| A602/335   | NGA6020335HS0FA | 398   | 387   | 372    | 354    | 329    | 296    | 237  | 183  | 152  | 125  | 104  |
| A602/415   | NGA6020415HS0FA | 481   | 473   | 463    | 410    | 384    | 343    | 273  | 205  | 158  | 130  | 111  |
| A602/500   | NGA6020500HS0FA | 577   | 568   | 556    | 492    | 461    | 412    | 328  | 246  | 190  | 156  | 133  |
| A602/580   | NGA6020580HS0FA | 673   | 662   | 648    | 574    | 538    | 480    | 382  | 287  | 221  | 182  | 155  |
| A602/750   | NGA6020750HS0FA | 743   | 683   | 588    | 535    | 513    | 495    | 436  | 357  | 294  | 248  | 211  |
| A602/1010  | NGA6021010HS0FA | 991   | 911   | 784    | 713    | 684    | 660    | 581  | 476  | 392  | 331  | 281  |
| A602/1250  | NGA6021250HS0FA | 1019  | 1019  | 980    | 892    | 855    | 825    | 727  | 595  | 490  | 413  | 352  |
| A602/1510  | NGA6021510HS0FA | 1020  | 1020  | 1020   | 1020   | 1020   | 990    | 872  | 714  | 588  | 496  | 422  |
| A602/1650C | NGA6021650HS0FA | 1021  | 1021  | 1021   | 1021   | 1021   | 1021   | 765  | 598  | 513  | 461  | 415  |
| A602/2200  | NGA6022200HS0FA | 1411  | 1399  | 1373   | 1344   | 1323   | 1287   | 1152 | 908  | 732  | 596  | 511  |
| A602/2740  | NGA6022740HS0FA | 1763  | 1748  | 1717   | 1680   | 1653   | 1608   | 1440 | 1135 | 915  | 745  | 638  |
| A602/3300  | NGA6023300HS0FA | 2116  | 2098  | 2060   | 2016   | 1984   | 1930   | 1728 | 1362 | 1098 | 894  | 766  |

#### 1.87 Vpc – Discharge in W/cell at 20 °C

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 315   | 300   | 289    | 270    | 255    | 229    | 172  | 130  | 107  | 90.4 | 76.9 |
| A602/280   | NGA6020280HS0FA | 394   | 375   | 361    | 338    | 319    | 286    | 215  | 163  | 134  | 113  | 96.1 |
| A602/335   | NGA6020335HS0FA | 473   | 450   | 434    | 405    | 383    | 344    | 258  | 195  | 161  | 136  | 115  |
| A602/415   | NGA6020415HS0FA | 534   | 509   | 485    | 445    | 418    | 375    | 302  | 223  | 180  | 146  | 121  |
| A602/500   | NGA6020500HS0FA | 641   | 611   | 582    | 534    | 502    | 450    | 362  | 268  | 216  | 175  | 145  |
| A602/580   | NGA6020580HS0FA | 748   | 713   | 679    | 623    | 585    | 525    | 423  | 312  | 252  | 204  | 169  |
| A602/750   | NGA6020750HS0FA | 772   | 757   | 712    | 648    | 636    | 592    | 495  | 395  | 328  | 276  | 229  |
| A602/1010  | NGA6021010HS0FA | 1029  | 1009  | 949    | 864    | 848    | 789    | 660  | 527  | 437  | 368  | 305  |
| A602/1250  | NGA6021250HS0FA | 1161  | 1161  | 1161   | 1080   | 1060   | 987    | 825  | 658  | 547  | 460  | 382  |
| A602/1510  | NGA6021510HS0FA | 1162  | 1162  | 1162   | 1162   | 1162   | 1162   | 990  | 790  | 656  | 552  | 458  |
| A602/1650C | NGA6021650HS0FA | 1163  | 1163  | 1163   | 1163   | 1163   | 1163   | 997  | 769  | 632  | 523  | 442  |
| A602/2200  | NGA6022200HS0FA | 1523  | 1507  | 1467   | 1423   | 1396   | 1357   | 1251 | 1025 | 843  | 697  | 589  |
| A602/2740  | NGA6022740HS0FA | 1903  | 1883  | 1833   | 1778   | 1745   | 1697   | 1563 | 1282 | 1053 | 872  | 737  |
| A602/3300  | NGA6023300HS0FA | 2284  | 2260  | 2200   | 2134   | 2094   | 2036   | 1876 | 1538 | 1264 | 1046 | 884  |

#### 1.85 Vpc – Discharge in W/cell at 20 °C

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 343   | 326   | 305    | 290    | 270    | 246    | 181  | 134  | 111  | 94.6 | 80.0 |
| A602/280   | NGA6020280HS0FA | 429   | 408   | 381    | 363    | 338    | 308    | 226  | 168  | 139  | 118  | 100  |
| A602/335   | NGA6020335HS0FA | 515   | 489   | 458    | 435    | 405    | 369    | 272  | 201  | 167  | 142  | 120  |
| A602/415   | NGA6020415HS0FA | 612   | 569   | 528    | 489    | 457    | 401    | 323  | 234  | 188  | 153  | 128  |
| A602/500   | NGA6020500HS0FA | 734   | 683   | 634    | 587    | 548    | 481    | 388  | 281  | 226  | 184  | 154  |
| A602/580   | NGA6020580HS0FA | 857   | 797   | 739    | 685    | 640    | 561    | 452  | 328  | 263  | 214  | 179  |
| A602/750   | NGA6020750HS0FA | 798   | 772   | 748    | 696    | 686    | 643    | 523  | 410  | 343  | 288  | 240  |
| A602/1010  | NGA6021010HS0FA | 1064  | 1029  | 997    | 928    | 915    | 857    | 697  | 547  | 457  | 384  | 320  |
| A602/1250  | NGA6021250HS0FA | 1264  | 1264  | 1247   | 1160   | 1143   | 1072   | 872  | 683  | 572  | 480  | 400  |
| A602/1510  | NGA6021510HS0FA | 1265  | 1265  | 1265   | 1265   | 1265   | 1238   | 1046 | 820  | 686  | 576  | 480  |
| A602/1650C | NGA6021650HS0FA | 1266  | 1266  | 1266   | 1266   | 1266   | 1239   | 1102 | 797  | 635  | 539  | 484  |
| A602/2200  | NGA6022200HS0FA | 1673  | 1653  | 1587   | 1520   | 1467   | 1403   | 1301 | 1101 | 916  | 757  | 639  |
| A602/2740  | NGA6022740HS0FA | 2092  | 2067  | 1983   | 1900   | 1833   | 1753   | 1627 | 1377 | 1145 | 947  | 798  |
| A602/3300  | NGA6023300HS0FA | 2510  | 2480  | 2380   | 2280   | 2200   | 2104   | 1952 | 1652 | 1374 | 1136 | 958  |

## Sonnenschein A600

### Constant power discharge · A600 cells

#### 1.83 Vpc – Discharge in W/cell at 20 °C

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 357   | 342   | 331    | 305    | 290    | 265    | 189  | 137  | 114  | 96.7 | 82.1 |
| A602/280   | NGA6020280HS0FA | 446   | 428   | 414    | 381    | 363    | 331    | 236  | 171  | 143  | 121  | 103  |
| A602/335   | NGA6020335HS0FA | 536   | 513   | 497    | 458    | 435    | 398    | 284  | 206  | 171  | 145  | 123  |
| A602/415   | NGA6020415HS0FA | 636   | 603   | 561    | 520    | 491    | 431    | 341  | 242  | 196  | 159  | 134  |
| A602/500   | NGA6020500HS0FA | 763   | 724   | 673    | 624    | 589    | 517    | 409  | 290  | 235  | 191  | 161  |
| A602/580   | NGA6020580HS0FA | 890   | 844   | 785    | 728    | 687    | 603    | 477  | 339  | 274  | 223  | 188  |
| A602/750   | NGA6020750HS0FA | 856   | 819   | 790    | 748    | 732    | 698    | 550  | 424  | 357  | 300  | 249  |
| A602/1010  | NGA6021010HS0FA | 1141  | 1092  | 1053   | 997    | 976    | 931    | 733  | 565  | 476  | 400  | 332  |
| A602/1250  | NGA6021250HS0FA | 1374  | 1365  | 1317   | 1247   | 1220   | 1163   | 917  | 707  | 595  | 500  | 415  |
| A602/1510  | NGA6021510HS0FA | 1375  | 1375  | 1375   | 1360   | 1359   | 1316   | 1100 | 848  | 714  | 600  | 498  |
| A602/1650C | NGA6021650HS0FA | 1376  | 1376  | 1376   | 1361   | 1360   | 1317   | 1163 | 868  | 680  | 572  | 511  |
| A602/2200  | NGA6022200HS0FA | 1897  | 1867  | 1840   | 1717   | 1673   | 1517   | 1376 | 1149 | 965  | 807  | 681  |
| A602/2740  | NGA6022740HS0FA | 2372  | 2333  | 2300   | 2147   | 2092   | 1897   | 1720 | 1437 | 1207 | 1008 | 852  |
| A602/3300  | NGA6023300HS0FA | 2846  | 2800  | 2760   | 2576   | 2510   | 2276   | 2064 | 1724 | 1448 | 1210 | 1022 |

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

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 393   | 367   | 358    | 335    | 309    | 283    | 199  | 140  | 117  | 100  | 84.2 |
| A602/280   | NGA6020280HS0FA | 491   | 459   | 448    | 419    | 386    | 354    | 249  | 175  | 146  | 125  | 105  |
| A602/335   | NGA6020335HS0FA | 590   | 551   | 537    | 503    | 464    | 425    | 299  | 210  | 176  | 150  | 126  |
| A602/415   | NGA6020415HS0FA | 710   | 669   | 603    | 572    | 540    | 480    | 368  | 252  | 201  | 166  | 140  |
| A602/500   | NGA6020500HS0FA | 852   | 803   | 724    | 686    | 648    | 576    | 442  | 302  | 241  | 199  | 168  |
| A602/580   | NGA6020580HS0FA | 994   | 937   | 844    | 801    | 756    | 672    | 515  | 353  | 281  | 232  | 196  |
| A602/750   | NGA6020750HS0FA | 964   | 939   | 888    | 833    | 810    | 782    | 597  | 439  | 372  | 314  | 263  |
| A602/1010  | NGA6021010HS0FA | 1285  | 1252  | 1184   | 1111   | 1080   | 1043   | 796  | 585  | 496  | 419  | 351  |
| A602/1250  | NGA6021250HS0FA | 1539  | 1539  | 1480   | 1388   | 1350   | 1303   | 995  | 732  | 620  | 523  | 438  |
| A602/1510  | NGA6021510HS0FA | 1540  | 1540  | 1540   | 1540   | 1540   | 1441   | 1189 | 878  | 744  | 628  | 526  |
| A602/1650C | NGA6021650HS0FA | 1541  | 1541  | 1541   | 1541   | 1541   | 1442   | 1190 | 961  | 746  | 619  | 538  |
| A602/2200  | NGA6022200HS0FA | 2171  | 2133  | 2072   | 1961   | 1903   | 1765   | 1541 | 1209 | 1024 | 867  | 728  |
| A602/2740  | NGA6022740HS0FA | 2713  | 2667  | 2590   | 2452   | 2378   | 2207   | 1927 | 1512 | 1280 | 1083 | 910  |
| A602/3300  | NGA6023300HS0FA | 3256  | 3200  | 3108   | 2942   | 2854   | 2648   | 2312 | 1814 | 1536 | 1300 | 1092 |

#### 1.75 Vpc – Discharge in W/cell at 20 °C

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 454   | 442   | 410    | 390    | 352    | 312    | 211  | 144  | 121  | 102  | 87.3 |
| A602/280   | NGA6020280HS0FA | 568   | 553   | 513    | 488    | 440    | 390    | 264  | 180  | 151  | 128  | 109  |
| A602/335   | NGA6020335HS0FA | 681   | 663   | 615    | 585    | 528    | 468    | 317  | 216  | 182  | 153  | 131  |
| A602/415   | NGA6020415HS0FA | 764   | 743   | 676    | 624    | 600    | 526    | 398  | 265  | 206  | 171  | 143  |
| A602/500   | NGA6020500HS0FA | 917   | 892   | 811    | 749    | 720    | 631    | 478  | 318  | 247  | 205  | 171  |
| A602/580   | NGA6020580HS0FA | 1070  | 1040  | 946    | 874    | 840    | 736    | 557  | 371  | 288  | 239  | 200  |
| A602/750   | NGA6020750HS0FA | 1069  | 1048  | 1007   | 955    | 918    | 880    | 670  | 457  | 386  | 329  | 275  |
| A602/1010  | NGA6021010HS0FA | 1425  | 1397  | 1343   | 1273   | 1224   | 1173   | 893  | 609  | 515  | 439  | 367  |
| A602/1250  | NGA6021250HS0FA | 1782  | 1747  | 1678   | 1592   | 1530   | 1467   | 1117 | 762  | 643  | 548  | 458  |
| A602/1510  | NGA6021510HS0FA | 1817  | 1817  | 1817   | 1817   | 1817   | 1736   | 1340 | 914  | 772  | 658  | 550  |
| A602/1650C | NGA6021650HS0FA | 1818  | 1818  | 1818   | 1818   | 1818   | 1737   | 1341 | 1046 | 827  | 671  | 582  |
| A602/2200  | NGA6022200HS0FA | 2479  | 2459  | 2401   | 2224   | 2120   | 1985   | 1684 | 1268 | 1088 | 919  | 776  |
| A602/2740  | NGA6022740HS0FA | 3098  | 3073  | 3002   | 2780   | 2650   | 2482   | 2105 | 1585 | 1360 | 1148 | 970  |
| A602/3300  | NGA6023300HS0FA | 3718  | 3688  | 3602   | 3336   | 3180   | 2978   | 2526 | 1902 | 1632 | 1378 | 1164 |

## Sonnenschein A600

### Constant power discharge · A600 cells

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

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 539   | 504   | 454    | 430    | 390    | 346    | 225  | 146  | 122  | 104  | 88.9 |
| A602/280   | NGA6020280HS0FA | 674   | 630   | 568    | 538    | 488    | 433    | 281  | 183  | 153  | 130  | 111  |
| A602/335   | NGA6020335HS0FA | 809   | 756   | 681    | 645    | 585    | 519    | 338  | 219  | 183  | 156  | 133  |
| A602/415   | NGA6020415HS0FA | 849   | 811   | 764    | 696    | 650    | 573    | 421  | 275  | 209  | 173  | 143  |
| A602/500   | NGA6020500HS0FA | 1019  | 973   | 917    | 835    | 780    | 688    | 505  | 330  | 251  | 207  | 172  |
| A602/580   | NGA6020580HS0FA | 1189  | 1135  | 1070   | 974    | 910    | 802    | 589  | 385  | 293  | 242  | 200  |
| A602/750   | NGA6020750HS0FA | 1208  | 1173  | 1120   | 1060   | 1006   | 960    | 725  | 479  | 395  | 338  | 279  |
| A602/1010  | NGA6021010HS0FA | 1611  | 1564  | 1493   | 1413   | 1341   | 1280   | 967  | 639  | 526  | 450  | 372  |
| A602/1250  | NGA6021250HS0FA | 2013  | 1955  | 1867   | 1767   | 1677   | 1600   | 1208 | 798  | 658  | 563  | 465  |
| A602/1510  | NGA6021510HS0FA | 2094  | 2094  | 2094   | 2051   | 2014   | 1844   | 1450 | 958  | 789  | 675  | 558  |
| A602/1650C | NGA6021650HS0FA | 2095  | 2095  | 2095   | 2052   | 2015   | 1845   | 1451 | 1101 | 873  | 704  | 595  |
| A602/2200  | NGA6022200HS0FA | 2627  | 2627  | 2572   | 2481   | 2400   | 2221   | 1801 | 1300 | 1112 | 943  | 800  |
| A602/2740  | NGA6022740HS0FA | 3283  | 3283  | 3215   | 3102   | 3000   | 2777   | 2252 | 1625 | 1390 | 1178 | 1000 |
| A602/3300  | NGA6023300HS0FA | 3940  | 3940  | 3858   | 3722   | 3600   | 3332   | 2702 | 1950 | 1668 | 1414 | 1200 |

#### 1.65 Vpc – Discharge in W/cell at 20 °C

| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 636   | 579   | 521    | 464    | 426    | 372    | 235  | 150  | 123  | 105  | 90.4 |
| A602/280   | NGA6020280HS0FA | 795   | 724   | 651    | 580    | 533    | 465    | 294  | 188  | 154  | 131  | 113  |
| A602/335   | NGA6020335HS0FA | 954   | 869   | 782    | 696    | 639    | 558    | 353  | 225  | 185  | 158  | 136  |
| A602/415   | NGA6020415HS0FA | 954   | 915   | 821    | 748    | 710    | 598    | 430  | 276  | 210  | 173  | 143  |
| A602/500   | NGA6020500HS0FA | 1145  | 1098  | 985    | 898    | 852    | 718    | 516  | 331  | 252  | 208  | 172  |
| A602/580   | NGA6020580HS0FA | 1336  | 1281  | 1149   | 1047   | 994    | 837    | 602  | 386  | 294  | 242  | 201  |
| A602/750   | NGA6020750HS0FA | 1386  | 1313  | 1243   | 1173   | 1110   | 1023   | 745  | 495  | 395  | 338  | 280  |
| A602/1010  | NGA6021010HS0FA | 1848  | 1751  | 1657   | 1564   | 1480   | 1364   | 993  | 660  | 527  | 451  | 373  |
| A602/1250  | NGA6021250HS0FA | 2310  | 2188  | 2072   | 1955   | 1850   | 1705   | 1242 | 825  | 658  | 563  | 467  |
| A602/1510  | NGA6021510HS0FA | 2368  | 2368  | 2318   | 2226   | 2151   | 1991   | 1490 | 990  | 790  | 676  | 560  |
| A602/1650C | NGA6021650HS0FA | 2369  | 2369  | 2319   | 2227   | 2151   | 1992   | 1555 | 1150 | 903  | 726  | 612  |
| A602/2200  | NGA6022200HS0FA | 2872  | 2811  | 2707   | 2629   | 2547   | 2408   | 1915 | 1373 | 1137 | 951  | 812  |
| A602/2740  | NGA6022740HS0FA | 3590  | 3513  | 3383   | 3287   | 3183   | 3010   | 2393 | 1717 | 1422 | 1188 | 1015 |
| A602/3300  | NGA6023300HS0FA | 4308  | 4216  | 4060   | 3944   | 3820   | 3612   | 2872 | 2060 | 1706 | 1426 | 1218 |

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

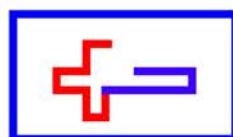
| Type       | Part number     | 3 min | 5 min | 10 min | 15 min | 20 min | 30 min | 1 h  | 2 h  | 3 h  | 4 h  | 5 h  |
|------------|-----------------|-------|-------|--------|--------|--------|--------|------|------|------|------|------|
| A602/225   | NGA6020225HS0FA | 671   | 620   | 588    | 506    | 459    | 381    | 240  | 152  | 124  | 105  | 90.4 |
| A602/280   | NGA6020280HS0FA | 839   | 775   | 735    | 633    | 574    | 476    | 300  | 190  | 155  | 131  | 113  |
| A602/335   | NGA6020335HS0FA | 1007  | 930   | 882    | 759    | 689    | 572    | 360  | 228  | 186  | 158  | 136  |
| A602/415   | NGA6020415HS0FA | 1017  | 967   | 906    | 790    | 738    | 624    | 436  | 277  | 210  | 173  | 144  |
| A602/500   | NGA6020500HS0FA | 1220  | 1160  | 1087   | 948    | 886    | 749    | 523  | 332  | 252  | 208  | 173  |
| A602/580   | NGA6020580HS0FA | 1424  | 1354  | 1268   | 1106   | 1033   | 874    | 610  | 388  | 294  | 243  | 201  |
| A602/750   | NGA6020750HS0FA | 1469  | 1442  | 1387   | 1272   | 1183   | 1048   | 765  | 502  | 395  | 338  | 280  |
| A602/1010  | NGA6021010HS0FA | 1959  | 1923  | 1849   | 1696   | 1577   | 1397   | 1020 | 669  | 527  | 451  | 374  |
| A602/1250  | NGA6021250HS0FA | 2448  | 2403  | 2312   | 2120   | 1972   | 1747   | 1275 | 837  | 659  | 564  | 467  |
| A602/1510  | NGA6021510HS0FA | 2643  | 2562  | 2376   | 2262   | 2195   | 2087   | 1530 | 1004 | 791  | 677  | 561  |
| A602/1650C | NGA6021650HS0FA | 2644  | 2563  | 2377   | 2263   | 2196   | 2088   | 1616 | 1174 | 915  | 736  | 620  |
| A602/2200  | NGA6022200HS0FA | 3259  | 3120  | 2800   | 2733   | 2667   | 2543   | 2005 | 1387 | 1141 | 961  | 819  |
| A602/2740  | NGA6022740HS0FA | 4073  | 3900  | 3500   | 3417   | 3333   | 3178   | 2507 | 1733 | 1427 | 1202 | 1023 |
| A602/3300  | NGA6023300HS0FA | 4888  | 4680  | 4200   | 4100   | 4000   | 3814   | 3008 | 2080 | 1712 | 1442 | 1228 |



**Exide Technologies**, with operations in more than 80 countries, is one of the world's largest producers and recyclers of lead-acid batteries. Exide Technologies provides a comprehensive and customized range of stored electrical energy solutions. Based on over 120 years of experience in the development of innovative technologies, Exide Technologies is an esteemed partner of OEMs and serves the spare parts market for industrial and automotive applications.

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**abs**

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