



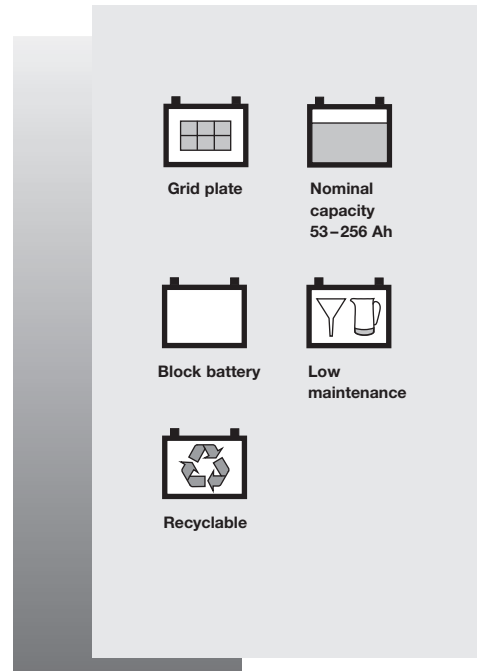
## Industrial Batteries – Standby Power Classic Solar

Powerful energy storage for photovoltaic systems.

### Specifications

Classic EnerSol are robust flooded batteries for energy storage that is proven for use in leisure and consumer applications (SHS). Developed primarily for photovoltaic systems, the EnerSol range stands for:

- Longer design life in cyclic applications in comparison to a standard automotive battery
- Improved DC voltage, due to short intercell connections
- Exceptional anticorrosion property due to thick grid plates
- Internal pocket separators consisting of micro porous glass mat to ensure cell characteristics are retained over full life of the cell
- Terminal adapters can be provided



## Technical characteristics and data

| Type        | Part number     | Nominal voltage<br>V | Capacity                            | Nominal capacity                    | Discharge current          | Length (l) | Width (b/w) | Height (h) | Weight including acid | Weight acid* | Terminal   | Terminal position |
|-------------|-----------------|----------------------|-------------------------------------|-------------------------------------|----------------------------|------------|-------------|------------|-----------------------|--------------|------------|-------------------|
|             |                 |                      | $C_{100}$<br>1.85 V/C<br>25°C<br>Ah | $C_{120}$<br>1.85 V/C<br>25°C<br>Ah | $I_{120}$<br>1.85 V/C<br>A | max. mm    | max. mm     | max. mm    | approx. kg            | approx. kg   |            |                   |
| EnerSol 50  | NVCE120050WC0TA | 12                   | 52                                  | 53                                  | 0.44                       | 207        | 175         | 190        | 13.6                  | 3.5          | A-Terminal | 1                 |
| EnerSol 65  | NVCE120065WC0TA | 12                   | 65                                  | 66                                  | 0.55                       | 246        | 175         | 190        | 17.1                  | 4.6          | A-Terminal | 1                 |
| EnerSol 80  | NVCE120080WC0TA | 12                   | 78                                  | 80                                  | 0.66                       | 278        | 175         | 190        | 20.4                  | 5.6          | A-Terminal | 1                 |
| EnerSol 100 | NVCE120100WC0TA | 12                   | 97                                  | 99                                  | 0.82                       | 353        | 175         | 190        | 25.2                  | 6.8          | A-Terminal | 1                 |
| EnerSol 130 | NVCE120130WC0TA | 12                   | 130                                 | 132                                 | 1.10                       | 348        | 175         | 290        | 35.2                  | 10.0         | A-Terminal | 2                 |
| EnerSol 175 | NVCE120175WC0TA | 12                   | 175                                 | 179                                 | 1.49                       | 513        | 223         | 223        | 46.5                  | 12.2         | A-Terminal | 2                 |
| EnerSol 250 | NVCE120250WC0TA | 12                   | 250                                 | 256                                 | 2.13                       | 518        | 276         | 242        | 63.0                  | 18.6         | A-Terminal | 2                 |

\*Acid density  $d_N = 1.28 \text{ kg/l}$

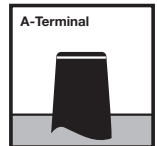
Data are also valid for dry charged version.  
Change „W“ (Wet) to „D“ (Dry)  
in the part number

E.g.:

filled and charged NVCE120050 **W** C0TA  
dry charged NVCE120050 **D** C0TA

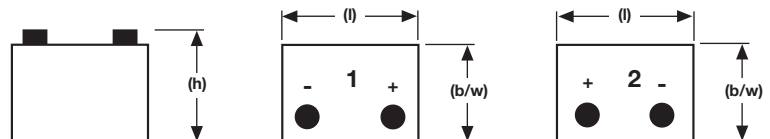
## Terminal and torque

Don't use torque for adapter



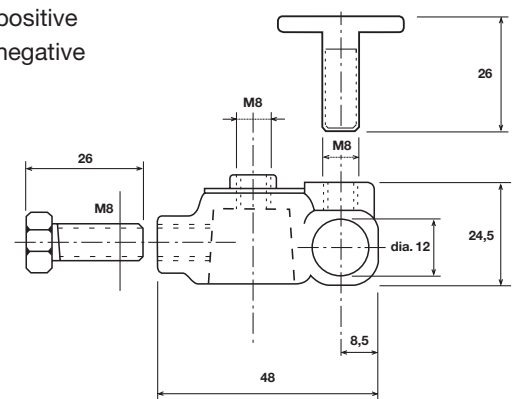
8 Nm

## Drawings with terminal position



## Accessories

EnerSol adapter positive  
EnerSol adapter negative



Not to scale!









# Powerful and universal suitable for every application.

Classic EnerSol T batteries are universal, low maintenance energy supplies for medium industrial solar systems. These lead acid batteries with liquid electrolyte are renowned to be safe and reliable due to their high performance. Typical applications are small solar and wind power systems, holiday and weekend houses.

- Positive tubular plates
- Translucent containers for topping up
- Screw connectors for a better contact and reliability



|  |  |  |
|--|--|--|
| <br>Tubular plate | <br>Nominal capacity<br>367–1251 Ah | <br>Single cell |
| <br>1500 cycles   | <br>Low maintenance                 | <br>Recyclable  |

## Technical characteristics and data

| Type           | Part number     | Nominal voltage | Capacity  | Length (l) | Width (b/w) | Height* (h) | Installed length (B/L) | Weight including acid | Weight acid** | Internal resistance | Short circuit current | Terminal | Pole pairs |
|----------------|-----------------|-----------------|-----------|------------|-------------|-------------|------------------------|-----------------------|---------------|---------------------|-----------------------|----------|------------|
|                |                 |                 | $C_{120}$ |            |             |             |                        |                       |               |                     |                       |          |            |
|                |                 |                 | 1.85 V/C  |            |             |             |                        |                       |               |                     |                       |          |            |
|                |                 | V               | Ah        | max. mm    | max. mm     | max. mm     | mm                     | approx. kg            | approx. kg    | mΩ                  | A                     |          |            |
| EnerSol T 370  | NVTS020370WC0FA | 2               | 367       | 83         | 198.5       | 445         | 93                     | 17.3                  | 5.1           | 0.701               | 2900                  | F-M10    | 1          |
| EnerSol T 460  | NVTS020460WC0FA | 2               | 459       | 101        | 198.5       | 445         | 111                    | 21.0                  | 6.3           | 0.561               | 3625                  | F-M10    | 1          |
| EnerSol T 550  | NVTS020550WC0FA | 2               | 551       | 119        | 198.5       | 445         | 129                    | 24.7                  | 7.5           | 0.467               | 4350                  | F-M10    | 1          |
| EnerSol T 650  | NVTS020650WC0FA | 2               | 648       | 119        | 198.5       | 508         | 129                    | 29.5                  | 8.6           | 0.450               | 4500                  | F-M10    | 1          |
| EnerSol T 760  | NVTS020760WC0FA | 2               | 756       | 137        | 198.5       | 508         | 147                    | 31.0                  | 10.0          | 0.386               | 5250                  | F-M10    | 1          |
| EnerSol T 880  | NVTS020880WC0FA | 2               | 876       | 137        | 198.5       | 556         | 147                    | 38.0                  | 11.0          | 0.438               | 4660                  | F-M10    | 1          |
| EnerSol T 1000 | NVTS021000WC0FA | 2               | 1001      | 155        | 198.5       | 556         | 165                    | 43.1                  | 12.6          | 0.383               | 5325                  | F-M10    | 1          |
| EnerSol T 1130 | NVTS021130WC0FA | 2               | 1126      | 173        | 198.5       | 556         | 183                    | 47.7                  | 14.1          | 0.341               | 5991                  | F-M10    | 1          |
| EnerSol T 1250 | NVTS021250WC0FA | 2               | 1251      | 191        | 198.5       | 556         | 201                    | 52.8                  | 15.6          | 0.307               | 6657                  | F-M10    | 1          |

\*The above mentioned height can differ depending on the used vent(s).

\*\*Acid density  $d_N = 1.26 \text{ kg/l}$

Data are also valid for dry charged version.  
Change „W“ (Wet) to „D“ (Dry)  
in the part number

E.g.:

filled and charged NVTS020370 **W** C0FA

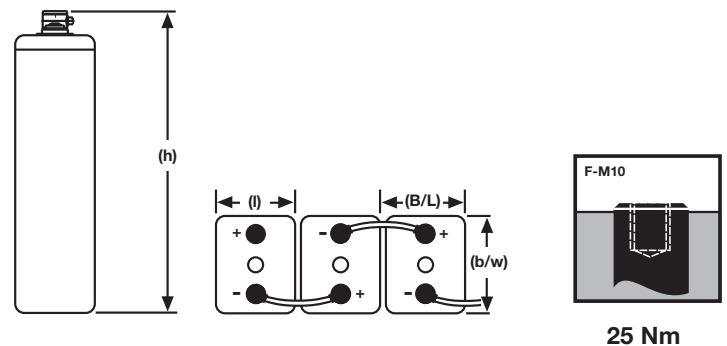
dry charged NVTS020370 **D** C0FA

## Capacities in Ah ( $C_6 - C_{240}$ at 25°C)

| Type           | $C_6$    | $C_{10}$ | $C_{12}$ | $C_{24}$ | $C_{48}$ | $C_{72}$ | $C_{100}$ | $C_{120}$ | $C_{240}$ |
|----------------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
|                | 1.75 V/C | 1.80 V/C | 1.80 V/C | 1.80 V/C | 1.80 V/C | 1.80 V/C | 1.85 V/C  | 1.85 V/C  | 1.85 V/C  |
| EnerSol T 370  | 260      | 280      | 294      | 333      | 361      | 377      | 369       | 376       | 383       |
| EnerSol T 460  | 327      | 350      | 367      | 416      | 437      | 472      | 444       | 452       | 478       |
| EnerSol T 550  | 393      | 425      | 441      | 499      | 524      | 566      | 533       | 542       | 574       |
| EnerSol T 650  | 492      | 527      | 552      | 625      | 656      | 709      | 647       | 668       | 719       |
| EnerSol T 760  | 574      | 615      | 645      | 729      | 766      | 827      | 755       | 779       | 839       |
| EnerSol T 880  | 654      | 714      | 742      | 840      | 854      | 953      | 869       | 897       | 966       |
| EnerSol T 1000 | 755      | 809      | 848      | 960      | 1008     | 1089     | 993       | 1025      | 1104      |
| EnerSol T 1130 | 850      | 910      | 954      | 1080     | 1134     | 1225     | 1117      | 1154      | 1242      |
| EnerSol T 1250 | 944      | 1011     | 1060     | 1200     | 1260     | 1361     | 1241      | 1282      | 1380      |

The capacities are given at 25°C after 5 cycles.

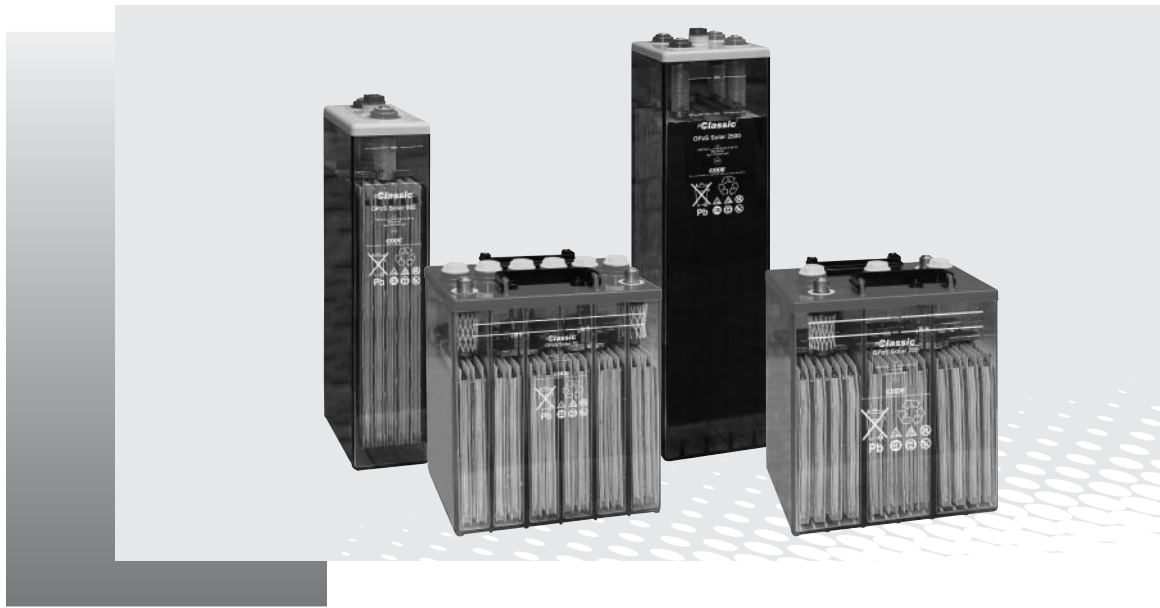
## Drawings with terminal position, terminal and torque



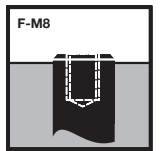
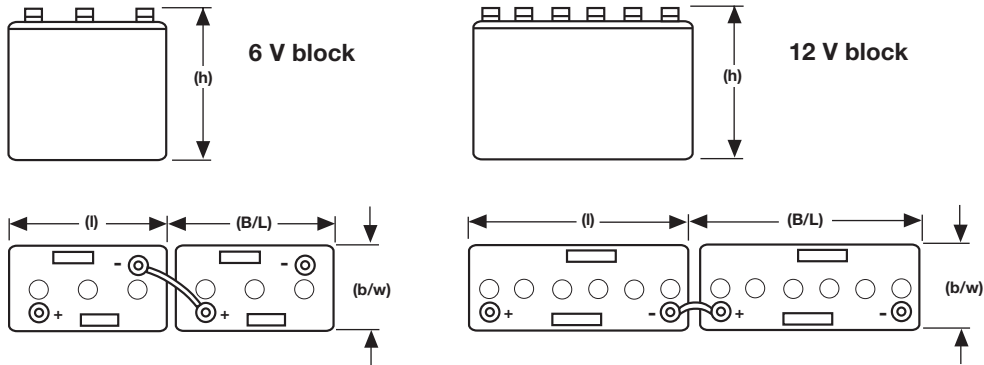
Not to scale!

# Energy storage for outstanding power applications.

The Classic OPzS Solar range has been well proven for decades in medium and large power requirements. This energy storage battery is a low maintenance lead acid battery with liquid electrolyte. Due to their robustness, long design life and high operational safety they are ideally suitable for use in solar and wind power stations, telecommunications, power distribution companies, railways and many other safety equipment power supplies.



## Drawings with terminal position, terminal and torque



20 Nm

Not to scale!

## Technical characteristics and data

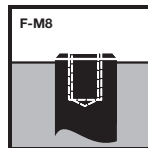
| Type            | Part number     | Nominal voltage<br>V | Nominal capacity<br>C <sub>120</sub><br>1.85 V/C<br>Ah | Length (l) |         | Width (b/w) |         | Height*<br>(h)<br>mm | Installed length (B/L)<br>mm | Weight including acid<br>approx. kg | Weight acid**<br>approx. kg | Internal resistance<br>mΩ | Short circuit current<br>A | Terminal | Pole pairs | Capacities in Ah (C <sub>6</sub> - C <sub>240</sub> at 25°C) |                             |                             |                             |                             |                             |                              |                              |                              |  |
|-----------------|-----------------|----------------------|--|------------|---------|-------------|---------|----------------------|------------------------------|-------------------------------------|-----------------------------|---------------------------|----------------------------|----------|------------|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|--|
|                 |                 |                      |  | max. mm    | max. mm | max. mm     | max. mm |                      |                              |                                     |                             |                           |                            |          |            | C <sub>6</sub><br>1.75 V/C                                   | C <sub>10</sub><br>1.80 V/C | C <sub>12</sub><br>1.80 V/C | C <sub>24</sub><br>1.80 V/C | C <sub>48</sub><br>1.80 V/C | C <sub>72</sub><br>1.80 V/C | C <sub>100</sub><br>1.85 V/C | C <sub>120</sub><br>1.85 V/C | C <sub>240</sub><br>1.85 V/C |  |
| Block           |                 |                      |  |            |         |             |         |                      |                              |                                     |                             |                           |                            |          |            |  |                             |                             |                             |                             |                             |                              |                              |                              |  |
| OPzS Solar 70   | NVSL120070WC0FA | 12                   | 70   | 275        | 208     | 385         | 285     | 35                   | 15                           | 18.18                               | 688                         | F-M8                      | 1                          | 55.0     | 51.5       | 63.7   | 69.4                        | 78.4                        | 79.8                        | 83.2                        | 82.7                        | 92.9                         |                              |                              |  |
| OPzS Solar 140  | NVSL120140WC0FA | 12                   | 140  | 275        | 208     | 385         | 285     | 45                   | 14                           | 9.26                                | 1314                        | F-M8                      | 1                          | 95.4     | 103.0      | 108.2  | 118.7                       | 141.6                       | 137.8                       | 144.0                       | 139.9                       | 162.3                        |                              |                              |  |
| OPzS Solar 210  | NVSL120210WC0FA | 12                   | 210  | 383        | 208     | 385         | 393     | 64                   | 19                           | 6.46                                | 1884                        | F-M8                      | 1                          | 131.4    | 154.5      | 150.7  | 167.0                       | 187.5                       | 196.2                       | 204.5                       | 208.3                       | 234.1                        |                              |                              |  |
| OPzS Solar 280  | NVSL060280WC0FA | 6                    | 280  | 275        | 208     | 385         | 285     | 41                   | 13                           | 2.68                                | 2283                        | F-M8                      | 1                          | 203.4    | 206.0      | 229.3  | 250.8                       | 296.2                       | 289.2                       | 301.8                       | 294.0                       | 338.3                        |                              |                              |  |
| OPzS Solar 350  | NVSL060350WC0FA | 6                    | 350  | 383        | 208     | 385         | 393     | 56                   | 20                           | 2.39                                | 2800                        | F-M8                      | 1                          | 245.5    | 257.5      | 284.0  | 311.5                       | 374.2                       | 361.2                       | 377.5                       | 364.1                       | 424.5                        |                              |                              |  |
| OPzS Solar 420  | NVSL060420WC0FA | 6                    | 420  | 383        | 208     | 385         | 393     | 63                   | 20                           | 1.96                                | 3106                        | F-M8                      | 1                          | 284.3    | 309.0      | 322.9  | 354.6                       | 420.8                       | 410.8                       | 429.4                       | 417.7                       | 482.9                        |                              |                              |  |
| Cell            |                 |                      |  |            |         |             |         |                      |                              |                                     |                             |                           |                            |          |            |  |                             |                             |                             |                             |                             |                              |                              |                              |  |
| OPzS Solar 190  | NVSL020190WC0FA | 2                    | 190  | 105        | 208     | 405         | 115     | 13.7                 | 5.2                          | 1.45                                | 1400                        | F-M8                      | 1                          | 120      | 128        | 130  | 145                         | 165                         | 175                         | 185                         | 190                         | 200                          |                              |                              |  |
| OPzS Solar 245  | NVSL020245WC0FA | 2                    | 245  | 105        | 208     | 405         | 115     | 15.2                 | 5.0                          | 1.05                                | 1950                        | F-M8                      | 1                          | 160      | 169        | 170  | 190                         | 215                         | 230                         | 240                         | 245                         | 260                          |                              |                              |  |
| OPzS Solar 305  | NVSL020305WC0FA | 2                    | 305  | 105        | 208     | 405         | 115     | 16.6                 | 4.6                          | 0.83                                | 2450                        | F-M8                      | 1                          | 200      | 216        | 220  | 240                         | 270                         | 285                         | 300                         | 305                         | 320                          |                              |                              |  |
| OPzS Solar 380  | NVSL020380WC0FA | 2                    | 380  | 126        | 208     | 405         | 136     | 20.0                 | 5.8                          | 0.72                                | 2850                        | F-M8                      | 1                          | 250      | 267        | 270  | 300                         | 330                         | 350                         | 370                         | 380                         | 400                          |                              |                              |  |
| OPzS Solar 450  | NVSL020450WC0FA | 2                    | 450  | 147        | 208     | 405         | 157     | 23.3                 | 6.9                          | 0.63                                | 3250                        | F-M8                      | 1                          | 295      | 319        | 325  | 355                         | 395                         | 420                         | 440                         | 450                         | 470                          |                              |                              |  |
| OPzS Solar 550  | NVSL020550WC0FA | 2                    | 550  | 126        | 208     | 520         | 136     | 26.7                 | 8.1                          | 0.63                                | 3250                        | F-M8                      | 1                          | 355      | 391        | 390  | 430                         | 480                         | 515                         | 540                         | 550                         | 580                          |                              |                              |  |
| OPzS Solar 660  | NVSL020660WC0FA | 2                    | 660  | 147        | 208     | 520         | 157     | 31.0                 | 9.3                          | 0.56                                | 3650                        | F-M8                      | 1                          | 420      | 468        | 465  | 515                         | 575                         | 615                         | 645                         | 660                         | 695                          |                              |                              |  |
| OPzS Solar 765  | NVSL020765WC0FA | 2                    | 765  | 168        | 208     | 520         | 178     | 35.4                 | 10.8                         | 0.50                                | 4100                        | F-M8                      | 1                          | 490      | 545        | 545  | 600                         | 670                         | 710                         | 750                         | 765                         | 805                          |                              |                              |  |
| OPzS Solar 985  | NVSL020985WC0FA | 2                    | 985  | 147        | 208     | 695         | 157     | 43.9                 | 13.0                         | 0.47                                | 4350                        | F-M8                      | 1                          | 610      | 700        | 695  | 770                         | 860                         | 920                         | 970                         | 985                         | 1035                         |                              |                              |  |
| OPzS Solar 1080 | NVSL021080WC0FA | 2                    | 1080   | 147        | 208     | 695         | 157     | 47.2                 | 12.8                         | 0.43                                | 4800                        | F-M8                      | 1                          | 675      | 772        | 770  | 845                         | 940                         | 1000                        | 1055                        | 1080                        | 1100                         |                              |                              |  |
| OPzS Solar 1320 | NVSL021320WC0FA | 2                    | 1320   | 215        | 193     | 695         | 225     | 59.9                 | 17.1                         | 0.30                                | 6800                        | F-M8                      | 2                          | 820      | 937        | 930  | 1030                        | 1150                        | 1230                        | 1295                        | 1320                        | 1385                         |                              |                              |  |
| OPzS Solar 1410 | NVSL021410WC0FA | 2                    | 1410   | 215        | 193     | 695         | 225     | 63.4                 | 16.8                         | 0.27                                | 7500                        | F-M8                      | 2                          | 895      | 1009       | 1005   | 1105                        | 1225                        | 1305                        | 1380                        | 1410                        | 1440                         |                              |                              |  |
| OPzS Solar 1650 | NVSL021650WC0FA | 2                    | 1650   | 215        | 235     | 695         | 225     | 73.2                 | 21.7                         | 0.26                                | 7900                        | F-M8                      | 2                          | 1025     | 1174       | 1170   | 1290                        | 1440                        | 1540                        | 1620                        | 1650                        | 1730                         |                              |                              |  |
| OPzS Solar 1990 | NVSL021990WC0FA | 2                    | 1990   | 215        | 277     | 695         | 225     | 86.4                 | 26.1                         | 0.23                                | 8900                        | F-M8                      | 2                          | 1230     | 1411       | 1405   | 1550                        | 1730                        | 1850                        | 1950                        | 1990                        | 2090                         |                              |                              |  |
| OPzS Solar 2350 | NVSL022350WC0FA | 2                    | 2350   | 215        | 277     | 845         | 225     | 108.0                | 33.7                         | 0.24                                | 8500                        | F-M8                      | 2                          | 1575     | 1751       | 1740   | 1910                        | 2090                        | 2200                        | 2300                        | 2350                        | 2470                         |                              |                              |  |
| OPzS Solar 2500 | NVSL022500WC0FA | 2                    | 2500   | 215        | 277     | 845         | 225     | 114.0                | 32.7                         | 0.22                                | 9300                        | F-M8                      | 2                          | 1670     | 1854       | 1845   | 2015                        | 2215                        | 2335                        | 2445                        | 2500                        | 2600                         |                              |                              |  |
| OPzS Solar 3100 | NVSL023100WC0FA | 2                    | 3100   | 215        | 400     | 815         | 225     | 151.0                | 50.0                         | 0.16                                | 12800                       | F-M8                      | 3                          | 2085     | 2317       | 2305   | 2520                        | 2755                        | 2910                        | 3040                        | 3100                        | 3250                         |                              |                              |  |
| OPzS Solar 3350 | NVSL023350WC0FA | 2                    | 3350   | 215        | 400     | 815         | 225     | 158.0                | 48.0                         | 0.14                                | 14600                       | F-M8                      | 3                          | 2275     | 2523       | 2510   | 2740                        | 2985                        | 3135                        | 3280                        | 3350                        | 3520                         |                              |                              |  |
| OPzS Solar 3850 | NVSL023850WC0FA | 2                    | 3850   | 215        | 490     | 815         | 225     | 184.0                | 60.0                         | 0.12                                | 17000                       | F-M8                      | 4                          | 2595     | 2884       | 2870   | 3135                        | 3430                        | 3615                        | 3765                        | 3850                        | 4040                         |                              |                              |  |
| OPzS Solar 4100 | NVSL024100WC0FA | 2                    | 4100   | 215        | 490     | 815         | 225     | 191.0                | 58.0                         | 0.11                                | 17800                       | F-M8                      | 4                          | 2785     | 3090       | 3075   | 3355                        | 3650                        | 3840                        | 4000                        | 4100                        | 4300                         |                              |                              |  |
| OPzS Solar 4600 | NVSL024600WC0FA | 2                    | 4600   | 215        | 580     | 815         | 225     | 217.0                | 71.0                         | 0.11                                | 18600                       | F-M8                      | 4                          | 3100     | 3450       | 3435   | 3765                        | 4100                        | 4300                        | 4500                        | 4600                        | 4850                         |                              |                              |  |

\*The above mentioned height can differ depending on the used vent(s).

\*\*Acid density  $d_N = 1.24 \text{ kg/l}$

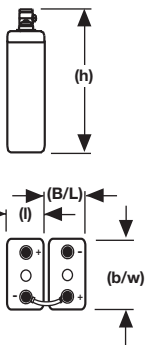
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in the part number.  
E.g.:  
filled and charged NVSL120070 **W** C0FA  
dry charged NVSL120070 **D** C0FA

### Drawings with terminal position, terminal and torque

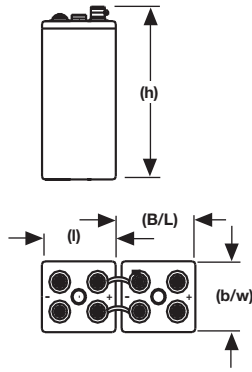


20 Nm

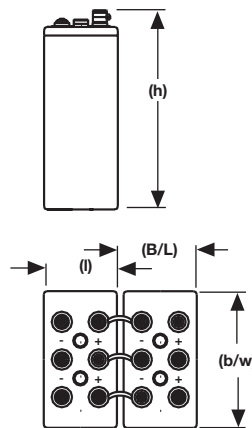
OPzS Solar 190  
up to  
OPzS Solar 1080



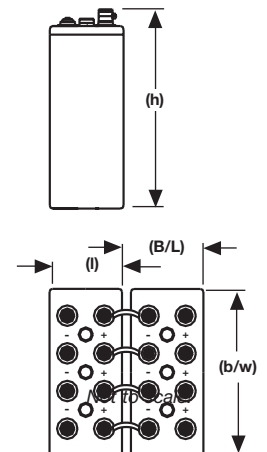
OPzS Solar 1320  
up to  
OPzS Solar 2500



OPzS Solar 3100  
OPzS Solar 3350



OPzS Solar 3850  
up to  
OPzS Solar 4600



Not to scale!



# Exide Technologies Industrial Energy – The Industry Leader.



**ABSOLYTE**

**MARATHON**

**Sprinter**

**Classic**

**Powerfit**



Exide Technologies Industrial Energy is a global leader in stored electrical energy solutions for all major critical reserve power applications and needs. Standby power applications include communication/data networks, UPS systems for computers and control systems, electrical power generation and distribution systems, as well as a wide range of other industrial standby power applications. With a strong manufacturing base in both North America and Europe and a truly global reach (operations in more than 80 countries) in sales and service, Exide Technologies Industrial Energy is best positioned to satisfy your back up power needs locally as well as all over the world.

Based on over 100 years of technological innovation the Industrial Energy Division leads the industry with the most recognized global standby power brands such as Absolyte, Sonnenschein, Marathon, Sprinter, and Flooded Classic. They have come to symbolize quality, reliability, performance and excellence in all the markets served.

Exide Technologies takes pride in its commitment to a better environment. Its Total Battery Management program, an integrated approach to manufacturing, distributing and recycling of lead acid batteries, has been developed to ensure a safe and responsible life cycle for all of its products.

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