



TPL Series

Extended Discharge Tables

12V Front Terminal VRLA-AGM

* Published specification data is subject to change without notice

TPL121000FR

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.67V | 186 | 118 | 69.1 | 50.2 | 40.1 | 29.6 | 23.8 | 19.8 | 16.9 | 13.0 | 10.6 | 5.56 |
| 1.70V | 175 | 114 | 67.4 | 49.4 | 39.4 | 29.3 | 23.5 | 19.5 | 16.6 | 12.8 | 10.5 | 5.50 |
| 1.75V | 157 | 106 | 64.0 | 47.3 | 38.0 | 28.4 | 22.8 | 18.8 | 16.0 | 12.5 | 10.3 | 5.38 |
| 1.80V | 139 | 98.0 | 60.3 | 44.7 | 36.3 | 27.0 | 21.8 | 18.1 | 15.6 | 12.1 | 10.0 | 5.25 |
| 1.83V | 129 | 92.5 | 58.0 | 43.5 | 35.1 | 26.1 | 21.1 | 17.6 | 15.2 | 11.7 | 9.63 | 5.13 |
| 1.85V | 122 | 88.2 | 56.0 | 42.5 | 34.3 | 25.4 | 20.7 | 17.2 | 14.8 | 11.5 | 9.50 | 5.00 |

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 1969 | 1272 | 757 | 554 | 446 | 331 | 268 | 223 | 191 | 147 | 120 | 63.1 |
| 1.70V | 1878 | 1233 | 746 | 549 | 439 | 329 | 267 | 222 | 189 | 145 | 119 | 62.9 |
| 1.75V | 1716 | 1161 | 723 | 534 | 428 | 322 | 261 | 216 | 185 | 144 | 118 | 62.3 |
| 1.80V | 1549 | 1075 | 691 | 511 | 414 | 313 | 254 | 212 | 183 | 141 | 116 | 61.6 |
| 1.83V | 1450 | 1025 | 669 | 502 | 405 | 305 | 246 | 207 | 179 | 138 | 114 | 60.6 |
| 1.85V | 1382 | 994 | 655 | 496 | 399 | 299 | 241 | 203 | 175 | 136 | 113 | 59.5 |

TPL121000TFR

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.67V | 203 | 123 | 72.6 | 52.9 | 41.9 | 29.8 | 23.4 | 19.4 | 16.6 | 12.9 | 10.7 | 5.55 |
| 1.70V | 198 | 122 | 72.2 | 52.7 | 41.5 | 29.7 | 23.3 | 19.3 | 16.5 | 12.8 | 10.6 | 5.51 |
| 1.75V | 184 | 117 | 71.1 | 52.0 | 41.2 | 29.4 | 23.1 | 19.2 | 16.4 | 12.7 | 10.5 | 5.47 |
| 1.80V | 164 | 111 | 68.7 | 50.8 | 40.2 | 28.7 | 22.6 | 18.8 | 16.0 | 12.5 | 10.4 | 5.37 |
| 1.83V | 148 | 105 | 65.9 | 49.2 | 38.9 | 27.9 | 22.0 | 18.3 | 15.7 | 12.3 | 10.1 | 5.24 |
| 1.85V | 138 | 101 | 64.0 | 48.1 | 38.1 | 27.3 | 21.6 | 18.0 | 15.4 | 12.1 | 9.91 | 5.15 |

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 2117 | 1370 | 843 | 619 | 488 | 344 | 270 | 223 | 192 | 152 | 127 | 66.6 |
| 1.70V | 2069 | 1361 | 837 | 615 | 487 | 342 | 268 | 222 | 190 | 149 | 124 | 65.6 |
| 1.75V | 1944 | 1327 | 828 | 611 | 482 | 341 | 265 | 221 | 189 | 148 | 123 | 65.3 |
| 1.80V | 1753 | 1261 | 798 | 598 | 472 | 334 | 262 | 217 | 187 | 147 | 122 | 65.0 |
| 1.83V | 1611 | 1211 | 768 | 581 | 457 | 326 | 256 | 213 | 183 | 145 | 121 | 63.6 |
| 1.85V | 1516 | 1177 | 748 | 569 | 447 | 320 | 252 | 210 | 181 | 144 | 120 | 62.6 |



TPL Series

Extended Discharge Tables

12V Front Terminal VRLA-AGM

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TPL121250AFR

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.67V | 232 | 147 | 86.3 | 63.0 | 50.2 | 37.0 | 29.8 | 24.7 | 21.1 | 16.3 | 13.3 | 6.95 |
| 1.70V | 220 | 142 | 84.4 | 61.8 | 49.1 | 36.6 | 29.4 | 24.4 | 20.8 | 15.9 | 13.1 | 6.88 |
| 1.75V | 199 | 132 | 81.2 | 59.3 | 47.2 | 35.2 | 28.5 | 23.4 | 20.0 | 15.6 | 12.8 | 6.72 |
| 1.80V | 176 | 121 | 76.7 | 56.4 | 45.1 | 33.8 | 27.2 | 22.7 | 19.5 | 15.1 | 12.5 | 6.56 |
| 1.83V | 162 | 115 | 73.1 | 54.5 | 43.8 | 32.7 | 26.4 | 22.0 | 19.0 | 14.6 | 12.0 | 6.41 |
| 1.85V | 153 | 110 | 70.4 | 52.7 | 42.8 | 31.9 | 25.5 | 21.5 | 18.5 | 14.4 | 11.9 | 6.25 |

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 2461 | 1590 | 946 | 695 | 557 | 414 | 335 | 279 | 238 | 184 | 150 | 78.9 |
| 1.70V | 2344 | 1542 | 936 | 693 | 556 | 413 | 333 | 277 | 237 | 182 | 149 | 78.7 |
| 1.75V | 2138 | 1456 | 910 | 681 | 555 | 407 | 328 | 270 | 231 | 180 | 148 | 77.9 |
| 1.80V | 1927 | 1364 | 876 | 665 | 549 | 400 | 317 | 265 | 228 | 176 | 145 | 77.0 |
| 1.83V | 1797 | 1304 | 844 | 649 | 538 | 389 | 310 | 259 | 224 | 172 | 142 | 75.8 |
| 1.85V | 1705 | 1255 | 822 | 633 | 529 | 382 | 306 | 254 | 219 | 170 | 141 | 74.3 |

TPL121600FR

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.67V | 264 | 174 | 106 | 77.6 | 62.2 | 45.2 | 36.3 | 30.7 | 26.2 | 20.1 | 16.5 | 8.77 |
| 1.70V | 251 | 169 | 105 | 77.2 | 62.1 | 45.2 | 36.2 | 30.5 | 26.1 | 20.0 | 16.4 | 8.72 |
| 1.75V | 223 | 162 | 101 | 74.5 | 60.0 | 44.3 | 35.5 | 30.1 | 25.8 | 19.9 | 16.3 | 8.67 |
| 1.80V | 194 | 152 | 94.7 | 70.7 | 57.4 | 42.6 | 34.7 | 29.4 | 25.1 | 19.5 | 16.1 | 8.50 |
| 1.83V | 172 | 144 | 89.4 | 67.4 | 55.1 | 41.4 | 33.9 | 28.8 | 24.7 | 18.9 | 15.6 | 8.34 |
| 1.85V | 155 | 135 | 85.0 | 64.3 | 52.8 | 40.3 | 33.1 | 28.2 | 24.1 | 18.6 | 15.4 | 8.12 |

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 2672 | 1930 | 1223 | 897 | 720 | 529 | 425 | 358 | 305 | 237 | 195 | 104 |
| 1.70V | 2582 | 1891 | 1200 | 884 | 711 | 521 | 420 | 357 | 304 | 236 | 194 | 103 |
| 1.75V | 2354 | 1835 | 1154 | 856 | 692 | 517 | 417 | 356 | 302 | 234 | 191 | 102 |
| 1.80V | 2113 | 1760 | 1092 | 821 | 670 | 505 | 410 | 353 | 301 | 233 | 190 | 101 |
| 1.83V | 1870 | 1658 | 1034 | 784 | 644 | 488 | 402 | 339 | 291 | 226 | 186 | 99.0 |
| 1.85V | 1849 | 1573 | 992 | 759 | 628 | 478 | 396 | 337 | 286 | 223 | 183 | 98.5 |



TPL Series

Extended Discharge Tables

12V Front Terminal VRLA-AGM

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TPL121800FR

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.67V | 307 | 205 | 124 | 90.1 | 71.1 | 51.1 | 39.8 | 32.7 | 28.0 | 22.0 | 18.2 | 9.70 |
| 1.70V | 292 | 201 | 123 | 89.2 | 70.7 | 50.9 | 39.6 | 32.6 | 27.9 | 21.9 | 18.1 | 9.67 |
| 1.75V | 266 | 190 | 119 | 87.7 | 69.7 | 50.4 | 39.2 | 32.3 | 27.7 | 21.8 | 18.0 | 9.59 |
| 1.80V | 238 | 177 | 114 | 84.6 | 67.6 | 49.2 | 38.4 | 31.7 | 27.2 | 21.4 | 18.0 | 9.44 |
| 1.83V | 221 | 167 | 109 | 81.8 | 65.6 | 47.9 | 37.4 | 31.0 | 26.6 | 21.0 | 17.4 | 9.28 |
| 1.85V | 205 | 158 | 105 | 79.2 | 63.9 | 46.7 | 36.6 | 30.4 | 26.1 | 20.6 | 17.0 | 9.11 |

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 3208 | 2217 | 1386 | 1023 | 816 | 589 | 466 | 387 | 333 | 261 | 217 | 116 |
| 1.70V | 3096 | 2206 | 1382 | 1013 | 809 | 588 | 465 | 386 | 332 | 260 | 216 | 115 |
| 1.75V | 2879 | 2106 | 1354 | 1004 | 803 | 583 | 462 | 383 | 330 | 259 | 215 | 114 |
| 1.80V | 2624 | 1968 | 1302 | 975 | 782 | 569 | 454 | 377 | 324 | 255 | 211 | 113 |
| 1.83V | 2455 | 1865 | 1253 | 946 | 765 | 561 | 445 | 370 | 318 | 250 | 208 | 111 |
| 1.85V | 2341 | 1770 | 1209 | 920 | 747 | 550 | 436 | 363 | 313 | 247 | 205 | 110 |

TPL122000FR

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.67V | 351 | 235 | 142 | 102 | 80.3 | 57.1 | 44.8 | 37.2 | 31.9 | 25.0 | 20.8 | 10.9 |
| 1.70V | 336 | 230 | 140 | 102 | 79.9 | 56.9 | 44.7 | 37.0 | 31.8 | 24.9 | 20.7 | 10.8 |
| 1.75V | 308 | 217 | 136 | 100 | 79.1 | 56.3 | 44.2 | 36.7 | 31.5 | 24.7 | 20.5 | 10.7 |
| 1.80V | 275 | 201 | 130 | 97.9 | 77.0 | 55.0 | 43.3 | 35.9 | 30.9 | 24.3 | 20.2 | 10.6 |
| 1.83V | 256 | 190 | 124 | 94.6 | 74.6 | 53.4 | 42.1 | 35.1 | 30.2 | 23.8 | 19.8 | 10.5 |
| 1.85V | 245 | 180 | 120 | 91.6 | 72.4 | 52.0 | 41.1 | 34.3 | 29.5 | 23.4 | 19.4 | 10.3 |

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

| F.V/Time | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 4HR | 5HR | 6HR | 8HR | 10HR | 20HR |
|--------------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|------|
| 1.67V | 3638 | 2535 | 1582 | 1178 | 930 | 665 | 525 | 437 | 376 | 296 | 247 | 126 |
| 1.70V | 3538 | 2493 | 1568 | 1174 | 926 | 663 | 523 | 435 | 374 | 295 | 246 | 125 |
| 1.75V | 3352 | 2386 | 1533 | 1159 | 915 | 656 | 518 | 431 | 371 | 293 | 244 | 124 |
| 1.80V | 3062 | 2215 | 1470 | 1124 | 890 | 641 | 508 | 424 | 365 | 289 | 242 | 123 |
| 1.83V | 2858 | 2091 | 1418 | 1088 | 865 | 625 | 497 | 416 | 359 | 286 | 239 | 121 |
| 1.85V | 2735 | 2001 | 1376 | 1057 | 842 | 611 | 487 | 408 | 353 | 282 | 236 | 119 |