

Datasheet



12CP50

Compact-Power Rackline™



Technical specifications

Type

12CP50

Part number

66300050


Electrical Data

| | | |
|------------------------------------------------------|---------------------------|---------|
| Nominal voltage | 12 V | |
| Number of cells | 6 | |
| Rated capacity C ₁₀ to 1.80 Vpc at 20 °C | 50 Ah | |
| Rated capacity C ₈ to 1.75 Vpc at 25 °C | 50 Ah | |
| Current/Power for 0.5 h back-up time 1.65 Vpc 20 °C | 61.8 A | 678 W |
| Current/Power for 1.0 h back-up time 1.67 Vpc 20 °C | 35.6 A | 399 W |
| Current/Power for 2.0 h back-up time 1.80 Vpc 20 °C | 19.4 A | 223.2 W |
| Current/Power for 4.0 h back-up time 1.80 Vpc 20 °C | 10.9 A | 127.2 W |
| Current/Power for 8.0 h back-up time 1.80 Vpc 20 °C | 6.0 A | 70.2 W |
| Current/Power for 10.0 h back-up time 1.80 Vpc 20 °C | 5.0 A | 58.2 W |
| Current/Power for 20.0 h back-up time 1.80 Vpc 20 °C | 2.8 A | 31.2 W |
| Conversion to capacity at 25 °C (77 °F) | 20 °C Ah x 1,03 (t > 1 h) | |
| Internal resistance (± 10%) to IEC/EN 60896-21 | 9.3 mΩ | |
| Short circuit current (± 10%) to IEC/EN 60896-21 | 1.3 kA | |
| Self discharge at 20 °C to IEC/EN 60896-21 | max. 3%/month | |
| Heat loss during float service at 20 °C | ≈ 0.30 W | |

Mechanical Data

| | | |
|--------------------------------------------------------|-------------------------------------------|--|
| Weight ready for use | 21.8 kg | |
| Height of monobloc | 295 mm | |
| Height over gas collection system GCS™ | 310 mm | |
| Height over terminal connector | 320 mm | |
| Width | 100 mm | |
| Depth | 275 mm | |
| Number of terminals | 1⊕/1⊖ | |
| Dimension of connector screw hole | M6 | |
| Suggested/maximum cable cross-section | 16 mm ² /70 mm ² *) | |
| Connection torque | 8 Nm | |
| Terminal insulation class according to IEC/EN 60529 | IP20 | |
| Diameter of diagnostic hole for voltage probe | 2.5/5 mm Ø | |
| Connector (copper, tin-coated) rigid and insulated | 40 mm ² | |
| Complete connector and terminal connection accessoires | available (as 48 V/60 V-Set) | |

Environmental Data

| | | |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------|--|
| Shelves, cabinets and racks | available upon request | |
| Installation | vertically/horizontally | |
| Distance for cooling and ventilation (preset with the rigid connectors) | 10 mm | |
| Flame retardancy rating case/cover according to Underwriters Laboratories (UL) USA | ABS-PC – UL 94 V-0 with LOI > 32%, halogen-free | |
| Flame barriers at vents | installed | |
| Gas collection system GCS™ UL V-0 quality | available upon request | |
| UL file number  | MH 26065 | |
| Service life expected at 20 °C | 15 years | |

*) for UPS duties the connecting cables must be dimensioned specially

Operating specifications

Figure 1



Figure 2

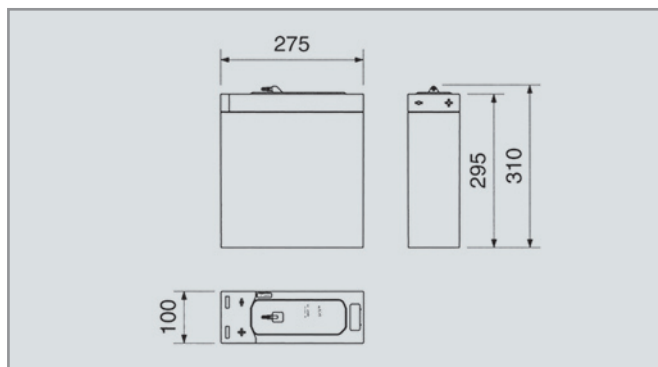
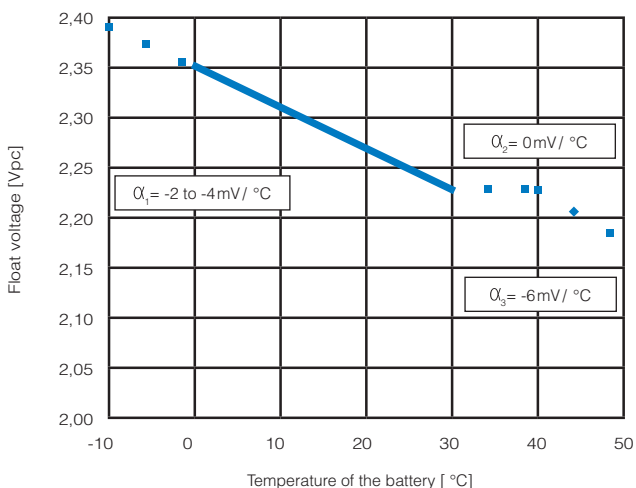


Figure 3



| Temperature in °C | Temperature in °F | Percent of the rated capacity |
|-------------------|-------------------|-------------------------------|
| 40 | 104 | 104.8 |
| 35 | 95 | 104.2 |
| 30 | 86 | 103.6 |
| 25 | 77 | 103.0 |
| 20 | 68 | 100.0 |
| 15 | 59 | 97.0 |
| 10 | 50 | 94.0 |
| 5 | 41 | 90.0 |
| 0 | 32 | 84.7 |
| -5 | 23 | 77.7 |
| -10 | 14 | 69.4 |
| -15 | 5 | 60.0 |
| -20 | -4 | 49.6 |
| -25 | -13 | 38.4 |
| -30 | -22 | 25.6 |
| -35 | -31 | 14.1 |
| -40 | -40 | 2.1 |

Battery installation and operation

Float voltage setting according to DIN 41773

Float voltage with daily discharge cycles

CC-CV charge current according to DIN 41773

Float voltage compensation in function of temperature

Boost charge

Stand-by mode with constant voltage float operation according to EN 50272-2:2001

2.25 Vpc at 20 to 25 °C (68 to 77 °F)

2.29 Vpc - 2.30 Vpc (no correction factor needed)

unlimited, otherwise $3 \cdot I_{10}$ max. if $T > 25$ °C

-2 to -4 mV/°C or with profile as displayed figure 3

Not needed, if desirable then 2.35 Vpc and I_{10} max. for 24 h max. at $t < 30$ °C

Air exchange

As a VRLA battery according to EN 50272-2:2001

$$Q = 0.05 \cdot N_{\text{cells}} \cdot I_{\text{gas}} \cdot C_{\text{Ah C10}} \cdot 10^{-3} \text{ [m}^3\text{/h]}$$

$I_{\text{gas}} = 1$ (at 2.25 Vpc) $I_{\text{gas}} = 8$ (at 2.40 Vpc)

e.g. 48 V: 0.06 m³/h = 2.12 cu.ft/h (at 2.25 Vpc)

Preferred operating temperature range

Between 15 °C (68 °F) and 25 °C (77 °F)

Maximum long term operating temperature

+40 °C (104 °F) with ventilation assured (reduced service life)

Maximum short term operating temperature (for hours)

+50 °C (122 °F) with ventilation assured (reduced service life)

Minimum fully charged operating temperature

-40 °C (-40 °F)

Discharge data

| Constant current performance (in amps) to the defined end-of-discharge voltage | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------------------------------------------|-------|--------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|------|------|
| Voltage [Vpc] | Temp | Discharge time [Minutes] | | | | | | | | | | | | | | | | | | | | | | |
| | | 1-2 | 3 | 5 | 7 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 90 | 120 | 180 | 240 | 300 | 360 | 480 | 600 | 720 | 1200 | 1440 |
| 1.90 | 20 °C | 105 | 100 | 91.5 | 84.3 | 75.5 | 64.5 | 56.6 | 50.5 | 45.8 | 38.6 | 33.6 | 29.7 | 22.4 | 18.1 | 13.2 | 10.5 | 8.7 | 7.5 | 5.9 | 4.9 | 4.2 | 2.7 | 2.3 |
| | 25 °C | 108 | 103 | 94.2 | 86.8 | 77.7 | 66.5 | 58.3 | 52.0 | 47.1 | 39.8 | 34.6 | 30.6 | 23.0 | 18.6 | 13.6 | 10.8 | 9.0 | 7.7 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| 1.87 | 20 °C | 126 | 119 | 107 | 97.5 | 85.9 | 72.0 | 62.2 | 55.0 | 49.4 | 41.2 | 35.5 | 31.2 | 23.2 | 18.6 | 13.5 | 10.6 | 8.8 | 7.6 | 6.0 | 4.9 | 4.2 | 2.7 | 2.4 |
| | 25 °C | 129 | 122 | 110 | 100 | 88.4 | 74.1 | 64.1 | 56.6 | 50.9 | 42.4 | 36.5 | 32.2 | 23.9 | 19.2 | 13.9 | 11.0 | 9.1 | 7.8 | 6.1 | 5.1 | 4.4 | 2.8 | 2.4 |
| 1.85 | 20 °C | 140 | 131 | 118 | 106 | 92.4 | 76.5 | 65.6 | 57.6 | 51.5 | 42.6 | 36.5 | 32.1 | 23.7 | 18.9 | 13.6 | 10.7 | 8.9 | 7.6 | 6.0 | 5.0 | 4.2 | 2.8 | 2.4 |
| | 25 °C | 144 | 135 | 121 | 109 | 95.2 | 78.8 | 67.6 | 59.3 | 53.0 | 43.9 | 37.6 | 33.0 | 24.4 | 19.5 | 14.0 | 11.1 | 9.2 | 7.9 | 6.2 | 5.1 | 4.4 | 2.8 | 2.4 |
| 1.84 | 20 °C | 148 | 138 | 123 | 110 | 95.5 | 78.5 | 67.0 | 59.0 | 52.5 | 43.3 | 37.0 | 32.4 | 23.9 | 19.0 | 13.7 | 10.8 | 9.0 | 7.7 | 6.0 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 152 | 142 | 126 | 113 | 98.4 | 80.9 | 69.0 | 60.8 | 54.1 | 44.6 | 38.1 | 33.4 | 24.6 | 19.6 | 14.1 | 11.1 | 9.2 | 7.9 | 6.2 | 5.1 | 4.4 | 2.8 | 2.4 |
| 1.83 | 20 °C | 155 | 144 | 128 | 114 | 98.5 | 80.5 | 68.5 | 60.0 | 53.5 | 43.9 | 37.5 | 32.8 | 24.1 | 19.2 | 13.8 | 10.8 | 9.0 | 7.7 | 6.0 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 159 | 148 | 131 | 117 | 101 | 82.9 | 70.6 | 61.8 | 55.1 | 45.2 | 38.6 | 33.7 | 24.8 | 19.7 | 14.2 | 11.1 | 9.2 | 7.9 | 6.2 | 5.2 | 4.4 | 2.8 | 2.4 |
| 1.82 | 20 °C | 162 | 150 | 132 | 118 | 101 | 82.5 | 69.9 | 60.9 | 54.1 | 44.4 | 37.9 | 33.1 | 24.2 | 19.2 | 13.8 | 10.9 | 9.0 | 7.7 | 6.0 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 166 | 155 | 136 | 121 | 104 | 85.0 | 72.0 | 62.8 | 55.7 | 45.8 | 39.0 | 34.1 | 24.9 | 19.8 | 14.2 | 11.2 | 9.3 | 7.9 | 6.2 | 5.1 | 4.4 | 2.8 | 2.4 |
| 1.80 | 20 °C | 175 | 162 | 142 | 125 | 107 | 85.9 | 72.4 | 62.8 | 55.6 | 45.4 | 38.6 | 33.6 | 24.5 | 19.4 | 13.9 | 10.9 | 9.0 | 7.7 | 6.0 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 181 | 167 | 146 | 129 | 110 | 88.5 | 74.6 | 64.7 | 57.2 | 46.8 | 39.7 | 34.6 | 25.2 | 20.0 | 14.3 | 11.2 | 9.3 | 8.0 | 6.2 | 5.1 | 4.4 | 2.8 | 2.4 |
| 1.77 | 20 °C | 195 | 179 | 154 | 135 | 113 | 90.4 | 75.5 | 65.1 | 57.4 | 46.6 | 39.4 | 34.3 | 24.8 | 19.6 | 14.0 | 11.0 | 9.1 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 201 | 184 | 159 | 139 | 117 | 93.1 | 77.8 | 67.1 | 59.1 | 48.0 | 40.6 | 35.3 | 25.6 | 20.2 | 14.4 | 11.3 | 9.3 | 8.0 | 6.2 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.75 | 20 °C | 207 | 189 | 161 | 140 | 117 | 92.9 | 77.3 | 66.4 | 58.4 | 47.3 | 39.9 | 34.6 | 25.0 | 19.7 | 14.1 | 11.0 | 9.1 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 213 | 194 | 166 | 145 | 121 | 95.7 | 79.6 | 68.4 | 60.2 | 48.7 | 41.1 | 35.7 | 25.8 | 20.3 | 14.5 | 11.3 | 9.4 | 8.0 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.72 | 20 °C | 224 | 203 | 171 | 148 | 123 | 96.1 | 79.5 | 68.1 | 59.7 | 48.1 | 40.5 | 35.1 | 25.2 | 19.9 | 14.1 | 11.1 | 9.1 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 230 | 209 | 177 | 152 | 126 | 99.0 | 81.9 | 70.1 | 61.5 | 49.6 | 41.7 | 36.1 | 26.0 | 20.5 | 14.6 | 11.4 | 9.4 | 8.0 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.70 | 20 °C | 234 | 211 | 177 | 152 | 126 | 98.0 | 80.8 | 69.0 | 60.4 | 48.6 | 40.8 | 35.3 | 25.4 | 20.0 | 14.2 | 11.1 | 9.1 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 241 | 217 | 183 | 157 | 129 | 101 | 83.2 | 71.0 | 62.2 | 50.0 | 42.0 | 36.4 | 26.1 | 20.6 | 14.6 | 11.4 | 9.4 | 8.1 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.67 | 20 °C | 248 | 222 | 185 | 158 | 130 | 100 | 82.4 | 70.1 | 61.3 | 49.1 | 41.2 | 35.6 | 25.5 | 20.1 | 14.2 | 11.1 | 9.2 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 255 | 229 | 191 | 163 | 133 | 103 | 84.8 | 72.2 | 63.1 | 50.6 | 42.5 | 36.7 | 26.3 | 20.7 | 14.6 | 11.4 | 9.4 | 8.1 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.65 | 20 °C | 256 | 229 | 190 | 161 | 132 | 102 | 83.3 | 70.8 | 61.8 | 49.5 | 41.4 | 35.8 | 25.6 | 20.1 | 14.2 | 11.1 | 9.2 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 264 | 236 | 196 | 166 | 136 | 105 | 85.8 | 72.9 | 63.6 | 50.9 | 42.7 | 36.8 | 26.4 | 20.7 | 14.7 | 11.5 | 9.5 | 8.1 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.63 | 20 °C | 264 | 235 | 194 | 164 | 134 | 103 | 84.0 | 71.4 | 62.2 | 49.7 | 41.6 | 35.9 | 25.7 | 20.2 | 14.3 | 11.1 | 9.2 | 7.8 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 272 | 242 | 200 | 169 | 138 | 106 | 86.6 | 73.5 | 64.1 | 51.2 | 42.9 | 37.0 | 26.5 | 20.8 | 14.7 | 11.5 | 9.5 | 8.1 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |
| 1.60 | 20 °C | 274 | 243 | 200 | 168 | 136 | 104 | 85.1 | 72.1 | 62.7 | 50.1 | 41.9 | 36.1 | 25.8 | 20.2 | 14.3 | 11.2 | 9.2 | 7.9 | 6.1 | 5.0 | 4.3 | 2.8 | 2.4 |
| | 25 °C | 282 | 250 | 206 | 173 | 140 | 107 | 87.7 | 74.3 | 64.6 | 51.6 | 43.2 | 37.2 | 26.6 | 20.8 | 14.7 | 11.5 | 9.5 | 8.1 | 6.3 | 5.2 | 4.4 | 2.9 | 2.4 |

| Constant power performance (in watt per cell) to the defined end-of-discharge voltage | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-------|--------------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|
| Voltage [Vpc] | Temp | Discharge time [Minutes] | | | | | | | | | | | | | | | | | | | | | | |
| | | 1-2 | 3 | 5 | 7 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 90 | 120 | 180 | 240 | 300 | 360 | 480 | 600 | 720 | 1200 | 1440 |
| 1.90 | 20 °C | 202 | 192 | 176 | 162 | 144 | 123 | 108 | 96.0 | 86.8 | 73.5 | 63.8 | 56.7 | 42.8 | 34.8 | 25.5 | 20.3 | 17.0 | 14.7 | 11.5 | 9.5 | 8.0 | 5.2 | 4.3 |
| | 25 °C | 208 | 198 | 181 | 167 | 149 | 127 | 111 | 98.9 | 89.4 | 75.7 | 65.7 | 58.4 | 44.1 | 35.9 | 26.3 | 20.9 | 17.5 | 15.1 | 11.8 | 9.8 | 8.2 | 5.3 | 4.5 |
| 1.87 | 20 °C | 239 | 225 | 204 | 185 | 163 | 136 | 117 | 104 | 93.2 | 77.8 | 67.2 | 59.3 | 44.3 | 35.8 | 26.0 | 20.7 | 17.2 | 14.8 | 11.5 | 9.5 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 246 | 232 | 210 | 190 | 167 | 140 | 121 | 107 | 96.0 | 80.2 | 69.2 | 61.1 | 45.7 | 36.9 | 26.8 | 21.3 | 17.7 | 15.3 | 11.8 | 9.8 | 8.4 | 5.3 | 4.5 |
| 1.85 | 20 °C | 264 | 247 | 221 | 199 | 174 | 144 | 123 | 108 | 96.7 | 80.3 | 69.0 | 60.8 | 45.2 | 36.3 | 26.3 | 20.8 | 17.3 | 14.8 | 11.7 | 9.5 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 272 | 255 | 228 | 205 | 179 | 148 | 127 | 111 | 100 | 82.7 | 71.1 | 62.7 | 46.5 | 37.4 | 27.1 | 21.5 | 17.9 | 15.3 | 12.0 | 9.8 | 8.4 | 5.3 | 4.5 |
| 1.84 | 20 °C | 276 | 258 | 230 | 206 | 179 | 147 | 126 | 110 | 98.3 | 81.4 | 69.8 | 61.4 | 45.5 | 36.5 | 26.5 | 20.9 | 17.4 | 14.9 | 11.6 | 9.6 | 8.2 | 5.1 | 4.4 |
| | 25 °C | 284 | 266 | 237 | 212 | 184 | 151 | 130 | 113 | 101 | 83.8 | 71.9 | 63.2 | 46.9 | 37.6 | 27.3 | 21.5 | 17.9 | 15.3 | 11.9 | 9.9 | 8.4 | 5.3 | 4.5 |
| 1.83 | 20 °C | 288 | 268 | 238 | 213 | 184 | 150 | 128 | 112 | 100 | 82.4 | 70.6 | 61.9 | 45.8 | 36.7 | 26.6 | 21.0 | 17.4 | 14.9 | 11.7 | 9.6 | 8.2 | 5.1 | 4.4 |
| | 25 °C | 296 | 276 | 245 | 219 | 189 | 155 | 132 | 115 | 103 | 84.9 | 72.7 | 63.8 | 47.2 | 37.8 | 27.4 | 21.6 | 17.9 | 15.4 | 12.0 | 9.9 | 8.4 | 5.3 | 4.5 |
| 1.82 | 20 °C | 299 | 278 | 246 | 219 | 188 | 153 | 130 | 114 | 101 | 83.3 | 71.3 | 62.5 | 46.2 | 36.8 | 26.7 | 21.0 | 17.5 | 15.0 | 11.7 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 308 | 286 | 253 | 225 | 194 | 158 | 134 | 117 | 104 | 85.8 | 73.5 | 64.4 | 47.6 | 37.9 | 27.5 | 21.6 | 18.0 | 15.5 | 12.0 | 10.0 | 8.4 | 5.3 | 4.5 |
| 1.80 | 20 °C | 321 | 297 | 260 | 230 | 197 | 159 | 134 | 117 | 104 | 85.0 | 72.5 | 63.3 | 46.7 | 37.2 | 26.8 | 21.2 | 17.5 | 15.0 | 11.7 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 331 | 306 | 268 | 237 | 203 | 164 | 138 | 120 | 107 | 87.6 | 74.7 | 65.2 | 48.1 | 38.3 | 27.6 | 21.8 | 18.0 | 15.5 | 12.0 | 10.0 | 8.4 | 5.3 | 4.5 |
| 1.77 | 20 °C | 351 | 322 | 279 | 245 | 207 | 166 | 139 | 120 | 106 | 86.8 | 73.8 | 64.5 | 47.2 | 37.5 | 27.0 | 21.3 | 17.7 | 15.0 | 11.7 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 361 | 331 | 288 | 253 | 214 | 171 | 143 | 124 | 110 | 89.4 | 76.0 | 66.4 | 48.6 | 38.6 | 27.8 | 22.0 | 18.2 | 15.5 | 12.0 | 10.0 | 8.4 | 5.3 | 4.5 |
| 1.75 | 20 °C | 368 | 337 | 290 | 254 | 213 | 170 | 142 | 122 | 108 | 87.8 | 74.5 | 65.0 | 47.5 | 37.8 | 27.2 | 21.3 | 17.7 | 15.2 | 11.8 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 379 | 347 | 299 | 262 | 219 | 175 | 146 | 126 | 111 | 90.4 | 76.7 | 67.0 | 48.9 | 38.9 | 28.0 | 22.0 | 18.2 | 15.7 | 12.2 | 10.0 | 8.4 | 5.3 | 4.5 |
| 1.72 | 20 °C | 391 | 356 | 305 | 265 | 221 | 175 | 145 | 125 | 110 | 89.2 | 75.5 | 65.7 | 47.8 | 38.0 | 27.2 | 21.3 | 17.7 | 15.2 | 11.8 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 403 | 367 | 314 | 272 | 228 | 180 | 149 | 129 | 113 | 91.8 | 77.8 | 67.6 | 49.3 | 39.1 | 28.0 | 22.0 | 18.2 | 15.6 | 12.2 | 10.0 | 8.4 | 5.3 | 4.5 |
| 1.70 | 20 °C | 405 | 367 | 313 | 271 | 225 | 177 | 147 | 126 | 111 | 89.8 | 76.0 | 66.0 | 48.0 | 38.2 | 27.3 | 21.5 | 17.7 | 15.2 | 11.8 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 417 | 378 | 322 | 279 | 232 | 182 | 151 | 130 | 114 | 92.5 | 78.3 | 68.0 | 49.4 | 39.3 | 28.2 | 22.1 | 18.2 | 15.6 | 12.2 | 10.0 | 8.4 | 5.3 | 4.5 |
| 1.67 | 20 °C | 422 | 381 | 323 | 278 | 231 | 180 | 149 | 128 | 112 | 90.7 | 76.5 | 66.5 | 48.3 | 38.3 | 27.3 | 21.5 | 17.8 | 15.2 | 11.8 | 9.7 | 8.2 | 5.2 | 4.3 |
| | 25 °C | 435 | 393 | 333 | 287 | 237 | 186 | 154 | 131 | 116 | 93.4 | 78.8 | 68.5 | 49.8 | 39.5 | 28.2 | 22.1 | 18.4 | 15.6 | 12.2 | 10.0 | 8.4 | 5.3 | 4.5 |
| | | | | | | | | | | | | | | | | | | | | | | | | |