

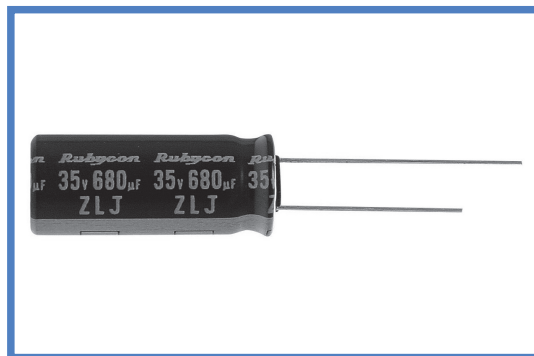
ZLJ 系列

SERIES

105℃长寿命 低阻抗 高纹波电流品
105℃ Long Life, Low Impedance, High Ripple Current

◆ 特 长 / FEATURES

- 105℃、6000~10000小时品。
Load Life : 105℃ 6000~10000 hours.
- RoHS指令对应品。
RoHS compliance



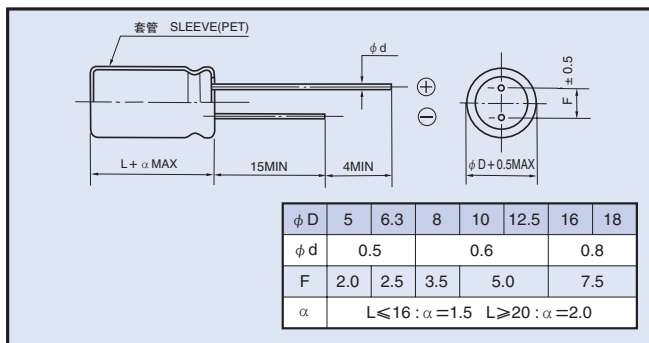
◆ 规格表 / SPECIFICATIONS

| 项 目 Items | 特 性 Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-------------------------------|---|--------------------|------|------|--------|----------|-----------|------------------------------|--|-------------------|--------------------------------|------|------|--------|------|------|------|--------------------------|---|---------|------|--------------------------------|------|-----------|------|-------|------|---|---|---------------------|-------|--|--|--|--|--------------------|--|--|--|
| 工作温度范围 Category Temperature Range | -40~+105℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 额定电压范围 Rated Voltage Range | 6.3~100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 静电容量允许差 Capacitance Tolerance | ±20% (20℃, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏 电 流 Leakage Current(MAX) | 小于 $I=0.01CV$ 和 $3\mu A$ 中的较大值 (施加额定电压2分钟后) $I=0.01CV$ or $3\mu A$ whichever is greater. (After 2 minutes) I =漏电流 (μA) C =静电容量 (μF) V =额定电压 (Vdc) Leakage Current Capacitance Rated Voltage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 损失角正切值 ($\tan \delta$) Dissipation Factor(MAX) | <table border="1"> <tr> <td>额定电压 (Vdc) Rated Voltage</td> <td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td> <td>(20℃, 120Hz)</td> </tr> <tr> <td>$\tan \delta$</td> <td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.08</td> <td></td> </tr> </table> <p>对于静电容量超过1000μF的产品, 其静电容量每增加1000μF, 则损失角正切值在上表值的基础上加上0.02。 When capacitance is over 1000μF, $\tan \delta$ shall be added 0.02 to the listed value with increase of every 1000μF.</p> | 额定电压 (Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | (20℃, 120Hz) | $\tan \delta$ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 | | | | | | | | | | | | | | | | | | | |
| 额定电压 (Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | (20℃, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\tan \delta$ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | 0.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 耐 久 性 Endurance | <p>在105℃环境中, 不超过额定电压的范围内叠加额定纹波电流, 连续加载右表时间后, 满足以下各项要求。 After applying rated voltage with rated ripple current for specified time at 105℃, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td rowspan="2">静电容量变化率 Capacitance Change</td> <td rowspan="2">初期值的±25%以内 (6.3Vdc, 10Vdc: ±30%) Within ±25% of the initial value. (6.3Vdc, 10Vdc: ±30%)</td> <td colspan="3">时间 (hrs) Life Time</td> </tr> <tr> <td>6.3Vdc</td><td>10~50Vdc</td><td>63~100Vdc</td> </tr> <tr> <td rowspan="2">损失角正切值 Dissipation Factor</td> <td rowspan="2">规格值的200%以下 Not more than 200% of the specified value.</td> <td>$\phi D \leq 6.3$</td><td>6000</td><td>7000</td><td>6000</td> </tr> <tr> <td>8×11.5</td><td>8000</td><td>9000</td><td>8000</td> </tr> <tr> <td rowspan="2">漏 电 流 Leakage Current</td> <td rowspan="2">规格值以下 Not more than the specified value.</td> <td>10×12.5</td><td>9000</td><td>9000</td><td>9000</td> </tr> <tr> <td>8×16.8×20</td><td>9000</td><td>10000</td><td>9000</td> </tr> <tr> <td></td><td></td> <td>10×16, 10×20, 10×25</td><td colspan="3">10000</td> </tr> <tr> <td></td><td></td> <td>$\phi D \geq 12.5$</td><td colspan="3"></td> </tr> </table> | 静电容量变化率 Capacitance Change | 初期值的±25%以内 (6.3Vdc, 10Vdc: ±30%) Within ±25% of the initial value. (6.3Vdc, 10Vdc: ±30%) | 时间 (hrs) Life Time | | | 6.3Vdc | 10~50Vdc | 63~100Vdc | 损失角正切值 Dissipation Factor | 规格值的200%以下 Not more than 200% of the specified value. | $\phi D \leq 6.3$ | 6000 | 7000 | 6000 | 8×11.5 | 8000 | 9000 | 8000 | 漏 电 流 Leakage Current | 规格值以下 Not more than the specified value. | 10×12.5 | 9000 | 9000 | 9000 | 8×16.8×20 | 9000 | 10000 | 9000 | | | 10×16, 10×20, 10×25 | 10000 | | | | | $\phi D \geq 12.5$ | | | |
| 静电容量变化率 Capacitance Change | 初期值的±25%以内 (6.3Vdc, 10Vdc: ±30%) Within ±25% of the initial value. (6.3Vdc, 10Vdc: ±30%) | | | 时间 (hrs) Life Time | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 6.3Vdc | 10~50Vdc | 63~100Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 损失角正切值 Dissipation Factor | 规格值的200%以下 Not more than 200% of the specified value. | $\phi D \leq 6.3$ | 6000 | 7000 | 6000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 8×11.5 | 8000 | 9000 | 8000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏 电 流 Leakage Current | 规格值以下 Not more than the specified value. | 10×12.5 | 9000 | 9000 | 9000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 8×16.8×20 | 9000 | 10000 | 9000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 10×16, 10×20, 10×25 | 10000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | $\phi D \geq 12.5$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 低 温 特 性 Low Temperature Stability (阻抗比) Impedance Ratio(MAX) | <table border="1"> <tr> <td>额定电压 (Vdc) Rated Voltage</td> <td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td> <td>(120Hz)</td> </tr> <tr> <td>$Z(-25^\circ C)/Z(20^\circ C)$</td> <td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td> <td></td> </tr> <tr> <td>$Z(-40^\circ C)/Z(20^\circ C)$</td> <td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td> <td></td> </tr> </table> | 额定电压 (Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | (120Hz) | $Z(-25^\circ C)/Z(20^\circ C)$ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | $Z(-40^\circ C)/Z(20^\circ C)$ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | | | | |
| 额定电压 (Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 80 | 100 | (120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $Z(-25^\circ C)/Z(20^\circ C)$ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $Z(-40^\circ C)/Z(20^\circ C)$ | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

◆ 纹波电流修正系数 / MULTIPLIER FOR RIPPLE CURRENT

| 频率 (Hz) Frequency | | 120 | 1k | 10k | 100k≤ |
|----------------------|-------------------|------|------|------|-------|
| 系 数 Coefficient | 8.2~33 μF | 0.42 | 0.70 | 0.90 | 1.00 |
| | 47~270 μF | 0.50 | 0.73 | 0.92 | 1.00 |
| | 330~680 μF | 0.55 | 0.77 | 0.94 | 1.00 |
| | 820~1800 μF | 0.60 | 0.80 | 0.96 | 1.00 |
| | 2200~8200 μF | 0.70 | 0.85 | 0.98 | 1.00 |

◆ 尺寸图 / DIMENSIONS (mm)



◆ 副记号 / OPTION

| | 记号 Code |
|------------------|---------|
| PET套管 PET Sleeve | 无 Blank |

◆ 产品型号体系 / PART NUMBER

| | | | | | | |
|-----------------------|----------------|---------------------|----------------------------------|---------------|------------------------|-------------------|
| □□□ | ZLJ | □□□□□ | M | □□□ | □□ | D×L |
| 额定电压 Rated Voltage | 系列名称 Series | 静电容量 Capacitance | 静电容量允许差 Capacitance Tolerance | 副记号 Option | 引线加工记号 Lead Forming | 铝壳尺寸 Case Size |

◆标准品一览表 / STANDARD SIZE

| 额定电压 Rated Voltage (Vdc) | 静电容量 Capacitance (μF) | 外形尺寸 Size φ D×L(mm) | 额定纹波电流 Rated ripple current (mA r.m.s./105°C, 100kHz) | 阻抗 (Ω MAX) Impedance | | 额定电压 Rated Voltage (Vdc) | 静电容量 Capacitance (μF) | 外形尺寸 Size φ D×L(mm) | 额定纹波电流 Rated ripple current (mA r.m.s./105°C, 100kHz) | 阻抗 (Ω MAX) Impedance | |
|--------------------------------|--------------------------|---------------------------|---|-------------------------|---------------|--------------------------------|--------------------------|---------------------------|---|-------------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz | | | | | 20°C, 100kHz | -10°C, 100kHz |
| 6.3 | 220 | 5×11 | 345 | 0.40 | 1.2 | 25 | 68 | 5×11 | 450 | 0.40 | 1.2 |
| | 470 | 6.3×11 | 540 | 0.17 | 0.51 | | 150 | 6.3×11 | 700 | 0.17 | 0.51 |
| | 820 | 8×11.5 | 945 | 0.075 | 0.23 | | 330 | 8×11.5 | 1200 | 0.075 | 0.23 |
| | 1000 | 8×16 | 1250 | 0.059 | 0.18 | | 390 | 8×16 | 1600 | 0.059 | 0.18 |
| | 1200 | 10×12.5 | 1330 | 0.053 | 0.16 | | 470 | 10×12.5 | 1700 | 0.053 | 0.16 |
| | 1500 | 8×20 | 1500 | 0.041 | 0.13 | | 560 | 8×20 | 1960 | 0.041 | 0.13 |
| | 1800 | 10×16 | 1760 | 0.038 | 0.12 | | 680 | 10×16 | 2000 | 0.038 | 0.12 |
| | 2700 | 10×20 | 1960 | 0.028 | 0.084 | | 1000 | 10×20 | 2500 | 0.028 | 0.084 |
| | 3300 | 10×25 | 2250 | 0.024 | 0.072 | | 1200 | 10×25 | 2900 | 0.024 | 0.072 |
| | 3900 | 12.5×20 | 2480 | 0.025 | 0.075 | | 1500 | 12.5×20 | 2600 | 0.025 | 0.075 |
| | 4700 | 12.5×25 | 2900 | 0.019 | 0.057 | | 1800 | 12.5×25 | 3200 | 0.019 | 0.057 |
| | 5600 | 12.5×30 | 3450 | 0.018 | 0.054 | | 2200 | 12.5×30 | 3660 | 0.018 | 0.054 |
| | 6800 | 16×20 | 3250 | 0.021 | 0.063 | | 2200 | 16×20 | 3330 | 0.021 | 0.063 |
| | 6800 | 12.5×35 | 3570 | 0.016 | 0.048 | | 2700 | 12.5×35 | 4120 | 0.016 | 0.048 |
| 8200 | 16×25 | 3630 | 0.017 | 0.051 | 3300 | 16×25 | 3810 | 0.017 | 0.051 | | |
| 10 | 150 | 5×11 | 450 | 0.40 | 1.2 | 35 | 47 | 5×11 | 450 | 0.40 | 1.2 |
| | 330 | 6.3×11 | 700 | 0.17 | 0.51 | | 100 | 6.3×11 | 700 | 0.17 | 0.51 |
| | 560 | 8×11.5 | 1200 | 0.075 | 0.23 | | 180 | 8×11.5 | 1200 | 0.075 | 0.23 |
| | 680 | 8×16 | 1600 | 0.059 | 0.18 | | 220 | 8×16 | 1600 | 0.059 | 0.18 |
| | 820 | 10×12.5 | 1700 | 0.053 | 0.16 | | 270 | 10×12.5 | 1700 | 0.053 | 0.16 |
| | 1000 | 8×20 | 1960 | 0.041 | 0.13 | | 330 | 8×20 | 1960 | 0.041 | 0.13 |
| | 1200 | 10×16 | 2000 | 0.038 | 0.12 | | 390 | 10×16 | 2000 | 0.038 | 0.12 |
| | 1800 | 10×20 | 2500 | 0.028 | 0.084 | | 560 | 10×20 | 2500 | 0.028 | 0.084 |
| | 2200 | 10×25 | 2900 | 0.024 | 0.072 | | 680 | 10×25 | 2900 | 0.024 | 0.072 |
| | 2700 | 12.5×20 | 2600 | 0.025 | 0.075 | | 820 | 12.5×20 | 2600 | 0.025 | 0.075 |
| | 3300 | 12.5×25 | 3200 | 0.019 | 0.057 | | 1200 | 12.5×25 | 3200 | 0.019 | 0.057 |
| | 4700 | 12.5×30 | 3660 | 0.018 | 0.054 | | 1500 | 12.5×30 | 3660 | 0.018 | 0.054 |
| | 4700 | 16×20 | 3330 | 0.021 | 0.063 | | 1500 | 16×20 | 3330 | 0.021 | 0.063 |
| | 5600 | 12.5×35 | 4120 | 0.016 | 0.048 | | 1800 | 12.5×35 | 4120 | 0.016 | 0.048 |
| 5600 | 16×25 | 3810 | 0.017 | 0.051 | 1800 | 16×25 | 3810 | 0.017 | 0.051 | | |
| 16 | 120 | 5×11 | 450 | 0.40 | 1.2 | 50 | 27 | 5×11 | 310 | 0.48 | 1.5 |
| | 270 | 6.3×11 | 700 | 0.17 | 0.51 | | 56 | 6.3×11 | 500 | 0.22 | 0.66 |
| | 470 | 8×11.5 | 1200 | 0.075 | 0.23 | | 100 | 8×11.5 | 950 | 0.12 | 0.36 |
| | 560 | 8×16 | 1600 | 0.059 | 0.18 | | 120 | 8×16 | 1230 | 0.082 | 0.25 |
| | 680 | 10×12.5 | 1700 | 0.053 | 0.16 | | 150 | 10×12.5 | 1280 | 0.073 | 0.22 |
| | 820 | 8×20 | 1960 | 0.041 | 0.13 | | 180 | 8×20 | 1580 | 0.058 | 0.18 |
| | 1000 | 10×16 | 2000 | 0.038 | 0.12 | | 220 | 10×16 | 1650 | 0.053 | 0.16 |
| | 1500 | 10×20 | 2500 | 0.028 | 0.084 | | 330 | 10×20 | 2060 | 0.038 | 0.12 |
| | 1800 | 10×25 | 2900 | 0.024 | 0.072 | | 390 | 10×25 | 2420 | 0.032 | 0.10 |
| | 2200 | 12.5×20 | 2600 | 0.025 | 0.075 | | 470 | 12.5×20 | 2300 | 0.032 | 0.10 |
| | 2700 | 12.5×25 | 3200 | 0.019 | 0.057 | | 680 | 12.5×25 | 2800 | 0.025 | 0.080 |
| | 3300 | 12.5×30 | 3660 | 0.018 | 0.054 | | 820 | 12.5×30 | 3370 | 0.023 | 0.074 |
| | 3300 | 16×20 | 3330 | 0.021 | 0.063 | | 820 | 16×20 | 3070 | 0.026 | 0.084 |
| | 3900 | 12.5×35 | 4120 | 0.016 | 0.048 | | 1000 | 12.5×35 | 3810 | 0.021 | 0.067 |
| 4700 | 16×25 | 3810 | 0.017 | 0.051 | 1000 | 16×25 | 3510 | 0.022 | 0.070 | | |

◆标准品一览表 / STANDARD SIZE

| 额定电压 Rated Voltage (Vdc) | 静电容量 Capacitance (μF) | 外形尺寸 Size φ D×L(mm) | 额定纹波电流 Rated ripple current (mA r.m.s./105°C, 100kHz) | 阻抗 (Ω MAX) Impedance | | 额定电压 Rated Voltage (Vdc) | 静电容量 Capacitance (μF) | 外形尺寸 Size φ D×L(mm) | 额定纹波电流 Rated ripple current (mA r.m.s./105°C, 100kHz) | 阻抗 (Ω MAX) Impedance | |
|--------------------------------|--------------------------|---------------------------|---|-------------------------|---------------|--------------------------------|--------------------------|---------------------------|---|-------------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz | | | | | 20°C, 100kHz | -10°C, 100kHz |
| 63 | 18 | 5×11 | 240 | 0.71 | 3.2 | 100 | 8.2 | 5×11 | 220 | 1.2 | 5.4 |
| | 47 | 6.3×11 | 420 | 0.28 | 1.3 | | 18 | 6.3×11 | 370 | 0.46 | 2.1 |
| | 82 | 8×11.5 | 720 | 0.18 | 0.79 | | 33 | 8×11.5 | 620 | 0.29 | 1.3 |
| | 100 | 8×16 | 990 | 0.13 | 0.58 | | 47 | 8×16 | 780 | 0.20 | 0.90 |
| | 120 | 10×12.5 | 990 | 0.11 | 0.44 | | 56 | 10×12.5 | 780 | 0.17 | 0.66 |
| | 150 | 8×20 | 1200 | 0.096 | 0.43 | | 68 | 8×20 | 1040 | 0.16 | 0.66 |
| | 180 | 10×16 | 1200 | 0.076 | 0.31 | | 82 | 10×16 | 1040 | 0.11 | 0.47 |
| | 270 | 10×20 | 1570 | 0.056 | 0.23 | | 100 | 10×20 | 1430 | 0.084 | 0.34 |
| | 270 | 12.5×16 | 1570 | 0.072 | 0.27 | | 100 | 12.5×16 | 1430 | 0.11 | 0.34 |
| | 330 | 10×25 | 1990 | 0.046 | 0.19 | | 120 | 10×25 | 1620 | 0.069 | 0.28 |
| | 390 | 12.5×20 | 1990 | 0.041 | 0.13 | | 150 | 12.5×20 | 1750 | 0.062 | 0.18 |
| | 470 | 12.5×25 | 2460 | 0.031 | 0.093 | | 220 | 12.5×25 | 2210 | 0.047 | 0.14 |
| | 560 | 12.5×30 | 2760 | 0.028 | 0.084 | | 270 | 12.5×30 | 2400 | 0.042 | 0.13 |
| | 560 | 16×20 | 2380 | 0.032 | 0.096 | | 270 | 16×20 | 1950 | 0.048 | 0.15 |
| 680 | 12.5×35 | 3040 | 0.024 | 0.072 | 330 | 12.5×35 | 2600 | 0.036 | 0.11 | | |
| 820 | 16×25 | 2890 | 0.025 | 0.075 | 390 | 12.5×40 | 2860 | 0.032 | 0.095 | | |
| 80 | 12 | 5×11 | 220 | 1.2 | 5.4 | 390 | 16×25 | 2430 | 0.038 | 0.12 | |
| | 27 | 6.3×11 | 370 | 0.46 | 2.1 | 390 | 18×20 | 2270 | 0.045 | 0.14 | |
| | 47 | 8×11.5 | 620 | 0.29 | 1.3 | 470 | 16×31.5 | 2640 | 0.032 | 0.095 | |
| | 56 | 8×16 | 780 | 0.20 | 0.90 | 470 | 18×25 | 2500 | 0.036 | 0.11 | |
| | 68 | 10×12.5 | 780 | 0.17 | 0.66 | 560 | 16×35.5 | 2860 | 0.029 | 0.086 | |
| | 82 | 8×20 | 1040 | 0.16 | 0.66 | 560 | 18×31.5 | 2860 | 0.030 | 0.090 | |
| | 100 | 10×16 | 1040 | 0.11 | 0.47 | 680 | 16×40 | 3510 | 0.027 | 0.081 | |
| | 150 | 10×20 | 1430 | 0.084 | 0.34 | 680 | 18×35.5 | 3510 | 0.027 | 0.081 | |
| | 150 | 12.5×16 | 1430 | 0.11 | 0.34 | 820 | 18×40 | 3860 | 0.026 | 0.076 | |
| | 180 | 10×25 | 1620 | 0.069 | 0.28 | | | | | | |
| | 220 | 12.5×20 | 1750 | 0.062 | 0.18 | | | | | | |
| | 270 | 12.5×25 | 2210 | 0.047 | 0.14 | | | | | | |
| | 330 | 12.5×30 | 2400 | 0.042 | 0.13 | | | | | | |
| | 330 | 16×20 | 1950 | 0.048 | 0.15 | | | | | | |
| | 390 | 12.5×35 | 2600 | 0.036 | 0.11 | | | | | | |
| | 470 | 12.5×40 | 2860 | 0.032 | 0.095 | | | | | | |
| | 470 | 16×25 | 2430 | 0.038 | 0.12 | | | | | | |
| | 470 | 18×20 | 2270 | 0.045 | 0.14 | | | | | | |
| | 560 | 16×31.5 | 2640 | 0.032 | 0.095 | | | | | | |
| | 680 | 16×35.5 | 2860 | 0.029 | 0.086 | | | | | | |
| 680 | 18×25 | 2500 | 0.036 | 0.11 | | | | | | | |
| 820 | 16×40 | 3510 | 0.027 | 0.081 | | | | | | | |
| 820 | 18×31.5 | 2860 | 0.030 | 0.090 | | | | | | | |
| 1000 | 18×35.5 | 3510 | 0.027 | 0.081 | | | | | | | |
| 1200 | 18×40 | 3860 | 0.026 | 0.076 | | | | | | | |