

YXH シリーズ  
SERIES

105°C 長寿命 低インピーダンス品  
105°C Long Life, Low Impedance

・105°C 4000~10000時間品。  
Load Life : 105°C 4000~10000 hours.

RoHS  
compliance



◆規格表 / SPECIFICATIONS

| 項目 Items   | 特性 Characteristics   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
|--|--|--|---|--|----------------------|----------------------|------|-----------|---------------|-----------|---------------|------------------|---------|---------|------|---------|---------|-------|-------|------------------------------|--|-------------------------|---|---|---|---|---|---|---|---|--|
| カテゴリ温度範囲<br>Category Temperature Range                                   | -40~+105°C   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 定格電圧範囲<br>Rated Voltage Range  | 6.3~100Vdc   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 静電容量許容差<br>Capacitance Tolerance   | ±20% (20°C, 120Hz)   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 漏れ電流<br>Leakage Current (MAX)  | I=0.01CV又は3µAのいずれか大なる値以下 (定格電圧印加2分後)<br>I=0.01CV or 3µA whichever is greater. (After 2 minutes)<br>I=漏れ電流(µA) Leakage Current      C=静電容量(µF) Capacitance      V=定格電圧(Vdc) Rated Voltage   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 損失角の正接 (tanδ)<br>Dissipation Factor (MAX)                                | <table border="1"> <tr> <td>定格電圧(Vdc)<br/>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>100</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</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></td> </tr> </table> <p>1000µFを越えるものは1000µF増す毎に上表の値に0.02を加えた値とする。<br/>When capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.</p>  | 定格電圧(Vdc)<br>Rated Voltage   | 6.3   | 10   | 16                   | 25                   | 35   | 50        | 63            | 100       | (20°C, 120Hz) | tanδ             | 0.22    | 0.19    | 0.16 | 0.14    | 0.12    | 0.10  | 0.09  | 0.08                         |  |                         |   |   |   |   |   |   |   |   |  |
| 定格電圧(Vdc)<br>Rated Voltage   | 6.3  | 10   | 16  | 25   | 35                   | 50                   | 63   | 100       | (20°C, 120Hz) |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| tanδ   | 0.22   | 0.19   | 0.16  | 0.14   | 0.12                 | 0.10                 | 0.09 | 0.08      |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 耐久性<br>Endurance   | <p>105°C中で右表の時間定格電圧(リップル重畳)印加後、下記項目を満足すること。<br/>After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>静電容量変化率<br/>Capacitance Change</td> <td>初期値の±25%以内<br/>Within ±25% of the initial value.</td> <td rowspan="3"> <table border="1"> <tr> <td>ケースサイズ<br/>Case Size</td> <td colspan="2">時間(hrs)<br/>Life Time</td> </tr> <tr> <td></td> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD≤6.3</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=8,10</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥12.5</td> <td>8000</td> <td>10000</td> </tr> </table> </td> </tr> <tr> <td>損失角の正接<br/>Dissipation Factor</td> <td>規格値の200%以下<br/>Not more than 200% of the specified value.</td> </tr> <tr> <td>漏れ電流<br/>Leakage Current</td> <td>規格値以下<br/>Not more than the specified value.</td> </tr> </table> | 静電容量変化率<br>Capacitance Change  | 初期値の±25%以内<br>Within ±25% of the initial value. | <table border="1"> <tr> <td>ケースサイズ<br/>Case Size</td> <td colspan="2">時間(hrs)<br/>Life Time</td> </tr> <tr> <td></td> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD≤6.3</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=8,10</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥12.5</td> <td>8000</td> <td>10000</td> </tr> </table> | ケースサイズ<br>Case Size  | 時間(hrs)<br>Life Time |      |           | 6.3~10Vdc     | 16~100Vdc | φD≤6.3        | 4000             | 5000    | φD=8,10 | 6000 | 7000    | φD≥12.5 | 8000  | 10000 | 損失角の正接<br>Dissipation Factor | 規格値の200%以下<br>Not more than 200% of the specified value. | 漏れ電流<br>Leakage Current | 規格値以下<br>Not more than the specified value. |   |   |   |   |   |   |   |  |
| 静電容量変化率<br>Capacitance Change  | 初期値の±25%以内<br>Within ±25% of the initial value.  | <table border="1"> <tr> <td>ケースサイズ<br/>Case Size</td> <td colspan="2">時間(hrs)<br/>Life Time</td> </tr> <tr> <td></td> <td>6.3~10Vdc</td> <td>16~100Vdc</td> </tr> <tr> <td>φD≤6.3</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>φD=8,10</td> <td>6000</td> <td>7000</td> </tr> <tr> <td>φD≥12.5</td> <td>8000</td> <td>10000</td> </tr> </table> | ケースサイズ<br>Case Size                             |  | 時間(hrs)<br>Life Time |                      |      | 6.3~10Vdc | 16~100Vdc     | φD≤6.3    | 4000          | 5000             | φD=8,10 | 6000    | 7000 | φD≥12.5 | 8000    | 10000 |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| ケースサイズ<br>Case Size  | 時間(hrs)<br>Life Time   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
|  | 6.3~10Vdc  |  | 16~100Vdc                                       |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| φD≤6.3   | 4000   | 5000   |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| φD=8,10  | 6000   | 7000   |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| φD≥12.5  | 8000   | 10000  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 損失角の正接<br>Dissipation Factor   | 規格値の200%以下<br>Not more than 200% of the specified value.   |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 漏れ電流<br>Leakage Current  | 規格値以下<br>Not more than the specified value.  |  |   |  |                      |                      |      |           |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| 低温特性<br>Low Temperature Stability<br>(インピーダンス比)<br>Impedance Ratio (MAX) | <table border="1"> <tr> <td>定格電圧(Vdc)<br/>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>100</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</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°C)/Z(20°C)</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td></td> </tr> </table>   | 定格電圧(Vdc)<br>Rated Voltage   | 6.3   | 10   | 16                   | 25                   | 35   | 50        | 63            | 100       | (120Hz)       | Z(-25°C)/Z(20°C) | 4       | 3       | 2    | 2       | 2       | 2     | 2     | 2                            |  | Z(-40°C)/Z(20°C)        | 8   | 6 | 4 | 3 | 3 | 3 | 3 | 3 |  |
| 定格電圧(Vdc)<br>Rated Voltage   | 6.3  | 10   | 16  | 25   | 35                   | 50                   | 63   | 100       | (120Hz)       |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| Z(-25°C)/Z(20°C)   | 4  | 3  | 2   | 2  | 2                    | 2                    | 2    | 2         |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |
| Z(-40°C)/Z(20°C)   | 8  | 6  | 4   | 3  | 3                    | 3                    | 3    | 3         |               |           |               |                  |         |         |      |         |         |       |       |                              |  |                         |   |   |   |   |   |   |   |   |  |

◆リップル電流補正係数 /  
MULTIPLIER FOR RIPPLE CURRENT

| 周波数(Hz)<br>Frequency | 120  | 1k   | 10k  | 100k≤ |
|----------------------|------|------|------|-------|
| 6.8~33µF             | 0.42 | 0.70 | 0.90 | 1.00  |
| 39~270µF             | 0.50 | 0.73 | 0.92 | 1.00  |
| 330~680µF            | 0.55 | 0.77 | 0.94 | 1.00  |
| 820~1800µF           | 0.60 | 0.80 | 0.96 | 1.00  |
| 2200~18000µF         | 0.70 | 0.85 | 0.98 | 1.00  |

◆寸法図 / DIMENSIONS (mm)



◆呼称方法 / PART NUMBER

|                       |                 |                     |                                  |               |                         |                     |
|-----------------------|-----------------|---------------------|----------------------------------|---------------|-------------------------|---------------------|
| □□□                   | YXH             | □□□□□               | M                                | □□□           | □□                      | DXL                 |
| 定格電圧<br>Rated Voltage | シリーズ名<br>Series | 静電容量<br>Capacitance | 静電容量許容差<br>Capacitance Tolerance | 副記号<br>Option | リード加工記号<br>Lead Forming | ケースサイズ<br>Case Size |

◆副記号 / OPTION

|                       |                |
|-----------------------|----------------|
| PETスリーブ<br>PET Sleeve | 記号 Code<br>EFC |
|-----------------------|----------------|

**◆標準品一覧表 / STANDARD SIZE**

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>( $\mu$ F) | 外形寸法<br>Size<br>$\phi$ D×L(mm) | 定格リップル電流<br>Rated ripple current<br>(mA r.m.s./105°C, 100kHz) | インピーダンス( $\Omega$ MAX)<br>Impedance |               |
|--------------------------------|-----------------------------------|--------------------------------|---|-------------------------------------|---------------|
|                                |                                   |                                |   | 20°C, 100kHz                        | -10°C, 100kHz |
| 6.3                            | 150                               | 5×11                           | 210   | 0.58                                | 2.3           |
|                                | 330                               | 6.3×11                         | 340   | 0.22                                | 0.87          |
|                                | 680                               | 8×11.5                         | 640   | 0.13                                | 0.52          |
|                                | 820                               | 10×12.5                        | 865   | 0.08                                | 0.32          |
|                                | 1000                              | 8×16                           | 840   | 0.087                               | 0.35          |
|                                | 1200                              | 8×20                           | 1050  | 0.069                               | 0.27          |
|                                | 1200                              | 10×16                          | 1210  | 0.060                               | 0.24          |
|                                | 1500                              | 10×20                          | 1400  | 0.046                               | 0.18          |
|                                | 1800                              | 12.5×16                        | 1450  | 0.049                               | 0.16          |
|                                | 2200                              | 10×23                          | 1650  | 0.042                               | 0.17          |
|                                | 2700                              | 10×28                          | 1910  | 0.031                               | 0.12          |
|                                | 2700                              | 16×16                          | 1940  | 0.042                               | 0.12          |
|                                | 3300                              | 12.5×20                        | 1900  | 0.035                               | 0.12          |
|                                | 3900                              | 12.5×25                        | 2230  | 0.027                               | 0.089         |
|                                | 3900                              | 18×16                          | 2210  | 0.043                               | 0.11          |
|                                | 4700                              | 12.5×30                        | 2650  | 0.024                               | 0.078         |
|                                | 5600                              | 12.5×35                        | 2880  | 0.020                               | 0.065         |
|                                | 5600                              | 16×20                          | 2530  | 0.027                               | 0.078         |
|                                | 6800                              | 12.5×40                        | 3350  | 0.017                               | 0.056         |
|                                | 6800                              | 16×25                          | 2930  | 0.021                               | 0.060         |
| 6800                           | 18×20                             | 2860                           | 0.026   | 0.067                               |               |
| 8200                           | 16×31.5                           | 3450                           | 0.017   | 0.050                               |               |
| 10000                          | 16×35.5                           | 3610                           | 0.015   | 0.044                               |               |
| 10000                          | 18×25                             | 3140                           | 0.019   | 0.049                               |               |
| 12000                          | 16×40                             | 4080                           | 0.013   | 0.038                               |               |
| 12000                          | 18×31.5                           | 4170                           | 0.015   | 0.040                               |               |
| 15000                          | 18×35.5                           | 4220                           | 0.014   | 0.038                               |               |
| 18000                          | 18×40                             | 4280                           | 0.012   | 0.032                               |               |
| 16                             | 56                                | 5×11                           | 210   | 0.58                                | 2.3           |
|                                | 120                               | 6.3×11                         | 340   | 0.22                                | 0.87          |
|                                | 330                               | 8×11.5                         | 640   | 0.13                                | 0.52          |
|                                | 470                               | 8×16                           | 840   | 0.087                               | 0.35          |
|                                | 470                               | 10×12.5                        | 865   | 0.080                               | 0.32          |
|                                | 680                               | 8×20                           | 1050  | 0.069                               | 0.27          |
|                                | 680                               | 10×16                          | 1210  | 0.060                               | 0.24          |
|                                | 1000                              | 10×20                          | 1400  | 0.046                               | 0.18          |
|                                | 1000                              | 12.5×16                        | 1450  | 0.049                               | 0.16          |
|                                | 1200                              | 10×23                          | 1650  | 0.042                               | 0.17          |
|                                | 1500                              | 10×28                          | 1910  | 0.031                               | 0.12          |
|                                | 1500                              | 12.5×20                        | 1900  | 0.035                               | 0.12          |
|                                | 1500                              | 16×16                          | 1940  | 0.042                               | 0.12          |
|                                | 2200                              | 12.5×25                        | 2230  | 0.027                               | 0.089         |
|                                | 2200                              | 18×16                          | 2210  | 0.043                               | 0.11          |
|                                | 2700                              | 12.5×30                        | 2650  | 0.024                               | 0.078         |
|                                | 2700                              | 16×20                          | 2530  | 0.027                               | 0.078         |
|                                | 3300                              | 12.5×35                        | 2880  | 0.020                               | 0.065         |
|                                | 3900                              | 12.5×40                        | 3350  | 0.017                               | 0.056         |
|                                | 3900                              | 16×25                          | 2930  | 0.021                               | 0.060         |
| 3900                           | 18×20                             | 2860                           | 0.026   | 0.067                               |               |
| 4700                           | 16×31.5                           | 3450                           | 0.017   | 0.050                               |               |
| 4700                           | 18×25                             | 3140                           | 0.019   | 0.049                               |               |
| 5600                           | 16×35.5                           | 3610                           | 0.015   | 0.044                               |               |
| 5600                           | 18×31.5                           | 4170                           | 0.015   | 0.040                               |               |
| 6800                           | 16×40                             | 4080                           | 0.013   | 0.038                               |               |
| 8200                           | 18×35.5                           | 4220                           | 0.014   | 0.038                               |               |
| 10000                          | 18×40                             | 4280                           | 0.012   | 0.032                               |               |
| 10                             | 100                               | 5×11                           | 210   | 0.58                                | 2.3           |
|                                | 220                               | 6.3×11                         | 340   | 0.22                                | 0.87          |
|                                | 470                               | 8×11.5                         | 640   | 0.13                                | 0.52          |
|                                | 680                               | 8×16                           | 840   | 0.087                               | 0.35          |
|                                | 680                               | 10×12.5                        | 865   | 0.080                               | 0.32          |
|                                | 1000                              | 8×20                           | 1050  | 0.069                               | 0.27          |
|                                | 1000                              | 10×16                          | 1210  | 0.060                               | 0.24          |
|                                | 1200                              | 10×20                          | 1400  | 0.046                               | 0.18          |
|                                | 1500                              | 10×23                          | 1650  | 0.042                               | 0.17          |
|                                | 1500                              | 12.5×16                        | 1450  | 0.049                               | 0.16          |
|                                | 2200                              | 10×28                          | 1910  | 0.031                               | 0.12          |
|                                | 2200                              | 12.5×20                        | 1900  | 0.035                               | 0.12          |
|                                | 2200                              | 16×16                          | 1940  | 0.042                               | 0.12          |
|                                | 2700                              | 18×16                          | 2210  | 0.043                               | 0.11          |
|                                | 3300                              | 12.5×25                        | 2230  | 0.027                               | 0.089         |
|                                | 3900                              | 12.5×30                        | 2650  | 0.024                               | 0.078         |
|                                | 3900                              | 16×20                          | 2530  | 0.027                               | 0.078         |
|                                | 4700                              | 12.5×35                        | 2880  | 0.020                               | 0.065         |
|                                | 5600                              | 12.5×40                        | 3350  | 0.017                               | 0.056         |
|                                | 5600                              | 16×25                          | 2930  | 0.021                               | 0.060         |
| 5600                           | 18×20                             | 2860                           | 0.026   | 0.067                               |               |
| 6800                           | 16×31.5                           | 3450                           | 0.017   | 0.050                               |               |
| 6800                           | 18×25                             | 3140                           | 0.019   | 0.049                               |               |
| 8200                           | 16×35.5                           | 3610                           | 0.015   | 0.044                               |               |
| 8200                           | 18×31.5                           | 4170                           | 0.015   | 0.040                               |               |
| 10000                          | 16×40                             | 4080                           | 0.013   | 0.038                               |               |
| 10000                          | 18×35.5                           | 4220                           | 0.014   | 0.038                               |               |
| 12000                          | 18×40                             | 4280                           | 0.012   | 0.032                               |               |
| 25                             | 47                                | 5×11                           | 210   | 0.58                                | 2.3           |
|                                | 100                               | 6.3×11                         | 340   | 0.22                                | 0.87          |
|                                | 220                               | 8×11.5                         | 640   | 0.13                                | 0.52          |
|                                | 330                               | 8×16                           | 840   | 0.087                               | 0.35          |
|                                | 330                               | 10×12.5                        | 865   | 0.080                               | 0.32          |
|                                | 470                               | 8×20                           | 1050  | 0.069                               | 0.27          |
|                                | 470                               | 10×16                          | 1210  | 0.060                               | 0.24          |
|                                | 680                               | 10×20                          | 1400  | 0.046                               | 0.18          |
|                                | 680                               | 12.5×16                        | 1450  | 0.049                               | 0.16          |
|                                | 820                               | 10×23                          | 1650  | 0.042                               | 0.17          |
|                                | 1000                              | 10×28                          | 1910  | 0.031                               | 0.12          |
|                                | 1000                              | 12.5×20                        | 1900  | 0.035                               | 0.12          |
|                                | 1000                              | 16×16                          | 1940  | 0.042                               | 0.12          |
|                                | 1200                              | 18×16                          | 2210  | 0.043                               | 0.11          |
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|                                | 1800                              | 16×20                          | 2530  | 0.027                               | 0.078         |
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|                                | 2700                              | 12.5×40                        | 3350  | 0.017                               | 0.056         |
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| 3900                           | 16×35.5                           | 3610                           | 0.015   | 0.044                               |               |
| 3900                           | 18×31.5                           | 4170                           | 0.015   | 0.040                               |               |
| 4700                           | 16×40                             | 4080                           | 0.013   | 0.038                               |               |
| 4700                           | 18×35.5                           | 4220                           | 0.014   | 0.038                               |               |
| 5600                           | 18×40                             | 4280                           | 0.012   | 0.032                               |               |

**◆標準品一覧表 / STANDARD SIZE**

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>( $\mu$ F) | 外形寸法<br>Size<br>$\phi$ D×L(mm) | 定格リップル電流<br>Rated ripple current<br>(mA r.m.s./105°C, 100kHz) | インピーダンス( $\Omega$ MAX)<br>Impedance |               |
|--------------------------------|-----------------------------------|--------------------------------|---|-------------------------------------|---------------|
|                                |                                   |                                |   | 20°C, 100kHz                        | -10°C, 100kHz |
| 35                             | 33                                | 5×11                           | 210   | 0.58                                | 2.3           |
|                                | 56                                | 6.3×11                         | 340   | 0.22                                | 0.87          |
|                                | 150                               | 8×11.5                         | 640   | 0.13                                | 0.52          |
|                                | 220                               | 8×16                           | 840   | 0.087                               | 0.35          |
|                                | 220                               | 10×12.5                        | 865   | 0.080                               | 0.32          |
|                                | 270                               | 8×20                           | 1050  | 0.069                               | 0.27          |
|                                | 330                               | 10×16                          | 1210  | 0.060                               | 0.24          |
|                                | 470                               | 10×20                          | 1400  | 0.046                               | 0.18          |
|                                | 470                               | 12.5×16                        | 1450  | 0.049                               | 0.16          |
|                                | 560                               | 10×23                          | 1650  | 0.042                               | 0.17          |
|                                | 680                               | 10×28                          | 1910  | 0.031                               | 0.12          |
|                                | 680                               | 12.5×20                        | 1900  | 0.035                               | 0.12          |
|                                | 680                               | 16×16                          | 1940  | 0.042                               | 0.12          |
|                                | 1000                              | 12.5×25                        | 2230  | 0.027                               | 0.089         |
|                                | 1000                              | 18×16                          | 2210  | 0.043                               | 0.11          |
|                                | 1200                              | 12.5×30                        | 2650  | 0.024                               | 0.078         |
|                                | 1200                              | 16×20                          | 2530  | 0.027                               | 0.078         |
|                                | 1500                              | 12.5×35                        | 2880  | 0.020                               | 0.065         |
|                                | 1800                              | 12.5×40                        | 3350  | 0.017                               | 0.056         |
|                                | 1800                              | 16×25                          | 2930  | 0.021                               | 0.060         |
| 1800                           | 18×20                             | 2860                           | 0.026   | 0.067                               |               |
| 2200                           | 16×31.5                           | 3450                           | 0.017   | 0.050                               |               |
| 2200                           | 18×25                             | 3140                           | 0.019   | 0.049                               |               |
| 2700                           | 16×35.5                           | 3610                           | 0.015   | 0.044                               |               |
| 2700                           | 18×31.5                           | 4170                           | 0.015   | 0.040                               |               |
| 3300                           | 16×40                             | 4080                           | 0.013   | 0.038                               |               |
| 3300                           | 18×35.5                           | 4220                           | 0.014   | 0.038                               |               |
| 3900                           | 18×40                             | 4280                           | 0.012   | 0.032                               |               |
| 63                             | 15                                | 5×11                           | 62  | 1.8                                 | 7.3           |
|                                | 33                                | 6.3×11                         | 126   | 1.0                                 | 4.1           |
|                                | 56                                | 8×11.5                         | 260   | 0.50                                | 2.2           |
|                                | 82                                | 8×16                           | 335   | 0.36                                | 1.7           |
|                                | 82                                | 10×12.5                        | 325   | 0.34                                | 1.4           |
|                                | 120                               | 8×20                           | 408   | 0.26                                | 1.3           |
|                                | 120                               | 10×16                          | 400   | 0.25                                | 1.2           |
|                                | 180                               | 10×20                          | 518   | 0.17                                | 0.76          |
|                                | 180                               | 12.5×16                        | 527   | 0.18                                | 0.86          |
|                                | 220                               | 10×23                          | 595   | 0.16                                | 0.67          |
|                                | 270                               | 10×28                          | 740   | 0.12                                | 0.57          |
|                                | 270                               | 12.5×20                        | 765   | 0.13                                | 0.52          |
|                                | 270                               | 16×16                          | 895   | 0.11                                | 0.52          |
|                                | 330                               | 12.5×25                        | 875   | 0.096                               | 0.36          |
|                                | 390                               | 18×16                          | 1030  | 0.096                               | 0.40          |
|                                | 470                               | 12.5×30                        | 1010  | 0.080                               | 0.34          |
|                                | 470                               | 16×20                          | 1130  | 0.077                               | 0.32          |
|                                | 560                               | 12.5×35                        | 1140  | 0.070                               | 0.30          |
|                                | 560                               | 16×25                          | 1350  | 0.062                               | 0.23          |
|                                | 680                               | 12.5×40                        | 1280  | 0.060                               | 0.25          |
| 680                            | 18×20                             | 1300                           | 0.072   | 0.27                                |               |
| 820                            | 16×31.5                           | 1650                           | 0.049   | 0.18                                |               |
| 820                            | 18×25                             | 1560                           | 0.052   | 0.19                                |               |
| 1000                           | 16×35.5                           | 1900                           | 0.040   | 0.15                                |               |
| 1000                           | 18×31.5                           | 1720                           | 0.042   | 0.15                                |               |
| 1200                           | 16×40                             | 2130                           | 0.036   | 0.13                                |               |
| 1200                           | 18×35.5                           | 1890                           | 0.036   | 0.13                                |               |
| 1500                           | 18×40                             | 2470                           | 0.032   | 0.12                                |               |
| 100                            | 6.8                               | 5×11                           | 62  | 1.8                                 | 7.3           |
|                                | 15                                | 6.3×11                         | 126   | 1.0                                 | 4.1           |
|                                | 27                                | 8×11.5                         | 260   | 0.50                                | 2.2           |
|                                | 39                                | 8×16                           | 335   | 0.36                                | 1.7           |
|                                | 47                                | 10×12.5                        | 325   | 0.34                                | 1.4           |
|                                | 56                                | 8×20                           | 408   | 0.26                                | 1.3           |
|                                | 68                                | 10×16                          | 400   | 0.25                                | 1.2           |
|                                | 82                                | 10×20                          | 518   | 0.17                                | 0.76          |
|                                | 82                                | 12.5×16                        | 527   | 0.18                                | 0.86          |
|                                | 100                               | 10×23                          | 595   | 0.16                                | 0.67          |
|                                | 120                               | 10×28                          | 740   | 0.12                                | 0.57          |
|                                | 120                               | 12.5×20                        | 765   | 0.13                                | 0.52          |
|                                | 150                               | 16×16                          | 895   | 0.11                                | 0.52          |
|                                | 180                               | 12.5×25                        | 875   | 0.096                               | 0.36          |
|                                | 180                               | 18×16                          | 1030  | 0.096                               | 0.40          |
|                                | 220                               | 12.5×30                        | 1010  | 0.080                               | 0.34          |
|                                | 220                               | 16×20                          | 1130  | 0.077                               | 0.32          |
|                                | 270                               | 12.5×35                        | 1140  | 0.070                               | 0.30          |
|                                | 270                               | 16×25                          | 1350  | 0.062                               | 0.23          |
|                                | 330                               | 12.5×40                        | 1280  | 0.060                               | 0.25          |
| 330                            | 18×20                             | 1300                           | 0.072   | 0.27                                |               |
| 390                            | 16×31.5                           | 1650                           | 0.049   | 0.18                                |               |
| 390                            | 18×25                             | 1560                           | 0.052   | 0.19                                |               |
| 470                            | 16×35.5                           | 1900                           | 0.040   | 0.15                                |               |
| 470                            | 18×31.5                           | 1720                           | 0.042   | 0.15                                |               |
| 560                            | 16×40                             | 2130                           | 0.036   | 0.13                                |               |
| 680                            | 18×35.5                           | 1890                           | 0.036   | 0.13                                |               |
| 820                            | 18×40                             | 2470                           | 0.032   | 0.12                                |               |
| 50                             | 22                                | 5×11                           | 180   | 0.70                                | 2.8           |
|                                | 56                                | 6.3×11                         | 295   | 0.30                                | 1.2           |
|                                | 100                               | 8×11.5                         | 555   | 0.17                                | 0.68          |
|                                | 120                               | 8×16                           | 730   | 0.12                                | 0.48          |
|                                | 150                               | 10×12.5                        | 760   | 0.12                                | 0.48          |
|                                | 180                               | 8×20                           | 910   | 0.091                               | 0.36          |
|                                | 220                               | 10×16                          | 1050  | 0.084                               | 0.34          |
|                                | 270                               | 10×20                          | 1220  | 0.060                               | 0.24          |
|                                | 270                               | 12.5×16                        | 1260  | 0.061                               | 0.20          |
|                                | 330                               | 10×23                          | 1440  | 0.055                               | 0.22          |
|                                | 470                               | 10×28                          | 1690  | 0.043                               | 0.17          |
|                                | 470                               | 12.5×20                        | 1660  | 0.045                               | 0.15          |
|                                | 470                               | 16×16                          | 1690  | 0.055                               | 0.17          |
|                                | 560                               | 12.5×25                        | 1950  | 0.034                               | 0.11          |
|                                | 560                               | 18×16                          | 1930  | 0.054                               | 0.15          |
|                                | 680                               | 12.5×30                        | 2310  | 0.030                               | 0.10          |
|                                | 820                               | 12.5×35                        | 2510  | 0.025                               | 0.083         |
|                                | 820                               | 16×20                          | 2210  | 0.034                               | 0.10          |
|                                | 1000                              | 12.5×40                        | 2920  | 0.021                               | 0.069         |
|                                | 1000                              | 16×25                          | 2555  | 0.025                               | 0.075         |
| 1000                           | 18×20                             | 2490                           | 0.036   | 0.097                               |               |
| 1200                           | 16×31.5                           | 3010                           | 0.022   | 0.066                               |               |
| 1200                           | 18×25                             | 2740                           | 0.026   | 0.070                               |               |
| 1500                           | 16×35.5                           | 3150                           | 0.019   | 0.057                               |               |
| 1800                           | 16×40                             | 3710                           | 0.016   | 0.048                               |               |
| 1800                           | 18×31.5                           | 3635                           | 0.021   | 0.057                               |               |
| 2200                           | 18×35.5                           | 3680                           | 0.017   | 0.046                               |               |
| 2700                           | 18×40                             | 3800                           | 0.014   | 0.038                               |               |
| 3300                           | 18×40                             | 3800                           | 0.014   | 0.038                               |               |