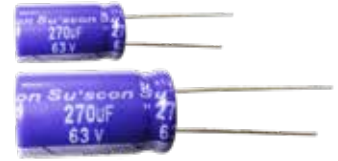


## HX series

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- 105°C High ripple and low impedance, long life: 6000 hours~10000 hours
- Suited for LCD TV BLU Inverter, SMPS, IP-Board, Adaptor etc..
- 105°C耐高纹波，低阻抗，寿命：6000小時~10000小时。
- 適用背光模组转换器 开关电源，适配器等。



## SPECIFICATIONS

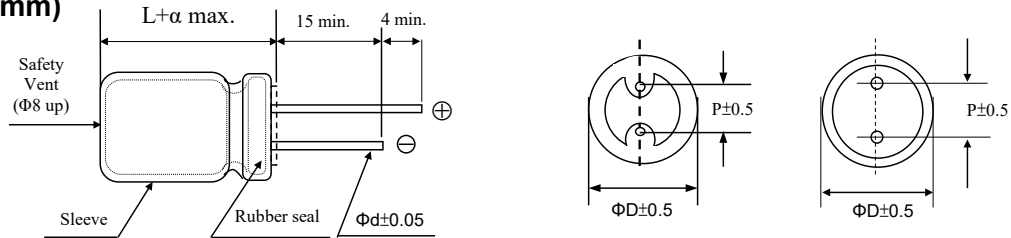
|                                                                        |                                                                                                                   |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|----------|-------------------------------|-----|---------|------|------|
| Items 項目                                                               | Characteristics 特性                                                                                                |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Capacitance Tolerance<br>靜電容量誤差                                        | ± 20%(120Hz,20°C)                                                                                                 |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Operating Temperature Range<br>適用溫度範圍                                  | -40 ~ +105°C                                                                                                      |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Rated Voltage Range<br>額定電壓範圍                                          | 6.3 ~ 100VDC                                                                                                      |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Leakage Current<br>洩漏電流                                                | I ≤ 0.01CV or 3 (μA) which is greater.( After 2 minutes application of DC rated voltage, at 20 °C)                |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Dissipation Factor<br>散逸因素( tan δ)                                     | Measurement Frequency: 120Hz. Temperature: 20°C                                                                   |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
|                                                                        | Rated Voltage(V)                                                                                                  | 6.3                                                                                                                                                                                                                                                                                 | 10   | 16   | 25       | 35                            | 50  | 63      | 80   | 100  |
|                                                                        | tan δ (Max)                                                                                                       | 0.22                                                                                                                                                                                                                                                                                | 0.19 | 0.16 | 0.14     | 0.12                          | 0.1 | 0.09    | 0.08 | 0.08 |
|                                                                        | When nominal capacitance over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF. |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Low Temperature Stability<br>低溫特性<br>Impedance Ratio(Max)<br>阻抗比率(最大值) | Measurement Frequency: 120Hz.                                                                                     |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
|                                                                        | Rated Voltage(V)                                                                                                  | 6.3                                                                                                                                                                                                                                                                                 | 10   | 16   | 25       | 35                            | 50  | 63      | 80   | 100  |
|                                                                        | Z(-25°C)/Z(20°C)                                                                                                  | 2                                                                                                                                                                                                                                                                                   | 2    | 2    | 2        | 2                             | 2   | 2       | 2    | 2    |
|                                                                        | Z(-40°C)/Z(20°C)                                                                                                  | 3                                                                                                                                                                                                                                                                                   | 3    | 3    | 3        | 3                             | 3   | 3       | 3    | 3    |
| Load Life 負荷壽命                                                         | Case size(ΦD)                                                                                                     | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for varied hours according to varied ϕ and voltage [ please refer to below sheet ] at 105°C.                        |      |      |          |                               |     |         |      |      |
|                                                                        |                                                                                                                   | 6.3V                                                                                                                                                                                                                                                                                |      |      | 10~50V   |                               |     | 63~100V |      |      |
|                                                                        | Φ5~Φ6.3                                                                                                           | 6000hrs                                                                                                                                                                                                                                                                             |      |      | 7000hrs  |                               |     | 6000hrs |      |      |
|                                                                        | Φ8x11.5L                                                                                                          | 8000hrs                                                                                                                                                                                                                                                                             |      |      | 9000hrs  |                               |     | 8000hrs |      |      |
|                                                                        | Φ8x15L~Φ20L                                                                                                       | 9000hrs                                                                                                                                                                                                                                                                             |      |      | 10000hrs |                               |     | 9000hrs |      |      |
|                                                                        | Φ10x12.5L                                                                                                         | 9000hrs                                                                                                                                                                                                                                                                             |      |      |          |                               |     |         |      |      |
|                                                                        | Φ10x16L~25L>Φ10                                                                                                   | 10000hrs                                                                                                                                                                                                                                                                            |      |      |          |                               |     |         |      |      |
|                                                                        | Rated Voltage(V)                                                                                                  | 6.3~10 V                                                                                                                                                                                                                                                                            |      |      |          | 16~100 V                      |     |         |      |      |
|                                                                        | Capacitance Change                                                                                                | Within ± 30% of Initial Value                                                                                                                                                                                                                                                       |      |      |          | Within ± 25% of Initial Value |     |         |      |      |
|                                                                        | tan δ                                                                                                             | 200% or less of Initial Specified Value                                                                                                                                                                                                                                             |      |      |          |                               |     |         |      |      |
|                                                                        | Leakage Current                                                                                                   | Initial Specified Value or less                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
|                                                                        | Shelf Life 放置壽命                                                                                                   | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4. |      |      |          |                               |     |         |      |      |
| Capacitance Change                                                     |                                                                                                                   | Within ± 20% of Initial Value                                                                                                                                                                                                                                                       |      |      |          |                               |     |         |      |      |
| tan δ                                                                  |                                                                                                                   | 200% or less of Initial Specified Value                                                                                                                                                                                                                                             |      |      |          |                               |     |         |      |      |
| Leakage Current                                                        |                                                                                                                   | Initial Specified Value or less                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |
| Standards 參照標準                                                         | IEC 60384-4(JIS C5101-4)                                                                                          |                                                                                                                                                                                                                                                                                     |      |      |          |                               |     |         |      |      |

## Frequency Coefficient of Permissible Ripple Current

| Capacitance ( $\mu F$ ) | Frequency (Hz) |      |      |      |
|-------------------------|----------------|------|------|------|
|                         | 120            | 1K   | 10K  | 100K |
| 5.6 ~ 180               | 0.40           | 0.70 | 0.90 | 1.00 |
| 220 ~ 560               | 0.50           | 0.85 | 0.94 | 1.00 |
| 680 ~ 1800              | 0.60           | 0.87 | 0.95 | 1.00 |
| 2200 ~ 3900             | 0.75           | 0.90 | 0.95 | 1.00 |
| 4700 ~ 18000            | 0.85           | 0.95 | 0.98 | 1.00 |

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**DIMENSIONS(mm)**

| ΦD | 5   | 6.3 | 8   | 10  | 12.5 | 16  | 18  |
|----|-----|-----|-----|-----|------|-----|-----|
| P  | 2.0 | 2.5 | 3.5 | 5   | 5    | 7.5 | 7.5 |
| Φd | 0.5 | 0.5 | 0.5 | 0.6 | 0.6  | 0.8 | 0.8 |

|          |              |
|----------|--------------|
| $\alpha$ | (L < 20) 1.5 |
|          | (L ≥ 20) 2.0 |

**STANDARD RATINGS**

DxL(mm), R.C : (mA rms) at 105°C 100kHz, IMP:(Ω max) at 20°C, 100kHz.

| Cap<br>(μF) | V       | 6.3   |       |     | 10      |      |       | 16      |      |       | 25      |      |       |
|-------------|---------|-------|-------|-----|---------|------|-------|---------|------|-------|---------|------|-------|
|             | Item    | D x L | R.C.  | IMP | D x L   | R.C. | IMP   | D x L   | R.C. | IMP   | D x L   | R.C. | IMP   |
| 68          |         |       |       |     |         |      |       |         |      |       | 5x11    | 450  | 0.380 |
| 120         |         |       |       |     |         |      |       | 5x11    | 460  | 0.380 |         |      |       |
| 150         |         |       |       |     | 5x11    | 460  | 0.380 |         |      |       | 6.3x11  | 700  | 0.170 |
| 220         | 5x11    | 350   | 0.380 |     |         |      |       |         |      |       |         |      |       |
| 270         |         |       |       |     |         |      |       | 6.3x11  | 700  | 0.160 | 8x11.5  | 1200 | 0.075 |
| 330         |         |       |       |     | 6.3x11  | 700  | 0.160 |         |      |       | 8x11.5  | 1210 | 0.074 |
| 470         |         |       |       |     |         |      |       |         |      |       | 8x15    | 1610 | 0.058 |
| 560         | 6.3x11  | 540   | 0.170 |     |         |      |       | 8x11.5  | 1200 | 0.075 | 10x12.5 | 1700 | 0.052 |
| 680         |         |       |       |     | 8x11.5  | 1200 | 0.075 | 8x15    | 1600 | 0.059 | 8x20    | 1970 | 0.040 |
|             |         |       |       |     | 8x15    | 1600 | 0.058 | 8x15    | 1610 | 0.059 | 10x16   | 2000 | 0.037 |
| 820         |         |       |       |     |         |      |       | 10x12.5 | 1700 | 0.053 |         |      |       |
| 1000        | 8x11.5  | 945   | 0.074 |     | 8x15    | 1610 | 0.058 | 8x20    | 1970 | 0.040 | 10x20   | 2500 | 0.028 |
|             |         |       |       |     | 8x20    | 1960 | 0.041 | 10x16   | 2000 | 0.038 | 12.5x16 | 2400 | 0.110 |
| 1200        |         |       |       |     | 10x12.5 | 1700 | 0.053 |         |      |       |         |      |       |
| 1200        | 8x15    | 1250  | 0.059 |     | 8x20    | 1970 | 0.040 | 10x16   | 2000 | 0.037 | 10x25   | 2910 | 0.026 |
| 1200        | 10x12.5 | 1330  | 0.053 |     | 10x16   | 2000 | 0.037 |         |      |       |         |      |       |
| 1500        | 8x20    | 1510  | 0.041 |     |         |      |       | 10x20   | 2520 | 0.027 | 12.5x20 | 2610 | 0.024 |
|             |         |       |       |     |         |      |       | 12.5x16 | 2400 | 0.035 |         |      |       |
| 1800        | 10x16   | 1765  | 0.037 |     | 10x20   | 2520 | 0.027 | 10x25   | 2910 | 0.026 | 12.5x25 | 3200 | 0.019 |
|             |         |       |       |     | 12.5x16 | 2400 | 0.035 |         |      |       |         |      |       |
| 2200        |         |       |       |     | 10x25   | 2910 | 0.023 | 12.5x20 | 2610 | 0.024 | 12.5x30 | 3660 | 0.018 |
|             |         |       |       |     |         |      |       |         |      |       | 16x20   | 3330 | 0.021 |
| 2700        | 10x20   | 1965  | 0.027 |     | 12.5x20 | 2610 | 0.024 | 12.5x25 | 3200 | 0.018 | 12.5x35 | 4120 | 0.016 |
|             | 12.5x16 | 1900  | 0.035 |     |         |      |       |         |      |       |         |      |       |
| 3300        | 10x25   | 2260  | 0.026 |     | 12.5x25 | 3060 | 0.090 | 12.5x30 | 3660 | 0.018 | 16x25   | 3810 | 0.017 |
|             |         |       |       |     |         |      |       | 16x20   | 3250 | 0.021 | 18x20   | 3450 | 0.020 |
| 3900        | 12.5x20 | 2485  | 0.024 |     | 12.5x25 | 3200 | 0.019 | 16x20   | 3330 | 0.021 |         |      |       |
| 4700        | 12.5x25 | 2910  | 0.019 |     | 12.5x30 | 3660 | 0.018 | 16x25   | 3650 | 0.017 | 16x31.5 | 4100 | 0.016 |
|             |         |       |       |     | 16x20   | 3330 | 0.021 | 18x20   | 3450 | 0.020 | 18x25   | 3880 | 0.016 |
| 5600        | 12.5x25 | 2910  | 0.019 |     | 12.5x35 | 4120 | 0.016 | 16x25   | 3810 | 0.017 | 16x35.5 | 4280 | 0.014 |
|             |         |       |       |     | 18x20   | 3450 | 0.020 |         |      |       | 18x31.5 | 4190 | 0.014 |
| 6800        | 12.5x30 | 3450  | 0.018 |     | 16x25   | 3810 | 0.017 | 16x31.5 | 4100 | 0.016 | 16x40   | 4580 | 0.013 |
|             | 16x20   | 3250  | 0.021 |     |         |      |       | 18x25   | 3880 | 0.016 | 18x35.5 | 4380 | 0.012 |
| 8200        | 12.5x35 | 3570  | 0.016 |     | 16x31.5 | 4100 | 0.016 | 16x35.5 | 4280 | 0.014 | 18x40   | 4960 | 0.011 |
|             | 18x20   | 3450  | 0.020 |     | 18x25   | 3880 | 0.016 | 18x31.5 | 4190 | 0.014 |         |      |       |
| 10000       | 16x25   | 3630  | 0.017 |     | 16x35.5 | 4280 | 0.014 | 16x40   | 4580 | 0.013 |         |      |       |
|             |         |       |       |     | 18x31.5 | 4190 | 0.014 | 18x35.5 | 4380 | 0.012 |         |      |       |
| 12000       | 16x31.5 | 4100  | 0.016 |     | 16x40   | 4580 | 0.013 | 18x40   | 4960 | 0.011 |         |      |       |
|             | 18x25   | 3880  | 0.016 |     | 18x35.5 | 4380 | 0.012 |         |      |       |         |      |       |
| 15000       | 16x35.5 | 4280  | 0.014 |     | 18x40   | 4960 | 0.011 |         |      |       |         |      |       |
|             | 18x31.5 | 4190  | 0.014 |     |         |      |       |         |      |       |         |      |       |
| 18000       | 16x40   | 4580  | 0.013 |     |         |      |       |         |      |       |         |      |       |
|             | 18x35.5 | 4380  | 0.012 |     |         |      |       |         |      |       |         |      |       |
| 22000       | 18x40   | 4960  | 0.011 |     |         |      |       |         |      |       |         |      |       |

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## STANDARD RATINGS

DxL(mm), R.C : (mA rms) at 105°C 100kHz , IMP:(Ω max) at 20°C,100kHz.

| Cap<br>(μF) | V<br>Item | 35    |       |     | 50      |      |       | 63      |      |       |
|-------------|-----------|-------|-------|-----|---------|------|-------|---------|------|-------|
|             |           | D x L | R.C.  | IMP | D x L   | R.C. | IMP   | D x L   | R.C. | IMP   |
| 8.2         |           |       |       |     |         |      |       |         |      |       |
| 12          |           |       |       |     |         |      |       |         |      |       |
| 18          |           |       |       |     |         |      |       | 5x11    | 240  | 0.520 |
| 27          |           |       |       |     | 5x11    | 300  | 0.480 |         |      |       |
| 33          |           |       |       |     |         |      |       |         |      |       |
| 39          |           |       |       |     |         |      |       | 6.3x11  | 420  | 0.240 |
| 47          | 5x11      | 450   | 0.380 |     |         |      |       | 6.3x11  | 430  | 0.240 |
| 56          |           |       |       |     |         |      |       |         |      |       |
|             |           |       |       |     | 6.3x11  | 700  | 0.180 |         |      |       |
| 68          |           |       |       |     |         |      |       | 8x11.5  | 720  | 0.150 |
|             |           |       |       |     |         |      |       |         |      |       |
| 82          |           |       |       |     |         |      |       | 8x11.5  | 720  | 0.150 |
|             |           |       |       |     |         |      |       |         |      |       |
| 100         | 6.3x11    | 700   | 0.170 |     | 8x11.5  | 1200 | 0.085 | 8x15    | 990  | 0.100 |
|             |           |       |       |     |         |      |       |         |      |       |
| 120         |           |       |       |     |         |      |       | 8x20    | 1200 | 0.077 |
|             |           |       |       |     | 8x15    | 1600 | 0.065 | 10x12.5 | 990  | 0.090 |
| 150         |           |       |       |     | 10x12.5 | 1280 | 0.073 | 8x20    | 1200 | 0.077 |
| 180         | 8x11.5    | 1200  | 0.075 |     | 8x20    | 1960 | 0.049 | 10x16   | 1200 | 0.061 |
|             |           |       |       |     |         |      |       |         |      |       |
|             | 8x15      | 1600  | 0.059 |     | 10x16   | 1650 | 0.053 |         |      |       |
| 220         |           |       |       |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 270         | 10x12.5   | 1700  | 0.053 |     |         |      |       | 10x20   | 1570 | 0.045 |
|             |           |       |       |     |         |      |       | 12.5x16 | 1570 | 0.058 |
| 330         | 8x20      | 1970  | 0.040 |     | 10x20   | 2060 | 0.038 | 10x25   | 1990 | 0.037 |
|             |           |       |       |     | 12.5x16 | 2160 | 0.045 |         |      |       |
| 390         | 10x16     | 2000  | 0.038 |     | 10x25   | 2420 | 0.032 | 12.5x20 | 1990 | 0.033 |
|             |           |       |       |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 470         | 10x20     | 2500  | 0.028 |     | 12.5x20 | 2300 | 0.032 | 12.5x25 | 2450 | 0.043 |
|             |           |       |       |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 560         | 12.5x16   | 2400  | 0.035 |     |         |      |       | 12.5x25 | 2460 | 0.026 |
|             | 10x20     | 2520  | 0.027 |     |         |      |       | 16x20   | 2150 | 0.035 |
|             |           |       |       |     |         |      |       |         |      |       |
| 680         | 10x25     | 2910  | 0.026 |     | 12.5x25 | 2800 | 0.025 | 12.5x30 | 2760 | 0.024 |
|             |           |       |       |     |         |      |       | 16x20   | 2380 | 0.027 |
|             |           |       |       |     |         |      |       |         |      |       |
| 820         | 12.5x20   | 2610  | 0.025 |     | 12.5x30 | 3370 | 0.023 | 12.5x35 | 3040 | 0.022 |
|             |           |       |       |     | 16x20   | 3070 | 0.026 | 18x20   | 2530 | 0.026 |
|             |           |       |       |     | 12.5x35 | 3810 | 0.021 | 16x25   | 2890 | 0.024 |
| 1000        |           |       |       |     | 16x25   | 3010 | 0.022 |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 1200        | 12.5x25   | 3200  | 0.019 |     | 16x25   | 3510 | 0.022 | 16x31.5 | 3280 | 0.02  |
|             |           |       |       |     | 18x20   | 3120 | 0.025 | 18x25   | 2930 | 0.022 |
|             |           |       |       |     |         |      |       |         |      |       |
| 1500        | 12.5x30   | 3660  | 0.018 |     | 16x31.5 | 4030 | 0.019 | 16x35.5 | 3440 | 0.018 |
|             | 16x20     | 3330  | 0.021 |     | 18x25   | 3530 | 0.021 | 18x31.5 | 3380 | 0.018 |
|             | 12.5x35   | 4120  | 0.016 |     | 16x35.5 | 4220 | 0.016 | 16x40   | 3690 | 0.016 |
| 1800        | 16x25     | 3810  | 0.170 |     |         |      |       | 18x35.5 | 3550 | 0.017 |
|             | 18x20     | 3450  | 0.020 |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 2200        |           |       |       |     | 16x40   | 4500 | 0.014 | 18x40   | 3930 | 0.015 |
|             |           |       |       |     | 18x31.5 | 4080 | 0.016 |         |      |       |
| 2700        | 16x31.5   | 4100  | 0.016 |     | 18x35.5 | 4270 | 0.013 |         |      |       |
|             | 18x25     | 3880  | 0.016 |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 3300        | 16x35.5   | 4280  | 0.014 |     | 18x40   | 4850 | 0.012 |         |      |       |
|             | 18x31.5   | 4190  | 0.014 |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 3900        | 16x40     | 4580  | 0.013 |     |         |      |       |         |      |       |
|             | 18x35.5   | 4380  | 0.012 |     |         |      |       |         |      |       |
|             |           |       |       |     |         |      |       |         |      |       |
| 4700        | 18x40     | 4960  | 0.011 |     |         |      |       |         |      |       |

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## STANDARD RATINGS

DxL(mm), R.C : (mA rms) at 105°C 100kHz , IMP:(Ω max) at 20°C,100kHz.

| Cap<br>(μF) | V<br>Item | 80       |      |       | 100     |      |       |
|-------------|-----------|----------|------|-------|---------|------|-------|
|             |           | D x L    | R.C. | IMP   | D x L   | R.C. | IMP   |
| 8.2         |           |          |      |       | 5x11    | 235  | 0.720 |
| 12          |           | 5x11     | 235  | 0.072 |         |      |       |
| 18          |           |          |      |       | 6.3x11  | 390  | 0.340 |
| 27          |           | 6.3x11   | 390  | 0.340 | 8x11.5  | 450  | 0.430 |
| 33          |           |          |      |       | 8x11.5  | 650  | 0.200 |
| 39          |           |          |      |       |         |      |       |
| 47          |           | 8x11.5   | 650  | 0.200 | 8x15    | 820  | 0.140 |
| 56          |           |          |      |       | 8x20    | 1090 | 0.120 |
|             |           | 8x15     | 780  | 0.250 | 10x12.5 | 860  | 0.140 |
| 68          |           | 8x15     | 820  | 0.140 | 8x20    | 1090 | 0.012 |
|             |           | 10x12.5  | 780  | 0.300 | 10x16   | 1050 | 0.090 |
| 82          |           | 8x20     | 1090 | 0.120 | 10x16   | 1150 | 0.090 |
|             |           | 10x12.5  | 860  | 0.140 |         |      |       |
| 100         |           | 10x12.5  | 860  | 0.140 | 10x20   | 1570 | 0.068 |
|             |           | 10x16    | 1050 | 0.100 | 12.5x16 | 1400 | 0.090 |
| 120         |           | 10x16    | 1150 | 0.090 | 10x20   | 1570 | 0.068 |
|             |           |          |      |       | 12.5x16 | 1430 | 0.090 |
| 150         |           | 10x16    | 1150 | 0.090 | 10x25   | 1780 | 0.055 |
|             |           | 10x20    | 1570 | 0.068 | 12.5x20 | 1800 | 0.048 |
| 180         |           | 12.5x16  | 1430 | 0.090 |         |      |       |
|             |           | 10x20    | 1570 | 0.068 | 12.5x25 | 2210 | 0.038 |
| 220         |           | 10x25    | 1780 | 0.055 |         |      |       |
|             |           | 12.5x16  | 1430 | 0.090 |         |      |       |
| 270         |           | 10x25    | 1780 | 0.055 | 12.5x30 | 2520 | 0.033 |
|             |           | 12.5x20  | 1800 | 0.048 | 16x20   | 2150 | 0.036 |
| 330         |           | 12.5x20  | 1800 | 0.048 | 16x20   | 2150 | 0.036 |
|             |           | 12.5x25  | 1950 | 0.038 |         |      |       |
|             |           | 12.5x25  | 2210 | 0.038 | 12.5x35 | 2860 | 0.026 |
| 390         |           |          |      |       | 16x25   | 2620 | 0.028 |
|             |           |          |      |       | 18x20   | 2280 | 0.032 |
|             |           | 12.5x30  | 2520 | 0.033 | 16x31.5 | 2650 | 0.038 |
| 470         |           | 16x20    | 2150 | 0.036 | 12.5x40 | 3150 | 0.026 |
|             |           |          |      |       | 16x31.5 | 2900 | 0.022 |
| 560         |           | 12.5x35  | 2860 | 0.026 | 16x31.5 | 2900 | 0.022 |
|             |           |          |      |       | 16x35.5 | 3150 | 0.020 |
|             |           |          |      |       | 18x25   | 2750 | 0.027 |
| 680         |           | 12.5x40  | 3150 | 0.026 | 16x35.5 | 3150 | 0.020 |
|             |           | 16x25    | 2620 | 0.028 | 16x40   | 3710 | 0.018 |
|             |           | 18x20    | 2280 | 0.032 | 18x31.5 | 3150 | 0.020 |
| 820         |           | 16x31.5  | 2900 | 0.022 | 16x40   | 3710 | 0.018 |
|             |           | 18x25    | 2750 | 0.027 | 18x35.5 | 3710 | 0.018 |
|             |           | 18x25    | 2750 | 0.027 | 18x40   | 4060 | 0.017 |
| 1000        |           | 16x315.5 | 3150 | 0.02  |         |      |       |
|             |           | 16x40    | 3710 | 0.018 |         |      |       |
| 1200        |           | 18x31.5  | 3150 | 0.02  |         |      |       |
|             |           | 18x35.5  | 3710 | 0.018 |         |      |       |
| 1500        |           |          |      |       |         |      |       |
|             |           | 18x40    | 4060 | 0.017 |         |      |       |
| 1800        |           |          |      |       |         |      |       |
|             |           |          |      |       |         |      |       |
| 2200        |           |          |      |       |         |      |       |
|             |           |          |      |       |         |      |       |
| 2700        |           |          |      |       |         |      |       |
|             |           |          |      |       |         |      |       |
| 3300        |           |          |      |       |         |      |       |
|             |           |          |      |       |         |      |       |
| 3900        |           |          |      |       |         |      |       |
|             |           |          |      |       |         |      |       |
| 4700        |           |          |      |       |         |      |       |