

EC 系列
SERIES

105°C 自立型长寿命
寿命: 105°C 3000 小时

105°C LONG LIFE SNAP-IN
Load Life :105°C 3000 hours

■ 规格表 SPECIFICATIONS

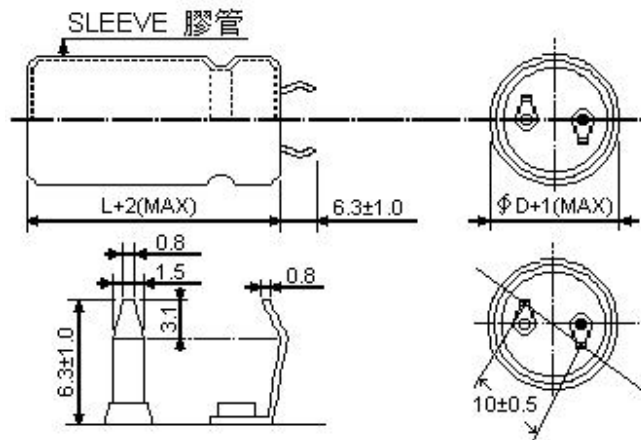
| 项目 Items | 特性 Characteristics | | | | | | | | | | | | | | |
|---|---|---|------|------|------|------|--------|-------------|---------|------|------|------|------|------|---------------|
| 使用温度范围 Category Temperature Range | -40~+105°C | | | | | | | -25~+105°C | | | | | | | |
| 额定电压范围 Rated Voltage Range | 10~100V.DC | | | | | | | 160~450V.DC | | | | | | | |
| 静电容量容许差 Capacitance Tolerance | ±20%(M)(25°C, 120Hz) | | | | | | | | | | | | | | |
| 泄漏电流 Leakage Current (MAX) | I ≤ 0.03CV (施加额定电压 5 分钟后) (After 5 minutes application of rated voltage) | | | | | | | | | | | | | | |
| | I: 泄漏电流 Leakage Current(μA) C: 额定静电容量 Rated Capacitance(μF) V: 额定电压 Rated Voltage(V) | | | | | | | | | | | | | | |
| 散逸因素(tan δ) Dissipation Factor (MAX) | 额定电压(V) Rated Voltage | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | 120Hz 25°C |
| | tan δ | 0.55 | 0.45 | 0.35 | 0.30 | 0.25 | 0.25 | 0.20 | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 | |
| 高温负荷 Load Life | 105°C 恒温施加额定电压(含纹波电流)3000 小时后, 必须满足下列的值。 After applying rated voltage with rated ripple current for 3000hrs at 105°C, the capacitors shall meet the following requirements | | | | | | | | | | | | | | |
| | 静电容量变化率 Capacitance Change | 初期值 ±25% 以内 Within ±25% of the initial value | | | | | | | | | | | | | |
| | 散逸因素(tan δ) Dissipation Factor | 规格值 200% 以下 Not more than 200% of the specified value | | | | | | | | | | | | | |
| | 泄漏电流 Leakage Current | 规格值 以下 Not more than the specified value | | | | | | | | | | | | | |
| 高温放置 Shelf Life | 105°C 恒温不施加额定电压 1000 小时后, 必须满足下列的值。 After applying no rated voltage for 1000hrs at 105°C. The capacitors shall meet the following requirements. | | | | | | | | | | | | | | |
| | 静电容量变化率 Capacitance Change | 初期值 ±20% 以内 Within ±20% of the initial value | | | | | | | | | | | | | |
| | 散逸因素(tan δ) Dissipation Factor | 规格值 200% 以下 Not more than 200% of the specified value | | | | | | | | | | | | | |
| | 泄漏电流 Leakage Current | 规格值 200% 以下 Not more than 200% of the specified value | | | | | | | | | | | | | |
| 突波电压(V) Surge Voltage | 额定电压(V) Rated Voltage | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 350 | 400 | 450 | |
| | 突波电压(V) Surge Voltage | 13 | 20 | 32 | 44 | 63 | 79 | 125 | 200 | 250 | 300 | 400 | 450 | 500 | |
| 低温特性 Low Temperature Stability (合成阻抗比) Impedance Ratio (MAX) | 额定电压(V) Rated Voltage | 10 | 16 | 25 | 35 | 50 | 63~100 | 160~250 | 350~450 | | | | | | 120Hz |
| | Z(-25°C) / Z(25°C) | 8 | 6 | 6 | 6 | 4 | 3 | 4 | 6 | | | | | | |
| | Z(-40°C) / Z(25°C) | 15 | 15 | 15 | 10 | 8 | 6 | - | - | | | | | | |

■ 尺寸图 DIMENSIONS

(mm)

■ 纹波电流补偿系数 MULTIPLIER FOR RIPPLE CURRENT

(1) 频率系数 Frequency coefficient



| 频率(Hz) Frequency | | 60 | 120 | 1k | 10k | 100k |
|---------------------|----------|------|------|------|------|------|
| 系数 Coefficient | 10~35V | 0.90 | 1.00 | 1.05 | 1.10 | 1.10 |
| | 50~100V | 0.90 | 1.00 | 1.15 | 1.20 | 1.20 |
| | 160~250V | 0.80 | 1.00 | 1.35 | 1.45 | 1.50 |
| | 315~450V | 0.80 | 1.00 | 1.10 | 1.15 | 1.20 |

■ 尺寸一览表, 额定纹波电流一览表 STANDARD SIZE, RATED RIPPLE CURRENT

Size ϕ D \times L(mm), Ripple Current (A r.m.s./105°C, 120 Hz)

| 额定电压 VV(V.DC) 额定 静电容量 Cap(μ F) | 10 (1A) | | | | | | | | 额定电压 VV(V.DC) 额定 静电容量 Cap(μ F) | 16 (1C) | | | | | | | | | |
|---|----------------|--------|----------------|--------|----------------|--------|----------------|--------|---|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|------|--|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | |
| 15000 | 22 \times 25 | 2.30 | | | | | | | | 10000 | 22 \times 25 | 2.30 | | | | | | | |
| 18000 | 22 \times 30 | 2.90 | | | | | | | | 12000 | 22 \times 30 | 2.90 | | | | | | | |
| 22000 | 22 \times 35 | 3.20 | 25 \times 25 | 3.20 | | | | | | 15000 | 22 \times 35 | 3.20 | 25 \times 25 | 3.20 | | | | | |
| 27000 | 22 \times 40 | 3.40 | 25 \times 30 | 3.40 | | | | | | 18000 | 22 \times 40 | 3.40 | 25 \times 30 | 3.40 | | | | | |
| 33000 | 22 \times 45 | 4.10 | 25 \times 35 | 4.10 | 30 \times 25 | 4.10 | | | | 22000 | 22 \times 45 | 4.10 | 25 \times 35 | 4.10 | 30 \times 25 | 4.10 | | | |
| 39000 | 22 \times 50 | 4.40 | 25 \times 40 | 4.40 | 30 \times 30 | 4.40 | 35 \times 25 | 4.40 | | 27000 | 22 \times 50 | 4.40 | 25 \times 40 | 4.40 | 30 \times 30 | 4.40 | | | |
| 47000 | | | 25 \times 45 | 4.80 | 30 \times 35 | 4.80 | 35 \times 30 | 5.20 | | 33000 | | | 25 \times 45 | 4.80 | 30 \times 35 | 4.80 | 35 \times 25 | 4.40 | |
| 56000 | | | 25 \times 50 | 5.20 | 30 \times 40 | 5.20 | 35 \times 35 | 5.90 | | 39000 | | | 25 \times 50 | 5.20 | 30 \times 40 | 5.20 | 35 \times 30 | 5.20 | |
| 68000 | | | | | 30 \times 45 | 5.90 | 35 \times 40 | 6.10 | | 47000 | | | | | 30 \times 45 | 5.90 | 35 \times 35 | 5.90 | |
| 82000 | | | | | 30 \times 50 | 6.10 | 35 \times 45 | 7.20 | | 56000 | | | | | 30 \times 50 | 6.10 | 35 \times 40 | 6.10 | |
| 100000 | | | | | | | 35 \times 50 | 7.60 | | 68000 | | | | | | | 35 \times 45 | 7.20 | |
| | | | | | | | | | | 82000 | | | | | | | 35 \times 50 | 7.60 | |

| 额定电压 VV(V.DC) 额定 静电容量 Cap(μ F) | 25 (1E) | | | | | | | | 额定电压 VV(V.DC) 额定 静电容量 Cap(μ F) | 35 (1V) | | | | | | | | | |
|---|----------------|--------|----------------|--------|----------------|--------|----------------|--------|---|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|------|--|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | |
| 6800 | 22 \times 25 | 2.30 | | | | | | | | 3900 | 22 \times 25 | 2.30 | | | | | | | |
| 8200 | 22 \times 30 | 2.90 | 25 \times 25 | 3.20 | | | | | | 5600 | 22 \times 30 | 2.90 | 25 \times 25 | 3.20 | | | | | |
| 10000 | 22 \times 35 | 3.20 | 25 \times 30 | 3.40 | | | | | | 6800 | 22 \times 35 | 3.20 | 25 \times 30 | 3.40 | | | | | |
| 12000 | 22 \times 40 | 3.40 | 25 \times 35 | 4.10 | | | | | | 8200 | 22 \times 40 | 3.40 | 25 \times 35 | 4.10 | 30 \times 25 | 4.10 | | | |
| 15000 | 22 \times 45 | 4.10 | 25 \times 40 | 4.40 | 30 \times 25 | 4.10 | | | | 10000 | 22 \times 45 | 4.10 | 25 \times 40 | 4.40 | 30 \times 30 | 4.40 | | | |
| 18000 | 22 \times 50 | 4.40 | 25 \times 45 | 4.80 | 30 \times 30 | 4.40 | 35 \times 25 | 4.40 | | 12000 | 22 \times 50 | 4.40 | 25 \times 45 | 4.80 | 30 \times 35 | 4.80 | 35 \times 25 | 4.40 | |
| 22000 | | | 25 \times 50 | 5.20 | 30 \times 35 | 4.80 | 35 \times 30 | 5.20 | | 15000 | | | 25 \times 50 | 5.20 | 30 \times 40 | 5.20 | 35 \times 30 | 5.20 | |
| 27000 | | | | | 30 \times 40 | 5.20 | 35 \times 35 | 5.90 | | 18000 | | | | | 30 \times 45 | 5.90 | 35 \times 35 | 5.90 | |
| 33000 | | | | | 30 \times 45 | 5.90 | 35 \times 40 | 6.10 | | 22000 | | | | | 30 \times 50 | 6.10 | 35 \times 40 | 6.10 | |
| 39000 | | | | | 30 \times 50 | 6.10 | 35 \times 45 | 7.20 | | 27000 | | | | | | | 35 \times 45 | 7.20 | |
| 47000 | | | | | | | 35 \times 50 | 7.60 | | 33000 | | | | | | | 35 \times 50 | 7.60 | |

■ 尺寸一览表, 额定纹波电流一览表 STANDARD SIZE, RATED RIPPLE CURRENT

Size ϕ D \times L(mm), Ripple Current (A r.m.s./105 $^{\circ}$ C, 120 Hz)

| 额定电压 VV(V.DC) | 50 (1H) | | | | | | | | 额定电压 VV(V.DC) | 63 (1J) | | | | | | | | |
|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|------------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|------|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | |
| 2700 | 22 \times 25 | 2.30 | | | | | | | | 1500 | 22 \times 25 | 1.75 | | | | | | |
| 3300 | 22 \times 30 | 2.90 | | | | | | | | 1800 | 22 \times 30 | 2.20 | | | | | | |
| 3900 | 22 \times 35 | 3.20 | 25 \times 25 | 3.20 | | | | | | 2200 | 22 \times 35 | 2.90 | 25 \times 25 | 2.20 | | | | |
| 4700 | 22 \times 40 | 3.40 | 25 \times 30 | 3.40 | | | | | | 2700 | 22 \times 40 | 3.30 | 25 \times 30 | 2.90 | | | | |
| 5600 | 22 \times 45 | 4.10 | 25 \times 35 | 4.10 | 30 \times 25 | 4.10 | | | | 3300 | 22 \times 45 | 3.90 | 25 \times 35 | 3.30 | 30 \times 25 | 3.70 | | |
| 6800 | 22 \times 50 | 4.40 | 25 \times 40 | 4.40 | 30 \times 30 | 4.40 | | | | 3900 | 22 \times 50 | 4.20 | 25 \times 40 | 4.20 | 30 \times 30 | 4.20 | | |
| 8200 | | | 25 \times 45 | 4.80 | 30 \times 35 | 4.80 | 35 \times 25 | 4.40 | | 4700 | | | 25 \times 45 | 4.60 | 30 \times 35 | 4.60 | 35 \times 25 | 4.20 |
| 10000 | | | 25 \times 50 | 5.20 | 30 \times 40 | 5.20 | 35 \times 30 | 5.20 | | 5600 | | | 25 \times 50 | 5.20 | 30 \times 40 | 5.20 | 35 \times 30 | 4.60 |
| 12000 | | | | | 30 \times 45 | 5.90 | 35 \times 35 | 5.90 | | 6800 | | | | | 30 \times 45 | 5.50 | 35 \times 35 | 5.70 |
| 15000 | | | | | 30 \times 50 | 6.10 | 35 \times 40 | 6.10 | | 8200 | | | | | 30 \times 50 | 5.70 | 35 \times 40 | 5.90 |
| 18000 | | | | | | | 35 \times 45 | 7.20 | | 10000 | | | | | | | 35 \times 45 | 6.60 |
| 22000 | | | | | | | 35 \times 50 | 7.60 | | 12000 | | | | | | | 35 \times 50 | 7.40 |

| 额定电压 VV(V.DC) | 100 (2A) | | | | | | | | 额定电压 VV(V.DC) | 160 (2C) | | | | | | | | |
|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|------------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|------|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | |
| 680 | 22 \times 25 | 1.25 | | | | | | | | 330 | 22 \times 25 | 0.76 | | | | | | |
| 820 | 22 \times 30 | 1.50 | | | | | | | | 390 | 22 \times 30 | 0.95 | | | | | | |
| 1000 | 22 \times 35 | 1.70 | 25 \times 25 | 1.70 | | | | | | 470 | 22 \times 35 | 1.10 | 25 \times 25 | 1.10 | | | | |
| 1200 | 22 \times 40 | 1.80 | 25 \times 30 | 1.80 | | | | | | 560 | 22 \times 40 | 1.30 | 25 \times 30 | 1.30 | | | | |
| 1500 | 22 \times 45 | 2.50 | 25 \times 35 | 2.50 | 30 \times 25 | 1.80 | | | | 680 | 22 \times 45 | 1.50 | 25 \times 35 | 1.50 | 30 \times 25 | 1.50 | | |
| 1800 | 22 \times 50 | 2.70 | 25 \times 40 | 2.70 | 30 \times 30 | 2.70 | | | | 820 | 22 \times 50 | 1.80 | 25 \times 40 | 1.80 | 30 \times 30 | 1.80 | 35 \times 25 | 1.80 |
| 2200 | | | 25 \times 45 | 3.20 | 30 \times 35 | 3.20 | 35 \times 25 | 2.70 | | 1000 | | | 25 \times 45 | 2.10 | 30 \times 35 | 2.10 | 35 \times 30 | 2.10 |
| 2700 | | | 25 \times 50 | 3.65 | 30 \times 40 | 3.65 | 35 \times 30 | 3.65 | | 1200 | | | 25 \times 50 | 2.35 | 30 \times 40 | 2.35 | 35 \times 35 | 2.35 |
| 3300 | | | | | 30 \times 45 | 4.05 | 35 \times 35 | 4.05 | | 1500 | | | | | 30 \times 45 | 2.80 | 35 \times 40 | 2.80 |
| 3900 | | | | | 30 \times 50 | 4.65 | 35 \times 40 | 4.65 | | 1800 | | | | | 30 \times 50 | 3.10 | 35 \times 45 | 3.10 |
| 4700 | | | | | | | 35 \times 45 | 5.15 | | 2200 | | | | | | | 35 \times 50 | 3.90 |
| 5600 | | | | | | | 35 \times 50 | 5.75 | | | | | | | | | | |

■ 尺寸一览表, 额定纹波电流一览表 STANDARD SIZE, RATED RIPPLE CURRENT

Size ϕ D \times L(mm), Ripple Current (A r.m.s./105°C, 120 Hz)

| 额定电压 WV(V.DC) | 200 (2D) | | | | | | | | 额定电压 WV(V.DC) | 250 (2E) | | | | | | | |
|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 220 | 22 \times 25 | 0.80 | | | | | | | 150 | 22 \times 25 | 0.70 | | | | | | |
| 330 | 22 \times 30 | 1.05 | | | | | | | 220 | 22 \times 30 | 0.90 | | | | | | |
| 390 | 22 \times 35 | 1.25 | | | | | | | 270 | 22 \times 35 | 1.05 | | | | | | |
| 470 | 22 \times 40 | 1.45 | 25 \times 30 | 1.45 | | | | | 330 | 22 \times 40 | 1.20 | 25 \times 30 | 1.20 | | | | |
| 560 | 22 \times 45 | 1.65 | 25 \times 35 | 1.65 | | | | | 390 | 22 \times 45 | 1.40 | 25 \times 35 | 1.40 | | | | |
| 680 | 22 \times 50 | 1.90 | 25 \times 40 | 1.90 | 30 \times 30 | 1.90 | | | 470 | 22 \times 50 | 1.60 | 25 \times 40 | 1.60 | 30 \times 30 | 1.60 | | |
| 820 | | | 25 \times 45 | 2.20 | 30 \times 35 | 2.20 | | | 560 | | | 25 \times 45 | 1.90 | 30 \times 35 | 1.90 | | |
| 1000 | | | 25 \times 50 | 2.50 | 30 \times 40 | 2.50 | 35 \times 30 | 2.50 | 680 | | | 25 \times 50 | 2.10 | 30 \times 40 | 2.10 | 35 \times 30 | 2.10 |
| 1200 | | | | | 30 \times 45 | 2.90 | 35 \times 35 | 2.90 | 820 | | | | | 30 \times 45 | 2.40 | 35 \times 35 | 2.40 |
| 1500 | | | | | 30 \times 50 | 3.30 | 35 \times 40 | 3.30 | 1000 | | | | | 30 \times 50 | 2.80 | 35 \times 40 | 2.80 |
| 1800 | | | | | | | 35 \times 50 | 4.00 | 1200 | | | | | | | 35 \times 45 | 3.30 |

| 额定电压 WV(V.DC) | 350 (2V) | | | | | | | | 额定电压 WV(V.DC) | 400 (2G) | | | | | | | |
|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | | | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple | | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 100 | 22 \times 25 | 0.50 | | | | | | | 100 | 22 \times 25 | 0.45 | | | | | | |
| 120 | 22 \times 30 | 0.60 | | | | | | | 120 | 22 \times 30 | 0.60 | | | | | | |
| 180 | 22 \times 40 | 0.80 | 25 \times 30 | 0.80 | | | | | 150 | 22 \times 35 | 0.70 | | | | | | |
| 220 | 22 \times 45 | 0.95 | 25 \times 35 | 0.95 | 30 \times 25 | 0.95 | | | 180 | 22 \times 40 | 0.80 | 25 \times 30 | 0.80 | | | | |
| 270 | 22 \times 50 | 1.10 | 25 \times 40 | 1.10 | 30 \times 30 | 1.10 | | | 220 | 22 \times 45 | 0.95 | 25 \times 35 | 0.95 | | | | |
| 330 | | | 25 \times 45 | 1.25 | 30 \times 35 | 1.25 | | | 270 | 22 \times 50 | 1.05 | 25 \times 40 | 1.05 | | | | |
| 390 | | | 25 \times 50 | 1.40 | 30 \times 40 | 1.40 | 35 \times 30 | 1.40 | 330 | | | 25 \times 45 | 1.20 | 30 \times 35 | 1.20 | | |
| 470 | | | | | 30 \times 45 | 1.65 | 35 \times 35 | 1.65 | 390 | | | 25 \times 50 | 1.40 | 30 \times 40 | 1.40 | | |
| 560 | | | | | 30 \times 50 | 1.90 | 35 \times 40 | 1.90 | 470 | | | | | 30 \times 45 | 1.60 | 35 \times 35 | 1.60 |
| 680 | | | | | | | 35 \times 45 | 2.00 | 560 | | | | | 30 \times 50 | 1.85 | 35 \times 40 | 1.85 |
| 820 | | | | | | | 35 \times 50 | 2.50 | 680 | | | | | | | 35 \times 45 | 2.00 |
| | | | | | | | | | 820 | | | | | | | 35 \times 50 | 2.50 |

| 额定电压 WV(V.DC) | 450 (2W) | | | | | | | |
|------------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| | ϕ 22 | | ϕ 25 | | ϕ 30 | | ϕ 35 | |
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 68 | 22 \times 25 | 0.40 | | | | | | |
| 100 | 22 \times 30 | 0.55 | 25 \times 25 | 0.55 | | | | |
| 120 | 22 \times 35 | 0.60 | 25 \times 30 | 0.70 | | | | |
| 150 | 22 \times 40 | 0.70 | 25 \times 35 | 0.75 | 30 \times 25 | 0.75 | | |
| 180 | 22 \times 50 | 0.90 | 25 \times 40 | 0.90 | 30 \times 30 | 0.90 | | |
| 220 | | | 25 \times 45 | 1.00 | 30 \times 35 | 1.00 | | |
| 270 | | | 25 \times 50 | 1.15 | 30 \times 40 | 1.15 | 35 \times 30 | 1.15 |
| 330 | | | | | 30 \times 45 | 1.40 | 35 \times 35 | 1.40 |
| 390 | | | | | 30 \times 50 | 1.60 | 35 \times 40 | 1.60 |
| 470 | | | | | | | 35 \times 45 | 1.80 |
| 560 | | | | | | | 35 \times 50 | 2.10 |