

Intelligent Xenon Test Chamber

BEVS 3390



| | |
|--------------------------|---|
| Introduction | <p>BEVS 3390 Intelligent Xenon Test Chamber features high-efficiency air cooling and xenon arc lamps that replicate full-spectrum sunlight. It precisely controls temperature, humidity, and water spray, enabling fast and reliable accelerated aging tests. Ideal for material selection, product formulation optimization, and quality evaluation, it is widely used in coatings, plastics, rubber, textiles, automotive materials, and photovoltaic modules.</p> |
| Working Principle | <p>This chamber uses xenon lamps to replicate full-spectrum sunlight, with filters adjusting the spectrum to closely match natural daylight. Inside the chamber, a forced-air circulation system cools the lamps, while a precise temperature and humidity control system creates high-temperature or constant-humidity conditions within the sealed test environment. Its built-in water spray system can periodically simulate rainfall, exposing samples to thermal shock and surface erosion. By programmatically combining and cycling light, heat, humidity, and water, the chamber accelerates the natural aging process, allowing rapid and accurate evaluation of material weather resistance and service life.</p> |
| Features | <ol style="list-style-type: none"> 1. 15-inch touchscreen with Chinese and English interface 2. Imported air-cooled xenon lamps for excellent sunlight simulation 3. Automated control of the entire testing process 4. Recreate natural sunlight, temperature-humidity variations, and rainfall conditions |
| Main Function | <ol style="list-style-type: none"> 1. Automatic control of irradiance 2. Automatic control of black standard/black panel temperature 3. Automatic control of chamber air temperature 4. Automatic control of water spray 5. Automatic control of humidity 6. Real-time display of test status (irradiance, black panel/black standard temperature, chamber temperature, test time) 7. Remote control capability 8. Support data export |
| Specifications | <p>Air-cooled xenon lamp: 1 lamp, 2200 W Xenon lamp lifetime: 2000 - 3000 h Exposure area: 2200 cm² Number of samples: 20 pieces (150 × 70 mm each) Testing methods: storage for 1,000 methods, each with up to 20 segments Inner/outer filters: compatible with different filter combinations such as daylight, window glass, and UV-extended Irradiance:</p> <ul style="list-style-type: none"> • 340nm: 0.25 - 0.8 W/m² (daylight), 0.25 - 0.65 W/m² (window glass) • 420nm: 0.45 - 1.7 W/m² (daylight), 0.4 - 1.35 W/m² (window glass) • 300 - 400nm: 20 - 85 W/m² (daylight), 20 - 70 W/m² (window glass) |

| | |
|-------------------------------------|---|
| | <p>Black Panel Temperature:</p> <ul style="list-style-type: none">• Light cycle: 50 - 100 ° C, ±2%• Dark cycle: Room temperature to 45 ° C, ±2% <p>Black Standard Temperature:</p> <ul style="list-style-type: none">• Light cycle: 55 - 105 ° C, ±2%• Dark cycle: Room temperature to 45 ° C, ±2% <p>Chamber Air Temperature:</p> <ul style="list-style-type: none">• Light cycle: Room temperature to 65 ° C, ±2%• Dark cycle: Room temperature to 45 ° C, ±2% <p>Relative Humidity:</p> <ul style="list-style-type: none">• Light cycle: 15% - 75%, ±5%• Dark cycle: 10% - 100%, ±3% <p>Spray Rate: 1 L/min</p> |
| Physical and Electrical Data | <p>Dimensions: L 910 × W 860 × H 1770 mm</p> <p>Power supply: 3-phase, 5-wire, AC 380V, 50Hz</p> <p>Power: 5kW</p> <p>Total weight: 220KG</p> |

■ Ordering Info

| | |
|-----------------|--|
| BEVS 3390 | Intelligent Xenon Test Chamber |
| BEVS 3390/P/010 | Xenon Lamp (3000h): 2.2kW, Air-cooled, for BEVS 3390 |

■ Standards

| GB | ISO | ASTM | | | Others |
|--------------|-------------|------------|------------|-------------|--------------|
| GB/T 10485 | ISO 105-B02 | ASTM C1257 | ASTM D4434 | ASTM D6695 | SAE J1885 |
| GB/T 12527 | ISO 105-B04 | ASTM C1442 | ASTM D4459 | ASTM D6878 | SAE J19960 |
| GB/T 14522 | ISO 105-B06 | ASTM C1501 | ASTM D4637 | ASTM D750 | AATCC 16E |
| GB/T 16259 | ISO 105-B07 | ASTM C1519 | ASTM D4798 | ASTM D7869 | AATCC 169(1) |
| GB/T 16422 | ISO 105-B10 | ASTM C732 | ASTM D4811 | ASTM D904 | |
| GB/T 16422.2 | ISO 11341 | ASTM C734 | ASTM D5010 | ASTM F1164 | |
| GB/T 16991 | ISO 12040 | ASTM C793 | ASTM D5019 | ASTM F1515 | |
| GB/T 1865 | ISO 16474-1 | ASTM D1148 | ASTM D5071 | ASTM F2366 | |
| GB/T 18833 | ISO 16474-2 | ASTM D1670 | ASTM D5383 | ASTM G151 | |
| GB/T 29061 | ISO 18909 | ASTM D2565 | ASTM D5398 | ASTM G155 | |
| GB/T 29061 | ISO 18930 | ASTM D3424 | ASTM D5819 | ASTM G155-1 | |
| GB/T 32088 | ISO 18937 | ASTM D3451 | ASTM D6083 | ASTM G155-4 | |
| GB/T 5137 | ISO 29664 | ASTM D4101 | ASTM D6551 | | |
| GB/T 6151 | ISO 3917 | ASTM D4303 | ASTM D6577 | | |
| GB/T 8427 | ISO 4892-2 | ASTM D4355 | ASTM D6662 | | |
| GB/T 8430 | | | | | |
| GB/T 3511 | | | | | |

■ Xenon Lamp Filters

| Xenon Lamp Filters | Test Description |
|--------------------------|--|
| Daylight | Outdoor weathering test |
| Window glass | Through-glass (indoor) exposure test |
| UV-extended | Shorter UV wavelengths than natural sunlight |
| Infrared-filtering glass | Simulated daylight with lower temperature |