

SB Series AC Servo Motor



Specifications

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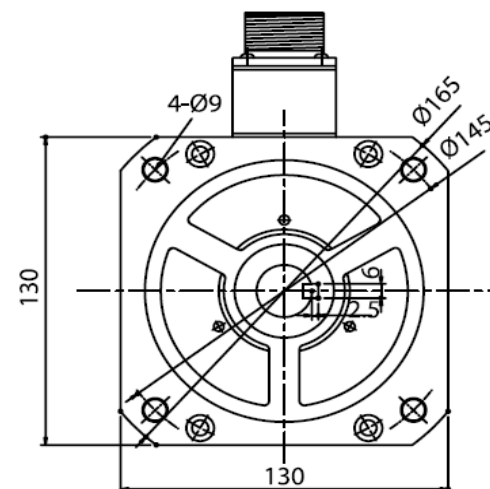
- Frame Size 130mm

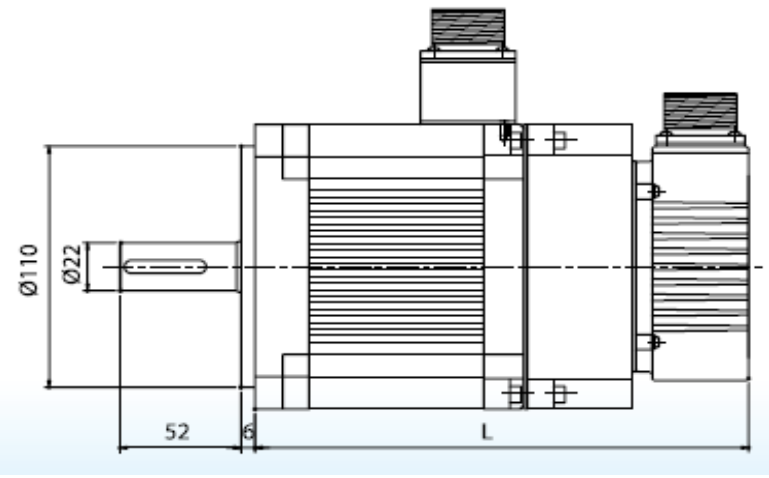
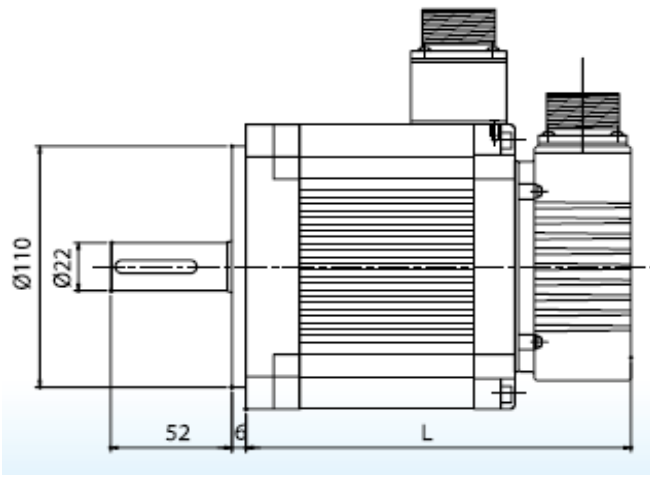


| Item | Motor Type | Unit | VA1305510- | VA13010010- | VA13010020- | VA13015010- | VA13015030- | VA1302002 | VA13030020- | VA1303003 |
|-------------------------------|------------------------------------------------------------|---------|------------|-------------|-------------|-------------|-------------|-----------|-------------|-----------|
| | | | SB | SB | SB | SB | SB | 0-SB | SB | 0-SB |
| Rated Output | | W | 550 | 1000 | 1000 | 1500 | 1500 | 2000 | 3000 | 3000 |
| Amplifier Type | | | TSTA30C | TSTA30C | TSTA30C | TSTA50D | TSTA50D | TSTA50D | TSTA75D | TSTA75D |
| Rated terminal voltage | | V | 162.3 | 188.7 | 185.3 | 194.4 | 200.3 | 205.4 | 189.4 | 199.7 |
| Rated Torque | | N m | 5.252 | 9.545 | 4.782 | 14.327 | 4.782 | 9.545 | 14.327 | 9.545 |
| Rated Current | | A | 3.43 | 5.16 | 5.16 | 7.45 | 7.06 | 9.18 | 14 | 14 |
| Rated Speed | | rpm | 1000 | 1000 | 2000 | 1000 | 3000 | 2000 | 2000 | 3000 |
| Peak Torque | | N m | 15.758 | 28.645 | 14.327 | 42.963 | 14.327 | 28.645 | 42.963 | 28.645 |
| Peak Current | | A | 10.3 | 15.5 | 15.5 | 22.35 | 21.2 | 27.5 | 42 | 42 |
| Torque Constant | | N m/A | 1.679 | 2.039 | 1.019 | 2.26 | 0.74 | 1.139 | 1.13 | 0.75 |
| Voltage Constant | | V/K rpm | 175.9 | 213.6 | 106.8 | 236.6 | 77.5 | 119.4 | 118.3 | 78.5 |
| Inertia (GD ² /4) | | Kg cm | 6.26 | 12.14 | 6.26 | 17.92 | 6.26 | 12.14 | 17.92 | 12.14 |
| Resistance | | Ω | 5.37 | 2.78 | 1.82 | 1.785 | 0.98 | 0.86 | 0.5 | 0.37 |
| Inductance | | mH | 27.5 | 18.21 | 10.05 | 12.66 | 5.37 | 5.67 | 3.54 | 2.43 |
| Mechanical Time Constant | | ms | 1.21 | 0.82 | 1.11 | | 1.14 | 0.81 | 0.71 | 0.81 |
| Electrical Time Constant | | ms | 5.12 | 6.55 | 5.52 | 7.092 | 5.48 | 6.59 | 7.08 | 6.57 |
| Weight (standard) | | Kg | 6.47 | 10.18 | 6.47 | 13.87 | 6.47 | 10.18 | 13.87 | 10.18 |
| Speed Detector | Optics Encoder(INC: 2000P/R, ABS: 2048P/R) | | | | | | | | | |
| Time | Continuous | | | | | | | | | |
| Insulation class | B Class (130°C) | | | | | | | | | |
| Insulation Voltage | AC 1500V at 1 minute | | | | | | | | | |
| Insulation resistance | DC 500V Above 10 MΩ | | | | | | | | | |
| Structure | Fully closed | | | | | | | | | |
| Shockproofness | Below 2.5G | | | | | | | | | |
| Altitude | Under 1000m | | | | | | | | | |
| Temperature Humidity | Temperature: 0~40, Humidity: Below 90%RH (No Frosting) | | | | | | | | | |
| Temp. Humidity for storage | Temperature: -20 ~60, Humidity: Below 90%RH (No Frosting) | | | | | | | | | |
| Color | N 1.5 | | | | | | | | | |
| Fixing Mode | Flange | | | | | | | | | |

Outline Drawing

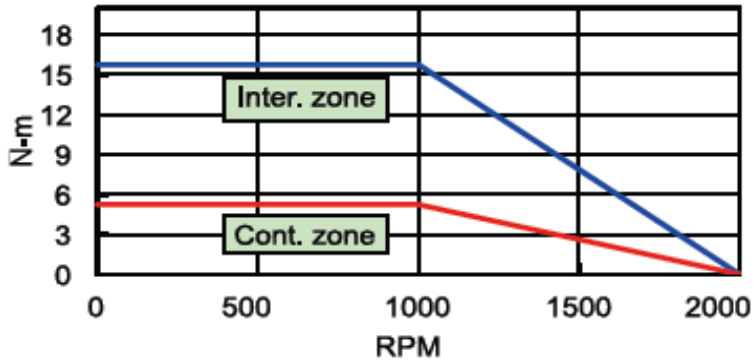
| Motor Type | With Brake | Without Brake |
|---------------|------------|---------------|
| | L (mm) | L (mm) |
| VA1305510-SB | 217.8 | 164.8 |
| VA13010010-SB | 267.8 | 214.8 |
| VA13010020-SB | 317.8 | 264.8 |
| VA13015010-SB | 217.8 | 164.8 |
| VA13015030-SB | 267.8 | 214.8 |
| VA13020020-SB | 317.8 | 264.8 |
| VA13030020-SB | 217.8 | 164.8 |
| VA13030030-SB | 267.8 | 214.8 |



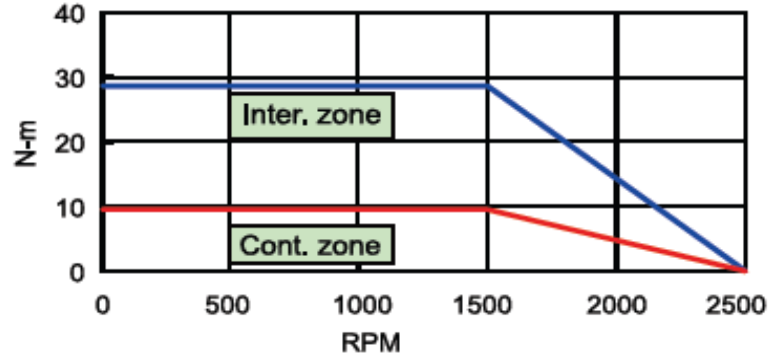


Performance Curve

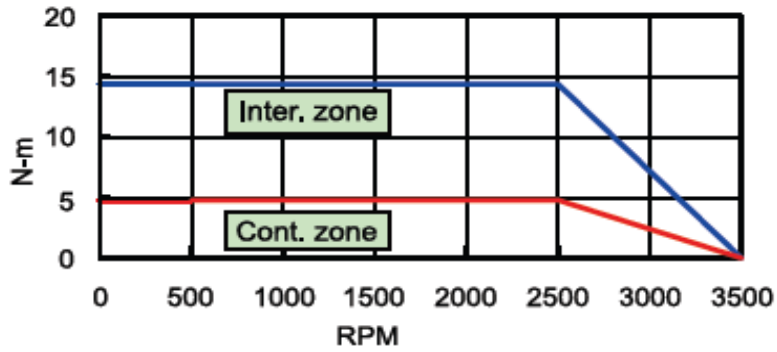
VA1305510-SB



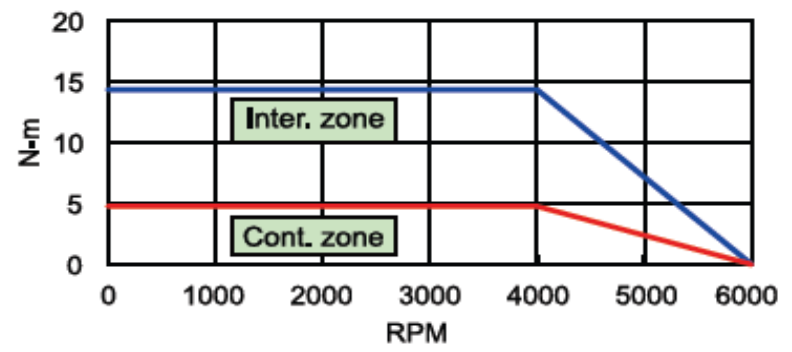
VA13010010-SB



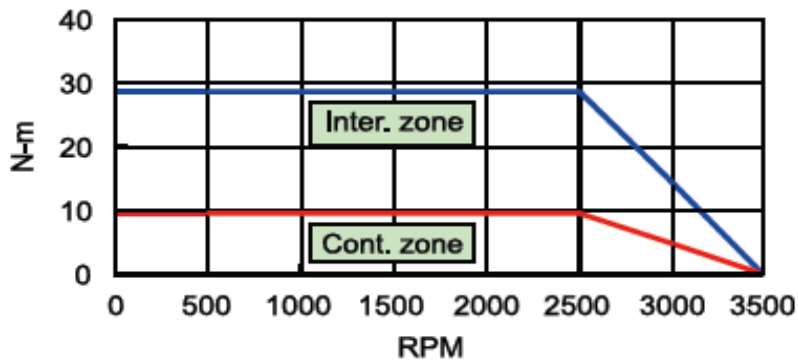
VA13010020-SB



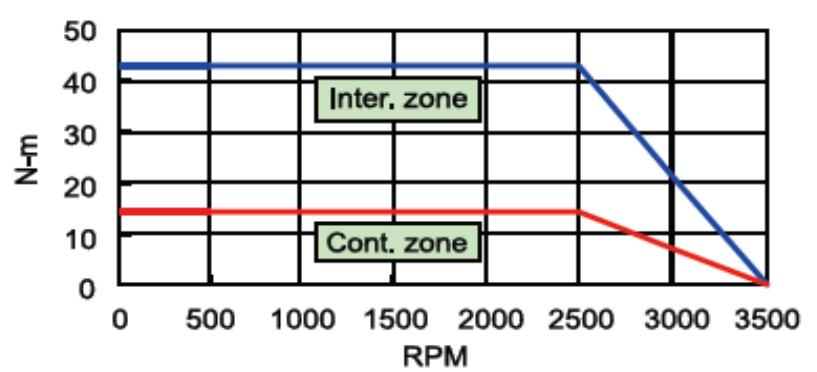
VA13015010-SB



VA13015030-SB



VA13020020-SB



VA13030020-SB

