



## SPINDLEX TECHNOLOGIES CO., LTD.

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### Technical Specifications for Built-In Motor-Spindle Spindle type : SY-120S

|                                                   |                                                                                                  |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1. Spindle housing diameter (mm) and mounting:    | Ø120h6<br>vertical or horizontal                                                                 |
| 2. Maximum speed (rpm) :                          | 24,000rpm-(Grease)                                                                               |
| 3. Nominal speed:                                 | 10,000rpm                                                                                        |
| 4. Motor type:                                    | integrated induction motor                                                                       |
| 5. Motor power S1/S6 (Kw) :                       | 4.5/5.4Kw                                                                                        |
| 6. Motor voltage / poles :                        | 220v/4                                                                                           |
| 7. Spindle torque at power S1(Nm):                | 4.5Nm/5.4Nm                                                                                      |
| 8. Shaft orientation<br>Encoder (Vector control): | mini-encoder with sinusoidal wave signal 1.0<br>Vpp , for vector drive and oriented spindle stop |
| 9. Bearing type:                                  | hybrid bearing                                                                                   |
| 10. Front bearing inner diameter(mm):             | Ø45mm                                                                                            |
| 11. Bearing preloading :                          | constant springs preload                                                                         |
| 12. Bearing lubrication:                          | life time grease                                                                                 |
| 13. Bearing temperature sensor :                  | sensor on the front bearing (option-PT100)                                                       |
| 14. Tool interface:                               | BT-30                                                                                            |
| 15. Clamping capacity :                           | Ø2~20mm                                                                                          |
| 16. Tool holding force(N) :                       | 3,500N – BT-30                                                                                   |
| 17. Tool release :                                | hydraulic (standard) 2 ATC sensors                                                               |
| 18. Motor cooling :                               | water with additive                                                                              |
| 19. Spindle cooling (Kcal/h) :                    | 3,000 Kcal/h                                                                                     |
| 20. Coolant through shaft :                       | N/A                                                                                              |
| 21. Converter nominal power(KVA) :                | 15 KVA                                                                                           |
| 22. Spindle weight :                              | 25Kgs                                                                                            |



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### Power and Torque-diagram for Built-In Motor-Spindle

