

X22

motor spindle



Compact high-frequency motor spindle – fully configurable in tool change, interface and cooling. made in Germany.

Overview

Series	X22 – compact high-frequency motor spindle (HF CNC milling spindle)
Power	1.5 2.2 3.0 4.0 kW (S1 continuous duty)
Motor type	Asynchronous (1.5 2.2 3.0 kW), synchronous (4.0 kW) – 230 V 400 V
Speed	up to 65,000 rpm (depending on tool interface), base equipment 30,000 rpm
Cooling	air (L) or liquid cooling (F)
Country of origin	Germany – development & manufacture in Weiterstadt (made in Germany)

Base configurations & weights

INTERFACE	TOOL CHANGE	COOLING	WEIGHT
ER20 ER25	manual (MTC)	air liquid	L 4.9 · F 4.6 kg
HSK-C25 HSK-C32	semi-automatic (QTC)	air liquid	L 4.9 · F 4.8 kg
HSK-E25 HSK-E32	automatic (ATC)	air liquid	L 6.2 · F 5.9 kg
SK20	automatic (ATC)	air liquid	L 6.3 · F 5.8 kg
DTC	direct tool change (DTC)	air liquid	L 6.3 · F 5.8 kg

16 base configurations; motor, speed, bearings and sensors are freely selectable in addition. Max. speed per interface: ER20, HSK-C25, HSK-E25 and DTC 65,000 rpm · ER25, HSK-C32, HSK-E32 and SK20 45,000 rpm.

Motor variants

POWER (S1 S6)	VOLTAGE	POLES	CURRENT (S1) 230 V 400 V	MOTOR TYPE
1.5 1.8 kW	230 V 400 V	2- 4-pole	5.5 3.1 A	asynchronous
2.2 2.5 kW	230 V 400 V	2- 4-pole	8.0 4.6 A	asynchronous
3.0 3.3 kW	230 V 400 V	2- 4-pole	10.9 6.3 A	asynchronous
4.0 5.8 kW	400 V	4-pole	7.7 A	synchronous

S1 = continuous duty, S6 = intermittent duty. Corner frequency 400 Hz (synchronous 4.0 kW: 800 Hz).

Sensors & protection

Sensors	temperature PTC 130 °C at the winding head (opt. PTC 70 °C or PT100 at the bearing); speed inductive or encoder; clamping piston position (ATC DTC)
Sealing	5-stage labyrinth seal at the front bearing – saves sealing air
IP rating	IP54 (liquid) – optionally IP65 IP20 (air) – optionally IP50
Warranty	3 years – extendable up to 6 years