



## Z45-D160.02 S21A

### Pneumatic direct change

Item no. **10301096**

HF-Spindle for high-speed milling, -grinding, -drilling, -engraving

#### Bearings

Hybrid ball bearing (pcs)	3
Lifetime lubricated	maintenance free

#### Motor

Motor technology	3-phase asynchronous drive (no brushes or sensors)
Frequency	1.000 Hz
Motor poles (pairs)	1
Rated rotation speed	60.000 rpm
Acceleration/braking value Per second	10 000 rpm (other values by consultation)

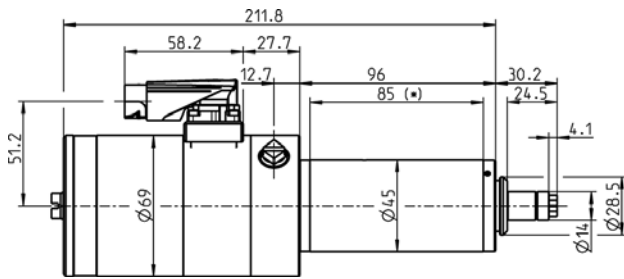
#### Power values

##### Uncooled

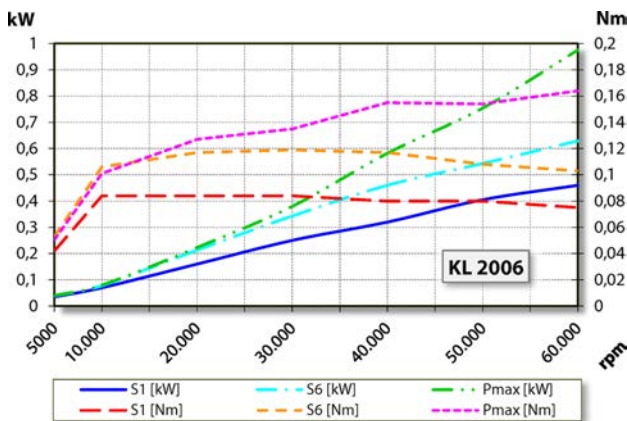
	Pmax./5s	S6-60%	S1-100%	
Rated power	0,98	0,63	0,46	[kW]
Torque	0,164	0,119	0,084	[Nm]
Voltage	91	100	90	[V]
Current	9	6,5	5	[A]

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Dimensions



Performance Diagram  
Uncooled

Measurement of power is funded by in-house testing.

**Characteristics**

Speed sensor	Differential magneto resistor (TTL) Number of signals = 6
Motor protection	PTC 100°C
Housing	Stainless steel
Housing diameter	45 mm
Cooling	Uncooled
Heat dissipation	Via the spindle holder
Housing temperature	< + 45° C
Ambient temperature	+ 10°C ... + 45°C
Sealing air	
Protection category (sealing air turned on)	IP54
ESD protection	
Tool change	Pneumatic direct change
Collet type	8/5° Optional accessories
Clamping range up to	6 mm (1/4")
Clockwise	
Coupler plug	9-pin (I-TEC)
Weight	~ 3,1 kg
Inner taper run out	< 1 μ