

## PRODUCT DESCRIPTION

Max. Power output	9.6 kW
Power output S6 40%	6.4 kW
Power output S1 100%	5.0 kW
Rotation speed	to 32.000 rpm
Diameter	100 x 100 mm
Spindlehousing	high-strength aluminium
Spindle interface	HSK - E40

## FEATURES

-  Air nozzles
-  Hybrid-ceramic-bearings
-  Permanent grease lubricated bearings
-  Liquid cooling
-  Air seal
-  Pneumatic tool clamping
-  Tool change control
-  Taper air purge
-  Speed sensor
-  Motor temperature control

### Available equipment:

Frequency converter, Cooling unit, Spindlebracket, Collet chucks, Collet



Optional Spindlebracket

## TECHNICAL SPECIFICATIONS

### Motor data

Motor type	asynchron
Number of pol's	4
Speed range (rpm) max.	32.000
Power output S1/S6 40% (kW)	5.0 / 6.4
Torque S1/S6 40% (Nm)	1.5 / 1.9
Frequency range (Hz) max.	534
Max. voltage (Volt)	300
Nominal current S1/S6 40% (Amp.)	12 / 14
Maximum current (Amp.)	14

### Bearing data

Bearings	ceramic - hybrid
Number of Bearings	4
Lubrication	grease
Temperature protection	-
Recommended air seal (bar)	1 - 2
Air seal requirements (l/min)	60 l/min (1 bar)

### Shaft data

Run-out accuracy	
- Axial eccentricity ( $\mu\text{m}$ )	< 1
- Spindle taper ( $\mu\text{m}$ )	< 2
Balance quality	G 0.4
Vibration (mm/s)	< 0.8
Static axial stiffness (N/ $\mu\text{m}$ )	32
Static radial stiffness (N/ $\mu\text{m}$ )	125

### Tooling

Spindle interface	HSK - E40
Tool clamping / release pressure (bar)	5 - 8
Taper cleaning pres. (bar)	1 - 2
Max. Tool diameter (mm)	13

### ATC control

Number of sensors	2
Type of sensors	PNP
Controlled positions	
- tool clamped	✓
- tool unclamped	✓
- clamped no tool	-

### Speed control

Inductive sensor	6 Impulse/RPM Namur
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### Spindle cooling

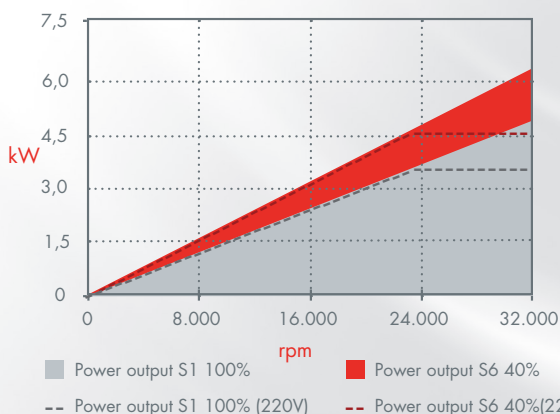
Recommended coolant	liquid water
Cooling requirements (kW)	0.8 - 1.0
Coolant temperature ( $^{\circ}\text{C}$ )	20 $\pm$ 2
Max. coolant pressure (bar)	3

### Connections

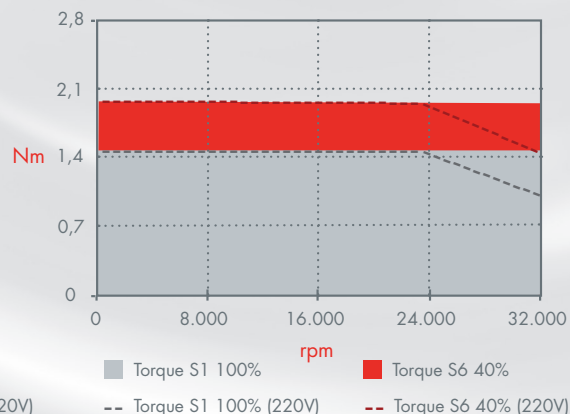
Power connection	9 - pol
ATC control	12 - pol
Encoder / Speed sensor	integrated into power connection
Coolant	Self locking connector 2 x $\varnothing$ 10mm (1/4")
Air seal	1 x $\varnothing$ 6mm (1/8")
ATC	1 x $\varnothing$ 6mm (1/8")
Taper air purge	1 x $\varnothing$ 6mm (1/8")

Spindle diameter (mm)	100 x 100
Spindle arretation	-
Weight (kg)	9

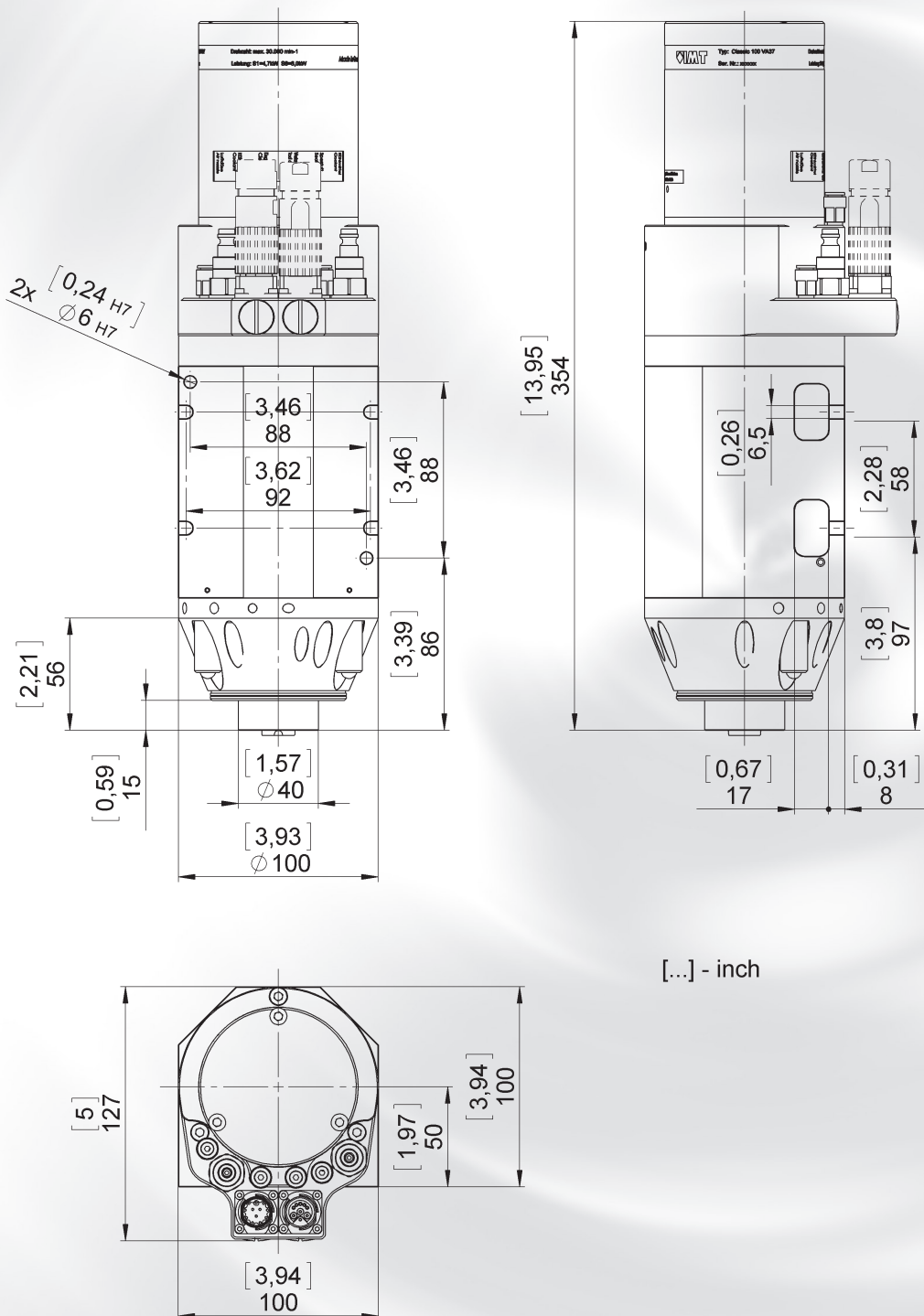
### Power diagram



### Torque diagram



MAßZEICHNUNG  
DIMENSIONAL DRAWING



[...] - inch

## Spindelanschlüsse Spindle connections

- 1 Leistungsstecker 9-pol  
Power connection 9-pin
- 2 Stecker Werkzeugüberwachung 12-pol  
ATC control plug 12-pol
- 3 Luftdüsenanschluss  
Air nozzle connection
- 4 Kegelreinigungsanschluss  
Taper air purge connection
- 5 Kühlmittelanschluss Vorlauf  
Coolant connection forward flow
- 6 Kühlmittelanschluss Rücklauf  
Coolant connection return flow
- 7 Sperrluftanschluss  
Air seal connection
- 8 Werkzeugwechselanschluss  
Tool change connection

