



### Milling spindle CS-21-180-S

Drive			
Power:	21 kW (S1)	27 kW (S6)	
Nominal speed:	2.000 r.p.m.		
Torque max.:	100 Nm (S1)	130 Nm (S6)	
Speed max.:	18.000 r.p.m.		
Motor type:	asynchronous/8 poles		
Power connection:	400 V/ 120 A (S1)		
Tool system:	HSK-A63		
Clamping system:	hydraulically operated		
Clamping force:	19 kN/65 bar		
Clamping monitoring:	CyCon K 11 / Analog sensor		
Release pressure max.:	100 bar		
Tool cleaning:	Air, 4-6 bar		
Spindle bearing:	<< >> Ø 70 Hybrid		
Bearing rigidity:	axial / radial 503 N/µm		
Bearing lubrication:	Grease		
Sealing:	with sealing air and labyrinth		
Encoder signal:	1 Vpp/256 teeth		
Spindle cooling:	liquid cooling (Antifrogen N/Tyfocon)		
Power dissipation:	3 kW		
Cooling volume flow approx.:	10 l/min (3-6 bar)		
Metal removal rate:	Milling	Drilling	Threading
Steel	550 cm <sup>3</sup> /min	Ø 30	M 20
Tool cooling			
External coolant supply (ECS):	4 Spray nozzles		
Internal coolant supply (ICS):	optional (through spindle shaft)		
max. Pressure/Filter mesh:	45 bar (25 l/min)/40 µm		
MQL external:	optional		
MQL internal:	optional		

