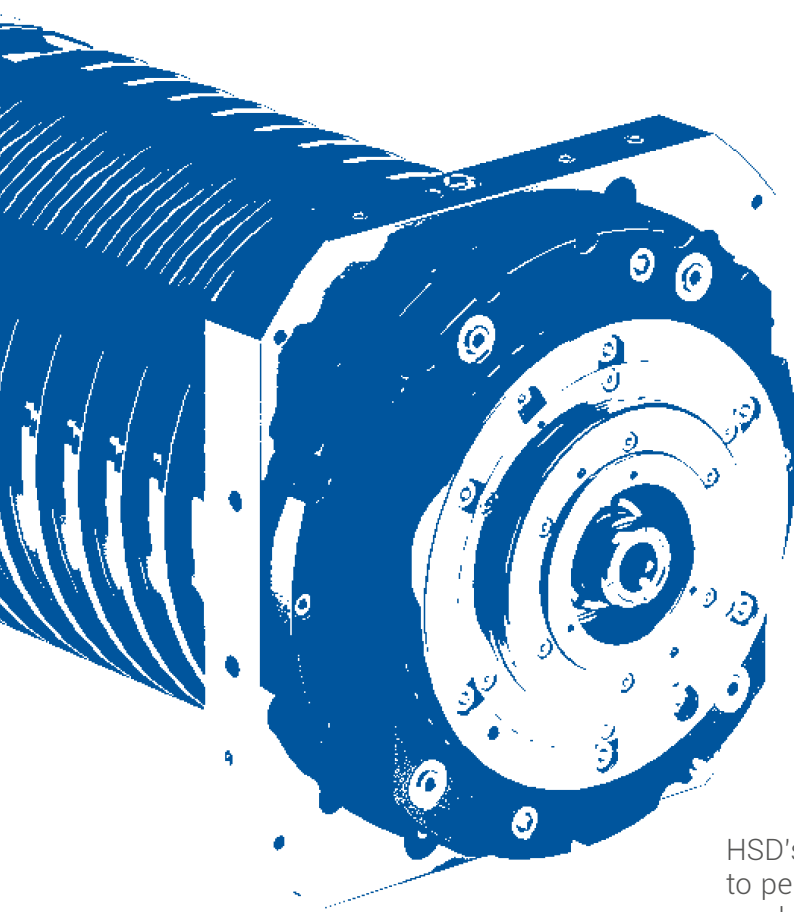




ES5 LINE

HSD's **ES5 Line** offers high-torque electrospindles designed to perform heavy-duty machining on tough materials. These products are characterized by high robustness and the ability to maintain consistent performance even under demanding working conditions.

ES5 Line is also distinguished by its compactness, making them ideal for integration on applications such as milling heads or tilting axes where space is limited.

Torque is the other strong point. The various models available are capable of delivering torques ranging from 30Nm to 200Nm - in S1 speed.

The **ES5 Line** is the best choice for machining heavy metals and alloys such as Cast Iron and Steel.

MATERIALS



LIGHT
ALLOY



CAST IRON
& STEEL

APPLICATIONS



MILLING



TURNING



DRILLING



TAPPING

TARGET MACHINES



GANTRY &
PORTAL
CNC



3 AXIS
MACHINE
CENTER



5 AXIS
MACHINE
CENTER



HORIZONTAL
MULTI-SPINDLE
CNC



VERTICAL
CNC



ES505

Hight Torque / High Power / For Milling Heads

MATERIALS



LIGHT
ALLOY



CAST IRON
& STEEL

APPLICATIONS



MILLING



TURNING



DRILLING



TAPPING

TARGET MACHINES



GANTRY &
PORTAL
CNC



3 AXIS
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HORIZONTAL
MULTI-SPINDLE
CNC



VERTICAL
CNC

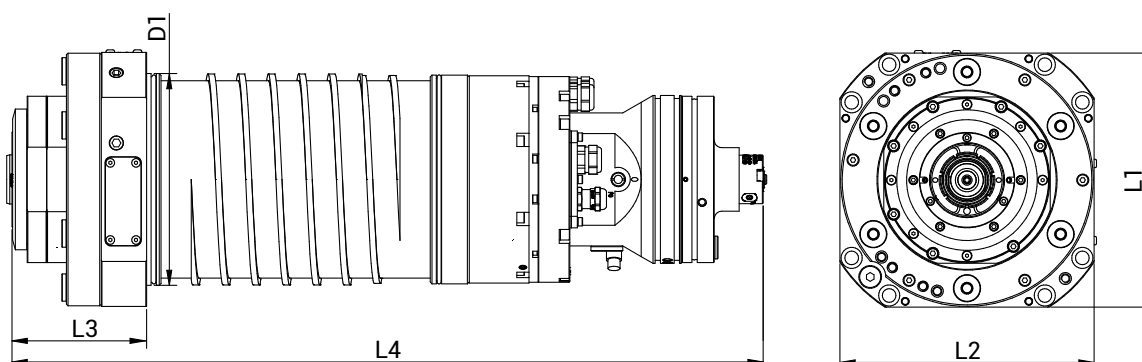
TECHNICAL DATA

	ES505 25kW	ES505 30kW	ES505 40kW
Body dimension [mm]	Ø140	Ø140	Ø140
Max speed [rpm] (grease / air-oil)	20.000 / 24.000	20.000 / 24.000	20.000 / 28.000
Motor type	Synchronous IPM	Synchronous IPM	Synchronous IPM
Torque S1/S6 (40%) [Nm]	30 / 36	36 / 43	48 / 57,5
Power S1/S6 (40%) [kW]	25 / 30	30 / 36	40 / 48
Tool interface	HSK A63	HSK A63	HSK A63
Cooling	Liquid	Liquid	Liquid
Bearings lubrication	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil
Weight [kg]	35	37	40

OPTIONAL

	ES505 25kW	ES505 30kW	ES505 40kW
Coolant through shaft	Yes	Yes	Yes
Vibration sensor	Yes	Yes	Yes
Elongation sensor	Yes	Yes	Yes
Shaft clamping	No	No	No
Bearing preload function	No	No	No
Shaft kit	No	No	No
Cooling housing	Yes (Ø170 / □ 236)	Yes (Ø170 / □ 236)	Yes (Ø170 / □ 236)
Encoder	Yes	Yes	Yes

DIMENSIONS

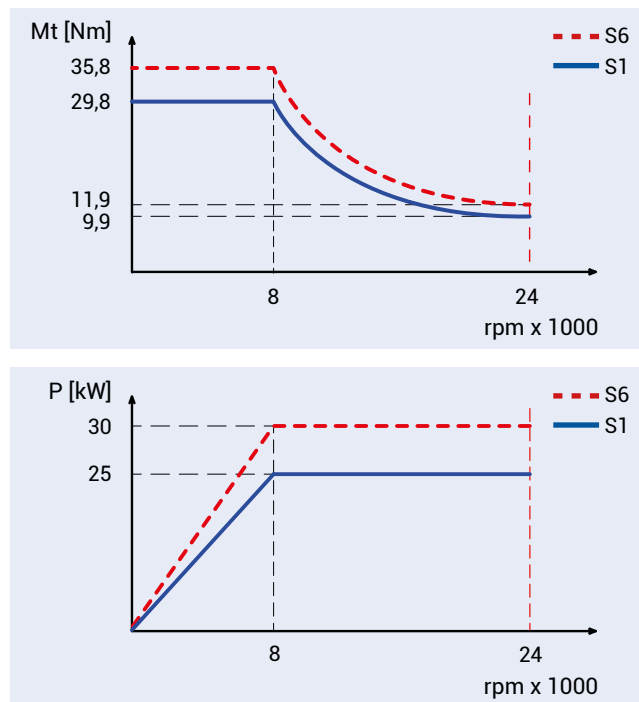


	ES505 25kW	ES505 30kW	ES505 40kW
D1 (mm)	Ø140 / 170 ⁽¹⁾ / □ 236 ⁽²⁾	Ø140 / 170 ⁽¹⁾ / □ 236 ⁽²⁾	Ø140 / 170 ⁽¹⁾ / □ 236 ⁽²⁾ ⁽²⁾
L1 (mm)	168	168	168
L2 (mm)	168	168	168
L3 (mm)	89 / 110 ⁽¹⁾	89 / 110 ⁽¹⁾	89 / 110 ⁽¹⁾
L4 (mm)	457	497	497

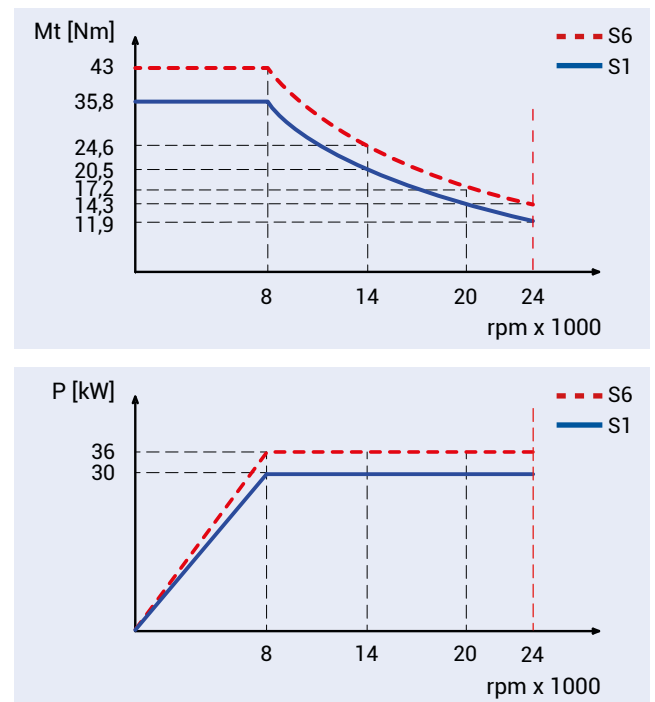
(1) With round body - (2) With square body

DIAGRAMS - POWER & TORQUE

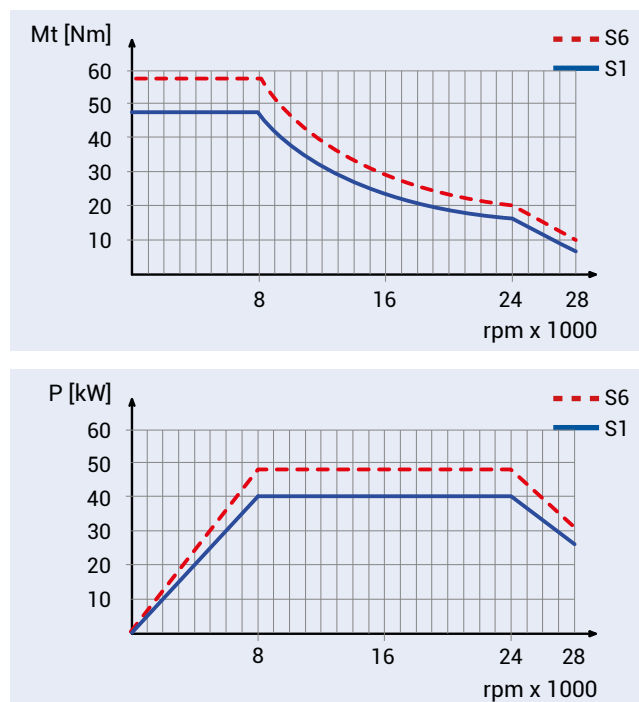
ES505 25kW 380V - 400V



ES505 30kW 380V - 400V



ES505 40kW 380V - 400V





ES510

High Torque / High Power / For Milling Heads

MATERIALS



LIGHT
ALLOY



CAST IRON
& STEEL

APPLICATIONS



MILLING



TURNING



DRILLING



TAPPING

TARGET MACHINES



GANTRY &
PORTAL
CNC



3 AXIS
MACHINE
CENTER



5 AXIS
MACHINE
CENTER

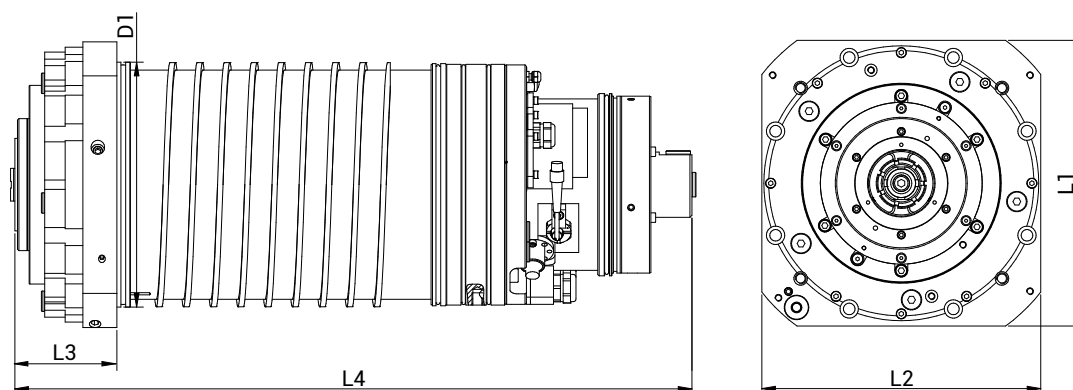
TECHNICAL DATA

	ES510 24kW	ES510 30kW	ES510 42kW	ES510 50kW	ES510 70kW	ES510 50kW
Body dimension [mm]	Ø180	Ø180	Ø180	Ø180	Ø180	Ø180
Max speed [rpm] (grease / air-oil)	18.000 / 24.000	18.000 / 24.000	18.000 / 24.000	18.000 / 20.000	18.000 / 28.000	12.000 / 15.000
Motor type	Asynchronous	Asynchronous	Synchronous	Synchronous	Synchronous	Synchronous
Torque S1/S6 (40%) [Nm]	38 / 46	48 / 57	67 / 87,5	90 / 120	55,7 / 75,2	95,5 / 124
Power S1/S6 (40%) [kW]	24 / 28,8	30 / 36	42 / 55	50 / 67,5	70 / 94,5	50 / 65
Tool interface	HSK A63	HSK A63	HSK A63	HSK A63	HSK A63	HSK A100
Cooling	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid
Bearings lubrication	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil
Weight [kg]	65	65	65	65	65	75

OPTIONAL

	ES510 24kW	ES510 30kW	ES510 42kW	ES510 50kW	ES510 70kW	ES510 50kW
Coolant through shaft	Yes	Yes	Yes	Yes	Yes	Yes
Vibration sensor	No	No	No	No	No	No
Elongation sensor	No	No	No	No	No	No
Shaft clamping	No	No	No	No	No	No
Bearing preload function	No	No	No	No	No	No
Shaft kit	No	No	No	No	No	No
Cooling housing	Yes (□ 275)	Yes (□ 275)	Yes (□ 275)	Yes (□ 275)	Yes (□ 275)	Yes (□ 275)
Encoder	Yes	Yes	Yes	Yes	Yes	Yes

DIMENSIONS

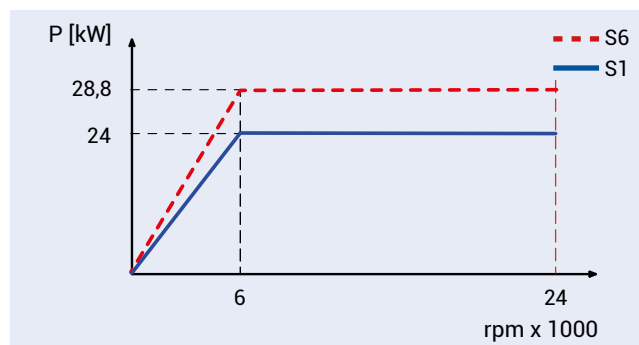
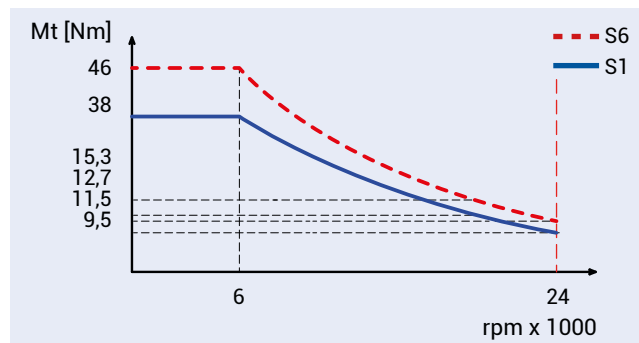


	ES510 24kW	ES510 30kW	ES510 42kW	ES510 50kW - A63	ES510 70kW	ES510 50kW - A100
D1 (mm)	Ø180 / □ 275 ⁽¹⁾	Ø180 / □ 275 ⁽¹⁾	Ø180 / □ 275 ⁽¹⁾	Ø180 / □ 275 ⁽¹⁾	Ø180 / □ 275 ⁽¹⁾	Ø180 / □ 275 ⁽¹⁾
L1 (mm)	210	210	210	210	210	210
L2 (mm)	205	205	205	205	205	205
L3 (mm)	127	127	75	75	75	110
L4 (mm)	550	550	498	498	498	536

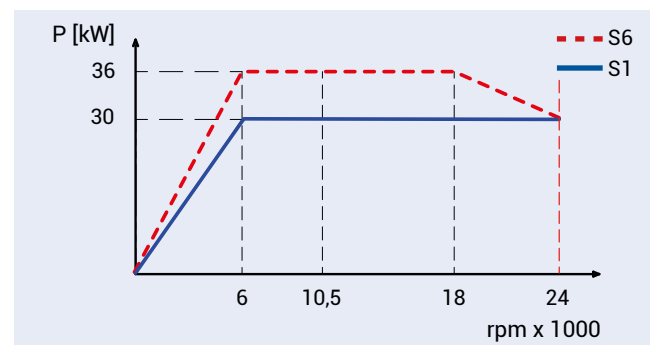
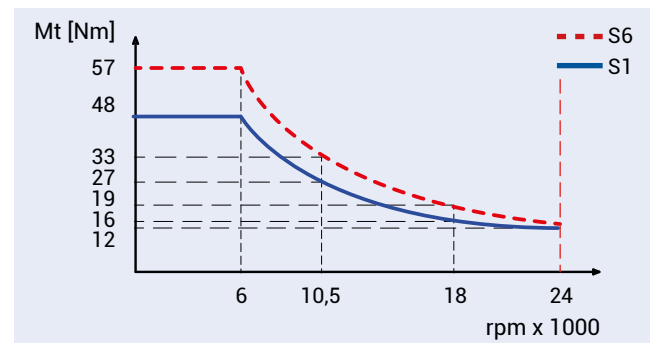
(1) With square body

DIAGRAMS - POWER & TORQUE

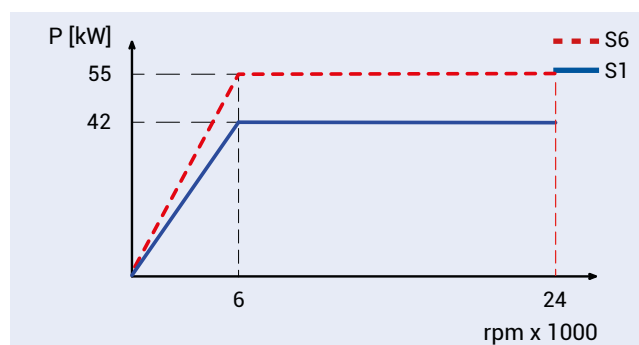
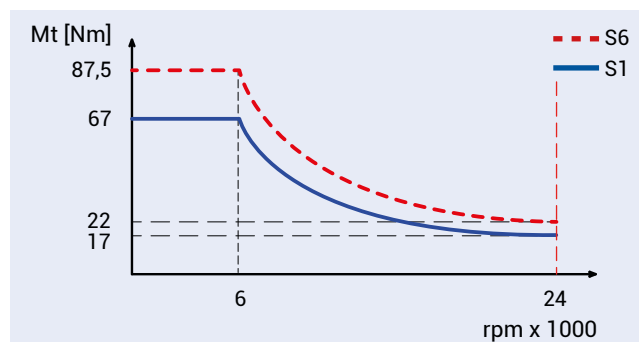
ES510 24kW 380V - 400V



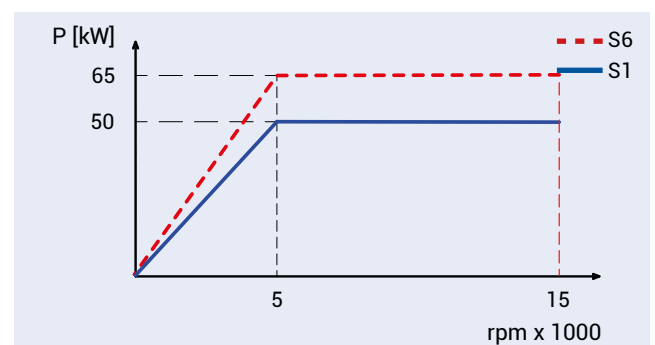
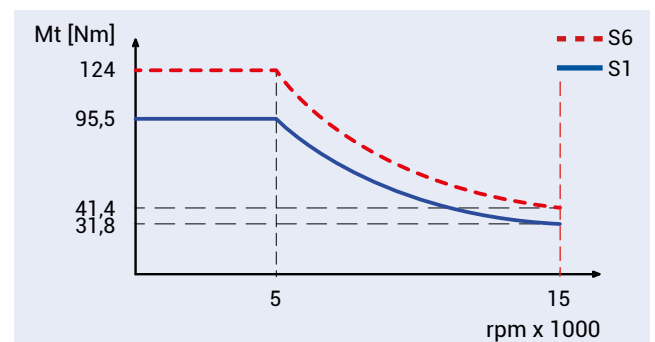
ES510 30kW 380V - 400V



ES510 42kW 380V - 400V

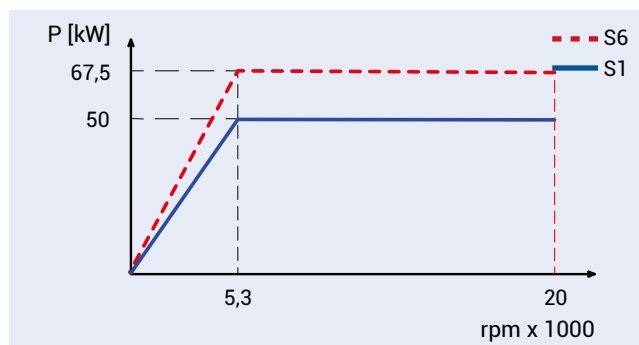
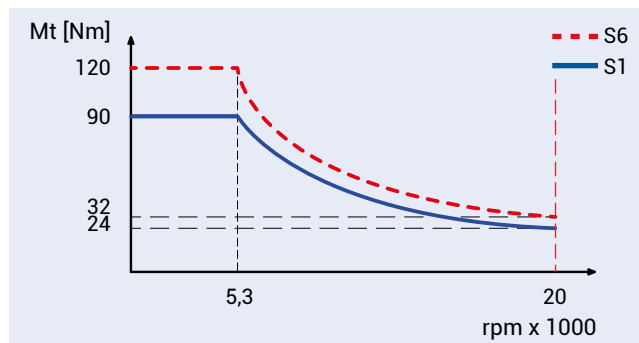


ES510 50kW A100 - 12.000 / 15.000 rpm 380V - 400V

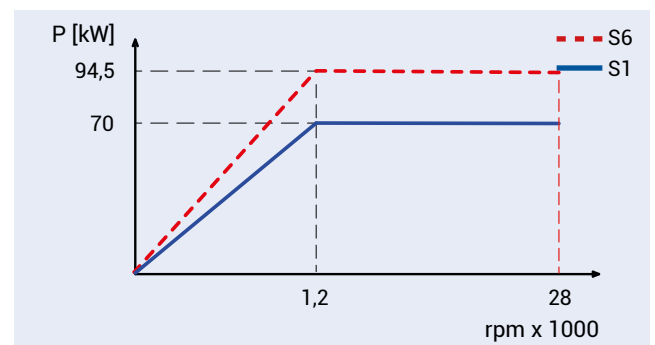
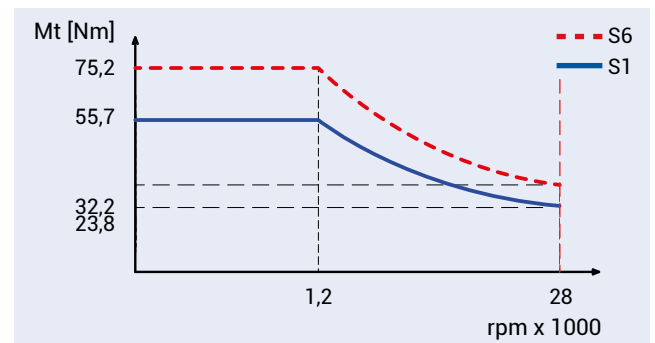


DIAGRAMS - POWER & TORQUE

ES510 50kW A63 - 18.000 / 20.000 rpm 380V - 400V



ES510 70kW 380V - 400V





ES511

Hight Torque / High Power / For Milling Heads

MATERIALS



LIGHT
ALLOY



CAST IRON
& STEEL

APPLICATIONS



MILLING



TURNING



DRILLING



TAPPING

TARGET MACHINES



GANTRY &
PORTAL
CNC



3 AXIS
MACHINE
CENTER



5 AXIS
MACHINE
CENTER

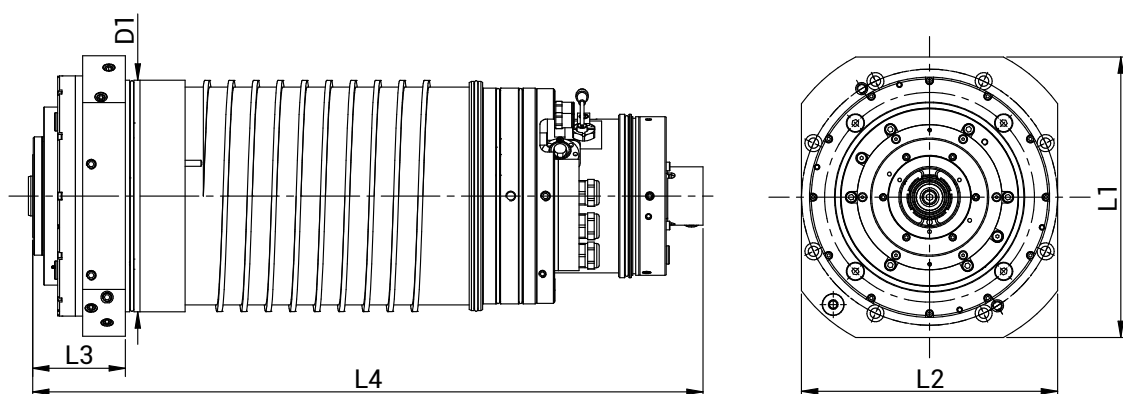
TECHNICAL DATA

	ES511 26kW	ES511 47kW	ES511 63kW
Body dimension [mm]	Ø190	Ø190	Ø190
Max speed [rpm] (grease / air-oil)	16.000 / 18.000	12.000 / 13.000	12.000 / 13.000
Motor type	Asynchronous	Synchronous	Synchronous
Torque S1/S6 (40%) [Nm]	124 / 149	150 / 202	200 / 241
Power S1/S6 (40%) [kW]	26 / 31	47 / 63.5	63 / 76
Tool interface	ISO40 / HSK A63	HSK A100 / T100 / ISO 50	HSK A100 / ISO 50
Cooling	Liquid	Liquid	Liquid
Bearings lubrication	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil
Weight [kg]	90	90	105

OPTIONAL

	ES511 26kW	ES511 47kW	ES511 63kW
Coolant through shaft	Yes	Yes	Yes
Vibration sensor	No	No	No
Elongation sensor	No	No	No
Shaft clamping	No	Yes (HSK T100)	No
Bearing preload function	No	No	No
Shaft kit	No	No	No
Cooling housing	Yes (□ 250)	Yes (□ 250)	Yes (□ 250)
Encoder	Yes	Yes	Yes

DIMENSIONS

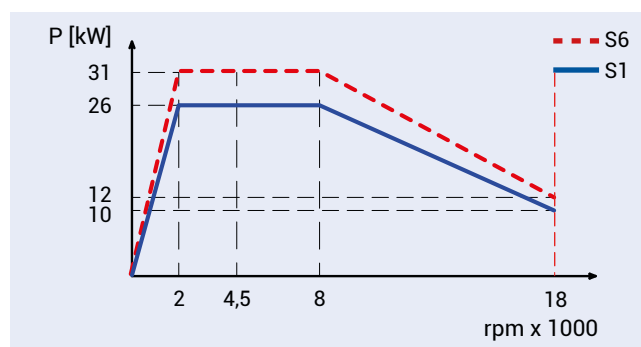
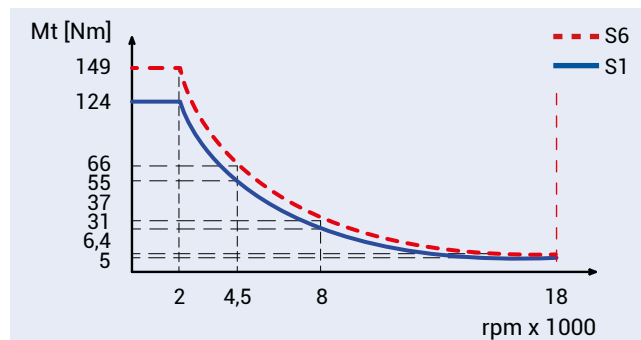


	ES511 26kW	ES511 47kW	ES511 63kW
D1 (mm)	Ø190 / □ 250 ⁽¹⁾	Ø190 / □ 250 ⁽¹⁾	Ø190 / □ 250 ⁽¹⁾
L1 (mm)	210	210	210
L2 (mm)	210	210	210
L3 (mm)	120	120	120
L4 (mm)	654	594	654

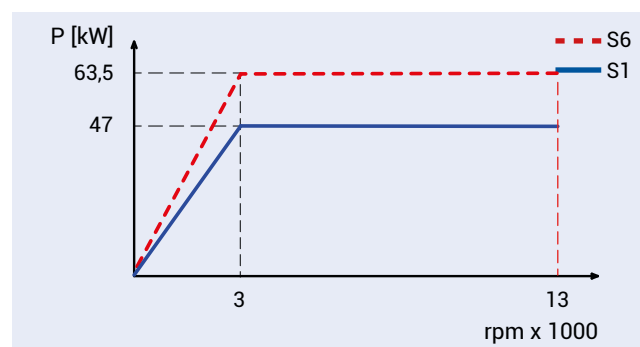
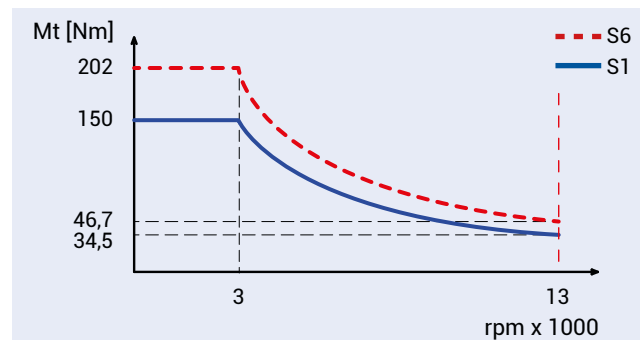
(1) With square body

DIAGRAMS - POWER & TORQUE

ES511 26kW 380V - 400V



ES511 47kW 380V - 400V



ES511 63kW 380V - 400V

