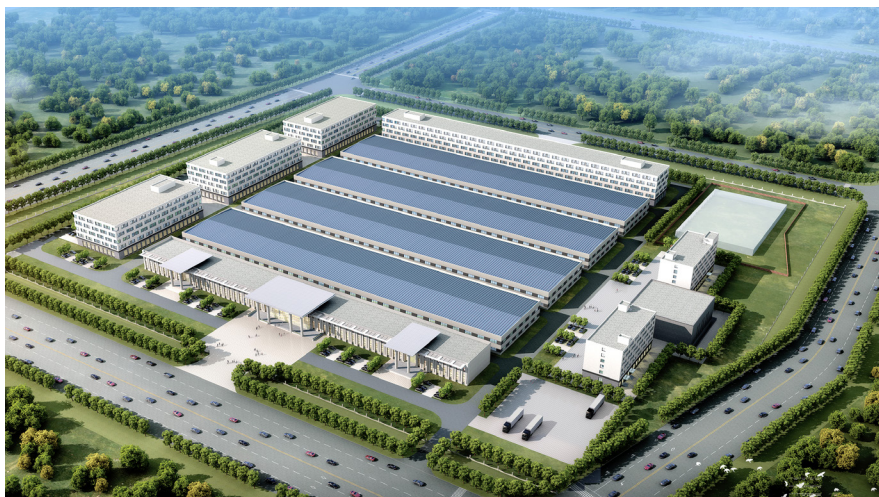




# ES-series motorized spindle



**超同步股份有限公司**  
CTB Co., Ltd.



CTB Co., Ltd. was established in 2000, specializing in the research and manufacture of servo motor, servo driver, direct drive functional components, automatic control system and other Mechatronics products. It is top AC servo product manufacturer in China.

Products are widely used in high-end equipment manufacturing industries such as CNC machine tools, injection moulding machines, press machines, hydraulic equipment, textile machinery, as well as new energy automobiles, oil industry, wind power, industrial robots and other emerging industries.

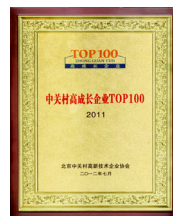
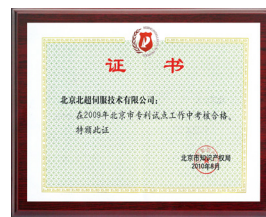
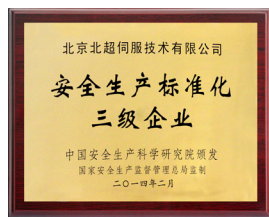
Products are exported to Europe, the United States, Malaysia, Korea, India, Indonesia, Brazil and other parts of the world.

CTB has passed ISO 9001, ISO 14001, OHSAS 18001, ISO/TS16949 and other system certifications, and the products have passed the EU CE certification.

CTB has 33 offices throughout the country. Its sales and after-sales service network covers the whole country. It provides efficient and professional pre-sale, in-sale and after-sales service for the vast number of users.

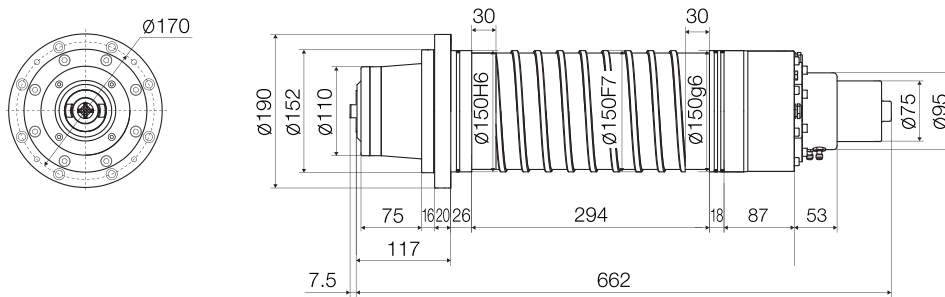


## Company honor

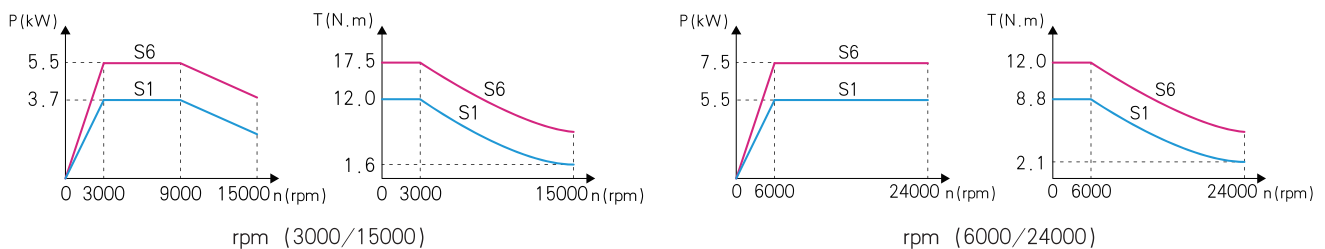




◆ Drawing of overall dimensions

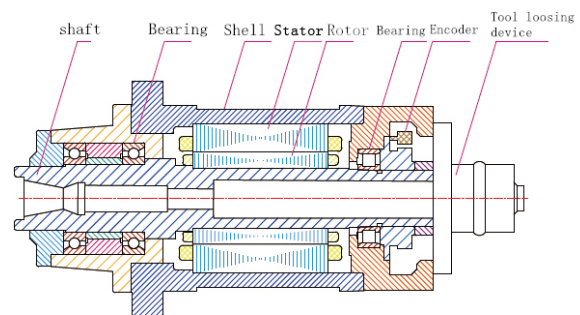


◆ Characteristic Curve



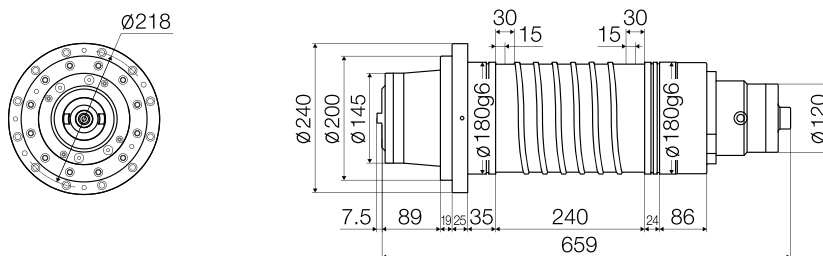
◆ Performance index

Model	BT30	
Motor type	AC induction motor	
Connection method	Star-connection	
Torque S1 (N·m)	12	8.8
Torque S6 (N·m)	17.5	12
Power S1 (kW)	3.7	5.5
Power S6 (kW)	5.5	7.5
Rated speed (rpm)	3000	6000
Max speed (rpm)	15000	24000
Encoder type	TTL 1VPP MODBUS	
Tool connector	BT30	
Tool loosening method	hydraulic	
Cooling method	Water cooling	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F/KTY84-130	
Central water discharge	Optional	

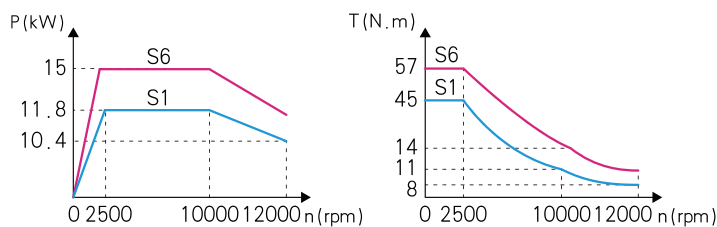




### ◆ Drawing of overall dimensions

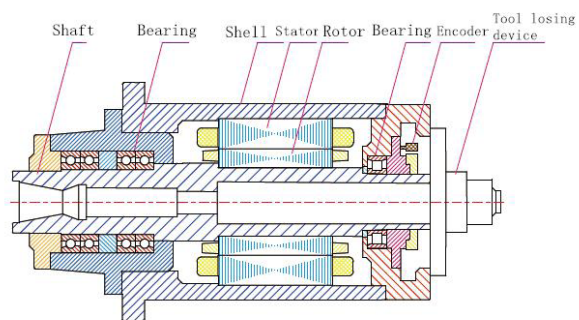


### ◆ Characteristic Curve



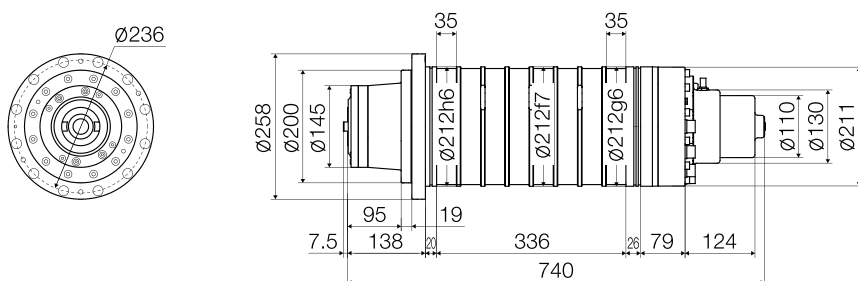
### ◆ Performance index

Model	BT40A
Motor type	AC induction motor
Connection method	Star-connection
Torque S1 (N.m)	45
Torque S6 (N.m)	57
Power S1 (kW)	11.8
Power S6 (kW)	15
Rated speed (rpm)	2500
Max speed (rpm)	12000
Encoder type	TTL 1VPP MODBUS
Tool connector	BT40
Tool losing method	hydraulic
Cooling method	Water cooling
Bearing lubrication method	Oil lubrication
Temperature sensor	PT3C-51F/KTY84-130
Central water discharge	Optional

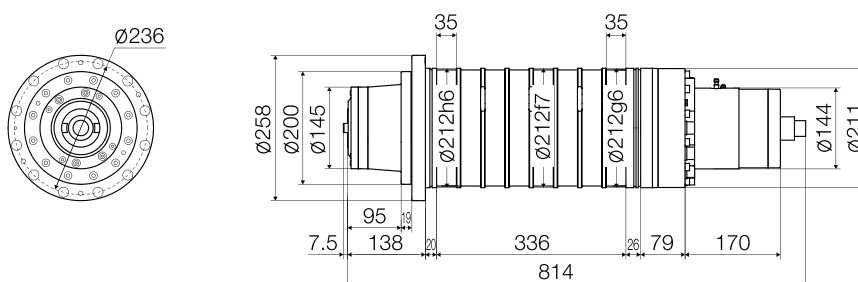




### ◆ BT40B Drawing of overall dimensions



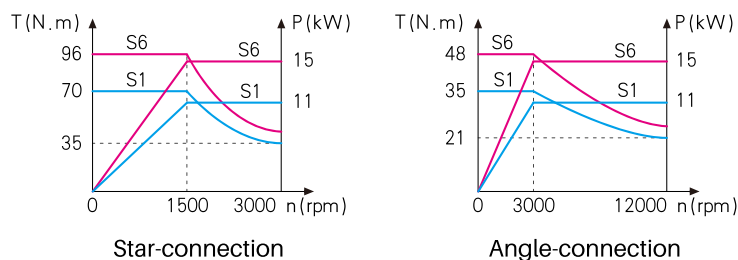
### ◆ BT40B-R Drawing of overall dimensions



### ◆ Performance index

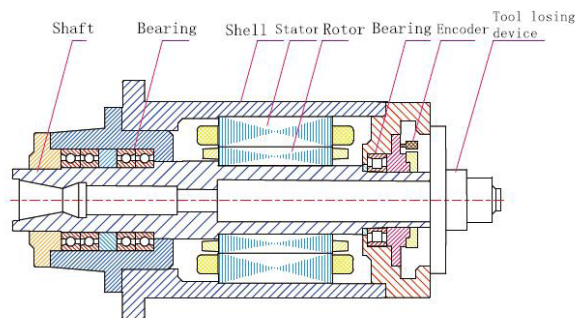
Model	BT40B / BT40B-R	
Motor type	AC induction motor	
Connection method	Star-connection	Angle-connection
Torque S1 (N·m)	70	35
Torque S6 (N·m)	96	48
Power S1 (kW)	11	11
Power S6 (kW)	15	15
Rated speed (rpm)	1500	3000
Max speed (rpm)	3000	12000
Encoder type	TTL 1VPP MODBUS	
Tool connector	BT40	
Tool loosening method	hydraulic	
Cooling method	Water cooling	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F/KTY84-130	
Central water discharge	Optional	

### ◆ Characteristic Curve



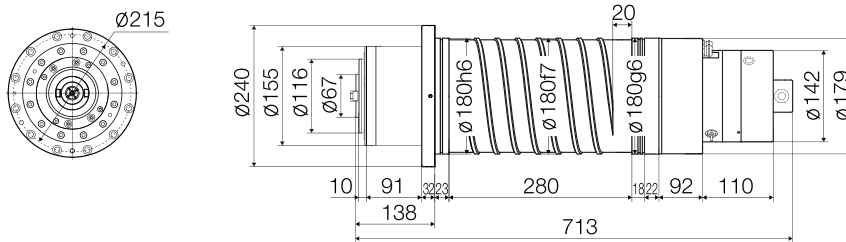
Star-connection

Angle-connection

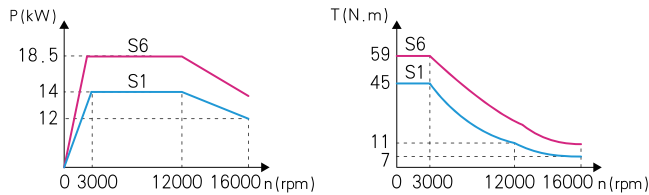




◆ Drawing of overall dimensions

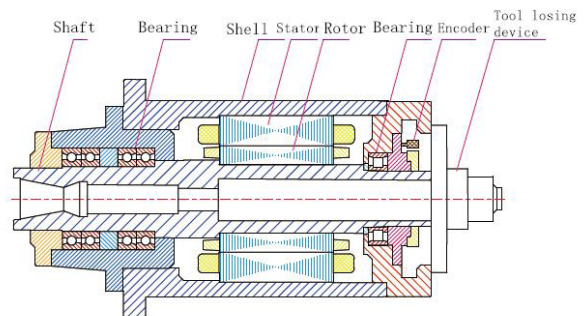


◆ Characteristic Curve



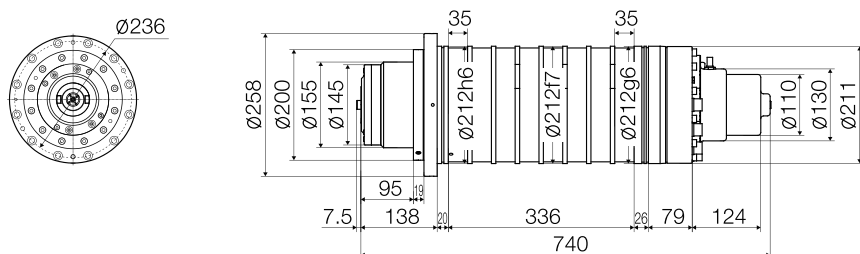
◆ Performance index

Model	BT40C
Motor type	AC induction motor
Connection method	Star-connection
Torque S1 (N·m)	45
Torque S6 (N·m)	59
Power S1 (kW)	14
Power S6 (kW)	18.5
Rated speed (rpm)	3000
Max speed (rpm)	16000
Encoder type	TTL 1VPP MODBUS
Tool connector	BT40
Tool losing method	hydraulic
Cooling method	Water cooling
Bearing lubrication method	Oil lubrication
Temperature sensor	PT3C-51F/KTY84-130
Central water discharge	Optional

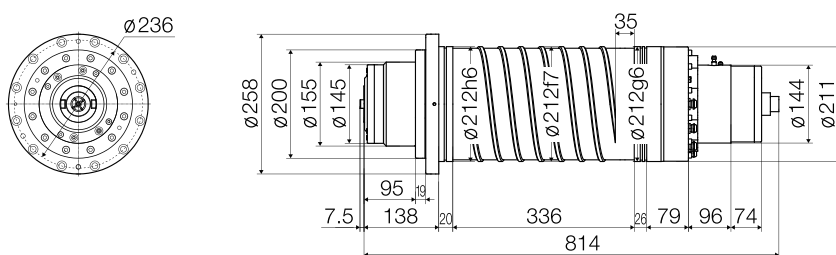




◆ BT40D Drawing of overall dimensions



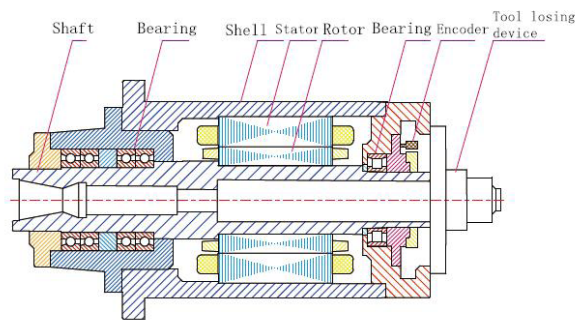
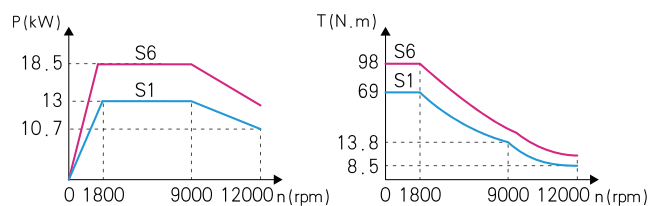
◆ BT40D-R Drawing of overall dimensions



◆ Performance index

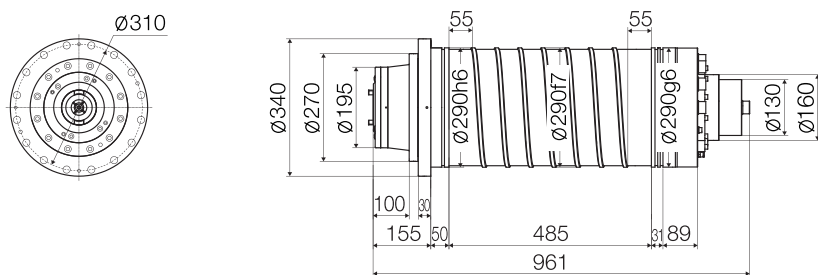
Model	BT40D / BT40D-R	
Motor type	AC induction motor	
Connection method	Star-connection	
Torque S1	(N·m)	69
Torque S6	(N·m)	98
Power S1	(kW)	13
Power S6	(kW)	18.5
Rated speed	(rpm)	1800
Max speed	(rpm)	12000
Encoder type	TTL 1VPP MODBUS	
Tool connector	BT40	
Tool losing method	hydraulic	
Cooling method	Water cooling	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F/KTY84-130	
Central water discharge	Optional	

◆ Characteristic Curve

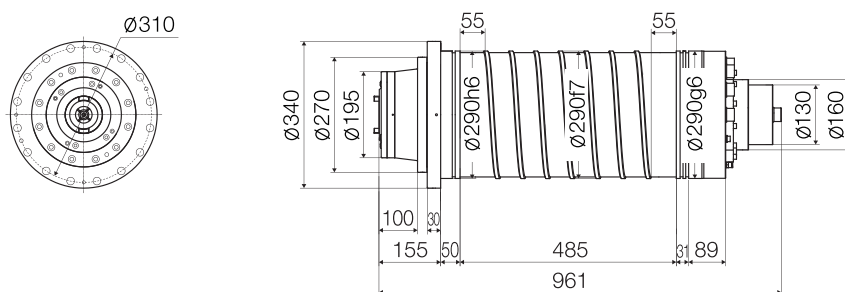




◆ BT50A Drawing of overall dimensions



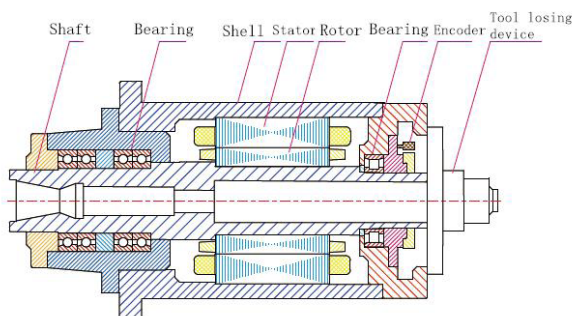
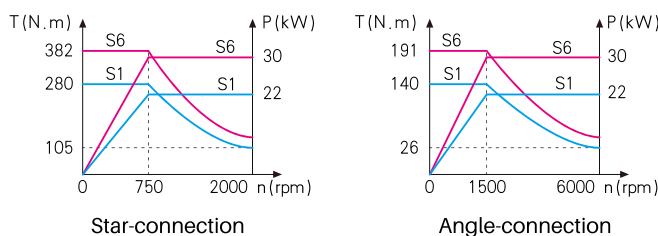
◆ BT50A-R Drawing of overall dimensions



◆ Performance index

Model	BT50A / BT50A-R	
Motor type	AC induction motor	
Connection method	Star-connection	Angle-connection
Torque S1 (N·m)	280	140
Torque S6 (N·m)	382	191
Power S1 (kW)	22	22
Power S6 (kW)	30	30
Rated speed (rpm)	750	1500
Max speed (rpm)	2000	6000
Encoder type	TTL 1VPP MODBUS	
Tool connector	BT50	
Tool loosening method	hydraulic	
Cooling method	Water cooling	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F/KTY84-130	
Central water discharge	Optional	

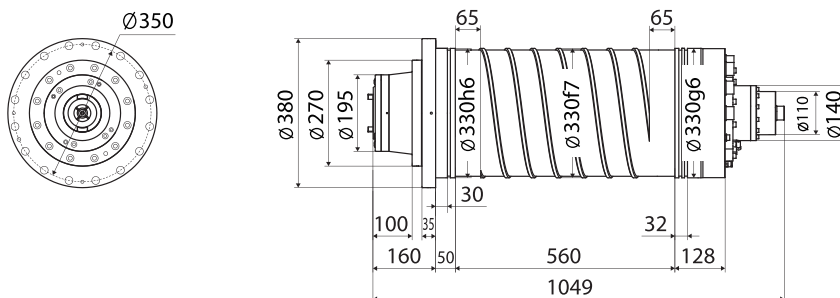
◆ Characteristic Curve



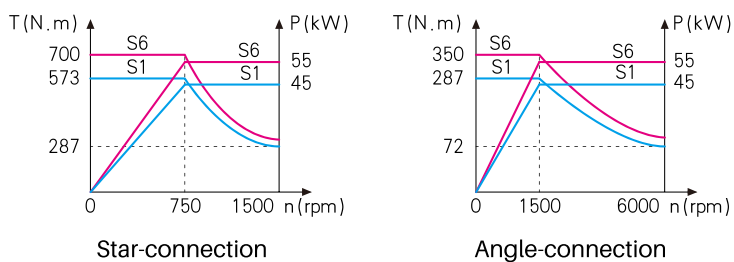




### ◆ Drawing of overall dimensions

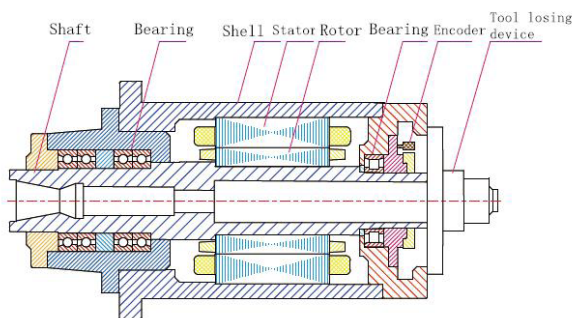


### ◆ Characteristic Curve



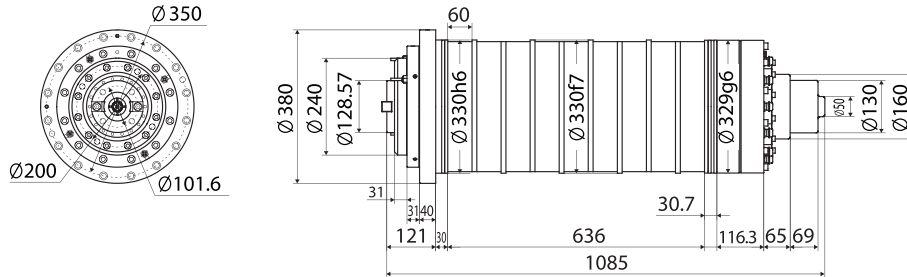
### ◆ Performance index

Model	BT50B	
Motor type	AC induction motor	
Connection method	Star-connection	Angle-connection
Torque S1 (N.m)	573	287
Torque S6 (N.m)	700	350
Power S1 (kW)	45	45
Power S6 (kW)	55	55
Rated speed (rpm)	750	1500
Max speed (rpm)	1500	6000
Encoder type	TTL 1VPP MODBUS	
Tool connector	BT50	
Tool losing method	hydraulic	
Cooling method	Water cooling	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F/KTY84-130	

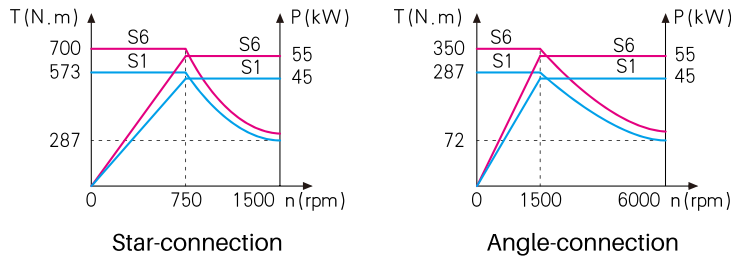




◆ Drawing of overall dimensions

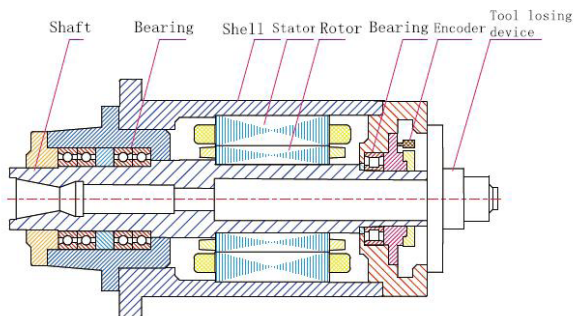


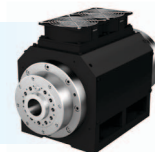
◆ Characteristic Curve



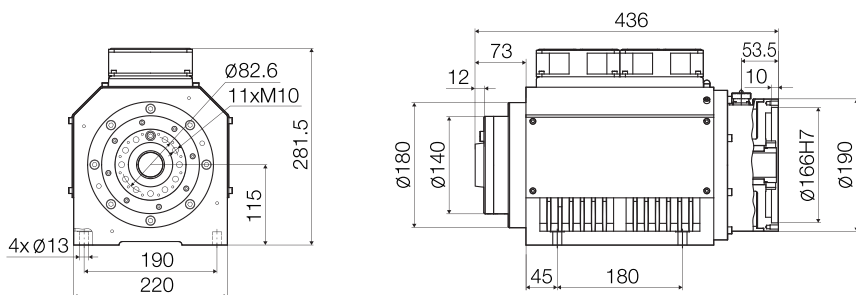
◆ Performance index

Model	BT50F	
Motor type	AC induction motor	
Connection method	Star-connection	Angle-connection
Torque S1 (N.m)	573	287
Torque S6 (N.m)	700	350
Power S1 (kW)	45	45
Power S6 (kW)	55	55
Rated speed (rpm)	750	1500
Max speed (rpm)	1500	6000
Encoder type	TTL 1VPP MODBUS	
Tool connector	BT50	
Tool loosening method	hydraulic	
Cooling method	Water cooling	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F/KTY84-130	

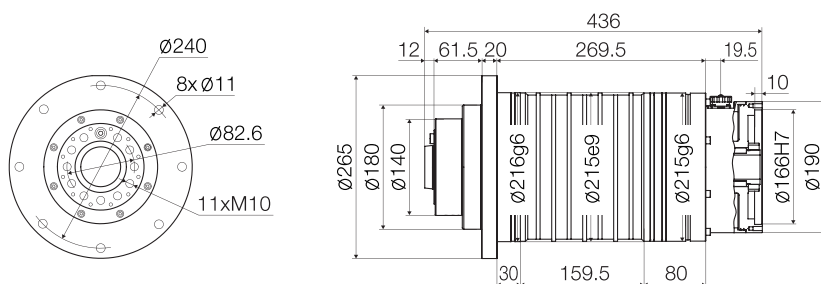




◆ A204FA Drawing of overall dimensions



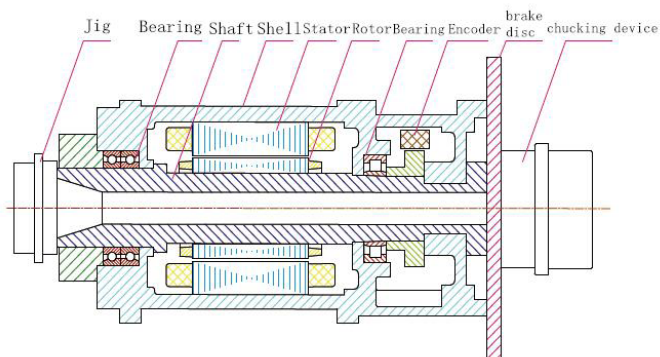
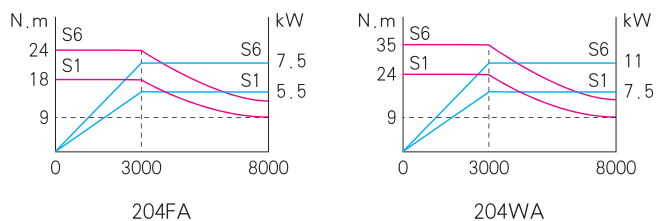
◆ A204WA Drawing of overall dimensions



◆ Performance index

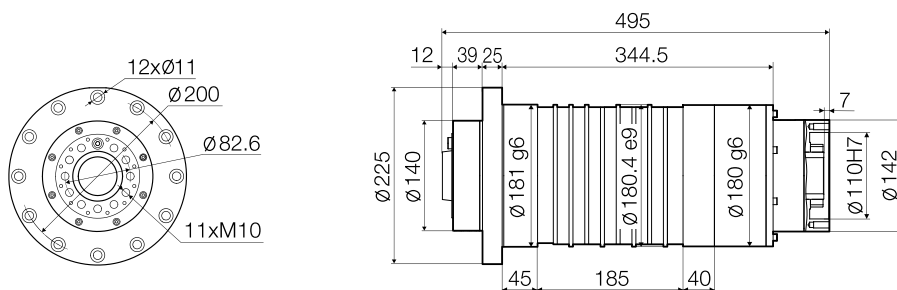
Model	A204FA	A204WA
Motor type	AC induction motor	
Connection method	Star-connection	
Cooling method	Air-cooling	Water cooling
Torque S1 (N·m)	18	24
Torque S6 (N·m)	24	35
Power S1 (kW)	5.5	7.5
Power S6 (kW)	7.5	11
Rated speed (rpm)	3000	3000
Max speed (rpm)	8000	8000
Rated Voltage (V)	380	380
Rated Current (A)	11.5	15
Rated frequency (Hz)	103.6	104.4
Encoder type	TTL 1VPP MODBUS	
Tool connector	A2-4	
Spindle hole	φ 35	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F	

◆ Characteristic Curve

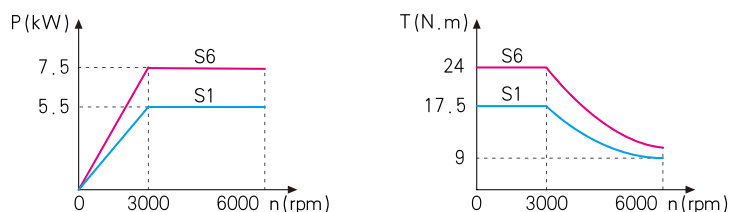




### ◆ Drawing of overall dimensions

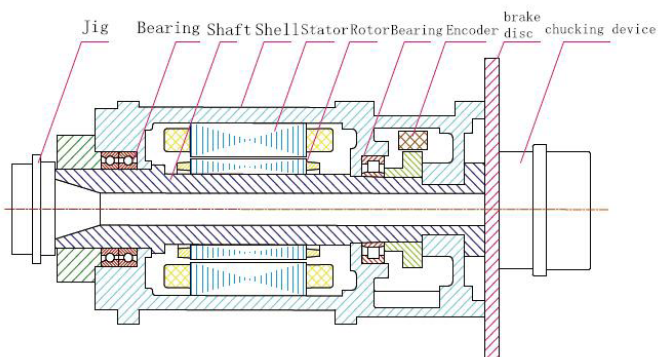


### ◆ Characteristic Curve



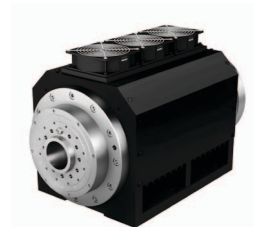
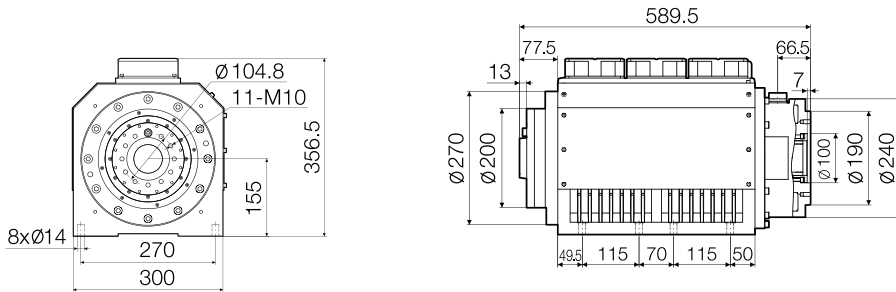
### ◆ Performance index

Model	A204WS
Motor type	PMSM
Connection method	Star-connection
Cooling method	Water cooling
Torque S1 (N.m)	17.5
Torque S6 (N.m)	24
Power S1 (kW)	5.5
Power S6 (kW)	7.5
Rated speed (rpm)	3000
Max speed (rpm)	6000
Rated Voltage (V)	380
Rated Current (A)	10.5
Rated frequency (Hz)	200
Encoder type	TTL 1VPP MODBUS
Tool connector	A2-4
Spindle hole	φ 46
Bearing lubrication method	Oil lubrication
Temperature sensor	PT3C-51F

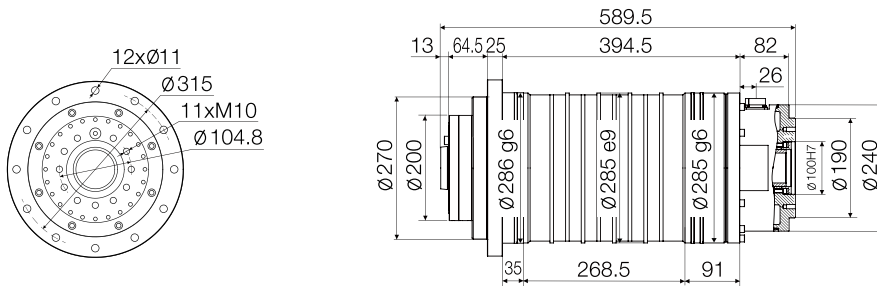




◆ A205FA Drawing of overall dimensions



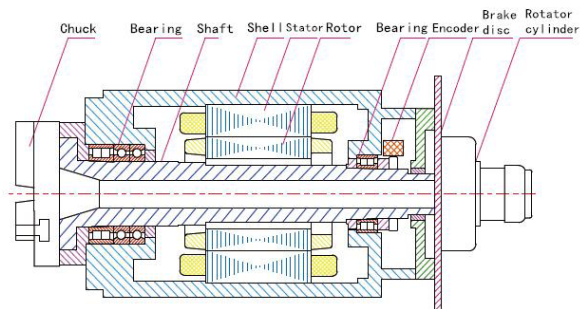
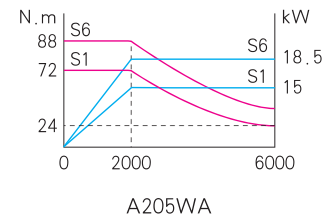
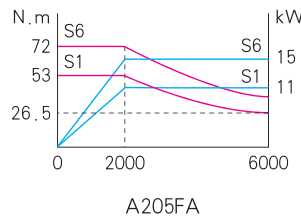
◆ A205WA Drawing of overall dimensions



◆ Performance index

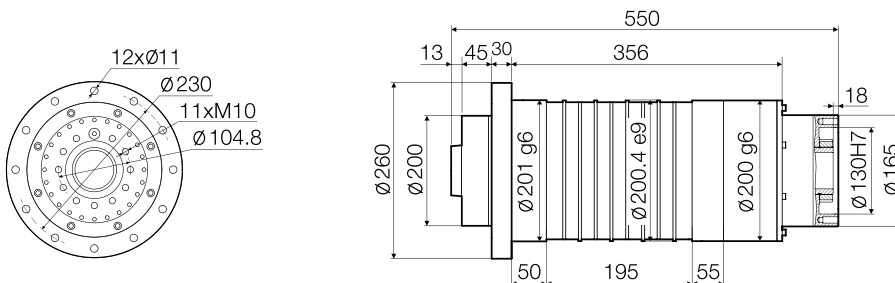
Model	A205FA	A205WA
Motor type	AC induction motor	
Connection method	Star-connection	
Cooling method	Air-cooling	Water cooling
Torque S1 (N·m)	53	72
Torque S6 (N·m)	72	89
Power S1 (kW)	11	15
Power S6 (kW)	15	18.5
Rated speed (rpm)	2000	2000
Max speed (rpm)	6000	6000
Rated Voltage (V)	380	380
Rated Current (A)	22	29
Rated frequency (Hz)	68.7	69.5
Encoder type	TTL 1VPP MODBUS	
Tool connector	A2-5	
Spindle hole	φ 57	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F	

◆ Characteristic Curve

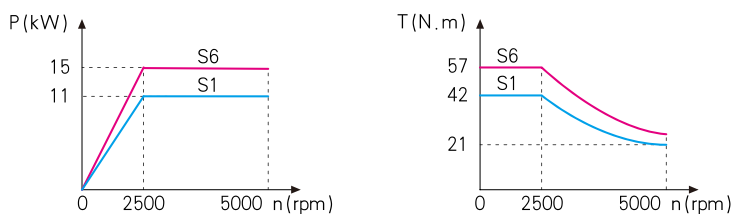




### ◆ Drawing of overall dimensions

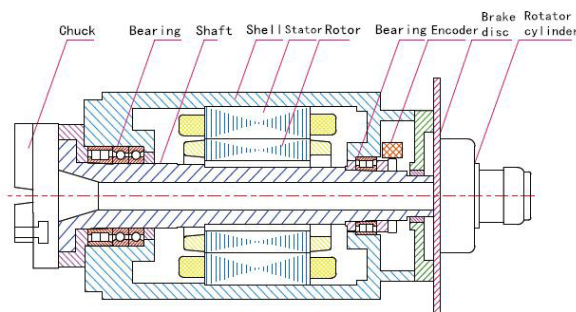


### ◆ Characteristic Curve



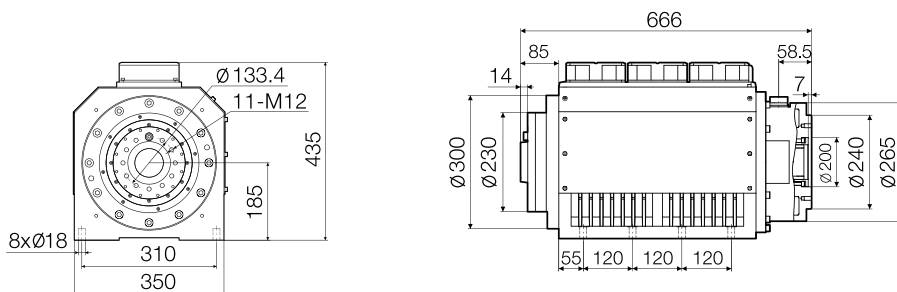
### ◆ Performance index

Model	A205WS
Motor type	PMSM
Connection method	Star-connection
Cooling method	Water cooling
Torque S1 (N.m)	42
Torque S6 (N.m)	57
Power S1 (kW)	11
Power S6 (kW)	15
Rated speed (rpm)	2500
Max speed (rpm)	5000
Rated Voltage (V)	380
Rated Current (A)	21
Rated frequency (Hz)	167
Encoder type	TTL 1VPP MODBUS
Tool connector	A2-5
Spindle hole	φ 57
Bearing lubrication method	Oil lubrication
Temperature sensor	PT3C-51F

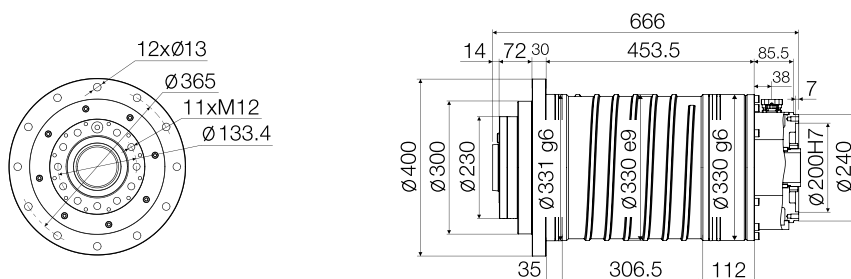




### ◆ A206FA Drawing of overall dimensions



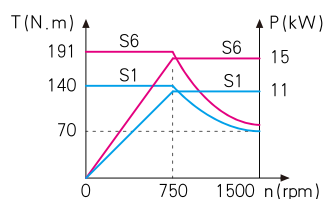
### ◆ A206WA Drawing of overall dimensions



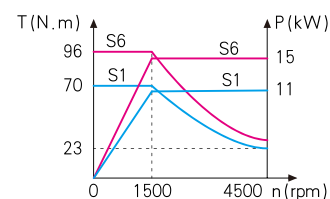
### ◆ Performance index

Model	A206FA	A206WA
Motor type	AC induction motor	
Connection method	Star-connection / Angle-connection	
Cooling method	Air-cooling	Water cooling
Torque S1 (N·m)	140	190
Torque S6 (N·m)	190	240
Power S1 (kW)	11	15
Power S6 (kW)	15	18.5
Rated speed (rpm)	750	750
Max speed (rpm)	4500	4500
Rated Voltage (V)	380	380
Rated Current (A)	21	29
Rated frequency (Hz)	26.5	26.9
Encoder type	TTL 1VPP MODBUS	
Tool connector	A2-6	
Spindle hole	φ 67	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F	

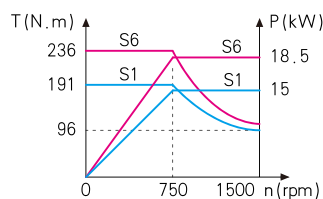
### ◆ Characteristic Curve



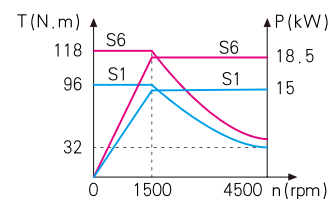
A206FA Star-connection



A206FA Angle-connection



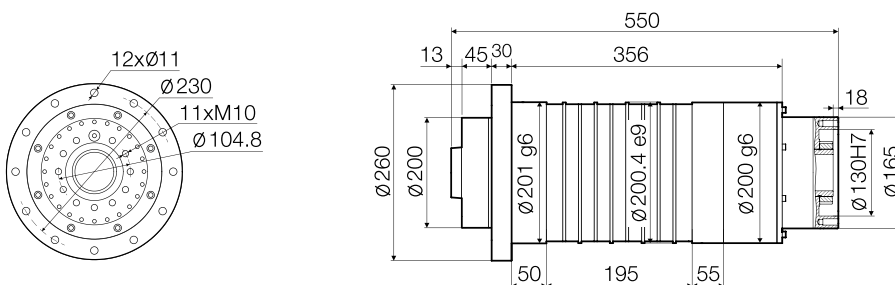
A206WA Star-connection



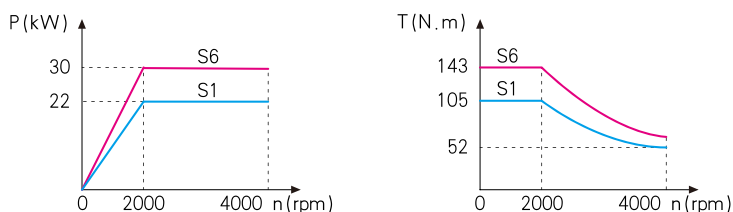
A206WA Angle-connection



### ◆ Drawing of overall dimensions

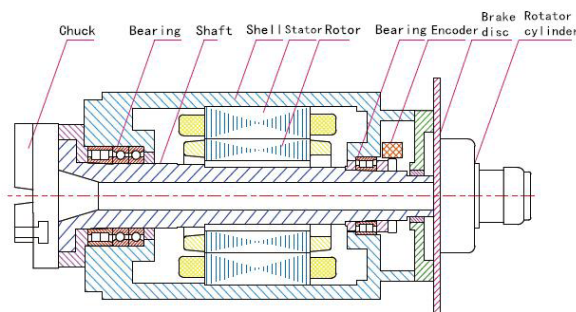


### ◆ Characteristic Curve



### ◆ Performance index

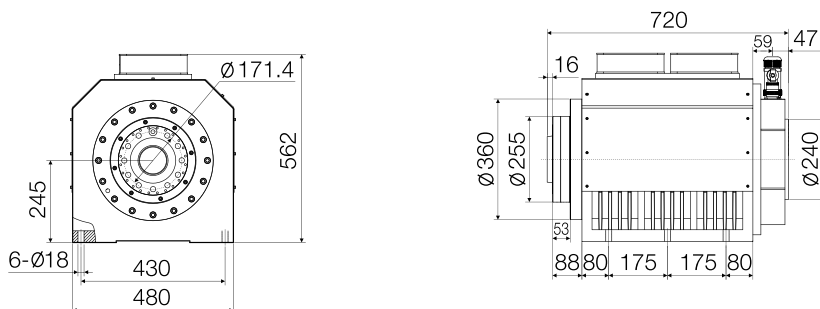
Model	A206WS
Motor type	PMSM
Connection method	Star-connection
Cooling method	Water cooling
Torque S1 (N.m)	105
Torque S6 (N.m)	143
Power S1 (kW)	22
Power S6 (kW)	30
Rated speed (rpm)	2000
Max speed (rpm)	4000
Rated Voltage (V)	380
Rated Current (A)	48
Rated frequency (Hz)	133
Encoder type	TTL 1VPP MODBUS
Tool connector	A2-6
Spindle hole	φ 67
Bearing lubrication method	Oil lubrication
Temperature sensor	PT3C-51F



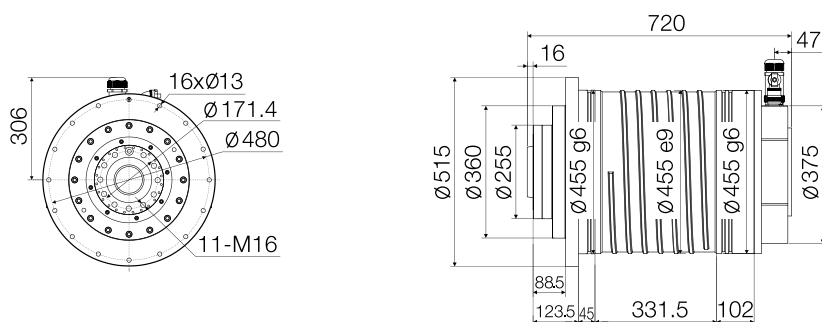




◆ A208FA Drawing of overall dimensions



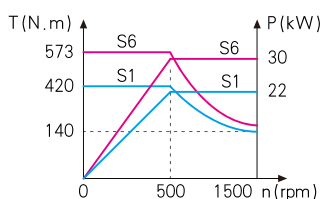
◆ A208WA Drawing of overall dimensions



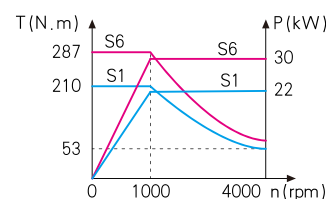
◆ Performance index

Model	A208FA	A208WA
Motor type	AC induction motor	
Connection method	Star-connection / Angle-connection	
Cooling method	Air-cooling	Water cooling
Torque S1 (N·m)	420	570
Torque S6 (N·m)	570	700
Power S1 (kW)	22	30
Power S6 (kW)	30	37
Rated speed (rpm)	500	500
Max speed (rpm)	4000	4000
Rated Voltage (V)	380	380
Rated Current (A)	41	56.4
Rated frequency (Hz)	25.8	26.1
Encoder type	TTL 1VPP MODBUS	
Tool connector	A2-8	
Spindle hole	φ 80	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F	

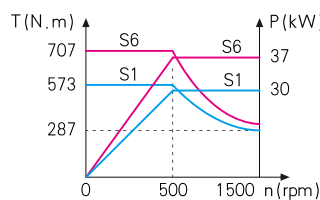
◆ Characteristic Curve



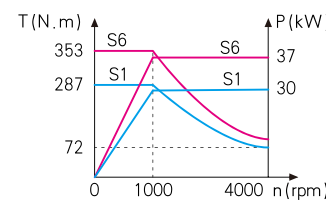
A208FA Star-connection



A208FA Angle-connection



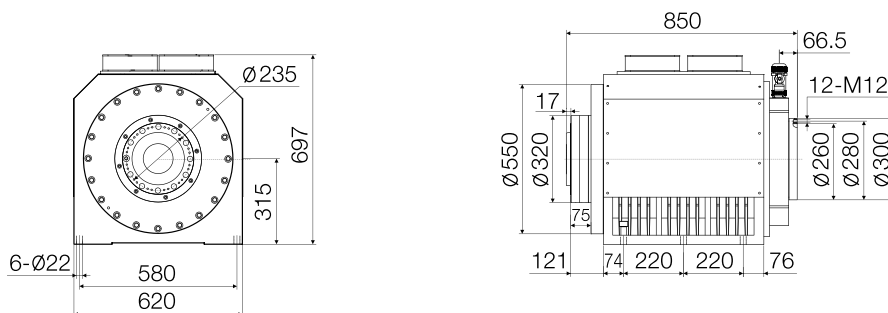
A208WA Star-connection



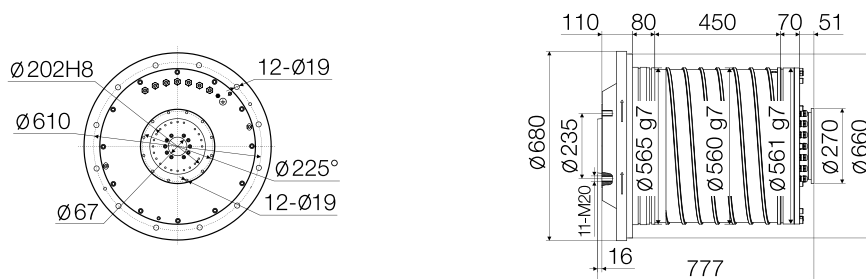
A208WA Angle-connection



◆ A211FA Drawing of overall dimensions



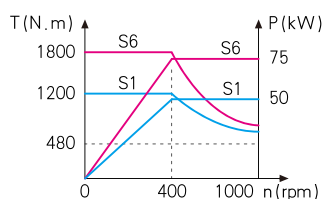
◆ A211WA Drawing of overall dimensions



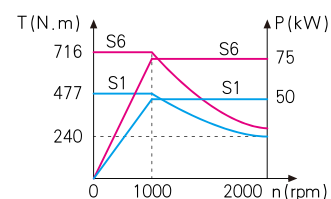
◆ Performance index

Model	A211FA	A211WA
Motor type	AC induction motor	
Connection method	Star-connection / Angle-connection	
Cooling method	Air-cooling	Water cooling
Torque S1 (N·m)	1200	1800
Torque S6 (N·m)	1430	2150
Power S1 (kW)	50	75
Power S6 (kW)	60	90
Rated speed (rpm)	400	400
Max speed (rpm)	2000	2000
Rated Voltage (V)	380	380
Rated Current (A)	91	141
Rated frequency (Hz)	21	21
Encoder type	TTL 1VPP MODBUS	
Tool connector	A2-11	
Spindle hole	φ 105	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F	

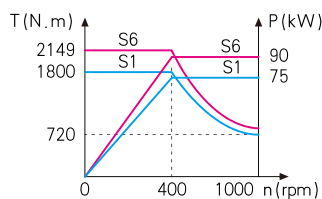
◆ Characteristic Curve



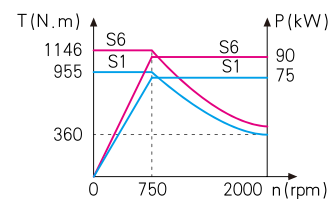
A211FA Star-connection



A211FA Angle-connection



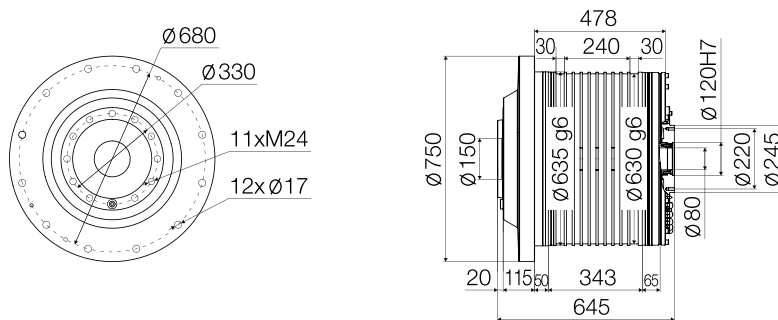
A211WA Star-connection



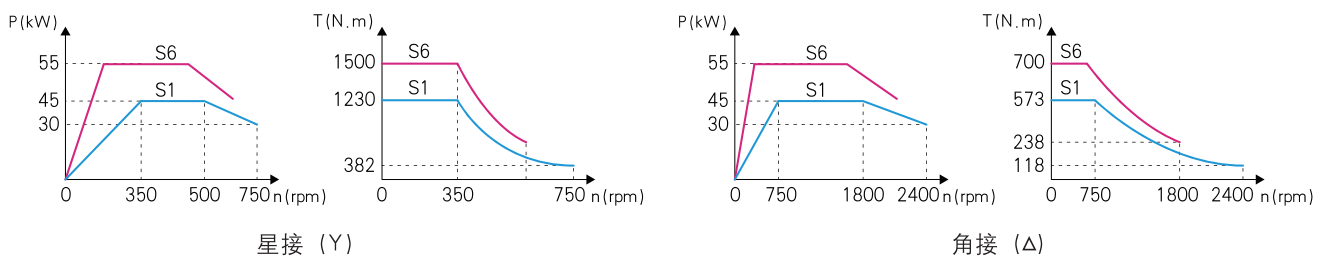
A211WA Angle-connection



### ◆ Drawing of overall dimensions

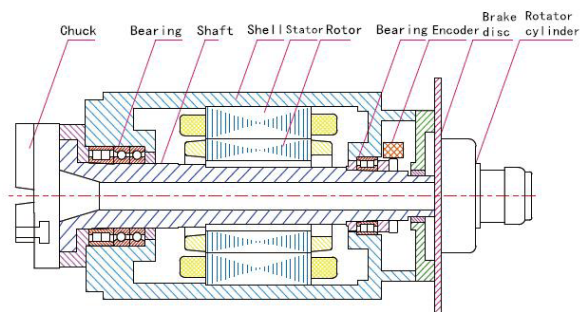


### ◆ Characteristic Curve



### ◆ Performance index

Model	A215WA	
Motor type	AC induction motor	
Connection method	Star-connection	Angle-connection
Cooling method	Water cooling	
Torque S1 (N.m)	1230	573
Torque S6 (N.m)	1500	700
Power S1 (kW)	45	45
Power S6 (kW)	55	55
Rated speed (rpm)	350	750
Max speed (rpm)	750	2400
Rated Voltage (V)	380	380
Rated Current (A)	95	88
Rated frequency (Hz)	24.2	50.5
Encoder type	TTL 1VPP MODBUS	
Tool connector	A2-15	
Spindle hole	$\varnothing 80$	
Bearing lubrication method	Oil lubrication	
Temperature sensor	PT3C-51F	



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