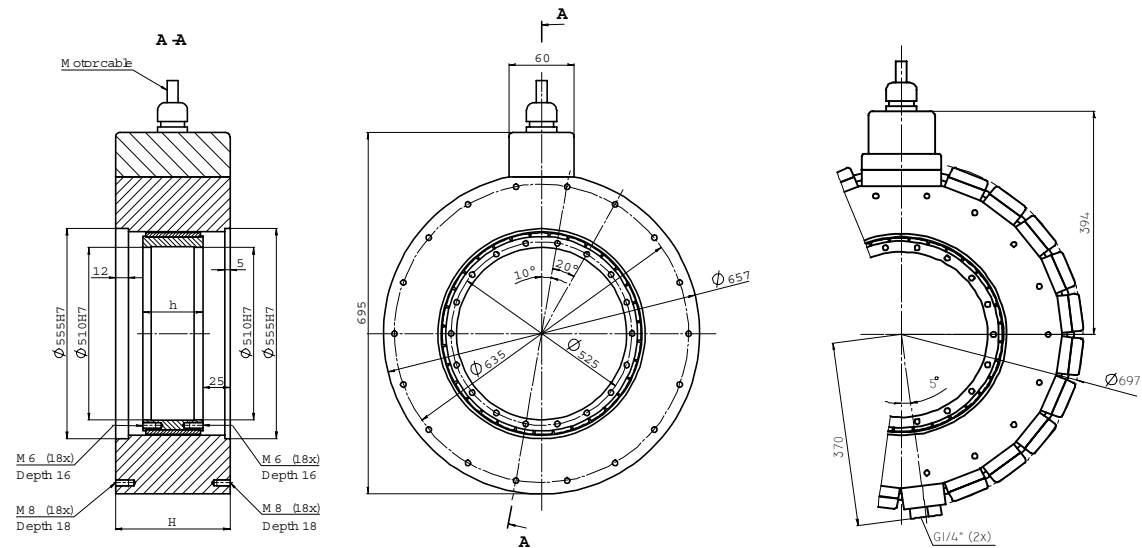


Torque motors RSM - P - 36 - 550 - ...

Notes:

1. Motor has peak torque at peak current I_P (2...3 sec)
2. Max temperature of rotor 70°C .
3. The stator has build-in threshold sensor for temperature 120°C .
4. Max. input pressure of liquid fluid - 1,1 bar
5. All data are subject to change without notice
6. All data tolerance $\pm 10\%$.



Overall and join dimensions

with water cooling

Parameter	Unit	RSM-P-36-550*25		RSM-P-36-550*50		RSM-P-36-550*75		RSM-P-36-550*100		RSM-P-36-550*150		
		B		B		B		B		B		
Peak torque (coil at 20°C)	Mp	Nm	839	1679	2518	3358	5037					
Continuous torque (coil at 120°C), water cooling	Mw	Nm	674	1348	2023	2697	4045					
Continuous stall torque (coil at 120°C), water cooling	Ms	Nm	527	1053	1580	2107	3160					
Continuous torque (coil at 120°C), air cooling	Ma	Nm	345	691	1036	1382	2072					
Detent torque	Md	Nm	3.4	6.7	10.1	13.4	20.1					
Rotor inertia	Jr	kgm^2	0.46	0.92	1.38	1.84	2.76					
Number of poles pairs	P		48	48	48	48	48					
Stator height	Hs	mm	80	105	130	155	205					
Motor mass ¹	m	kg	86.1	122	157.9	193.8	265.6					
Peak power dissipation (coil at 20°C)**	Pp	W	4319	6505	8722	10946	15401					
Continuous power dissipation (coil at 120°C), water cooling**	Pw	W	2664	3966	5295	6632	9312					
Continuous power dissipation (coil at 120°C), air cooling**	Pa	W	723	1018	1333	1652	2297					
Coolant flow for temperature difference 5°C by power Pw**	Cf	L/min	1.9	2.8	3.8	4.7	6.7					
Recommended supply voltage DC	Us	V	600	600	600	600	600					
3 phases winding combination			BS	BT	BS	BT	BS	BT	BS	BT	BS	BT
Maximum velocity at Mp and Us (Coil at 20°C)	Np	rpm	120	215	57	106	35	68	25	50	13	31
Maximum velocity at Mw and Us (Coil at 20°C)	Nw	rpm	141	250	68	124	43	81	30	59	17	37
Maximum velocity at Ma and Us (Coil at 20°C)	Na	rpm	189	328	93	165	60	109	44	81	28	52
Peak current at Mp and N=0	Ip	Arms	29.7	51.4	29.7	51.4	29.7	51.4	29.7	51.4	29.7	51.4
Continuous current at 120°C , water cooling at Mw and N=0	Iw	Arms	23.0	39.9	23.0	39.9	23.0	39.9	23.0	39.9	23.0	39.9
Continuous current at 120°C , air cooling at Ma and N=0	Ia	Arms	11.3	19.6	11.3	19.6	11.3	19.6	11.3	19.6	11.3	19.6
Motor constant (coil at 20°C)	Ko	$\text{Nm}/\sqrt{\text{W}}$	16.2		26.0		33.6		39.9		50.3	
Back EMF constant (*) (peak phase-phase)	Ku	$\text{V}/(\text{rad/s})$	24.9	14.4	49.8	28.7	74.7	43.1	99.5	57.5	149.3	86.2
Electrical resistance at 20°C (*)	R	Ohm	2.37	0.79	3.66	1.22	4.95	1.65	6.24	2.08	8.82	2.94
Electrical inductance (*)	L	mH	19.8	6.6	39.6	13.2	59.4	19.8	79.2	26.4	118.8	39.6

* terminal-terminal value ** for connection star ¹ Sum rotor and stator mass