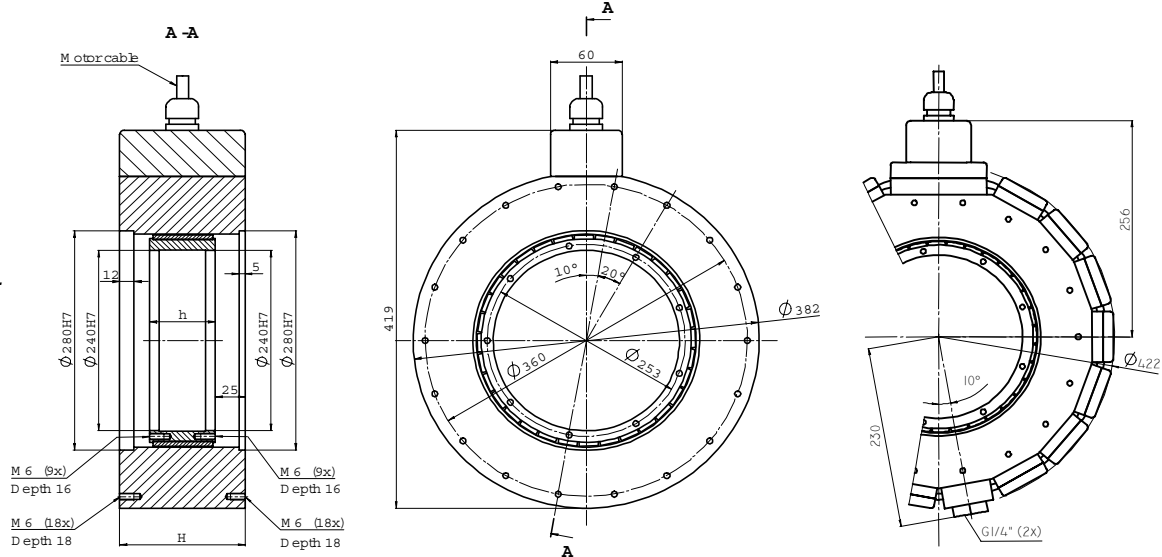


# Torque motors RSM - P - 36 – 275 - ...

## Notes:

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



Overall and joint dimensions

with water cooling

Parameter	Unit	RSM-P-36-275*25		RSM-P-36-275*50	RSM-P-36-275*75		RSM-P-36-275*100		RSM-P-36-275*150											
		F	B	B	B	A	B	A	B	A										
Peak torque (coil at 20°C)	Mp	210		420	630		839		1259											
Continuous torque (coil at 120°C), water cooling	Mw	175	169	337	506	506	674	674	1011	1011										
Continuous stall torque (coil at 120°C), water cooling	Ms	137	132	263	395	395	527	527	790	790										
Continuous torque (coil at 120°C), air cooling	Ma	90	86	173	259	259	345	345	518	518										
Detent torque	Md	0.8		1.7	2.5		3.4		5.0											
Rotor inertia	Jr	0.05		0.09	0.14		0.19		0.28											
Number of poles pairs	P	24		24	24		24		24											
Stator height	Hs	80		105	130		155		205											
Motor mass <sup>1</sup>	m	45.4		63.3	81.3		99.25		135.2											
Peak power dissipation (coil at 20°C)**	Pp	2065	2268	3337	4438	4514	5546	5619	7771	7840										
Continuous power dissipation (coil at 120°C), water cooling**	Pw	1378	1430	2059	2717	2785	3382	3447	4719	4780										
Continuous power dissipation (coil at 120°C), air cooling**	Pa	370	429	559	711	757	868	911	1188	1228										
Coolant flow for temperature difference 5°C by power Pw**	Cf	0.9	1.0	1.5	1.9	2.0	2.4	2.5	3.4	3.4										
Recommended supply voltage DC	Us	600		600	600		600		600											
3 phases winding combination		FS	FT	BS	BT	BS	BT	BS	BT	AS	AT	BS	BT	AS	AT	BS	BT	AS	AT	
Maximum velocity at Mp and Us (Coil at 20°C)	Np	226	405	498	600	246	435	161	289	248	437	117	214	184	327	73	139	118	215	
Maximum velocity at Mw and Us (Coil at 20°C)	Nw	259	461	578	600	288	506	189	337	290	507	139	251	215	381	88	163	140	252	
Maximum velocity at Ma and Us (Coil at 20°C)	Na	351	600	600	600	382	600	253	443	383	600	188	332	287	499	122	219	189	333	
Peak current at Mp and N=0	Ip	14.0	24.2	29.7	51.4	29.7	51.4	29.7	51.4	44.5	77.1	29.7	51.4	44.5	77.1	29.7	51.4	44.5	77.1	
Continuous current at 120°C, water cooling at Mw and N=0	Iw	11.3	19.6	23.0	39.9	23.0	39.9	23.0	39.9	34.6	59.9	23.0	39.9	34.6	59.9	23.0	39.9	34.6	59.9	
Continuous current at 120°C, air cooling at Ma and N=0	Ia	5.6	9.6	11.3	19.6	11.3	19.6	11.3	19.6	17.0	29.4	11.3	19.6	17.0	29.4	11.3	19.6	17.0	29.4	
Motor constant (coil at 20°C)	Ko	5.8		5.7	9.2		11.9		14.1		17.8									
Back EMF constant (*) (peak phase-phase)	Ku	13.2	7.6	6.2	3.6	12.4	7.2	18.7	10.8	12.4	7.2	24.9	14.4	16.6	9.6	37.3	21.6	24.9	14.4	
Electrical resistance at 20°C (*)	R	5.13	1.71	1.19	0.40	1.83	0.61	2.47	0.82	1.10	0.37	3.12	1.04	1.39	0.46	4.41	1.47	1.96	0.65	
Electrical inductance (*)	L	44.7	14.9	9.9	3.3	19.8	6.6	29.7	9.9	13.2	4.4	39.6	13.2	17.6	5.9	59.4	19.8	26.4	8.8	

\* terminal-terminal value \*\* for connection star <sup>1</sup> Sum rotor and stator mass