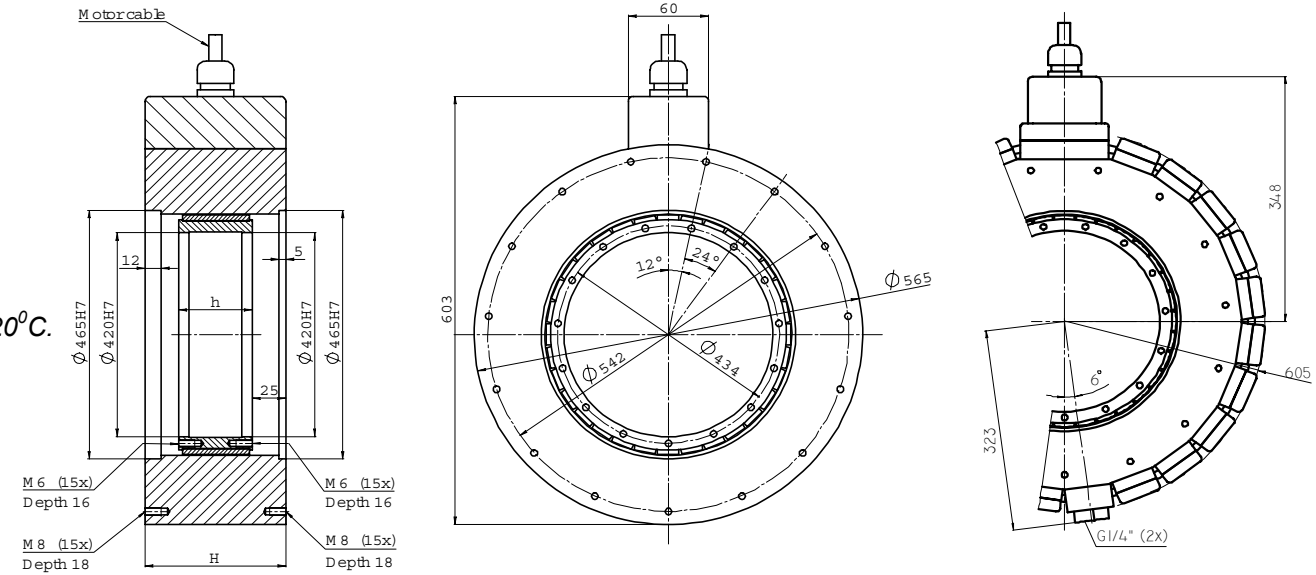
Torque motors RSM - P -36 - 458 - …

Notes:

1. *Motor has peak torque at peak current I_P (2…3 sec)*
2. *Max temperature of rotor 70^0C.*
3. *The stator has build-in threshold sensor for temperature 120^0C.*
4. *Max. input pressure of liquid fluid - 1,1 bar*
5. *All data are subject to change without notice*
6. *All data tolerance ±10%.*



Overall and join dimensions **with water cooling**

		Unit	RSM-P-36-458*25		RSM-P-36-458*50		RSM-P-36-458*75		RSM-P-36-458*100				RSM-P-36-458*150	
Parameter			B		B		B		B		A		B	
Peak torque (coil at 20ºC)	Mp	Nm	583		1166		1749		2332				3498	
Continuous torque (coil at 120ºC), water cooling	Mw	Nm	468		936		1405		1873				2809	
Continuous stall torque (coil at 120ºC), water cooling	Ms	Nm	366		732		1097		1463				2195	
Continuous torque (coil at 120ºC), air cooling	Ma	Nm	240		480		720		959				1439	
Detent torque	Md	Nm	2.3		4.7		7.0		9.3				14.0	
Rotor inertia	Jr	kgm^2	0.25		0.50		0.75		1.00				1.51	
Number of poles pairs	P		40		40		40		40				40	
Stator height	Hs	mm	80		105		130		155				205	
Motor mass[1]	m	kg	72.1		101.8		131.4		161.1				220.5	
Peak power dissipation (coil at 20ºC)**	Pp	W	3636		5449		7294		9147		9220		12859	
Continuous power dissipation (coil at 120ºC), water cooling**	Pw	W	2253		3330		4436		5549		5614		7781	
Continuous power dissipation (coil at 120ºC), air cooling**	Pa	W	625		865		1125		1391		1433		1927	
Coolant flow for temperature difference 5ºC by power Pw**	Cf	L/min	1.6		2.4		3.2		4.0		4.0		5.6	
Recommended supply voltage DC	Us	V	600		600		600		600		600		600	
3 phases winding combination			**BS**	**BT**	**BS**	**BT**	**BS**	**BT**	**BS**	**BT**	**AS**	**AT**	**BS**	**BT**
Maximum velocity at Mp and Us (Coil at 20ºC)	Np	rpm	176	311	85	154	53	101	38	73	62	115	22	46
Maximum velocity at Mw and Us (Coil at 20ºC)	Nw	rpm	206	361	100	180	64	118	46	87	74	135	27	55
Maximum velocity at Ma and Us (Coil at 20ºC)	Na	rpm	273	471	135	238	88	158	65	117	101	179	41	76
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	44.5	77.1	29.7	51.4
Continuos current at 120ºC, 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	34.6	59.9	23.0	39.9
Continuos current at 120ºC, 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	17.0	29.4	11.3	19.6
Motor constant (coil at 20ºC)	Ko	Nm/√W	12.3		19.8		25.5		30.3				38.3	
Back EMF constant (*) (peak phase-phase)	Ku	V/(rad/s)	17.3	10.0	34.6	20.0	51.8	29.9	69.1	39.9	46.1	26.6	103.7	59.9
Electrical resistance at 20ºC (*)	R	Ohm	1.98	0.66	3.05	1.02	4.12	1.37	5.20	1.73	2.31	0.77	7.35	2.45
Electrical inductance (*)	L	mH	16.5	5.5	33.0	11.0	49.5	16.5	66.0	22.0	29.3	9.8	99.0	33.0

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

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