

Synchronous servo motors ↔

IndraDyn S

MSK - synchronous servo motor with self-cooling



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- Project planning manual
- Project planning manual for potentially explosive areas



- Self-cooling
- Maximum torques up to 495 Nm
- Maximum speeds up to 9,000 rpm
- Encoder systems for a wide and diverse range of applications
- High degree of protection IP65
- Optional ATEX version conforming to equipment group II, category 3, G and D

Technical data**Electrical data**

Type	Maximum-speed n_{Max} [1/min]	Standstill torque		Maximum-torque M_{Max} [Nm]	Standstill current		Maximum current I_{Max} [A]	Moment of inertia J [kgm ²]
		60K	100K		60K	100K		
		M_0	M_0		I_0	I_0		
		[Nm]	[Nm]		[A]	[A]		
MSK030B-0900	9,000	0.4	0.45	1.8	1.5	1.7	6.8	0.00013
MSK030C-0900		0.8	0.9	4				0.00003
MSK040B-0450	6,000	1.7	1.9	5.1	2	2.2	8	0.0001
MSK040B-0600	7,500							
MSK040C-0450	6,000	2.7	3.1	8.1	3.1	4.7	12.4	0.00014
MSK040C-0600	7,500							
MSK043C-0600				12.5				
MSK050B-0300	4,300	3	3.4	9	1.8	2	7.2	0.00028
MSK050B-0450	6,000				2.8	3.2	11.2	
MSK050B-0600					3.7	4.2	14.8	
MSK050C-0300	4,700	5	5.5	15	3.1	3.4	12.4	0.00033
MSK050C-0450	6,000				4.7	5.2	18.8	
MSK050C-0600					6.2	6.8	24.8	
MSK060B-0300	4,800	8	8.8	24	3	3.3	12	0.00048
MSK060B-0600	6,000				6.1	6.7	24.4	
MSK060C-0300	4,900				4.8	5.3	19.2	
MSK060C-0600	6,000	9.5	10.5	38	0.0008			
MSK061B-0300	4,200	3.5	3.9	14	1.9	2.1	8.6	0.00044
MSK061C-0200	3,100	8	9	32	3.2	3.6	14.4	0.000752
MSK061C-0300	4,200				4.3	4.8	19.4	
MSK061C-0600	6,000				7.7	8.7	34.7	
MSK070C-0150	2,500	13	14.5	33	4.1	4.6	12.6	0.00291
MSK070C-0300	5,500				8.2	9.2	25	
MSK070C-0450	6,000				12.3	13.7	36.9	

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Type	Maximum-speed	Standstill torque		Maximum-torque	Standstill current		Maximum current	Moment of inertia
	n_{Max} [1/min]	60K	100K	M_{Max} [Nm]	60K	100K	I_{Max} [A]	J [kgm ²]
		M_0 [Nm]	M_0 [Nm]		I_0 [A]	I_0 [A]		
MSK070D-0150	2,700	17.5	20	52.5	6.2	7.1	24.8	0.00375
MSK070D-0300	4,900				11	12.6	33	
MSK070D-0450	6,000				16.6	22	49.8	
MSK070E-0150	2,200	23	25	70	6.4	7	25.6	0.00458
MSK070E-0300	5,300			65	15.4	16.7	49.3	
MSK070E-0450	6,000			60	19.3	21	57.9	
MSK071C-0200	3,500	12	14	44	5.2	6.1	23.4	0.00173
MSK071C-0300	5,000				7.3	8.5	32.9	
MSK071C-0450	5,800				8.9	10.4	40.1	
MSK071D-0200	3,200	17.5	20	66	7.3	8.6	32.8	0.0023
MSK071D-0300	3,800				9.1	10.7	40.5	
MSK071D-0450	6,000				15.4	17.6	69.3	
MSK071E-0200	3,400	23	28	84	10.1	12.6	45.5	0.0029
MSK071E-0300	4,200				12.5	15.2	56.3	
MSK071E-0450	6,000				20	24.4	90.1	
MSK075C-0200	4,100	12	12.5	44	6.3	7.3	28.4	0.00352
MSK075C-0300	5,000				8.4	8.8	37.8	
MSK075C-0450	6,000				12.6	13.1	56.7	
MSK075D-0200	3,800	17	18.5	64	8.3	9	37.4	0.0049
MSK075D-0300	4,800			66	11.7	12.7	52.7	
MSK075D-0450	6,000			64	16.5	18	74.3	
MSK075E-0200	3,850	21	23	88	10.2	11.2	45.9	0.00613
MSK075E-0300	5,200				14.2	15.6	63.9	
MSK075E-0450	6,000				18.6	20.4	83.7	
MSK076C-0300	4,700	12	13.5	43.5	7.2	8.1	32.4	0.0043
MSK076C-0450	5,000				12.2	13.7	54.9	
MSK100A-0200	4,400	15	17	54	9.2	10.4	41.4	0.011
MSK100A-0300	5,200				10.2	11.6	45.9	
MSK100A-0450	6,000				12	13.6	54	
MSK100B-0200	4,100	28	33	102	14.7	17.3	66.2	0.0192
MSK100B-0300	4,500				17.4	20.5	78.3	
MSK100B-0400					24.5	29.5	106.7	
MSK100B-0450					28.5	33.6	110.7	
MSK100C-0200	3,500	38	43.5	148	17.7	20.3	79.7	0.0273
MSK100C-0300	4,500				21.6	27	97.2	
MSK100C-0450	4,000				35.4	43.5	159.3	
MSK100D-0200	2,000	48	57	187	13	15.4	58.5	0.035
MSK100D-0300	3,000				20.7	24.8	93.2	
MSK100D-0350					185	29.9	35.5	

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Type	Maximum-speed	Standstill torque		Maximum-torque	Standstill current		Maximum current	Moment of inertia
		60K	100K		60K	100K		
	n_{Max}	M_0	M_0	M_{Max}	I_0	I_0	I_{Max}	J
	[1/min]	[Nm]	[Nm]	[Nm]	[A]	[A]	[A]	[kgm ²]
MSK101C-0200	3,300	32	36.5	110	14.9	17	67.1	0.0065
MSK101C-0300	4,500				18.7	21.3	84.2	
MSK101C-0450	5,800				25.1	28.6	113	
MSK101D-0200	3,400	50	57	160	22.2	26.8	99.9	0.00932
MSK101D-0300	4,600				30.6	34.9	137.7	
MSK101D-0450	6,000				41.7	50.6	187.7	
MSK101E-0200	3,500	70	80.5	231	32.1	39	144.5	0.0138
MSK101E-0300	4,600				41.6	47.8	187.4	
MSK101E-0450	6,000				58.3	67.6	262.4	
MSK103A-0300	4,800	21	24	51	12.5	14.3	40	0.00442
MSK103B-0300	4,700	28	31	85	17	19	63	0.00594
MSK103D-0300	4,600	46	53	138	26.3	30.8	94.7	0.00894
MSK131B-0200	3,200	85		250	36.7		165	0.0232
MSK131D-0200	3,000	160		495			65.2	293.4

All information is based on the basic version of the motor with encoder S1, without holding brake.
Values at 750 V intermediate circuit voltage

Dimensions

Type	A	B	C	Ø D	Ø E	Ø F	Ø G	H	Weight
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
MSK030B-0900	54	152.5	20	9	40	63	4.5	98.5	1.3
MSK030C-0900		188							1.9
MSK040B-0450	82	155.5	30	14	50	95	6.6	124.5	2.8
MSK040B-0600									2.8
MSK040C-0450		185.5							3.6
MSK040C-0600									3.6
MSK043C-0600									3.6

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Type	A [mm]	B [mm]	C [mm]	Ø D [mm]	Ø E [mm]	Ø F [mm]	Ø G [mm]	H [mm]	Weight [kg]
MSK050B-0300	98	173	40	19	95	115	9	134.5	4
MSK050B-0450									4
MSK050B-0600									4
MSK050C-0300		203							5.4
MSK050C-0450									5.4
MSK050C-0600									5.4
MSK060B-0300	116	181	50	24	130	9	156	5.7	
MSK060B-0600		5.7							
MSK060C-0300		226						8.4	
MSK060C-0600								8.4	
MSK061B-0300		223	40	19				5.7	
MSK061C-0200		264						8.3	
MSK061C-0300								8.3	
MSK061C-0600								8.3	

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Type	A [mm]	B [mm]	C [mm]	Ø D [mm]	Ø E [mm]	Ø F [mm]	Ø G [mm]	H [mm]	Weight [kg]					
MSK070C-0150	140	238	58	32	130	165	11	202	11.7					
MSK070C-0300									11.7					
MSK070C-0450									11.7					
MSK070D-0150		268							14					
MSK070D-0300									14					
MSK070D-0450									14					
MSK070E-0150		298							16.2					
MSK070E-0300									16.2					
MSK070E-0450									16.2					
MSK071C-0200		272							13.9					
MSK071C-0300									13.9					
MSK071C-0450									13.9					
MSK071D-0200		312							18					
MSK071D-0300									18					
MSK071D-0450									18					
MSK071E-0200		352							23.5					
MSK071E-0300									23.5					
MSK071E-0450									23.5					
MSK075C-0200		307							14.8					
MSK075C-0300									14.8					
MSK075C-0450									14.8					
MSK075D-0200		347							19					
MSK075D-0300									19					
MSK075D-0450									19					
MSK075E-0200		387							22.5					
MSK075E-0300									22.5					
MSK075E-0450									22.5					
MSK076C-0300		292.5						50	24	110				13.8
MSK076C-0450														13.8

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Type	A [mm]	B [mm]	C [mm]	Ø D [mm]	Ø E [mm]	Ø F [mm]	Ø G [mm]	H [mm]	Weight [kg]	
MSK100A-0200	192	302	60	32	130	215	14	262	23	
MSK100A-0300									23	
MSK100A-0450									23	
MSK100B-0200		368							34	
MSK100B-0300									34	
MSK100B-0400									34	
MSK100B-0450		434							34	
MSK100C-0200									45.1	
MSK100C-0300									45.1	
MSK100C-0450		45.1								
MSK100D-0200		502	56							
MSK100D-0300			56							
MSK100D-0350			56							
MSK101C-0200		192	349	80	38	180	215	14	262	28.3
MSK101C-0300										28.3
MSK101C-0450										28.3
MSK101D-0200			410							40
MSK101D-0300										40
MSK101D-0450										40
MSK101E-0200			501							53.5
MSK101E-0300	53.5									
MSK101E-0450	53.5									
MSK103A-0300	186		18							
MSK103B-0300		255	22.5							
MSK103D-0300			31.6							
MSK131B-0200	260	470	110	48	250	300	18	337	84	
MSK131D-0200		610							116	

All information is based on the basic version of the motor with encoder S1, without holding brake.

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