

ASM Family of brushless Servomotors for low voltage (24Vdc /48Vdc)

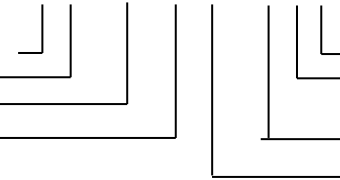


- No. of poles: 6
- Feedback: encoder (E) (2048 lines, TTL) with Hall-simulation
 optional: resolver (R), absolute encoder (A) t.b.d.
- Protection: IP64, optional IP65 w/o (V) or with (W) shaft seal
- Electrical connections: straight screw connectors (Intercontec), optional rotatable angular connectors, (ASM1: 0.3m cable with connector or flying leads)
- Thermal motor protection: PTC, optional: thermal switch 145° C, PT1000 or NTC
- Shaft w/o key, optional key DIN 6885 (P)
- Options: cable (K), customized versions

Designation:

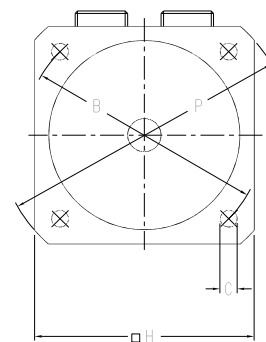
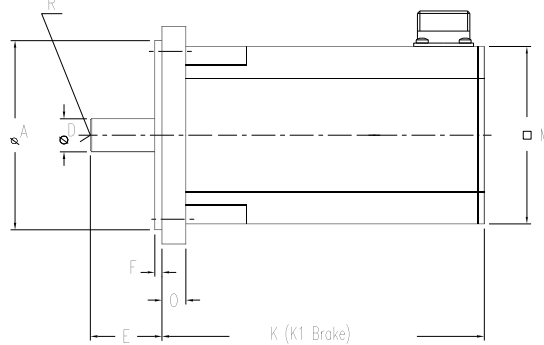
Family: ASM = Actronic Servo
 Frame Size: 1, 2, 3
 Holding torque in Ncm
 Nominal speed ÷ 100 in rpm

ASM2-0130-30-320-E/T1B



Brake: B = Holding brake, 24Vdc
 Thermal protection Tx: 0=switch, 1=PTC
 2=NTC, 15=PT1000
 Encoder with HE, R=Resolver A=Absolute
 Nominal bus voltage in Vdc

Dimensions (mm):



	A _{j6}	B	C	D _{k6}	E	F	H	K		K1	M	O	P	R
								Encoder	Resolver					
ASM1-0010	25	32	4x M3x7	6h6	16	2	37	tbd	81	+30	37			--
ASM1-0020	25	32	4x M3x7	6h6	16	2	37	tbd	96	+30	37			--
ASM1-0030	25	32	4x M3x7	6h6	16	2	37	tbd	111	+30	37			--
ASM2-0020	40	63	5.8	9	24	2.5	55	120.5	98	+33	50	7	74	--
ASM2-0040	40	63	5.8	9	24	2.5	55	135.5	113	+33	50	7	74	--
ASM2-0060	40	63	5.8	9	24	2.5	55	150.5	128	+33	50	7	74	--
ASM2-0080	40	63	5.8	9	24	2.5	55	165.5	143	+33	50	7	74	--
ASM3-0065	80	100	7	14	30	3	88	122	109	+33	74	11	115	M4x10
ASM3-0130	80	100	7	14	30	3	88	140	127	+33	74	11	115	M4x10
ASM3-0190	80	100	7	14	30	3	88	158	145	+33	74	11	115	M4x10
ASM3-0250	80	100	7	14	30	3	88	176	163	+33	74	11	115	M4x10

Winding data for operation at 24Vdc bus voltage:

Motor model	Nominal torque	Nominal current	Nominal speed	Peak torque	Peak current	Voltage constant	Torque constant	Resistance (Ph.-Ph.)	Inductance (Ph.-Ph.)	Rotor inertia	Weight (w/o brake)
	M_n	I_n	n_n	M_{max}	I_{max}	K_E	K_T	R_{2ph}	L_{2ph}	J	m
	Nm	$A_{eff.}$	min^{-1}	Nm	$A_{eff.}$	$V_{dc}/1000$	Nm/ $A_{eff.}$	Ω	mH	$kgcm^2$	kg
ASM1-0010-40-24	0.10	3.8	4000	0.32	12.0	2.40	0.03	1.04	0.18	0.06	0.37
ASM1-0010-60-24	0.09	4.3	6000	0.38	17.4	1.98	0.02	0.71	0.12	0.06	0.37
ASM1-0020-30-24	0.20	4.6	3000	0.74	17.4	3.96	0.05	0.71	0.17	0.08	0.45
ASM1-0020-40-24	0.20	6.0	4000	0.76	23.0	2.97	0.03	0.53	0.12	0.08	0.45
ASM1-0020-60-24	0.18	6.9	6000	0.8	30.9	2.40	0.03	0.34	0.08	0.08	0.45
ASM1-0030-40-24	0.29	8.1	4000	1.20	34.8	3.11	0.04	0.32	0.08	0.10	0.53
ASM2-0020-30-24	0.19	5.43	3000	0.68	19.0	3.25	0.04	0.65	0.40	0.06	0.90
ASM2-0040-30-24	0.38	7.0	3000	1.56	29.4	4.81	0.06	0.42	0.36	0.08	1.06
ASM2-0060-30-24	0.57	9.73	3000	2.35	41.3	5.37	0.06	0.30	0.28	0.11	1.21
ASM2-0080-30-24	0.76	14.6	3000	3.2	63.4	4.67	0.05	0.16	0.16	0.13	1.36
ASM3-0065-30-24	0.60	12.1	3000	2.6	52.8	4.52	0.05	0.21	0.25	0.50	1.75

Winding data for operation at 48Vdc bus voltage:

Motor model	Nominal torque	Nominal current	Nominal speed	Peak torque	Peak current	Voltage constant	Torque constant	Resistance (Ph.-Ph.)	Inductance (Ph.-Ph.)	Rotor inertia	Weight (w/o brake)
	M_n	I_n	n_n	M_{max}	I_{max}	K_E	K_T	R_{2ph}	L_{2ph}	J	m
	Nm	$A_{eff.}$	min^{-1}	Nm	$A_{eff.}$	$V_{dc}/1000$	Nm/ $A_{eff.}$	Ω	mH	$kgcm^2$	kg
ASM1-0010-30-48	0.10	1.72	3000	0.29	4.8	5.37	0.06	5.17	0.86	0.06	0.37
ASM1-0010-40-48	0.10	2.1	4000	0.36	7.4	4.38	0.05	3.34	0.59	0.06	0.37
ASM1-0010-60-48	0.09	2.5	6000	0.40	11.1	3.39	0.04	2.03	0.34	0.06	0.37
ASM1-0020-40-48	0.20	3.2	4000	0.8	12.9	5.66	0.07	1.92	0.44	0.08	0.45
ASM1-0020-60-48	0.18	3.7	6000	0.8	16.5	4.53	0.05	1.18	0.27	0.08	0.45
ASM1-0030-40-48	0.29	3.8	4000	1.20	16.2	6.79	0.08	1.43	0.40	0.10	0.53
ASM2-0040-30-48	0.38	4.3	3000	1.6	18.6	7.92	0.09	1.12	0.95	0.08	1.06
ASM2-0080-30-48	0.76	6.9	3000	3.2	29.9	9.90	0.12	0.63	0.65	0.13	1.36
ASM3-0130-30-48	1.15	9.9	3000	5.2	45.2	10.61	0.12	0.32	0.54	0.65	2.25
ASM3-0130-60-48	1.00	17.49	6000	5.2	90.4	5.23	0.06	0.08	0.14	0.65	2.25
ASM3-0190-30-48	1.60	14.6	3000	7.6	70.6	9.90	0.12	0.15	0.30	0.92	2.70
ASM3-0250-30-48	2.15	14.6	3000	10.0	69.5	13.3	0.15	0.18	0.40	1.40	3.20

Other windings (also for low voltage) on request.

Connector pinout:

Power (8 pole, Size 1)	TTL-Encoder (17 pin)		Resolver (12 pin)	
1, 4, 3	U, V, W	10, 7	+5V, 0V	8, 4 S1 (sin +), S3 (sin-)
2	ground	3, 4	A, /A	7, 3 S2 (cos +), S4 (cos-)
A, B	brake + / -	1, 2	B, /B	9, 5 R1, R2 (Speisung + / -)
		5, 6	Z, /Z	2, 6 thermal protection TH+/TH-
		8, 9	thermal protection TH+/TH-	
		15/12, 16/13, 17/14	Halls (U /U, V /V, W /W)	