

ASP Family of brushless Servomotors with concentrated windings (ASP2 to ASP4)



- No. of poles: 6 (ASP2) or 10 (from ASP3)
- 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
- 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

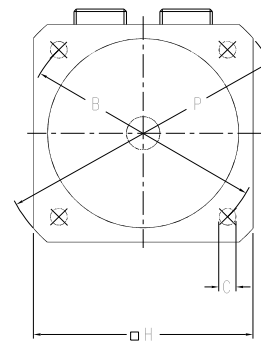
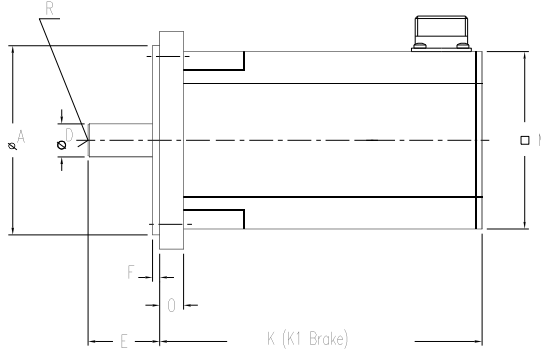
Designation:

ASP3-0095-45-320-E/T1B

Family: ASP = Actronic Servo
 Frame Size: 5, 6, 7
 Holding torque in Ncm
 Nominal speed ÷ 100 in rpm

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					
ASP2-0028	40	63	5.8	9	20	2.5	55	94	67	+38	50	6	74	M3x8
ASP2-0054	40	63	5.8	9	20	2.5	55	109	82	+38	50	6	74	M3x8
ASP2-0075	40	63	5.8	9	20	2.5	55	124	97	+38	50	6	74	M3x8
ASP2-0095	40	63	5.8	9	20	2.5	55	139	112	+38	50	6	74	M3x8
ASP3-0115	80	100	7	14	30	3	86	99	82	+38	74	11	115	M4x10
ASP3-0205	80	100	7	14	30	3	86	117	100	+38	74	11	115	M4x10
ASP3-0350	80	100	7	14	30	3	86	153	136	+38	74	11	115	M4x10
ASP3-0480	80	100	7	14	30	3	86	189	172	+38	74	11	115	M4x10
ASP4-0510	95	115	9	19	40	3	98	132	113	+41	98	14	130	M5x14
ASP4-0750	95	115	9	19	40	3	98	162	143	+41	98	14	130	M5x14
ASP4-0960	95	115	9	19	40	3	98	192	173	+41	98	14	130	M5x14
ASP4-1130	95	115	9	19	40	3	98	222	203	+41	98	14	130	M5x14

Winding data for operation at 90 to 320Vdc 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
ASP2-0028-45-320	0.25	0.96	4500	1.1	4.5	24.7	0.29	28.3	28.4	0.05	0.76
ASP2-0054-45-320	0.48	1.12	4500	2.2	5.4	39.6	0.46	25.9	32.3	0.07	0.93
ASP2-0075-45-320	0.68	1.48	4500	3.0	7.1	41.7	0.49	17.0	22.7	0.09	1.10
ASP2-0095-45-320	0.85	1.70	4500	3.8	8.4	44.5	0.52	13.1	19.0	0.11	1.27
ASP3-0115-30-320	1.13	2.3	3000	3.5	9.2	48.8	0.57	8.4	18.0	0.31	1.5
ASP3-0205-30-320	1.90	3.1	3000	6.2	12.7	62.9	0.74	5.4	13.3	0.55	2.0
ASP3-0350-30-320	3.0	4.3	3000	10.5	19.4	70.7	0.83	2.8	8.1	1.04	2.9
ASP3-0480-30-320	3.7	4.5	3000	14.4	17.3	84.9	0.99	2.5	7.5	1.52	3.8
ASP4-0510-30-320	4.2	7.0	3000	15.3	31.0	64.3	0.75	1.24	6.8	2.04	3.8
ASP4-0750-30-320	6.1	8.8	3000	22.5	40.7	72.1	0.84	0.79	4.8	3.26	5.1
ASP4-0960-30-320	7.7	10.8	3000	28.8	49.2	76.4	0.89	0.62	3.6	4.49	6.4
ASP4-1130-30-320	8.8	10.7	3000	34.0	41.0	87.7	1.03	0.61	3.8	5.70	7.7

Winding data for operation at 320 to 680Vdc 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
ASP2-0028-45-560	0.25	0.96	4500	1.1	4.5	24.7	0.29	28.3	28.4	0.05	0.76
ASP2-0054-45-560	0.48	0.90	4500	2.2	4.3	49.5	0.58	41.1	51.0	0.07	0.93
ASP2-0075-45-560	0.68	0.83	4500	3.0	3.9	74.9	0.88	54.0	72.0	0.09	1.10
ASP2-0095-45-560	0.85	1.07	4500	3.8	5.3	70.7	0.83	33.6	48.5	0.11	1.27
ASP3-0115-30-560	1.13	1.3	3000	3.5	5.0	89.1	1.04	27.8	59.3	0.31	1.5
ASP3-0205-30-560	1.90	1.7	3000	6.2	7.2	111.7	1.31	17.3	42.4	0.55	2.0
ASP3-0350-30-560	3.0	2.4	3000	10.5	10.9	125.9	1.47	8.9	25.5	1.04	2.9
ASP3-0480-30-560	3.7	2.8	3000	14.4	9.9	148.5	1.74	7.7	23.5	1.52	3.8
ASP4-0510-30-560	4.2	3.9	3000	15.3	17.4	114.6	1.34	4.0	21.7	2.04	3.8
ASP4-0750-30-560	6.1	5.1	3000	22.5	23.8	123.0	1.44	2.3	13.5	3.26	5.1
ASP4-0960-30-560	7.7	6.0	3000	28.8	27.4	137.2	1.60	2.0	11.9	4.49	6.4
ASP4-1130-30-560	8.8	6.9	3000	34.0	27.0	135.8	1.59	1.49	9.1	5.70	7.7

Other windings 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)		