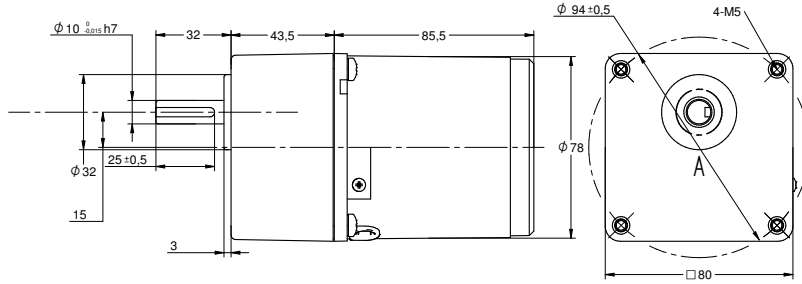


# Motor model AI-025W ← SOLD SEPARATELY → Gear box model S80A

**DRAWING**  
(mm)



**PHOTO**



**MODEL NO. DESIGNATION**

Motor model - Voltage - S/T C/B S= Single phase / T=Three phase C=Cable / B = Terminal box Example: **AI-006W-230-SC (\*)**

Gear box model - Gear ratio Example: **S60A-050 (\*)**

**\* ALL MOTORS AND GEAR BOXES ARE SOLD SEPARATELY. SELECT GEAR BOX FRAME SIZE SAME AS MOTOR FRAME SIZE. ASSEMBLY SCREWS ARE INCLUDED IN DELIVERY**

GEAR MOTOR DATA RATIO	3	3,6	5	6	7,5	9	1	12,5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	250	300	500	600	750		
<b>230VAC 50Hz 1 phase</b>																															
Nominal rpm 220 VAC	417	347	250	208	167	139	125	100	83	69	63	50	42	35	31	25	21	17	14	13	10	8	7	6	5	4	3	2	2		
Nominal rpm 230 VAC	417	347	250	208	167	139	125	100	83	69	63	50	42	35	31	25	21	17	14	13	10	8	7	6	5	4	3	2	2		
Nominal Nm 220 VAC	0.5	0.6	0.8	1.0	1.2	1.5	1.6	2.0	2.4	2.9	2.9	3.7	4.4	5.3	5.8	7.3	7.9	9.9	11.9	13.2	15.8	19.8	23.8	26.4	29.5	35.4	59.0	70.8	88.5		
Nominal Nm 230 VAC	0.5	0.6	0.8	1.0	1.2	1.5	1.6	2.0	2.4	2.9	2.9	3.7	4.4	5.3	5.8	7.3	7.9	9.9	11.9	13.2	15.8	19.8	23.8	26.4	29.5	35.4	59.0	70.8	88.5		
<b>120VAC 60Hz 1 phase</b>																															
Nominal rpm 110 VAC	517	431	310	258	207	172	155	124	103	86	78	62	52	43	39	31	26	21	17	16	13	10	9	8	6	5	3	3	2		
Nominal Nm 110 VAC	0.4	0.5	0.7	0.8	1.0	1.2	1.3	1.7	2.0	2.4	2.4	3.0	3.6	4.3	4.8	6.0	6.5	8.2	9.8	10.9	13.1	16.3	19.6	21.8	24.3	29.2	48.7	58.4	73.0		
<b>208VAC 60Hz 3 phase</b>																															
Nominal rpm 220 VAC	517	431	310	258	207	172	155	124	103	86	78	62	52	43	39	31	26	21	17	16	13	10	9	8	6	5	3	3	2		
Nominal Nm 220 VAC	0.4	0.5	0.7	0.8	1.0	1.2	1.3	1.7	2.0	2.4	2.4	3.0	3.6	4.3	4.8	6.0	6.5	8.2	9.8	10.9	13.1	16.3	19.6	21.8	24.3	29.2	48.7	58.4	73.0		
<b>GEAR HEAD DATA</b>																															
Efficiency (%)	81	81	81	81	81	81	81	81	81	81	81	73	73	73	73	73	66	66	66	66	66	66	66	66	59	59	59	59	59		
Max. torque (Nm)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
Radial F 20 mm shaft (N)	150	150	150	150	150	150	150	150	150	150	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
Max. thrust load (N)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50		
Out rotation when in cw	cw	cw	cw	cw	cw	cw	cw	cw	cw	cw	cw	ccw	ccw	ccw	ccw	ccw	cw	cw	cw	cw	cw	cw	cw	cw	cw	ccw	ccw	ccw	ccw		

GEAR MOTOR FEATURES	STANDARD	CUSTOMIZATION
Motor type	AC induction	Voltage
Insulation Class	130 (B)	155 (F)
Speed tolerance	± 5%	
Cables 6W-25W   40W-120W	AWG20   AWG-18 300 mm	Harness
Cables wiring	Table at bottom of page	Per request
Housing materials	Aluminium	
Gears and shaft material	40Cr	Shaft dimensions
Bearings types	Ball bearings	
Operating temperature	-10-...+40 °C	-40-...+40 °C
Manufacturing quality standards	ISO 9001	
RoHS compliance	Yes	
CE   UL label	No   No	
IP rating cable   terminal box	IP20   IP54	
<b>Insulation Resistance</b> 100 M Ω or more when 500 VDC megger is applied between the windings and the case after rated operation under normal ambient temperature and humidity.		
<b>Dielectric Strength</b> Sufficient to withstand 1.5 kV at 50 Hz or 60 Hz applied between the windings and the case for 1 minute after rated operation under normal ambient temperature and humidity.		
<b>Temperature Rise</b> Temperature rise of windings are 176°F (80°C) or less measured by the resistance change method after rated operation under normal ambient temperature and humidity.		

MOTOR DATA			
Base voltage (VAC)	230	120	208
Nominal voltage (VAC) A	220	110	220
Nominal voltage (VAC) B	230	120	
Phase   Frequency Hz	1   50	1   60	3   60
Number of poles	4	4	4
Output (W)	25	25	25
Nominal speed (rpm) voltage A	1250	1550	1550
Nominal speed (rpm) voltage B	1250	1550	
Nominal torque mNm voltage A	200	165	165
Nominal torque mNm voltage B	200	165	
Nominal current (A) voltage A	0.25	0.45	0.17
Nominal current (A) voltage B	0.23	0.50	
Stall torque mNm voltage A	120	120	250
Stall torque mNm voltage B	120	120	
Capacitor μF included in delivery	1.8	7	
Weight motor Kg	1.6	1.6	1.6
Weight gear motor Kg	2.4	2.4	2.4

ELECTRIC WIRING CONNECTION	
VERSION C 1 PHASE	capacitor white-blue   neutral N-red   phase-white CW, -blue CWW
VERSION B 1 PHASE	capacitor U2-Z2   neutral N-U1   phase-U2 CW, -Z2 CWW
VERSION C B 3 PHASES	-blue, -red, -white. Swap a pair for inversed rotation