

Small Geared Motors / Gear Heads

Motors with Electromagnetic Brake

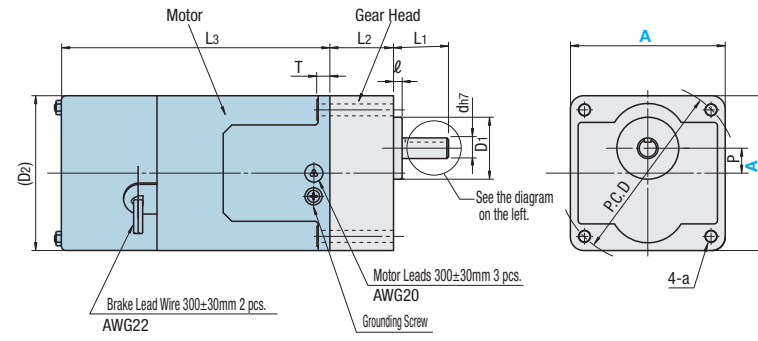
Features: Motor with an integrated electromagnetic brake, capable of high braking and position holding abilities. The PACMTBW type includes an International Standards (UL, CE, CCC) compliant electromagnetic brake motor. For motor brackets, see P.1115



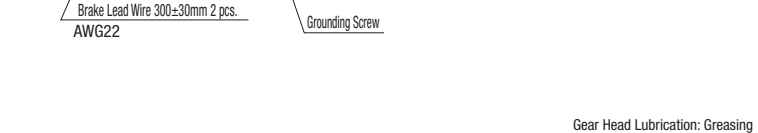
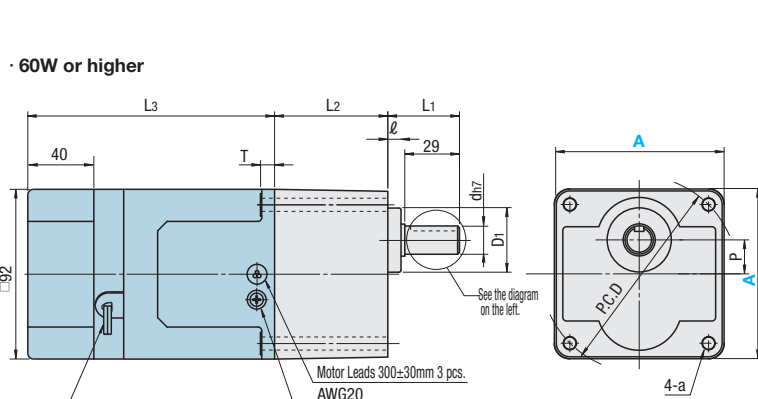
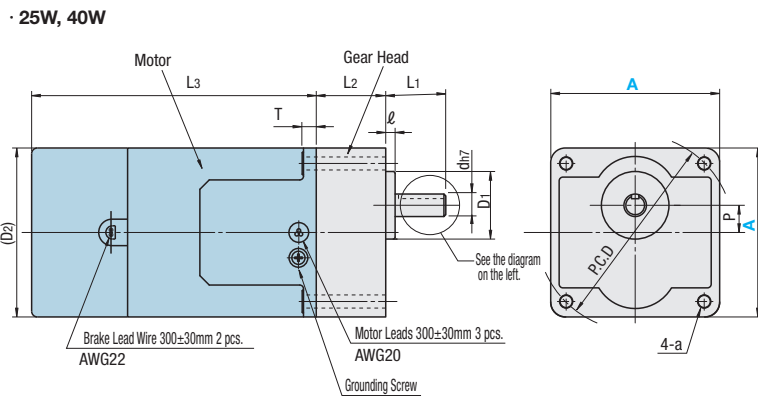
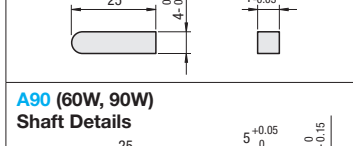
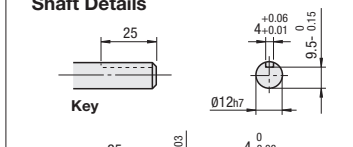
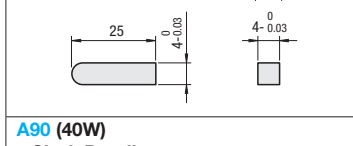
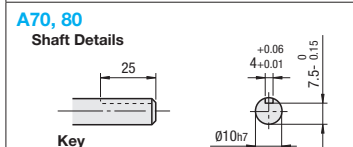
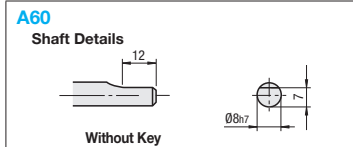
Type		Motor	Capacitor (Not available for 3-Phase Motor)
Motor (Single-phase) PACMB	Gear Heads (40W or lower) PACMGX	Key (Not available for A60) Screws, Nuts, Washers (4 each)	
(3-Phase) PACMTB/PACMTBW	(60W or higher) PACMGZ		

Motors with Electromagnetic Brake
PACMB (Single-phase) **PACMTB** (3-Phase) **PACMTBW** (3-Phase / International Standards Compliant)

• 15W or lower The drawing shows the gear head installed. The motor shaft is a gear shaft, not a plain motor shaft.



Gear Heads
PACMGX (for Motor Output 40W or lower)
PACMGZ (for Motor Output 60W or higher)



Gear Head Lubrication: Greasing

For transportation, installation, assembly, wiring, operating, and maintenances of motors, see the included manual.

Motors with Electromagnetic Brake

Part Number	Type	Output (W)	Voltage (V)	d	D1	L1	L2*2	L3	ℓ	T	(D2)	P	a	P.C.D	Mass (kg) *2		Unit Price			
															Motor	Gear Heads	PACMB	PACMTB	PACMTBW	
PACMB *1PACMTB	60	6	100	8	25	32	26 (33)	114.5	6	7	65	10	4.5	70	0.85	0.24 (0.3)	-	-	-	
			200														82	1.1	0.38 (0.45)	-
	70	15	100	10	30	30	119	5	6	7	74	15	5.5	86	1.8	0.6	-	-	-	
			200														94	2.8	0.8	-
	90	40	100	12	36	37	151	5	7.5	7	95	18	6.5	104	3.1	1.4	-	-	-	
			200														2.8	0.8	-	-
300			3.7														1.4	-	-	-
PACMTBW*3 (International Standards Compliant)	80	25	200	10	30	32	30	128	6	7	86	15	5.5	94	2.1	0.6	-	-	-	
			220/230														3.4	1.4	-	-
90	60	200	15	34	28	60	168.5	7	7.5	92	18	6.5	104	3.4	1.4	-	-	-		
		220/230														-	-	-	-	-

*1. The 3-Phase Motors can be used at 220V. *2. The values in () are weight and dimensions for gearheads with reduction ratio 30 or higher. *3. The type is 200, but can also be used at 220/230V.

Motor with Electromagnetic Brake (Single-phase) Rated for 30 minutes, Number of Poles: 4P

Part Number	Type	Output (W)	Voltage (V)	50Hz						60Hz						Braking Input (W)	Braking Current (A)	Braking Static Friction Torque (N·m)	Capacitor (µF)
				Input (W)	Current (A)	Rotational Speed (r/min)	Torque (N·m)	Starting Current (A)	Starting Torque (N·m)	Input (W)	Current (A)	Rotational Speed (r/min)	Torque (N·m)	Starting Current (A)	Starting Torque (N·m)				
PACMB	60	6	100	22	0.22	1300	0.044	0.32	0.056	22	0.22	1600	0.035	0.32	0.056	4	0.04	0.049	3.5(200V)
			200	25	0.13	1300	0.044	0.17	0.056	25	0.13	1600	0.035	0.18	0.056	4	0.02	0.049	0.9(400V)
	70	15	100	36	0.36	1300	0.110	0.59	0.10	38	0.38	1600	0.088	0.57	0.10	4	0.05	0.078	6 (200V)
			200	38	0.18	1300	0.110	0.28	0.10	39	0.19	1600	0.088	0.28	0.10	4	0.03	0.078	1.5(400V)
	80	25	100	56	0.57	1300	0.19	1.0	0.20	56	0.56	1600	0.16	1.0	0.20	6	0.06	0.10	9.5(200V)
			200	56	0.29	1300	0.19	0.52	0.20	56	0.28	1600	0.16	0.51	0.20	6	0.03	0.10	2.4(400V)
	90	40	100	79	0.81	1300	0.29	1.7	0.32	80	0.81	1625	0.24	1.6	0.32	7	0.09	0.20	15 (210V)
			200	79	0.4	1300	0.29	0.85	0.32	80	0.41	1625	0.24	0.78	0.32	7	0.05	0.20	3.8(400V)
	60	60	100	127	1.3	1275	0.45	2.4	0.57	133	1.3	1600	0.36	2.4	0.57	7	0.09	0.39	25 (200V)
			200	127	0.65	1275	0.45	1.2	0.57	133	0.65	1600	0.36	1.2	0.57	7	0.05	0.39	6.2(375V)
	90	90	100	171	1.7	1225	0.70	2.8	0.68	181	1.9	1525	0.56	2.7	0.70	7	0.09	0.39	30 (200V)
			200	171	0.93	1225	0.70	1.4	0.68	181	0.96	1525	0.56	1.4	0.70	7	0.05	0.39	7.5(370V)

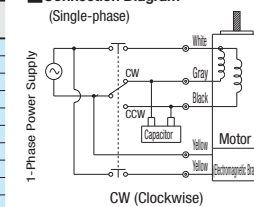
Motor with Electromagnetic Brake (3-Phase) Continuous Rating Number of Poles: 4P The 3-Phase Motor can be used in 220V.

Part Number	Type	Output (W)	Voltage (V)	50Hz						60Hz						Braking Input (W)	Braking Current (A)	Braking Static Friction Torque (N·m)	
				Input (W)	Current (A)	Rotational Speed (r/min)	Torque (N·m)	Starting Current (A)	Starting Torque (N·m)	Input (W)	Current (A)	Rotational Speed (r/min)	Torque (N·m)	Starting Current (A)	Starting Torque (N·m)				
PACMTB	80	25	200	50	0.25	1350	0.18	0.62	0.54	47	0.22	1625	0.15	0.58	0.40	6	0.03	0.10	
			220	54	0.27	1375	0.18	0.67	0.66	49	0.23	1650	0.15	0.64	0.50	6	0.03	0.10	
	90	40	200	69	0.31	1350	0.28	0.90	0.72	68	0.29	1625	0.24	0.82	0.51	7	0.05	0.20	
			220	70	0.32	1375	0.27	1.00	0.88	66	0.28	1675	0.23	0.91	0.63	7	0.05	0.20	
	90	90	200	101	0.45	1350	0.42	1.3	1.0	96	0.41	1625	0.35	1.2	0.69	7	0.05	0.39	
			220	103	0.46	1375	0.41	1.5	1.2	98	0.40	1650	0.34	1.3	0.87	7	0.05	0.39	
	PACMTBW (International Standards Compliant)	80	25	200	50	0.25	1350	0.18	0.62	0.54	47	0.22	1625	0.15	0.58	0.4	6	0.03	0.1
				220/230	50	0.25	1350	0.18	0.62	0.54	47	0.22	1625	0.15	0.58	0.4	6	0.03	0.1
	90	60	200	101	0.45	1350	0.42	1.3	1	96	0.41	1625	0.35	1.3	0.87	9	0.05	0.39	
			220/230	101	0.45	1350	0.42	1.3	1	96	0.41	1625	0.35	1.3	0.87	9	0.05	0.39	

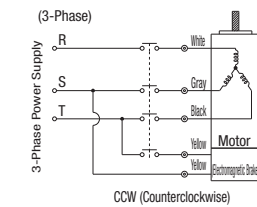
Capacitor (Accessory) Included with single-phase motors only.

A	Output (W)	Voltage (V)	L	W	D	H	t
60	6	100	39.5	16	26.5	30.5	4
		200	39.5	16.2	27	27	4
70	15	100	39.5	17.5	28	30.5	4
		200	39.5	22	32.5	32.5	4
80	25	100	39.5	22	32.5	30.5	4
		200	49.7	24	34.5	34.5	4
90	40	100	39.5	26.7	37	41	4
		200	50	26.7	37.5	38	4
90	60	100	50.2	31	41	42	5
		200	50	30.5	41	41.5	4
90	90	100	50.2	31	41	42	5
		200	50	34	45	45	6

Connection Diagram (Single-phase)

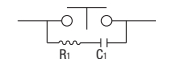


Rotates counterclockwise when switched to CCW position.



Rotates clockwise if two of the White, Gray, and Black wires are switched.

Provide a spark suppression circuit (R1+C1) between the contacts.



R1=10~200Ω (1/4W or larger)
 C1=0.1~0.33µF (125VAC or 250VAC)

Allowable Torque when Gear Heads are Mounted

The rotational speeds shown are based on synchronous operation speeds. Generally, the actual speeds may be 2~20% less than indicated value depending on load conditions.

Output shaft rotation direction is same as the motor for others are reverse rotation.

Part Number	Type	Output (W)	Reduction Ratio																					
			3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
PACMGX	60	6	500	418.7	300	250	200	166.7	150	120	100	83.3	75	60	50	41.7	30	25	20	16.7	15	12.5	10	8.3
			600	500	360	300	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
	70	15	500	0.098	0.12	0.16	0.19	0.25	0.29	0.33	0.4	0.49	0.59	0.66	0.79	0.95	1.18	1.57	1.86	2.25	2.45	2.45	2.45	2.45
			600	0.108	0.13	0.16	0.21	0.25	0.26	0.33	0.4	0.49	0.53	0.66	0.79	0.95	1.17	1.57	1.86	2.25	2.74	3.82	4.61	4.9
	80	25	500	0.2	0.24	0.32	0.39	0.49	0.59	0.66	0.81	0.98	1.18	1.27	1.57	1.86	2.25	3.23	3.82	4.8	4.8	4.9	4.9	4.9
			600	0.39	0.47	0.66	0.78	0.98	1.18	1.27	1.57	1.96	2.35	2.55	3.14	3.82	4.61	6.37	7.64	7.64	7.64	7.64	7.64	7.64
90	40	500	0.32	0.39	0.55	0.66	0.81	0.98	1.08	1.27	1.57	1.96	2.06	2.65	3.14	3.82	5.29	6.37	6.37	6.37	6.37	6.37	6.37	
		600	0.66	0.78	1.08	1.27	1.57	1.86	2.25	2.74	3.23	3.92	4.41	5.29	6.37	7.94	9.8	9.8	9.8	9.8	9.8	9.8	9.8	
PACMGZ	90	60	500	0.55	0																			