

P3 series standard specification

200-230V INPUT TYPE

Rated output			30W	50W	100W
Motor model	Symbol	Unit	P30B04003D****M	P30B04005D****M	P30B04010D****M
Rated rotating speed	N _R *	min ⁻¹	3000	3000	3000
Maximum rotating speed	N _{max} *	min ⁻¹	4500	4500	4500
Rated torque	T _R *	N.m	0.098	0.157	0.32
		oz-in	13.878	22.233	45.316
Continuous stall torque	T _S *	N.m	0.108	0.167	0.353
		oz-in	15.294	23.649	49.989
Instantaneous maximum stall torque	T _P *	N.m	0.322	0.49	0.98
		oz-in	45.599	69.390	138.780
Rotor inertia w/ incremental encoder	J _M	kg.m ² x10 ⁻⁴ (GD ² /4)	0.024	0.031	0.051
		lb-in-s ² x10 ⁻⁴	0.212	0.274	0.451
Rotor inertia w/ absolute encoder	J _M	kg.m ² x10 ⁻⁴ (GD ² /4)	0.024	0.028	0.048
		lb-in-s ² x10 ⁻⁴	0.212	0.248	0.425
Encoder resolution	Wire saving incremental encoder		2000ppr, 2048ppr	2000ppr, 2048ppr	2000ppr, 2048ppr
	Absolute encoder (ABS-R11)		8192ppr Total revolution:8192	8192ppr Total revolution:8192	8192ppr Total revolution:8192
Motor weight w/ incremental encoder	W _E	kg / oz	0.3 / 10.582	0.35 / 12.346	0.5 / 17.637
Motor weight w/ absolute encoder	W _E	kg / oz	0.63 / 22.222	0.44 / 15.520	0.59 / 20.811
Brake holding torque	T _B	N.m	0.098	0.157	0.32
		oz-in	13.878	22.233	45.316
Brake excitation voltage	V _B	V	24 / 90	24 / 90	24 / 90
Brake inertia	J _B	kg.m ² x10 ⁻⁴ (GD ² /4)	0.0078	0.0078	0.0078
		lb-in-s ² x10 ⁻⁴	0.069	0.069	0.069
Brake weight	W _B	kg / oz	0.24 / 8.466	0.24 / 8.466	0.24 / 8.466
Oil seal			No	No	No
IP code			IP43	IP43	IP43

Common Specification) Insulation class : Class F / Dielectric strength : 1,500VAC, 1 minute
 Insulation grade : 500VDC, 10M ohm or more / Vibration grade : V15
 Motor operating temperature : 0 to 40 degrees C / 32 to 104 degees F
 Motor operating humidity : 90% or less (Non-Condensing)

* means a combination with a standard amplifier after the temperature rises and gets saturated. The value are typical.

Applicable amplifier model	PY2A015	PY2A015	PY2A015
Amplifier power supply (Main circuit)	AC200-230V +10% -15% 50/60Hz +/-3Hz 3-phase		
Amplifier power supply (Control circuit)	AC200-230V +10% -15% 50/60Hz +/-3Hz Single-phase		
Amplifier operating temperature	0 to 55 degrees C / 32 to 131 degees F		
Amplifier operating humidity	90% or less (Non-Condensing)		
Amplifier weight	1.5kg / 52.910oz		

P3 series standard specification

200-230V INPUT TYPE

Rated output			200W	400W	750W
Motor model	Symbol	Unit	P30B06020D****M	P30B06040D****M	P30B08075D****M
Rated rotating speed	NR *	min ⁻¹	3000	3000	3000
Maximum rotating speed	Nmax *	min ⁻¹	4500	4500	4500
Rated torque	TR *	N.m	0.637	1.274	2.38
		oz-in	90.207	180.414	337.037
Continuous stall torque	TS *	N.m	0.686	1.372	2.55
		oz-in	97.146	194.292	361.111
Instantaneous maximum stall torque	TP *	N.m	1.96	3.82	7.15
		oz-in	277.560	540.958	1012.527
Rotor inertia w/ incremental encoder	JM	kg.m ² x10 ⁻⁴ (GD ² /4)	0.144	0.255	0.635
		lb-in-s ² x10 ⁻⁴	1.275	2.257	5.620
Rotor inertia w/ absolute encoder	JM	kg.m ² x10 ⁻⁴ (GD ² /4)	0.141	0.252	0.647
		lb-in-s ² x10 ⁻⁴	1.248	2.230	5.726
Encoder resolution	Wire saving incremental encoder		2000ppr, 2048ppr	2000ppr, 2048ppr	2000ppr, 2048ppr
	Absolute encoder (ABS-R11)		8192ppr Total revolution:8192	8192ppr Total revolution:8192	8192ppr Total revolution:8192
Motor weight w/ incremental encoder	WE	kg / oz	1.15 / 40.564	1.7 / 59.965	3.3 / 116.402
Motor weight w/ absolute encoder	WE	kg / oz	1.35 / 47.619	1.9 / 67.019	3.49 / 123.104
Brake holding torque	TB	N.m	0.637	1.274	2.38
		oz-in	90.207	180.414	337.037
Brake excitation voltage	VB	V	24 / 90	24 / 90	24 / 90
Brake inertia	JB	kg.m ² x10 ⁻⁴ (GD ² /4)	0.06	0.06	0.343
		lb-in-s ² x10 ⁻⁴	0.531	0.531	3.036
Brake weight	WB	kg / oz	0.44 / 15.520	0.44 / 15.520	0.8 / 28.219
Oil seal			No	No	No
IP code			IP43	IP43	IP43

Common Specification) Insulation class : Class F / Dielectric strength : 1,500VAC, 1 minute
 Insulation grade : 500VDC, 10M ohm or more / Vibration grade : V15
 Motor operating temperature : 0 to 40 degrees C / 32 to 104 degees F
 Motor operating humidity : 90% or less (Non-Condensing)

* means a combination with a standard amplifier after the temperature rises and gets saturated. The value are typical.

Applicable amplifier model	PY2A015	PY2A030
Amplifier power supply (Main circuit)	AC200-230V +10% -15% 50/60Hz +/-3Hz 3-phase	
Amplifier power supply (Control circuit)	AC200-230V +10% -15% 50/60Hz +/-3Hz Single-phase	
Amplifier operating temperature	0 to 55 degrees C / 32 to 131 degees F	
Amplifier operating humidity	90% or less (Non-Condensing)	
Amplifier weight	1.5kg / 52.910oz	2.0kg / 70.547oz

P3 series standard specification

100-115V TYPE

Rated output			30W	50W	100W
Motor model	Symbol	Unit	P30B04003P****M	P30B04005P****M	P30B04010P****M
Rated rotating speed	NR *	min ⁻¹	3000	3000	3000
Maximum rotating speed	Nmax *	min ⁻¹	4500	4500	4500
Rated torque	TR *	N.m	0.098	0.157	0.32
		oz-in	13.878	22.233	45.316
Continuous stall torque	TS *	N.m	0.322	0.49	0.98
		oz-in	45.599	69.390	138.780
Instantaneous maximum stall torque	TP *	N.m	0.024	0.031	0.051
		oz-in	3.399	4.390	7.222
Rotor inertia w/ incremental encoder	JM	kg.m ² x10 ⁻⁴ (GD ² /4)	0.024	0.031	0.051
		lb-in-s ² x10 ⁻⁴	0.212	0.274	0.451
Rotor inertia w/ absolute encoder	JM	kg.m ² x10 ⁻⁴ (GD ² /4)	0.024	0.028	0.048
		lb-in-s ² x10 ⁻⁴	0.212	0.248	0.425
Encoder resolution	Wire saving incremental encoder		2000ppr, 2048ppr	2000ppr, 2048ppr	2000ppr, 2048ppr
	Absolute encoder (ABS-R11)		8192ppr Total revolution:8192	8192ppr Total revolution:8192	8192ppr Total revolution:8192
Motor weight w/ incremental encoder	WE	kg / oz	0.3 / 10.582	0.35 / 12.346	0.5 / 17.637
Motor weight w/ absolute encoder	WE	kg / oz	0.63 / 22.222	0.44 / 15.520	0.59 / 20.811
Brake holding torque	TB	N.m	0.098	0.157	0.32
		oz-in	13.878	22.233	45.316
Brake excitation voltage	VB	V	24 / 90	24 / 90	24 / 90
Brake inertia	JB	kg.m ² x10 ⁻⁴ (GD ² /4)	0.0078	0.0078	0.0078
		lb-in-s ² x10 ⁻⁴	0.069	0.069	0.069
Brake weight	WB	kg / oz	0.24 / 8.466	0.24 / 8.466	0.24 / 8.466
Oil seal			No	No	No
IP code			IP43	IP43	IP43

Common Specification) Insulation class : Class F / Dielectric strength : 1,500VAC, 1 minute
 Insulation grade : 500VDC, 10M ohm or more / Vibration grade : V15
 Motor operating temperature : 0 to 40 degrees C / 32 to 104 degees F
 Motor operating humidity : 90% or less (Non-Condensing)

* means a combination with a standard amplifier after the temperature rises and gets saturated. The value are typical.

Applicable amplifier model	PY2E015
Amplifier power supply (Main circuit)	AC100-115V +10% -15% 50/60Hz +/-3Hz 3-phase
Amplifier power supply (Control circuit)	AC200-230V +10% -15% 50/60Hz +/-3Hz Single-phase
Amplifier operating temperature	0 to 55 degrees C / 32 to 131 degees F
Amplifier operating humidity	90% or less (Non-Condensing)
Amplifier weight	1.5kg / 52.910oz

P3 series standard specification

100-115V TYPE

Rated output			200W	-	-
Motor model	Symbol	Unit	P30B06020P****M	-	-
Rated rotating speed	N _R *	min ⁻¹	3000	-	-
Maximum rotating speed	N _{max} *	min ⁻¹	4500	-	-
Rated torque	T _R *	N.m	0.637	-	-
		oz-in	90.207	-	-
Continuous stall torque	T _S *	N.m	1.96	-	-
		oz-in	277.560	-	-
Instantaneous maximum stall torque	T _P *	N.m	0.144	-	-
		oz-in	20.392	-	-
Rotor inertia w/ incremental encoder	J _M	kg.m ² x10 ⁻⁴ (GD ² /4)	0.144	-	-
		lb-in-s ² x10 ⁻⁴	1.275	-	-
Rotor inertia w/ absolute encoder	J _M	kg.m ² x10 ⁻⁴ (GD ² /4)	0.141	-	-
		lb-in-s ² x10 ⁻⁴	1.248	-	-
Encoder resolution	Wire saving incremental encoder		2000ppr, 2048ppr	-	-
	Absolute encoder (ABS-R11)		8192ppr Total revolution:8192	-	-
Motor weight w/ incremental encoder	W _E	kg / oz	1.15 / 40.564	-	-
Motor weight w/ absolute encoder	W _E	kg / oz	1.35 / 47.619	-	-
Brake holding torque	T _B	N.m	0.637	-	-
		oz-in	90.207	-	-
Brake excitation voltage	V _B	V	24 / 90	-	-
Brake inertia	J _B	kg.m ² x10 ⁻⁴ (GD ² /4)	0.06	-	-
		lb-in-s ² x10 ⁻⁴	0.531	-	-
Brake weight	W _B	kg / oz	0.44 / 15.520	-	-
Oil seal			No	-	-
IP code			IP43	-	-

Common Specification) Insulation class : Class F / Dielectric strength : 1,500VAC, 1 minute
 Insulation grade : 500VDC, 10M ohm or more / Vibration grade : V15
 Motor operating temperature : 0 to 40 degrees C / 32 to 104 degees F
 Motor operating humidity : 90% or less (Non-Condensing)

* means a combination with a standard amplifier after the temperature rises and gets saturated. The value are typical.

Applicable amplifier model	PY2E030	-	-
Amplifier power supply (Main circuit)	AC100-115V +10% -15% 50/60Hz +/-3Hz 3-phase		
Amplifier power supply (Control circuit)	AC200-230V +10% -15% 50/60Hz +/-3Hz Single-phase		
Amplifier operating temperature	0 to 55 degrees C / 32 to 131 degees F		
Amplifier operating humidity	90% or less (Non-Condensing)		
Amplifier weight	2.0kg / 70.547oz	-	-