■ SPECIFICATION

■ GEAR HEAD

Model		Ratio		Number of stages	Continuous torque [Nm]	Permissible load [N]		Efficiency [%]	Weight [Kg]
		(i : 1)	Coding			Axial	Radial		
XPG	42	4.5	A1	1	3.5(*0.9)	150	250	90	0.26
		6.25	B1						
		8	C1						
		16	A2	2	6	150	250	81	0.36
		25	B2						
		32	C2						
		50	D2						
		60	E2						
		100	A3	3	14	150	250	73	0.46
		128	B3						
		156	C3						
		200	D3						
		256	E3						
		312.5	F3						
		400	G3						
		512	H3						

* : plastic planet gears

Model		Ratio		Number of stages	Continuous torque [Nm]	Permissible load [N]		Efficiency [%]	Weight [Kg]
		(i : 1)	Coding			Axial	Radial		
XPG	52	4.5	A1	1	4.5(*1.2)	500	350	90	0.58
		6.25	B1						
		8	C1						
		15	A2	2	8	500	350	81	0.7
		20.25	B2						
		28.12	C2						
		36	D2						
		50	E2						
		64	F2						
		91.12	A3	3	24	500	350	73	0.85
		126.5	B3						
		162	C3						
		225	D3						
		288	E3						
		400	F3						
		512	G3						

* : plastic planet gears

■ SPECIFICATION

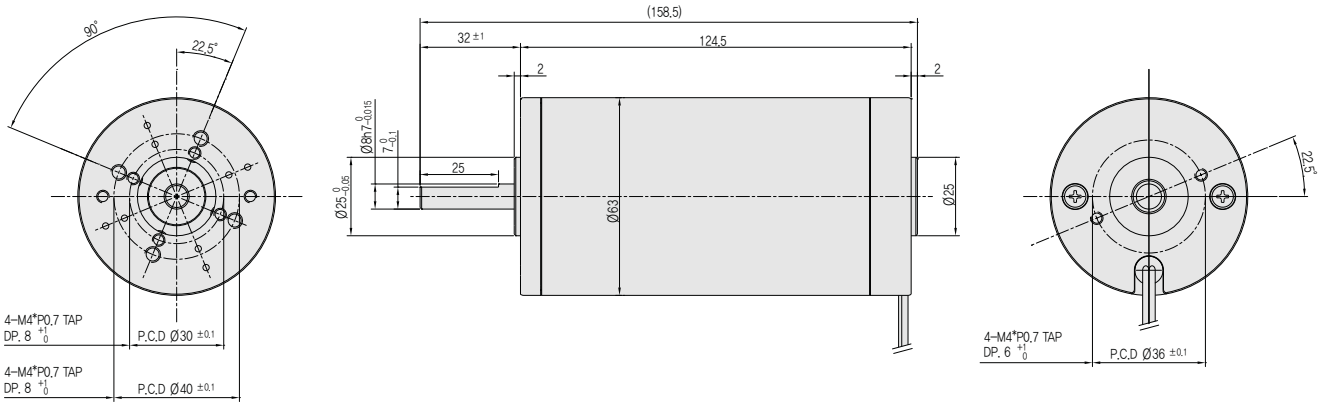
■ GEAR HEAD

Model		Ratio				Number of stages	Continuous torque [Nm]	Permissible load [N]		Efficiency [%]	Weight [Kg]
		(i : 1)	Coding	(i : 1)	Coding			Axial	Radial		
XPG	63	3	A1	–	–	1	15(*5)	800	800	90	0.7
		4	B1	–	–						
		7	C1	–	–						
		10	D1	–	–						
		14.5	E1	–	–						
		16.8	A2	50	E2	2	70	800	800	81	1.2
		29.4	B2	60.9	F2						
		35	C2	70	G2						
		42	D2	101.5	H2						
		70.6	A3	250	G3	3	100	800	800	73	1.8
		84	B3	304.5	H3						
		100	C3	362.5	I3						
		147	D3	426.3	J3						
		175	E3	507.5	K3						
		210	F3	710.5	L3						

* : plastic planet gears

Model		Ratio				Number of stages	Continuous torque [Nm]	Permissible load [N]		Efficiency [%]	Weight [Kg]
		(i : 1)	Coding	(i : 1)	Coding			Axial	Radial		
XPG	75	4	A1	–	–	1	25	1000	1000	90	1.5
		5.5	B1	–	–						
		7	C1	–	–						
		10	D1	–	–						
		14.5	E1	–	–						
		16.8	A2	42	F2	2	120	1000	1000	81	2.5
		23.1	B2	50	G2						
		27.5	C2	60.9	H2						
		29.4	D2	70	I2						
		35	E2	101.5	J2						
		70.6	A3	250	H3	3	160	1000	1000	73	3.6
		84	B3	304.5	I3						
		100	C3	362.5	J3						
		115.5	D3	426.3	K3						
		147	E3	507.5	L3						
		175	F3	710.5	M3						
		210	G3	–	–						

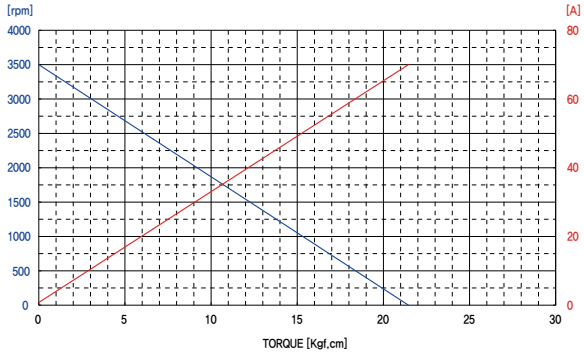
■ XD63100 Series DC Motor Dimension



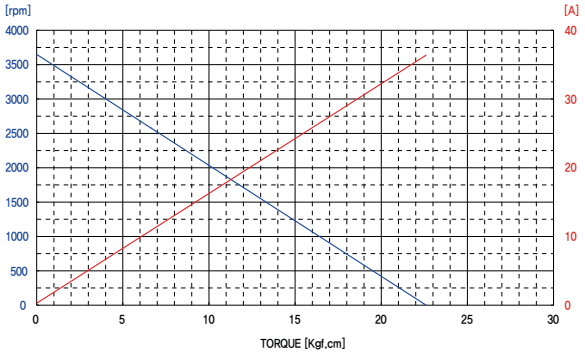
■ XD63100 Series DC Motor Data Sheet

Data	units	XD63100 Series			
Rated voltage	[Vd.c]	12	24	40	60
No load speed	[r/min]	3500	3650	3600	3600
No load current	[A]	1.50	0.60	0.45	0.25
Rated torque	[kgf.cm]	2.25	2.80	2.91	2.90
	[Ncm]	22.1	27.5	28.5	28.4
Rated speed	[r/min]	3250	3480	3350	3360
Rated current	[A]	7.3	4.4	3.0	2.1
Rated Output power	[W]	75	100	100	100
Stall torque	[kgf.cm]	20.4	21.5	23.4	27.7
	[Ncm]	199.8	210.5	229.6	271.2
Stall current	[A]	77.0	40.0	25.9	20.4
Demagnetization current	[A]	66	33	20	13
Weight	[kg]	1.6	1.6	1.6	1.6

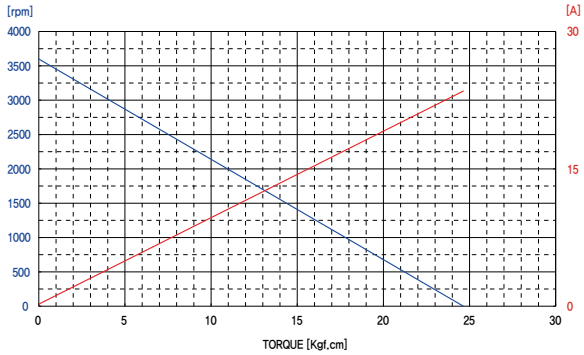
■ XD6375-12 Characteristic diagram, 12Vd.c



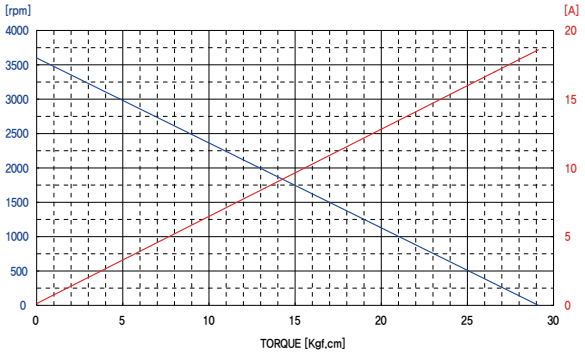
■ XD63100-24 Characteristic diagram, 24Vd.c



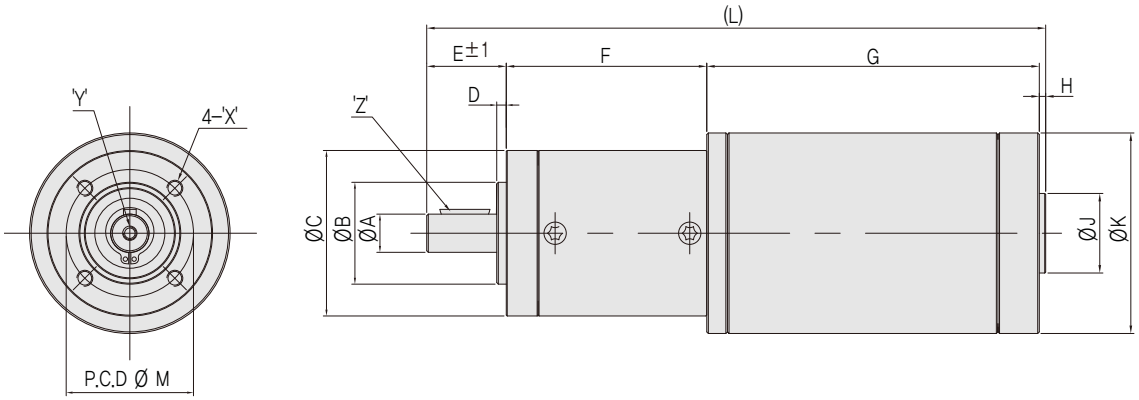
■ XD63100-40 Characteristic diagram, 40Vd.c



■ XD63100-60 Characteristic diagram, 60Vd.c



■ DIMENSIONS



* Unit : [mm]

ITEM		XPG42+XD42		XPG52+XD52		XPG52+XD63		XPG63+XD63		XPG75+XD80	
A		Ø8	+0.007 +0.001	Ø12	+0.008 +0.003	Ø12	+0.008 +0.003	Ø15 h7		Ø19 h7	
B		Ø25	0 −0.052	Ø32	0 −0.039	Ø32	0 −0.039	Ø40	0 −0.011	Ø50	+0.011 −0.050
C		Ø42		Ø52		Ø52		Ø63		Ø75	
D		2		3		3		2.5		5	
E		25		25		25		32		49	
F	1stage	39.8		47.5		47.5		62.2		80.7	
	2stage	52.1		63		63		83.5		106.8	
	3stage	64.4		78		78		104.7		132.9	
M		Ø32 or 36		Ø40		Ø40		Ø52		Ø65	
X		M3 or M4, DP 8		M5, DP 7.5		M5, DP 7.5		M5, DP 10		M6, DP 16	
Y		–		–		–		–		M6, DP 18	
Z		Woodruff key		Woodruff key		Woodruff key		Parallel key		Parallel key	
G		15W	70	40W	95	45/50W	94.5	45/50W	94.5	120W	135
		20W	85	60W	125	75/100W	124.5	75/100W	124.5	220W	175
H		2		2		2		2		2	
J		Ø25		Ø25		Ø25		Ø25		Ø25	
K		Ø42		Ø52		Ø63		Ø63		Ø80	
L	1stage	137.8/152.8		169.5/199.5		169/199		190.7/220.7		266.7/306.7	
	2stage	149.6/164.6		185/215		184.5/214.5		212/242		292.8/332.8	
	3stage	161.4/176.4		200/230		199.5/229.5		233.2/263.2		318.9/358.9	

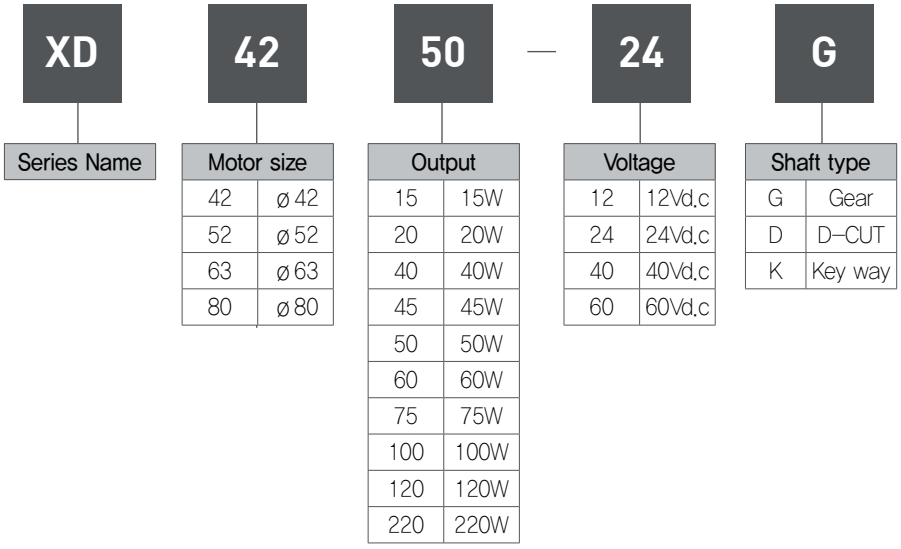
■ XD & XA SERIES

■ STANDARD FEATURE

- Planetary DC Geared motor
  - Compact & Robust design
  - High efficiency
  - Low noise
- All ball bearing
- Protection class : IP40(standard), IP 54(special)
- Insulation class : F Class (155℃)
- Special grease lubrication
- Ratio(i : 1) 3 to 710, other ratios on request
- Brake & Encoder can be added

■ CODING SYSTEM

■ DC MOTOR



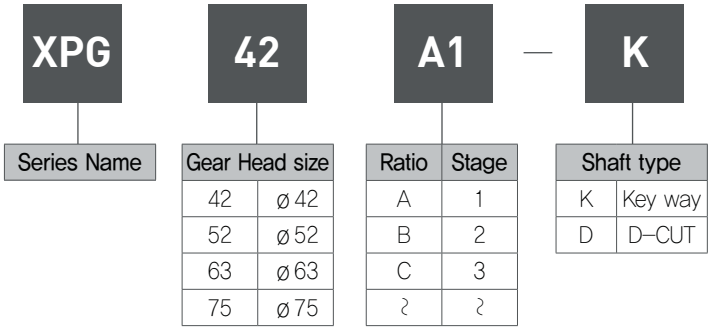
Motor size	
42	ø 42
52	ø 52
63	ø 63
80	ø 80

Output	
15	15W
20	20W
40	40W
45	45W
50	50W
60	60W
75	75W
100	100W
120	120W
220	220W

Voltage	
12	12Vd.c
24	24Vd.c
40	40Vd.c
60	60Vd.c

Shaft type	
G	Gear
D	D-CUT
K	Key way

■ GEAR HEAD

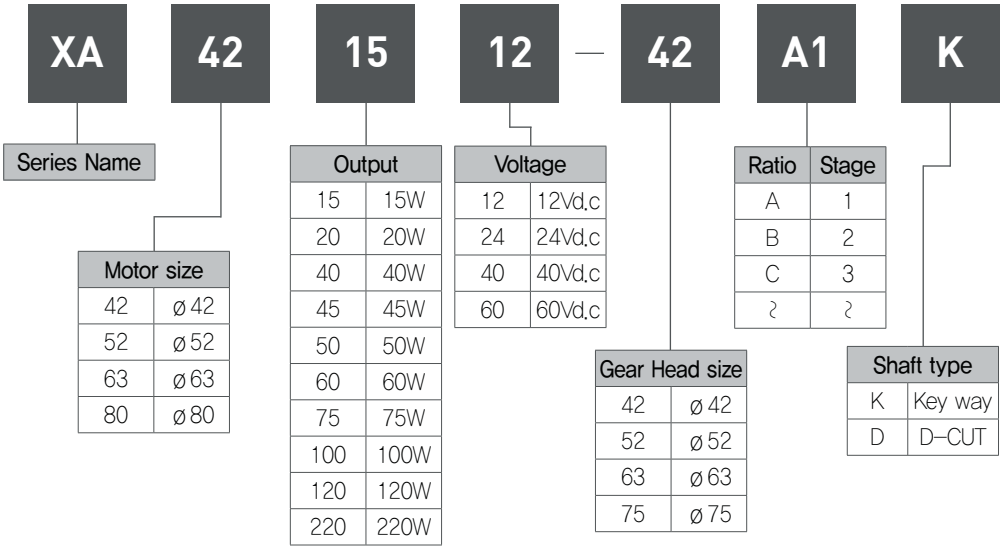


Gear Head size	
42	ø 42
52	ø 52
63	ø 63
75	ø 75

Ratio	Stage
A	1
B	2
C	3
≀	≀

Shaft type	
K	Key way
D	D-CUT

■ DC MOTOR AND GEAR HEAD COMBINATION



Motor size	
42	ø 42
52	ø 52
63	ø 63
80	ø 80

Output	
15	15W
20	20W
40	40W
45	45W
50	50W
60	60W
75	75W
100	100W
120	120W
220	220W

Voltage	
12	12Vd.c
24	24Vd.c
40	40Vd.c
60	60Vd.c

Gear Head size	
42	ø 42
52	ø 52
63	ø 63
75	ø 75

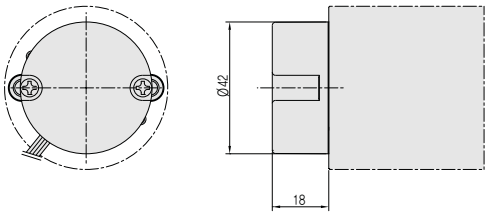
Ratio	Stage
A	1
B	2
C	3
≀	≀

Shaft type	
K	Key way
D	D-CUT

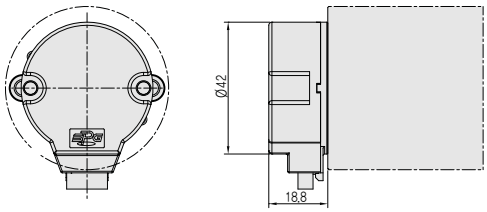
■ OPTIONS

■ Encoder

Magnet Encoder Modules



Optical Encoder Modules

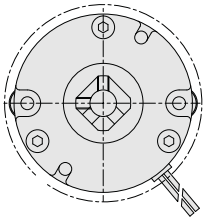


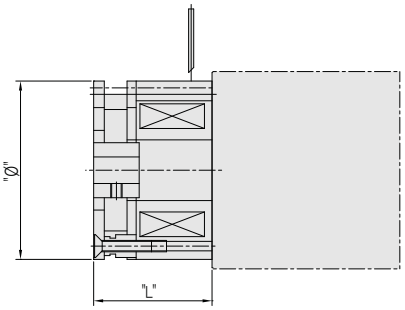
Model		Magnet Encoder Modules			Optical Encoder Modules		
		SEC 6-2	SEC 6-6	SEC 6-12	SEC 5-100	SEC 5-200	SEC 5-500
Resolution	[ppr]	2	6	12	100	200	500
Operating voltage	[Vdc]	12 (5 ~ 24)			5		
Pull-up resistor	-	Yes					
Output signal	-	2 square-wave signals of phase 90°					
Operating temperature	[℃]	-40 ~ 85					

※ This encoder is only available on request

■ OPTIONS

■ Electric brake(Power-off type)





Model		#01	#02	#03	#04
Diameter "Ø"	[mm]	37	47	56	65
Length "L"	[mm]	32.1	30.2	31.8	31.7
Operating voltage	[Vdc]	24			
Braking torque	[Nm]	0.24	0.5	1	2
Turn on time	[s]	0.01	0.01	0.035	0.040
Turn off time	[s]	0.01	0.01	0.020	0.025

※ This power-on brake is only available on request