

MAGNETIC PARTICLE CLUTCHES & BRAKES

OP

SERIES

MAGNETIC
PARTICLE
CLUTCH BRAKE



FEATURES

FAST RESPONSE

The OP series has been designed to provide fast response. Response rates can be further quickened through overexcitation circuits.

STABLE TORQUE

The OP series produces consistent and repeatable torque. Torque is independent of speed and proportional to voltage applied to the field.

LONG LIFE

The OP series sturdy construction and precise formulation of the magnetic particles combine to provide extended life.

SLIP CAPACITY

OP series clutches and brakes are designed to deliver high performance under constant slip conditions.



Clutch Type 51 -OPC
Size 5, 10 & 20



Clutch Type 51 -OPC
Size 40 & 80



Brake Type OPB
Size 5, 10, 20, 40 & 80

MAGNETIC PARTICLE CLUTCH

SERIES 51-OPC

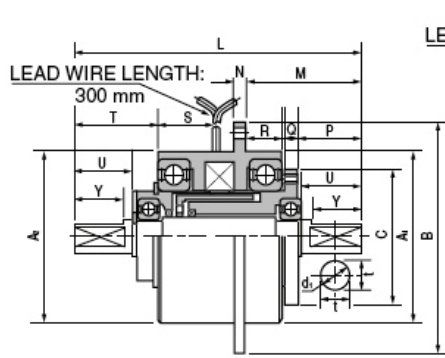


FIG. 1

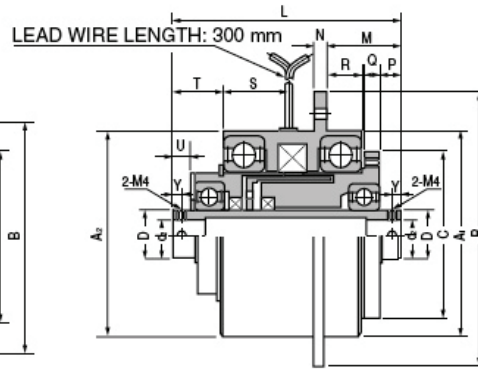
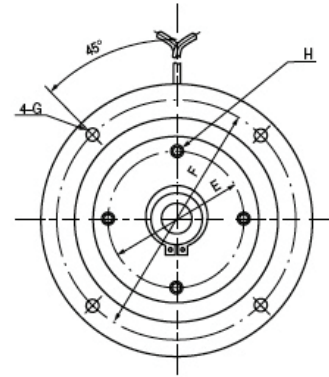


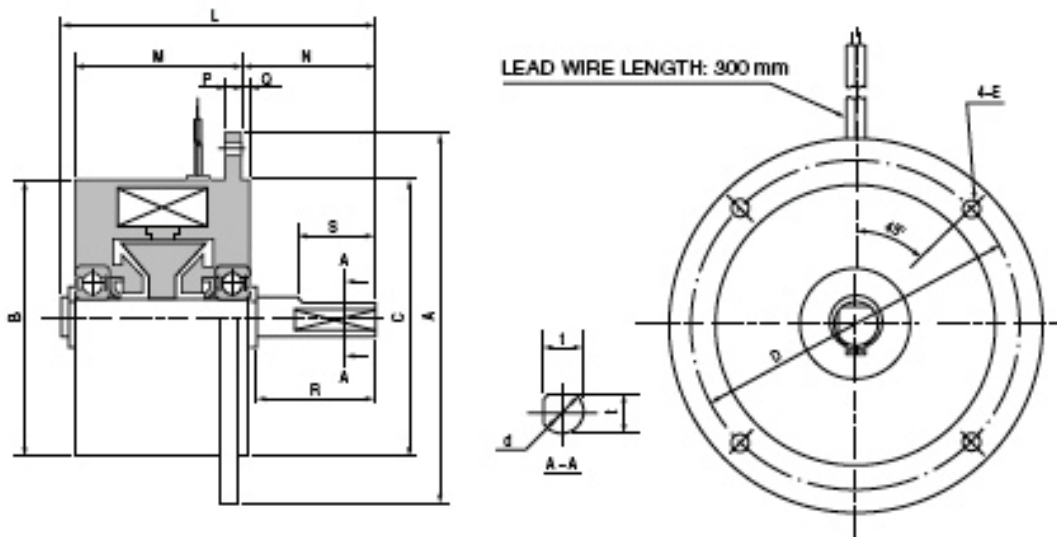
FIG. 2



MODEL		FIGURE 1			FIGURE 2	
		51-OPC 5	51-OPC 10	51-OPC 20	51-OPC 40	51-OPC 80
Torque (Nm)		0.50	1.0	2.0	4.0	8.0
WATTAGE (DC24V) (W)		12	14	18	22	33
MOMENT OF INERTIA J (KGCM2)	INPUT	0.15	0.26	0.84	3.25	5.25
	OUTPUT	0.014	0.018	0.07	0.29	0.39
RADIAL DIMENSIONS (mm)	D1H7	5	7	12	-	-
	t	4.5	6.5	11.5	-	-
	D2H7	-	-	-	12	15
	A1H7	50	54	69	86	98
	A2	50	54	69	86	98
	B	70	76	92	112	128
	CH7	40	42	54	70	80
	D	-	-	-	20	20
	E	30	34	46	60	70
	F	60	66	82	100	114
	G	4.5	4.5	4.5	5.5	6.5
AXIAL DIMENSIONS (mm)	H	3 - M4	3 - M4	4 - M4	4 - M4	4 - M4
	L	77	83	116	97	112
	M	25	27	47	32	36.5
	N	4	4	4	5	6
	P	11	13	25	10	14.5
	Q	5	5	6	6	6
	R	8.5	8.5	15	15	15
	S	26	18	24	28	30
	T	13.5	15.5	33	21	24
U	10.5	12.2	24	8.8	13.3	
Y	9	10	20	4	6.5	
WEIGHT (LBS)		1.5	1.8	2.8	5.3	6.8

MAGNETIC PARTICLE BRAKE

SERIES 52-OPB-N

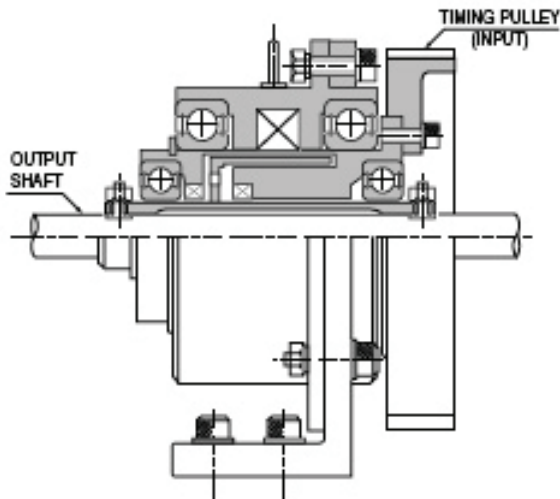


MODEL		52-OPB	52-OPB 10	52-OPB 20	51-OPB 40	52-OPB 80
Torque (Nm)		0.5	1.0	2.0	4.0	8.0
WATTAGE (DC24V) (W)		12	14	18	22	33
MOMENT OF INERTIA J (Kgcm ²)		0.15	0.26	0.84	3.25	5.25
AXIAL DIMENSIONS (mm)	dg7	6	7	10	12	15
	t	5.5	6.5	9	10	13
	A	65	75	92	112	128
	B	46	56	69	86	100
	CH9	43	54	69	86	98
	D	56	66	82	100	114
	E	4.5	4.5	4.5	5.5	6.5
RADIAL DIMENSIONS (mm)	L	56	61	71.5	79	95
	M	27.5	33	34	36	42
	N	25.5	25.8	35	40	50
	P	3	4	4	5	6
	Q	2.5	3	3	5	6
	R	22.3	22	31	34	43
	S	12	12	20	20	20
WEIGHT (lbs)		0.9	1.5	2.2	4.0	6.6

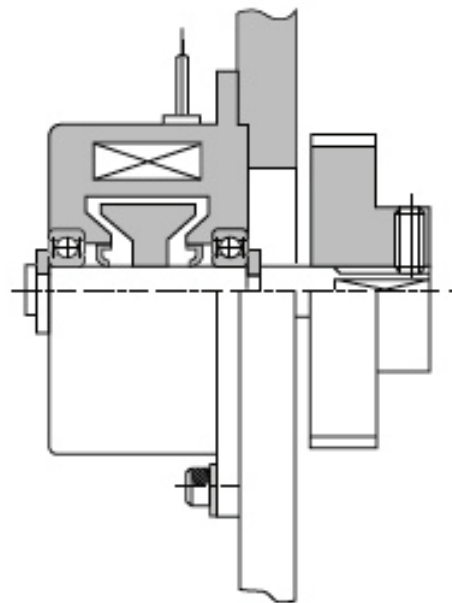
PERFORMANCE TABLE

MODEL	Rated torque (Nm)	Coil resistance (20dec C Ohm)	Drag torque (Nm)	Allowable continous heat dissipation (W)	Max speed (r/min)
51-OPC 5	0.5	50	Max 0.12	15	1800
51-OPC 10	1.0	41	Max 0.23	25	1800
51-OPC 20	2.0	32	Max 0.47	45	1800
51-OPC 40	4.0	26	Max 0.95	70	1800
51-OPC 80	8.0	17.6	Max 1.91	90	1800
52-OPB 5	0.5	90	Max 0.12	25	1800
52-OPB 10	1.0	65	Max 0.23	35	1800
52-OPB 20	2.0	65	Max 0.47	50	1800
52-OPB 40	4.0	65	Max 0.95	60	1800
52-OPB 80	8.0	65	Max 1.91	80	1800

TYPICAL INSTALLATION



Model 51-OPC Clutch



Model 52-OPB Break