

Tooth Clutches

Series 5EC-P



Series 5EC-P Sure Drive Electromagnetic Pilot-Mount Tooth Clutches

Stationary Field for Dry Operation

Series 5EC-P electromagnetic tooth clutches are designed for dry operation. When a DC voltage is applied, a magnetic field is generated, bringing the two toothed rings into mesh. This provides a positive slip free drive. The armature is spring-loaded to ensure rapid disengagement and zero drag when disengaged.

Features

- One-piece construction, eliminates costly installation setting and alignment procedures, and ensures all axial forces are contained within the clutch assembly
- Bearing mounted pilot mount, provides rigid precise location for direct attachment of power transmission components and reduces engineering required by machine builder
- 'Hirth' type drive teeth provide high torque in a compact envelope and positive drive without slip
- Stationary coil and magnet assembly allow high running speeds and simple connection to DC power supply without brushes.

Typical Applications

- Machine Tools
- Heavy Machines
- Steel Production, Processing and Machining
- Lifting Gear and Container Cranes
- Synchronization Clutches for series switching of two electric motors
- Dynometers and Test Equipment
- Remotely Operated Equipment
- Metal and Material Handling
- Cardboard Box Machining

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MODEL		5EC 025P	5EC 035P	5EC 055P	5EC 070P
Performance Data					
Rated Static Torque	Nm	50	200	800	1800
	lbf ft	37	148	590	1325
Power Consumption at 20° C	Watts	19	26	63	120
Maximum Speed	rpm	5800	4000	3000	2600
Dimensional Data (all dimensions in mm)					
Standard Bores (H7)	—	30	50	60	
Keyways to I.S.O. 773		8 x 3.3	14 x 3.8	18 x 4.4	
B.S. 4235:1972 Pt. 1	20	25	45	55	
D.I.N. 6885:1968 Pt. 1; NFE22-175	6 x 2.8	8 x 3.3	14 x 3.8	16 x 4.3	
(Bores other than standard can be obtained by special order)	15	20	40	50	
	5 x 2.3	6 x 2.8	12 x 3.3	14 x 3.8	
Diameters (all dimensions in mm)					
A		74	98	155	209
B		74	98	153	209
C (h8)		52	75	112	145
D		35	45	75	95
Lengths					
E		77	100	133.5	165
F		15	23	36	46
G (ref)		34.5	34.5	37.2	40
H (ref)		32	32	32	32
J		2.5	2.5	5	6.5
K		8.1	10	10	10
Fixing Holes					
Number		3	3	6	6
Size		M4	M6	M8	M10
P.C.D.		65	88	135	180
Depth		8	12	14	20
Driving Teeth					
Number of Teeth		168	192	264	288

