

4EC

Series 4EC Electromagnetic Single-Face Clutches



Stationary Field for Dry Operation

Series 4EC electromagnetic stationary field single-face clutches are zero backlash and designed for dry use. When the coil is energized by the DC voltage a magnetic field is generated which attracts the armature to the rotor hub, providing the clamping force for torque transmission. The armature is spring-loaded to ensure rapid disengagement and zero drag when disengaged. Various clutch configurations are available to suit different drive installation requirements.

Features

- Zero backlash
- Long life asbestos-free friction material
- Stationary field design eliminates brush gear and simplifies supply connection
- Zero drag torque when disengaged
- Efficient magnet design reduces power consumption and heat generation
- Can be used as a continuously slipping variable torque device for torque limiting and tensioning applications
- Ideal for high cyclic and all other clutch duties
- Sealed for life bearings

Typical Applications

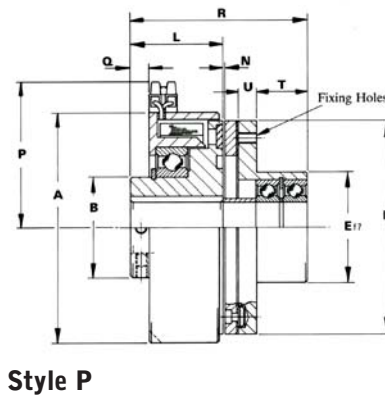
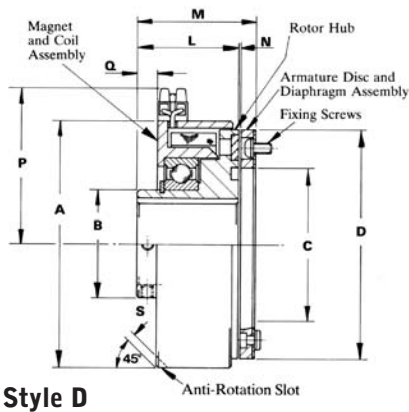
- Current Generation Sets-to connect gas/diesel engine-generator
- PTO Marine Drives-for compressors and generators
- Cutting Machines-to switch the cutter bar
- Steel Manufacture and Machining
- Paper Production-for transmission connection of the machining centers
- Packaging Machines
- High Frequency Stop/Start Applications

For Technical Assistance Call

800-825-9050

 **Matrix**[®]
International
An Altra Industrial Motion Company

MODEL		4EC 025	4EC 040	4EC 050	4EC 060
Performance Data					
Rated Static Torque	Nm	11	45	72	151
	ft-lbs	8	33	53	111
Rated Dynamic Torque	Nm	9	37	59	124
	ft-lbs	7	27	44	92
Power Consumption at 20° C	Watts	12	21	31	42
Maximum Speed	revs/min	7500	4400	4000	3000
Bores					
Clutch Rotor Hub (Bores other than standard can be obtained by special order)	Standard Bore (H8) and Keyway	15	25	30	40
	Maximum	5 x 2.3	8 x 3.3	8 x 3.3	12 x 3.3
	Maximum	17	38	46	55
	Minimum	10	15	19	25
Pilot-Mount Assembly		15 ^{+0.000} / _{-0.008}	25 ^{+0.000} / _{-0.010}	30 ^{+0.000} / _{-0.010}	40 ^{+0.000} / _{-0.012}
Coupling Mount Assembly	Maximum	22	42	46	55
	Minimum	10	15	19	25
Diameters (all dimensions in mm)					
A		72.5	115.5	135.5	170.3
B		25	50	60	75
C		41	71	83	115
D		66	107	127	162
E (f7)		38	55	65	80
F		40	60	66	80
Lengths					
L		37.0	46.5	48.5	54.5
M (ref)		43.7	53.5	56.5	66.0
N (Air Gap Setting)		0.2/0.3	0.2/0.3	0.2/0.3	0.2/0.3
P		51	73	83	100
Q		7	9	9	10.1
R (ref)		68.0	87.5	94.5	111
S (Depth and Width)		4 x 6	4 x 8	5 x 8	Ø3.0 x 10 Pin
T		18.8	25.4	27.5	30.0
U		5.5	9.0	11.0	15.0
V		24.3	34.3	38.5	45.0



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