Series 56-P

Series 56-P Spring-Applied Pressure-Released Multi-Disc Brakes

Features

- Spring-applied, ensuring automatic braking in the event of a power failure
- With all working parts being enclosed, the break is suitable for external mounting, even in unfavorable environments
- Provision is made for a through flow of cooling oil to give greater heat dissipation
- External mounting to shaft ends facilitates retro-fitting to existing machinery
- The end plate can be bored to suit through-shaft installations
- Multi-disc design results in compact high-torque brake
- Only the hub in inner plates rotates, minimizing rotational inertia

Stationary Cylinder for Wet or Dry Operation

Series 56P spring-applied pressure-released brakes are designed for dynamic braking with oil in the disc-pack chamber, and can also be used dry as holding brakes. They are engaged by disc springs and disengaged by a pressure supply to the cylinder which moves the piston axially, compressing the disc springs and releasing the plates. The hub is usually fitted to the end of the shaft which is being braked.

Typical Applications

- Winches
- Mining Machines
- High Torque Required Applications
- Agricultural Machines-in the main drive and auxiliary drives (PTO) of harvesters
- Machine Tools-for speed variation at the work spindle and feed engagement
- Building Machines-for traveling and combining gears
- Rotary Actuators
- Access Platforms
- Construction Machinery

Series 56-P

MODEL			56P30	56P40	56P45	56P55	56P70	56P110	56P140
Performance Data									
Rated Static Torque with plates in oil		Nm	105	240	405	870	1460	4780	9000
		ft-lbs	78	180	300	640	1080	3525	6640
Rated dynamic Torque with plates in oil		Nm	70	160	270	580	970	3190	6000
		ft-lbs	52	120	200	425	720	2350	4425
Energy	per Engagement	kJ	10	14	19	27	45	80	155
	per Hour	kJ	300	420	570	810	1350	2400	4650
Maximum Speed		revs/min	5200	2800	2800	2200	2200	1600	1450
Inertia (kgm^2) = Table Value x 10^{-3}									
Hub and Set of Inner Plates			0.23	1.04	2.25	5.97	15.5	234	620
Weight (kg)									
Complete Unit			8,4	13,2	17	27	40	164	236
Dimensional Data (all dimensions in mm)									
Standard Bores (H7) Keyways to I.S.O. 773 B.S. 4235:1972 Pt. 1 D.I.N. 6885:1968 Pt. 1; NF.E22-175			30 8 x 3.3	50 14 x 3.8	55 16 x 4.3	75 20 x 4.9	95 25 x 5.4	170 40 x 9.4	190 45 x 10.4
(Bores other than standard can be obtained to special order)			25 8 x 3.3	45 14 x 3.8	50 14 x 3.8	65 18 x 4.4	80 22 x 5.4	150 36 x 8.4	150 36 x 8.4
Minimum Bore			18.8	31.5	34.7	41.0	63.2	90	115
Diameters (all dimensions in mm)									
	A		135	162	180	220	255	400	480
	B (H7)		50	80	90	110	140	225	280
	C Maximum		33	54	62	79	99	145	265
Lengths									
	L		85	98	102	114	128	185	200
	M		40	50	51	54	53	83	67
	N		30	30	41	40	45	90	110
	P Maximum		10	11	11	13	17	14	18
	P Minimum		4	4	4	5	9	8	14
Fixing Bolts									
Number			6	8	8	12	12	12	8
Size			M10	M10	M10	M12	M12	M16	M20
Length			110	120	120	130	150	90	100
P.C.D.			115	142	160	195	230	360	440
Tightening Torque		Nm	49	49	49	85	85	318	830
		ft-lbs	36	36	36	63	63	234	612