

The Extreme Thin Electromagnetic Brake

THIN · LIGHT · ROBUST — REVOLUTIONARY
TECHNOLOGY IN PRECISION MACHINERY

The Extreme Thin series belongs to Warner Electric™, the leading brand of electromagnetic brake and clutches.

Breaking the known barrier of thickness, the Extreme Thin electromagnetic brake, with its thin, light and robust design, can be used to replace traditional braking solutions in joint-arm motors. In some case, it has only ½ of the thickness and weights of same torque conventional EM brake structure, but keep most of its benefits, like estops capability and low backlash.

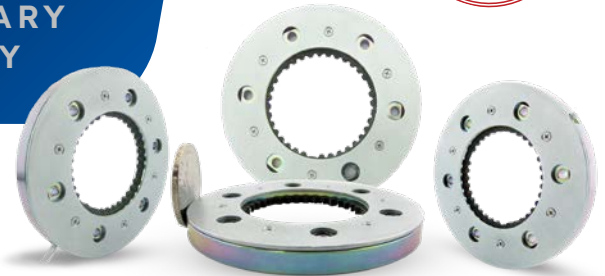
The brake has a patented design (US Patent No. 12025194), a nested structure, where the friction disc is enclosed within the brake. This prevents dust from spreading arbitrarily, therefore effectively reducing dust and noise dispersion.

- Thin - 7mm thickness
- Light - only 1/2 of the weight of conventional products
- Robust - patented nested structure, three-dimensional framework
- Easy installation — the shaft sleeve (spline hub) can fully pass through the brake
- Large center bore — Suitable for motors with large diameter shafts and/or hollow
- Low dust — suitable for various precision applications
- Low noise — widely used in various scenarios
- Allow high rotational speed and low wear rate
- Specially designed for dual voltage control
- Up to 100°C — Can work under an environment temperature of up to 100°C (lower torque applies).
- Estops capable — Suitable for static holding applications with limited dynamic emergency stops.
- Rated continuous duty system (S1).

* Patented in US, China and Japan; Patent Pending in Europe and India

Founded in 1927, Warner Electric has grown to become a global leader in the development of innovative electromagnetic clutch & brake solutions. Warner Electric engineers utilize the latest materials and manufacturing technologies to design long life, easy-to-use clutches and brakes that provide improved accuracy and repeatability.

Warner Electric offers the broadest selection of industrial clutches, brakes, controls and web tension systems available from a single manufacturer.



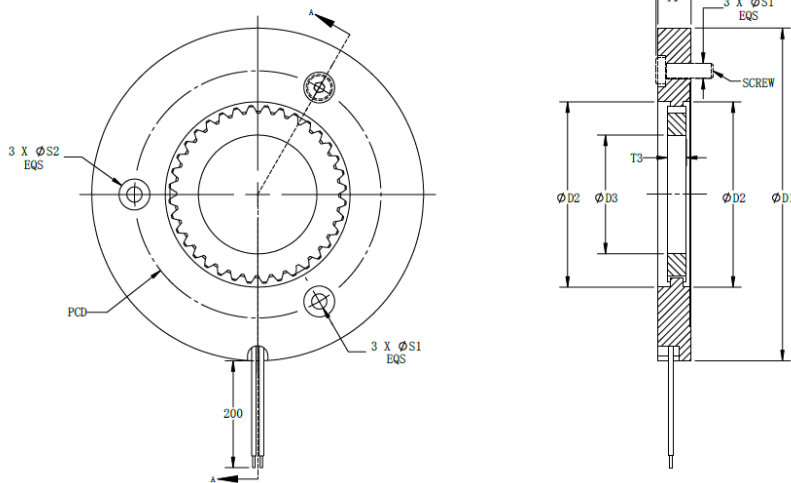
APPLICATION

- COBOT
- Surgical robot
- Delivery robot
- AMR
- AGV



WARNER ELECTRIC™

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Size

SERIES	Brake (mm)					Hub (mm)			
	ØD1	ØD2	T1	ØPCD	Mounting	Through center bore	ØD3	Max ØD3**	T3
5G507B003M32L2	48	20	7	32	3 x M2.5	YES	12	14	4
5G509B005M32L2			9			YES			
5G511B008M32L2			11			YES			
5G607B006M38L2	56	26	7	38	3 x M3	YES	16	18	4
5G609B008M38L2			9			YES			
5G611B012M38L2			11			YES			
5G707B010M52L2	70	39	7	52	3 x M3	YES	22	25	4
5G709B012M52L2			9			YES			
5G711B020M52L2			11			YES			
5G811B030M60L2	80	46	11	60	3 x M3	YES	30	32	5
5G913B060M68L2	90	52	11	68	3 x M4	YES	36	40	6

** The shaft bore Max Ø D3 is calculated according to interference fit. For other fits, please refer to Ø D3

Mechanical and electrical parameters

SERIES	Torque (Nm)	Normal Speed (rpm)	Max Speed (rpm)	Single allowable braking energy (J)	Total braking energy (kJ)	Max backlash(°)	Weight (g)	Overexcitation/Holding Power
5G507B003M32L2	0.35	8000	10000	30	15	1°	65	24.6/2.1W
5G509B005M32L2	0.5	8000	10000	40	20	1°	80	25.4/2.2W
5G511B008M32L2	0.8	8000	10000	65	32.5	1°	96	29.4/2.5W
5G607B006M38L2	0.6	8000	10000	50	25	0.8°	82	27.5/2.3W
5G609B008M38L2	0.8	8000	10000	65	32.5	0.8°	105	30.9/2.6W
5G611B012M38L2	1.2	8000	10000	100	50	0.8°	125	33.7/2.9W
5G707B010M52L2	1	6000	8000	80	40	0.8°	116	32.4/2.8W
5G709B012M52L2	1.2	6000	8000	100	50	0.8°	155	37.1/3.2W
5G711B020M52L2	2	6000	8000	150	75	0.8°	180	41.3/3.5W
5G811B030M60L2	3	5000	6000	250	125	0.8°	225	47 / 4.0W
5G913B060M68L2	6	4000	5000	500	250	0.8°	320	63.2 / 4.0W

**All dimensions and parameters are for reference only, and specific data shall be subject to the drawings.



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