

Module Line

Spring-applied single-disc brake module

77 500..A15



About the Module Line

The Module Line is comprised of DC operated spring-applied single-disc brake modules designed to be mounted on a fully assembled motor. The brake modules should preferably be attached to the A-face end shield of the motor. All Module Line brake units are equipped with a supported shaft + drive. Module Line brakes are designed as fail-safe holding brakes

with emergency stop function. Electromagnetic spring-applied brakes generate the required braking torque when voltage is removed. The braking effect can be neutralised by an electromagnetic force or by an additional hand release feature during set-up work.

Versions
77 500..A15
torque range 25-500 Nm
DC
adjustable torque
attachable brake module (holding brake)

Applications
DC motors
Gear motors
IEC three-phase motors
Servo motors...

Upon request, the brake can be supplied with variable connection features (e.g. cables, connection box with builtin half-wave rectifier or overexcitation rectifier).

Spring-applied single-disc brake module DC

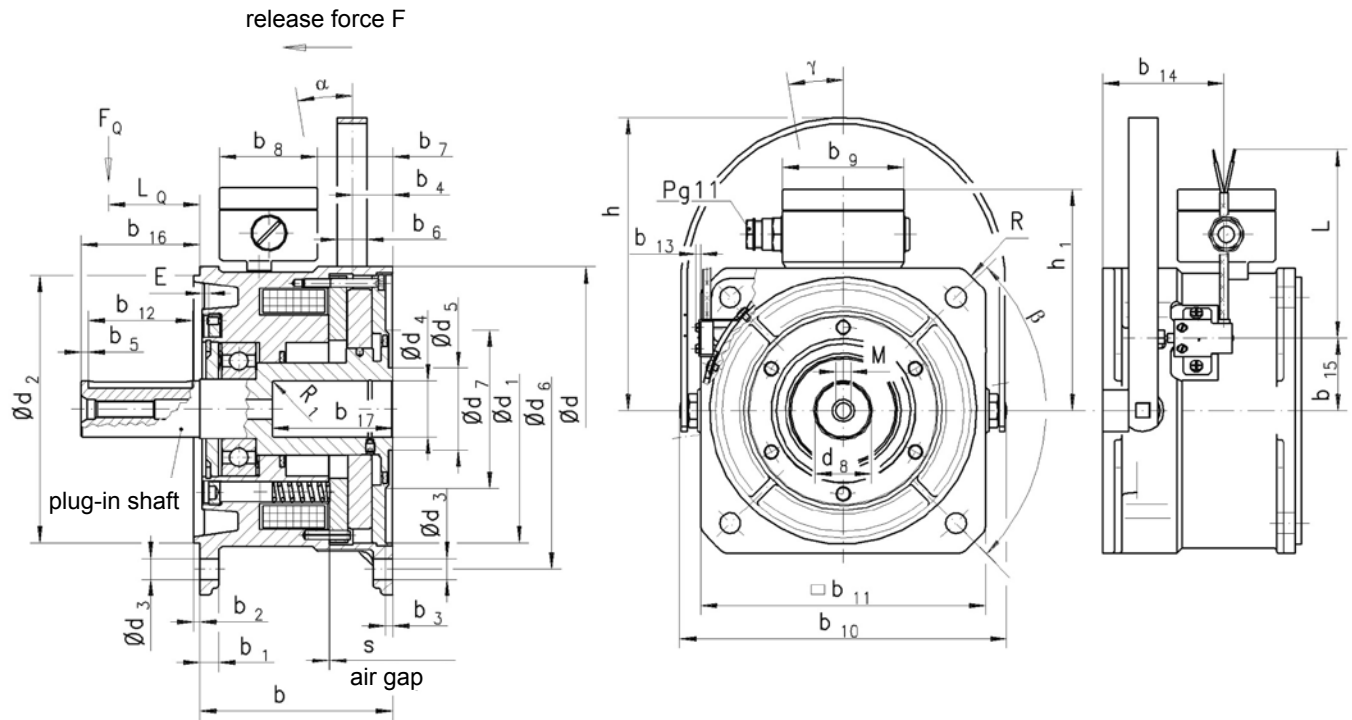
Versions	77 500..A15
Standard rated voltages	24 V, 102 V, 178 V DC
Protection	IP 55
Thermal class	F
Rated torques	25 - 500 Nm
Accessories (options)	hand release
Note	Specification subject to change without notice. The „General technical information“ and the „Operating instructions“ 77 500..A15 must be strictly observed.



Technical Data

Size	Transmissible torque range (standard)	Max. reachable transmissible torque with fully screwed in adjusting ring	Max. speed	Max. switching power	Max. switching energy (Z = 1)	Rated power	Response time		Moment of inertia hub and friction disc	Weight
							on	off		
	M_4 [Nm]	M_{4max} [Nm]	n_{max} [min ⁻¹]	P_{max} [kJ/h]	W_{max} [kJ]	P_N [W]	t_1 [ms]	t_2 [ms]	J [kgcm ²]	m [kg]
13	25 - 55	55	6000	40	15	97	30	110	9.3	10
19	60 - 150	155	5500	160	60	131	60	260	48	21
24	140 - 310	310	4500	260	150	167	100	330	141	46
29	280 - 500	520	3700	400	275	190	450	350	266	66

Dimensions [mm]



Size	d	d ₁ (+0.15)	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	d ₈	b (-0.08)	b ₁	b ₂	b ₃
13	142	130.3	130 _{js}	11	28 ¹⁾ / 32 ²⁾	45	165	84	28 ³⁾ / 32 ⁴⁾	103	13	3.5	4.1
19	192	180.3	180 _{js}	14	32 ¹⁾ / 38 ²⁾	55	215	108	32 ³⁾ / 38 ⁴⁾	130	13	4	4.5
24	248	250.3	250 _{h6}	18	42 ¹⁾ / 48 ²⁾	66	300	132	42 ³⁾ / 48 ⁴⁾	162	18	5	5.8
29	298	300.3	300 _{h6}	18	50 ¹⁾ / 55 ²⁾	77	350	135	50 ³⁾ / 55 ⁴⁾	168	18	5	5.8

Size	b ₄	b ₅	b ₆	b ₇	b ₈	b ₉	b ₁₀	b ₁₁	b ₁₂	b ₁₃	b ₁₄	b ₁₅	b ₁₆	b ₁₇
13	22	5	20	25	66	82	164	142	45	5.5	70	35	58	53
19	27	5	20	50.5	66	82	221	192	70	3	80	48.5	80	81
24	37	10	25	60	66	82	278	260	90	-6	94	60.5	110	111
29	41	10	25	79	66	82	329	314	90	-13	101	72.5	110	111

Size	h	h ₁	R	R ₁	L	L _Q	s	s _{max}	M	F ⁵⁾ [N]	F _Q ⁶⁾ [N]	α	β	γ
13	162	122	96	2	508	58	0.3 ^{+0.2}	0.65	M12	80	1100	ca.20°	4x90°	9.5°
19	224	149	125	2	508	80	0.35 ^{+0.2}	0.8	M12	130	2300	ca.19°	4x90°	0°
24	269	174	175	2	508	110	0.4 ^{+0.25}	1.05	M16	200	2000	ca.17°	4x90°	0°
29	328	199	200	2	508	110	0.45 ^{+0.25}	1.2	M20	240	6800	ca.19°	4x90°	0°

¹⁾ Min. bore.

²⁾ Max. bore.

³⁾ Min. shaft diameter.

⁴⁾ Max. shaft diameter.

⁵⁾ Release force F (approx.) referred to max. transmissible torque (standard).

⁶⁾ Max. permitted transverse force with distance L_Q respectively the manufacturer's motor data must be considered.



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