ERD VAR 00 / VAR 02 005-300

Electro-Magnetic Electro Release Brake

Characteristics
- Electrically operated 24, 103,5 or 207 VDC
- Single disc
- Activated by spring pressure

Utilisation
- Braking a shaft
- Holding a load

Particularities
- For dry use
- No residual torque in disengaged position

Adjustments
- Factory set, no adjustment required
- With wear adjustment for dynamic use

Maintenance Manual
- SM 321A for sizes 005 to 035
- SM 321 for sizes 060 to 300

Mounting Precautions
- For horizontal or vertical use for standard versions
- Horizontal use for high torque versions
- Release shipping screws after mounting

Power Supply
- CBC 140–5 + CBC 140–T (24V)
  CBC 140–5 (103,5V - 207V)

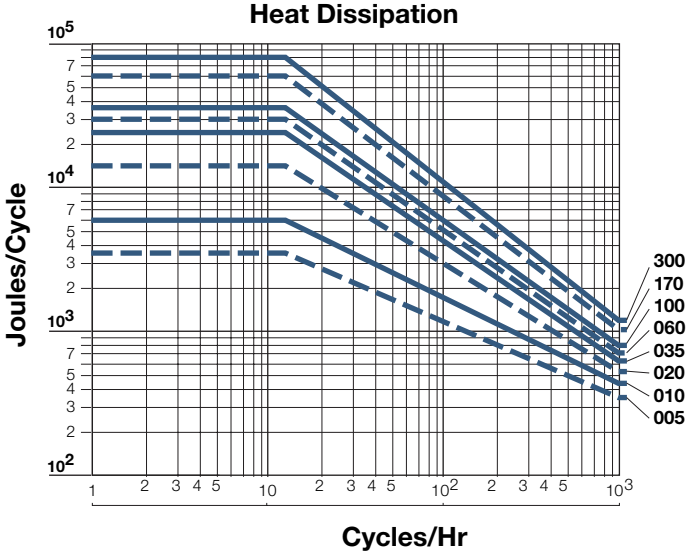
Response Times
Response times are average values for switching on the DC side. Pull-in = release time for 10 % torque left. Drop-out = time to obtain 90 % torque. DC side operated, AC side operated t x 6 (typ)

Switch time on the DC side

Sizes		005	010	020	035	060	100	170	300
Pull-in	[ms]	36	54	45	104	188	195	297	354
Drop-out	[ms]	18	26	29	45	47	74	99	160

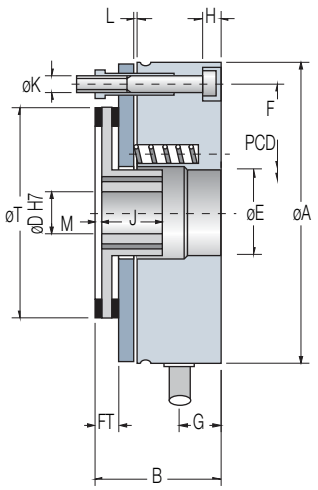
Mounting Example

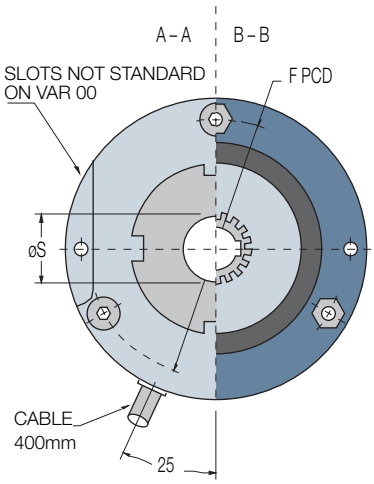
Heat Dissipation



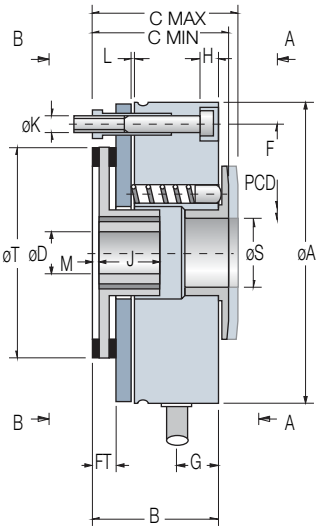
Electro-Magnetic Electro Release Brake

VAR 00



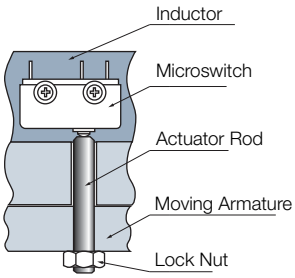


VAR 02



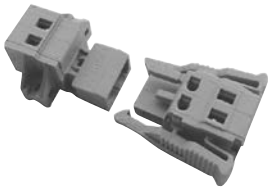
Microswitch Option

- Kit for sizes 060 to 300 only.



Sizes			005	010	020	035	060	100	170	300
STANDARD										
Nom. Torque		[Nm]	5	10	20	35	60	100	170	300
Max. Speed		[min-1]	3600	3600	3600	3600	3600	3600	3600	3600
HI-TORK										
Nom. Torque		[Nm]	–	–	–	–	80	130	220	400
Max. Speed		[min-1]	–	–	–	–	2600	2300	1900	1600
Power	P24 VCD	[W]	20	25	30	39	47	57	66	99
	P20 103,5 VCD		23	27	33	43	55	66	76	128
	207 VCD		23	27	33	43	62	86	84	135
	A		84	102	127	147	162	188	215	252
	B		35	41	47,5	54,5	64	71	83	97
	C min		38,5	44,5	52	61	70	77	89	107
	C max		40	46,5	55,5	65	74,5	81,5	96	115
	D pre-bore		8	10	10	14	14	15	20	25
	D standard H7		10/11	10/14/15*	15/20/22/24*	20/24/25	25/30	25/30/35	35/40/45	35/40/45
	D max*		12*	15*	24*	28*	32*	40*	50*	54*
	E		23,5	28,5	40,5	48,5	58,5	63,5	73,5	88,5
	F		72	90	112	132	145	170	196	230
	FT		6,5	8,2	9,8	11	12	12	14,7	15,7
	G		11,7	14,6	15,5	19,7	19	22	27	34
	H		5,1	6,4	5,8	7,3	8,7	11	13	18
	J	0/+0,2	18	20	20	25	30	30	35	40
	K		3xM4	3xM5	3xM6	3xM6	3xM8	3xM8	6xM8	6xM10
	L nom		0,2	0,2	0,2	0,3	0,3	0,3	0,3	0,3
	M synth		1,5	2,5	–	–	–	–	–	–
	M metal		2	3	4	3	3	3	4,5	5
	S		19	24	35	40	48	52	60	73
	T		60	77	96	116	125	150	174	204
Inertia	Synthethic	[kgcm²]	0,12	0,5	–	–	–	–	–	–
Inertia	STD Metal	[kgcm²]	0,271	0,70	2,30	7,465	6,3	14,4	29	61
	HT		-	-	-	-	8,5	20,5	47	92
Weight		[kg]	0,9	1,7	3	4,6	6,4	9,9	15,6	25,9
Connection						**Cable**				

The HT torque outlined is a static torque: for dynamic applications, please contact our technical department.



Connector Options
(Delivered without cable)
2 poles, capacity :
0,5/2,5mm²

Keyways according to
ISO/R 773 / BS 4235 / DIN 6885-1 / NF E 22-175, tolerance P9
*Keyways according to DIN 6885-1/3

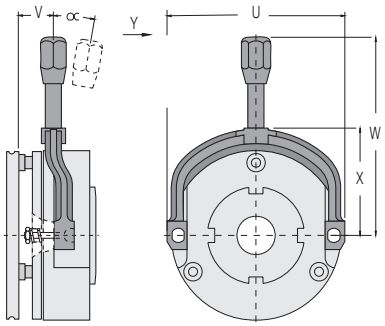
ERD VAR 00 / VAR 02 005-300

Electro-Magnetic Single Disc Electro Release Brake

Hand Release

Designed to be retrofitted, except VAR 00.

Automatically returns to “neutral position” when released, thereby restoring holding torque to the brake.

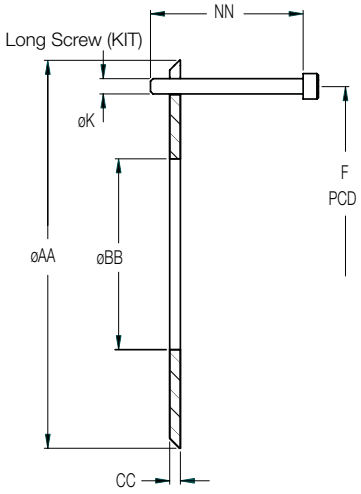


Sizes		005	010	020	035	060	100	170	300
U		88	106	132	152	166	187	223	262,5
V		17	18	25	22	40	44	53	61
W		98	107	129	139	189	205	240	313
X		53	62	76	86	104	120	140	162
Y	[N]	30	53	62	107	150	200	250	450
α	[*]	10	9	8	8	15	15	15	20

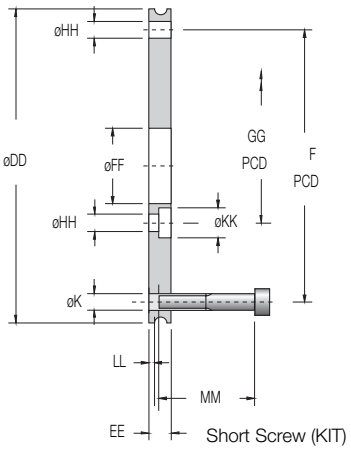
Friction Flanges for Brake Mounting

Sizes		ERD005	ERD010	ERD020	ERD035	ERD060	ERD100	ERD170	ERD300
AA		87	107	132,5	152,5	–	–	–	–
BB		42	54	60	70	–	–	–	–
CC (min)		3,2	3,2	3,6	4,6	–	–	–	–
DD		83	100	125	145	160	185	212	250
EE		6	7	9	9	11	11	11	11
F	K	3 x M4	3 x M5	3 x M6	3 x M6	3 x M8	3 x M8	6 x M8	6 x M10
	HH	3 x 4,5	3 x 5,5	3 x 6,5	3 x 6,5	3 x 8,3	3 x 8,3	6 x 8,3	6 x 10,3
FF		20	30	40	45	55	65	75	90
GG		30	45	56	62	74	84	100	120
KK		8	10	11	11	14	14	14	17
LL		2	2	3	3	3	3	3	3
MM		35	40	50	55	63	68	77	87,5
NN		40	45	55	60	–	–	–	–

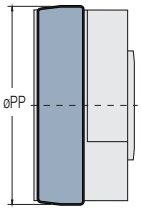
Intermediate Flange



Thick Flange



Dust Cover Option



Sizes		005	010	020	035
PP	[mm]	88	106	132	152

Sizes		060	100	170	300
PP	[mm]	166	192	219	256

Electro-Magnetic Single Disc Electro Release Brake

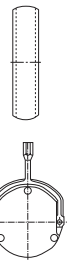
Classification Key

Model	Size	Design	OPTION	Voltage VDC	Bore H7	
E R D	0 0 5	2 0	M 1 2	0 2 4	1 1	0

Size — Nominal Torque M_d [Nm]: 300, 170, 100, 060, 035, 020, 010, **005**

Design
- Metallic — **M**
- Plastic Size 005 - 010 — S
- High Torque Size 060 - 300 — HT

OPTION
- 0 None
- **1** Dust Cover
- 2 Hand Release
- 3 1 + 2



Voltage VDC
- **Special
- 207 VDC
- 103,5 VDC
- VDC

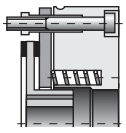
Bore H7
- See page 73
- 00
- Pre-bored [mm]

* Microswitch Only for VAR02

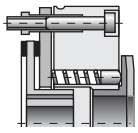
- None **0**
- With 1

Design
- Cable **0**
- Cable + Connector (Unmounted) 1

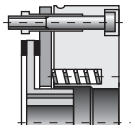
Size
- VAR 00 — M_d No Adjustment



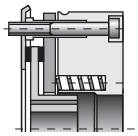
- VAR **02** — M_d Central Adjustment



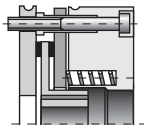
Bore H7
- No Friction Flange — 0



- Intermediate Friction Flange (size 005-035 only) — 3



- Thick Friction Flange — **2**



* Only for sizes 060 to 300
** Min. 50 pieces