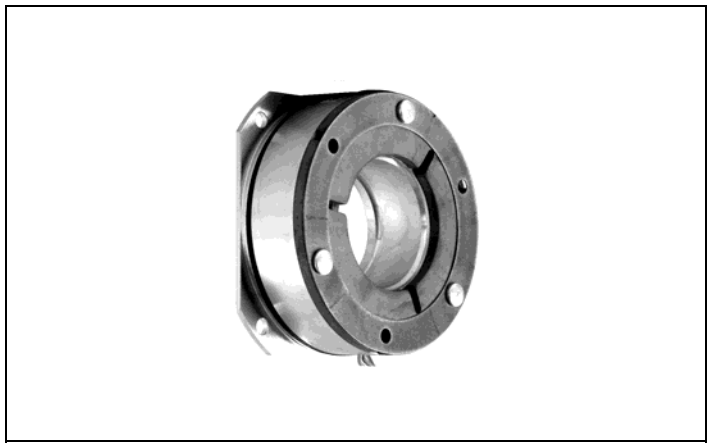


PERMANENT MAGNET BRAKES

Description

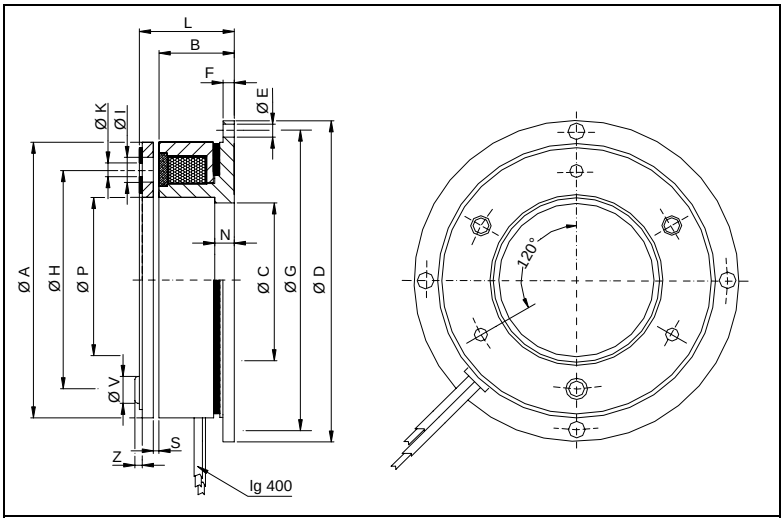
These groups belong to the family of the single plate electromagnetic brakes, thus sharing with them the main features.
Inserted without feeding and electrically release, these units can be used as safety brakes (they engage yourself automatically in case of electric breakdown) or as motor brakes (they stop the transmission when the motor is off).
Sometime they are used in applications where the unit works usually inserted to avoid keeping the coil too long excited.
Thanks to they compact design , they are often preferred to the spring loaded series.
The operation is obtained by the flux of a permanent magnet which attracts the armature of the brake against the linings surface and close so the unit.
The magnetic field, generated by the excited coil, contrast the field of the permanent magnet and open the unit.

Assembling

These units can be assembled both horizontally (best choice) or vertically.
The gap must be respected for right engagement times.
Their peculiar structure allows the complete opening of the unit without residual torque and the closing without angular clearances.

Feeding

For standard production the voltage is 24 VDC and must be respected since a not sufficient feeding cannot open the brake while an excessive voltage not only damages the coil, but also generates a magnetic field sets back the brake to the locking condition.
More over it's necessary to respect the marked polarity which, if inverted, will not allow the unit to open.
Insulation in class B in conformity with VDE 0580.



PERMANENT MAGNET ELECTROMAGNETIC BRAKES
Model PMB

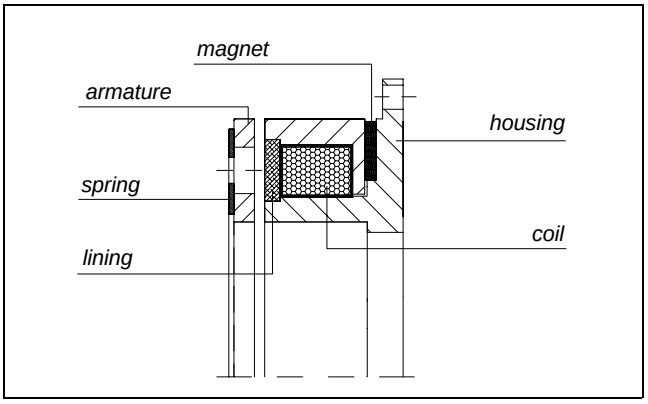
PERFORMANCES (24VDC)

size	*torque* (Nm)	*power* (W)	*RPM*	*engagement time* (ms)	*disengagement time* (ms)	*weight* (kg)
PMB 075	5	9,5	10.000	0,008	0,018	0,3
PMB 090	10	14	10.000	0,130	0,022	0,6
PMB 115	20	18	10.000	0,024	0,030	1,1
PMB 132	40	20	10.000	0,028	0,045	1,4
PMB 162	80	35	8.000	0,040	0,065	4,1
PMB 190	120	37	8.000	0,057	0,090	6

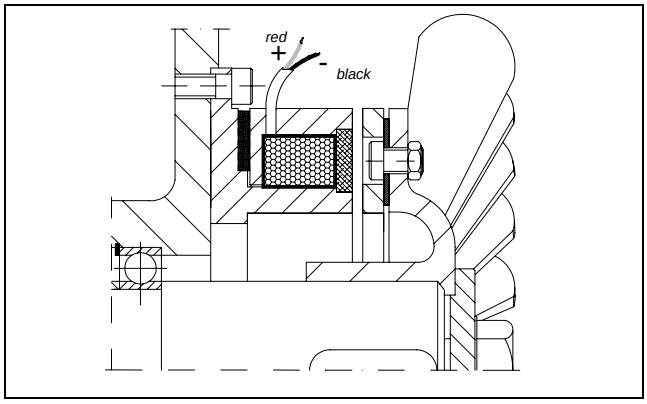
DIMENSIONS (mm)

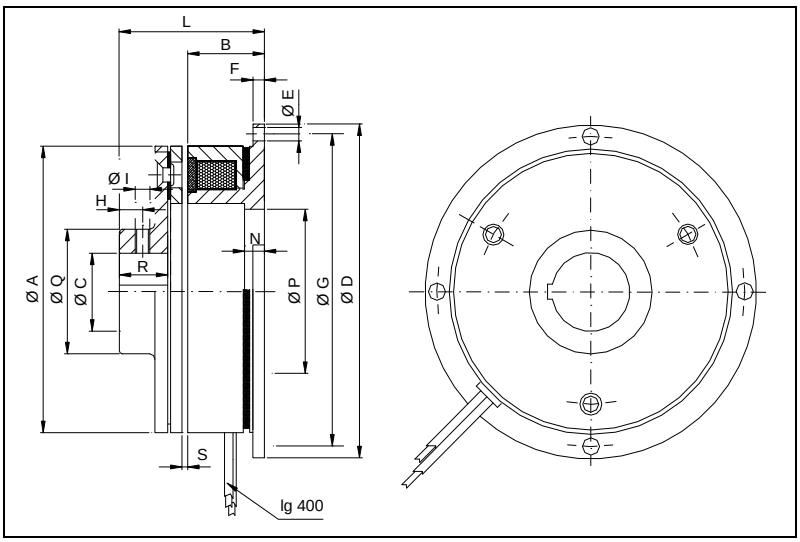
size	A	B	C H8	D h8	E	F	G	H	K	I	L	N	P	S	V	Z
PMB 075	56	22	24	75	4,5	2,2	65	46	3,1	5,5	25,5	3,5	28	0,2	5,5	1,4
PMB 090	70	27	30	90	5,5	2,5	79,5	60	4,1	7	31	3,5	35	0,2	7	1,7
PMB 115	90	29,2	40	115	6,5	2,5	102	76	5,1	9	34	3,5	46	0,2	9	2,1
PMB 132	110	33,1	50	132	6,5	3	121	95	6,1	10	39	5	57	0,3	10	2,5
PMB 162	140	37,2	70	162	6,5	6,5	151	120	8,2	16	45	6,5	75	0,3	14	3
PMB 190	160	43,2	80	190	9	7	175	135	8,2	16	52	7	83	0,3	14	3

PARTS NAME



MOUNTING EXAMPLE





PERMANENT MAGNET ELECTROMAGNETIC BRAKES
Model PMB-2

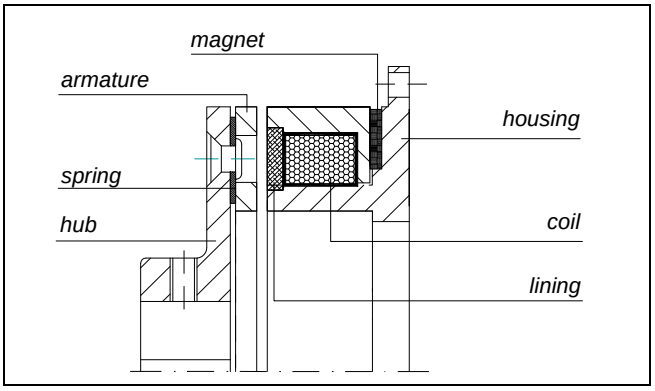
PERFORMANCES (24VDC)

size	*torque* (Nm)	*power* (W)	*RPM*	*engagement time* (ms)	*disengagement time* (ms)	*weight* (kg)
PMB 075-2	5	9,5	10.000	0,008	0,018	0,34
PMB 090-2	10	14	10.000	0,130	0,022	0,59
PMB 115-2	20	18	10.000	0,024	0,030	1,15
PMB 132-2	40	20	10.000	0,028	0,045	2,03
PMB 162-2	80	35	8.000	0,040	0,065	4,5
PMB 190-2	120	37	8.000	0,057	0,090	7

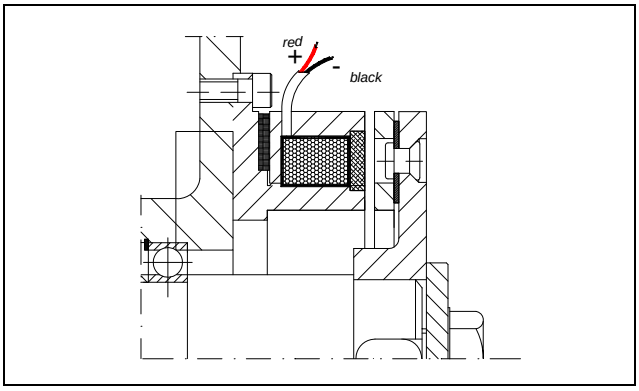
DIMENSIONS (mm)

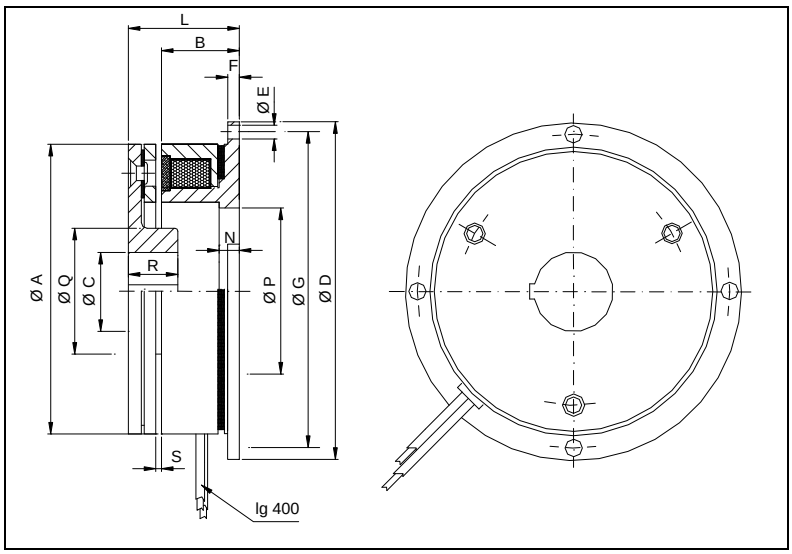
size	A	B	C max	D h8	E	F	G	H	I	L	N	P H8	Q	R	S
PMB 075-2	56	22	15	75	4,5	2,2	65	5	M3	40,5	3,5	24	24	15	0,2
PMB 090-2	70	27	20	90	5,5	2,5	79,5	6	M3	51	3,5	30	30	20	0,2
PMB 115-2	90	29,2	30	115	6,5	2,5	102	6	M4	59	3,5	40	41	25	0,2
PMB 132-2	110	33,1	35	132	6,5	3	121	10	M4	69	5	50	49	30	0,3
PMB 162-2	140	37,2	48	162	6,5	6,5	151	15	M8	84	6,5	70	70	46,5	0,3
PMB 190-2	160	43,2	45	190	9	7	175	15	M8	90,5	7	80	65	47	0,3

PARTS NAME



MOUNTING EXAMPLE





PERMANENT MAGNET ELECTROMAGNETIC BRAKES
Model PMB-3

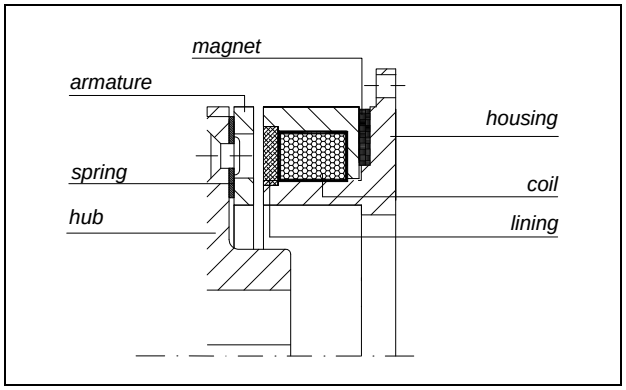
PERFORMANCES (24VDC)

size	*torque* (Nm)	*power* (W)	*RPM*	*engagement time* (ms)	*disengagement time* (ms)	*weight* (kg)
PMB 075-3	5	9,5	10.000	0,008	0,018	0,34
PMB 090-3	10	14	10.000	0,130	0,022	0,59
PMB 115-3	20	18	10.000	0,024	0,030	1,15
PMB 132-3	40	20	10.000	0,028	0,045	2,03
PMB 162-3	80	35	8.000	0,040	0,065	4,5
PMB 190-3	120	37	8.000	0,057	0,090	7

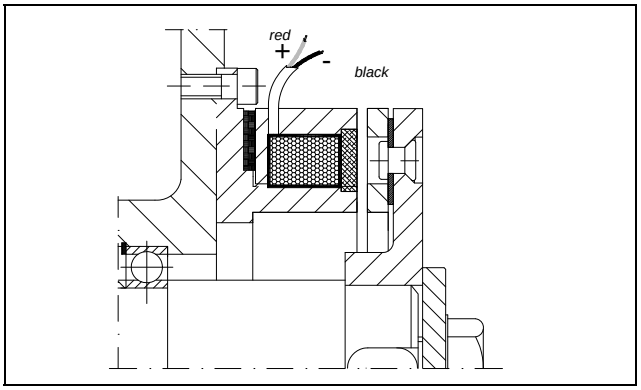
DIMENSIONS (mm)

size	A	B	C max	D h8	E	F	G	L	N	P H8	Q	R	S
PMB 075-3	56	22	15	75	4,5	2,2	65	29	3,5	24	24	15	0,2
PMB 090-3	70	27	20	90	5,5	2,5	79,5	35	3,5	30	30	20	0,2
PMB 115-3	90	29,2	30	115	6,5	2,5	102	39	3,5	40	41	25	0,2
PMB 132-3	110	33,1	35	132	6,5	3	121	45	5	50	49	30	0,3
PMB 162-3	140	37,2	48	162	6,5	6,5	151	53,5	6,5	70	50	40	0,3
PMB 190-3	160	43,2	45	190	9	7	175	60	7	80	65	40	0,3

PARTS NAME



MOUNTING EXAMPLE



Symbology


mechanically actuated


electromagnetically actuated


hydraulically actuated


pneumatically actuated


springs loaded


permanent magnet


with rotating magnet


with stationary magnet


with steel plates


with steel plates E


with sintered discs M


with linings


toothed


accessories


powder