MULTIPLATE ELECTROMAGNETIC CLUTCH AND BRAKES

Characteristics
These units are recommended for applications requiring easy starting procedure, great accuracy remote control and limited space requirements. Operation of the unit is performed by creating a magnetic field which is induced by a coil inside the unit body. it attracts the sliding disc which in turn presses the pack of blades crossed by the flux.

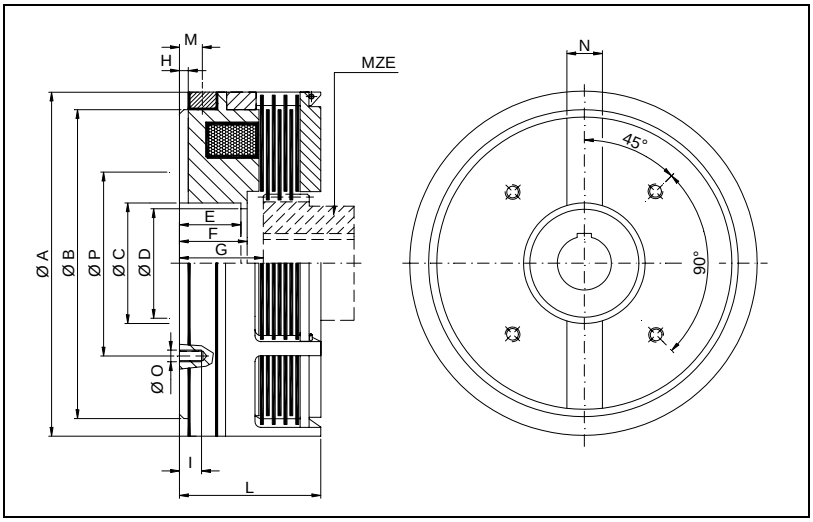
Plates
They are made of hardened steel and are designed to channel properly the magnetic flux. They are also fitted with oil grooves which help speed up engaging times.

Assembling
An horizontal assembling is recommended. In the opposite case, it is necessary to place the sliding disc downwards because its weight might induce residual torque. Make sure that the magnetic flux has no leakages to surrounding metal masses interfering with other electromagnetic units. In that case, a proper insulation should be provided.

Lubrication
Apart from special cases, these units are for wet-running applications. You can have either forced or spray lubrication. When the rotating speed is high, lubrication should come from the shaft, allowing oil to reach the plates through some holes which can be manufactured upon request. oil max temperature should amount to 90°and you should use excellent mineral oil, resistant to electrolysis and with viscosity 3° E/50° C.

Adjustment
Discs are self-adjusting.

Feeding
For our standard production voltage is 24VDC. Brakes and clutches without slipring are fed through small pipelines or cables or upon request, a connector.
For such clutches, an anti-revolving lock is very important: in fact, the coil is static but it may be moved by friction of ball bearing.
For clutches with slip ring, feeding occurs through the sliding contact of ring and brush .
Although clutches without slip ring are more expensive, they can be assembled more easily, cause no flashings or contact losses and reach higher speeds.



MULTIPLATE ELECTROMAGNETIC CLUTCHES WITH SLIP RING Model SRC

PERFORMANCES (24VDC)

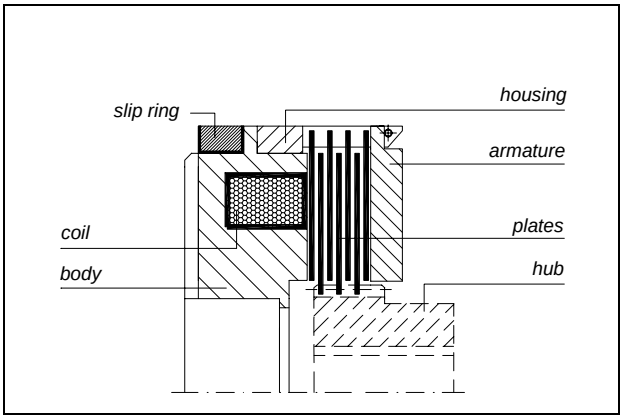
size	*torque* (Nm) M_d	M_s	*power* (W) 20°C	120°C	*time* (ms) engagem.	disengang	*plates* ext/ int	*weight* (Kg)
SRC 083	10	20	18	13	170	50	5/4	1
SRC 094	25	50	18	13	220	70	5/4	1.4
SRC 115	50	100	28	20	280	100	5/4	2.5
SRC 126	90	180	34	25	340	110	5/4	2.3
SRC 140	100	200	39	28	360	120	5/4	3.8
SRC 166	200	400	52	38	450	200	6/5	6
SRC 195	400	800	80	58	600	260	7/6	12
SRC 210	600	1100	92	68	730	280	7/6	13
SRC 240	1000	1800	92	68	880	360	7/6	16

for engagements in motion refer to dynamic torque Md
for clutch allready engaged refer to static torque Ms

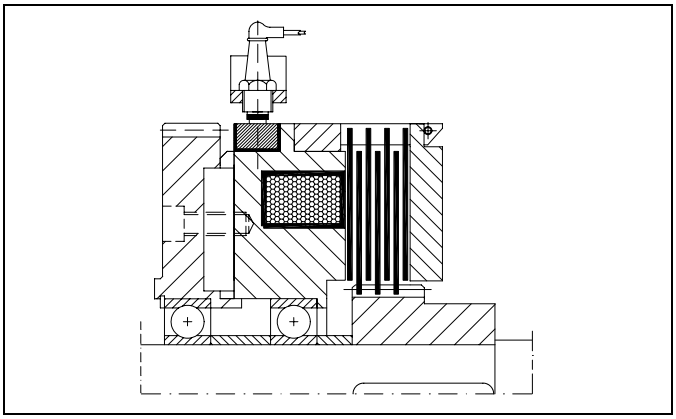
DIMENSIONS (mm)

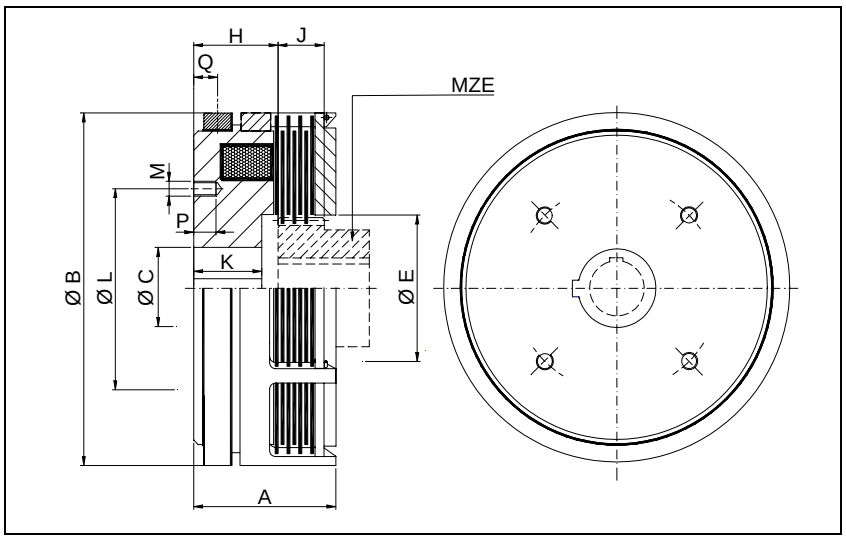
size	A	B	C K6	D	E +0,2	F	G	H	I	L	M	N H7	O ± 0,1	P
SRC 083	83	73	35	31	17	19	20.5	2	5	34	7	12	4xM5	50
SRC 094	94	81	42	68	20	22	24	2.5	5	40	8	12	4xM6	56
SRC 115	115	100	55	46	22	27	30	4	7	52	11	14	4xM8	75
SRC 126	126	109	52	52	22	22	25	4	7	43	8,5	14	3xM6	73
SRC 140	140	125	68	60	23	29	32	5	8	58	12	16	4xM8	90
SRC 166	166	146	75	65	25	30	34	6	10	63	13	20	4xM10	100
SRC 195	195	170	90	80	28	34	37	6	12	74	14	20	4xM10	118
SRC 210	210	184	96	90	31	39	42	6	16	78	14,5	20	4xM12	130
SRC 240	240	216	112	100	32	40	43	6	18	80	14,5	25	4xM12	145

PARTS NAME



MOUNTING *EXAMPLE*





MULTIPLATE ELECTROMAGNETIC CLUTCHES WITH SLIP RING Model ERC

PERFORMANCES (24VDC)

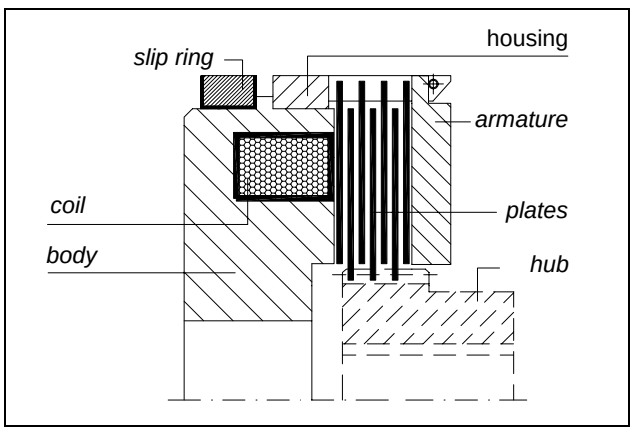
size	torque (Nm) M_d	M_s	*power* (W) 20°C	120°C	*time* (ms) *engagem.*	*disengang*	*plates* ext/ int	*weight* (Kg)
ERC 083	10	20	18	13	170	50	5/4	1
ERC 094	25	50	18	13	220	70	5/4	1.4
ERC 115	50	100	28	20	280	100	5/4	2.5
ERC 134	115	200	38	27	340	110	5/4	3.3
ERC 140	120	220	39	28	360	120	5/4	3.8
ERC 166	200	400	52	38	450	200	6/5	6
ERC 195	400	800	80	58	600	260	7/6	12
ERC 210	600	1100	92	68	730	280	7/6	13
ERC 240	1000	1800	92	68	880	360	7/6	16

for engagements in motion refer to dynamic torque Md
for clutch allready engaged refer to static torque Ms

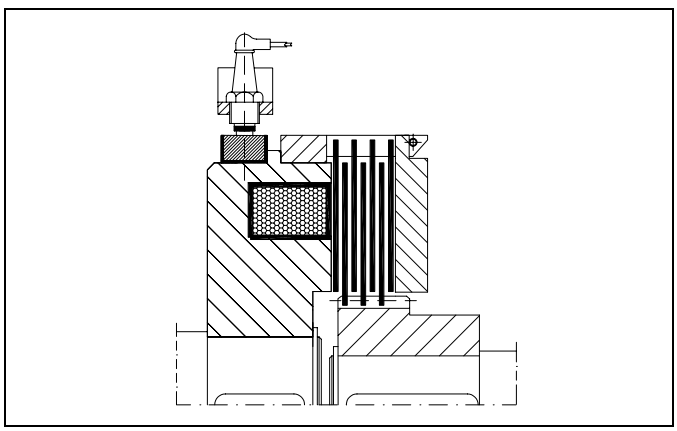
DIMENSIONS (mm)

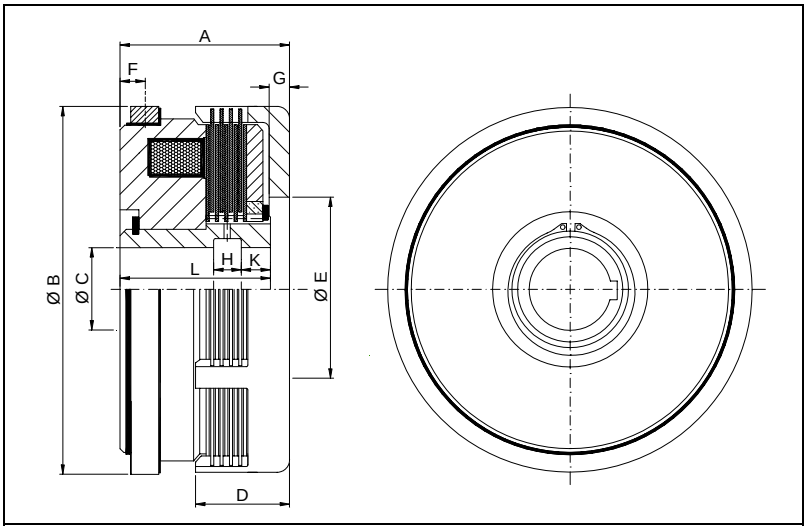
size	A	B	C max	E	H	J	K	L	M	P	Q
ERC 083	30	83	34	34	18,5	8	16,5	41	3 x M4	10	5,5
ERC 094	36	92	36	45	23	10	20	50	4 x M6	10	5,5
ERC 115	45,5	114	46	52	26	15	23	60	4 x M6	12	6
ERC 134	52	134	52	63	29	18	26	72	4 x M8	15	7
ERC 140	52	140	62	68	29	18	26	80	4 x M6	15	7
ERC 166	58,5	166	72	75	33	20	30	92	5 x M10	15	7
ERC 195	68,5	195	82	90	36,5	25	33,5	110	5 x M10	18	7
ERC 210	73,5	210	92	96	38	26	35	120	5 x M10	20	8,5
ERC 240	77	240	102	112	40	28	37	140	5 x M12	20	8,5

PARTS NAME



MOUNTING EXAMPLE





MULTIPLATE ELECTROMAGNETIC CLUTCHES WITH SLIP RING
Model ECC

PERFORMANCES (24VDC)

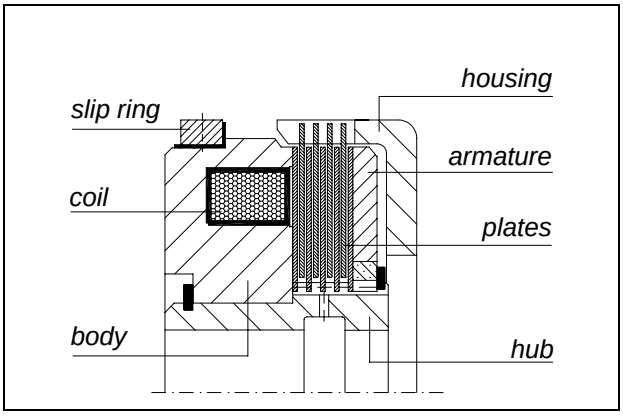
size	*torque* (Nm) M_d	M_s	power (W) 20°C	120°C	*time (ms)* engagem.	disengang	*plates* ext/ int	*weight* (Kg)
ECC 083	10	20	18	13	170	50	5/4	1
ECC 094	25	50	18	13	220	70	5/4	1.4
ECC 115	50	100	28	20	280	100	5/4	2.5
ECC 134	100	200	39	28	360	120	5/4	3.8
ECC 166	200	400	52	38	450	200	6/5	6
ECC 195	400	800	80	58	600	260	7/6	12

for engagements in motion refer to dynamic torque Md
for clutch allready engaged refer to static torque Ms

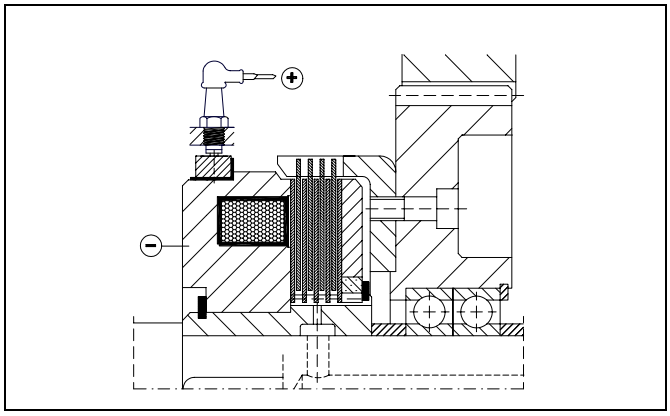
DIMENSIONS (mm)

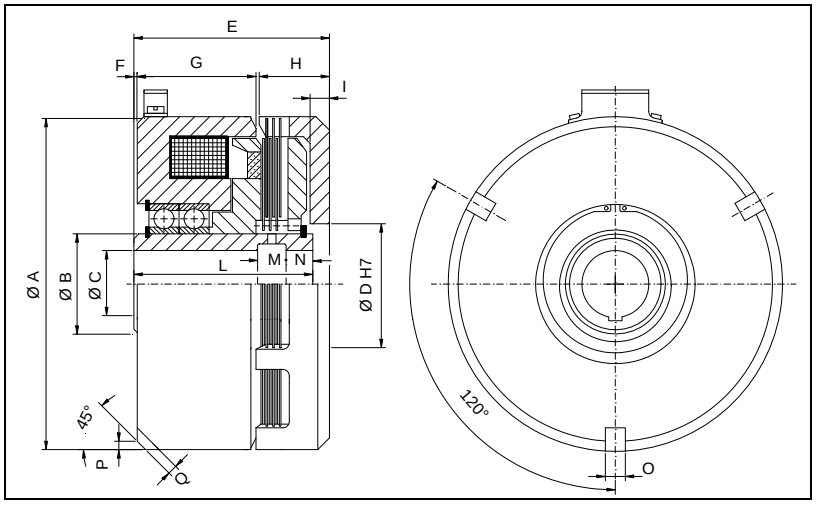
size	A	B	C max	D	E H7	F	G	H	K	L
ECC 083	38	83	18	22	34	6	5	7	6	33
ECC 094	46	94	28	22,5	45	6	5	8	8	41
ECC 115	55	115	36	29	51	6	6	10	9	49
ECC 134	61,5	134	42	32,5	61	7	6	10	12	56
ECC 166	71	166	52	38	75	7	8	13	12	64
ECC 195	85	195	62	49	90	7	10	16	13	76

PARTS NAME



MOUNTING EXAMPLE





MULTIPLATE ELECTROMAGNETIC CLUTCHES WITHOUT SLIP RING Model ESG

PERFORMANCES (24VDC)

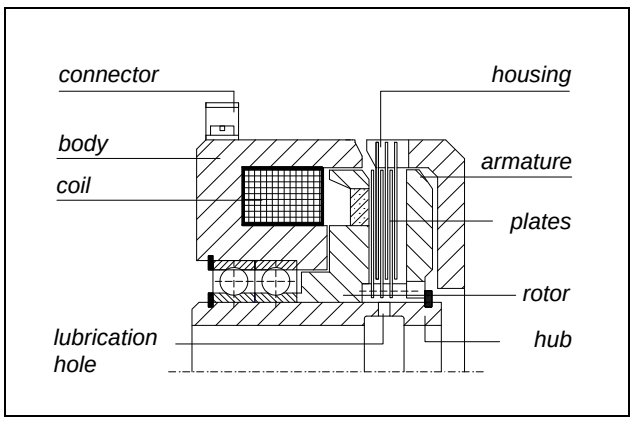
size	*torque* (Nm) M_d	M_s	*rpm* max	*power* (W) 20°C	120°C	time (ms) *engagem.*	*disengag*	*plates* ext/int	*weight* (Kg)
ESG 083	12	22	4500	34	24	170	50	2/3	1.5
ESG 094	25	45	4000	40	30	220	70	3/4	2.1
ESG 115	65	100	3800	46	38	280	100	4/5	3.4
ESG 134	130	200	3800	70	55	350	110	4/5	5.5
ESG 140	180	260	3600	75	58	360	110	4/5	6
ESG 166	240	400	3500	85	70	450	200	4/5	10
ESG 167	300	600	3500	113	84	480	210	7/6	9,5
ESG 195	480	800	3500	102	76	600	250	5/6	15
ESG 210	720	1100	2400	130	92	740	290	5/6	19
ESG 240	1200	1800	2200	150	110	890	370	6/7	27

for engagements in motion refer to dymnamic torque M_d
for engaged clutch refer to static torque M_s

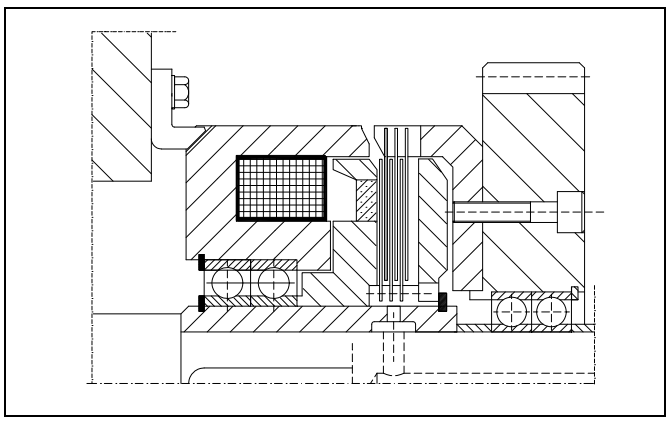
DIMENSIONS (mm)

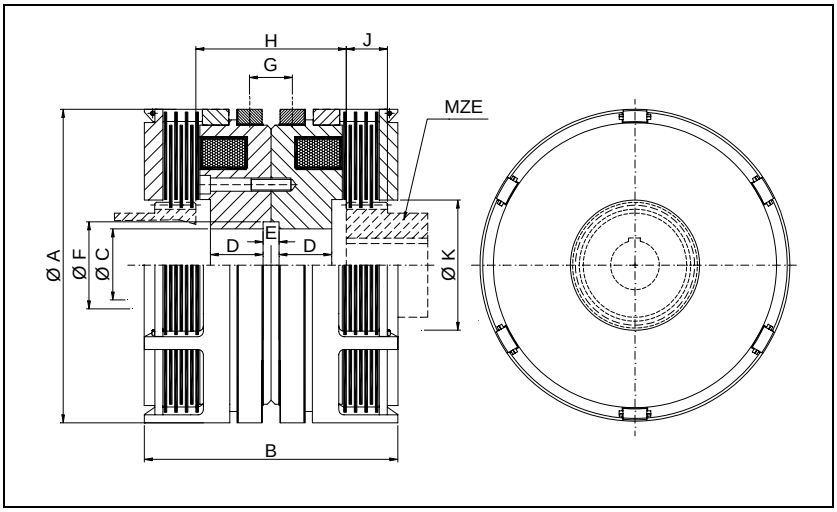
size	A	B	C max	D H7	E	F	G	H	I	L	M	N	O	P	Q
ESG 083	83	25	18	30	51	1	34	15	5	47	7	6	6	2	4
ESG 095	95	35	30	45	56	1.5	35	19	5	52	8	8	6	2	4
ESG 115	115	40	32	50	63	1.5	38	22	6	58	10	9	8	2	4
ESG 134	134	50	40	65	73	1.5	44	28	6	68	10	12	8	3	5
ESG 140	140	55	42	65	75,4	1.5	44	28	6	70,4	12	12	8	3	5
ESG 166	166	65	52	70	82	1.5	47	33	8	76	13	12	10	3	6
ESG 167	166	70	55	60	91	0,5	51	39	7,5	84	12	19	8	3	6
ESG 195	195	70	60	94	94	1	50	42	9	83	16	13	12	4	7
ESG 210	210	85	70	75	108	2	53	46	10	91	18	11,5	12	4	8
ESG 240	240	95	80	90	110,5	2	56	50	10	98	19,5	13,5	12	4	10

PARTS NAME



MOUNTING SAMPLE





DOUBLE MULTIPLATE ELECTROMAGNETIC CLUTCHES WITH SLIP RING Model ERD

PERFORMANCES (24VDC)

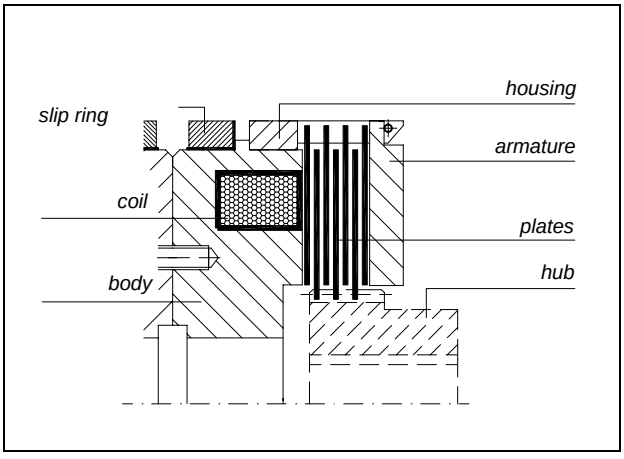
size	*torque* (nm) M_d	M_s	PD² (Kg cm²) *hub/ housing*		*power* (W) 20°C	120°C	time (ms) *engagem.*	*disengang.*	*plates* ext/ int	*weight* (Kg)
ERD 083	10	20	0,35	8	18	13	170	50	5/4 x 2	2
ERD 094	25	50	0,7	13	18	13	220	70	5/4 x 2	2,8
ERD 115	50	100	2	36	28	20	280	100	5/4 x 2	5
ERD 140	100	200	6,8	92	39	28	360	120	5/4 x 2	7,6
ERD 166	200	400	18	209	52	38	450	200	6/5 x2	12
ERD 195	400	800	34	438	80	58	600	260	7/6 x2	24

for engagements in motion refer to dynamic torque Md
for clutch allready engaged refer to static torque Ms

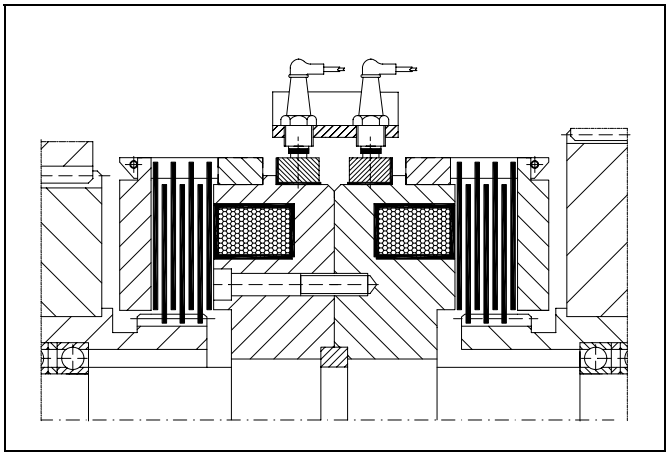
DIMENSIONS (mm)

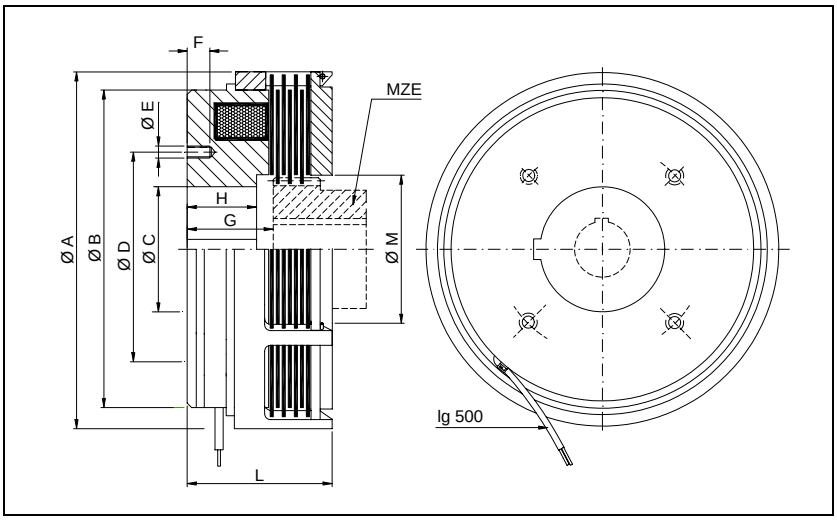
size	A	B	C K6	D	E	F	G	J	K
ERD 083	83	66	35	16	4	38	12	8	34
ERD 094	94	76	42	18	4	45	12	10	45
ERD 115	115	98	55	22	4	58	16	15	52
ERD 140	140	125	68	23	4	72	16	18	68
ERD 166	166	146	75	23	4	79	16	20	75
ERD 195	195	170	90	26	6	95	18	25	90

PARTS NAME



MOUNTING EXAMPLE





MULTIPLATE ELECTROMAGNETIC BRAKES Model ERB

PERFORMANCES (24VDC)

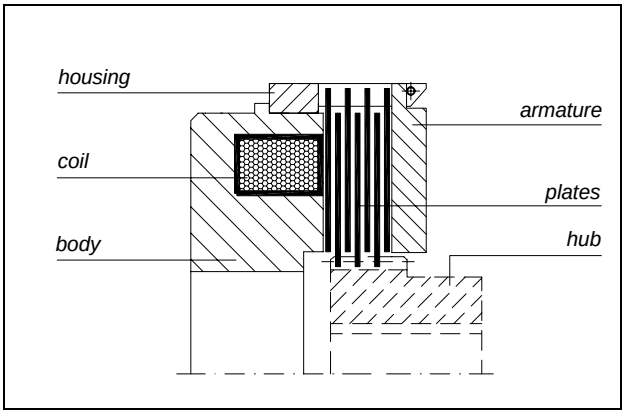
size	*torque* (Nm) M_d	M_s	*power* (W) 20°C	120°C	*time* (ms) *engagem.*	*disengang*	*plates* ext/ int	*weight* (Kg)
ERB 083	10	20	18	13	170	50	5/4	0.8
ERB 094	25	50	18	13	220	70	5/4	1.2
ERB 115	50	100	28	20	280	100	5/4	2.1
ERB 140	100	200	39	28	360	110	5/4	3.8
ERB 166	200	400	52	38	450	200	6/5	6.4
ERB 195	400	800	80	58	600	250	7/6	9.8
ERB 210	600	1100	92	68	730	280	7/6	12
ERB 240	1000	1800	92	68	880	360	7/6	16

for braking operations refer to dynamic torque M_d
for clamping refer to stationary torque M_s

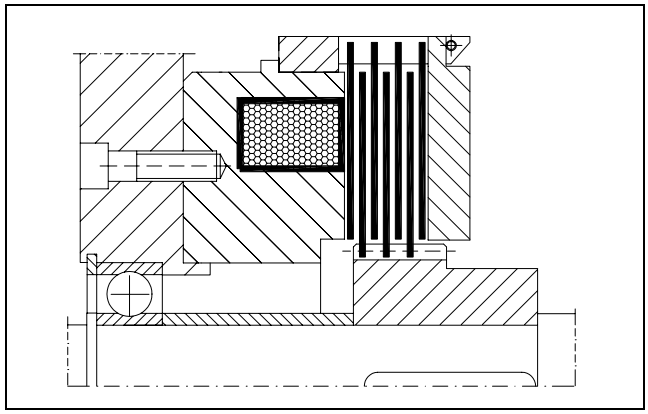
DIMENSIONS (mm)

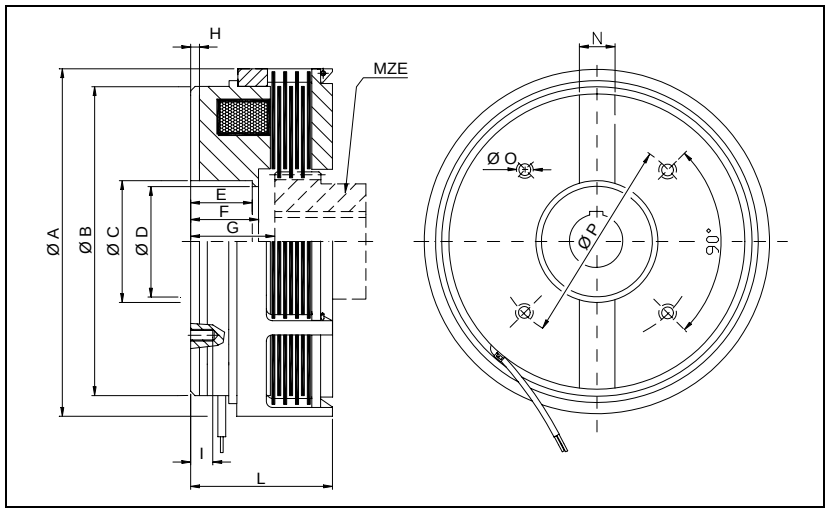
size	A	B	C max	D	E	F	G	H	L	M
ERB 083	83	73	34	41	3 x M4	10	18.5	16,5	30	34
ERB 094	94	81	36	50	4 x M6	10	23	20	36	45
ERB 115	115	100	46	60	4 x M6	12	26	23	45,5	52
ERB 140	140	125	62	80	4 x M6	15	29	26	52	68
ERB 166	166	146	72	92	5 x M10	18	33	30	58,5	75
ERB 195	195	170	82	110	5 x M10	20	36,5	33,5	68,5	90
ERB 210	210	184	92	120	5 x M10	20	38	35	73,5	96
ERB 240	240	216	102	140	5 x M12	20	40	37	77	112

PARTS NAME



MOUNTING EXAMPLE





MULTIPLATE ELECTROMAGNETIC BRAKES
Model SRB

PERFORMANCES (24VDC)

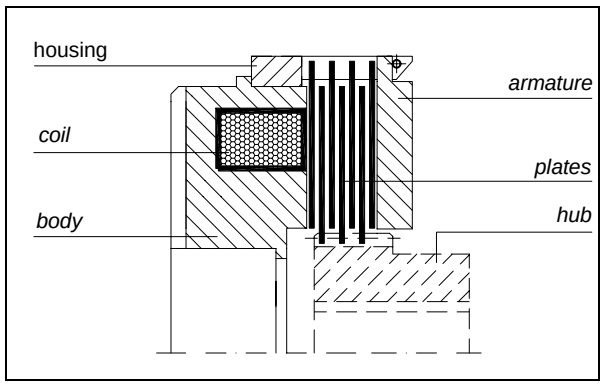
size	*torque* (Nm) M_d	M_s	*power* (W) 20°C	120°C	*time* (ms) engagem.	disengang	*plates* ext/ int	*weight* (Kg)
SRB 083	10	20	18	13	170	50	5/4	0,8
SRB 094	25	50	18	13	220	70	5/4	1.4
SRB 115	50	100	28	20	280	100	5/4	2.5
SRB 126	90	180	34	25	340	110	5/4	2.3
SRB 140	100	200	39	28	360	120	5/4	3.8
SRB 166	200	400	52	38	450	200	6/5	6
SRB 195	400	800	80	58	600	260	7/6	12
SRB 210	600	1100	92	68	730	280	7/6	13
SRB 240	1000	1800	92	68	880	360	7/6	16

for braking operations refer to dynamic torque M_d
for clamping refer to stationary torque M_s

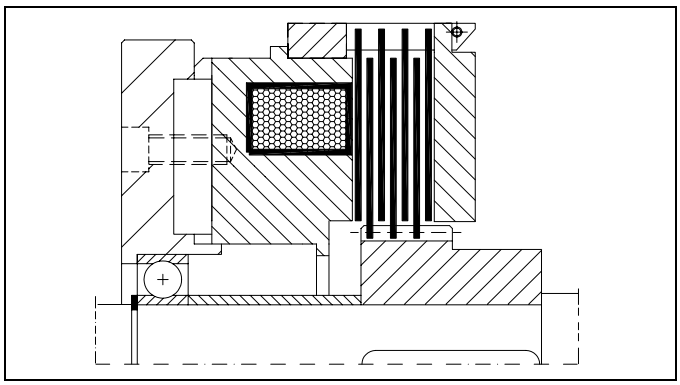
DIMENSIONS (mm)

size	A	B	C K6	D	E +0,2	F	G	H	I	L	N H7	O	P ± 0,1
SRB 083	83	73	35	31	17	19	20.5	2	5	34	12	4xM5	50
SRB 094	94	81	42	38	20	22	24	2.5	5	40	12	4xM6	56
SRB 115	115	100	55	46	22	27	30	4	7	52	14	4xM8	75
SRB 126	126	109	52	52	22	22	25	4	7	43	14	3xM6	73
SRB 140	140	125	68	60	23	29	32	5	8	58	16	4xM8	90
SRB 166	166	146	75	65	25	30	34	6	10	63	20	4xM10	100
SRB 195	195	170	90	80	28	34	37	6	12	74	20	4xM10	118
SRB 210	210	184	100	90	31	39	42	6	16	78	20	4xM12	130
SRB 240	240	216	110	100	32	40	43	6	18	80	25	4xM12	145

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