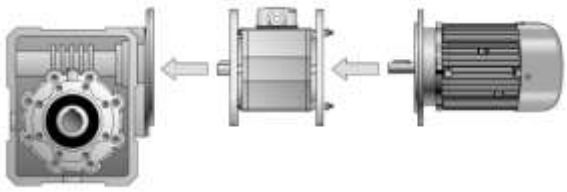
Brake-clutch electromagnetic units assembled in a completely closed casing are used to quickly and precisely operate those machines which require frequent engagements and braking. Compact and easy to install, these units are completely closed (IP 54 protection) and do not need any maintenance or adjustment of magnetic gap thanks to the special system for taking up any backlash caused by wear and tear. The brake-clutch electromagnetic unit is a special electromechanical device that allows controlling electronically the coupling between input and output shafts by means of electromagnetic fields generated by two electric coils: one of the coil operates the clutch (input-output shafts direct connection), while the other operates the brake (output shaft braking). Such a device allows continuous rotation of the input shaft and the control of output shaft rotation by means of a proper control electric circuit.

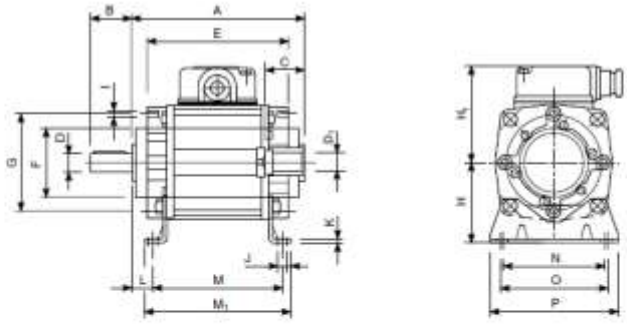
CLUTCH - When clutch coil is given a continuous 24 V voltage, the magnetic force attracts the mobile armature onto clutch side. In this case the torque is transmitted from input shaft and to output shaft.
BRAKE - Continuous 24 V voltage is disconnected from clutch coil thus interrupting motion transmission between clutch magnetic body and the relevant mobile armature. Then 24V continuous voltage is given to brake fixed coil the magnetic body of which attracts the relevant mobile armature. In this way output shaft stops and input shaft goes on rotating.



SIZE		NFF 07	NFF 09	NFF 11	NFF 14
Nominal Torque	Nm	7,5	15	30	75
Input electric power	W	12	17	22	35
Rated voltage	Vdc	24	24	24	24
Rated current	A	0,5	0,7	0,92	1,46
Moment of inertia	Kgm²	$0,14 \cdot 10^{-3}$	$0,56 \cdot 10^{-3}$	$1,25 \cdot 10^{-3}$	$4,15 \cdot 10^{-3}$
Permissible friction work per operation	KJ	7	10	33	55
Permissible friction work per hour	KJ/h	260	300	330	360
Total friction work (operational life)	MJ	280	500	730	1220
Switch-on time (clutch or brake)	ms	20	30	45	60
Switch-off time (clutch or brake)	ms	30	60	75	100
Air Gap	mm	0,3	0,35	0,35	0,35
Weight	Kg	4,6	6,9	10,3	16,5

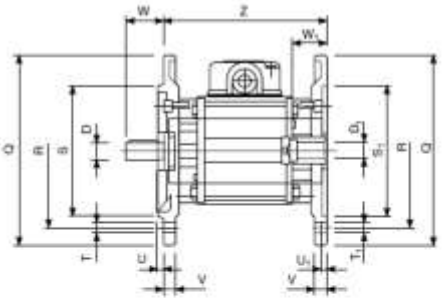


B3



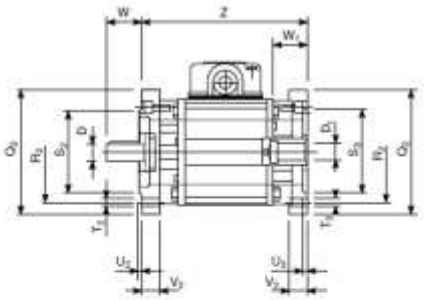
Tipo Type Type Typ		A	B	C	D h_6	D_1 G_7	E	F	G	H	H1	I	J	K	L	M	M_1	N	O	P	W	W_1	Z
NFF 07	63	135	24	23	11	11	109	54	76	63	77	M6	7	3	17,5	100	113	80	85	100	23	24	137
	71		31	30	14	14				71											30	31	
NFF 09	71	158	31	30	14	14	132	70	90	71	89,5	M8	9	3	21,5	115	138	105	110	130	30	31	160
	80		41	40	19	19				80											40	41	
NFF 11	80	188	41	40	19	19	162	75	112	80	101	M8	9	4	26,5	135	160	130	140	160	40	41	190
	90		51	50	24	24				90											50	51	
NFF 14	90	222	51	50	24	24	192	85	137	100	117	M10	11	4	33,5	135	178	150	160	178	50	51	224
	112		61	60	28	28				112											60	61	

B5



Tipo Type Type Typ		D h_6	D_1 G_7	Q	R	S h_8	S_1 H_8	T	T_1	U	U_1	V	W	W_1	Z
NFF 07	63	11	11	140	115	95	95	9	M8	3	3,5	10	23	24	137
	71	14	14	160	130	110	110			3,5	4		30	31	
NFF 09	71	14	14	160	130	110	110	9	M8	3,5	4	10	30	31	160
	80	19	19	200	165	130	130	11	M10			12	40	41	
NFF 11	80	19	19	200	165	130	130	11	M10	3,5	4	12	40	41	190
	90	24	24										50	51	
NFF 14	90	24	24	200	165	130	130	11	M10	3,5	4	14	50	51	224
	112	28	28	250	215	180	180	14	M12	4	4,5		60	61	

B14



Tipo Type Type Typ		D h_6	D_1 G_7	Q_2	R_2	S_2 h_8	S_3 H_8	T_2	T_3	U_2	U_3	V_2	W	W_1	Z
NFF 07	63	11	11	90	75	60	60	M5	6	2,5	3	14	23	24	137
	71	14	14	105	85	70	70	M6	7				30	31	
NFF 09	71	14	14	105	85	70	70	M8	7	2,5	3	14	30	31	160
	80	19	19	120	100	80	80			3	3,5		40	41	
NFF 11	90	24	24	140	115	95	95	M8	9	3	3,5	14	40	41	190
	100*	24	24	160	130	110	110			3,5	4		50	51	
NFF 14	90**	24	24	160	115	95	95	M8	9	3	3,5	16	50	51	224
	112	28	28		130	110	110			3,5	4		60	61	

* *Version 100 B14 available with Ø 24 shafts only*

** *Version 90 B14 available with flange outer diameter 160 mm instead of 140 mm.*