METRIC FLANGE MOUNTED CLUTCH-BRAKES

Choose from **3 design options**:

FMCB basic open clutch-brake:

- Available in black oxide coating
- **Bore/Shaft** sizes from 19 to 42 millimeters
- Flange or Foot mount capability
- Optional Input Unit for use with pulleys and couplings

FMCBE basic enclosed clutch-brake:

- Available in either electroless nickel plating or black oxide coating
- **Bore/Shaft** sizes from 14 to 42 millimeters
- Flange or Foot mount capability
- Optional Input Unit for use with pulleys or couplings

FMBCES enclosed, spring engaged clutch-brake:

- Spring engaged brake combined with air engaged clutch
- Double acting piston design prevents overlap of clutch and brake functions
- Available in either electroless nickel plating or black oxide coating
- **Bore/shaft sizes** from 14 to 42 millimeters
- Flange or Foot mount capability
- Optional Input Unit for use with pulleys or couplings

Metric Flange Mounted Clutch-Brakes

Metric Flange Mounted Clutch-Brakes are available in both an Open and an Enclosed design. The Open Design promotes improved air circulation for longer life and greater operating efficiency. The Enclosed design keeps dirt, dust, moisture and other contaminants out and worn friction material from escaping

These clutch-brakes mount directly to IEC-Face motors and reducers and provide absolute control. These units fit IEC frame sizes 71A to 160M.

Design Style Comparisons

The tables below show performance comparisons between the design styles. This is an overview, to aid in selection. Please refer to the specific product catalog pages prior to final determination, to insure all features and benefits match your application.

Thermal Capacities

Thermal capacity is based upon 50% clutch and 50% brake usage. Operating speed is 1500 rpm for all data.

Model/Design Style	Watts rating by Model Size					
	14	19	24	28	38	42
FMCBE	104	134	134	246	328	328
FMCBES	104	134	134	246	328	328
FMCB	--	370	370	670	670	850

Overhung Load Data

Data is based upon 50% clutch and 50% brake usage. Operating speed is 1500 rpm for all data.

Model/Design Style	Weight (Kg) rating by Model Size					
	14	19	24	28	38	42
FMCBE	35	100	95	95	120	135
FMCBES	35	100	95	95	120	135
FMCB	--	100	95	95	120	135

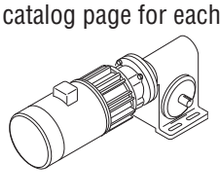
Static Torque Capacity

Data is based upon maximum achieved at 6 Bars at psi.

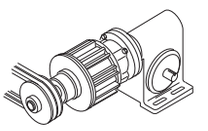
Model/Design Style	Torque (Nm) rating by Model Size						
	14	19	24	28	7-38	8-38	42
FMCBE	25	33	33	85	125	167	270
FMCBES	10	18	18	32	46	74	107
FMCB	--	33	33	85	125	167	270
Clutch:							
FMCBE	22	33	33	77	110	151	240
FMCBES	18	27	27	44	64	72	105
FMCB	--	33	33	77	110	151	240

Typical Applications

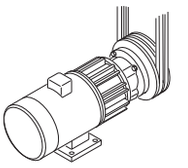
Shown are four typical mounting applications for these clutch-brakes. Any of the three design options (FMCBE, FMCBES or FMCE) can be mounted in any one of these configurations. You will find the specific product requirements listed on the catalog page for each design style.



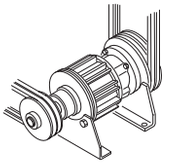
Flange Mounted



Flange Mounted with Input Unit



Flange Mounted



Flange Mounted with Input Unit

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METRIC FMCBE CLUTCH-BRAKES – MODELS 70-14

FMCBE Flange Mounted Clutch-Brakes are designed for controlled starts and stops in hostile, dirty environments. Totally enclosed design prevents contaminants from interfering with operation of the units while keeping worn friction material from escaping into the environment.

- Compatible with IEC-B14 face motors up to kW-56
- Static Torque up to 10 Nm (brake) and 10 Nm (clutch)
- Overhung Load Capacity up to 32 kilograms
- Design Operating Speed up to 3600 R.P.M.
- Flange mounts directly to motors and reducers
- FMCBE with Integral Valve combines a Flange mounted, totally-enclosed clutch/brake with a single solenoid 4-way spool valve mounted directly to the clutch/brake air chamber. Air pressure is directed to the piston to perform either clutch or brake functions.
- Eliminates need for quick exhaust valves
- 115 Volt is standard on FMCBE
- The Integral Valve is available for 12, 24 and 115 volt systems
- Available in black oxide coating
- Simplified; one product number for a clutch-brake combination control valve
- Reduced number of air line connections for quicker install

METRIC FMCBE CLUTCH-BRAKES, TOTALLY ENCLOSED

Model Number	Product Number	Valve Voltage	Shaft/Bore (mm)	Thermal Capacity Up To	OVERHUNG LOAD CAPACITY (kg) 1500 RPM	Shipping Wt. (kg)
FMCBE-70-14	801360	N/A	14	75W	32	5
FMCBE-70-14/IV	801361	115V	14	75W	32	5.4

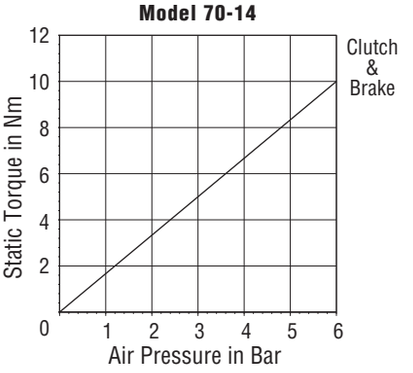
NOTE: Thermal Capacity (HP_t) and Overhung Load data is based upon 50% clutch and 50% brake usage.

IEC MOTOR/FRAME SELECTION CHART

Use this chart as specification and operational criteria for your application.

HP/KW of Motor	RPM	Frame Number	Motor Shaft (mm)
.25/.33	3450	D71C	14
.25/.33	1725	D71C	14
.37/.50	3450	D71C	14
.37/.50	1725	D71C	14
.56/.75	3450	D71C	14

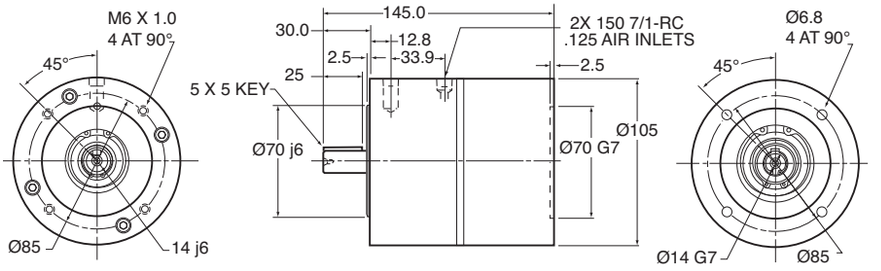
TORQUE VS. AIR PRESSURE



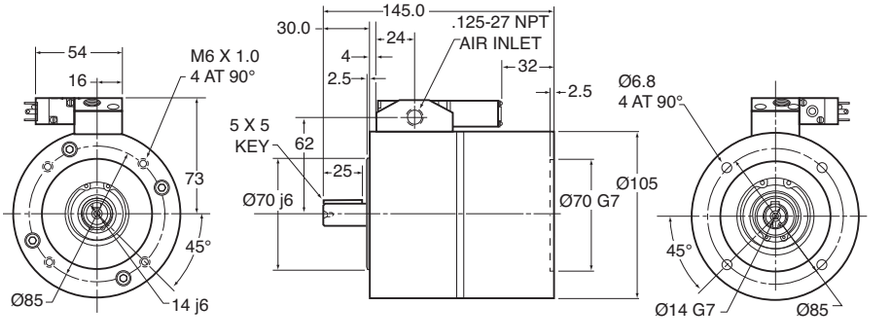
NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

METRIC FMCBE CLUTCH-BRAKES, APPROXIMATE DIMENSIONS



METRIC FMCBE INTEGRAL VALVE CLUTCH-BRAKES, APPROXIMATE DIMENSIONS



METRIC FMCB CLUTCH-BRAKES – MODELS 130-19 & 130-24

FMCB Flange Mounted Clutch-Brakes with their open design, promote improved air circulation. Heat build-up and torque fade is reduced, providing longer life and greater operating efficiency. Choose from

2 Models:

- **Bore sizes** range from 19 to 24 millimeters
- Available in black oxide coating
- Static Torque up to 33 Nm (brake) and 33 Nm (clutch)
- Overhung Load Capacity up to 150 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 1,5 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application

Metric FMCB Clutch-Brakes, Open Design

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	Overhung Load Capacity (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCB-130-19	801400	19	370 W	150	100	18
FMCB-130-24	801403	24	370 W	143	95	18

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

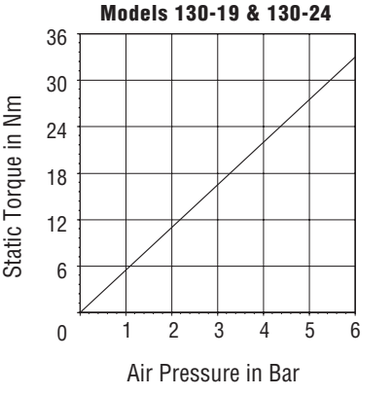
Model Number	Product Number	Foot Mount Set Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCB-130-19	801400	801427	2,2	801424	3
FMCB-130-24	801403	801427	2,2	801425	3

IEC Motor/Frame Selection Chart

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
0,37	1000	80	19	FMCB-130-19
0,55	1000	80	19	FMCB-130-19
0,75	1000	90S	24	FMCB-130-24
0,75	1500	80	19	FMCB-130-19
1,1	1000	90L	24	FMCB-130-24
1,1	1500	90S	24	FMCB-130-24
1,5	1500	90L	24	FMCB-130-24

Torque Vs. Air Pressure



NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

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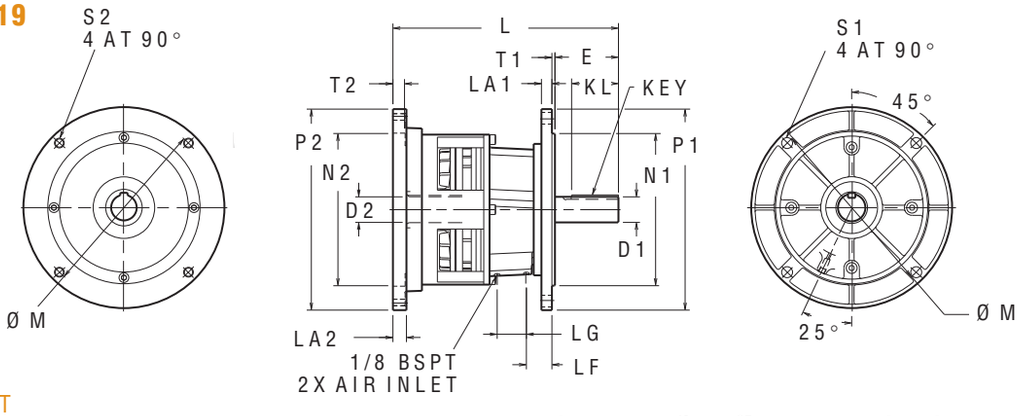
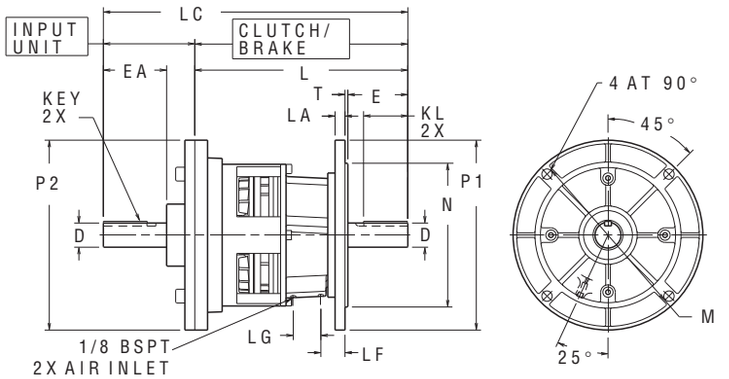
METRIC FMCB MODEL CLUTCH-BRAKES - APPROXIMATE DIMENSIONS (MILLIMETERS)

Models 130-19 & 130-24



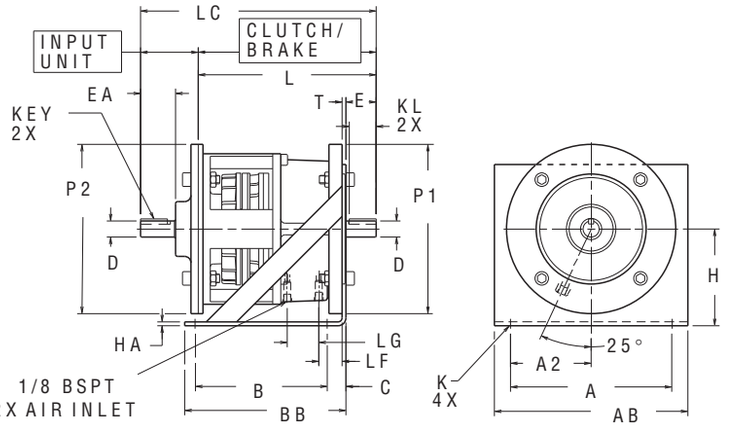
MODEL	PRODUCT NUMBER	D1	D2	E	KEY	KL	L	LA1	LA2	LF	LG	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
130-19	801400	19j6	19G7	37	6SQ	32	210,5	13	6	27	37	165	130	130	200	200	12	11	3,5	5
130-24	801403	24j6	24G7	47	7X8	35	220,5	14	6	27	37	165	130	130	200	200	12	11	3,5	5

Models 130-19 & 130-24 with Input



MODEL	PRODUCT NUMBER	INPUT NUMBER	D	E	EA	KEY	KL	L	LA	LC	LF	LG	M	N1j6	P1	P2	S	T
130-19	801400	801424	19j6	37	43	6 SQ	32	210,5	10	280,5	27	37	165	130	200	200	11	3,5
130-24	801403	801425	24j6	47	55	7X8	35	220,5	10	302,5	27	37	165	130	200	200	11	3,5

Models 130-19 & 130-24 with Input & Foot



MODEL	PRODUCT NUMBER	INPUT NUMBER	FOOT NUMBER	A	AB	AZ	B	BB	C	Dj6	E	EA	H	HA	K	KEY	KL	L	LC	LF	LG	P1	P2	T
130-19	801400	801424	801427	191	220	95	146	191	32	19j6	37	43	114	5	11	6 SQ	32	210,5	280,5	27	37	200	200	3,5
130-24	801403	801425	801427	191	220	95	146	191	32	24j6	47	55	114	5	11	7X8	35	220,5	302,5	27	37	200	200	3,5

NOTE: Drawings are expressed in third angle projection.

METRIC FMCB CLUTCH-BRAKES – MODELS 7-28 & 7-38

FMCB Flange Mounted Clutch-Brakes with their open design, promote improved air circulation. Heat build-up and torque fade is reduced, providing longer life and greater operating efficiency. Choose from **2 Models**:

- **Bore sizes** range from 28 to 38 millimeters
- Available in black oxide coating
- Static Torque up to 125 Nm (brake) and 110 Nm (clutch)
- Overhung Load Capacity up to 180 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 5,5 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application

Metric FMCB Clutch-Brakes, Open Design

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	Overhung Load Capacity (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCB-7-28	801610	28	670 W	143	95	27
FMCB-7-38	801613	38	670 W	180	120	27

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

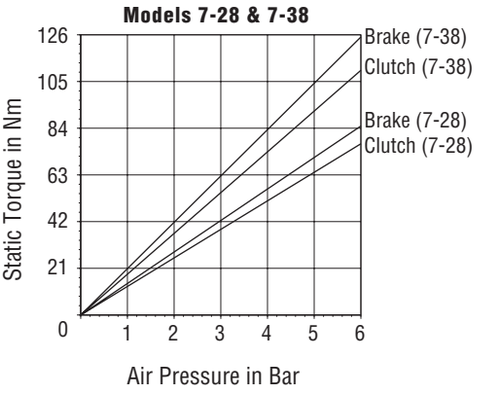
Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCB-7-28	801610	801632	5	801627	5
FMCB-7-38	801613	801633	5	801628	5

IEC Motor/Frame Selection Chart

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
1,5	1000	100L	28	FMCB-7-28
2,2	1000	112M	28	FMCB-7-28
2,2	1500	100L	28	FMCB-7-28
3,0	1000	132S	38	FMCB-7-38
3,0	1500	100L	28	FMCB-7-28
4,0	1500	112M	28	FMCB-7-28
5,5	1500	132S	38	FMCB-7-38

Torque Vs. Air Pressure



NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

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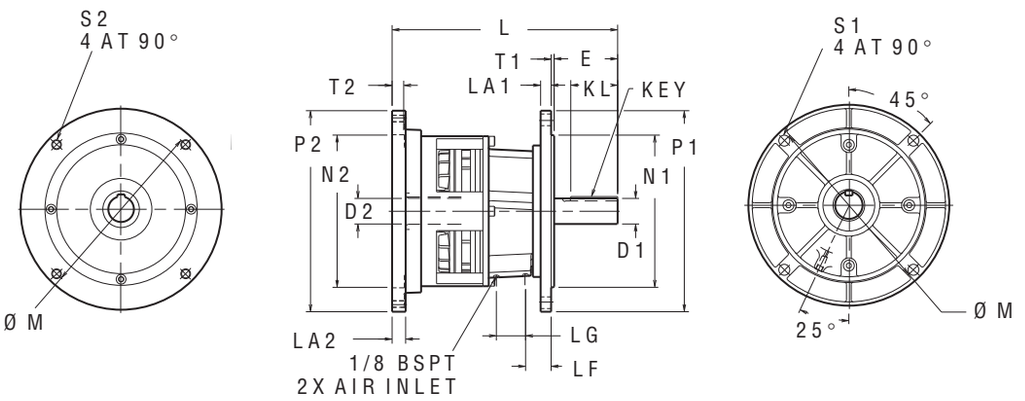
METRIC FMCB MODEL CLUTCH-BRAKES - APPROXIMATE DIMENSIONS (MILLIMETERS)

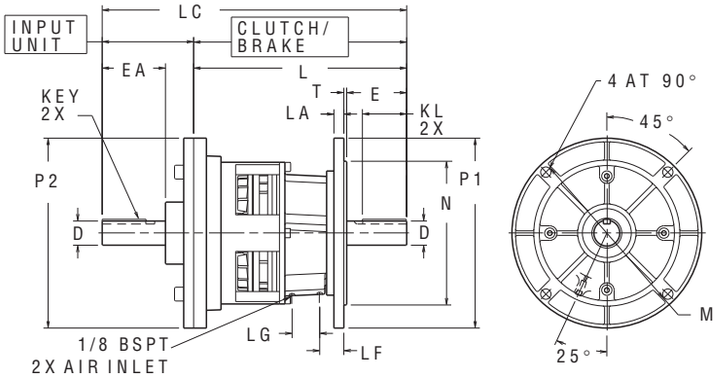
Models 7-28 & 7-38



MODEL	PRODUCT NUMBER	D1	D2	E	KEY	KL	L	LA1	LA2	LF	LG*	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
7-28	801610	28j6	28G7	57	7X8	44	269	12	16	36	42	215	180	180	250	250	14	M12	4	4,8
7-38	801613	38k6	38F7	76	8X10	51	294	17	18	37	42	265	230	230	300	300	14	M12	4	4,8

*Second pipe thread on FMCBE models only.

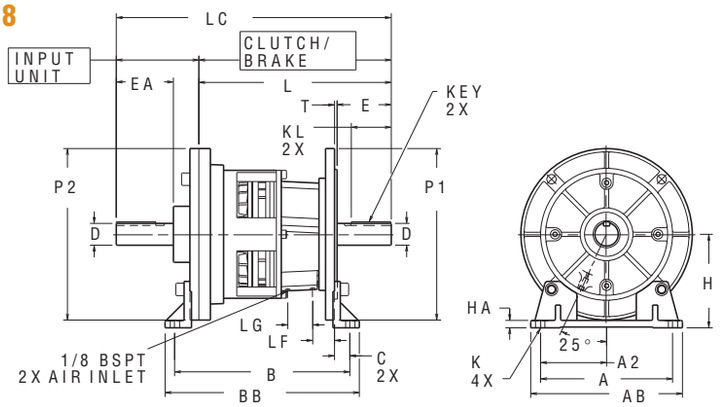
Models 7-28 & 7-38 with Input



MODEL	PRODUCT NUMBER	INPUT NUMBER	D	E	EA	KEY	KL	L	LA	LC	LF	LG*	M	Nj6	P1	P2	S	T
7-28	801610	801627	28j6	57	59	7X8	44	269	13	371	36	42	215	180	250	250	14	4
7-38	801613	801628	38k6	76	79	8X10	51	294	14	409	37	42	265	230	300	300	14	4

*Second pipe thread on FMCBE models only.

Models 7-28 & 7-38 with Input & Foot



MODEL	PRODUCT NUMBER	INPUT NUMBER	FOOT NUMBER	A	AB	AZ	B	BB	C	D	E	EA	H	HA	K	KEY	KL	L	LC	LF	LG*	P1	P2	T
7-28	801610	801627	801632	254	292	127	271	303	26	28j6	57	59	130	14	14	7X8	44	269	371	36	42	250	250	4
7-38	801613	801628	801633	254	292	127	280	312	26	38K6	76	79	155	14	14	8X10	51	294	409	37	42	300	300	4

NOTE: Drawings are expressed in third angle projection.

METRIC FMCB CLUTCH-BRAKES – MODELS 8-38 & 8-42

FMCB Flange Mounted Clutch-Brakes with their open design, promote improved air circulation. Heat build-up and torque fade is reduced, providing longer life and greater operating efficiency. Choose from **2 Models**:

- **Bore sizes** range from 38 to 42 millimeters
- Available in black oxide coating
- Static Torque up to 240 Nm (brake) and 220 Nm (clutch)
- Overhung Load Capacity up to 200 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 11 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application

Metric FMCB Clutch-Brakes, Open Design

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	Overhung Load Capacity (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCB-8-38	801616	38	850 W	195	130	46
FMCB-8-42	801619	42	850 W	200	135	68

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCB-8-38	801616	801633	5	801629	6
FMCB-8-42	801619	801634	5	801630	6

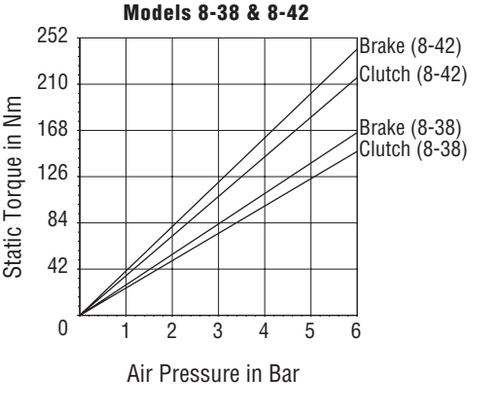
IEC Motor/Frame Selection Chart

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
4,0	1000	132M	38	FMCB-8-38
5,5	1000	132M	38	FMCB-8-38
7,5	1000	160M	42	FMCB-8-42
7,5	1500	132M	38	FMCB-8-38
11	1500	160M	42	FMCB-8-42

Torque Vs. Air Pressure

Models 8-38 & 8-42



NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

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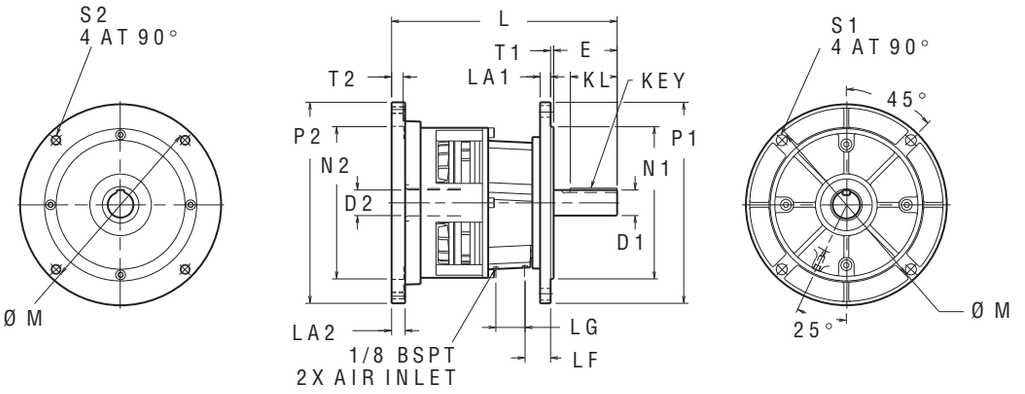
METRIC FMCB MODEL CLUTCH-BRAKES - APPROXIMATE DIMENSIONS (MILLIMETERS)

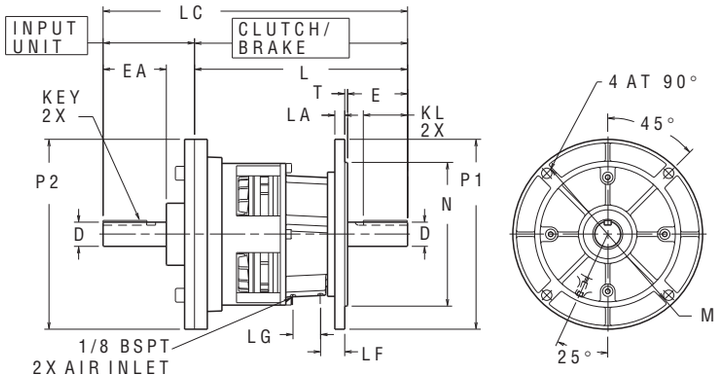
Models 8-38 & 8-42



MODEL	PRODUCT NUMBER	D1	D2	E	KEY	KL	L	LA1	LA2	LF	LG*	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
8-38	801616	38K6	38F7	76	8X10	51	306	10	18	37	48	265	230	230	300	300	14	M12	4	4,8
8-42	801619	42K6	42F7	104	8X12	76	370	10	22	42	48	300	250	250	330	330	18	M16	5	19

*Second pipe thread on FMCBE models only.

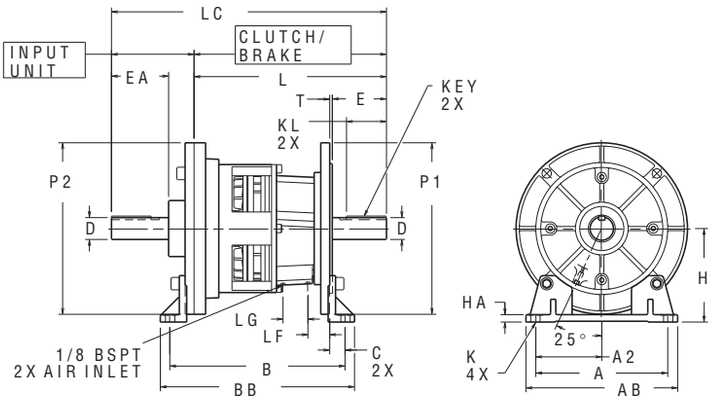
Models 8-38 & 8-42 with Input



MODEL	PRODUCT NUMBER	INPUT NUMBER	D	E	EA	KEY	KL	L	LA	LC	LF	LG*	M	N1j6	P1	P2	S	T
8-38	801616	801629	38K6	76	79	8X10	51	306	12	435	37	48	265	230	300	300	14	4
8-42	801619	801630	42K6	104	110	8X12	76	370	17	529	42	48	300	250	330	330	18	5

*Second pipe thread on FMCBE models only.

Models 8-38 & 8-42 with Input & Foot



MODEL	PRODUCT NUMBER	INPUT NUMBER	FOOT NUMBER	A	AB	AZ	B	BB	C	D	E	EA	H	HA	K	KEY	KL	L	LC	LF	LG*	P1	P2	T
8-38	801616	801629	801633	254	292	127	289	320	26	38K6	76	79	155	14	14	8X10	51	306	435	37	48	300	300	4
8-42	801619	801630	801634	254	292	127	337	374	29	42K6	104	110	180	14	18	8X12	76	370	529	42	48	330	330	5

NOTE: Drawings are expressed in third angle projection.

METRIC FMCBE CLUTCH-BRAKES MODELS 110-14, & 130-19 &130-24

FMCBE Flange Mounted Clutch-Brakes are designed for controlled starts and stops in hostile, dirty environments. Totally enclosed design prevents contaminants from interfering with operation of the units while keeping worn friction material from escaping into the environment. Choose from **2 Models**:

- **Bore sizes** range from 14 to 24 millimeters
- All units available in either electroless nickel plating or black oxide coating
- Meets NEMA standard 1.26.5 for waterproof machines
- Static Torque up to 33 Nm (brake) and 33 Nm (clutch)
- Overhung Load Capacity up to 150 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 1,5 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application
- For additional corrosion protection, contact the factory

METRIC FMCBE CLUTCH-BRAKES, TOTALLY ENCLOSED

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	OVERHUNG LOAD CAPACITY (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCBE-110-14	801433	14	104 W	45	35	11
FMCBE-130-19	801660	19	134 W	150	100	18
FMCBE-130-24	801663	24	134 W	143	95	18
Nickel Plating:						
FMCBE-110-14	801444	14	104 W	45	35	12
FMCBE-130-19	801464	19	134 W	150	100	18
FMCBE-130-24	801484	24	134 W	150	95	18

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCBE-110-14	801433	801435	2,2	801434	3
FMCBE-130-19	801660	801427	2,2	801424	3
FMCBE-130-24	801663	801427	2,2	801425	3
Nickel Plating:					
FMCBE-110-14	801444	801454	2,2	801445	3
FMCBE-130-19	801464	801455	2,2	801498	2,2
FMCBE-130-24	801484	801455	2,2	801499	2,2

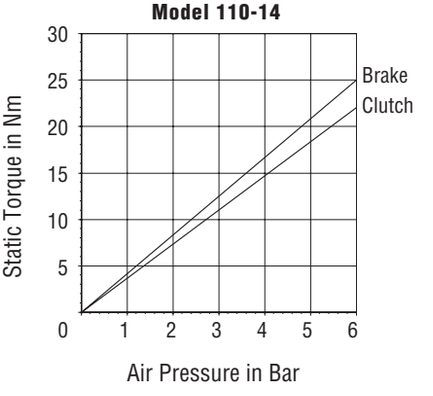
IEC MOTOR/FRAME SELECTION CHART

Use this chart as specification and operational criteria for your application.

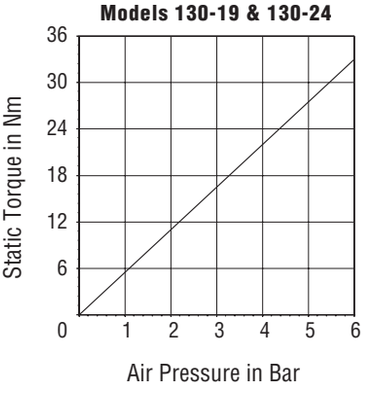
KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
0,25	1500	71A	14	FMCBE-110-14
0,37	1000	80	19	FMCBE-130-19
0,37	1500	71B	14	FMCBE-110-14
0,55	1000	80	19	FMCBE-130-19
0,75	1000	90S	24	FMCBE-130-24
0,75	1500	80	19	FMCBE-130-19
1,1	1000	90L	24	FMCBE-130-24
1,1	1500	90S	24	FMCBE-130-24
1,5	1500	90L	24	FMCBE-130-24

TORQUE VS. AIR PRESSURE

Model 110-14



Models 130-19 & 130-24



NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

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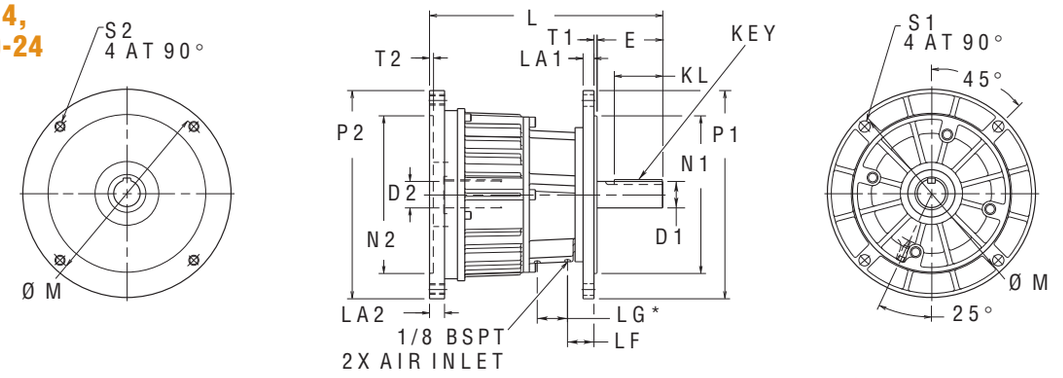
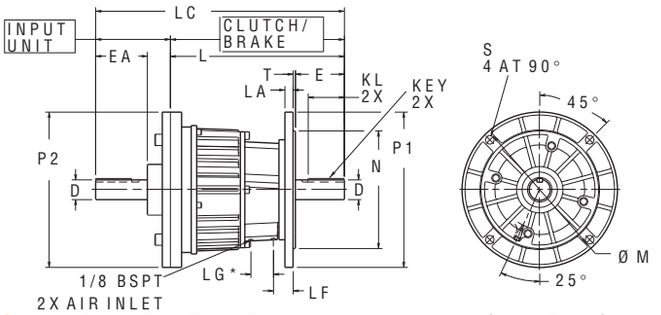
METRIC FMCBE MODEL CLUTCH-BRAKES - APPROXIMATE DIMENSIONS (MILLIMETERS)

Models 110-14, 130-19& 130-24



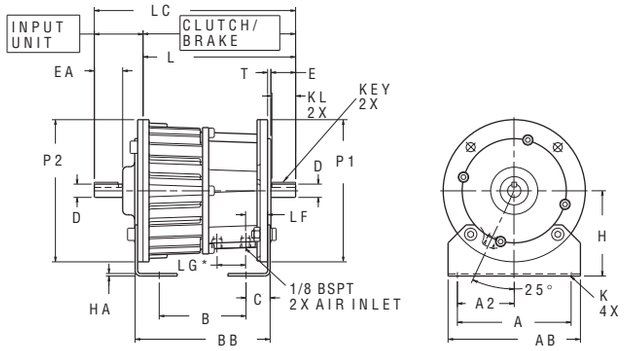
MODEL	FMCBE	FMCBE(NICKEL)	D1	D2	E	KEY	KL	L	LA1	LA2	LF	LG	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
110-14	801433	801444	14j6	14G7	27	5SQ	25	161,5	8	6	23	30	130	110	110	150	150	10	M8	3,5	4
130-19	801660	801464	19j6	19G7	37	6SQ	27	210,5	10	11	27	37	165	130	130	200	198	12	M10	3,5	5
130-24	801663	801484	24j6	24G7	47	7x8	35	220,5	10	11	27	37	165	130	130	200	198	12	M10	3,5	5

Models 110-14, 130-19& 130-24 with Input

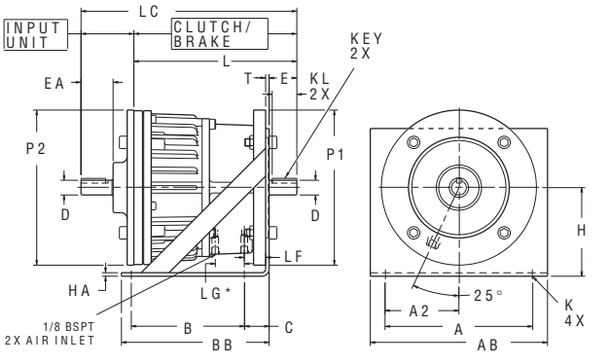


MODEL	FMCBE	FMCBE(NICKEL)	D1	E	EA	KEY	KL	L	LA	LC	LF	LG	M	N1j6	P1	P2	S1	T
110-14	801433	801444	14j6	27	29	5SQ	25	161,5	8	211,5	23	30	130	110	150	150	10	3,5
130-19	801660	801464	19j6	37	43	6SQ	27	210,5	10	280,5	27	37	165	130	200	198	12	3,5
130-24	801663	801484	24j6	47	55	7x8	35	220,5	10	302,5	27	37	165	130	200	198	12	3,5

Models 110-14 with Input & Foot



Models 130-19 & 130-24 with Input & Foot



MODEL	FMCBE	FMCBE(NICKEL)	INPUT(BLK)	INPUT(NICKEL)	FOOT(BLK)	FOOT(NICKEL)	A	AB	AZ	B	BB	C	Dj6	E	EA	H
110-14	801433	801444	801434	801445	801435	801454	120	140	60	92	142	25	14	27	29	90
130-19	801660	801464	801424	801498	801427	801455	191	229	95	146	191	32	19	37	43	114
130-24	801663	801485	801425	801499	801427	801455	191	229	95	146	191	32	24	47	55	114

MODEL	HA	K	KEY	KL	L	LC	LF	LG	P1	P2	T
110-14	3	9X19	5SQ	25	161,5	221,5	23	30	150	150	3,5
130-19	5	11	6SQ	27	210,5	280,5	27	37	200	198	3,5
130-24	5	11	7x8	35	220,5	302,5	27	37	200	198	3,5

NOTE: Drawings are expressed in third angle projection.

METRIC FMCBE CLUTCH-BRAKES – MODELS 7-28 & 7-38

FMCBE Flange Mounted Clutch-Brakes are designed for controlled starts and stops in hostile, dirty environments. Totally enclosed design prevents contaminants from interfering with operation of the units while keeping worn friction material from escaping into the environment. Choose from **2 Models**:

- **Bore sizes** range from 28 to 38 millimeters
- All units available in either electroless nickel plating or black oxide coating
- Meets NEMA standard 1.26.5 for waterproof machines
- Static Torque up to 125 Nm (brake) and 110 Nm (clutch)
- Overhung Load Capacity up to 180 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 5,5 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application
- For additional corrosion protection, contact the factory

Metric FMCBE Clutch-Brakes, Totally Enclosed

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	Overhung Load Capacity (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCBE-7-28	801666	28	246 W	143	95	28
FMCBE-7-38	801669	38	246 W	180	120	28
Nickel Plating:						
FMCBE-7-28	801485	28	246 W	143	95	28
FMCBE-7-38	801495	38	246 W	180	120	28

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

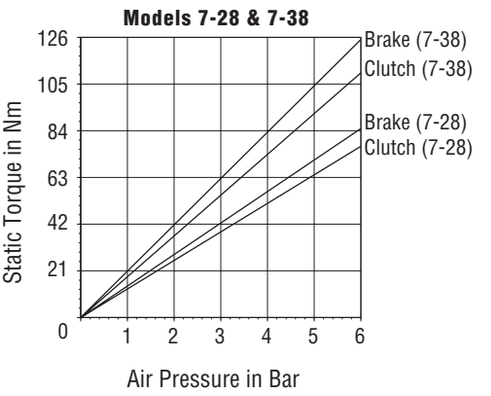
Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCBE-7-28	801666	801632	1,6	801627	2,2
FMCBE-7-38	801669	801633	1,6	801628	2,2
Nickel Plating:					
FMCBE-7-28	801485	801458	1,6	801575	2,2
FMCBE-7-38	801495	801460	1,6	801608	2,2

IEC Motor/Frame Selection Chart

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
1,5	1000	100L	28	FMCBE-7-28
2,2	1000	112M	28	FMCBE-7-28
2,2	1500	100L	28	FMCBE-7-28
3,0	1000	132S	38	FMCBE-7-38
3,0	1500	100L	28	FMCBE-7-28
4,0	1500	112M	28	FMCBE-7-28
5,5	1500	132S	38	FMCBE-7-38

Torque Vs. Air Pressure

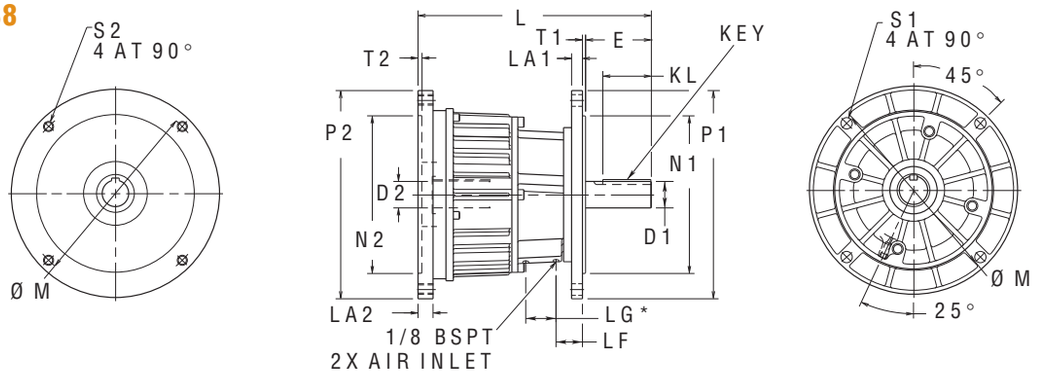


NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

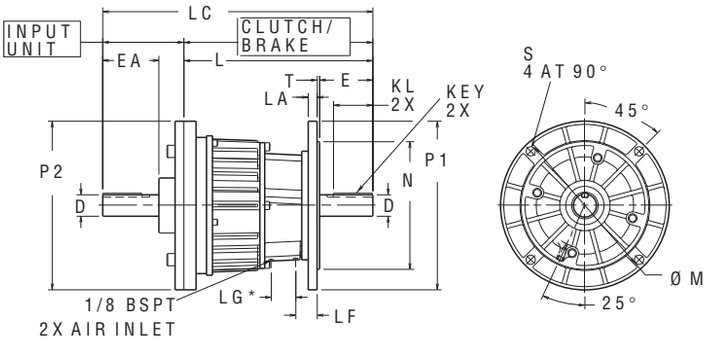
METRIC FMCBE MODEL CLUTCH-BRAKES - APPROXIMATE DIMENSIONS (MILLIMETERS)

MODELS 7-28 & 7-38



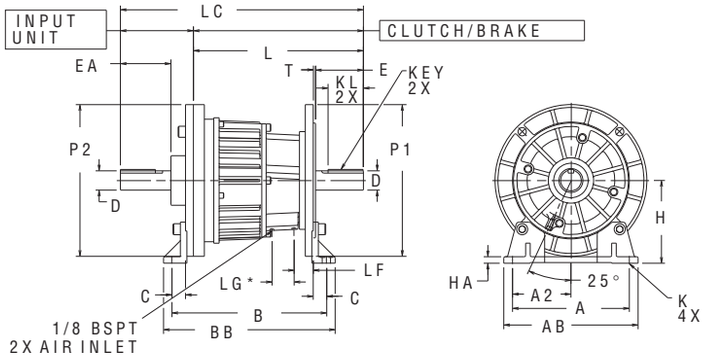
MODEL	FMCBE	FMCBE(NICKEL)	D1	D2	E	KEY	KL	L	LA1	LA2	LF	LG	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
7-28	801666	801485	28j6	28G7	57	7X8	44	273	13	16	36	42	215	180	180	250	244	14,5	M12	4	6
7-38	801669	801495	38k6	38F7	77	8X10	51	300	14	21	36	42	265	230	230	300	300	14,5	M12	4	5

MODELS 7-28 & 7-38 WITH INPUT



MODEL	FMCBE	FMCBE(NICKEL)	D1	E	EA	KEY	KL	L	LA	LC	LF	LG	M	N1j6	P1	P2	S1	T
7-28	801666	801485	28j6	57	60	7X8	44	273	13	375	36	42	215	180	200	198	12	4
7-38	801669	801495	38k6	77	80	8X10	51	300	14	416	36	42	265	230	250	244	14,5	4

MODELS 7-28 & 7-38 WITH INPUT & FOOT



MODEL	FMCBE	FMCBE(NICKEL)	INPUT(BLK)	INPUT(NICKEL)	FOOT(BLK)	FOOT(NICKEL)	A	AB	AZ	B	BB	C	Dj6	E	EA	H
7-28	801666	801485	801627	801575	801632	801458	254	292	127	275	301	25	28	57	60	130
7-38	801669	801495	801628	801608	801633	801460	254	292	127	283	315	25	38	77	80	155

MODEL	HA	K	KEY	KL	L	LC	LF	LG	P1	P2	T
7-28	14	14	7X8	44	273	375	36	42	250	244	4
7-38	14	18	8X10	51	300	416	36	42	300	300	4

NOTE: Drawings are expressed in third angle projection.

METRIC FMCBE CLUTCH-BRAKES – MODELS 8-38 & 8-42

FMCBE Flange Mounted Clutch-Brakes are designed for controlled starts and stops in hostile, dirty environments. Totally enclosed design prevents contaminants from interfering with operation of the units while keeping worn friction material from escaping into the environment. Choose from **2 Models**:

- **Bore sizes** range from 38 to 42 millimeters
- All units available in either electroless nickel plating or black oxide coating
- Meets NEMA standard 1.26.5 for waterproof machines
- Static Torque up to 240 Nm (brake) and 220 Nm (clutch)
- Overhung Load Capacity up to 200 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 11 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application
- For additional corrosion protection, contact the factory

Metric FMCBE Clutch-Brakes, Totally Enclosed

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	Overhung Load Capacity (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCBE-8-38	801672	38	328 W	195	130	70
FMCBE-8-42	801675	42	328 W	200	135	70
Nickel Plating:						
FMCBE-8-38	801496	38	328 W	195	130	70
FMCBE-8-42	801497	42	328 W	200	135	70

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCBE-8-38	801672	801633	5	801629	5
FMCBE-8-42	801675	801634	5	801630	5
Nickel Plating:					
FMCBE-8-38	801496	801460	5	801601	5
FMCBE-8-42	801497	801463	5	801602	5

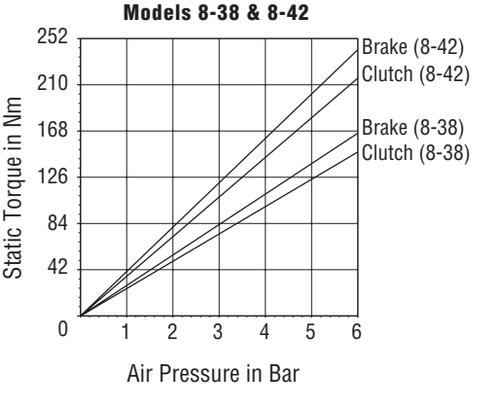
IEC Motor/Frame Selection Chart

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
4,0	1000	132M	38	FMCBE-8-38
5,5	1000	132M	38	FMCBE-8-38
7,5	1000	160M	42	FMCBE-8-42
7,5	1500	132M	38	FMCBE-8-38
11	1500	160M	42	FMCBE-8-42

Torque Vs. Air Pressure

Models 8-38 & 8-42



NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

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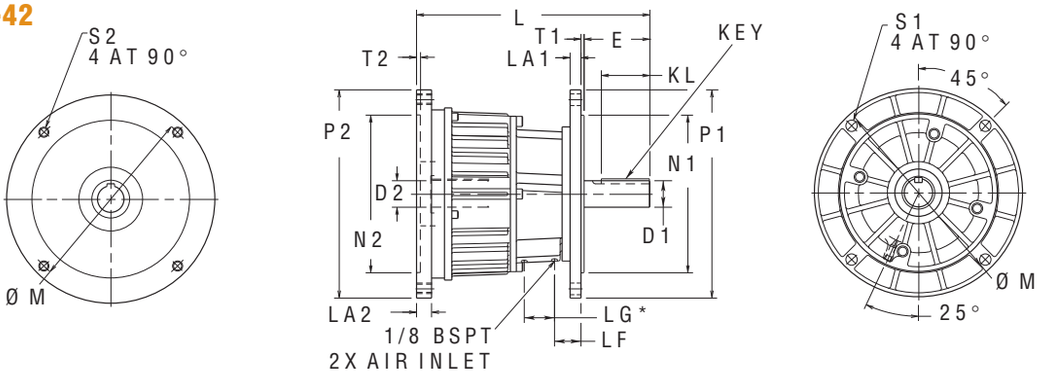
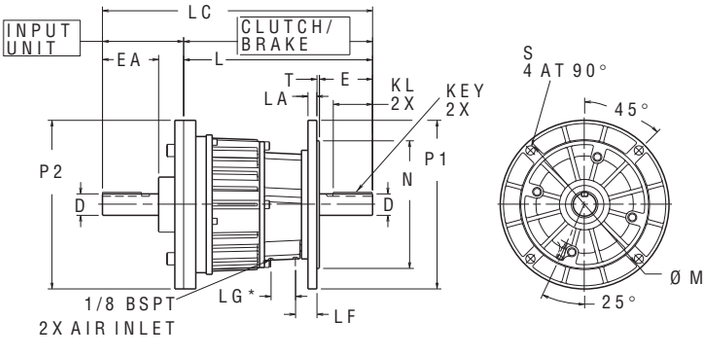
METRIC FMCBE MODEL CLUTCH-BRAKES - APPROXIMATE DIMENSIONS (MILLIMETERS)

Models 8-38 & 8-42



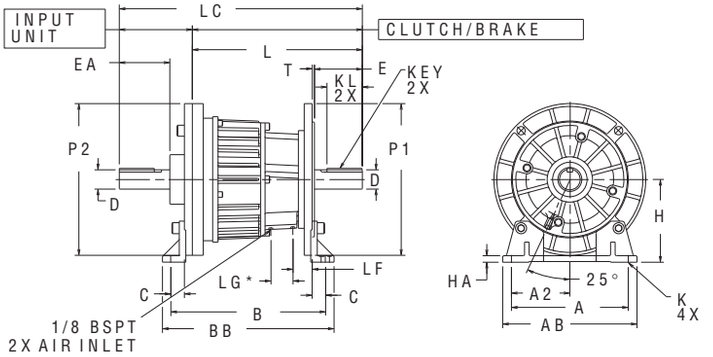
MODEL	FMCBE	FMCBE(NICKEL)	D1	D2	E	KEY	KL	L	LA1	LA2	LF	LG	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
8-38	801672	801496	11k6	38F7	77	8X10	51	314	12	21	36	48	265	230	230	300	300	14,5	M12	4	5
8-42	801675	801497	42k6	42F7	105	8X12	76	375	17	28	42	48	300	250	250	330	330	18,5	M16	5	5

Models 8-38 & 8-42 with Input



MODEL	FMCBE	FMCBE(NICKEL)	D1	E	EA	KEY	KL	L	LA	LC	LF	LG	M	N1j6	P1	P2	S1	T
8-38	801672	801496	11k6	77	80	8X10	51	314	12	444	36	48	265	230	300	300	14,5	4
8-42	801675	801497	42k6	105	110	8X12	76	375	17	534	42	48	300	250	330	330	18,5	5

Models 8-38 & 8-42 with Input & Foot



MODEL	FMCBE	FMCBE(NICKEL)	INPUT(BLK)	INPUT(NICKEL)	FOOT(BLK)	FOOT(NICKEL)	A	AB	AZ	B	BB	C	Dj6	E	EA	H
8-38	801672	801496	801629	801601	801633	801460	254	292	127	296	327	25	38	77	80	40
8-42	801675	801497	801630	801602	801634	801463	254	292	127	341	378	29	42	105	55	110

MODEL	HA	K	KEY	KL	L	LC	LF	LG	P1	P2	T
8-38	14	14	8X10	51	314	444	36	48	300	300	4
8-42	14	18	8X12	75	375	534	42	48	330	330	5

NOTE: Drawings are expressed in third angle projection.

METRIC FMCBES CLUTCH-BRAKES – MODELS 110-14, 130-19 & 130-24

FMCBES Flange Mounted Clutch-Brakes come with a spring engaged brake and air engaged clutch, making overlap of functions impossible. For applications where safety is a concern, this unit will engage the brake in the event of air pressure loss. Choose from **3 Models**:

- **Bore sizes** range from 14 to 24 millimeters
- All units available in either electroless nickel plating or black oxide coating
- Meets NEMA standard 1.26.5 for waterproof machines
- Static Torque up to 18 Nm (brake) and 27 Nm (clutch)
- Overhung Load Capacity up to 150 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 1,5 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application
- For additional corrosion protection, contact the factory

METRIC FMCBES CLUTCH-BRAKES, ENCLOSED DESIGN - SPRING ENGAGED BRAKE

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	OVERHUNG LOAD CAPACITY (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCBES-110-14	801451	14	104 W	45	35	11
FMCBES-130-19	801466	19	134 W	150	100	18
FMCBES-130-24	801469	24	134 W	143	95	18
Nickel Plating:						
FMCBES-110-14	801452	14	134 W	45	35	12
FMCBES-130-19	801467	19	134 W	150	100	18
FMCBES-130-24	801470	24	134 W	143	95	18

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCBES-110-14	801451	801435	2,2	801434	3
FMCBES-130-19	801466	801427	2,2	801424	3
FMCBES-130-24	801469	801427	2,2	801425	3
Nickel Plating:					
FMCBES-110-14	801452	801454	2,2	801445	3
FMCBES-130-19	801467	801455	2,2	801498	3
FMCBES-130-24	801470	801455	2,2	801499	3

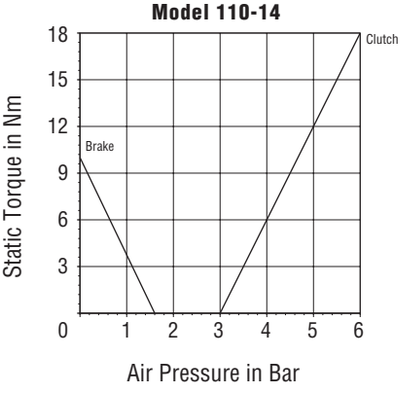
IEC MOTOR/FRAME SELECTION CHART

Use this chart as specification and operational criteria for your application.

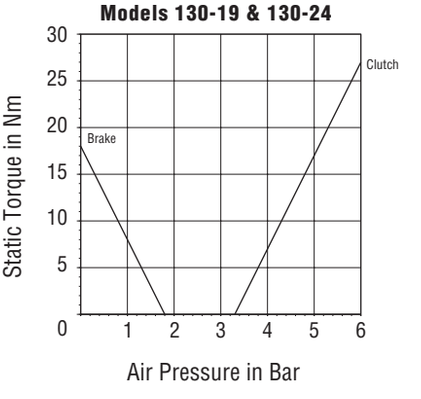
KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
0,25	1500	71A	14	FMCBES-110-14
0,37	1000	80	19	FMCBES-130-19
0,37	1500	71B	14	FMCBES-110-14
0,55	1000	80	19	FMCBES-130-19
0,75	1000	90S	24	FMCBES-130-24
0,75	1500	80	19	FMCBES-130-19
1,1	1000	90L	24	FMCBES-130-24
1,1	1500	90S	24	FMCBES-130-24
1,5	1500	90L	24	FMCBES-130-24

TORQUE VS. AIR PRESSURE

Model 110-14



Models 130-19 & 130-24



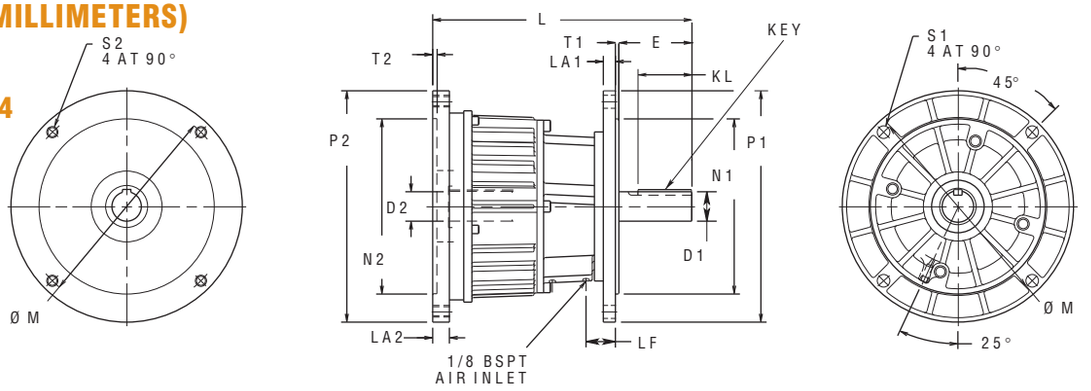
NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

ARTEN Freios e Embreagens - Fone: 11 5594-8333

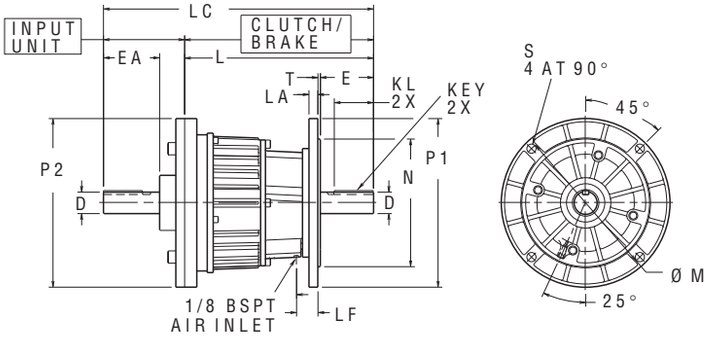
METRIC FMCBES MODEL CLUTCH-BRAKES/SPRING ENGAGED BRAKE - APPROXIMATE DIMENSIONS (MILLIMETERS)

MODELS 110-14, 130-19 & 130-24



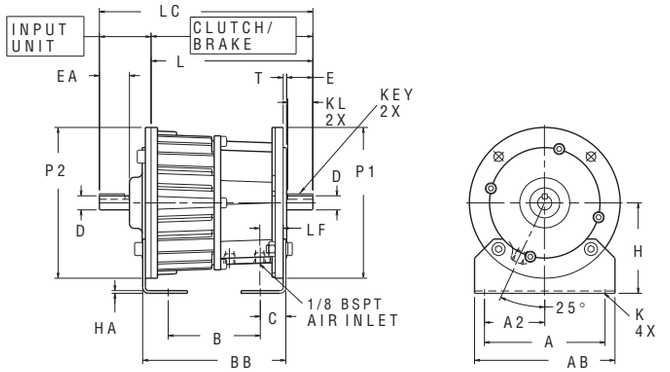
MODEL	FMCBES	FMCBES(NICKEL)	D1	D2	E	KEY	KL	L	LA1	LA2	LF	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
110-14	801451	801452	14j6	14G7	27	5SQ	25	161,5	8	6	23	130	110	110	150	150	10	M8	3,5	4
130-19	801466	801467	19j6	19G7	37	6SQ	27	210,5	10	11	27	165	130	130	200	198	12	M10	3,5	5
130-24	801469	801470	24j6	24G7	47	7x8	35	220,5	10	11	27	165	130	130	200	198	12	M10	3,5	5

MODELS 110-14, 130-19 & 130-24 WITH INPUT

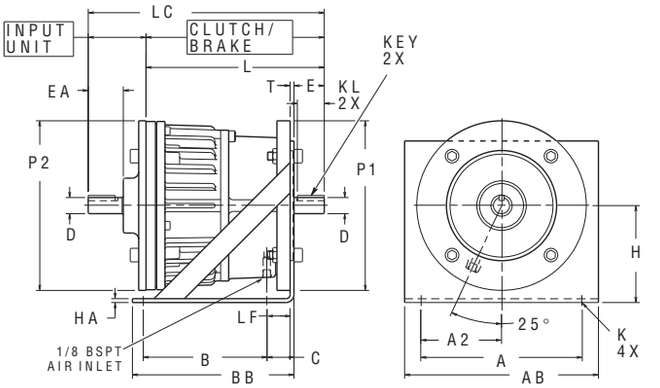


MODEL	FMCBES	FMCBES(NICKEL)	D1	E	EA	KEY	KL	L	LA	LC	LF	M	N1j6	P1	P2	S1	T
110-14	801451	801452	14j6	27	29	5SQ	25	161,5	8	211,5	23	130	110	150	150	10	3,5
130-19	801466	801467	19j6	37	43	6SQ	27	210,5	10	280,5	27	165	130	200	198	12	3,5
130-24	801469	801470	24j6	47	55	7x8	35	220,5	10	302,5	27	165	130	200	198	12	3,5

MODELS 110-14 WITH INPUT & FOOT



MODELS 130-19 & 130-24 WITH INPUT & FOOT



MODEL	FMCBES	FMCBES(NICKEL)	INPUT(BLK)	INPUT(NICKEL)	FOOT(BLK)	FOOT(NICKEL)	A	AB	AZ	B	BB	C	Dj6	E	EA	H
110-14	801451	801452	801434	801445	801435	801454	120	140	60	92	142	25	14	27	29	90
130-19	801466	801467	801424	801498	801427	801455	191	229	95	146	191	32	19	37	43	114
130-24	801469	801470	801425	801499	801427	801455	191	229	95	146	191	32	24	47	55	114

MODEL	HA	K	KEY	KL	L	LC	LF	P1	P2	T
110-14	3	9X19	5SQ	25	161,5	221,5	23	150	150	3,5
130-19	5	11	6SQ	27	210,5	280,5	27	200	198	3,5
130-24	5	11	7x8	35	220,5	302,5	27	200	198	3,5

NOTE: Drawings are expressed in third angle projection.

METRIC FMCBES CLUTCH-BRAKES – MODELS 7-28 & 7-38

FMCBE Flange Mounted Clutch-Brakes are designed for controlled starts and stops in hostile, dirty environments. Totally enclosed design prevents contaminants from interfering with operation of the units while keeping worn friction material from escaping into the environment. Choose from **2 Models**:

- **Bore sizes** range from 28 to 38 millimeters
- All units available in either electroless nickel plating or black oxide coating
- Meets NEMA standard 1.26.5 for waterproof machines
- Static Torque up to 46 Nm (brake) and 64 Nm (clutch)
- Overhung Load Capacity up to 180 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 5,5 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application
- For additional corrosion protection, contact the factory

Metric FMCBES Clutch-Brakes, Enclosed Design - Spring Engaged Brake

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	Overhung Load Capacity (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCBES-7-28	801472	28	246 W	143	95	28
FMCBES-7-38	801475	38	246 W	180	120	28
Nickel Plating:						
FMCBES-7-28	801473	28	246 W	143	95	28
FMCBES-7-38	801476	38	246 W	180	120	28

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCBES-7-28	801472	801432	1,5	801627	5
FMCBES-7-38	801475	801433	1,5	801628	5
Nickel Plating:					
FMCBES-7-28	801473	801458	1,5	801575	5
FMCBES-7-38	801476	801460	1,5	801608	5

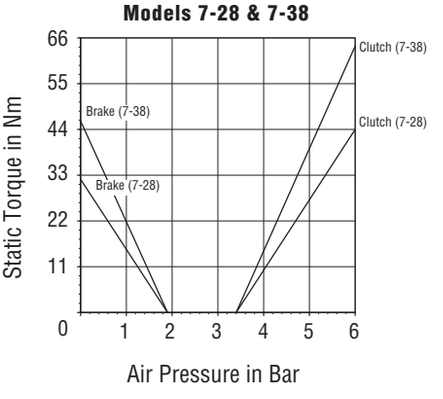
IEC Motor/Frame Selection Chart

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
1,5	1000	100L	28	FMCBES-7-28
2,2	1000	112M	28	FMCBES-7-28
2,2	1500	100L	28	FMCBES-7-28
3,0	1000	132S	38	FMCBES-7-38
3,0	1500	100L	28	FMCBES-7-28
4,0	1500	112M	28	FMCBES-7-28
5,5	1500	132S	38	FMCBES-7-38

Torque Vs. Air Pressure

Models 7-28 & 7-38



NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

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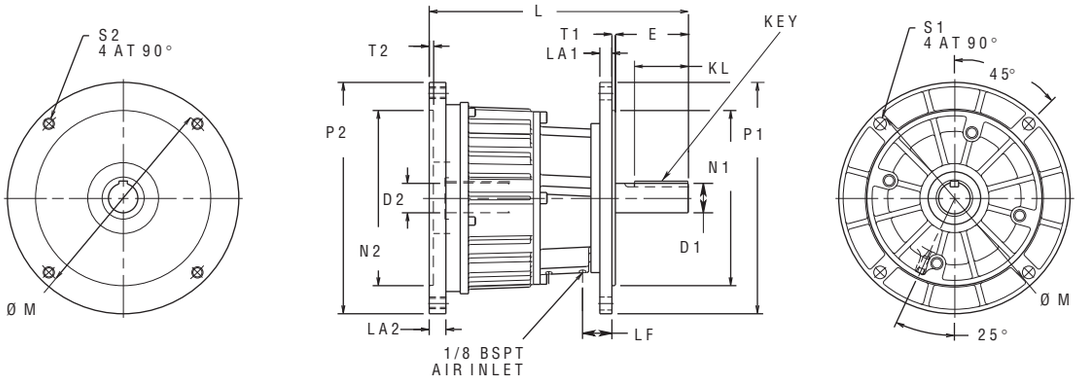
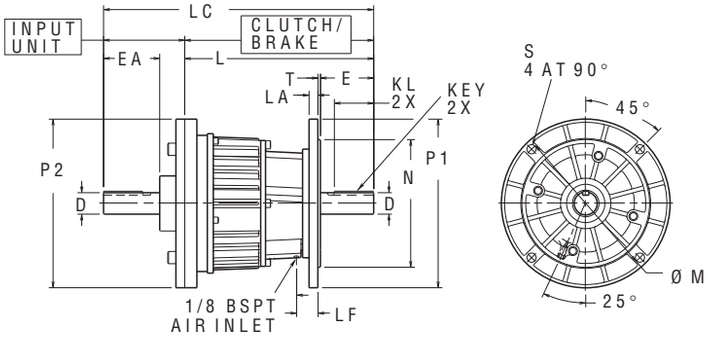
METRIC FMCBES MODEL CLUTCH-BRAKES/SPRING ENGAGED BRAKE - APPROXIMATE DIMENSIONS (MILLIMETERS)

MODELS 7-28 & 7-38



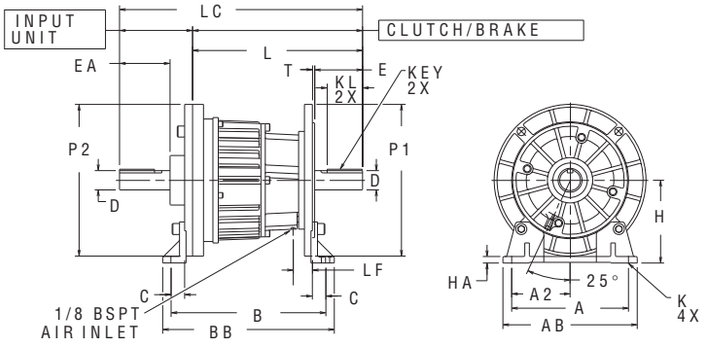
MODEL	FMCBES	FMCBES(NICKEL)	D1	D2	E	KEY	KL	L	LA1	LA2	LF	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
7-28	801472	801473	28j6	28G7	57	7X8	44	273	13	16	36	215	180	180	250	244	14,5	M12	4	6
7-38	801475	801476	38k6	38F7	77	8X10	51	300	14	21	36	265	230	230	300	300	14,5	M12	4	5

MODELS 7-28 & 7-38 WITH INPUT



MODEL	FMCBES	FMCBES(NICKEL)	D1	E	EA	KEY	KL	L	LA	LC	LF	M	N1j6	P1	P2	S1	T
7-28	801472	801473	28j6	57	60	7X8	44	273	13	375	36	215	180	200	244	14,5	4
7-38	801475	801476	38k6	77	80	8X10	51	300	14	416	36	265	230	250	300	14,5	4

MODELS 7-28 & 7-38 WITH INPUT & FOOT



MODEL	FMCBES	FMCBES(NICKEL)	INPUT(BLK)	INPUT(NICKEL)	FOOT(BLK)	FOOT(NICKEL)	A	AB	AZ	B	BB	C	Dj6	E	EA	H
7-28	801472	801473	801627	801575	801632	801458	254	292	127	275	301	25	28	57	60	130
7-38	801475	801476	801628	801608	801633	801460	254	292	127	283	315	25	38	77	80	155

MODEL	HA	K	KEY	KL	L	LC	LF	P1	P2	T
7-28	14	14	7X8	44	273	375	36	250	244	4
7-38	14	18	8X10	51	300	416	36	300	300	4

NOTE: Drawings are expressed in third angle projection.

METRIC FMCBES CLUTCH-BRAKES – MODELS 8-38 & 8-42

FMCBE Flange Mounted Clutch-Brakes are designed for controlled starts and stops in hostile, dirty environments. Totally enclosed design prevents contaminants from interfering with operation of the units while keeping worn friction material from escaping into the environment. Choose from **2 Models**:

- **Bore sizes** range from 38 to 42 millimeters
- All units available in either electroless nickel plating or black oxide coating
- Meets NEMA standard 1.26.5 for waterproof machines
- Static Torque up to 103 Nm (brake) and 104 Nm (clutch)
- Overhung Load Capacity up to 200 kilograms
- Design Speed up to 1500 rpm. Consult factory for higher speed
- Flange mounts directly to motors and reducers
- Compatible with IEC-B5 face motors up to 11 KW
- Optional Foot Mount is available for belt drive applications
- Optional Input Unit allows you to incorporate pulleys or coupling into your application
- For additional corrosion protection, contact the factory

METRIC FMCBES CLUTCH-BRAKES, ENCLOSED DESIGN - SPRING ENGAGED BRAKE

Standard Clutch-Brake is Flange Mounted. Order Foot Mount separately for belt drive applications. Order Input Unit to incorporate pulleys into your application.

Model Number	Product Number	Shaft/Bore (mm)	Thermal Capacity Up To	OVERHUNG LOAD CAPACITY (kg) 1000 RPM	1500 RPM	Shipping Wt. (kg)
Black Coating:						
FMCBES-8-38	801478	38	328 W	195	130	70
FMCBES-8-42	801481	42	328 W	200	135	70
Nickel Plating:						
FMCBES-8-38	801479	38	328 W	195	130	70
FMCBES-8-42	801482	42	328 W	200	135	70

NOTE: Thermal Capacity and Overhung Load data is based upon 50% clutch and 50% brake usage.

Model Number	Product Number	Foot Mount Set (2 Mounts) Product Number	Shipping Wt. (kg)	Input Unit Product Number	Shipping Wt. (kg)
Black Coating:					
FMCBES-8-38	801478	801633	5	801629	6
FMCBES-8-42	801481	801634	5	801630	6
Nickel Plating:					
FMCBES-8-38	801479	801460	5	801601	6
FMCBES-8-42	801482	801463	5	801602	6

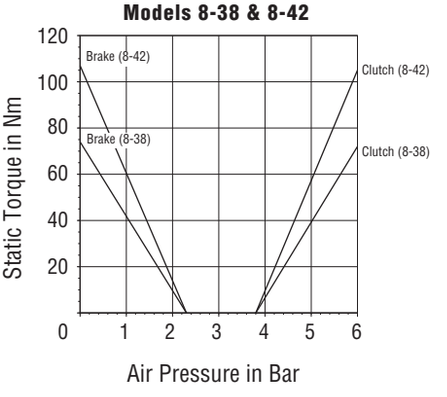
IEC MOTOR/FRAME SELECTION CHART

Use this chart as specification and operational criteria for your application.

KW of Motor	RPM	Frame Number	Motor Shaft (mm)	Clutch-Brake Model Number
4,0	1000	132M	38	FMCBES-8-38
5,5	1000	132M	38	FMCBES-8-38
7,5	1000	160M	42	FMCBES-8-42
7,5	1500	132M	38	FMCBES-8-38
11	1500	160M	42	FMCBES-8-42

TORQUE VS. AIR PRESSURE

Models 8-38 & 8-42

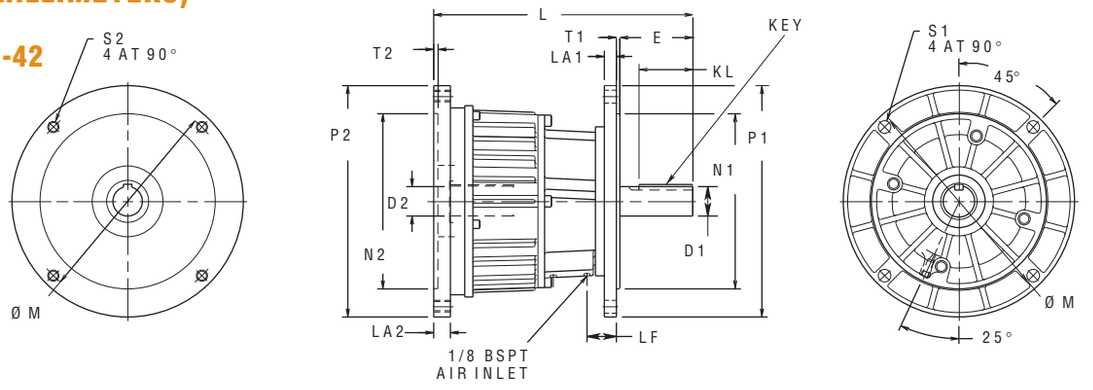


NOTE: Dynamic torque is approximately 85% of static torque.

Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

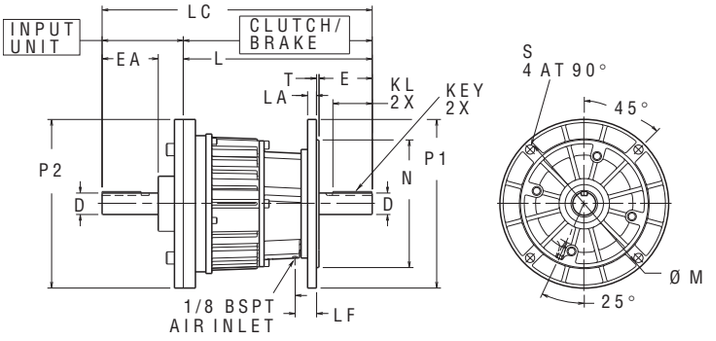
METRIC FMCBES MODEL CLUTCH-BRAKES/SPRING ENGAGED BRAKE - APPROXIMATE DIMENSIONS (MILLIMETERS)

MODELS 8-38 & 8-42



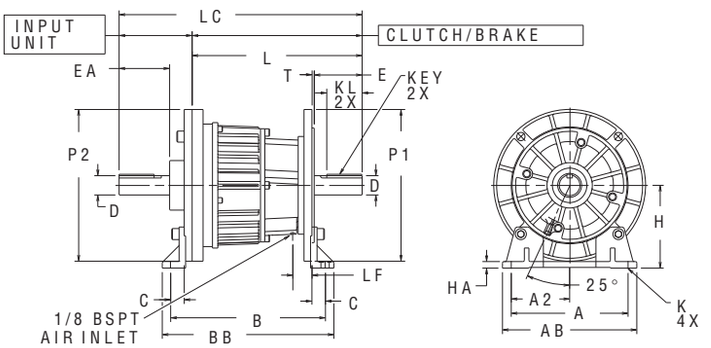
MODEL	FMCBES	FMCBES(NICKEL)	D1	D2	E	KEY	KL	L	LA1	LA2	LF	M	N1j6	N2G7	P1	P2	S1	S2	T1	T2
8-38	801478	801479	38k6	38F7	77	8X10	51	314	12	21	36	265	230	230	300	300	14,5	M12	4	5
8-42	801481	801482	42k6	42F7	105	8X12	76	375	17	28	42	300	250	250	330	330	18,5	M16	5	5

MODELS 8-38 & 8-42 WITH INPUT



MODEL	FMCBES	FMCBES(NICKEL)	D1	E	EA	KEY	KL	L	LA	LC	LF	M	N1j6	P1	P2	S1	T
8-38	801478	801479	11k6	77	80	8X10	51	314	12	444	36	265	230	300	300	14,5	4
8-42	801481	801482	42k6	105	110	8X12	76	375	17	534	42	300	250	330	330	18,5	5

MODELS 8-38 & 8-42 WITH INPUT & FOOT



MODEL	FMCBES	FMCBES(NICKEL)	INPUT(BLK)	INPUT(NICKEL)	FOOT(BLK)	FOOT(NICKEL)	A	AB	AZ	B	BB	C	Dj6	E	EA	H
8-38	801478	801479	801629	801601	801633	801460	254	292	127	296	327	25	38	77	80	40
8-42	801481	801482	801630	801602	801634	801463	254	292	127	341	378	29	42	105	55	110

MODEL	HA	K	KEY	KL	L	LC	LF	P1	P2	T
8-38	14	14	8X10	51	314	444	36	300	300	4
8-42	14	18	8X12	75	375	534	42	330	330	5

NOTE: Drawings are expressed in third angle projection.