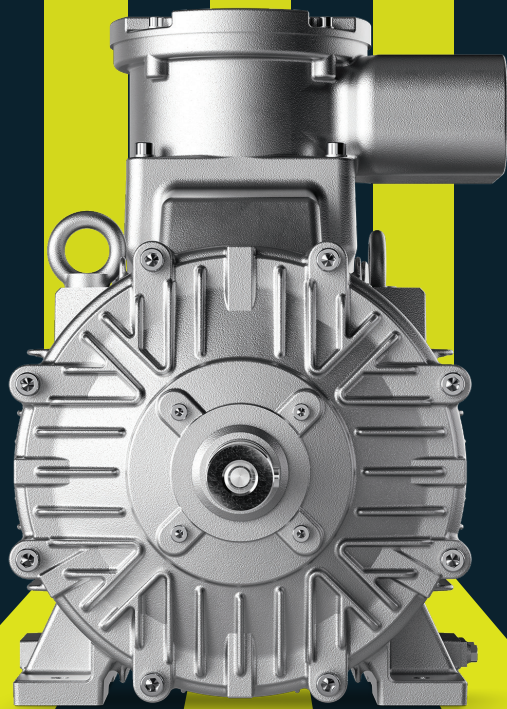




Innomotics

XP Motors 1MB7

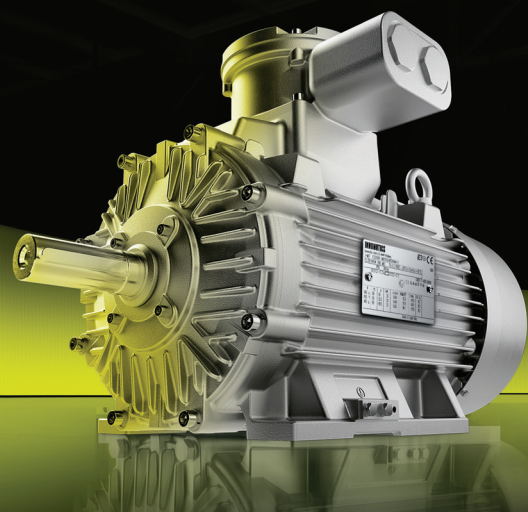
IE3 Efficiency Class Flame Proof Motors

Efficient Power. Uncompromised Safety.

INNOMOTICS

Innomotics XP Motors

Flame proof efficiency and protection, all in one



Innomotics Low Voltage Flame Proof Motors combine high efficiency with reliable protection in a single robust package. Designed for hazardous environments, these motors ensure safe operation by preventing ignition of explosive gases, while delivering exceptional performance and energy savings. Ideal for demanding industries, Innomotics offers the perfect balance of safety and efficiency to keep your operations running smoothly and securely.

Innomotics Severe Duty

Innomotics XP motors are impressive for their extremely long service life and absolute reliability under the most extreme conditions. They're also incredibly user-friendly, from their selection and ordering to engineering, integration, commissioning, operation, and service.

Salient features:

Shaft height	80-280 for 2P, 4P and 6P
Power range, pole	0.75kW to 90kW, 2P 0.55kW to 90kW, 4P 0.37kW to 55kW, and 6P
Frame	Cast iron
Efficiency class	IE3
Type of protection	Ex db (Ex tb and Ex tc are available on request)
Temperature class	T4
Ambient temperature	50°C
Applicable standards	Efficiency Classification according to IEC 60034-30-1
Degree of ingress protection	IP66
Voltages	415V (additional voltages available, refer Innomotics product configurator for more details.)
Frequency	50Hz
Type of construction	IMB3 (Refer Innomotics Product Configurator for other construction variants.)
Cooling method	IC411 Totally enclosed fan cooled [TEFC]
Temperature rise	155°C (F) utilized to 130°C (B) on VFD supply at nameplate KW
Insulation system	VFD Suitable insulation scheme for voltage up to 415V as a standard.
Impulse voltage insulation class (IVIC) for U _N 415V	C (Severe) As per Std. IS/IEC 60034: Part 18: Sec 41

Additional information:

- RHS/LHS terminal box are available as option from frame size 90 onwards.
- CE compatible design motors and higher efficiency at 75% load.
- Auxiliary terminal box casted in FS 250 and 280 leads to lesser joints and increases robustness and safety.
- Best-in-class validation of enclosure for overpressure test.
- Flame path longer than as required by the standard.
- VFD fed motors will be provided with PTC thermistors by default. These motors will have auxiliary nameplate indicating the safe range of operation.
- Terminal box having longer extension box across the range.
- Cast iron cooling fan as default.

Certificates and approvals



TM

Ordering codes for Innomotics LV Flame Proof Motor 1MB7

Output	Pole	Frame size	Motor types	Ordering code (MLFB)*				
kW					12-13	14	15	16

0.75	2	80	7CD3082A	1MB7563-0DA2	2-3	A	A	4
1.1	2	80	7CD3083A	1MB7563-0DA3	2-3	A	A	4
1.5	2	90S	7CD3090A	1MB7563-0EA0	2-3	A	A	4
2.2	2	90L	7CD3094A	1MB7563-0EA4	3-5	A	A	4
3.7	2	100L	7CD3105A	1MB7563-1AA5	3-5	A	A	4
5.5	2	132S	7CD3130A	1MB7563-1CA0	3-5	A	A	4
7.5	2	132S	7CD3131A	1MB7563-1CA1	3-5	A	A	4
11	2	160S	7CD3162A	1MB7563-1DA2	3-5	A	A	4
15	2	160M	7CD3163A	1MB7563-1DA3	3-5	A	A	4
18.5	2	160L	7CD3164A	1MB7563-1DA4	3-5	A	A	4
22	2	180M	7CD3182A	1MB7563-1EA2	3-5	A	A	4
30	2	200L	7CD3204A	1MB7563-2AA4	3-5	A	A	4
37	2	200L	7CD3205A	1MB7563-2AA5	3-5	A	A	4
45	2	225M	7CD3222A	1MB7563-2BA2	3-5	A	A	4
55	2	250M	7CD3252A	1MB7563-2CA2	3-5	A	A	4
75	2	280S	7CD3280A	1MB7563-2DA0	3-5	A	A	4
90	2	280M	7CD3282A	1MB7563-2DA2	3-5	A	A	4

Output	Pole	Frame size	Motor types	Ordering code (MLFB)*				
kW					12-13	14	15	16

0.55	4	80	7CD3082B	1MB7563-0DB2	2-3	A	A	4
0.75	4	80	7CD3083B	1MB7563-0DB3	2-3	A	A	4
1.1	4	90S	7CD3090B	1MB7563-0EB0	2-3	A	A	4
1.5	4	90L	7CD3094B	1MB7563-0EB4	2-3	A	A	4
2.2	4	100L	7CD3104B	1MB7563-1AB4	3-5	A	A	4
3.7	4	112M	7CD3122B	1MB7563-1BB2	3-5	A	A	4
5.5	4	132S	7CD3130B	1MB7563-1CB0	3-5	A	A	4
7.5	4	132M	7CD3132B	1MB7563-1CB2	3-5	A	A	4
11	4	160M	7CD3162B	1MB7563-1DB2	3-5	A	A	4
15	4	160L	7CD3164B	1MB7563-1DB4	3-5	A	A	4
18.5	4	180M	7CD3182B	1MB7563-1EB2	3-5	A	A	4
22	4	180L	7CD3184B	1MB7563-1EB4	3-5	A	A	4
30	4	200L	7CD3205B	1MB7563-2AB5	3-5	A	A	4
37	4	225S	7CD3220B	1MB7563-2BB0	3-5	A	A	4
45	4	225M	7CD3222B	1MB7563-2BB2	3-5	A	A	4
55	4	250M	7CD3252B	1MB7563-2CB2	3-5	A	A	4
75	4	280S	7CD3280B	1MB7563-2DB0	3-5	A	A	4
90	4	280M	7CD3282B	1MB7563-2DB2	3-5	A	A	4

Output	Pole	Frame size	Motor types	Ordering code (MLFB)*				
kW					12-13	14	15	16

0.37	6	80	7CD3082C	1MB7563-0DC2	2-3	A	A	4
0.55	6	80	7CD3083C	1MB7563-0DC3	2-3	A	A	4
0.75	6	90S	7CD3090C	1MB7563-0EC0	2-3	A	A	4
1.1	6	90L	7CD3093C	1MB7563-0EC4	2-3	A	A	4
1.5	6	100L	7CD3121C	1MB7563-1AC4	2-3	A	A	4
2.2	6	112M	7CD3131C	1MB7563-1BC2	3-5	A	A	4
3.7	6	132S	7CD3132C	1MB7563-1CC1	3-5	A	A	4
5.5	6	132M	7CD3133C	1MB7563-1CC3	3-5	A	A	4

Output	Pole	Frame size	Motor types	Ordering code (MLFB)*				
kW					12-13	14	15	16

7.5	6	160M	7CD3162C	1MB7563-1DC2	3-5	A	A	4
11	6	160L	7CD3163C	1MB7563-1DC4	3-5	A	A	4
15	6	180L	7CD3184C	1MB7563-1EC4	3-5	A	A	4
18.5	6	200L	7CD3204C	1MB7563-2AC4	3-5	A	A	4
22	6	200L	7CD3205C	1MB7563-2AC5	3-5	A	A	4
30	6	225M	7CD3222C	1MB7563-2BC2	3-5	A	A	4
37	6	250M	7CD3252C	1MB7563-2CC2	3-5	A	A	4
45	6	280S	7CD3280C	1MB7563-2DC0	3-5	A	A	4
55	6	280M	7CD3282C	1MB7563-2DC2	3-5	A	A	4

Voltage code (Specified in MLFB positions 12 and 13)

Frequency 50Hz						
Position 12 & 13	Connection		Position 12 & 13	Connection		Short code
	Δ	Y		Δ	Y	
18	200VΔ		90	220VΔ	–	M1Y
20	–	360VY	90	230VΔ	–	M1Y
21	–	380VY	90	240VΔ	–	M1Y
22	–	400VY	90	360VΔ	–	M1Y
23	–	415VY	90	440VΔ	–	M1Y
27	–	500VY	90	460VΔ	–	M1Y
33	380VΔ	–	90	480VΔ	–	M1Y
34	400VΔ	–	90	525VΔ	–	M1Y
35	415VΔ	–	90	–	660VY	M1Y
40	500VΔ	–	90	–	690VY	M1Y
43	(575VΔ)	–				
46	660VΔ	–				
47	690VΔ	–				
90	Any other voltage					M1Y

Notes:

- Short codes are mandatory when 12 and 13 in MLFB is 9 and 0 respectively.. M1Y requires Hz, V and kW to be specified in plain in text
- For 1MB7 motors only 2-3 or 3-5 is possible. For 60Hz please enquire.

Construction code (Specified in MLFB position 14)

14 th	← Position in the MLFB
A	IM B3, IM B6, IM B7, IM B8, IM V5, IM V6, (stamped IM B3)
C	IM V5 / IM 1011
D	IM V6 / IM 1031
F	IM B5 / IM 3001, IM V1, IM V3, (stamped IM B5) flange
G	IM V1 / IM 3011 flange
H	IM V3 / IM 3031 flange (for frames upto 315M only)
J	IM B35 / IM 2001 flange
K	IM B14 / IM 3601, IM V19 / IM 3631, IM V18 / IM 3611 (stamped IMB14); standard flange (for frames upto 132M only)
L	IM V19 / IM 3631 standard flange (for frames upto 132M only)
M	IM V18 / IM 3611 standard flange (for frames upto 132M only)
N	IM B34 / IM 2101 standard flange (for frames upto 132M only)
T	IM B6 / IM 1051
U	IM B7 / IM 1061
V	IM B8 / IM 1071
W	IMV15
Y	IMV35

Terminal box position (Specified in MLFB position 16)

15 th	← Position in the MLFB	16 th	← Position in the MLFB
A	Without winding protection	4	Terminal box on TOP
B	3x PTC thermistors for tripping (Class F)	5	Terminal box on RHS (as viewed from DE)
C	6x PTC thermistors - 3x for alarm and 3x for tripping (Class F)	6	Terminal box on LHS (as viwed from DE)
H	3x PT100 resistance thermometers in stator winding - 2 wire		
J	6x PT100 resistance thermometers in stator winding - 2 wire		
K	1x Temperature sensor - PT1000		
L	2x Temperature sensor - PT1000		
Q	3x PT100 resistance thermometers in stator winding - 3 wire		
R	6x PT100 resistance thermometers in stator winding - 3 wire		

Siemens LV Motors are now Innomotics

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