

DISTRIBUTOR LINE CARD

## IEC Low Voltage Motors

Global product offering



ABB offers an extensive range of low voltage motors – suitable for all industries and all applications. ABB IEC Low Voltage motors meet all international and national efficiency regulations.





### ABB Ability™ Smart Sensor for motors

Condition monitoring solution enabling predictive maintenance for motors. By monitoring the condition and performance of their motors - vibration, bearing condition, misalignment, temperature - users can avoid unexpected downtime, optimize efficiency and improve safety.






- For induction motors, frame sizes 56 – 450 (IEC)
- Available as option from the factory or mod-stock
- Can be easily retrofitted to existing motors (ABB and non-ABB motors)



## IEC Low Voltage Motors

	General performance motors	Process performance motors		
	Cast iron	Cast iron motors	Aluminum motors	Synchronous reluctance motors
				
	Best suited for applications where simplicity and off-the-shelf availability is of highest importance. For export only. Not for use in the US.	Customizable motors for any customer need. Offering reliability, availability and highest efficiency. M3BP Stocked in the US.	Customizable motors for any customer need. Providing reliability, availability and efficiency in a lighter weight and easier to clean package. Stocked in the US.	Motor-drive packages provide advantages of permanent magnet motors together with cost-efficiency, simplicity and user-friendliness.
Product type	M2BAX	M3BP, M3BN	M3AA	M3AL, M3BL
Efficiency classes	IE1, IE2, IE3	IE2, IE3, IE4 (frame sizes 160 – 355)	IE2, IE3	up to IE5
IEC Frame sizes	71 – 355	71 – 450	63 – 280	IE4 range: 132 – 315 High output range: 90 – 315
NEMA Frame sizes		M3BN: 449/5000/580		
Power range	0.25 – 355 kW 0.33-473 HP	0.25 – 1000 kW 0.33-1300 HP	0.12 – 90 kW 0.16-120 HP	1.1 – 350 kW 1.5-466 HP
Poles	2 – 6	2 – 12	2 – 8	1000 – 3000 r/min
Voltage	230 – 690 V	230 – 690 V	230 – 690 V	–
Frequency	50 Hz, 60 Hz	50 Hz, 60 Hz	50 Hz, 60 Hz	–
IP Class	up to IP56	up to IP66	up to IP66	–
Cooling	IC411/TEFC, IC416/TEBC	IC410/TENV, IC411/ TEFC, IC416/TEBC, IC418/TEAO	IC410/TENV, IC411/TEFC, IC416/TEBC, IC41/TEAO	IC411/TEFC, IC416/TEBC, IC418/TEAO
Starting	DOL, VSD	DOL, VSD	DOL, VSD	VSD
MEPS	EU, CN, AU	EU, CN, AU, BR, KR, US, CA	EU, CN, AU, BR, KR, US, CA, RS, SABS	–
Certification	Marine	Marine	Marine	–
Protection type	–	–	–	–
Suggested applications and industries.	Pumps, fans, conveyors, food and beverage machinery, compressors, general machinery.	Pumps, fans, compressors, crushers, mills, centrifugal machines, presses, grinders and general process applications.	Pumps, fans, compressors, centrifugal machines, Food and beverage applications – target easy cleaning and general process applications.	Pumps, fans, compressors, extruders, conveyors, mixers.

## IEC Low Voltage Motors

	IEC Food Safe stainless steel motors	Motors for explosive atmospheres			
		Flameproof underground mining	Flameproof	Increased safety Ex ec	Dust ignition proof Ex t
					
	Uncompromised hygienic solution, easy to clean. Stocked in the US.	Heavy duty design and maximum safety for the extremely tough environments found in underground mines.	Certified for maximum safety, for environments with gas explosion risk. M3KP stocked in US. Export only.	Certified for maximum safety, for environments with gas explosion risk. M3GP stocked in US.	Certified for maximum safety, for environments with dust explosion risk. M3GP stocked in US.
Product type	M3MA	M3JM	M3JP, M3KP	M3GP, M3AA	M3GP, M3AA
Efficiency classes	IE3	IE2, IE3	IE2, IE3	IE2, IE3	IE2, IE3
IEC Frame sizes	71 – 132	80 – 450	80 – 450	M3GP 71 – 450 M3AA 71 – 280	M3GP 71 – 450 M3AA 71 – 280
Power range	0.25 – 7.5 kW	0.55 – 710 kW	0.55 – 950 kW	0.25 – 1000 kW	0.25 – 1000 kW
	0.33-10 HP	0.75-950 HP	0.75-1250 HP	0.33-1300 HP	0.33-1300 HP
Poles	2 – 6	2 – 8	2 – 12	2 – 12	2 – 12
Voltage	230 – 690 V	230 – 1000 V	230 – 690 V	230 – 690 V	230 – 690 V
Frequency	50 Hz, 60 Hz	50 Hz, 60 Hz	50 Hz, 60 Hz	50 Hz, 60 Hz	50 Hz, 60 Hz
IP Class	IP69	IP66	up to IP66	up to IP66	up to IP66
Cooling	IC410/TENV – sizes 71 – 90 IC411/TEFC – sizes 100 – 132	IC411/TEFC, IC416/TEBC, IC418/TEAO	IC411/TEFC, IC416/TEBC, IC418/TEAO	IC411/TEFC, IC416/TEBC, IC418/TEAO	IC411/TEFC, IC416/TEBC, IC418/TEAO
Starting	DOL, VSD	DOL, VSD	DOL, VSD	DOL, VSD	DOL, VSD
MEPS	EU, CN, AU, US	EU, AU	EU, CN, AU, BR	EU, CN, AU, BR, US	EU, CN, AU, US
Certification	CE, cURus (US & Canada), CCC (China)	IECEX/ATEX, CU-TR	IECEX/ATEX, CU-TR, CCC (China), Inmetro, marine	IECEX/ATEX, CU-TR, CCC (China), Inmetro, UL Class I, Div 2 US and Canada, marine	IECEX/ATEX, CU-TR, CCC (China), Inmetro, UL Class II, Div 2 US only, marine
Protection type	–	Ex db I Mb	Ex d IIB or C T4 Gb and Ex de IIB or C T4 Gb	Ex ec IIC T3 Gc, Class I, Div 2	For zone 21: EPL Db, T 125°C, IP65 For zone 22: EPL Dc, T 125°C, IP55 or IP65, Class II, Div 2, Dust groups IIIB and IIIC
Suggested applications and industries.	Food and beverage – meat, poultry, fish, dairy, beverage – and other industries where meeting strict hygiene requirements is essential.	Applications in underground coal mines where explosion hazards may exist due to methane gas and coal dust.	Applications where explosion hazards may exist due to flammable gases, flammable and combustible liquid-vapors.	Applications where explosion hazards may exist due to flammable gases, flammable and combustible liquid-vapors.	Applications where explosion hazards may exist due to flammable dust.

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## Contact

**For more information and contact details:**

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