

Energy Efficiency Directives around the world



Country	Directive / Standard	Effective Date	General Scope	Efficiency Level	Detailed Scope	Efficiency Level with VSD	Voltage/Frequency	Power	Poles	Exceptions
USA	Epcact 2007 EISA (NEMA MG-1)	Dec-10	General purpose electric motor (subtype I) and (subtype II).	Subtype I - NEMA Premium (IE3)	General Purpose Motor.	-	No more than 600V/60Hz	1 up to 200 HP	2 to 6	Motors with special customer flange or shaft (TZ, TCZ, TDZ, etc),vertical (Hollow Shaft and P-base solid shaft), 201 to 500 HP design A or medium voltage, brake motors with an integral brake design (not removable).
				Subtype II - High Efficiency (IE2)	General Purpose Motor (subtype I) configured as: U-Frame, Design C, Close-coupled pump, Footless, vertical solid shaft normal thrust (horizontal) and fire pumps.			1 up to 200 HP		
				NEMA Design B - High Efficiency (IE2)	General Purpose Motor.			200 up to 500 HP		
CANADA	CSA C390 (NEMA MG-1)	Jan-11	Electrical Induction motor, of a poly-phase, squirrel cage type design, open or enclosed (including e-plosion-proof), foot or flange mounted construction with or without feet or detachable feet, IP code from 00 to 66, NEMA T or U frame or equivalent IEC dimensions, NEMA design A, B or C, or IEC design N or H, single speed. A motor includes any such product that is incorporated into any other product, whether or not the other product is an energy using product and subject to the regulation.	High Efficiency (IE2)	8 pole, NEMA U frame or equivalent IEC dimensions, NEMA design C, or IEC design H, close-coupled pump, fire pump duty, vertically-mounted solid shaft normal thrust (as tested in the horizontal configuration), footless construction.	High Efficiency (IE2)	50/60 Hz	NEMA design B motor size greater than 200 up to 500 HP IEC design N motor size greater than 150 up to 375	2 to 8	-
				NEMA Premium Efficiency (IE3)	NEMA T frame or IEC frame designation of 90 or above, NEMA design A or B, or IEC design N, Standard shaft, R-shaft or S-shaft or an IEC equivalent.	NEMA Premium Efficiency (IE3)		NEMA 1 to 200 hp or IEC 0.746 to 150 kW	2 to 6	-
MEXICO	PROY-NOM-016 ENER-2009 (NEMA MG-1)	Dec-10	Opened or enclosed three-phase squirrel-cage induction motors, continuous duty operation, horizontal or vertical mounting.	NEMA Premium Efficiency (IE3)	According to EISA (USA).	-	No more than 600V/60Hz	1 up to 200 hp 0.746 up to 373 kW	2 to 8	-
UNIÓN EUROPEA	640/2009 (IEC60034-30)	Jun-11	Single speed, three-phase, squirrel cage induction motor, continuous duty operation S1.	High Efficiency (IE2)	-	-	Up to 1000V, 50 or 50/60 Hz	0.75 up to 375 kW	2 to 6	Motors design to operate: wholly immersed in a liquid, completely integrated into a product (gear, pump, fan, compressor, etc.), specifically designed to operate at altitudes exceeding 1000 metres above sea-level, ambient air temperatures exceed 40°C, maximum operating temperature above 400°C, ambiente air temperatures less than -15°C for any motor or less than 0°C for a motor with air cooling, where the water cooling temperature at the inlet to a product is less than 5°C or exceeding 25°C, in potentially explosive atmospheres. Brake motors.
		Jan-15		Premium Efficiency (IE3)	-	Premium Efficiency (IE2)		7.5 up to 375 kW		
		Jan-17		Premium Efficiency (IE3)	-	Premium Efficiency (IE2)		0.75 up to 375 kW		
BRAZIL	553 (NBR 17094-1)	Dec-09	Motors with electric single speed, three-phase, squirrel cage induction, continuous duty operation, ABNT-IEC design N, H or NEMA design A, B or C, intermediate power, special bearings, close coupled pump, TEFC and Ex-n.	High Efficiency (IE2)	-	-	Up to 600V, 60Hz	1 up to 250 hp 1 up to 200 hp 1 up to 150 hp	2 to 4 6 8	Direct drive motors and motors designed to operate in potentially explosive atmospheres.
CHILE	PE 7/01/2 (IEC 60034-30)	Jan-11	Opened or Enclosed three-phase squirrel-cage induction motors, continuous duty operation.	High Efficiency (IE2)	-	-	Up to 690V, 50Hz	0.75 up to 75 kW	2 to 6	Direct drive motors and brake motors.
CHINA	GB 18613-2006	Jul-11	Motors with electric single speed close fan cooled, three-phase, squirrel cage induction, design N.	High Efficiency (IE2)	-	-	Up to 690V, 50Hz	0.55 up to 315 kW	2 to 6	-
SOUTH KOREA	MKE's Notification 2008-99 (IEC 60034-30)	Since 2008	Under a normal teste condition in and at refrigerant temperature under 50°C low voltage, 3 phase cage induction motor with protector or hermetic type, general frame, single speed (constant) foot or plunge mount, design A or B, inverter-driven motor with continuous operanting.	High Efficiency (IE2)	-	-	Up to 600V, 60Hz	0.75 up to 200 kW	2 to 8	Special purpose electric motor which is satisfied with general requirements, but can not be used in general (ex. close coupled pump), the special purpose motor which is satisfied with general requirements, the special purpose motor (except motors designed with special operating characteristic and the special mechanical structure at abnormal operating condition (ex. thrust bearing), motor which is not satisfied with general requirements (ex. multi-speed).
AUSTRALIA	MEPS (AS/NZS 1359.102.3)	Since 2006	Three-phase electric motors.	High Efficiency (IE2)	-	-	Up to 690V, 50Hz	0.73 up to 185 kW	2 to 8	Submersible motors, integral motor-gear systems (non-separable), variable multispeed motors, motor rated only for short duty cycles (IEC 60034-2 duty rating S2), rewind motors or motors sold as second hand.
JAPAN	JIS C 4210 AND 4212 Based (IEC 60034-30)	Expected 2010	Three-phase electric motors.	High Efficiency (IE2)	-	-	220/220/400/440 V, 50/60Hz	0.2 up to 160 kW	2 to 6	-
SWITZERLAND	Based (IEC 60034-30)	Expected 2011	Three-phase electric motors.	High Efficiency (IE2)	-	-	Up to 400V, 50Hz	0.75 up to 375 kW	2 to 6	-
INDIAN	Based (IEC 60034-30)	Expected 2013	Three-phase electric motors.	High Efficiency (IE2)	-	-	415/690 V, 50Hz	0.37 up to 315 kW	2 to 8	-
ISRAEL	Based (IEC 60034-30)	Expected 2015	Three-phase electric motors.	Premium Efficiency (IE3)	-	-	Up to 400 V, 50Hz	0.75 up to 185 kW	2 to 8	-
UNITED ARAB EMIRATES	Based (IEC 60034-30) and EC 640/2009	Expected 2011	Three-phase electric motors.	High Efficiency (IE2)	-	-	Up to 400 V, 50Hz	0.75 up to 375 kW	2 to 6	-