

European Union

Directive	Preferred Voltages	Circuit	Frequency
ErP 2009/125/EC VO 640-2009	230/400 V 400/690 V	Δ/Y	50 Hz 50/60 Hz

Designation	IE2	IE3
Mandatory as of	16.06.2011	1.1.2015 for P \geq 7,5 kW 1.1.2017 for P<7,5 kW
Power range	0,75-375 kW	
Number of poles	2,4,6	
Relevant exceptions for IE2, IE3	<p>1. Intermittent operation / Short term operation The directive only applies to motors in continuous operation. Operating modes other than S1 as per IEC 60034-1 are exempted from the regulations. e.g.:</p> <ul style="list-style-type: none"> • S3-70% • S6-80% • S9 <p>Explanation of operating modes \Rightarrow A19 Motor data \Rightarrow C2 and above</p> <p>2. Brake motors</p> <p>3. Switchable pole motors \Rightarrow C7-11</p> <p>4. ATEX motors Motors for explosion protection (gas and dust) are exempted from the directive but may be classified according to IE.</p> <p>5. Ambient temperature The directive does not apply to motors which are rated for ambient temperatures >40°C or <0°C, i.e.:</p> <ul style="list-style-type: none"> • T_{amb} = -20°C...+45°C <p>6. Installation altitude The directive does not apply to motors which are rated for an installation altitude above 1000m above sea level.</p> <p>7. Single phase motors \Rightarrow C12-13</p>	
Special features		E2 +FI IE2 motors which can be used with inverters may also be used as an alternative to IE3.

Type Plates (Geared motor)

IE2	
Type SK 90 LH/4	
3~Mot. No. 2005471179-400	12345678
Th.Cl.155 (F) IP 55 S1	IEC 60034 (H)
50 Hz 230/400 V Δ /Y	60 Hz 265/460 V Δ /Y
\oplus 5,80/3,34 A 1,5 kW 5,12/2,95 A 1,5 kW	\oplus 6,4/3,7 A 1,5 kW 4,9/2,8 A 1,5 kW
\ominus COS ϕ 0,78 1415 min ⁻¹ COS ϕ 0,76 1725 min ⁻¹	\ominus COS ϕ 0,7 1430 min ⁻¹ COS ϕ 0,76 1730 min ⁻¹
220-240/380-420 V Δ /Y	254-277/440-480 V Δ /Y
5,86-5,95/3,39-3,40 A	5,16-5,25/2,98-3,03 A
IE2=82,8%	IE2=84,4%
www.nord.com	

IE3	
Type SK 90 LP/4	
3~Mot. No. 2005471179-600	12345678
Th.Cl.155 (F) IP 55 S1	IEC 60034 (H)
50 Hz 230/400 V Δ /Y	60 Hz 265/460 V Δ /Y
\oplus 6,4/3,7 A 1,5 kW 4,9/2,8 A 1,5 kW	\oplus COS ϕ 0,7 1430 min ⁻¹ COS ϕ 0,76 1730 min ⁻¹
\ominus COS ϕ 0,7 1430 min ⁻¹ COS ϕ 0,76 1730 min ⁻¹	
V	V
A	A
IE3=85,3%	IE3=87%
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