







Switzerland





| Directive | Preferred voltages | Circuit | Frequency |
|-------------------------|------------------------|------------|-------------------|
| Energy Ordinance AS2009 | 230/400 V 400/690 V | Δ/Y | 50 Hz 50/60 Hz |

| Designation | IE2 | IE3 |
|-----------------------------------|--|--|
| Mandatory as of | 01.07.2011 | open |
| Power range | 0,75-375 kW | |
| Number of poles | 2,4,6 | |
| Relevant exceptions • IE2, IE3 | <p>1. Intermittent operation / Short term operation The directive only applies to motors in continuous operation S1 or S3>80%. 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 ⇒  A19 Motor data ⇒  C2 and above</p> <p>2. Switchable pole motors ⇒  C7-11</p> <p>3. Frequency inverter operation Special motors for frequency inverter operation as per standard IEC 60034-25 of the International Electrical Engineering Commission.</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 (up to 600W) or < -15°C, e.g.:</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 ⇒  C12-13</p> | |
| Special features | Motor data ⇒  C14 and above | Motor data ⇒  C20 and above |





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 | | |
| ϕ 5,80/3,34 A | 1,5 kW | 5,12/2,95 A | 1,5 kW | | |
| COS ϕ 0,79 1415 min ⁻¹ | | COS ϕ 0,76 1725 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% | | | |
|  | | | | | |

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 | | |
| ϕ 6,4/3,7 A | 1,5 kW | 4,9/2,8 A | 1,5 kW | | |
| COS ϕ 0,7 1430 min ⁻¹ | | COS ϕ 0,76 1730 min ⁻¹ | | | |
| | | | | | |
| | | | | | |
| IE3=85,3% | | IE3=87% | | | |
|  | | | | | |