

Active into the future
Efficiency, performance & sustainability!



schmalenberger
strömungstechnologie



ACTIVE INTO THE FUTURE:

EFFICIENCY, PERFORMANCE
& SUSTAINABILITY!



Pumps with IE motors – nothing

A new standard for energy-efficient motors defined by the IEC (International Electrotechnical Commission) has led to a reclassification of all electric motors with the objective of clearly classifying the effectiveness and efficiency of motors for users to exploit considerable energy-saving potential and reduce CO₂ emissions on a sustained level.

Active into the future...

As a manufacturer of pumps for industrial applications and swimming pool technology, we feel ourselves obliged to provide our customers with immediate effect with the finest energy-optimised technology, technology which will represent the standard in 5-7 years. The IE3 standard is to become obligatory, but we are already in a position to supply the IE4 super premium efficiency class!

Pumps with IE4 motors...

Our new generation of pumps can be equipped with IE4 classification EC motors (electronically commutated) in the performance range up to 7.5 kW. The advantage of this technology when compared to conventional asynchronous motors lies in a permanently-generated magnetic field that follows the stator rotary field without slippage. A second important advantage is a frequency converter for speed control integrated in the motor. This is located in a splash-proof environment (IP 55) and does not have additional wiring. The permanently-agitated synchronous motor with integrated frequency control is regulated in the speed range up to 6000 rpm or 300 Hz via the interface.



Your advantage as a customer: invest today and profit immediately from

- reduced power consumption and CO₂ emissions
- max. possible power savings of up to 13% with IE2 motors
- power savings of over 50% in the case of IE3 and IE4 motors
- reduced power costs in a market where energy prices are continually rising
- value added to your system
- positive image factors for your company which can be optimally positioned in advertising terms
- amortisation periods in the partial-load range of less than 6 months



IEC 60034-30 standard and specifications

- ➔ All AC motors from 0.75 - 375 kW must meet IE2 as of the 16.6.2011.
- ➔ All AC motors from 7.5 - 375 kW must meet the IE3 classification as of the 1.1.2015 or be equipped as an IE2 motor with a speed-regulated control (frequency converter).
- ➔ All AC motors from 0.75 - 375 kW must meet IE3 as of the 1.1.2017 or be equipped as an IE2 motor with a speed-regulated control (frequency converter).

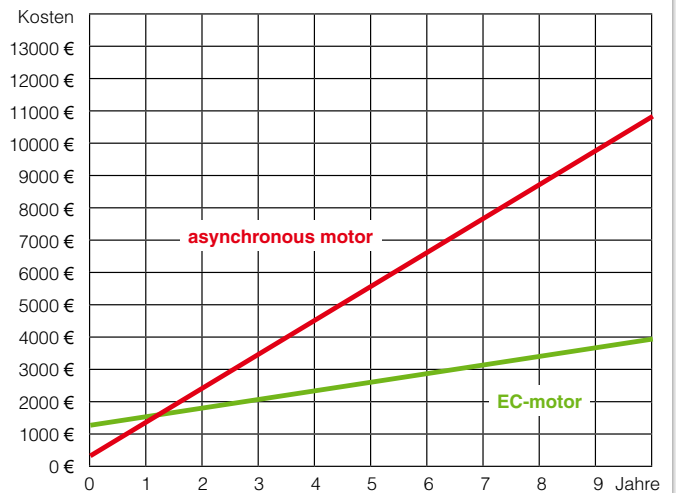
more, but also nothing less!

Your advantage: rapid amortisation after months

Our pumps operate in a particularly efficient manner in the partial-load range with the new IE4 motors. Power savings of over 50% are achieved here, depending on the respective motor capacity and operating point selected (comparison of an EC motor with a conventional asynchronous motor).



Cost analysis



Exemplary cost analysis for a 550 Watt recirculation pump on a 550 W motor:

Acquisition costs for a pump with IE2 asynchronous motor: € 400.-

Acquisition costs for a pump with EC motor: € 1.200.-

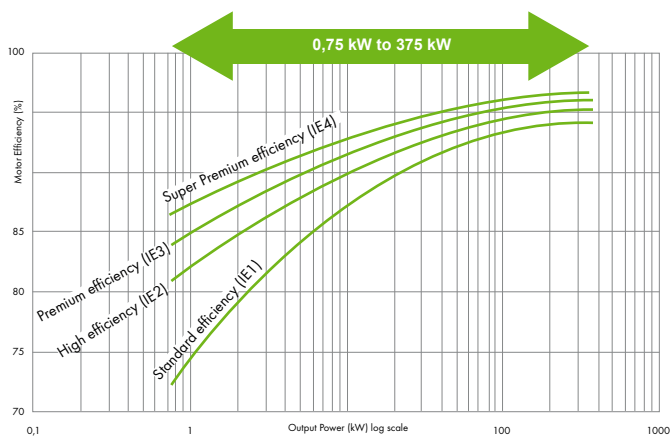
Energy costs: 19 Ct/kWh

Application parameters:

Full load 500 W/partial load 50% delivery capacity/100% operating duration for 8 h/daily

Efficiency class

IE1	Standard efficiency	three-phase asynchronous motors
IE2	High efficiency	three-phase asynchronous motors
IE3	Premium efficiency	three-phase asynchronous motors
IE4	Super premium efficiency	EC motors



Product Range



Self-priming pumps



Suction pumps for tank installation



Centrifugal pumps for tank installation



Torque flow centrifugal pumps



Water recirculation pumps

schmalenberger
strömungstechnologie

Schmalenberger GmbH + Co. KG
Strömungstechnologie
Im Schelmen 9 - 11
D-72072 Tübingen
Tel.: +49 (0) 7071/70 08-0
Fax: +49 (0) 7071/70 08-10
Email: info@schmalenberger.de
Web: www.schmalenberger.de

