

# KSB SuPremE<sup>®</sup> in IE5\* – The World's Most Efficient Magnet-less Pump Motor



## **Applications:**

Centrifugal pump applications

- Service/drinking water supply
- Irrigation and drainage
- Heating and cooling circuits
- Fire-fighting water handling
- Condensate transport Rotating Equipment
- Positive displacement pumps

- Fans
- Compressors
- And much else
- More information: www.ksb.com/products

Your contact:



Etanorm with PumpMeter, KSB SuPremE<sup>®</sup> motor (IE5\*) and PumpDrive

# **KSB SuPremE<sup>®</sup> in IE5\*** – The World's Most Efficient Magnet-less Pump Motor

## Energy savings of 70 % or more are possible

The speed-controlled KSB SuPremE<sup>®</sup> motor works like an energy diet: The large efficiency gain of up to 60 % due to speed control is increased even further by an energy saving of up to 15 % in the motor alone..

### Future-proof with efficiency class IE5

Meets the IE5\* efficiency requirements.

#### Sustainable

Built completely without magnetic materials, its total environmental footprint is significantly smaller than that of permanent-magnet synchronous and asynchronous motors.

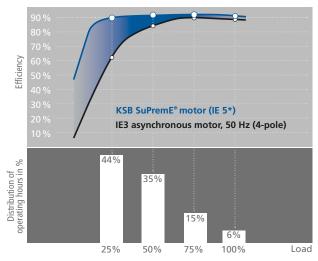
### Robust

The use of non-critical, durable materials, as well as the fully matured reluctance principle make the KSB SuPremE<sup>®</sup> motor\* a durable, reliable drive that is in no way inferior to other types of drive.

#### Compatible

Wherever there is room for an IE2/IE3 asynchronous motor, a KSB SuPremE<sup>®</sup> motor with identical connecting dimensions can also get the work done efficiently.

Unparallelled potential savings due to extremely high efficiency – especially in the part-load range.



The diagram shows the efficiency curve plotted over the load of a 7.5 kW, 1500 rpm KSB SuPremE® motor in comparison to a 4-pole, IE3 asynchronous motor. Load profile to "Blue Angel" requirements.

Source: Dipl.-Ing. M. Wiele, Prof. Prof. h. c. mult. Dr.-Ing. Peter F. Brosch, Hochschule Hannover, University of Applied Sciences and Arts, Faculty I, Drives and Automation Technology.

\*Motors with a shaft centreline height of up to 160 meet the requirements of efficiency class IE5 (Ultra Premium Efficiency). From a shaft centreline height of 180 they meet the requirements of class IE4 (Super Premium Efficiency) to IEC TS 60034-30-2:2016. The motors are free from magnetic materials. Exception: Versions with 0.55 kW and 1500 rpm or 0.75 kW and 1500 rpm are fitted with ferrite-based permanent magnets.

The products illustrated as examples are partly fitted with options and accessories incurring a surcharge.

#### **Technical data**

Synchronous reluctance motor of efficiency cla	ass IE5*
Combination with KSB PumpDrive	
Drive for dry-installed centrifugal pumps outside potentially explosive atmospheres	
IEC power ratings	0.55 kW – 45 kW
Rated speed	1500 and 3000 rpm
Speed range	0 – 2100 rpm at 1500 rpm rated speed
Speed range	0 – 4200 rpm at 3000 rpm rated speed
Versorgungsspannung gemäß technischer Dat KSB PumpDrive 380-480 V (3-phasig) 50/60 Hz	en
Basic type of construction	B3 and V15, and many others
IP55 enclosure	
Ambient temperature	40 °C without derating





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