

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



KSB SuPremE® motor 7,5 kW

### 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](http://www.ksb.com/products)



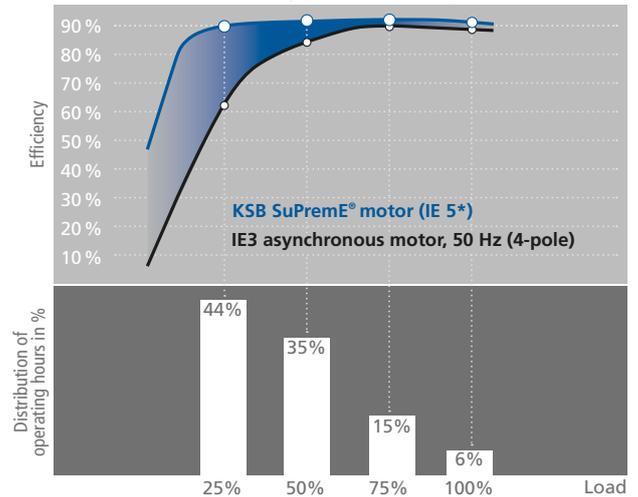
Etanorm with PumpMeter,  
KSB SuPremE® motor (IE5\*) and PumpDrive

Your contact:

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

- Energy savings of 70 % or more are possible**  
 The speed-controlled KSB SuPremE® 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® 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® motor with identical connecting dimensions can also get the work done efficiently.

**Unparalleled 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 class 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
Supply voltage according to the technical data of KSB PumpDrive 380-480V (three-phase) 50/60Hz	
Basic type of construction	B3 and V15, and many others
IP55 enclosure	
Ambient temperature	40 °C without derating



KSB SE & Co. KGaA  
 Johann-Klein-Straße 9  
 67227 Frankenthal (Germany)  
 www.ksb.com