

► Our technology. Your success.

Pumps • Valves • Service



More efficiency, no extra cost:

The KSB SuPremE® motor for heating,
ventilation and air-conditioning

PREMIUM EFFICIENCY
WITHOUT SURCHARGE



IE4* efficiency for a low IE2 price: Etaline with KSB SuPremE® motor

Variable load profiles are the norm in heating, ventilation and air-conditioning. This is exactly where the KSB SuPremE® motor comes into its own: It achieves top efficiencies especially in the part-load range. Our offer will benefit you in many ways: Any variable speed Etaline in-line pump you order from us will be fitted with the KSB SuPremE® motor delivering premium efficiency – without any extra cost compared with the IE2 motors most commonly used until now. For you, this means more energy and resource efficiency, more cost savings and more economic efficiency – and that at the same price!

Far ahead of its time

The KSB SuPremE® motor achieves top efficiencies especially in the part-load range. It satisfies the IE4* efficiency requirements for electric motors and already today exceeds the legal minimum requirements of the European ErP regulations applicable from 2017. The high resource efficiency of the KSB SuPremE® motor, which is built completely without magnetic materials, also significantly enhances its eco-balance.

Your premium efficiency benefits:

- No extra cost for the IE4* motor compared with the IE2 motors most commonly used until now
- Top motor efficiencies, especially in the part-load range
- Demand-driven operation by PumpDrive variable speed system
- Outstanding eco-balance with magnet-less technology

*IE4 to IEC/CD 60034-30 Ed. 2



The world's most efficient magnet-less pump set:
Etaline with KSB SuPremE® PumpDrive and PumpMeter



More information:
www.ksb.com/premium-efficiency-without-surcharge

The KSB SuPremE® motor: calculate your savings

Difference in efficiency at the example of 7.5 kW, 3000 rpm, 50 Hz

Flow rate in %	100	75	50	25
Efficiency of a standard IE2 motor in %	88.1	85.2	77.5	39.2
Efficiency of an IE4* KSB SuPremE® motor in %	92.1	91.2	87.8	63.2
Time in %	6	15	35	44

(To RAL Standard UZ 105 "Blue Angel" for circulators, applicable from February 2007)



To the efficiency calculator
as KSB app for iPhone



To the efficiency calculator
as KSB app for Android

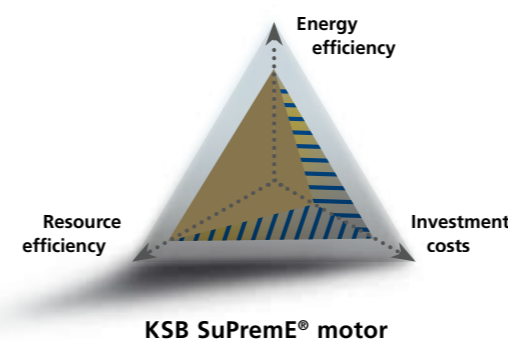
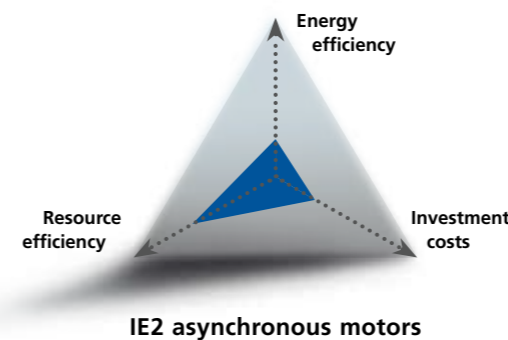
Pumps for heating, ventilation and air-conditioning applications are typically operated in the part-load range. Here, too, the KSB SuPremE® motor reaches top efficiencies. At full speed and full load its efficiency already exceeds that of the IE2 motors most commonly used until today by 4%. At a quarter of the speed and 25% of the flow rate, this advantage can be as high as 24%. When looking at the typical load profile of

continuously operated pump sets, the savings compared with a variable speed pump with an IE2 asynchronous motor amount to 1.380 kWh and 815 kg of CO₂ per year. At an energy price of 20 cent/kWh, the annual savings per motor equal €276. And the savings achieved by variable speed operation have not even been taken into account in this calculation.

The systematic approach to increasing efficiency

General conditions:

A motor selection needs to satisfy the applicable general and legal requirements, be suitable for the required number of operating hours per year, and consider the energy costs. Maximum energy and resource efficiency as well as minimum investment costs are further key criteria.



Previous motor solutions:

The robust IE2 asynchronous motors, which are suitable for DOL starting, meet the requirements applicable from 2015. However, their balance of energy efficiency, resource efficiency and investment costs could be optimised.

The future starts here: KSB SuPremE® – the world's most efficient magnet-less pump motor:

This innovative drive technology is particularly suitable for variable load profiles and achieves top efficiencies especially in the part-load range. The motor's lean operation results in major efficiency gains, and doing away with rare earths makes for high resource efficiency. All this is available for you at the same investment costs as for the IE2 motors most commonly used until now.



Technology that **makes its mark**

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