## Ecodesign Directive 2009/125/EC Electric Motors according to Regulation (EU) 2019/1781

Regulation (EU) 2019/1781 defines the requirements and scope of electric motors in accordance with Ecodesign Directive 2009/125/EG, repealing Regulation (EC) 640/2009.

## This statement refers to the current regulation, dated October 1, 2019.

(https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32019R1781&qid=1614944764424&from=EN).

The regulation defines the following minimum efficiency classes and deadlines:

- 1) July 1, 2021: Minimum efficiency class IE3 for three-phase AC motors (2-,4-,6-,8-pole) within the power range of 0.75 1000 kW
- 2) July 1, 2021: Minimum efficiency class IE2 for three-phase motors (2-,4-,6-,8-pole) within the power range of 0,12 0.749 kW
- 3) July 1, 2023: Minimum efficiency class IE2 for single-phase AC motors (2-,4-,6-,8-pole) within the power range >= 0,12 kW

Brinkmann Pumps primarily utilizes its own Brinkmann motors within the power range of 0.12 - 15 kW for its pump program.

This results in the following aspects of changes to our products:

The requirements for 1) are already met by all Brinkmann motors and drives. There are no additional changes resulting from this directive (only the currently still possible use of an IE2 motor in combination with a variable frequency drive prior to the deadline will be eliminated).

Brinkmann Pumps will meet the requirements for 2) with a new generation of motors and by the cutoff date. Motors with a rated power of 0.17 kW/0.195 kW, 0.22 kW/0.255 kW, 0.32 kW/0.365 kW will meet the efficiency class **IE2.** Motors with the rated power of 0.48 kW/0.55 kW and 0.63 kW/0.725 kW will also meet efficiency class **IE3.** An increase in motor efficiency is automatically associated with an increased use of materials of construction. Whether this will result in a dimensional and/or performance related change for a specific pump and motor assembly will be available as separate information.

Exceptions to 2) shall constitute, in accordance with Article 2, paragraph 2, (m), replacement pumps for products sold and distributed into the marketplace prior to July 1, 2021. This exemption is subject to a deadline of July 1, 2029. The availability of such replacement products beyond July 1, 2021 must be determined in conjunction with Brinkmann Pumps personnel.

The requirements of 3) will be addressed subsequently to those resulting from 2). However, the same type of dimensional changes as with those of three-phase motors can be expected.

Non ventilated motors and drives (TENV design) are not included in the scope of this Directive. The corresponding pumps will retain their current power ratings and dimensions.

Red Chills

Reimund Gidde Managing Director