

## **DESMI product information according to European Commission's Regulation (EU) No. 547/2012 of June 25, 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for water pumps.**

The Ecodesign Directive 2009/125/EC serves to create a framework for defining ecodesign requirements for energy-related products, or ErP. It replaces Directive 2005/32/EC of July 6, 2005, also known as the Energy-using Products (EuP) directive.

Through these directives, numerous energy-related products were investigated and minimum requirements were defined. Among other things, on June 25, 2012 EU Regulation No. 547/2012 was published. It contains the requirements for the ecodesign of clean-water centrifugal pumps and is intended to facilitate implementation of Directive 2009/125/EC.

Detailed information is available in below links:

Directive 2005/32/EC : <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:285:0010:0035:en:PDF>

Regulation No.547/2012: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:165:0028:0036:en:PDF>

### **Requirements for centrifugal water pumps:**

The pumps must fulfill minimum efficiency requirements with the full impeller diameter at the Best Efficiency Point (BEP), partial load and overload conditions. The dimensionless variable "Minimum Efficiency Index" (MEI) enables a comparison of hydraulic pump efficiency. It is based on operating points at the Best Efficiency Point (BEP), at partial load (capacity 75% of BEP) and at overload (capacity 110% of BEP) and is applicable to the full impeller diameter.

The pumps must exhibit the following: MEI  $\geq$  0.10 by January 1, 2013 and MEI  $\geq$  0.40 by January 1, 2015

### **DESMI pumps covered by the ecodesign directive:**

The following DESMI pump series are in scope (unless one of the exceptions below apply):

Vertical inline pumps series: ESL, NSL and DSL.

End suction pump series: NSLV / NSLH (same pump as NSL – except different pump casing)

#### Exceptions are:

- Pumps intended for other liquids than water (see also next 3 lines regarding other water duties not in scope).
- Pumps intended for water with additives below minus 10°C (e.g. brine pumps).
- Pumps intended for water with additives resulting in densities higher than 1050 kg/m<sup>3</sup>.
- Pumps intended for hot water above 120 °C and/or for more than 16 bar working pressure.
- Pumps with shaft power consumption higher than 150 kW (Article 2, Paragraph 2).
- Self-priming pumps.
- Displacement pumps.
- Pumps designed only for fire-fighting applications.

Please refer to [www.desmi.com](http://www.desmi.com) regarding brochures and manuals.

### **List of applied standards:**

Please refer to the EU DECLARATION OF CONFORMITY in the actual pump manual.

### **Identification and signature of the person empowered to bind the supplier:**

Please refer to the EU DECLARATION OF CONFORMITY in the actual pump manual.

## **Product information and energy efficiency etc.:**

The minimum efficiency index is bigger than 0.4 for all DESMI pump series listed above – i.e.  $MEI \geq 0.40$ .

Benchmark  $MEI \geq 0.70$ .

Year of manufacture – please refer to nameplate on pump.

Manufacturer's name or trade mark, commercial registration number and place of manufacture – please refer to DK homepage: <http://www.desmi.com/detaljer.aspx>

Product's type and size identifier: Please refer to nameplate on pump and actual pump manual.

Hydraulic pump efficiency (%) with trimmed impeller: Please refer to DESMI pump selection program:

<http://www.desmi.com/UserFiles/file/Selection%20programs/WinPSPSetup20140925.exe>

Pump performance curves for the pump, including efficiency characteristics – please refer to pump selection program.

The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption.

The minimum efficiency index (MEI) is based on the full impeller diameter. The operation of a water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

Information relevant for disassembly, recycling or disposal at end-of-life: No dangerous materials are used in DESMI pumps – please refer to DESMI Green Passport (can be sent on request – contact a DESMI sales office) – i.e. common recycling companies can handle the disposal at end-of-life. Alternatively the pump and motor can be returned to DESMI at end-of-life for safe recycling.

## **About the efficiency reference value:**

Information about the efficiency reference value is available at <http://www.europump.org>.

## **Reference value charts:**

Reference value charts for  $MEI = 0.4$  and  $MEI = 0.7$  are available at <http://europump.net/uploads/Fingerprints.pdf>

## **DESMI head office address in Denmark:**

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