

# DEFU S

## Simplex pressure booster, frequency-controlled

Fully automatic, non self-priming, frequency-controlled simplex pressure boosting system made from stainless steel (1.4301) for particle-free water. Due to frequency adjustment, the system keeps the selected operating pressure extremely constant even with changing flow requirements. Pressure surges in the system are avoided by the intelligent control system, thus continuous partial load operation is provided in wide flow ranges. The system operates much more energy-efficiently and quietly than unregulated systems. The set pressure can be adjusted with the optionally available programming device (communication adapter for Android and iOS devices).

### BENEFITS

- Reduction of energy demand and operating costs by up to 30 % compared to unregulated systems
- Lower maintenance costs and longer unit service life by avoiding pressure surges in the system
- Very quiet operation due to frequency control
- Operating voltage and frequency suitable for almost all international networks
- Integrated control of media temperature
- Energy Efficiency Class IE5

### APPLICATIONS

- Increases the pressure in the water supply pipe to a constant value, can be installed upstream or downstream of water softening, reverse osmosis or other water treatment installations



DEFU 3 S

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## Simplex pressure booster, frequency-controlled

### DESCRIPTION

#### Scope of delivery

- Stainless steel (1.4301, AISI 304) centrifugal pump with variable-speed drive (VSD = FU) on stainless steel frame
- Diaphragm vessel, manometer, pressure transmitter with integrated temperature measurement and check valve
- Controller for demand-dependent on/off switching according to set target pressure
- Terminal box with main switch and terminals for mains connection and potential-free dry-running protection switch
- Operating and collective fault signal as potential-free change-over contacts

#### Optionally available

- Communication adapter for DEFU series (390 766)
- Adapter kit for connecting stainless steel pipes to PVC pipes
- Pump version made of stainless steel 1.4404 (AISI 316)

### CONDITIONS OF USE

Typically particle-free water, non-aggressive, or non-explosive media without abrasive or long-fibered components. The pumped medium must not attack the pump materials chemically.

Operating pressure 0 – 10 bar

Operating temperature 2 – 40 °C

### TECHNICAL DATA OF SERIES

Voltage 3 x 380 - 500 V

Frequency 50 - 60 Hz

Protection class IP 44

Target pressure 4.0 bar

Product name	El. load	Hydraulic connection	Dimensions in mm	Pump cap. / head	Item number
Nom. Vol. m <sup>3</sup> /h	kW	suction / pressure	W x D x H	m <sup>3</sup> /h / m	
<b>DEFU 1 S</b>	1.1	Rp 1" / Rp 1"	310 x 560 x 937	0.2 – 2.2 / 65 – 40	440 388
<b>DEFU 3 S</b>	1.1	Rp 1" / Rp 1"	310 x 560 x 937	0.4 – 4.5 / 65 – 39	440 389
<b>DEFU 5 S</b>	1.5	Rp 1 1/4" / Rp 1 1/4"	310 x 560 x 937	0.5 – 7.0 / 55 – 36	440 390
<b>DEFU 10 S</b>	4.0	Rp 1 1/2" / Rp 1 1/2"	310 x 560 x 937	1.0 – 16.0 / 68 – 42	440 391
<b>DEFU 15 S</b>	4.0	Rp 2" / Rp 2"	380 x 710 x 1,520	2.0 – 24.0 / 48 – 34	440 409
<b>DEFU 25 S</b>	7.5	Rp 2" / Rp 2"	380 x 710 x 1,520	3.0 – 32.0 / 48 – 36	440 410