

DATA SHEET

RGMAT E W6 1F KK Pump Station



Main Features

Description

This load unit is intended for use in systems with solid-fuel boilers and fireplaces. The load valve integrated in the load unit ensures keeping the min. inlet temperature to the boiler (fire) above the flue condensing temperature, thus preventing a low-temperature corrosion of the boiler combustion chamber. The load unit thus contributes to a significant limitation of tarring and fouling of the boiler, to an increased efficiency in fuel combustion and to extending the service life of the boiler. The load unit is equipped with a set of three G 6/4" ball valves with union nuts, making repairs/disassembling easier, without the need to drain the system. The Load Unit consists of:

- Wilo PARA 25/6 SC Pump,
- TSV5BMF 6/4M x 5/4F Load Valve w. outer threads and automatic bypass balancing,
- three G 6/4" ball valves with union nut,
- thermometer,
- insulation.

Working fluid

Water; water–glycol mixture (max. 1:1) or water–glycerine mixture (max. 2:1).

Installation

On return piping, min. dist. of the pipe axis from a wall is 100 mm.

Codes

boiler output

19015 – for valve opening temperature 55 °C

max. 45 kW

19016 – for valve opening temperature 65 °C

max. 32 kW

Technical Data

Fluid working temperature	5–95 °C
Max. working pressure	6 bar
Min. working pressure	0.5 bar
Ambient temperature	5–40 °C
Max. relative humidity	80 %, non condensing
Control Range of the Load Valve	opening temperature +5 °C
Load valve Kvs (A ► AB direction)	7.3 m³/h
Load valve Kvs (B ► AB direction)	7.3 m³/h
Max. pump speed	4300 rpm
Pump speed control	frequency converter
Pump motor protection	integrated
Overall dimensions	350 x 185 x 155 mm
Total weight	4.2 kg
Connections	3 x G 1" F

Electric Data

Power supply	230 V, 50 Hz
Power input (min./max.)	3/43 W
Current (min./max.)	0.04/0.44 A
IP rating	IPX4D
Energy Efficiency Index	≤ 0,21 by EN 16 297/3

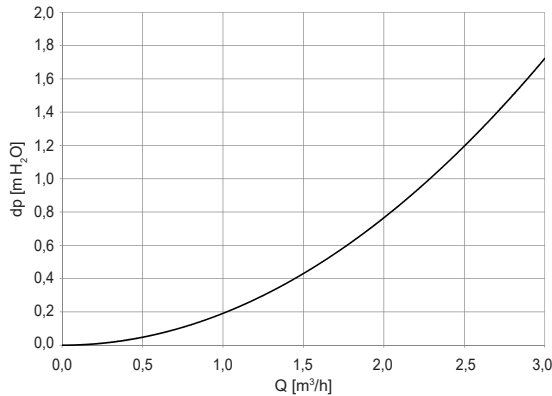
Materials

Insulation	EPP RG 60 g/l
Load Valve and fittings	brass
Thermostatic element and plug seal	EPDM
Load Valve cone seal	NBR

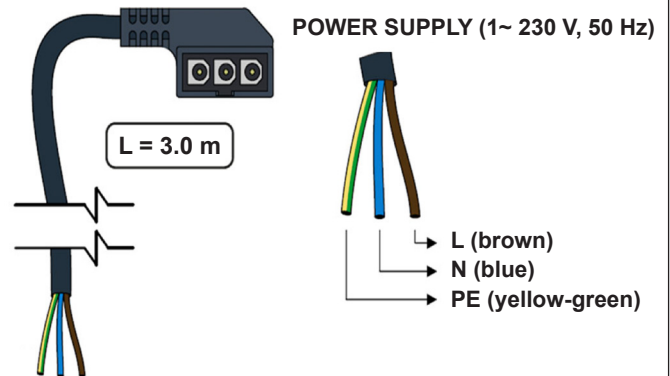
DATA SHEET

RGMAT E W6 1F KK Pump Station

Valve pressure drop diagram

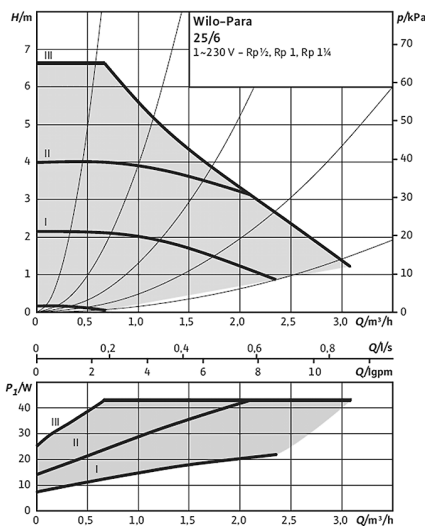


Pump wiring

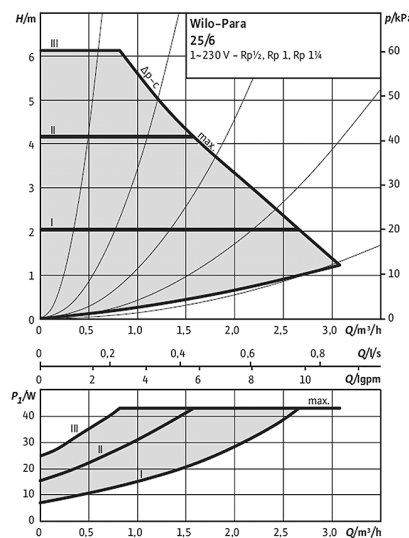


Pump performance curves

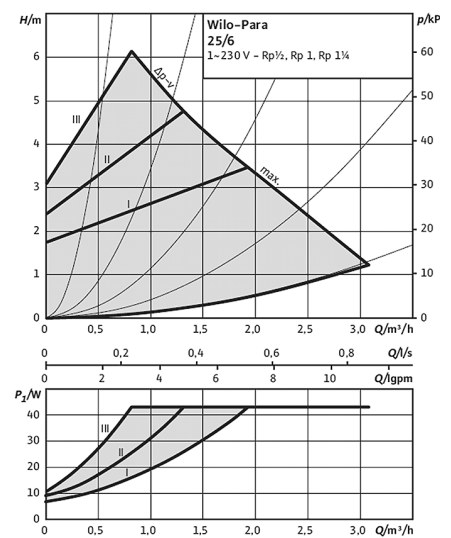
Characteristics of $n = \text{constant}$



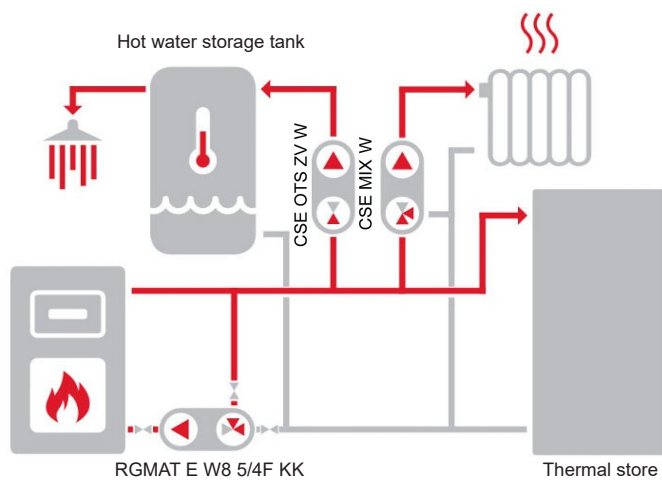
Characteristics of $\Delta p - c$ (constant)



Characteristics of $\Delta p - v$ (variable)

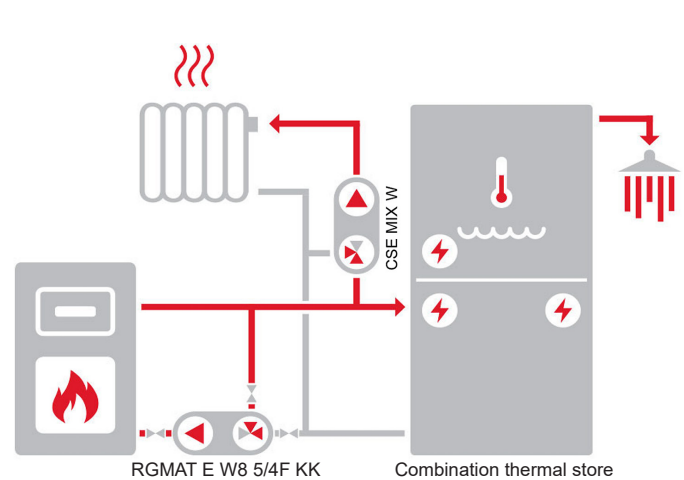


Example of possible connection I



The diagram shows a typical connection of a solid fuel boiler, thermal store and heating circuit (with the recommended CSE MIX W pump station – not included in supply). If the boiler is used also for hot water heating, it is recommended to install a CSE OTS ZV W pump station (not included in supply).

Example of possible connection II



The diagram shows a typical connection of a solid fuel boiler, combination thermal store and a heating circuit (with the recommended CSE MIX W pump station – not included in supply).