TECHNICKÝ LIST

RGMAT E G75 5/4 F KK Load Unit

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: • UPM3 FLEX AS Pump, • TSV5BMF 6/4M x 5/4F Load Valve with aut. 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. distance of the pipe axis from a wall is 100 mm.

Codes	boiler output
18985 – for valve opening temperature 55 °C	max. 57 kW
18986 – for valve opening temperature 65 °C	max. 41 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
Insulation material	EPP RG 60 g/l
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	5991 rpm
Pump speed control	frequency converter
Pump motor protection	integrated
Overall dimensions	390 x 210 x 165 mm
Total weight	4.4 kg
Connections	3 x G 5/4" F

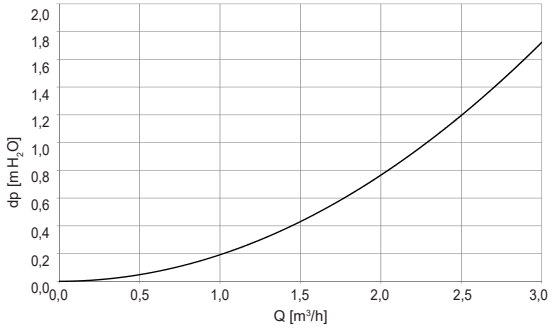
Electric Data	
Power supply	230 V, 50 Hz
Power input (min./max.)	2/60 W
Current (min./max.)	0.04/0.58 A
Energy Efficiency Index	≤ 0,20 by EN 16 297/3
IP rating	IPX4D

R E G U L U S spol. s r. o. Czech Republic
Do Koutů 1897/3, 143 00 Praha 4
Tel.: +420 241 765 191
Fax: +420 241 763 976
E-mail: sales@regulus.eu
Web: www.regulus.eu

DATA SHEET

RGMAT E G75 5/4 F KK Load Unit

Valve Pressure Drop Diagram

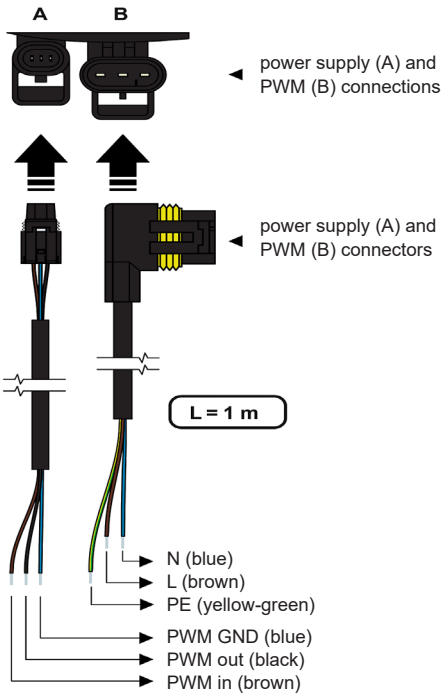


Selected profile display during pump operation

curve 1 (5 m) curve 2 (6 m) curve 3 (7.5 m)

- the circulation pump can be controlled by an external PWM signal (profile for use in heating systems) or without a PWM signal by selecting a pump performance curve (see the graph below),
- with no PWM signal the pump runs at max. speed according to the selected curve,
- with PWM signal the pump speed changes with the signal value up to the maximum of the selected curve.

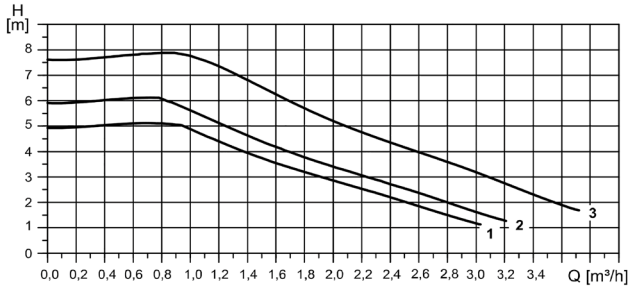
Pump Wiring

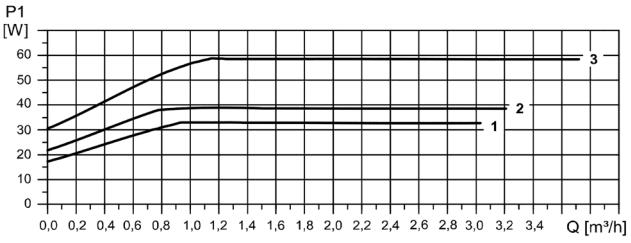


- Power supply cables and PWM cables are included in supply.

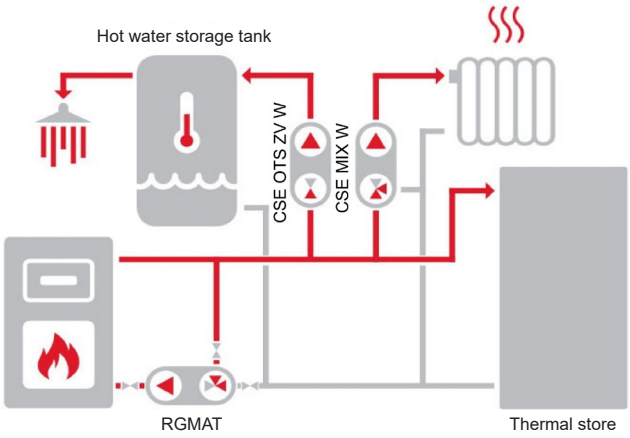
Pump performance curves

Curve	Max. H (upper graph)	Max. P_1 (lower graph)
1	5 m	33 W
2	6 m	39 W
3	7.5 m	60 W



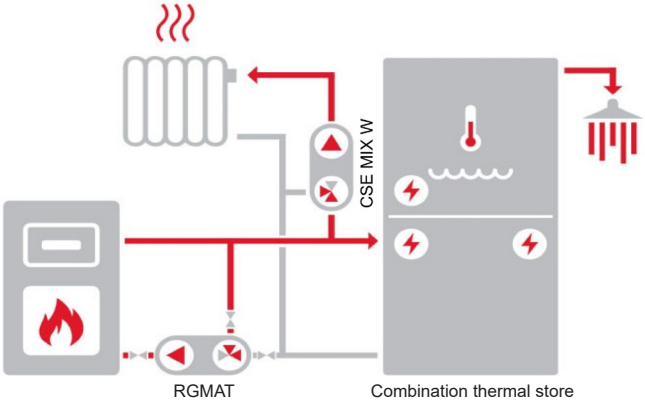


Example of possible connection I



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 (permitting DHW heating) and a heating circuit (with the recommended CSE MIX W pump station – not included in supply).