


## RGMAT E G75 5/4F KK Load Unit

	<b>Main Features</b>	
	Description	<p>This Load Unit is intended for systems with solid-fuel boilers and fireplaces. The Load Valve integrated in the Load Unit keeps the min. incoming temperature to a boiler (fireplace) above the flue gas condensation temperatures, which prevents low-temperature corrosion of the boiler combustion chamber. This way the Load Unit contributes to a significant reduction in tarring and boiler fouling, to an increase in the efficiency of fuel combustion and to extension of the boiler service life. The Load Unit is completed with a set of three ball valves with union nut to facilitate repair or removing individual components without draining the system.</p> <p>The Load Unit consists of:</p> <ul style="list-style-type: none"> <li>• UPM3 FLEX AS Pump</li> <li>• TSV5B 6/4Mx5/4F Load Valve with aut. bypass balancing</li> <li>• 3 ball valves with union nut</li> <li>• thermometer</li> <li>• insulation</li> </ul>
	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	

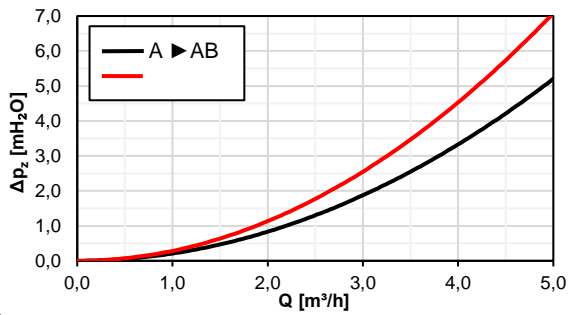
Codes	boiler output
18985 for TSV3 valve opening temperature 55 °C	max. 57 kW
18986 for TSV3 valve opening temperature 65 °C	max. 41 kW

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 m <sup>3</sup> /h
Load valve Kvs (B ► AB direction)	6 m <sup>3</sup> /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

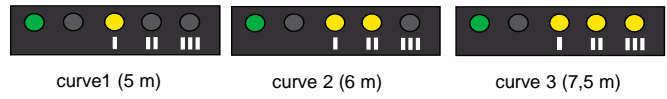
Electric Data	
Power supply	230 V, 50 Hz
Power input (min./max.)	2/60 W
Current (min./max)	0.04/0.58 A
Energy Efficiency Index	≤ 0,20 by EN 16 297/3
IP rating	IPX4D

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### Valve Pressure Drop Diagram

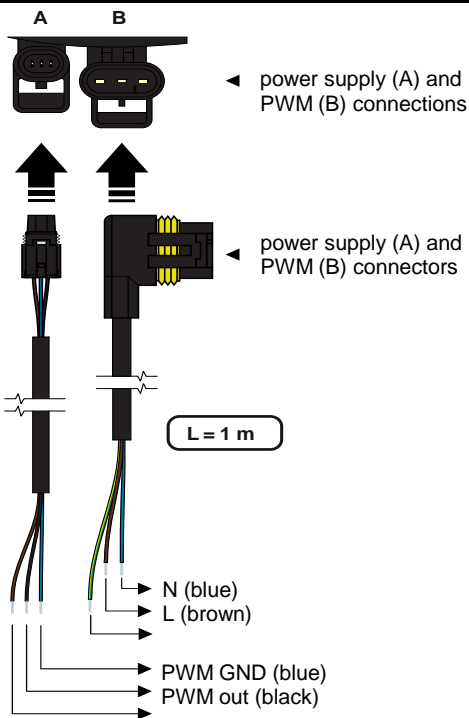


### Selected profile display during pump operation



- 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

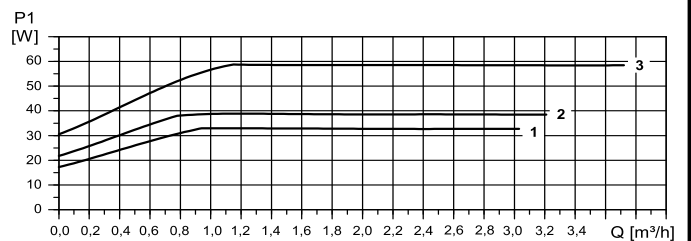
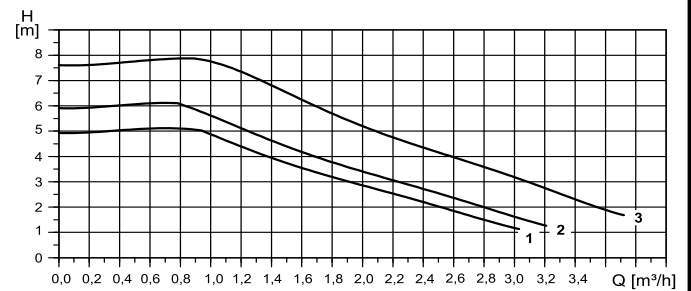
### Pump Wiring



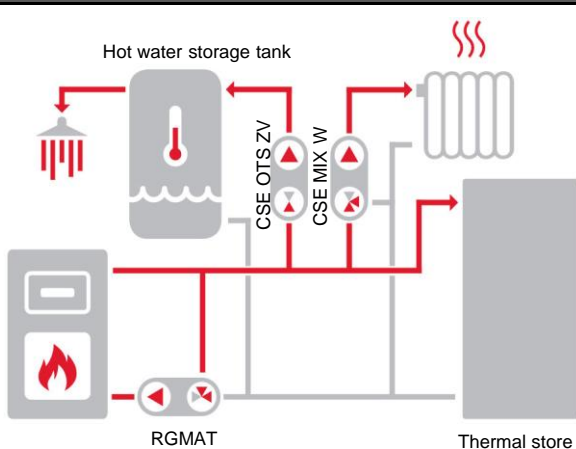
■ Power supply cables and PWM cables are included in supply.

### Pump performance curves

Curve	Max. H (upper graph)	Max. P <sub>1</sub> (lower graph)
1	5 m	33 W
2	6 m	39 W
3	7,5 m	60 W

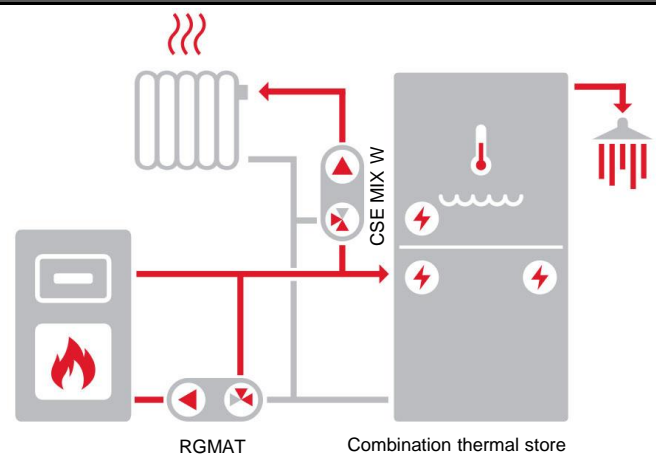


### Example of possible connection I



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).