


RGMAT E W 5/4-PWM Pump Station

	Main Features	
	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 consists of:</p> <ul style="list-style-type: none"> • Wilo PARA 25/8 iPWM1 pump • pipe fittings w. shut-off ball valve • TSV5B Load Valve with automatic bypass balancing • thermometer • insulation
	Working fluid	water; water/glycol mixture (max. 1:1) or water-glycerine mixture (max. 2:1)
	Flow rate measurement	the current flow rate is sent by the pump electronically to the external controller; the controller must be equipped with an iPWM read input and a flow rate calculation function.
Installation	on return piping, min. dist. of the pipe axis from a wall 100 mm	

Codes	boiler output
18129 for valve opening temperature 65 °C	max.40 kW
18132 for valve opening temperature 55 °C	max. 55 kW

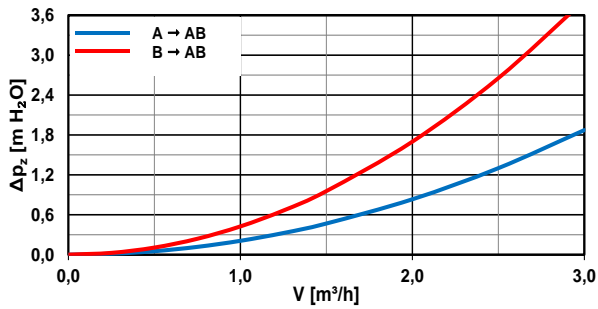
Technical data	
Fluid working temperature	5 – 95 °C
Max. working pressure	6 bar
Min. working pressure	0,5 bar
Ambient working temperature	5-40 °C
Max. relative humidity	80%, non condensing
Control Range of the Load Valve	opening temperature + 5 °C
Load Valve Kvs (direction A ►AB)	7,0 m ³ /hod
Load Valve Kvs (direction B ►AB)	4,9 m ³ /hod
Max. pump speed	4300 rpm
Pump speed control	frequency converter
Pump motor protection	integrated
Overall dimensions	305 x 170 x 135 mm
Total weight	4,2 kg
Connections	3 x G 5/4" F

Electric Data	
Power supply	230 V, 50 Hz
Power input (min./max.)	2/75 W
Current (min./max)	0,03/0,66 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

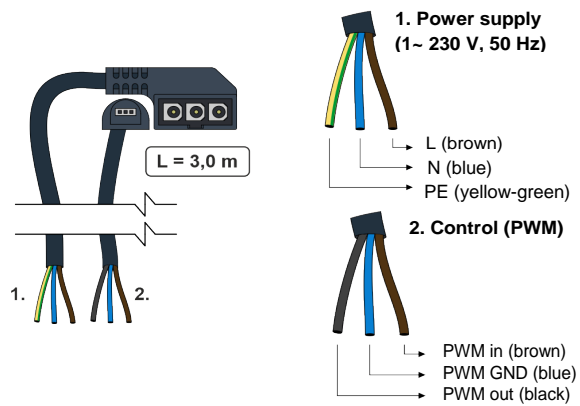
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Valve pressure drop diagram

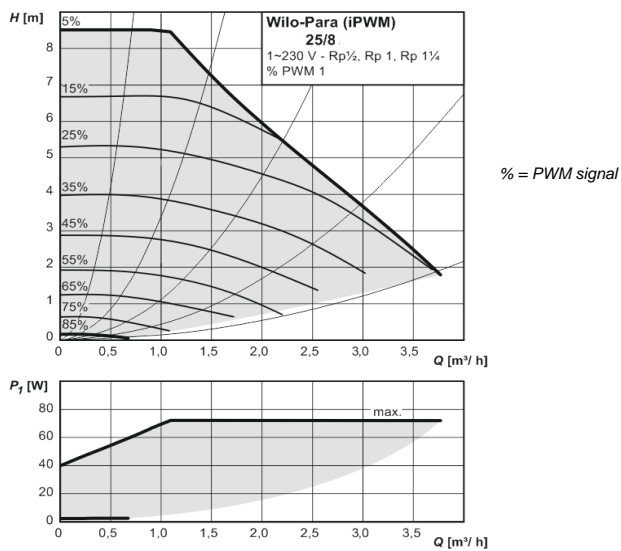


The pressure drop value of the valve moves between the two curves depending on the mixing ratio during mixing

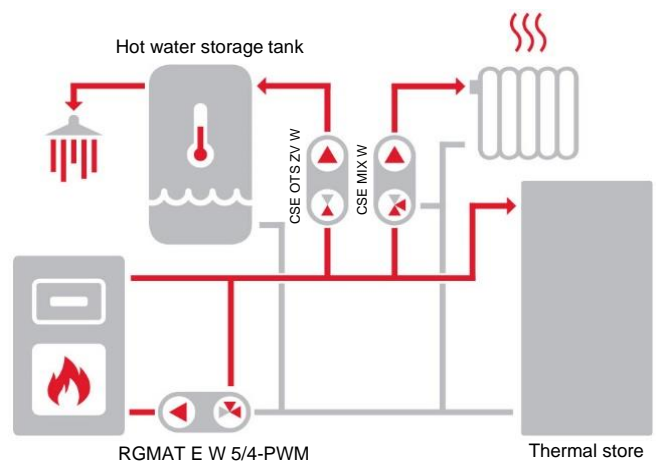
Pump wiring



Pump performance curves

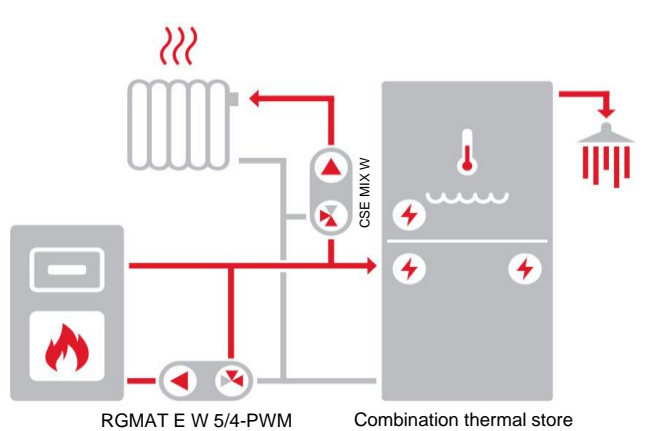


Example of possible connection I



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