

LK 816 ThermoKit E

- Complete kit
- Low-energy pump



Technical Data

Voltage:	230 VAC 50/60 Hz
Primary voltage, adapter:	100-240 VAC 50/60 Hz
Secondary voltage, adapter:	24 VDC 250 mA
Power consumption:	10-180 W depending on pump speed LK 100 SmartComfort CT Electronic Controller, 3 VA
Max. boiler efficiency:	Dependent on circulating pump
Return temperature:	5 - 99 °C
Working temperature:	Min. 5 °C/Max. 95 °C
Ambient temperature:	Min. 5 °C/Max. 40 °C
Max. working pressure:	1.0 MPa (10 bar)
Angle of rotation:	Temperature Controller: 90°
Torque:	Temperature Controller: 5 Nm
Max. flow:	Dependent on circulating pump
Media 1:	Water - Glycol mixture max. 50%
Thread standard:	Rp - female thread, G - female thread
Circulating pumps:	Grundfos Magna 32-80 180, Grundfos UPML 25-95 180, Grundfos UPMXL 32-105 180
Operation time:	140 sec.
Protection class:	IP 40
Material, valve body:	Brass EN 12165 CW617N
Material, insulation:	Expanded Polypropylene EPP

LK 816 ThermoKit E Eco is a loading group for heating applications with solid fuel boilers and storage tanks. The loading group is intended to ensure a high return temperature as well as an optimal temperature stratification in the storage tank, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

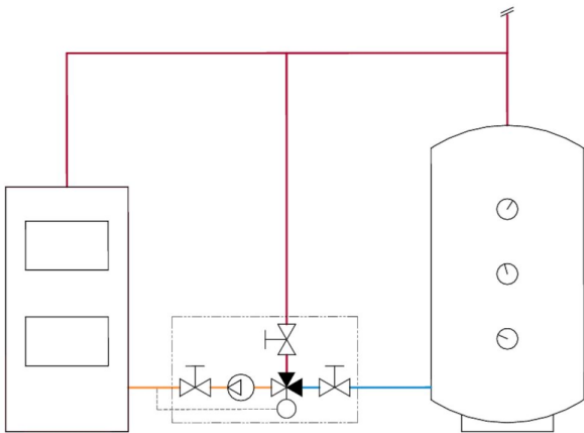
LK 816 ThermoKit E Eco is a unit consisting of a low-energy circulating pump, an LK 840 ThermoMix mixing valve, an LK 100 SmartComfort CT controller with adjustment of the lowest return temperature 5 - 99 °C and three ball valves to simplify installation and maintenance. Articles number 181578 and 181579 are delivered with an insulation for the mixing valve.

LK 816 ThermoKit E Eco is installed in the return circuit between the solid fuel boiler and the storage tank. The group should



be mounted with the drive-shaft of the circulating pump in a horizontal position. The loading group is reversible and can easily be adapted for mounting to the right or left of the boiler.

The loading group normally requires no maintenance. The installation should be checked regularly. Thanks to the three ball valves any part can be changed without draining the system, should the need for servicing arise.



The function of the loading unit during the different phases of heating:

1. Heat up phase

The water circulates between boiler and loading group while the temperature of the boiler is rising.

2. Loading phase

The mixing valve starts to open and allows return water from the storage tank to be mixed with supply water before it returns to the boiler. The return temperature to the boiler is kept constant.

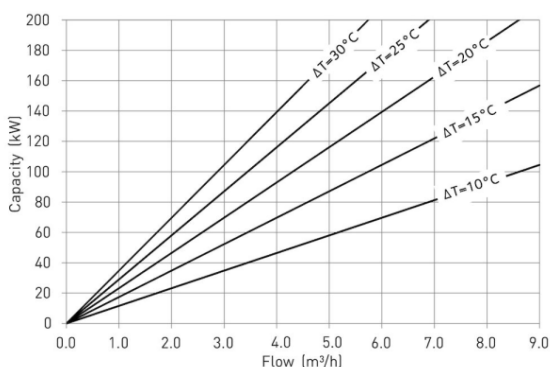
3. End phase

The mixing valve is fully open towards the storage tank. This results in an optimal transfer of heat from the boiler and the storage tank is filled with supply water. When the boiler has cooled the electronic controller prevents re-circulation from storage tank to boiler.

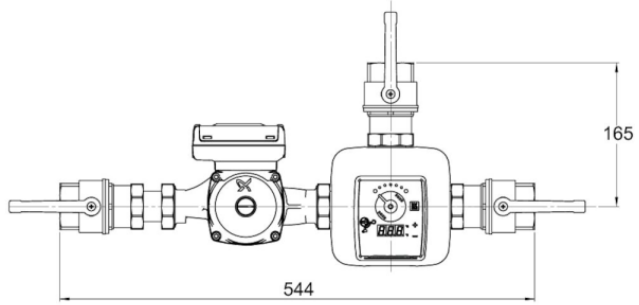
4. Self-circulation

In case of power failure or pump breakdown the electronic controller can be manually operated and the storage tank is loaded through self-circulation.

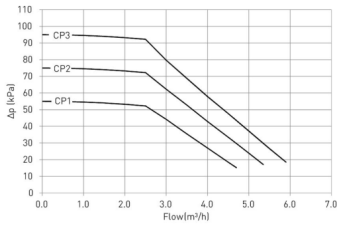
Boiler Capacity Diagram



LK 816 - Grundfos UPML 25-95 - Female thread

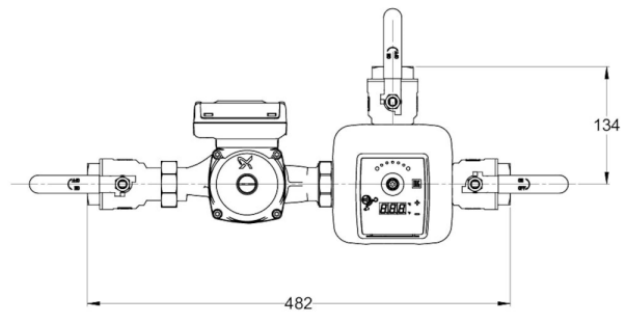


Pump Characteristics

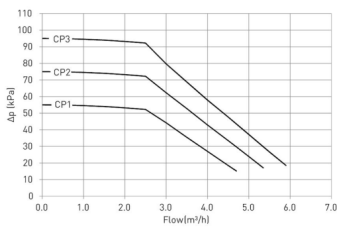


Article	Dim.	Note	Weight (kg)
181578	F 1½"	Adapter - EU	7.1
181579	F 1½"	Adapter - UK	7.1

LK 816 - Grundfos UPML 25-95 - Female thread



Pump Characteristics

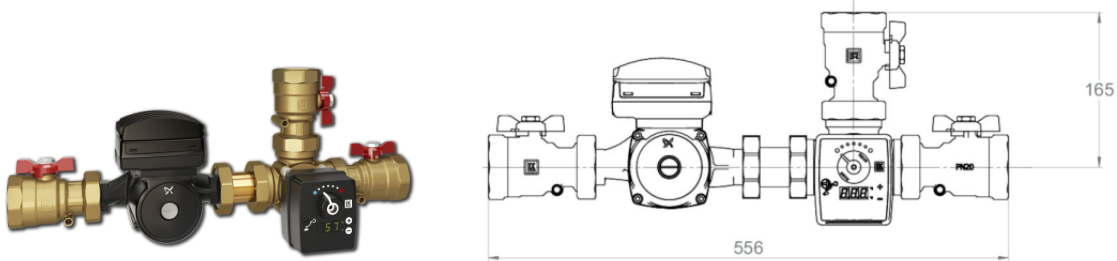


Article	Dim.	Note	Weight (kg)
182396	F 1¼"	Adapter - EU	7.1

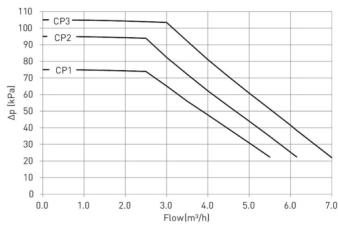


Article	Dim.	Note	Weight (kg)
182397	F 1¼"	Adapter - UK	7.1

LK 816 - Grundfos UPMXL 32-105 - Female thread

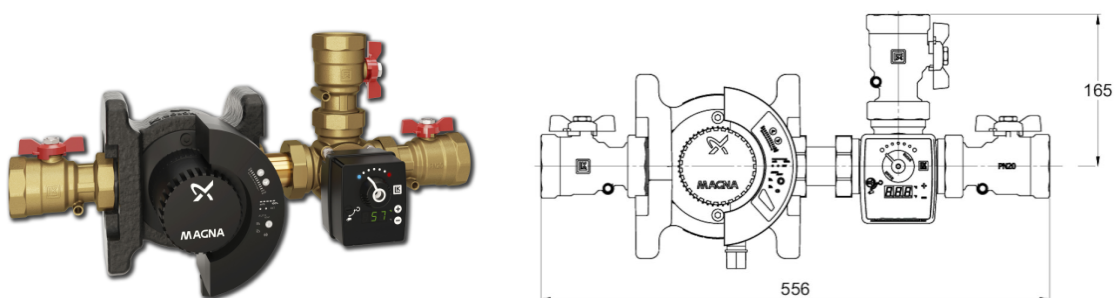


Pump Characteristics

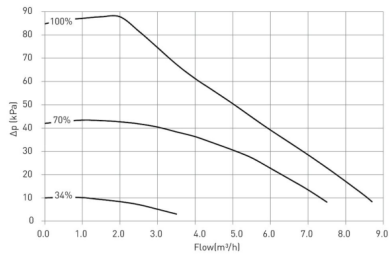


Article	Dim.	Note	Weight (kg)
181580	F 2"	Adapter - EU	11.1
181581	F 2"	Adapter - UK	11.1

LK 816 - Grundfos Magna 32-80 - Female thread



Pump Characteristics



Article	Dim.	Note	Weight (kg)
181410	F 2"	Adapter - EU	12.4

