

# Grundfos

## The High Efficiency OEM Circulators

Range for Integration in Boilers,  
Heat Pumps, Solar Thermal Systems,  
Heating Kits, DHW Kits, Micro CHPs





“The **new generation of Grundfos UPM3 circulators** is designed with our customers’ needs and challenges in mind. The range offers the **flexibility** to meet any **HVAC demand**, the intelligence to do this with **top-class efficiency**, and the **reliability** to provide years and years of **trouble-free operation.**”

*Henrik Bonde, President,  
Grundfos HVAC OEM*

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# GRUNDFOS UPM3

## THE NEXT GENERATION OF OEM CIRCULATORS



# Introducing UPM3

*"The new generation of Grundfos UPM3 circulators is designed with our customers' needs and challenges in mind. The range offers the flexibility to meet any HVAC demand, the intelligence to do this with top-class efficiency, and the reliability to provide years and years of trouble-free operation."*

— Henrik Bonde, President, Grundfos HVAC OEM

The HVAC industry faces the constant challenge of delivering smaller and more efficient products. This places great demands on the components inside. Our range of UPM3 circulators sets new standards for system integration, allowing you to exceed your customers' expectation.

## Made to integrate – easily and efficiently

The UPM3 range comes with:

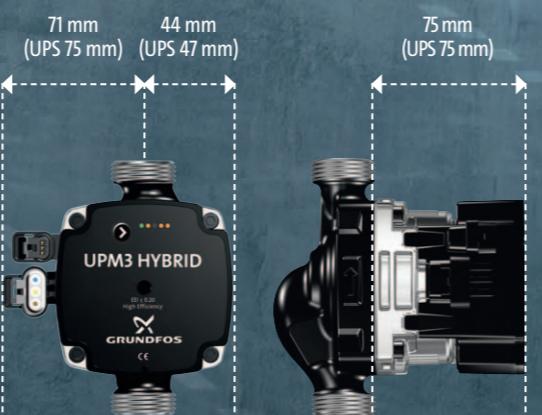
- » Optimised design fit for easy accessibility
- » Intelligent configuration
- » High efficiency (exceeding the Ecodesign benchmark level)
- » Unmatched reliability

## Two platforms. Unlimited possibilities.

The basic UPM3 hardware model is controlled via a signal cable entry and does not feature a user interface. The UPM3 Hybrid, on the other hand, combines external signal controlling and internal self-controlling, providing you with access to a full range of settings that will cover any circulator challenge you might encounter.

The UPM3 range is designed for all kinds of HVAC applications:

- » Boiler systems
- » Heat pumps
- » Solar thermal systems
- » Heating kits
- » DHW systems
- » Micro CHP systems

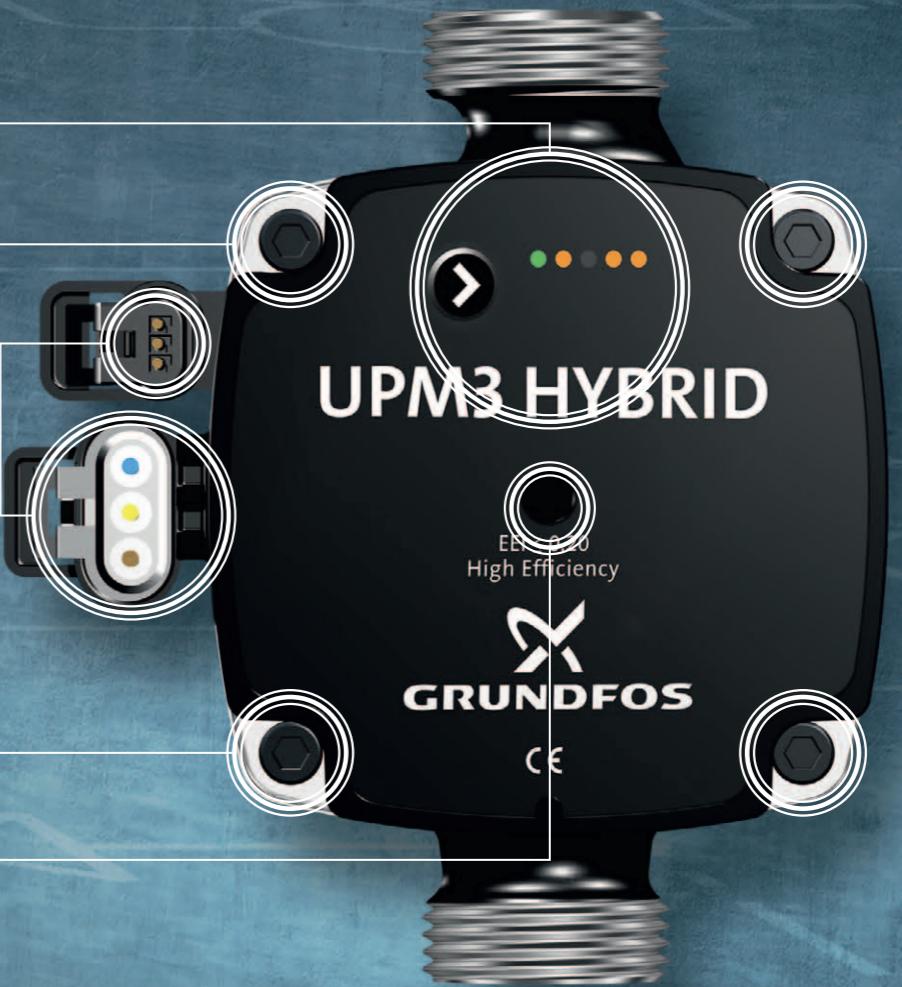


Easy access to the pump head screws from the front

Easy access to the user interface from front

Easy access to the connectors from front

Easy access to the de-blocking screw from front



SIZE 1:1

**THE SMALLEST GRUNDFOS OEM CIRCULATOR EVER**

THE UPM3 IS THE SMALLEST CIRCULATOR FOR SYSTEM INTEGRATION THAT WE HAVE EVER BUILT. JUST AS COMPACT AS THE UPS 15, IT OFFERS A FULL RANGE OF TECHNOLOGICAL INNOVATIONS, AS WELL.

# The NEW UPM3 generation

WITH PWM SIGNAL

WITHOUT PWM SIGNAL



VERSIONS	P1	VERSIONS	P1	VERSIONS	P1	AVAILABLE VERSIONS	P1	AVAILABLE VERSIONS	P1	AVAILABLE VERSIONS	P1	AVAILABLE VERSIONS	P1
UPM3 15-75 130	60 W	UPM3 FLEX AC 15-70 130	52 W	UPM3 FLEX AS 15-70 130	52 W	UPM3 HYBRID 15-70 130	52 W	UPM3 FLEX AS 15-70 130	52 W	UPM3 AUTO 15-70 130	52 W	UPM3 AUTO L 15-70 130	52 W
UPM3 25-75 130	60 W	UPM3 FLEX AC 25-70 130	52 W	UPM3 FLEX AS 25-70 130	52 W	UPM3 HYBRID 25-70 130	52 W	UPM3 FLEX AS 25-70 130	52 W	UPM3 AUTO 25-70 130	52 W	UPM3 AUTO L 25-70 130	52 W
UPM3 25-75 180	60 W	UPM3 FLEX AC 25-70 180	52 W	UPM3 FLEX AS 25-70 180	52 W	UPM3 HYBRID 25-70 180	52 W	UPM3 FLEX AS 25-70 180	52 W	UPM3 AUTO 25-70 180	52 W	UPM3 AUTO L 25-70 180	52 W
UPM3 15-70 130	52 W					UPM3 HYBRID 15-50 130	33 W			UPM3 AUTO 15-50 130	33 W	UPM3 AUTO L 15-50 130	33 W
UPM3 25-70 130	52 W					UPM3 HYBRID 25-50 130	33 W			UPM3 AUTO 25-50 130	33 W	UPM3 AUTO L 25-50 130	33 W
UPM3 25-70 180	52 W					UPM3 HYBRID 25-50 180	33 W			UPM3 AUTO 25-50 180	33 W	UPM3 AUTO L 25-50 180	33 W
UPM3 15-60 130	39 W												
UPM3 25-60 130	39 W												
UPM3 25-60 180	39 W												
UPM3 15-50 130	33 W												
UPM3 25-50 130	33 W												
UPM3 25-50 180	33 W												
UPM3 15-40 130	25 W												
UPM3 25-40 130	25 W												
UPM3 25-40 180	25 W												

THERE IS A **UPM3 FOR EVERY PROJECT**

No matter if you are looking for a circulator with one fixed setting or a more flexible solution, with or without PWM signal, there is a UPM3 to meet your demands.

Take for instance the UPM 3 Hybrid. By combining external controlling with internal self-controlling, the UPM3 Hybrid is actually two advanced platforms in one. This gives you access to a full range settings, covering all your circulator needs.



## UPM3

UPM3 is the right choice for all projects and appliances produced on a big scale where only one specific external control mode with one specific speed range is requested. UPM3 is controlled via a signal cable entry.

### Integrated OEM high efficient circulator

- » One specific external control mode
- » One specific speed range
- » No user interface
- » Follow up of UPER/UPM platforms
- » Available with many standard and customized housings
- » Active or passive inrush current limitation
- » Exceeding benchmark level of the Ecodesign requirements in 2015, EEI ≤ 0.20 EN16297/3

### Externally controlled by the appliance

- » Different signals and profiles available (PWM A, PWM C, KMBus)
- » Standard return signal showing power consumption, alarm and operation status
- » Other customized input profiles and different return profiles are possible e.g. flow estimation

## UPM3 FLEX AC

By combining 2 PWM profiles, the UPM3 FLEX AC brings new flexibility to the system developer, the OEM production and even to the field installation. Without changing the hardware, the settings can easily be changed.

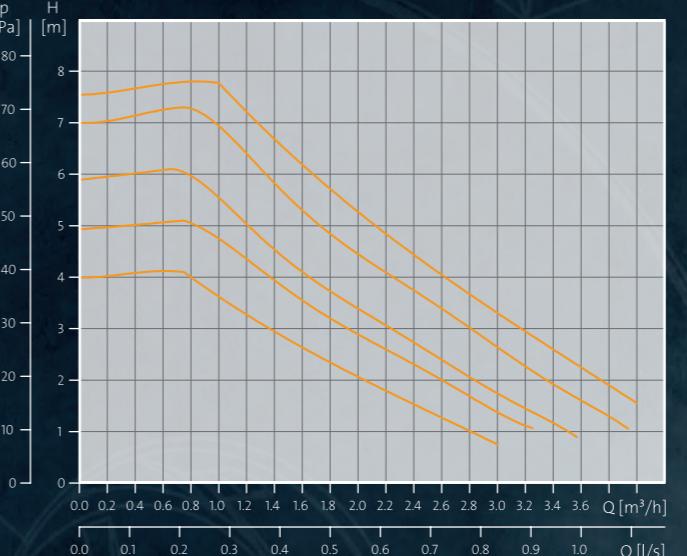
### Integrated OEM high efficiency Circulator

- » Exceeding benchmark level of the Ecodesign requirements in 2015, EEI ≤ 0.20 EN16297/3
- » Flexible choice between PWM profile A for heating and PWM profile C for solar

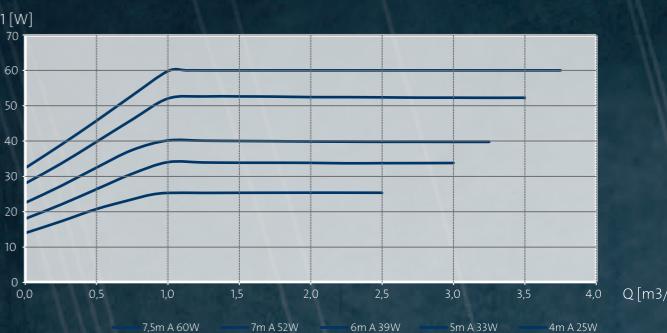
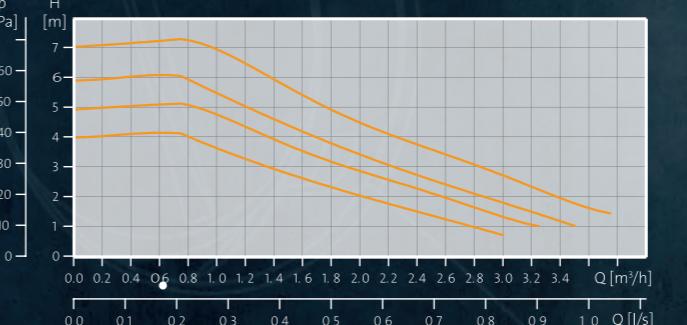
### Externally controlled by the appliance

- » 2 standard PWM profiles available in ONE – Profile A for Heating and Profile C for Solar
- » 4 MAX curves

## UPM3



## UPM3 FLEX AC / AS



## UPM3 FLEX AS

UPM3 FLEX AS is a flexible solution for boiler systems now and in the future. It is designed to work both with and without PWM signal, allowing you to upgrade your systems without having to change the circulators.

### Integrated OEM high efficient circulator

- » For flexible use in appliances without PWM speed control with 4 speeds
- » or in applications with externally controlled signal with standard PWM profile A for 4 MAX curves
- » Exceeding benchmark level of the Ecodesign requirements in 2015, EEI ≤ 0.20 EN16297/3



BOILER  
SYSTEMS



HEATING  
KITS



SOLAR  
THERMAL  
SYSTEMS



DHW  
SYSTEMS



HEAT PUMP  
SYSTEMS



## UPM3 AUTO

UPM3 AUTO is for all applications in which an internally controlled pump is needed. It is designed to be used in appliances or cabinets with increased ambient temperatures and limited space options; either in standalone applications or in kit systems without PWM controller.

### Standalone OEM high efficiency circulator

- » For standalone applications
- » Optimal for floorheating with a high valve authority
- » Flexibility of settings benefits the OEM production and the installation in the field

### Internally controlled circulators

- » 3 control modes
- » 10 Curves
- » PLUS AUTOADAPT proportional and constant pressure
- » Substitutes ALPHA2 pumps

## UPM3 AUTO L

UPM3 AUTO L is for all applications in which an internally controlled pump is needed. It is designed to be used in appliances or cabinets with increased ambient temperatures and limited space options; either in standalone applications or in kit systems without PWM controller. The AUTO L does not feature AUTOADAPT modes.

### Standalone OEM high efficiency circulator

- » For standalone applications
- » Optimal for heating kits
- » Flexibility of settings benefits the OEM production and the installation in the field

### Internally controlled circulators

- » 3 control modes
- » 10 Curves
- » Substitutes ALPHA2L pumps.

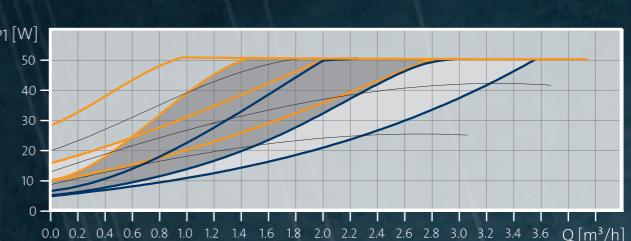
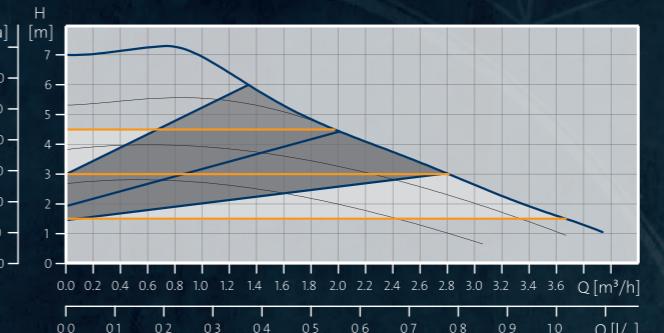
## UPM3 HYBRID

By combining external controlling through signal entry with internal self-controlling, the UPM3 HYBRID covers all your circulator needs in one product, providing you with access to a full range of settings.

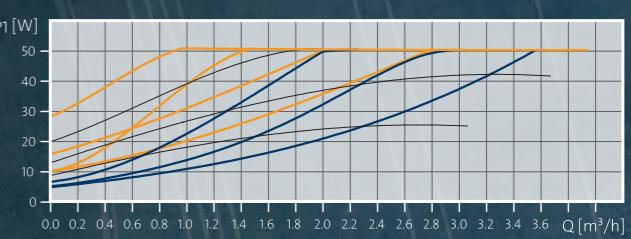
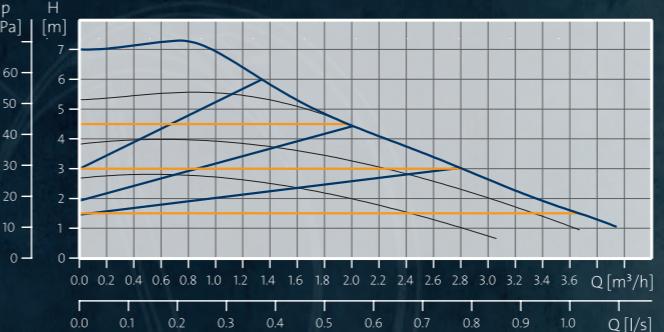
### Integrated OEM high efficient circulator

- » For externally and internally controlled circulators
- » For all kind of applications with flexible settings in OEM production or in the installation field
- » 5 control modes, 18 curves, PLUS 2 AUTOADAPT proportional and constant pressure
- » Substitutes UPM2 and ALPHA2 pumps

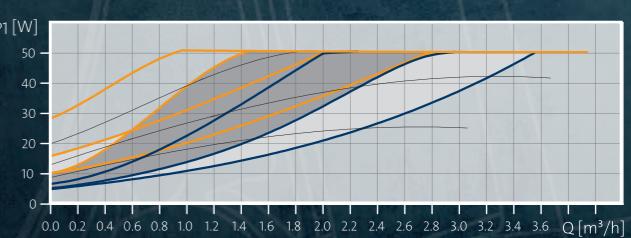
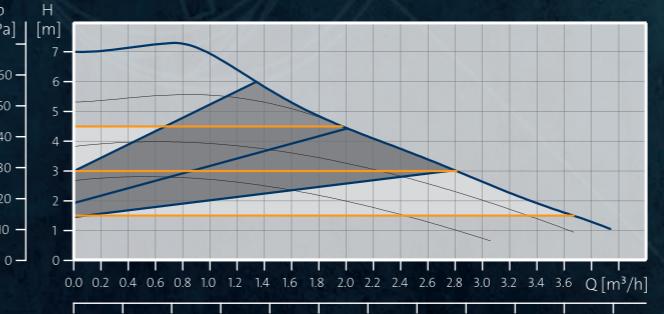
## UPM3 AUTO



## UPM3 AUTO L



## UPM3 HYBRID



BOILER  
SYSTEMS



HEATING  
KITS



SOLAR  
THERMAL  
SYSTEMS



DHW  
SYSTEMS



HEAT PUMP  
SYSTEMS



# UPM2

The UPM2 is designed to substitute the small UPS – the world's most successful circulator range for integration in heating appliances. UPM2 offers hydraulic backward compatibility with existing platforms and covers a very broad range of operation, even down to low meter heads. The extended performance is available.

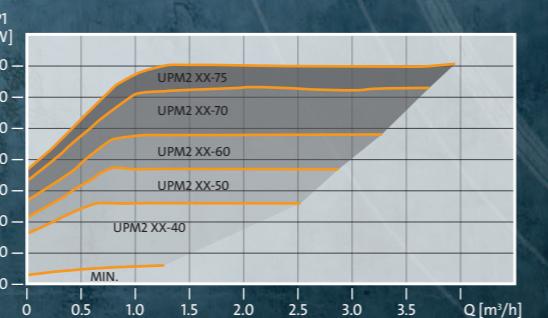
## Benefits

- » Ready for Conversion according to Ecodesign Requirements for 2015 with EEI  $\leq 0,23$
- » High efficiency and low power consumption
- » Flexibility for System Customisation regarding different control mode options, housings and performances
- » System and Pump Protection by various alarm functions
- » Supporting Life time Protection by derating the maximum power depending on the electronic temperature

## RANGE

AVAILABLE VERSIONS	CONTROL MODE	P1
UPM2 xx-40	PWM	26 W
UPM2 xx-50	PWM	37 W
UPM2 xx-60	PWM	48 W
UPM2 xx-70	PWM	63 W
UPM2 xx-75	PWM	70 W

## CURVES



**UPM2**



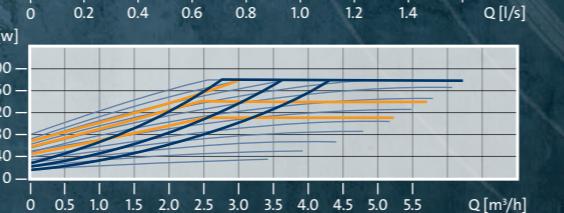
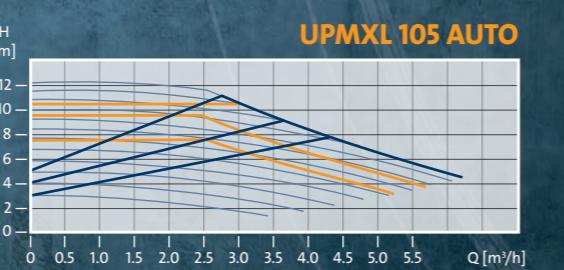
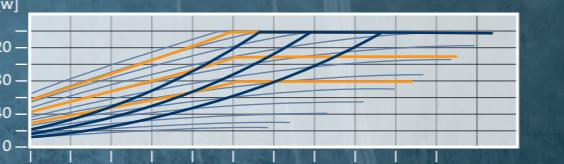
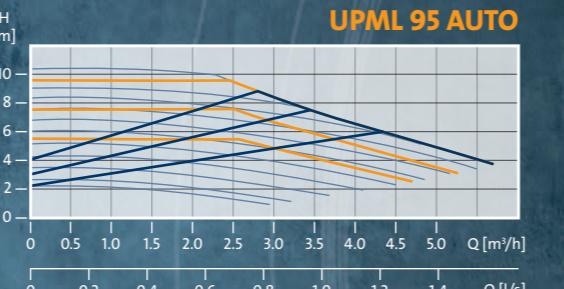
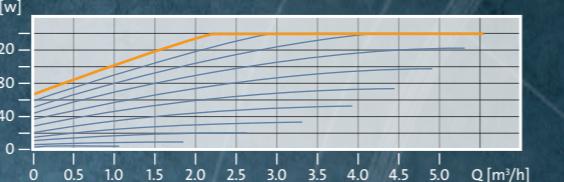
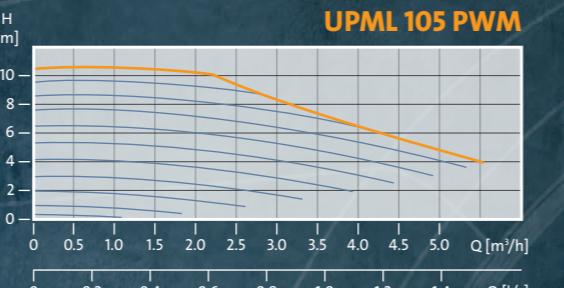
# UPML & UPMXL

The UPML & UPMXL is designed to substitute the medium UPS for integration in heating appliances. UPML & UPMXL both offers hydraulic backward compatibility with existing platforms.

## Benefits

- » Ready for Conversion according to Ecodesign Requirements for 2015 with EEI  $\leq 0,23$
- » High efficiency and low power consumption Flexibility for System Customisation regarding different control mode options, housings and performances
- » System and Pump Protection by various alarm functions
- » Supporting Life time Protection by derating the maximum power depending on the electronic temperature

## CURVES



## RANGE

HVAC PWM 140 W	HVAC AUTO 140 W	HVAC AUTO 180 W
UPML 25-105 130 PWM	UPML 25-95 130 AUTO	UPMXL 25-105 130 AUTO
UPML 25-105 180 PWM	UPML 25-95 180 AUTO	UPMXL 25-105 180 AUTO
UPML 32-105 180 PWM	UPML 32-95 180 AUTO	UPMXL 32-105 180 AUTO



BOILER  
SYSTEMS



HEATING  
KITS



SOLAR  
THERMAL  
SYSTEMS



DHW  
SYSTEMS



**UPML**

**UPMXL**



## UPM2 K

The Grundfos UPM2 K is particularly suitable for coldwater applications such as combined heating and air-conditioning systems as well as in geothermal heat pumps.

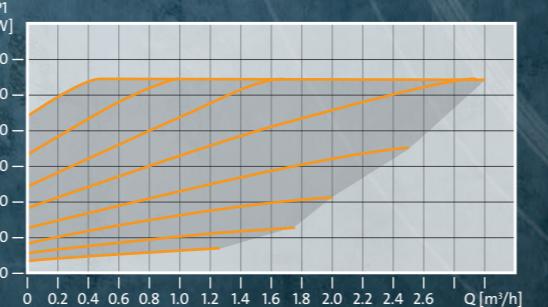
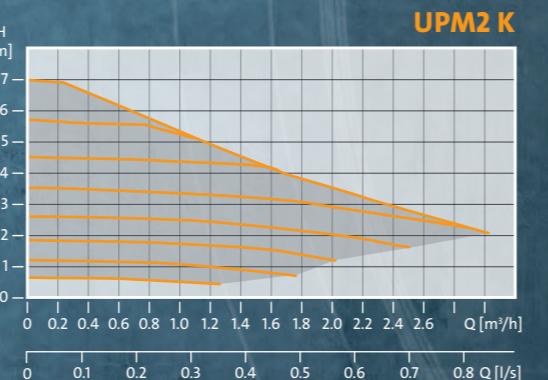
### Benefits

- » Fit for cold antifreeze media containing glycol or ethanol
- » Fit for condensing environments: electronics separated from motor, motor protected against condensed water by drain holes and double-coated wiring
- » Cataphoretically coated cast iron housing
- » Especially optimised for geothermal heat pumps in terms of performance and robustness

### RANGE

AVAILABLE VERSIONS	CONTROL MODE	P1
UPM2K xx-40	PWM	26 W
UPMK xx-50	PWM	37 W
UPM2K xx-60	PWM	48 W
UPM2K xx-70	PWM	55 W

### CURVES



BOILER  
SYSTEMS



HEAT PUMP  
SYSTEMS



**UPM2 K**



# UPM GEO, UPML GEO & UPM XL GEO

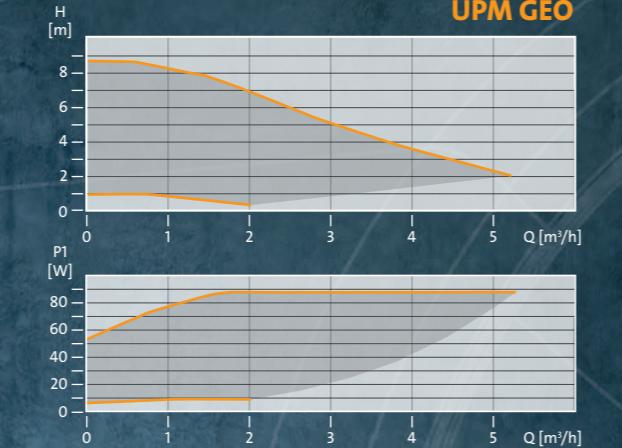
The Grundfos UPM GEO range is optimised for operation in condensing environments such as the ground side of a geothermal heat pump.

## Benefits

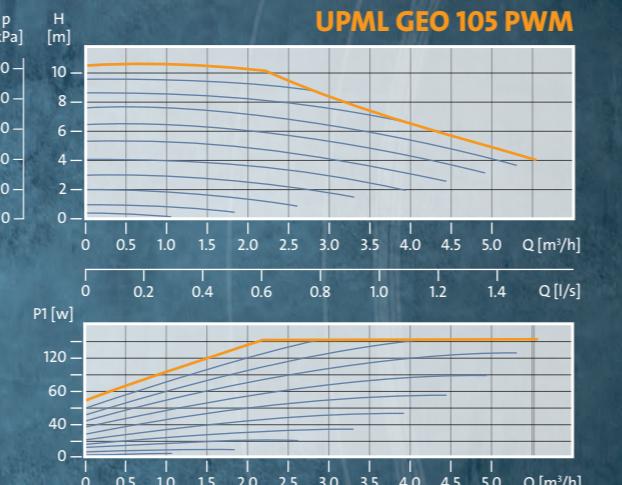
- » Fit for cold antifreeze media containing glycol or ethanol
- » Fit for condensing environments: electronics separated from motor, motor protected against condensed water by drain holes and double-coated wiring
- » Cataphoretically coated cast iron housing
- » Especially optimised for geothermal heat pumps in terms of performance and robustness

## CURVES

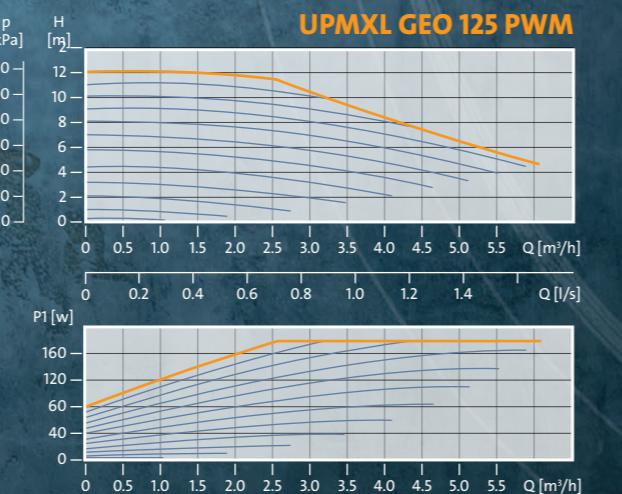
### UPM GEO



### UPML GEO 105 PWM



### UPM XL GEO 125 PWM



## RANGE



UPM GEO	GEO PWM 140 W	GEO PWM 180 W
UPM GEO 25-85	UPML GEO 25-105 130 PWM	UPM XL GEO 25-125 130 PWM
UPM GEO xx-105	UPML GEO 25-105 180 PWM	UPM XL GEO 25-125 180 PWM
UPM GEO xx-125	UPML GEO 32-105 180 PWM	UPM XL GEO 32-125 180 PWM



UPM GEO



UPM XL GEO PWM

# SOLAR PM2 & SOLAR PML

The Grundfos Solar PM2 is energy optimised for small and medium solar thermal charging station in which the demand is mainly on small reduced flow.

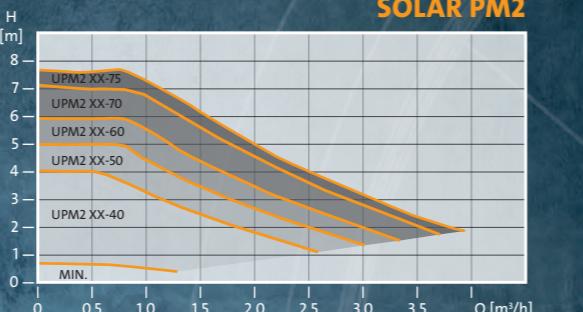
## Benefits

- » Fit for cold antifreeze media containing glycol or ethanol
- » Fit for condensing environments: electronics separated from motor, motor protected against condensed water by drain holes and double-coated wiring
- » Cataphoretically coated cast iron housing

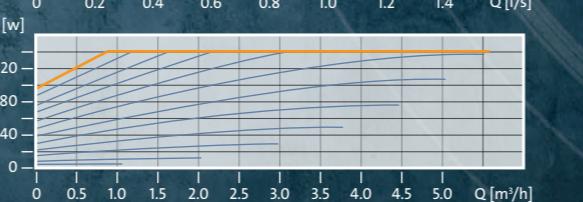
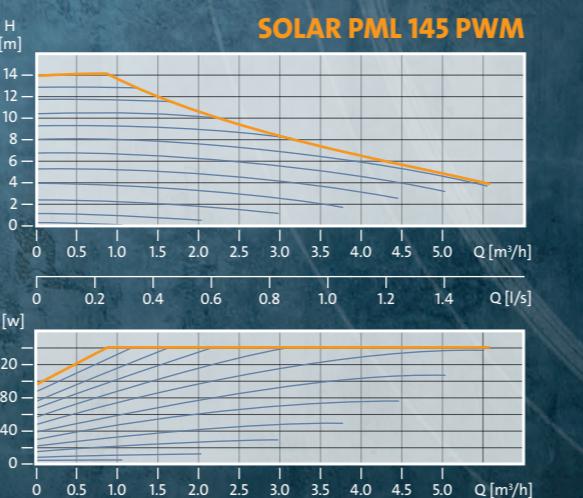


## CURVES

### SOLAR PM2



### SOLAR PML 145 PWM



## RANGE

SOLAR PM2	SOLAR PML 140 W
SOLAR PM2 xx-45	SOLAR PML 25-145 130 PWM
SOLAR PM2 xx-65	SOLAR PML 25-145 180 PWM
SOLAR PM2 xx-85	SOLAR PML 32-145 180 PWM
SOLAR PM2 xx-105	
SOLAR PM2 xx-145	
SOLAR PM2 xx-145	



SOLAR PM2

SOLAR PML



# ALPHA2

The ALPHA2 circulator is a tried and tested industry benchmark with more than 3 million units installed worldwide. It offers unrivalled energy efficiency based on proven Grundfos technologies and is a perfect choice for all HVAC applications

## Benefits

- » High efficiency exceeding Ecodesign 2015 requirements
- » Easy accessibility from the front
- » Compact size for trouble-free integration into system applications

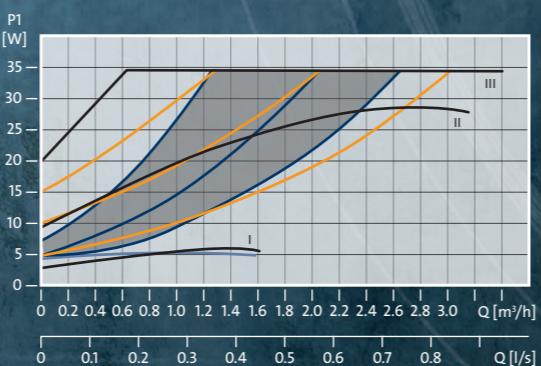
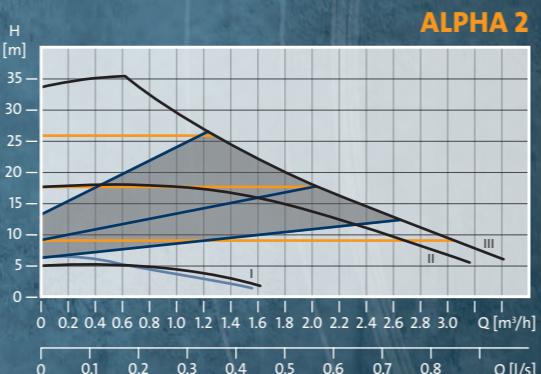
Also available as ALPHA2 L with a limited number of functionalities, but same high efficiency

## AUTOADAPT – EFFICIENCY AND COMFORT THROUGH SYSTEM INTELLIGENCE

ALPHA2 comes equipped with Grundfos AUTOADAPT, a technology that automatically adjusts pump performance to match the duty point by analysing system demands. AUTOADAPT offers:

- » Demand-controlled operations
- » Optimum comfort
- » Energy savings and reduced CO<sub>2</sub> emissions

## CURVES



HEATING KITS



DHW SYSTEMS



## RANGE

ALPHA2 L	ALPHA2
ALPHA2 L OEM 15-40 130	22W
ALPHA2 L OEM 15-40 130	22W
ALPHA2 L OEM 15-40 180	22W
ALPHA2 OEM 15-40 130	22W
ALPHA2 OEM 15-40 180	22W
ALPHA2 L OEM 15-60 130	45W
ALPHA2 L OEM 15-60 130	45W
ALPHA2 OEM 15-60 130	45W
ALPHA2 L OEM 15-60 180	45W
ALPHA2 OEM 15-60 180	45W

**ALPHA2**

## BOILER SYSTEMS

## HEAT PUMP SYSTEMS

## HEATING SYSTEMS &amp; KITS

## SOLAR SYSTEMS

VERSIONS	P1	VERSIONS	P1	VERSIONS	P1	VERSIONS	P1	VERSIONS	P1	VERSIONS	P1	VERSIONS	P1	VERSIONS	P1
<b>UPM3 FLEX AS</b>		<b>UPM3</b>		<b>UPM2</b>		<b>UPM2 K</b>		<b>UPM2 GEO</b>		<b>UPM3 AUTO L</b>		<b>ALPHA2 L</b>		<b>UPM3 FLEX AC</b>	
UPM3 FLEX AS 15-70 130	52 W	UPM3 15-40 130	25 W	UPM2 15-40 130	26 W	UPM2 15-70 130	63 W	UPM2K 15-40 130	26 W	UPML GEO 25-105 130 PWM	140 W	UPM3 AUTO L 15-50 130	33 W	ALPHA2L OEM 15-40 130	22 W
UPM3 FLEX AS 25-70 130	52 W	UPM3 25-40 130	25 W	UPM2 25-40 130	26 W	UPM2 25-70 130	63 W	UPM2K 25-40 130	26 W	UPML GEO 25-105 180 PWM	140 W	UPM3 AUTO L 25-50 130	33 W	ALPHA2L OEM 15-40 13	22 W
UPM3 FLEX AS 25-70 180	52 W	UPM3 25-40 180	25 W	UPM2 25-40 180	26 W	UPM2 25-70 180	63 W	UPMK2 25-40 180	26 W	UPML GEO 32-105 180 PWM	140 W	UPM3 AUTO L 25-50 180	33 W	ALPHA2L OEM 15-40 180	22 W
<b>UPM3 FLEX AC</b>		UPM3 15-50 130	33 W	UPM2 32-40 180	26 W	UPM2 32-70 180	63 W	UPM2K 15-50 130	37 W	UPML GEO 25-105 180 N PWM	140 W	<b>UPM2 GEO</b>		<b>SOLAR PM2</b>	
UPM3 FLEX AC 15-70 130	52 W	UPM3 25-50 130	33 W	UPM2 15-40 GGMBP	26 W	UPM2 15-70 GGMBP	63 W	UPM2K 25-50 130	37 W	UPMXL GEO 25-105 130 PWM	180 W	UPM3 AUTO L 15-70 130	55 W	SOLAR PM2 15-45 130	26 W
UPM3 FLEX AC 25-70 130	52 W	UPM3 25-50 180	33 W	UPM2 15-40 ES	26 W	UPM2 15-70 ES	63 W	UPM2K 25-50 180	37 W	UPMXL GEO 25-105 180 PWM	180 W	UPM3 AUTO L 25-70 130	55 W	SOLAR PM2 25-45 130	26 W
UPM3 FLEX AC 25-70 180	52 W	UPM3 15-60 130	39 W	UPM2 15-40 AOS	26 W	UPM2 15-70 AOS	63 W	UPM2K 15-60 130	48 W	UPM3 AUTO L 25-70 180	55 W	<b>ALPHA2</b>		SOLAR PM2 25-45 180	26 W
<b>UPM3 HYBRID</b>		UPM3 25-60 130	39 W	UPM2 15-50 130	37 W	UPM2 15-75 130	70 W	UPM2K 25-60 130	48 W	UPM3 AUTO L 25-70 180 N PWM	180 W	<b>UPM3 AUTO</b>		SOLAR PM2 15-45 AOS	26W
UPM3 HYBRID 15-50 130	33 W	UPM3 25-60 180	39 W	UPM2 25-50 130	37 W	UPM2 25-75 130	70 W	UPM2K 25-70 130	55 W	UPM3 AUTO 15-50 130	33 W	ALPHA2 OEM 15-40 130	22 W	SOLAR PM2 15-65 130	48 W
UPM3 HYBRID 25-50 130	33 W	UPM3 15-70 130	52 W	UPM2 25-50 180	37 W	UPM2 25-75 180	70 W	UPM2K 25-70 130	55 W	UPM3 AUTO 25-50 130	33 W	ALPHA2 OEM 15-40 180	22 W	SOLAR PM2 25-65 130	48 W
UPM3 HYBRID 25-50 180	33 W	UPM3 25-70 130	52 W	UPM2 32-50 180	37 W	<b>UPML PWM</b>		UPM2K 25-70 180	55 W	UPM3 AUTO 25-50 180	33 W	ALPHA2 OEM 15-60 130	45 W	SOLAR PM2 25-65 180	48 W
UPM3 HYBRID 15-70 130	52 W	UPM3 25-70 180	52 W	UPM2 15-50 GGMBP	37 W	UPML 25-105 130 PWM	140 W	UPM2K 25-70 180	55 W	UPM3 AUTO 25-50 180 N	33 W	ALPHA2 OEM 15-60 130	45 W	SOLAR PM2 15-65 AOS	48 W
UPM3 HYBRID 25-70 130	52 W	UPM3 15-75 130	60 W	UPM2 15-50 ES	37 W	UPML 25-105 180 PWM	140 W	UPM2K 15-75 130	70 W	UPM3 AUTO 15-70 130	52 W	ALPHA2 OEM 15-60 180	45 W	SOLAR PM2 15-85 130	57 W
UPM3 HYBRID 25-70 180	52 W	UPM3 25-75 130	60 W	UPM2 15-50 AOS	37 W	UPML 32-105 180 PWM	140 W	UPM2K 15-75 130	70 W	UPM3 AUTO 25-70 130 N	52 W	UPML 25-95 130 AUTO	140 W	SOLAR PM2 25-85 130	57 W
		UPM3 25-75 180	60 W	UPM2 15-60 130	48 W	<b>UPML GEO</b>		UPM2K 15-75 180	70 W	UPM3 AUTO 25-70 180 N	52 W	UPML 25-95 180 AUTO	140 W	SOLAR PM2 25-85 180	57 W
				UPM2 25-60 130	48 W	UPM GEO 25-85 130	87 W			UPM3 HYBRID 15-50 130	33 W	UPML 25-95 180 N AUTO	140 W	SOLAR PM2 15-105 130	70 W
				UPM2 25-60 180	48 W	UPM GEO 25-85 130	87 W			UPM3 HYBRID 25-50 130	33 W	UPML 32-95 180 AUTO	140 W	SOLAR PM2 25-105 130	70 W
				UPM2 32-60 180	48 W	UPM GEO 32-105 180	87 W			UPM3 HYBRID 25-50 180	33 W	<b>UPML AUTO</b>		SOLAR PM2 25-105 180	70 W
				UPM2 15-60 GGMBP	48 W	UPM GEO 25-85 180N	87 W			UPM3 HYBRID 15-70 130	52 W	UPMXL 25-105 130 AUTO	180 W	SOLAR PM2 15-105 AOS	70 W
				UPM2 15-60 ES	48 W					UPM3 HYBRID 15-70 130 N	52 W	UPMXL 25-95 180 AUTO	180 W	<b>SOLAR PM2</b>	
				UPM2 15-60 AOS	48 W					UPM3 HYBRID 25-70 130	52 W	UPMXL 25-105 180 AUTO	180 W	SOLAR PM2 15-145 130	87 W
										UPM3 HYBRID 25-70 180	52 W	UPMXL 25-105 180 N AUTO	180 W	<b>SOLAR PML</b>	
										UPM3 HYBRID 25-70 180 N	52 W	UPMXL 32-105 180 AUTO	180 W	SOLAR PML 15-145 130 PWM	140 W
														SOLAR PML 25-145 180 PWM	140 W
														SOLAR PML 25-145 180 N PWM	140 W
														SOLAR PML 25-145 180 N PWM 140 W	

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