

**SPCO**  
makes life easier



**FGD**  
High Efficiency Circulation Pump  
50Hz

# Approvals



THE INTERNATIONAL CERTIFICATION NETWORK

## CERTIFICATE

*SQS has issued an IQNet recognized certificate that the organization:*

*Swiss Pump Company AG  
Mössauweg 36  
CH-3645 Thun-Guttwil Switzerland*

*has implemented and maintains a*

*Quality Management System*

*for the following scope:*

*Manufacture and sale of products for  
the transportation of liquids*

*which fulfils the requirements of the following standard:*

**ISO 9001:2015**

*Issued on: 2021-08-20  
Expires on: 2024-03-02*

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document

**Registration Number CH-32160**

  
  
Alex Stoichititu  
President of IQNet

  
F. Müller  
CEO SQS





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\* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under [www.iqnet-certification.com](http://www.iqnet-certification.com)



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## FGD - High Efficiency Circulation Pump

### Applications

1. Domestic heating and hot water supply systems
2. Air and ground source heat pump systems
3. Air-conditioning systems
4. Industrial hot water circulation systems
5. Solar thermal systems

### Features

#### Easy installation and operation

Equipped with Self Adapting Mode(Auto Mode, Factory Setting), pump runs once the power is connected and adapts its performance according to actual system needs.

Control is effected by digital pulse-width modulation (PWM) low-voltage signal, enabling the pump to be used to meet different flow requirement in various systems.( For FGD II, III, IV only)

#### Low noise and high comfort

Noise index:  $\leq 42\text{dB(A)}$

#### Low energy consumption

A class energy efficiency, Power consumption lowest to 5W

#### Multiple protection

With over-voltage and over-current protection

#### Eco-Design Benchmark


$\text{EEI} \leq 0.20\text{-Part 2}$

#### Quick release power plug

Start-up and stop the pump quickly.

## FGD Control modes



Setting	Explanation
AUTO (factory setting)	Proportional pressure curve descending from highest to lowest
BL1	Min.proportional pressure curve
BL2	Max.proportional pressure curve
HD1	Min.constant pressure curve
HD2	Max.constant pressure curve
III	Constant Speed III
II	Constant Speed II
I	Constant Speed I
	Night mode

HS1, HS2, HS3, AUTO, BL1, BL2, HD1, HD2

Press button to switch between different control modes,

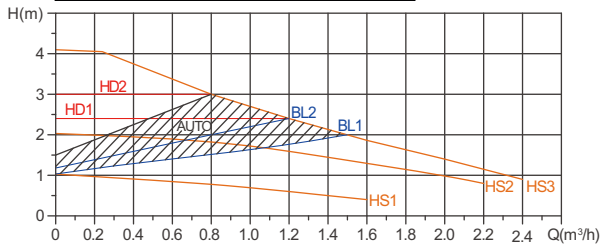
Press night mode button to switch to night mode.

## Technical data

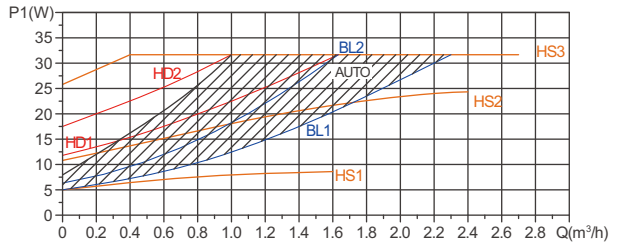
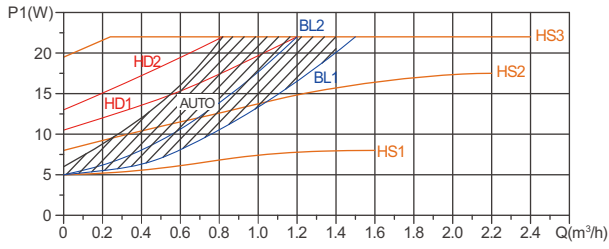
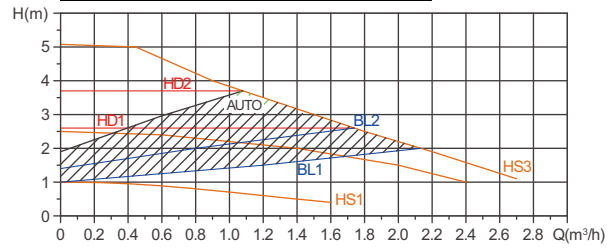
<b>Power supply voltage</b>	230V 50/60Hz, PE
<b>Motor protection</b>	No external protection required
<b>IP class</b>	IP44
<b>Insulation class</b>	H
<b>(RH) Humidity</b>	Max. 95%
<b>System pressure</b>	1.0 MPa
<b>Compliance</b>	CE/ GS/ EMC/ LVD/RoHS/REACH
<b>Environment temperature</b>	0~+40°C
<b>Temperature class</b>	TF110
<b>Liquid temperature</b>	-30~+110°C(Glycol up to 50%)

# Performance curve

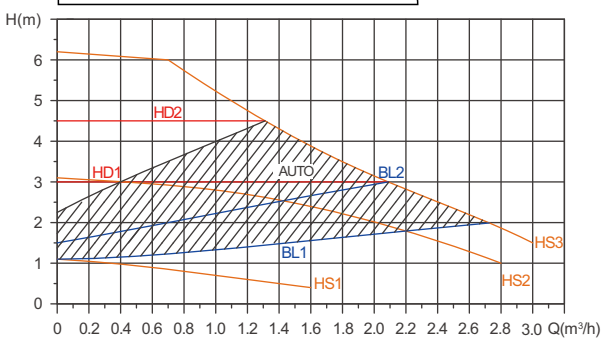
FGDXX-4 Performance curve



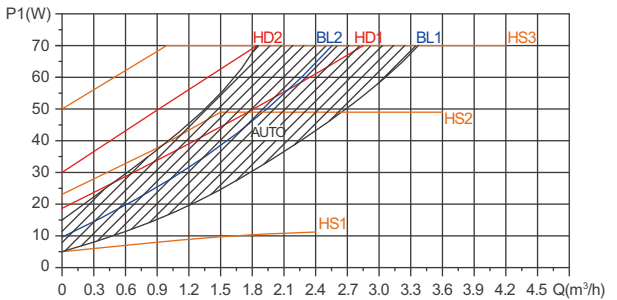
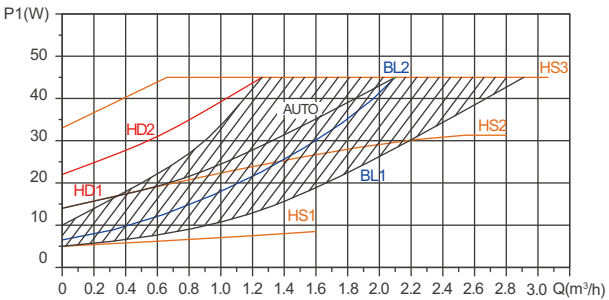
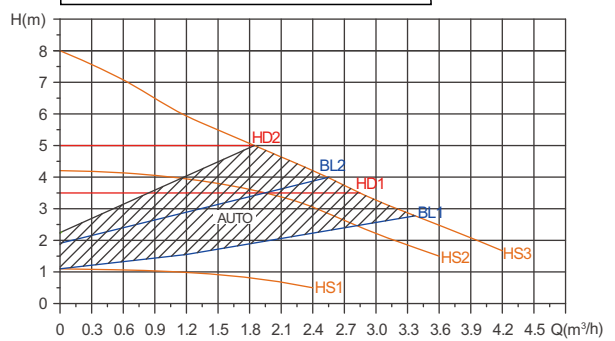
FGDXX-5 Performance curve



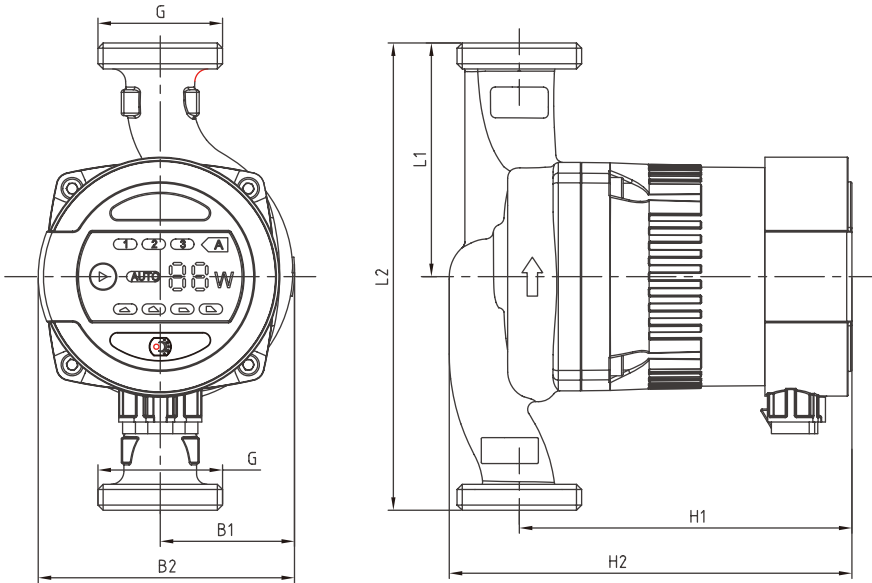
FGDXX-6 Performance curve



FGDXX-8 Performance curve



# Dimensions



# Technical parameter

Power (W)	Model	Max Flow (m³/h)	Max Head (m)	Current (A)	Voltage/ Frequency		Pump body material				Dimensions(mm)						Package size (mm*mm*mm)		Wt.(kg)	
					230V	50/60Hz	Cast iron	Plastic	Brass	Stainless steel	L1	L2	B1	B2	H1	H2	G	Inner box	G.W.	N.W.
22	FGD20-4	2.3	4	0.19	●	●	●	●	●	65	130	51	98	133	153	1"	190x170x150	2.4	1.9	
		2.5			●	●	●	●	65	130	52	99	128	156	190x170x150	2.9	2.1			
	FGD25-4	2.5			●	●	●	●	75	150	49	96	131	155	1 1/2"	190x170x200	3.1	2.3		
	2.5	●			●	●	●	90	180	52	99	128	156	190x170x200	3.2	2.4				
	FGD32-4	3.0			●	●	●	●	90	180	52	99	128	156	2"	190x170x200	3.5	2.5		
32	FGD20-5	2.5	5	0.27	●	●	●	●	●	65	130	52	99	133	153	1"	190x170x150	2.4	1.9	
		3.0			●	●	●	●	65	130	52	99	128	156	190x170x150	2.9	2.1			
	FGD25-5	3.0			●	●	●	●	75	150	49	96	131	155	1 1/2"	190x170x200	3.1	2.3		
	3.0	●			●	●	●	90	180	52	99	128	156	190x170x200	3.2	2.4				
	FGD32-5	3.5			●	●	●	●	90	180	52	99	128	156	2"	190x170x200	3.5	2.5		
45	FGD20-6	2.8	6	0.38	●	●	●	●	●	65	130	52	99	133	153	1"	190x170x150	2.4	1.9	
		3.2			●	●	●	●	65	130	52	99	128	156	190x170x150	2.9	2.1			
	FGD25-6	3.2			●	●	●	●	75	150	49	96	131	155	1 1/2"	190x170x200	3.1	2.3		
	3.2	●			●	●	●	90	180	52	99	128	156	190x170x200	3.2	2.4				
	FGD32-6	4.0			●	●	●	●	90	180	52	99	128	156	2"	190x170x200	3.5	2.5		
	70	FGD20-8			3.4	8	0.52	●	●	●	●	●	65	130	52	98	133	153	1"	190x170x150
4.0			●	●	●			●	65	130	52	99	128	156	190x170x150	2.9	2.1			
FGD25-8		4.0	●	●	●			●	75	150	49	96	131	155	1 1/2"	190x170x200	3.1	2.3		
4.0		●	●	●	●			90	180	52	99	128	156	190x170x200	3.2	2.4				
FGD32-8		5.0	●	●	●			●	90	180	52	99	128	156	2"	190x170x200	3.5	2.5		

## FGD II Control modes

Two versions, to meet different requirements of usages.

1. Button model, to switch modes with button
2. Rotary control model, easy operation



### FGD II

Night mode:

1. Press button to switch between control modes,
2. Press night mode button to switch to night mode.



Setting	Explanation
Auto (Factory Setting)	Proportional pressure curve descending from highest to lowest
BL1	Min. proportional pressure curve
BL2	Max. proportional pressure curve
HD1	Min. constant pressure curve
HD2	Max. constant pressure curve
III	Constant Speed III
II	Constant Speed II
I	Constant Speed I
Ⓜ	Night mode
PWM	PWM duty cycle performance curve

### FGD II CV + Auto

Running light:

Switch between AUTO and Min-Max with rotary control



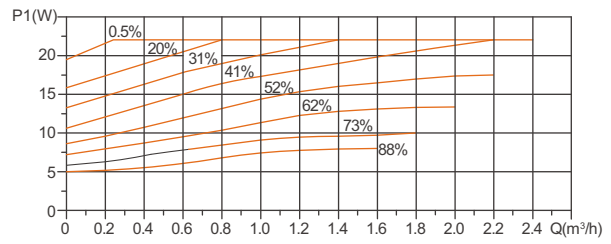
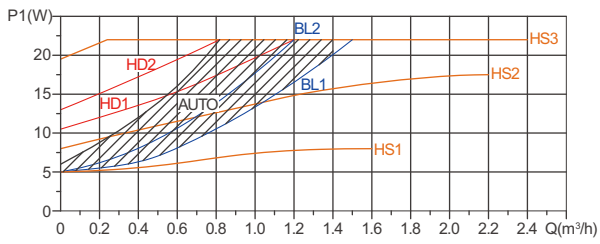
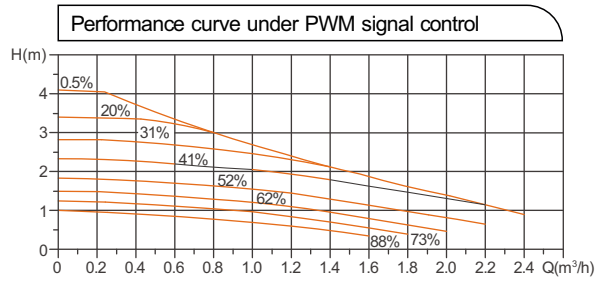
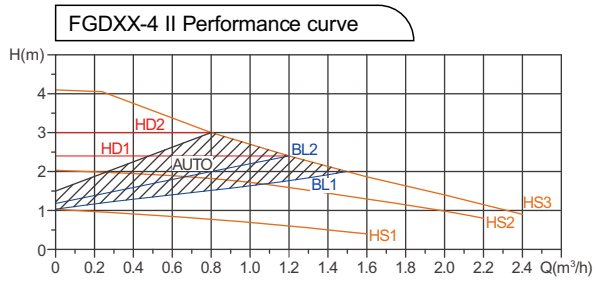
Setting	Explanation
AUTO (factory setting)	Proportional pressure curve descending from highest to lowest
Continuously viable	“Min–Max” curve



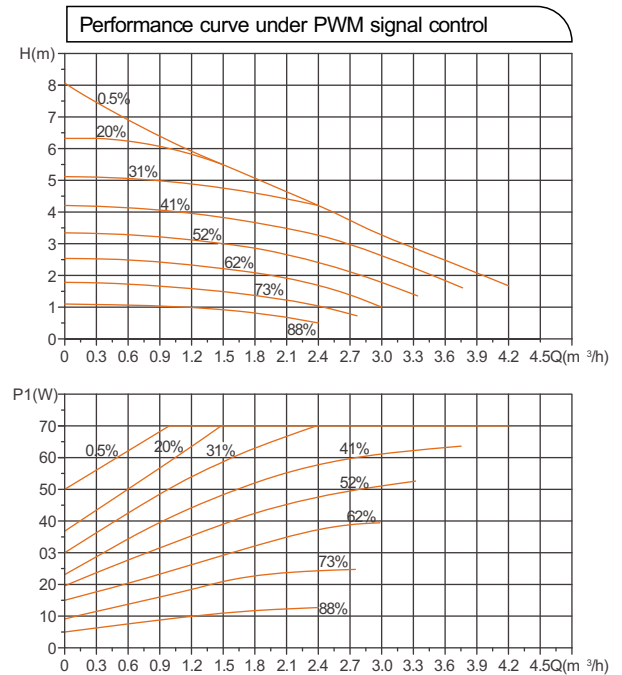
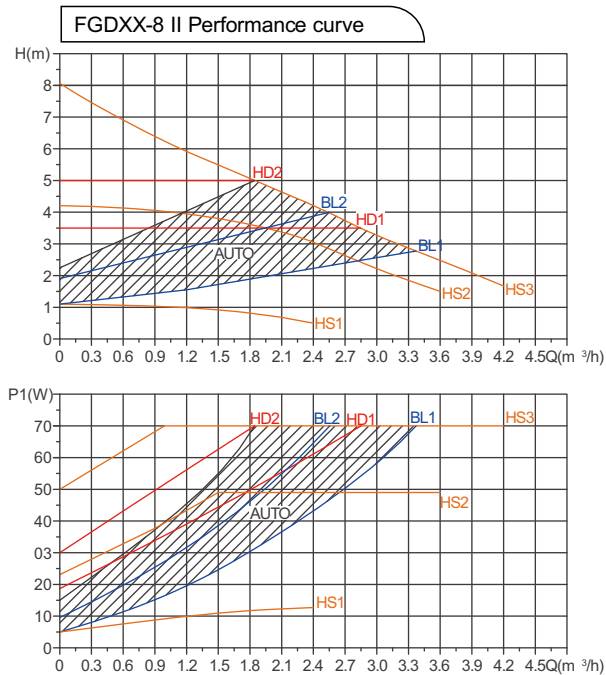
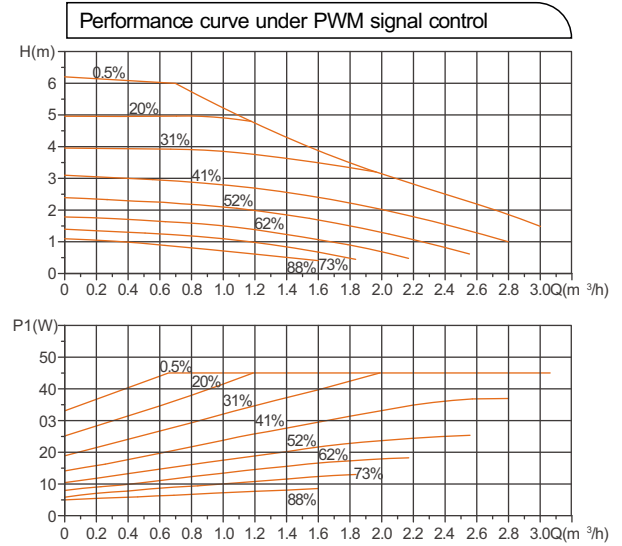
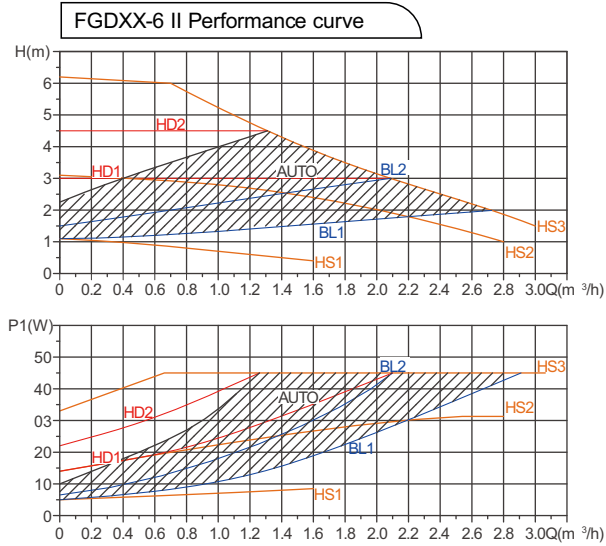
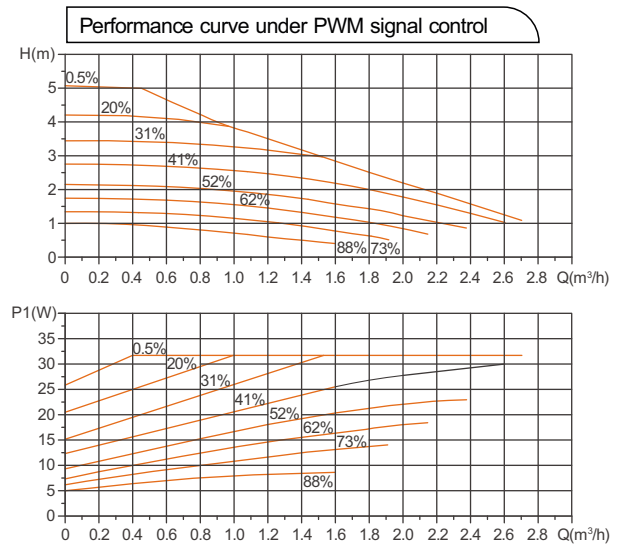
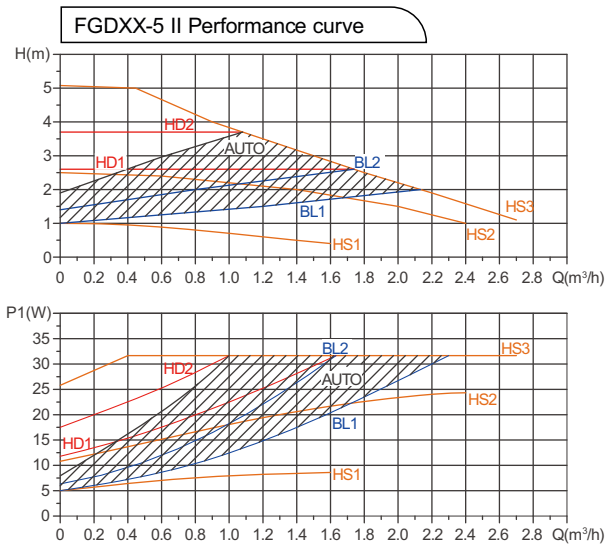
# Technical data

<b>Power supply voltage</b>	230V 50/60Hz, PE
<b>Motor protection</b>	No external protection required
<b>IP class</b>	IP44
<b>Insulation class</b>	H
<b>(RH) Humidity</b>	Max. 95%
<b>System pressure</b>	1.0 MPa
<b>Compliance</b>	CE/ GS/ EMC/ LVD/RoHS/REACH
<b>Environment temperature</b>	0~+40°C
<b>Temperature class</b>	TF110
<b>Liquid temperature</b>	-30~+110°C(Glycol up to 50%)

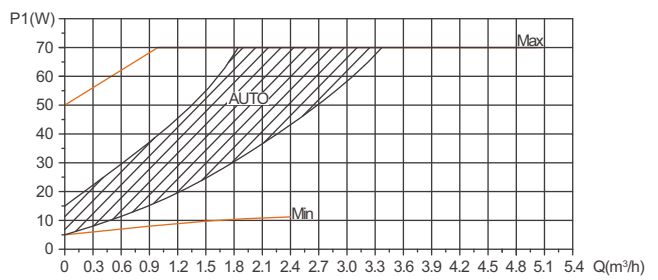
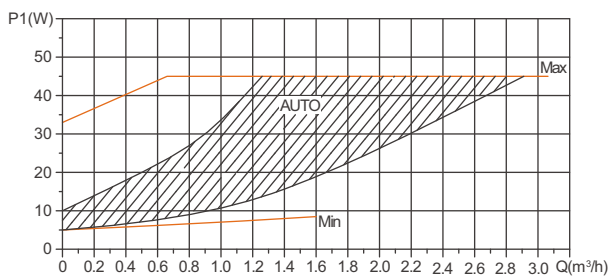
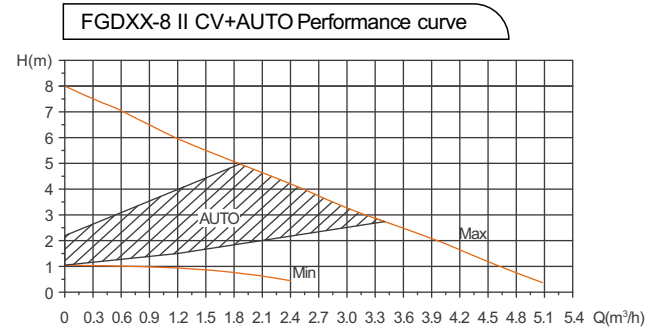
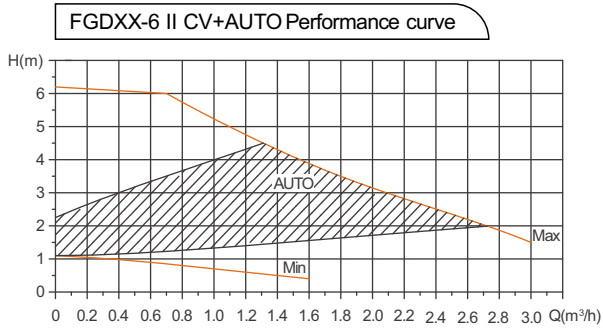
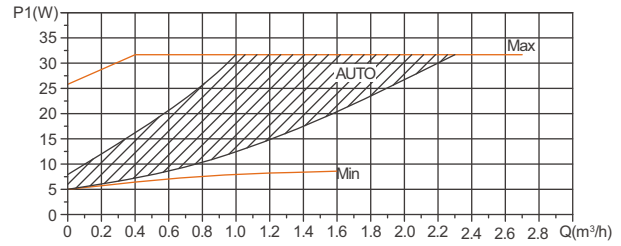
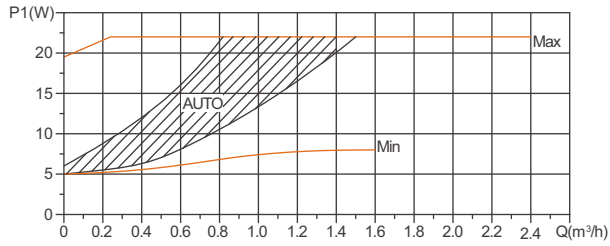
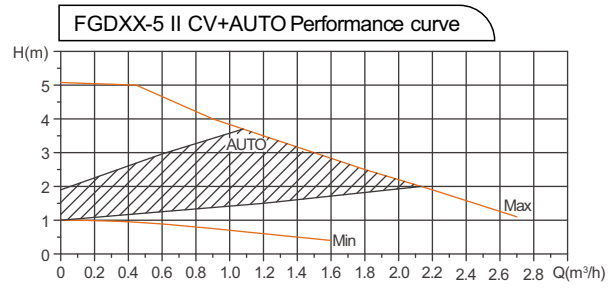
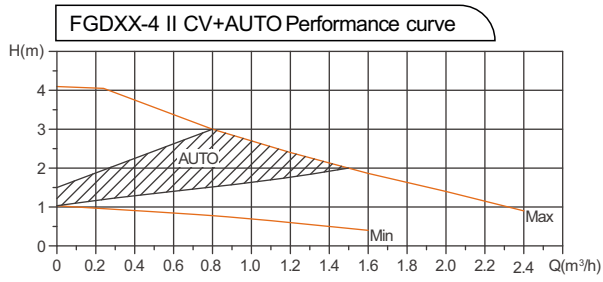
## Performance curve



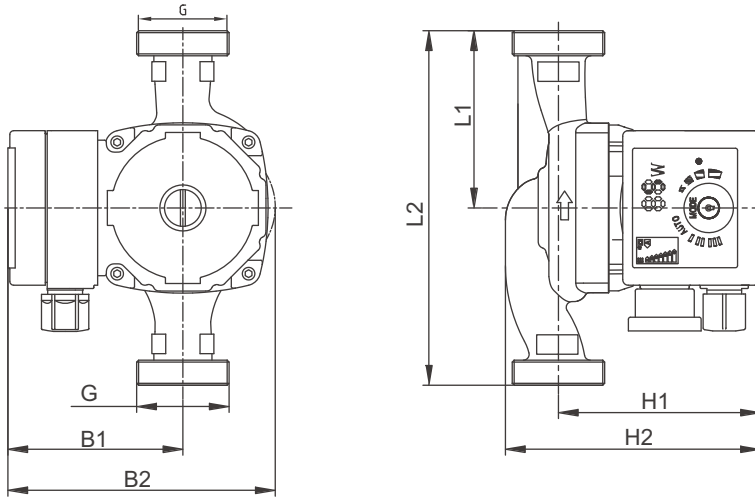
# Performance curve



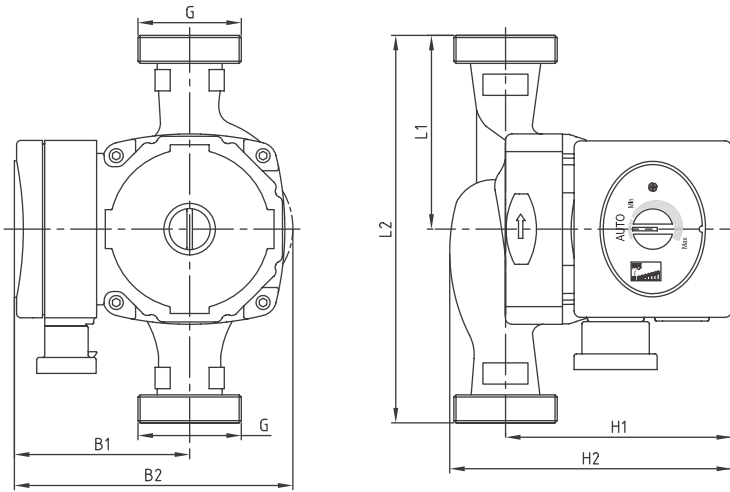
# Performance curve FGD II CV+Auto



Dimensions FGD II



Dimensions FGD II CV+Auto



## Performance parameter

Power (W)	Model	Max flow (m <sup>3</sup> /h)	Max Head (m)	Current (A)	Voltage/ Frequency		Pump body material				Dimensions(mm)						Package size (mm*mm*mm)		Wt.(kg)	
					230V	50/60Hz	Cast iron	Plastic	Brass	Stainless steel									Inner box	G.W.
22	FGD20-4 II	2.3	4	0.19	●	●	●	●	●	65	130	82	130	103	127	1"	155x140x165	2.4	1.9	
	FGD25-4 II	2.5			●	●	●	●	●	65	130	82	130	103	130	11/2"	155x140x165	2.9	2.1	
					●	●	●	●	75	150	82	130	103	130	200x165x155		3.1	2.3		
					●	●	●	●	90	180	82	130	103	130	200x165x155		3.2	2.4		
FGD32-4 II	3.0	●	●	●	●	●	90	180	82	130	102	132	2"	200x165x155	3.5	2.5				
32	FGD20-5 II	2.5	5	0.27	●	●	●	●	●	65	130	82	130	103	127	1"	155x140x165	2.4	1.9	
	FGD25-5 II	3.0			●	●	●	●	●	65	130	82	130	103	130	11/2"	155x140x165	2.9	2.1	
					●	●	●	●	75	150	82	130	103	130	200x165x155		3.1	2.3		
					●	●	●	●	90	180	82	130	103	130	200x165x155		3.2	2.4		
FGD32-5 II	3.5	●	●	●	●	●	90	180	82	130	102	132	2"	200x165x155	3.5	2.5				
45	FGD20-6 II	2.8	6	0.38	●	●	●	●	●	65	130	82	130	103	127	1"	155x140x165	2.4	1.9	
	FGD25-6 II	3.2			●	●	●	●	●	65	130	82	130	103	130	11/2"	155x140x165	2.9	2.1	
					●	●	●	●	75	150	82	130	103	130	200x165x155		3.1	2.3		
					●	●	●	●	90	180	82	130	103	130	200x165x155		3.2	2.4		
FGD32-6 II	4.0	●	●	●	●	●	90	180	83	130	102	132	2"	200x165x155	3.5	2.5				
70	FGD20-8 II	3.4	8	0.52	●	●	●	●	●	65	130	88	136	103	127	1"	155x140x165	2.9	2.1	
	FGD25-8 II	4.0			●	●	●	●	●	65	130	88	136	103	130	11/2"	155x140x165	2.9	2.1	
					●	●	●	●	75	150	88	136	103	130	200x165x155		3.1	2.3		
					●	●	●	●	90	180	88	136	103	130	200x165x155		3.2	2.4		
FGD32-8 II	5.0	●	●	●	●	●	90	180	88	136	102	132	2"	200x165x155	3.5	2.5				

## FGD II BL Control modes



Running lights

Switch between AUTO and Min-Max with button



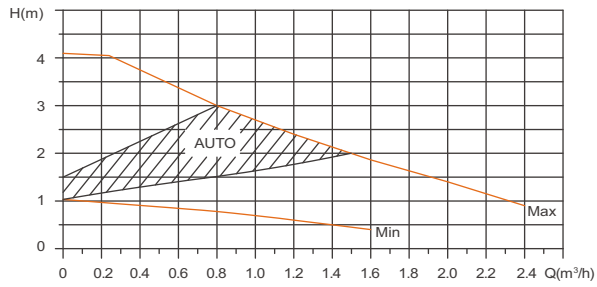
Setting	Explanation
Auto (Factory Setting)	Proportional pressure curve descending from highest to lowest
Min	Min. curve
Max	Max. curve

## Technical data

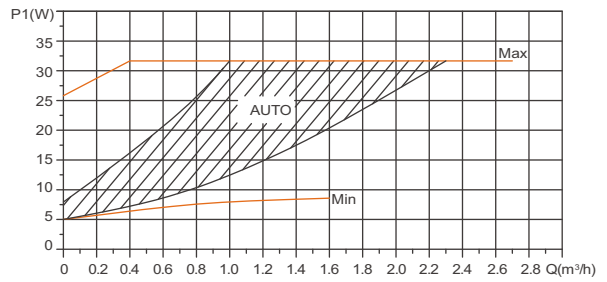
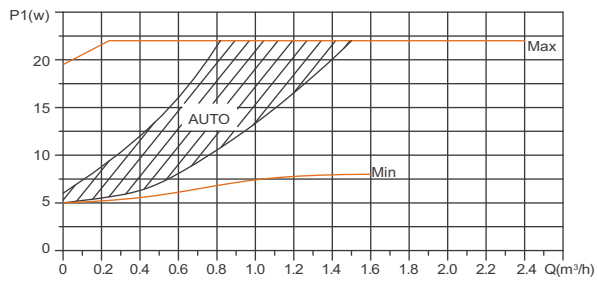
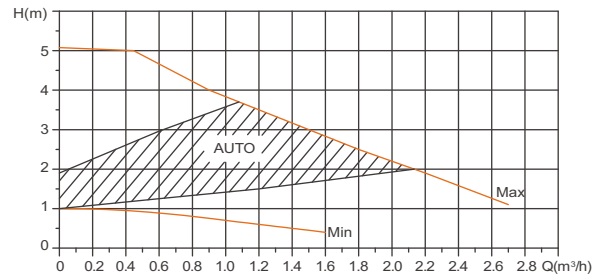
<b>Power supply voltage</b>	230V 50/60Hz, PE
<b>Motor protection</b>	No external protection required
<b>IP class</b>	IP44
<b>Insulation class</b>	H
<b>(RH) Humidity</b>	Max. 95%
<b>System pressure</b>	1.0 MPa
<b>Compliance</b>	CE/ GS/ EMC/ LVD/RoHS/REACH
<b>Environment temperature</b>	0~+40°C
<b>Temperature class</b>	TF110
<b>Liquid temperature</b>	-30~+110°C(Glycol up to 50%)

# Performance curve

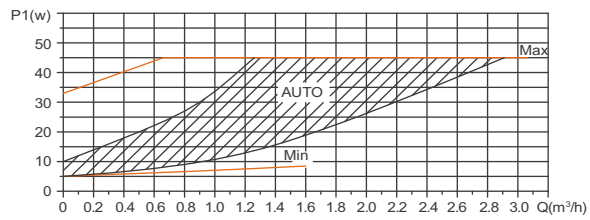
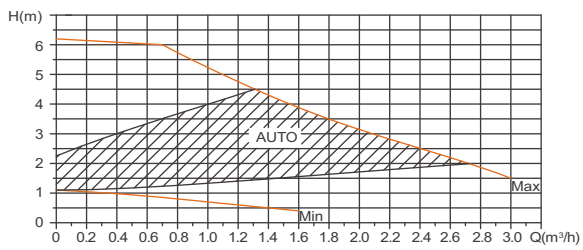
FGDXX-4 II BL Performance Curve



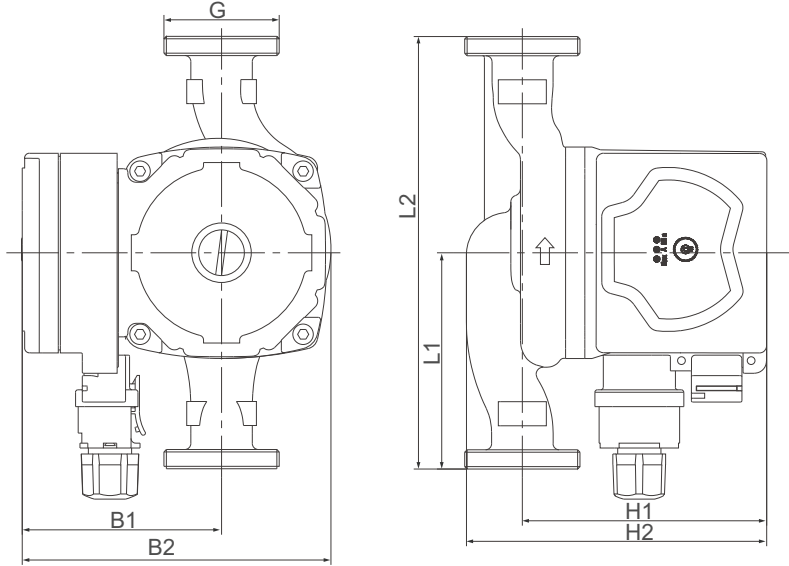
FGDXX-5 II BL Performance Curve



FGDXX-6 II BL Performance Curve



## Dimensions



## Performance parameter

Power (W)	Model	Max Flow (m <sup>3</sup> /h)	Max Head (m)	Current (A)	Voltage/ Frequency		Pump body material				Dimensions(mm)							Package size (mm*mm*mm)		Wt.(kg)	
					230V	50/60Hz	Cast iron	Plastic	Brass	Stainless steel	L1	L2	B1	B2	H1	H2	G	Inner box	G.W.N.W.		
22	FGD20-4II BL	2.3	4	0.19	●	●	●	●	●	65	130	82	130	103	127	1"	155x140x165	2.4	1.9		
	FGD25-4II BL	2.5			●	●	●	●	65	130	82	130	103	130	11/2"	155x140x165	2.9	2.1			
		2.5			●	●	●	●	75	150	82	130	103	130		200x165x155	3.1	2.3			
		3.0			●	●	●	●	90	180	82	130	103	130		200x165x155	3.2	2.4			
FGD32-4II BL	3.0	●	●	●	●	90	180	82	130	102	132	2"	200x165x155	3.5	2.5						
32	FGD20-5II BL	2.5	5	0.27	●	●	●	●	●	65	130	82	130	103	127	1"	155x140x165	2.4	1.9		
	FGD25-5II BL	3.0			●	●	●	●	65	130	82	130	103	130	11/2"	155x140x165	2.9	2.1			
		3.0			●	●	●	●	75	150	82	130	103	130		200x165x155	3.1	2.3			
		3.5			●	●	●	●	90	180	82	130	103	130		200x165x155	3.2	2.4			
FGD32-5II BL	3.5	●	●	●	●	90	180	82	130	102	132	2"	200x165x155	3.5	2.5						
45	FGD20-6II BL	2.8	6	0.38	●	●	●	●	●	65	130	82	130	103	127	1"	155x140x165	2.4	1.9		
	FGD25-6II BL	3.2			●	●	●	●	65	130	82	130	103	130	11/2"	155x140x165	2.9	2.1			
		3.2			●	●	●	●	75	150	82	130	103	130		200x165x155	3.1	2.3			
		4.0			●	●	●	●	90	180	82	130	103	130		200x165x155	3.2	2.4			
FGD32-6II BL	4.0	●	●	●	●	90	180	82	130	102	132	2"	200x165x155	3.5	2.5						



## FGD III Control modes



Press button to switch between modes.

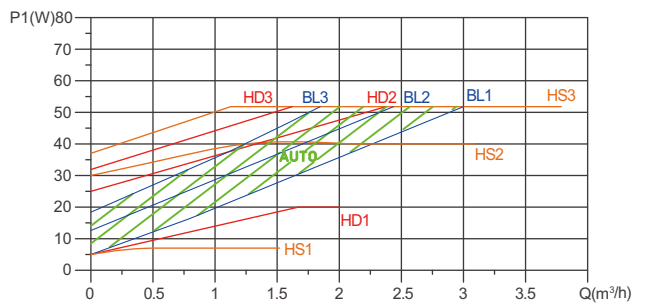
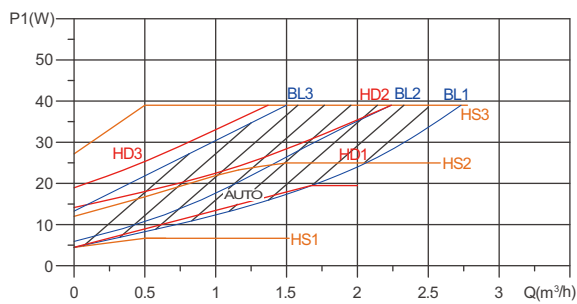
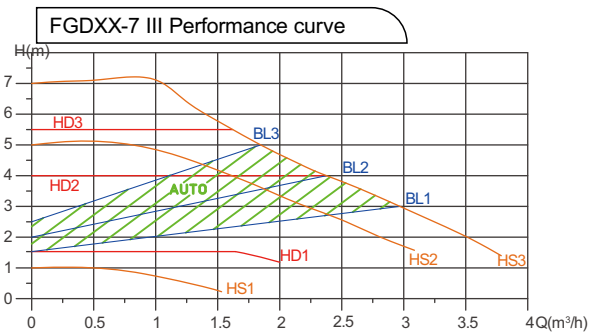
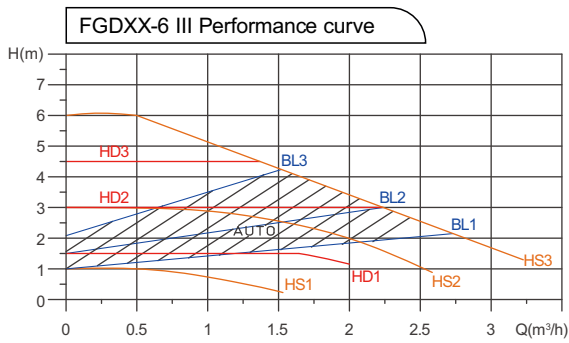
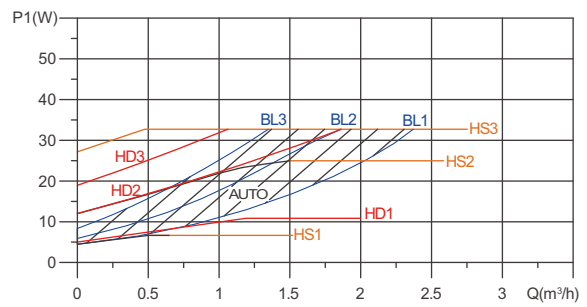
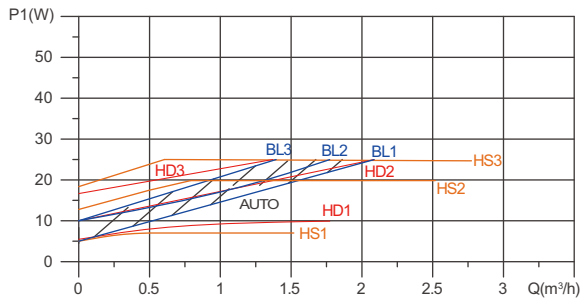
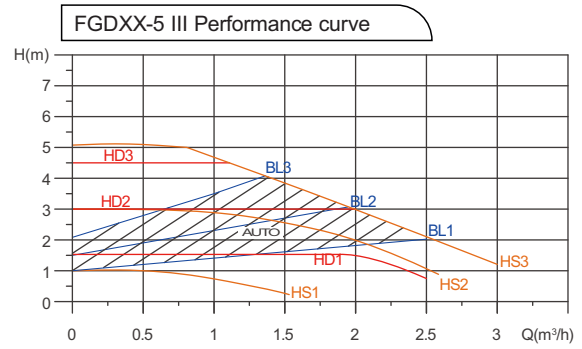
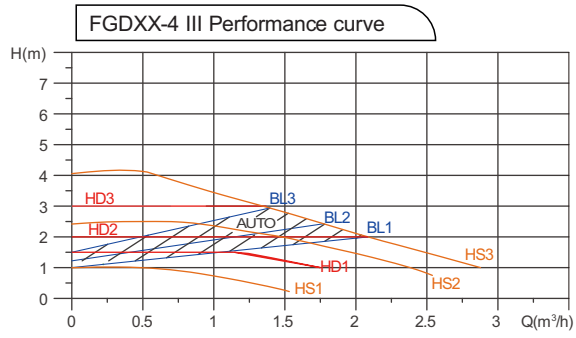
HS1, HS2, HS3, AUTO, BL1, BL2, BL3, HD1, HD2, HD3

Lighting area	Explanation	As shown in the figure
Auto(Factory setting)	Highest to Lowest Proportional Pressure Curve	
HS1	Constant Speed I	
HS2	Constant Speed II	
HS3	Constant Speed III	
BL1	Lowest Proportional Pressure Curve	
BL2	Intermediate Proportional Pressure Curve	
BL3	Highest Proportional Pressure Curve	
HD1	Lowest Constant Pressure Curve	
HD2	Intermediate Constant Pressure Curve	
HD3	Highest Constant Pressure Curve	
PWM	Duty cycle and rotational velocity curve	

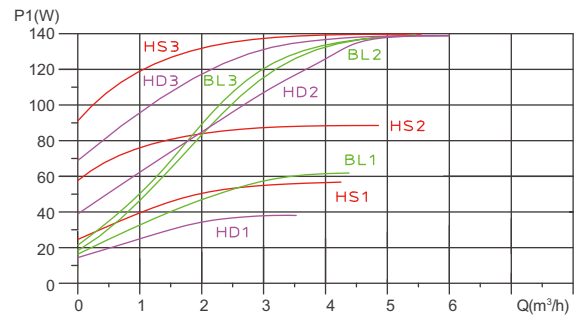
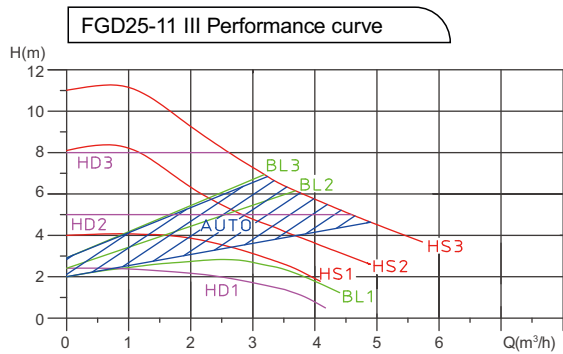
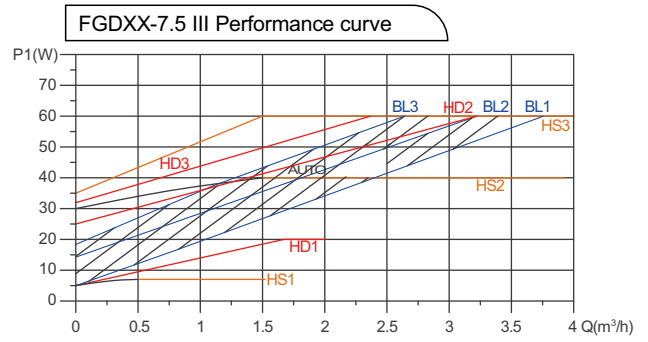
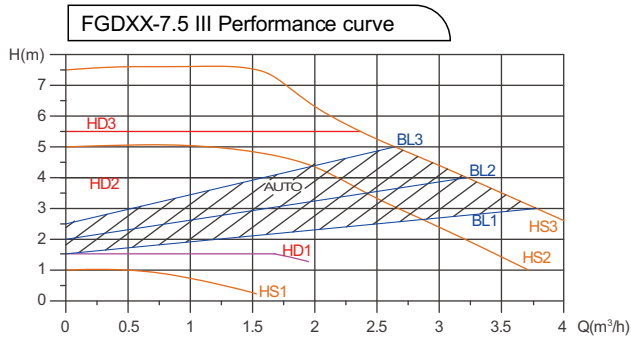
## Technical parameter

Power supply voltage	230V 50/60Hz, PE
Motor protection	No external protection required
IP class	IP44
Insulation class	H
Humidity (RH)	Max 95%
System pressure	1.0 MPa
Compliance	CE/ GS/ EMC/ LVD/RoHS/REACH
Environment temperature	0~+70°C
Temperature class	TF110
Liquid temperature	-30~+110°C(Glycol up to 50%)

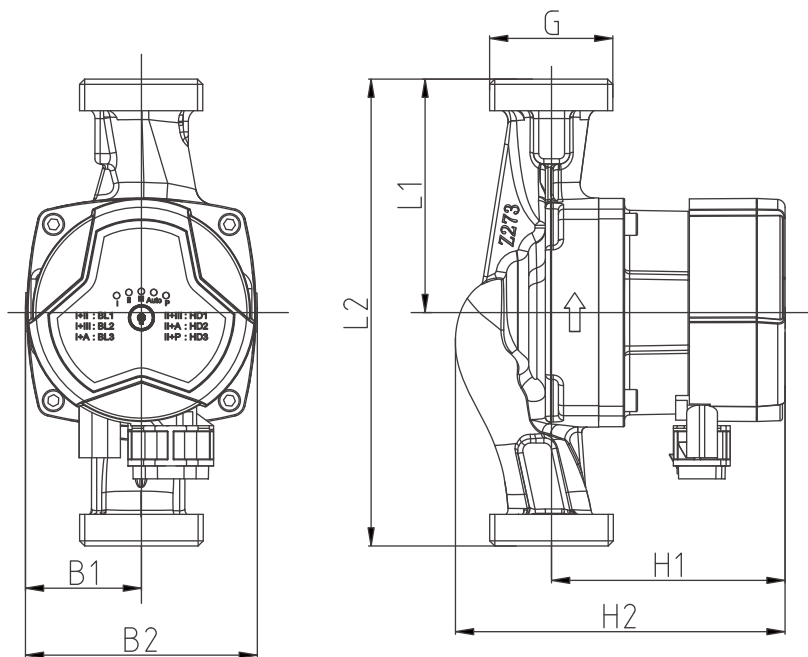
## Performance curve



# Performance curve



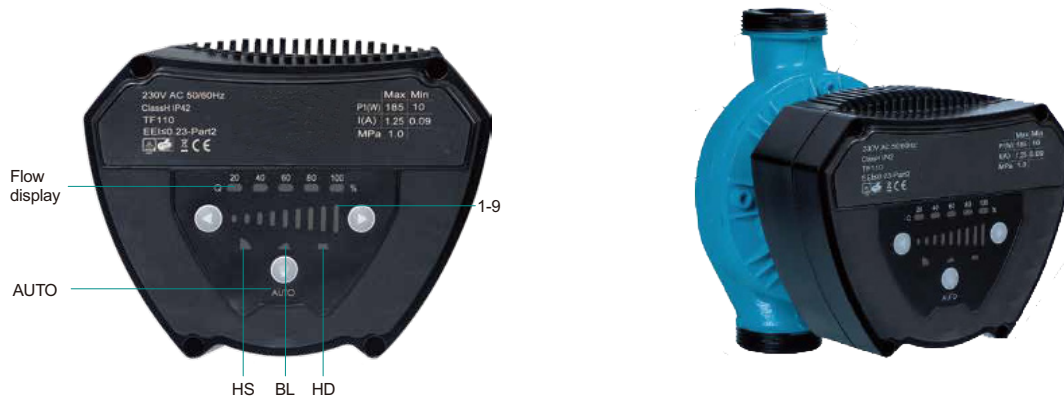
# Dimensions



## Performance parameter

Power (W)	Model	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Current (A)	Voltage Frequency	Material of pump housing				Dimension(mm)							Package size (mm*mm*mm)		Wt.(kg)	
						230V 50/60Hz	Cast Iron	Plastic	Copper	Stainless Steel	L1	L2	B1	B2	H1	H2	G	Inner box	G.W.	N.W.
25	FGD20-4 III	2.2	4	0.25	230V 50/60Hz	●	●	●	●	65	130	45	90	94	122	1"	155x140x165	2.1	1.6	
	FGD25-4 III	2.5				●	●	●	●	65	130	45	90	90	127	1 1/2"	155x140x165	2.3	1.8	
	FGD32-4 III	2.8				●	●	●	●	90	180	45	90	90	127	2"	200x165x155	2.5	1.9	
33	FGD20-5 III	2.3	5	0.30	230V 50/60Hz	●	●	●	●	65	130	45	90	94	122	1"	155x140x165	2.1	1.6	
	FGD25-5 III	2.8				●	●	●	●	65	130	45	90	90	127	1 1/2"	155x140x165	2.3	1.8	
	FGD32-5 III	3.2				●	●	●	●	90	180	45	90	90	127	2"	200x165x155	2.5	1.9	
39	FGD20-6 III	2.8	6	0.35	230V 50/60Hz	●	●	●	●	65	130	45	90	94	122	1"	155x140x165	2.1	1.6	
	FGD25-6 III	3.2				●	●	●	●	65	130	45	90	90	127	1 1/2"	155x140x165	2.3	1.8	
	FGD32-6 III	3.6				●	●	●	●	90	180	45	90	90	127	2"	200x165x155	2.5	1.9	
52	FGD20-7 III	2.8	7	0.45	230V 50/60Hz	●	●	●	●	65	130	45	90	94	122	1"	155x140x165	2.1	1.6	
	FGD25-7 III	3.4				●	●	●	●	65	130	45	90	90	127	1 1/2"	155x140x165	2.3	1.8	
	FGD32-7 III	3.8				●	●	●	●	90	180	45	90	90	127	2"	200x165x155	2.5	1.9	
60	FGD20-7.5 III	2.8	7.5	0.50	230V 50/60Hz	●	●	●	●	65	130	45	90	94	122	1"	155x140x165	2.1	1.6	
	FGD25-7.5 III	3.4				●	●	●	●	65	130	45	90	90	127	1 1/2"	155x140x165	2.3	1.8	
	FGD32-7.5 III	3.8				●	●	●	●	90	180	45	90	90	127	2"	200x165x155	2.5	1.9	
140	FGD25-11	5.5	11	1.0	230V 50/60Hz	●	●	●	●	90	180	66	132	132	170	1 1/2"	205x180x190	3.8	3.0	
	FGD32-11	7.0	11	1.0	230V 50/60Hz	●	●	●	●	90	180	66	132	132	170	2"	205x180x190	4.0	3.2	

## FGD IV control modes



Setting	Explanation
AUTO (factory setting)	Running with in Defined Range
BL	Proportional pressure curve
HD	Constant pressure curve
HS	Constant speed curve

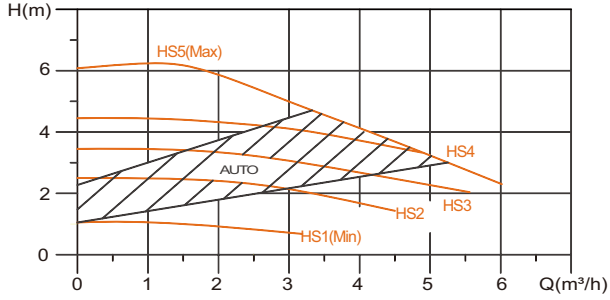
Press button to switch between different control modes and increase or decrease the setting with the buttons on left and right side.

## Technical data

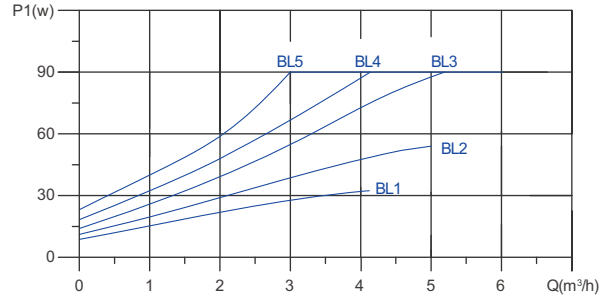
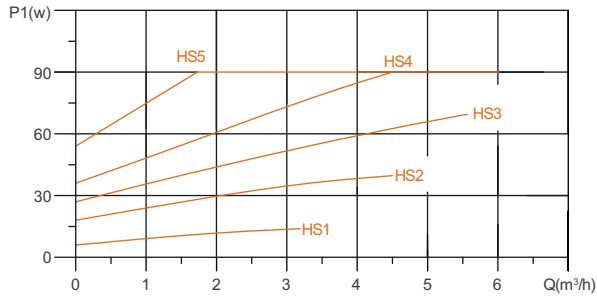
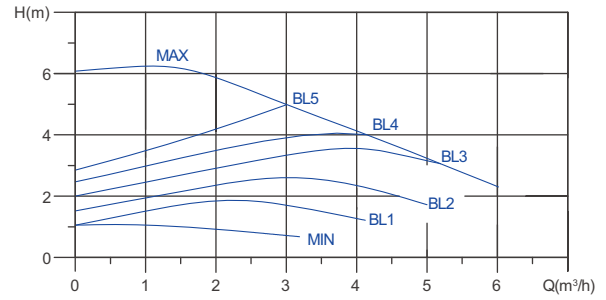
<b>Power supply voltage</b>	230V 50/60Hz, PE
<b>Motor protection</b>	No external protection required
<b>IP class</b>	IP44
<b>Insulation class</b>	H
<b>(RH) Humidity</b>	Max. 95%
<b>System pressure</b>	1.0 MPa
<b>Compliance</b>	CE/ GS/ EMC/ LVD/RoHS/REACH
<b>Environment temperature</b>	0~+40°C
<b>Temperature class</b>	TF110
<b>Liquid temperature</b>	-30~+110°C(Glycol up to 50%)

# Performance curve

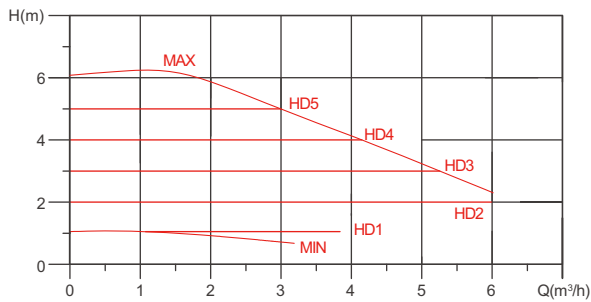
FGDXX-6 IV Performance curve (HS+AUTO)



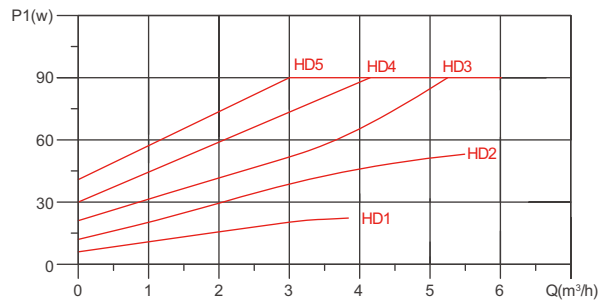
FGDXX-6 IV Performance curve (BL)



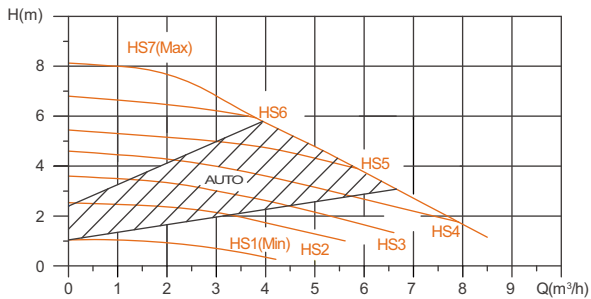
FGDXX-6 IV Performance curve (HD)



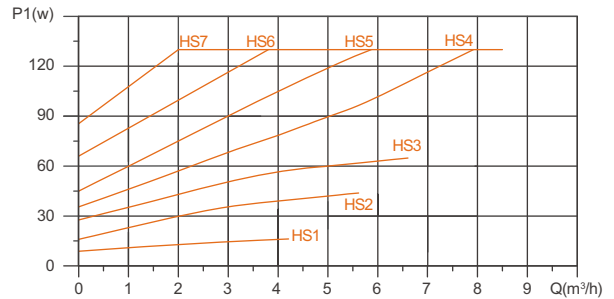
FGDXX-6 IV Performance curve (HD)



FGDXX-8 IV Performance curve (HS+AUTO)

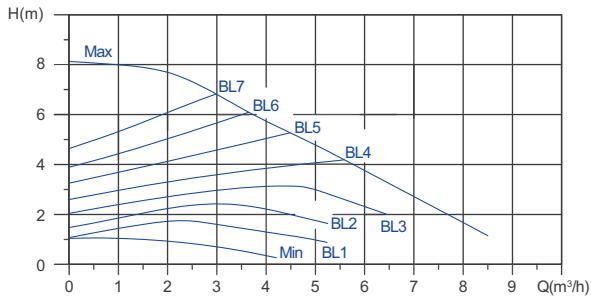


FGDXX-8 IV Performance curve (HS+AUTO)

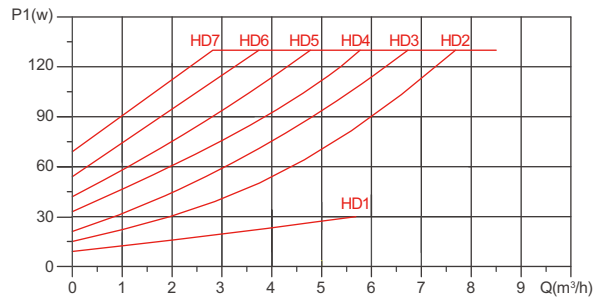
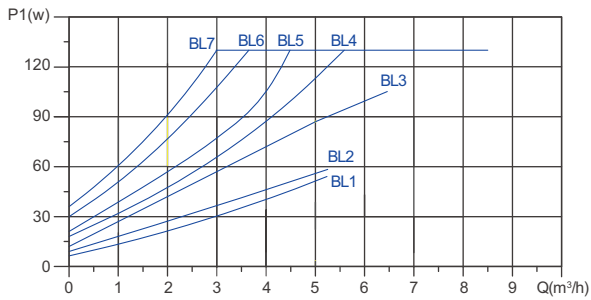
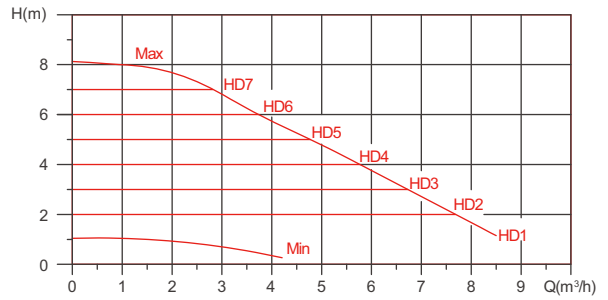


# Performance curve

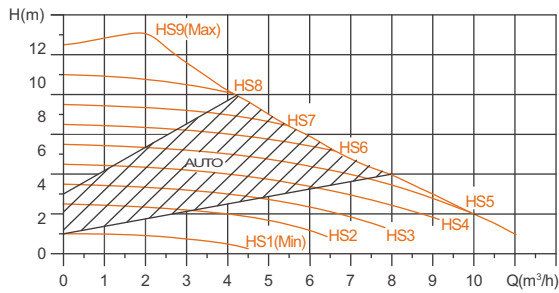
FGDXX-8 IV Performance curve (BL)



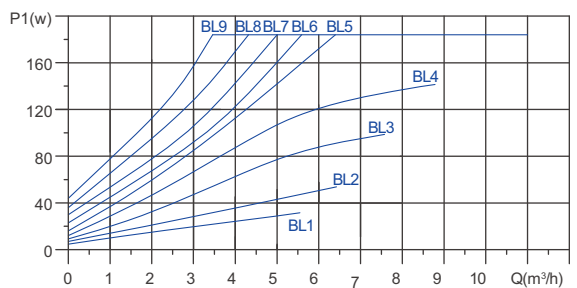
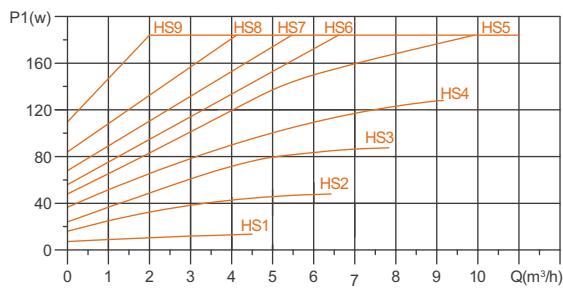
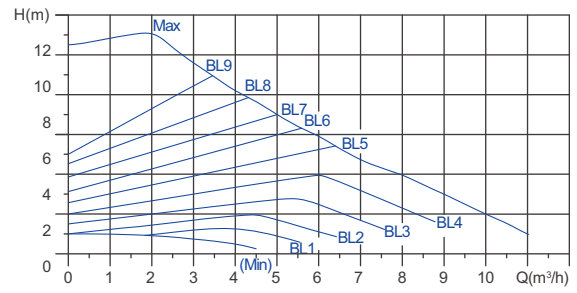
FGDXX-8 IV Performance curve (HD)



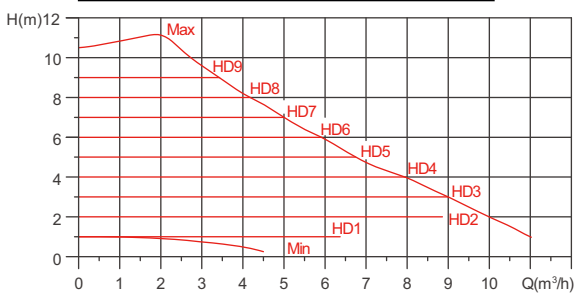
FGDXX-10 IV Performance curve (HS+AUTO)



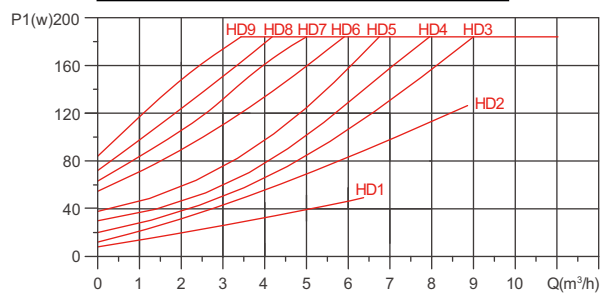
FGDXX-10 IV Performance curve (BL)



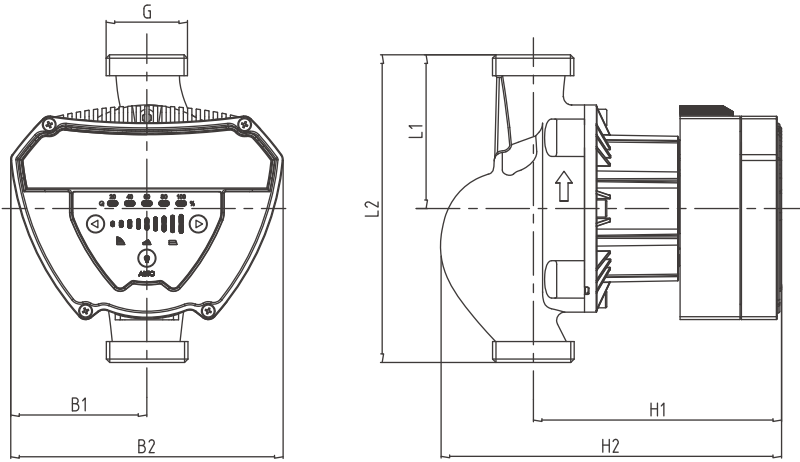
FGDXX-10 IV Performance curve (HD)



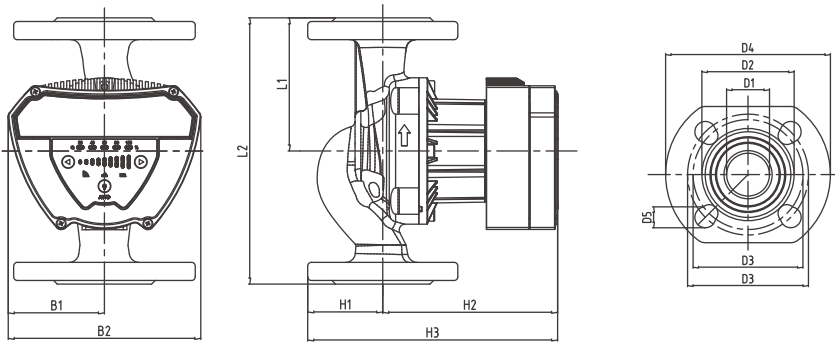
FGDXX-10 IV Performance curve (HD)



## Dimensions



Model	Material of pump body		Dimension(mm)							Package size (mm*mm*mm)	Wt.(kg)	
	Cast iron	Stainless Steel	L1	L2	B1	B2	H1	H2	G	Inner box	G.W.	N.W.
FGD25-6 IV	●	●	90	180	80	160	140	199	11/2"	235x180x200	5.0	4.5
FGD32-6 IV	●		90	180	80	160	140	199	2"	235x180x200	5.5	5.0
FGD25-8 IV	●	●	90	180	80	160	140	199	11/2"	235x180x200	5.0	4.5
FGD32-8 IV	●		90	180	80	160	140	199	2"	235x180x200	5.5	5.0
FGD25-10 IV	●	●	90	180	80	160	140	199	11/2"	235x180x200	5.0	4.5
FGD32-10 IV	●		90	180	80	160	140	199	2"	235x180x200	5.5	5.0



Model	Pump body material	Dimensions(mm)											Package size (mm*mm*mm)	Wt.(kg)		
	Cast iron	L1	L2	B1	B2	H1	H2	H3	D1	D2	D3	D4	D5	Inner box	G.W.	N.W.
FGD40-6F IV	●	110	220	80	160	62	144	206	40	84	100/110	150	19	245x210x245	10.0	7.6
FGD40-8F IV	●	110	220	80	160	62	144	206	40	84	100/110	150	19	245x210x245	10.0	7.6
FGD40-10F IV	●	110	220	80	160	62	144	206	40	84	100/110	150	19	245x210x245	10.0	7.6



## Performance parameter

Model	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Power(W)		Current(A)		Volatge/Frequency (V/Hz)
			Min.	Max.	Min.	Max.	
FGD25-6 IV	5.5	6	6	90	0.06	0.63	230V 50/60Hz
FGD25-8 IV	6.5	8	8	130	0.08	0.9	
FGD25-10 IV	7	10	10	185	0.1	1.25	
FGD25-6N IV	5.5	6	6	90	0.06	0.63	230V 50/60Hz
FGD25-8N IV	6.5	8	8	130	0.08	0.9	
FGD25-10N IV	7	10	10	185	0.1	1.25	
FGD32-6 IV	6.5	6	6	90	0.06	0.63	230V 50/60Hz
FGD32-8 IV	8	8	8	130	0.08	0.9	
FGD32-10 IV	10	10	10	185	0.1	1.25	
FGD40-6F IV	7.5	6	6	90	0.06	0.63	230V 50/60Hz
FGD40-8F IV	8.5	8	8	130	0.08	0.9	
FGD40-10F IV	10	10	10	185	0.1	1.25	

## FGD 15-6F control modes



This model equipped with temperature control

Press 3, 4 and 5 to switch between different control modes.

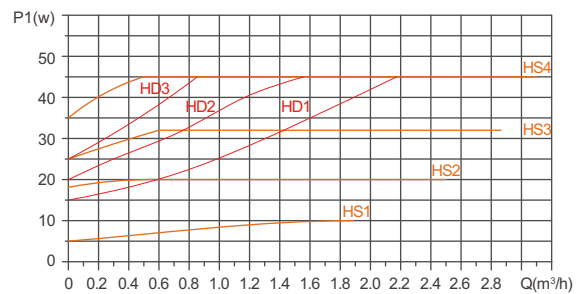
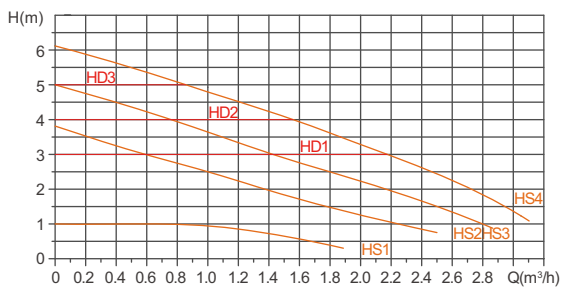
The 2 area on terminal box is LCD display and shows the current

## Technical parameters

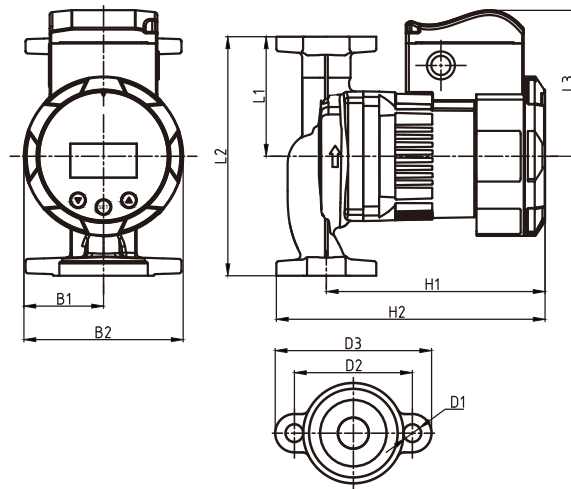
<b>Power supply voltage</b>	115V 50/60Hz, PE
<b>Motor protection</b>	No external protection required
<b>IP class</b>	IP42
<b>Insulation class</b>	H
<b>Humidity (RH)</b>	Max 95%
<b>System pressure</b>	1.0 MPa
<b>Compliance</b>	UL
<b>Environment temperature</b>	0~+40°C
<b>Temperature class</b>	TF110
<b>Liquid temperature</b>	-30~+110°C(Glycol up to 50%)

## Performance curve

Constant speed mode performance curve



## Dimensions



## Technical parameter

Power (W)	Model	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Current (A)	Voltage/ Frequency	Material		Dimension(mm)									Package size (mmxmmxmm)		Wt.(kg)	
						Cast Iron	Copper	L1	L2	L3	B1	B2	H1	H2	D1	D2	D3	Inner box	G.W.	N.W.
45	FGD15-6F/162	2.7	6	0.26	110V 50/60Hz	●	●	81	162	99	54	108	148	182	12	80	106	230x175x190	2.4	1.6

## FGD 15-1.5B - High Efficiency Circulation Pump

### Applications

1. Domestic heating and hot water circulation systems
2. Hot water heater circulation systems

### Features

#### Easy installation and operation

Equipped with Self Adapting mode AUTO (default setting), pump runs once the power is connected and adapts its performance according to actual system needs.

Equipped with external temperature control, timing and pipeline flushing function.

#### Low noise and high comfort

Noise index:  $\leq 42\text{dB(A)}$

#### Low energy consumption

Power consumption lowest to 5W

#### Multiple protection

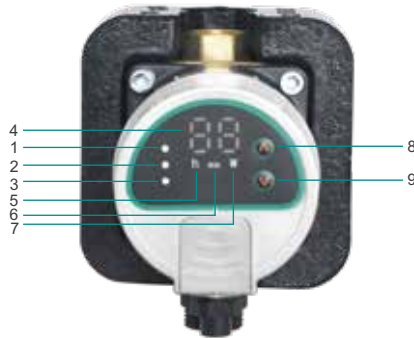
With over-current protection

#### Quick release power plug

Start-up and stop the pump quickly.



## FGD 15-1.5B control modes



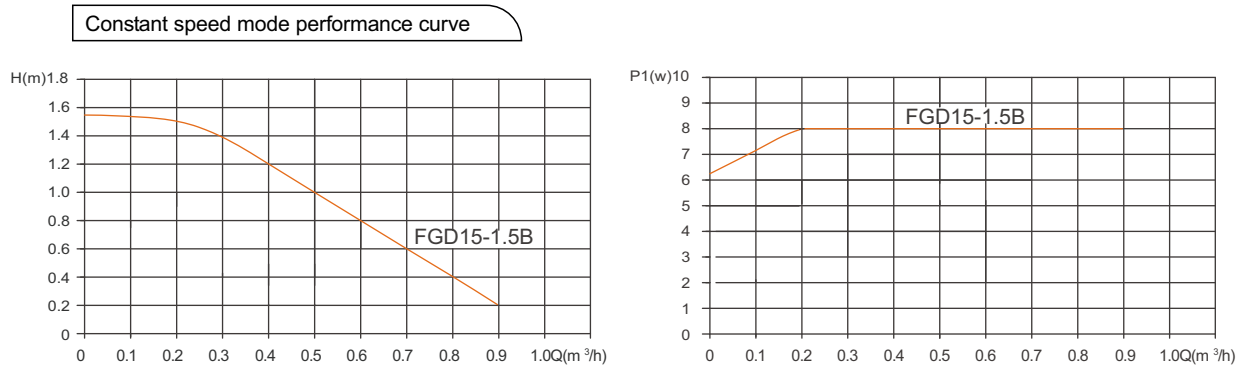
Position	Descriptions
1	Indicating constant speed running mode
2	Indicating Auto operation mode
3	Indicating temperature control mode
4	1. Power indicated 2. running (or stop) time indicated in timing mode
5	Running (or stop) hours set in timing mode for display
6	Running (or stop) minutes set in timing mode for display
7	Power unit shown under normal operation
8	1. Switch on various running modes 2. Increasing time in timing mode
9	Decreasing time in timing mode

Press 8 and 9 button to switch between different control modes.

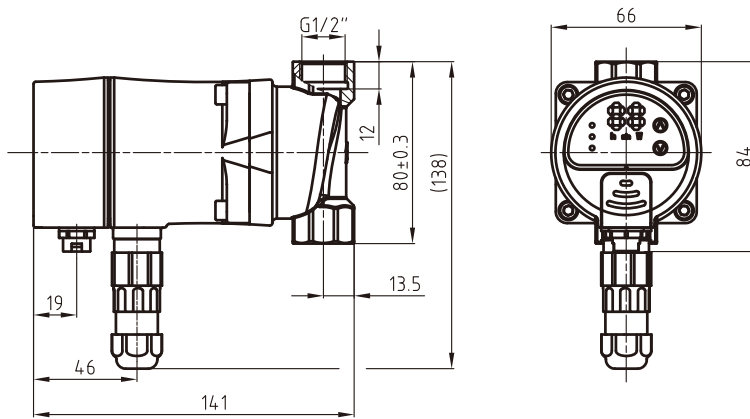
## Technical data

<b>Power supply voltage</b>	230V 50/60Hz, PE
<b>Motor protection</b>	No external protection required
<b>IP class</b>	IP42
<b>Insulation class</b>	F
<b>Humidity (RH)</b>	Max 95%
<b>System pressure</b>	1.0 MPa
<b>Compliance</b>	CE/ GS/ EMC/ LVD/RoHS/REACH
<b>Environment temperature</b>	0~+40°C
<b>Temperature class</b>	TF95
<b>Liquid temperature</b>	2~+110°C

## Performance curve



## Dimensions



## Performance parameters

Power (W)	Model	Max. Flow (m³/h)	Voltage/Frequency	Material	Control Mode of Motor Pump					Package size (mmxmmxmm)	Wt.(kg)	
					Constant speed running mode	Auto operation mode	Temperature Control mode	Timing mode	Flushing Function		Inner box	G.W.
8	FGD15-1.5B	0.9	230V 50/60Hz	Copper	●	●	●	●	●	180x115x150	1.2	1.0

# FGD 15-1.5 II BL - High Efficiency Circulation Pump

## Applications

1. Domestic heating and hot water circulation systems
2. Hot water heater circulation systems

## Features

### Easy installation and operation

Pump runs once the power is connected and works with maximal rotation speed all the time.

### Low noise and high comfort

Noise index:  $\leq 42\text{dB(A)}$

### Low energy consumption

Power consumption lowest to 5W

### Multiple protection

With over-current protection

### Quick release power plug

Start-up and stop the pump quickly.

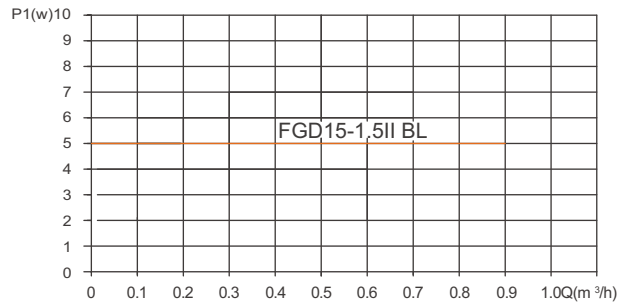
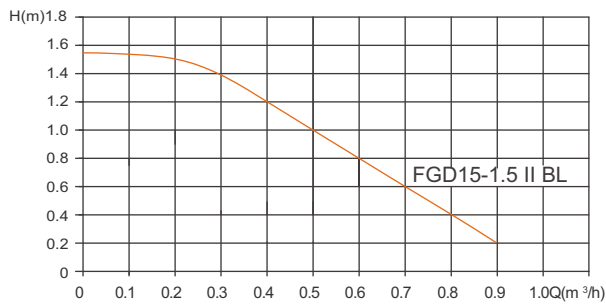


## Technical data

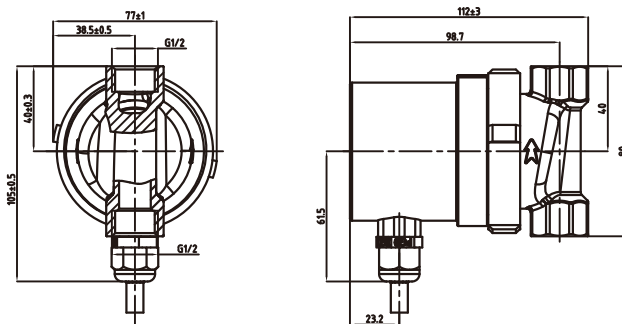
Power supply voltage	230V 50/60Hz, PE
Motor protection	No external protection required
IP class	IP44
Insulation class	H
Humidity (RH)	Max 95%
System pressure	1.0 MPa
Compliance	CE/ GS/ EMC/ LVD/RoHS/REACH
Environment temperature	0~+40°C
Temperature class	TF110
Liquid temperature	2~+110°C

## Performance curve

Constant speed mode performance curve



## Dimensions

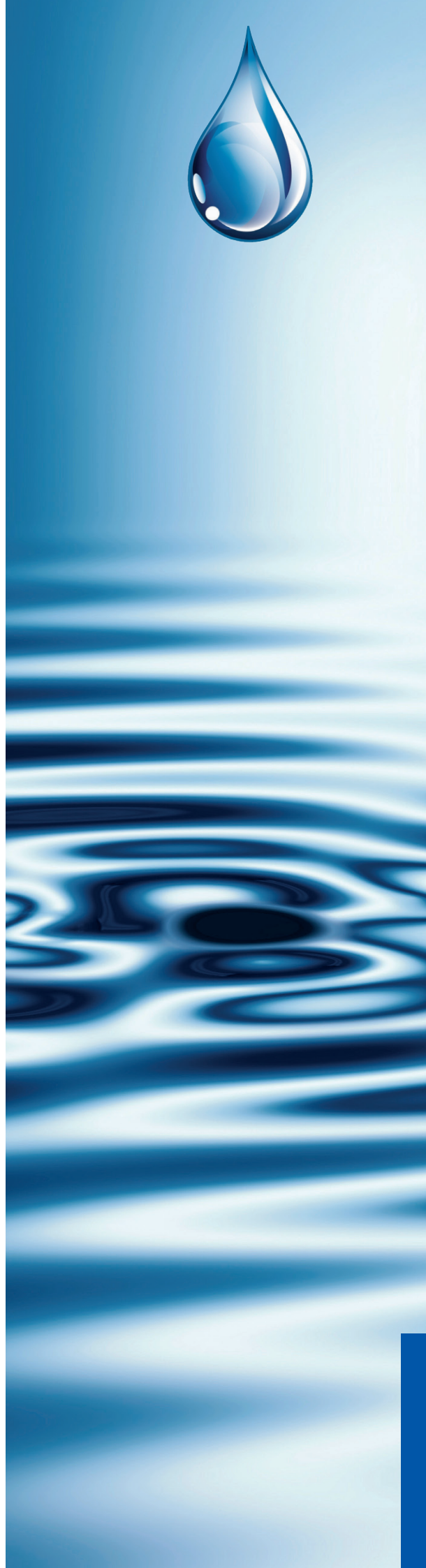


## Technical parameter

Power (W)	Model	Max. Flo (m³/h)	230V 50/60Hz	Material Copper	Control Mode of Motor Pump					Package size (mmxmmxmm) Inner box	Wt.(kg)	
					Constant speed running mode	Auto operation mode	Temperature Control mode	Timing mode	Flushing Function		G.W.	N.W.
5	FGD15-1.5IIBL	0.9	●	●	●	/	/	/	/	180x115x150	1.2	1.0









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