

Pioneering for You

*Wilo efficient solutions for water supply - 50Hz*

## Wilo-MHiKE/PBI-L

Home booster system



**“Perfectly  
coordinating  
performance  
and efficiency,**

**that’s what I call  
Pioneering for You.”**

Dr. Franka Schneider, Research Engineer Fluid Mechanics  
WILO SE



# Our goal is your efficiency

Your expert for building services.

## We optimise our products for you

With more than 140 years of experience and the know-how of one of the world's leading pump manufacturers, we are your ideal partner for high-efficiency heating, cooling, air-conditioning, water supply and sewage disposal for commercial properties. Because we know what we are doing, and we understand your concerns as a planner. Our goal therefore is to make your daily work as easy, pleasant and successful as possible.

### 1 Ever more economical

Our pumps become ever more economical. Our developments meet high efficiency standards all over the world. This saves energy and gives you security for the future.

### 3 Ever quieter

Our pumps become ever quieter, because we analyse their operating noises in an acoustic laboratory using cutting-edge methods and take targeted action to minimise these noises for your customers.

For this reason, we develop and optimise our pumps and systems in direct communication with all those involved, i.e., with planners, installers and operators. The result are products that are not only highly efficient and future-proof but also easy to install and operate. In addition to our extensive range of products, we also offer numerous services and solutions to make your planning even more productive. This is what we mean by Pioneering for You.

### 2 Ever more intelligent

With intelligent control software, our pumps become ever better at meeting the changing requirements during operation. This increases the flexibility and efficiency of use for your customers.

### 4 Ever more durable

We examine our pumps in advance in extensive computer simulations and laboratory and field tests to ensure high quality and reliability right from the start. The result are products that ensure high operational reliability over the long term.



## Wilo-MHiKE/PBI-L

Home booster system – Excellent Energy Saving



### 1 Inverter control multi system

Able to set various operation mode

### 2 Anti rust

All STS & Plastic material

### 3 Various pump protection function

Dry running protection, Max pressure setting function

### 4 Reflect environment condition for user

Friction loss compensation, Minimum frequency setting function

### Control and protection function

Function	MHiKE/PBI-L	MHiKE-D/PBI-LD	MHiKE-W/T
Operation at fixed pressure set	0	0	0
Unusual excessive pressurizing protection	0	0	0
Automatic restart after fault	0	0	0
Automatic restart after blackout	0	0	0
Dry running protection	0	0	0
Auto/manual operation	0	0	0
Over/under voltage protection	0	0	0
Warm-up operation mode	-	0	0
Alternative operation mode	-	0	0
Automatic back up (when in trouble)	-	0	0
Friction loss compensation	-	0	0
Max pressure setting function	-	-	0
Max/minimum frequency setting, sequential operation	-	-	0

## Specification

Model	Power(kW)	Power source	Inverter output(kW)	Operation pressure (kgf/cm <sup>2</sup> )	Rated Capacity	Pipe dia(mm)		Max.fluid Temperature (°C)		
						Suc.	Dis.			
MHiKE-203A/PBI-L203EA	0.75	220V 50Hz Single phase	0.75/1.1	2	70ℓ/min	25	25	80		
<b>PBI-L303EA</b>			1.1		60ℓ/min			35		
MHiKE-402A/PBI-L402EA			0.75/1.1		70ℓ/min			32	80	
MHiKE-205A/PBI-L205EA	1.1		1.5/1.85	4	70ℓ/min	25		25	80	
<b>PBI-L304EA</b>			1.1		50ℓ/min				35	
MHiKE-403A/PBI-L403EA			1.5/1.1		2				110ℓ/min	32
<b>PBI-L603EA</b>	1.1		2	100ℓ/min	32	35				
MHiKE-404A/PBI-L404EA	1.5		380V 50Hz Three phases	1.5/1.85	4	80ℓ/min	32		25	80
MHiKE-802A/PBI-L802EA				2	150ℓ/min	40	32			
MHiKE-405A/PBI-L405EA	1.85			2.2/1.85	4	100ℓ/min	32	25		
MHiKE-803A/PBI-L803EA				2	200ℓ/min	40	32			
PBI-LD402EA	0.75X2			380V 50Hz Three phases	1.1X2	2	120ℓ/min	50	50	
PBI-LD403EA	1.1X2	3.5				180ℓ/min				
MHiKE-D404A/PBI-LD404EA	1.5X2	1.85X2			4.5	130ℓ/min	50	50		
MHiKE-D802A/PBI-LD802EA					2.5	250ℓ/min	65	65		
MHiKE-D405A/PBI-LD405EA	1.85X2	2.2X2/1.85X2			4	220ℓ/min	50	50		
MHiKE-D803A/PBI-LD803EA					2	380ℓ/min	65	65		
MHiKE-406GA	2.2	380V 50Hz Three phases			4.0	7	110ℓ/min	32	25	
MHiKE-804GA	2.5					4	200ℓ/min	40	32	
MHiKE-W406GA	2.2X2		2.2		4	180ℓ/min	50	50		
MHiKE-W804GA	2.5X2		3.0		3	300ℓ/min	65	65		
MHiKE-W805GA	3.0X2		4.0		4	280ℓ/min	65	65		
MHiKE-T406GA	2.2X3		2.2		4	280ℓ/min	65	65		
MHiKE-T804GA	2.5X3		3.0	3	450ℓ/min	80	80			
MHiKE-T805GA	3.0X3		4.0	4	450ℓ/min	80	80			

\* Rated capacity is based on operation pressure.

\* The suction head of PBI-L303/304/603EA (self priming model) is 6m.

\* '/' at the inverter output distinguishes between the inverter output of MHiKE and PBI-L in the order named. ex) MHiKE-203A: 0.75 kW, PBI-L203EA : 1.1 kW

## Model selection table

### 1. Downward water supply (roof-top type)

Expected pressure (2Kgf/cm<sup>2</sup>)

Number of house	6	8	10	20	30	40	50	60	80	100	120	140	160	180	200	
Capa.	(ℓ/min)	76	84	89	142	186	225	262	296	358	416	470	521	570	617	662
	(m <sup>3</sup> /hr)	4.6	5.0	5.3	8.5	11.2	13.5	15.7	17.8	21.5	25.0	28.2	31.3	34.2	37.0	39.7
Model description	402	402	402	802/ LD402	803/ LD403	D802	D802	D802	D802	W805	T804	T804	T804	T805	T805	

### 2. Upward water supply

\* The meaning of Apartment and accommodation is the number of house and rooms.

16th floor (68m)	D405																
15th floor (65m)	D405	D405															
14th floor (62m)	D405	D405															
13th floor (58m)	D405	D405	D405														
12th floor (55m)	405	D405	D405	T406													
11th floor (52m)	405	405	D405	D405	T406												
10th floor (49m)	405	405	405	D405	D405	T406	T406										
9th floor (45m)	404	405	405	D405	D405	T406	T805	T805									
8th floor (42m)	404	405	405	D405	D405	T406	T805	T805	T805								
7th floor (39m)	404	404	405	D404	D405	D405	W805	T805	T805	T805							
6th floor (35m)	404	404	404	D404	D405	D405	W805	W805	T805	T805	T805						
5th floor (32m)	403	403	404	D404	D404	D405	D803	W805	T804	T804	T805	T805					
4th floor (29m)	403	403	404	803/LD403	D404	D405	D803	D803	W805	T804	T804	T805	T805				
3rd floor (25m)	403	403	403	803/LD403	D404	D404	D803	D803	D803	W805	T804	T804	T805	T805			
2nd floor (22m)	403	403	403	803/LD403	803/LD403	D404	D803	D803	D803	W805	T804	T804	T804	T805	T805		
1st floor (19m)	203	402	403	803/LD403	803/LD403	D404	D803	D803	D803	W805	T804	T804	T804	T805	T805	T805	
Apartment	6	8	10	20	30	40	50	60	80	100	120	140	160	180	200		
Accommodation				15	20	30	40	60	90	120	150	170	200	220	250		
Capacity(lpm)	76	84	89	142	186	225	262	296	358	416	470	521	570	617	662		
Capacity(m <sup>3</sup> /h)	5	5	5	9	11	14	16	18	21	25	28	31	34	37	40		

## MHiKE / PBI-L Series

High efficiency pump (Excellent pressure control in real time)



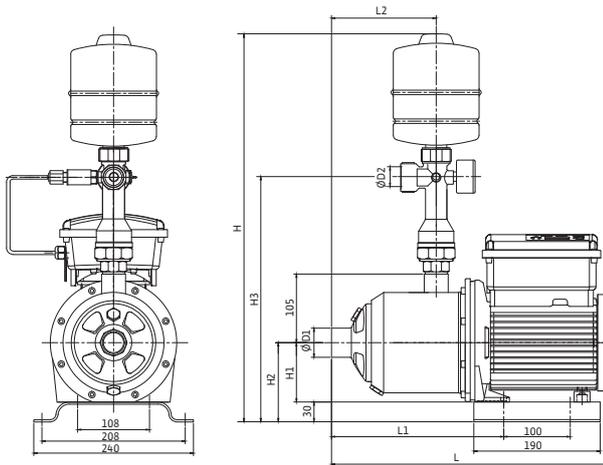
### MHiKE / PBI-L Series

- Excellent energy saving (max 80% of saving energy with VFD)
- Various pump protection functions (excellent protection functions always work)
- Handy installation and easy maintenance (by re-starting automatically when the cause of error is solved)
- Excellent design and light weight (low noise & vibration)

### Application

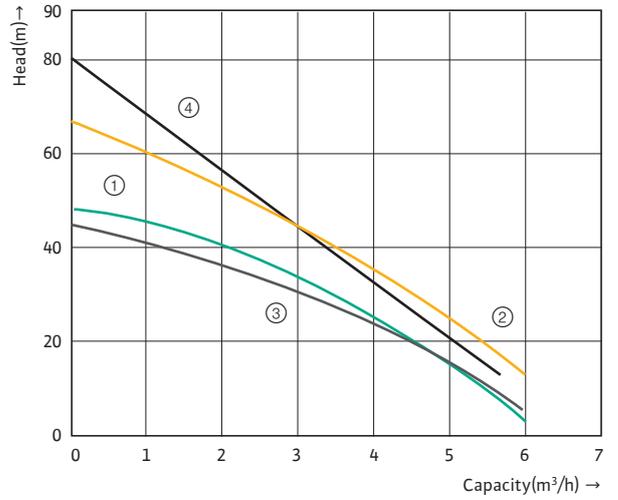
- Water supply and Pressure boosting
- Residential areas, motels, holiday houses, etc
- Small sprinkler, water management facility which requires a fixed pressure
- Fire extinguisher pump, industrial circulating system
- Boiler water supply, coolant system, etc

### Outline dimension



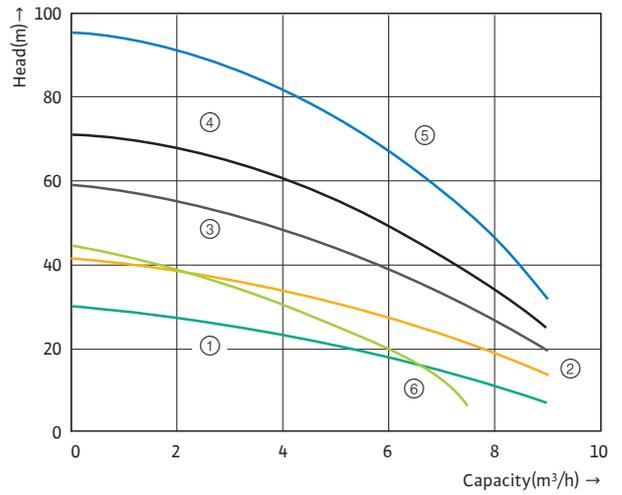
Model	Dimensions(mm)								
	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	L	L <sub>1</sub>	L <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>
MHiKE-203A /PBI-L203EA	580	90	120	380	360	204	109.5	25	25
PBI-L303EA	580	90	120	380	425	252	157.5	25	25
MHiKE-402A /PBI-L402EA	580	90	120	380	360	204	109.5	32	25
MHiKE-205A /PBI-L205EA	580	90	120	380	425	252	157.5	25	25
PBI-L304EA	580	90	120	380	425	252	157.5	25	25
MHiKE-403A /PBI-L403EA	580	90	120	380	380	204	109.5	32	25
PBI-L603EA	580	90	120	380	425	252	157.5	32	25
MHiKE-404A /PBI-L404EA	580	90	120	380	425	252	157.5	32	25
MHiKE-802A /PBI-L802EA	580	90	120	385	390	216	121.5	40	32
MHiKE-405A /PBI-L405EA	580	90	120	380	425	252	157.5	32	25
MHiKE-803A /PBI-L803EA	580	90	120	385	390	216	121.5	40	32
MHiKE-406GA	580	100	120	380	483.8	276	181.5	32	25
MHiKE-804GA	580	100	120	385	483.8	276	181.5	40	32

### Performance curve



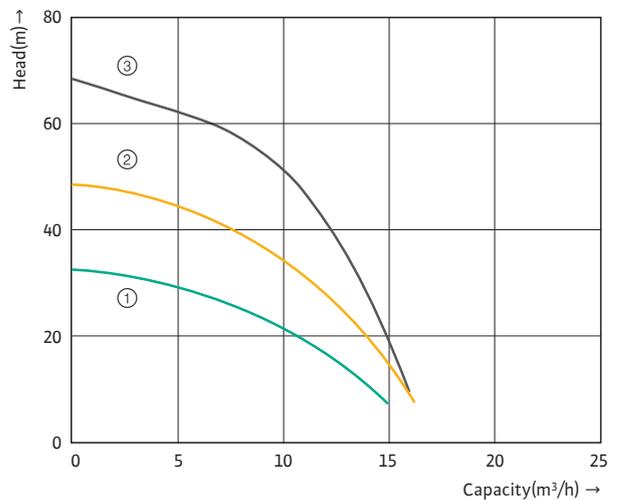
- ① MHiKE-203A/PBI-L203EA
- ② MHiKE-205A/PBI-L205EA
- ③ PBI-L303EA
- ④ PBI-L304EA

\*PBI-L303/304EA is based suction 0.5m



- ① MHiKE-402A/PBI-L402EA
- ② MHiKE-403A/PBI-L403EA
- ③ MHiKE-404A/PBI-L404EA
- ④ MHiKE-405A/PBI-L405EA
- ⑤ MHiKE-406GA
- ⑥ PBI-L603EA

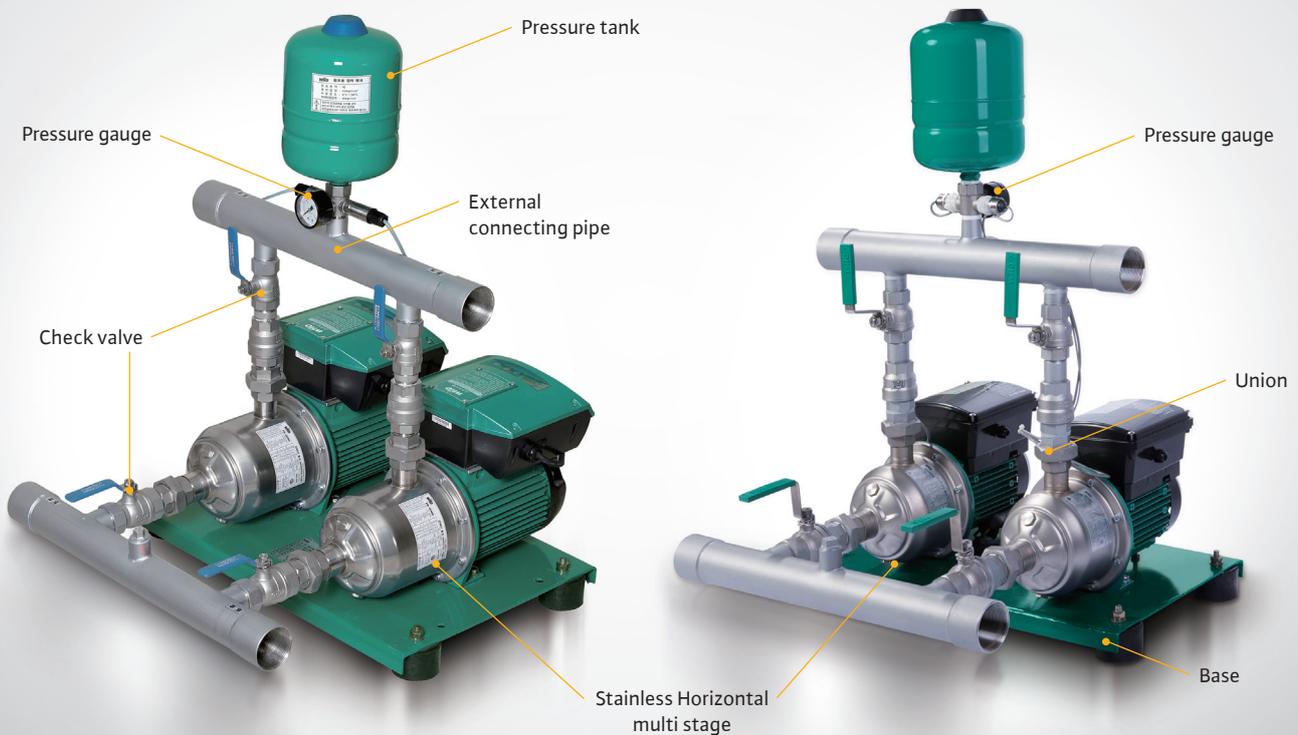
\*PBI-L603EA is based suction 0.5m



- ① MHiKE-802A/PBI-L802EA
- ② MHiKE-803A/PBI-L803EA
- ③ MHiKE-804GA

## MHiKE-D / PBI-LD Series

High efficiency pump (Low noise & Energy saving)



**MHiKE-D Series**

**PBI-LD Series**

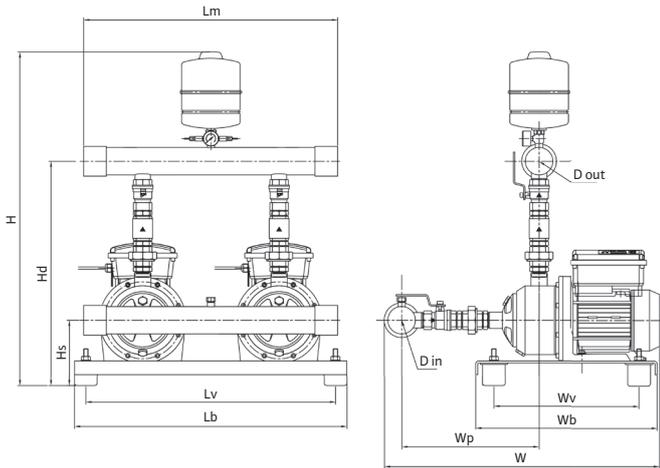
### MHiKE-D / PBI-LD Series

- Pump load distribution (ensure the excellent product lifetime by sharing pump load equally in the automatic operation by turns)
- Dry running protection (prevent the pump from operating without water by constant detection function)
- Operation by skipping the faulty pump  
(although one of pumps is failed to operate, the other pump continuously operate so that it prevents from the sudden water supply interrupt)
- Warm-up function  
(if the pump is not used for a quite some time, it operates periodically at the minimum speed so that it enables the pump to keep optimal and smooth operating as well as to detect whether the pump has a problem)

### Application

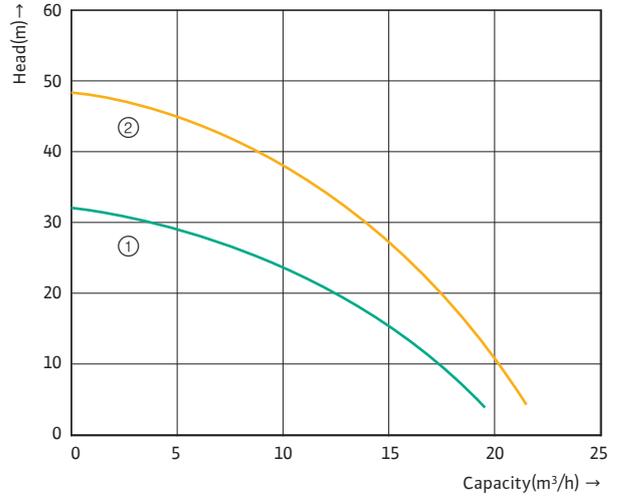
- Water supply and Pressure boosting  
(Big capacity, high-rise/low water pressure areas)
- Residential areas, motels, holiday houses, etc

### Outline dimension

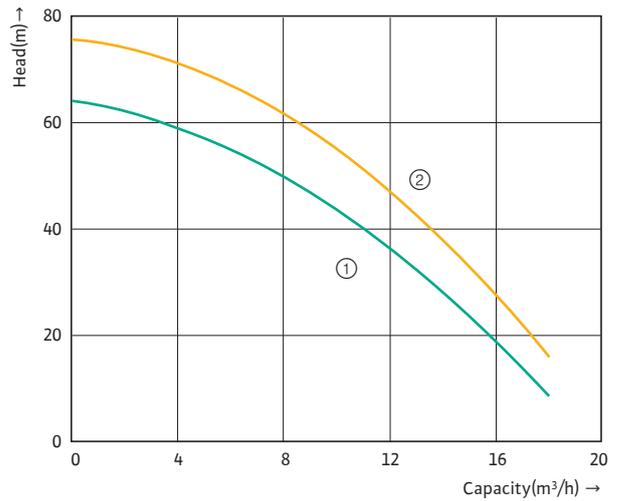


Model	Dimensions(mm)											
	H	Hs	Hd	Lm	Lv	Lb	W	Wp	Wv	Wb	Din	Dout
PBI-LD402EA	870	140	530	560	550	600	655	360	320	400	50	50
PBI-LD403EA	870	140	530	560	550	600	655	360	320	400	50	50
MHIKE-D404A /PBI-LD404EA	870	140	530	560	550	600	655	360	320	400	50	50
MHIKE-D405A /PBI-LD405EA	870	140	530	560	550	600	655	360	320	400	50	50
MHIKE-D802A /PBI-LD802EA	870	140	530	560	550	600	725	360	320	400	65	65
MHIKE-D803A /PBI-LD803EA	870	140	530	560	550	600	725	360	320	400	65	65

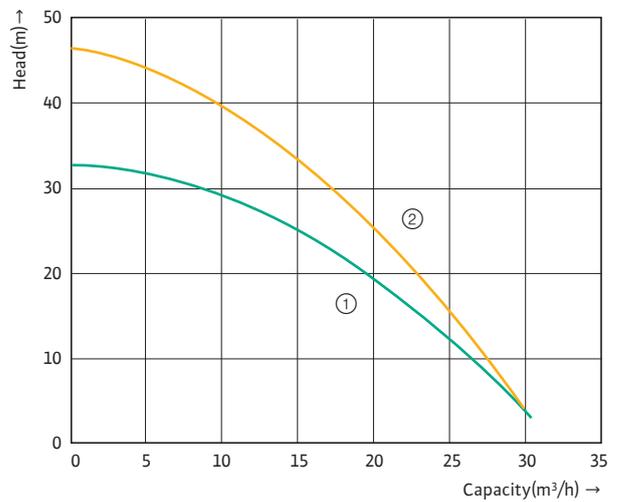
### Performance curve



① PBI-LD402EA ② PBI-LD403EA



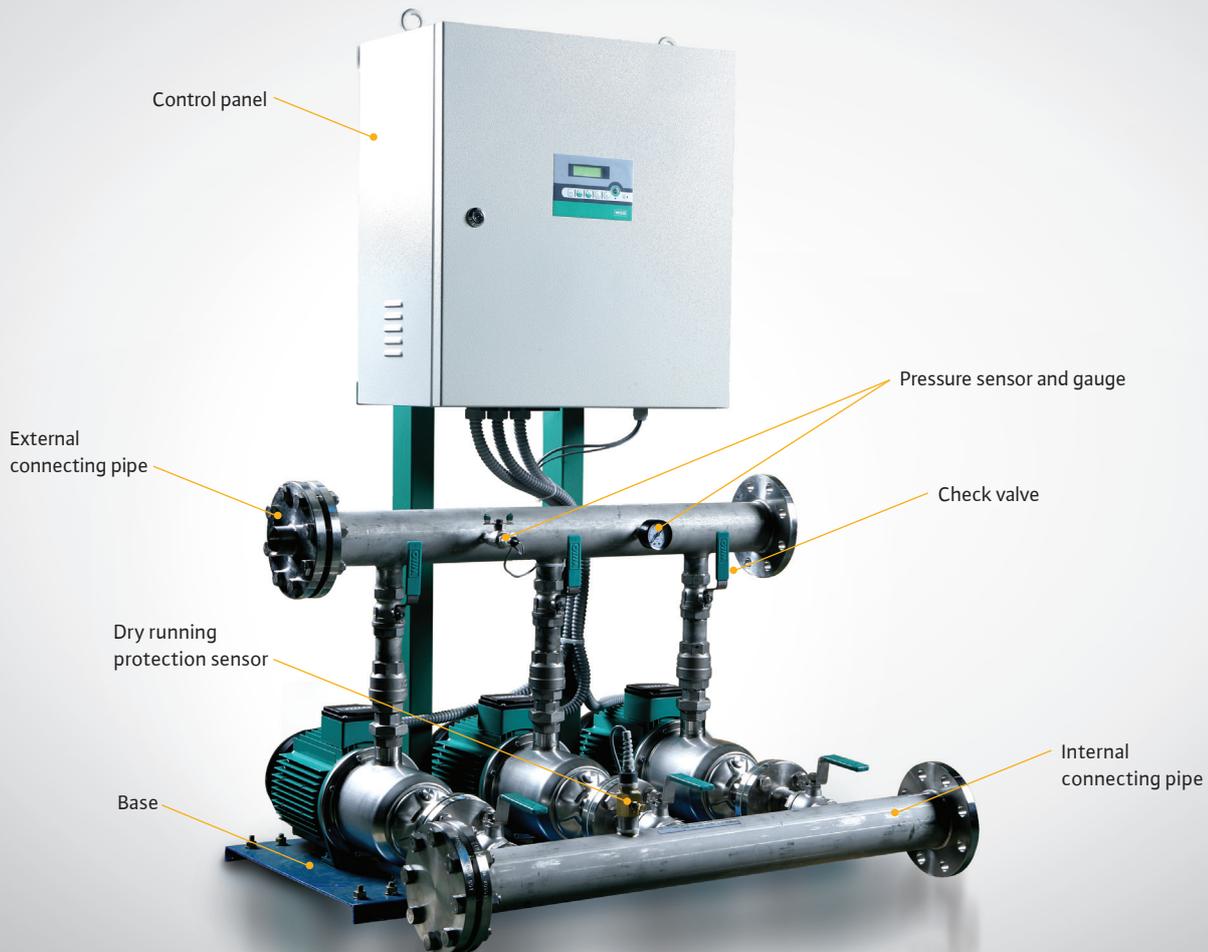
① MHIKE-D404A/PBI-LD404EA  
② MHIKE-D405A/PBI-LD405EA



① MHIKE-D802A/PBI-LD802EA  
② MHIKE-D803A/PBI-LD803EA

## MHiKE-W/T Series

Inverter booster system (Stability of water supply)



**MHiKE-W/T Series**

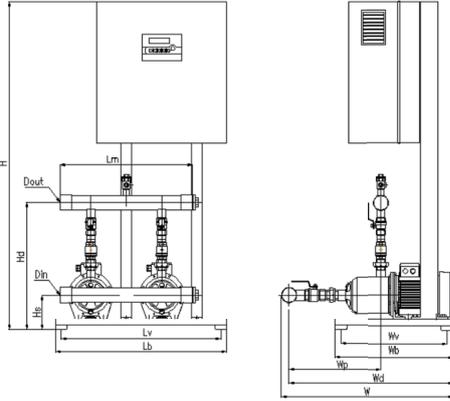
### MHiKE-W/T Series

- Pump load distribution (ensure the excellent product lifetime by sharing pump load equally in the automatic operation by turns)
- Friction loss compensation function  
(considering low flow friction losses, automatically changes partial pressure low flow to prevent unnecessary pressure losses for energy-saving)
- Inverter alternating cycle  
(if one inverter drives over the setting time, the other pump will automatically switched to drive, this can prevent overload of a particular pump)
- Operation by skipping the faulty pump  
(although one of pumps is failed to operated, the other pump continuously operate so that it prevents from the sudden water supply interrupt)

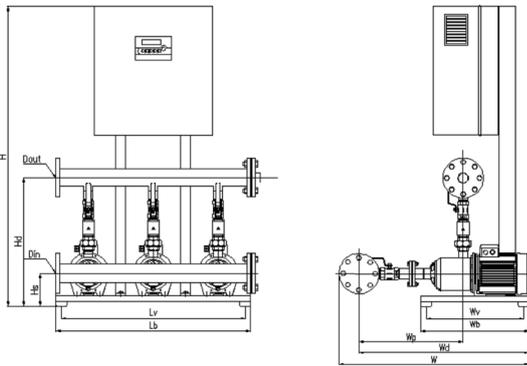
### Application

- Water supply and Pressure boosting
- Small building, officetel, etc
- Construction work (instead of booster)

### Outline dimension



Model	Dimensions(mm)											
	H	Hs	Hd	Lv	Lb	Wv	Wb	Wp	Wd	W	Din	Dout
MHiKE-W406GA	1400	152.5	541	675	725	450	500	385	685	720	50	50
MHiKE-W804GA	1400	152.5	570	675	725	450	500	410	710	760	65	65
MHiKE-W805GA	1400	152.5	570	675	725	450	500	410	710	760	65	65



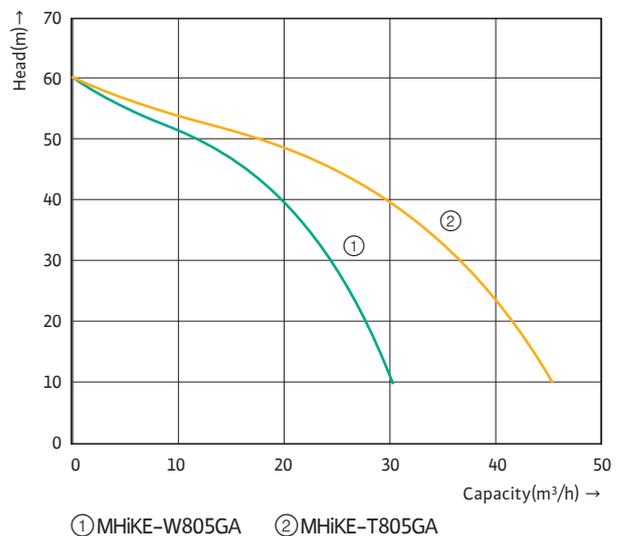
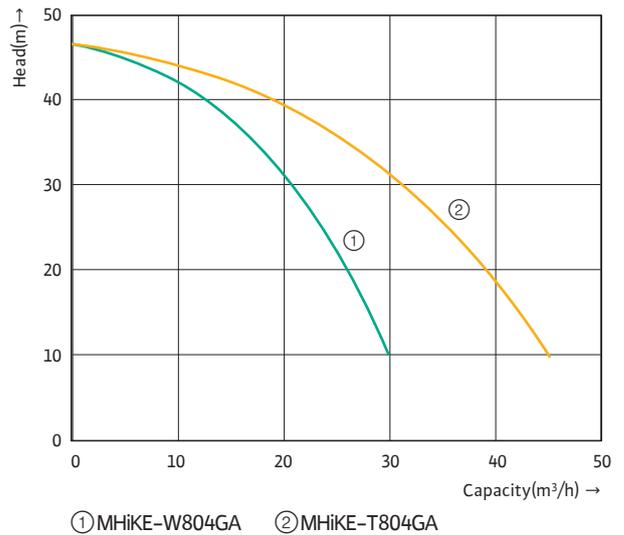
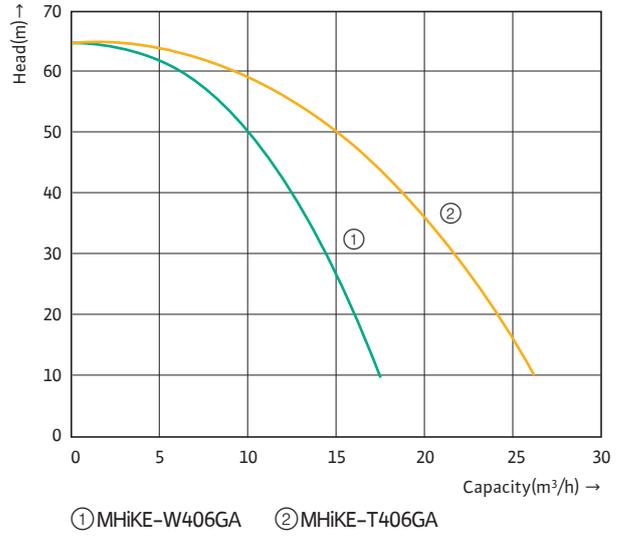
Model	Dimensions(mm)											
	H	Hs	Hd	Lv	Lb	Wv	Wb	Wp	Wd	W	Din	Dout
MHiKE-T406GA	1400	152.5	570	850	900	450	500	470	770	857	65	65
MHiKE-T804GA	1400	152.5	600	850	900	450	500	485	785	877	80	80
MHiKE-T805GA	1400	152.5	600	850	900	450	500	485	785	877	80	80

### ※ Performance curve

Model	Recommended pressure tank size
MHiKE-W406GA	100L
MHiKE-W804/805GA	200L
MHiKE-T406GA	100L
MHiKE-T804/805GA	200L

- Please install the pressure tank to protect pump system (prevent water hammer & reduce motor operating times)
- The size of flexible hose at the external connecting pipe is PF 1"
- Recommended pressure tank size is based on setting pressure at the factory, thus if you want to change the operation pressure, please contact with us

### Performance curve



# wilo

**WILO SE**

Nortkirchenstraße 100  
D-44263 Dortmund  
Germany  
T +49 231 4102-0  
F +49 231 4102 7363  
wilo@wilo.com  
www.wilo.com

**WILO Pumps Ltd.**

46 Mieumsandan 1-ro  
Gangseo-gu Busan  
618-260 Korea  
T +82 51 950 8000  
F +82 51 950 8369  
www.wilo.co.kr