Pioneering for You

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Pioneering for You

Building Service Residential

Selection Booklet

Wilo

Cutting-edge technology and strong customer loyalty.

Wilo is one of the world's leading manufacturers of pumps and pump systems for heating, cooling and air-conditioning technology as well as water supply and sewage disposal. Ever since our formation in 1872, we have concentrated on researching, developing and producing new technologies. Our aim to offer customers all over the world excellent-quality products, top efficiency and maximum service lives combined with simple installation and operation, has made us an internationally renowned innovative leader for high-tech pumps, boasting 15 production sites, over 60 subsidiaries and about 7,500 employees in 50 countries. Everyone working at Wilo aspires to provide the ultimate in service. Ever smaller, more efficient, quieter, more intelligent, more durable and simpler are the key factors when it comes to the development, production and operation of our pumps and systems. We offer an extensive range of products, covering everything from decentralised pump systems for single-family houses right up to large cooling water pumps for power stations. Aside from developing world-class technology, a lot of attention also needs to be paid to our customers so that we can assert and expand our leading position on the German and international markets. This is why we continuously strive to make our customers' lives significantly easier and more efficient through our products and all-in-one solutions. Our "Pioneering for You" claim underlines this.

Building Service Residential

at a glance:

Contents

STAR Z TT
Hot water circulator

Technical Data:
Flow: 5 LPM
Head: 1.1 m

Application:

Taps and showers for

- ® Residential buildings
- ® Commercial buildings
- ® Small hospitals

Standard Features:

- → Brass housing pump with integrated timer and temperature control
- → 3 programmable switch-on and switch-off times
- → Plug n Play “Red button technology press and turn”
- → Display with symbolic language
- → In built NRV and ball shit off valve
- → Silent operation
- → Energey efficient and user friendly operating concept
- → Maintenance free
- → Std. thermal insulation shell
- → Rp ½ inner thread for easy installation
- → Integrated temperature sensor to detect return line temperature
- → Anti blocking function

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

Star RS 15/6, RS 25/6, RS 25/8
Hot water circulator

Technical Data:
Flow: 100 LPM
Head: 8 m

Application:

- ® Solar System, Heat Pumps system
- ® Industrial use
- ® Cold water systems & air-condition system

Standard Features:

- → Wet motor pump
- → Low power consumption
- → 3 pre-selectable speed stage for power adjustment
- → Terminal box position rotatable 3h; 6h; 9h; 12h
- → Electrical connection possible on both sides of the terminal box

Selection Table

Specifications	Star Z 15 TT	RS 15/6	RS 25/6	Rs 25/8
Power Source	230 volts, single phase, 50 hz	230 volts, single phase, 50 hz		
Fluid temperature	20°C to 65°C	-10°C to 110°C		
Total Head (m) High/Med/Low	1.5 / 3.0 / 5.0	6/5/4	6/5/4	7.5/7/5
Max Flow (LPM) High/Med/Low	0.85 / 0.60 / 0.40	64/48/40	64/48/40	90/60/40
Inlet (mm)		15	25	25
Outlet (mm)		15	25	25
O/P Power P2 (W)	2 W	39	39	37
Protection class		IP 42	IP 42	IP 42
Max pressure			10 bar	
Casing	Brass		Cast Iron	
Impeller			Plastic	
Shaft			Stainless Steel	
Weight (kg)	2.1	2.1	2.4	3.8

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

RLTC
Hot water circulator control panel

Standard Features :

- Hot water circulator pump
- Wall Mounted IP 54 Enclosures
- Input Power Supply 230VAC±10%,50Hz 5A
- Out Put Power Supply SPDT 230VAC, 10A resistive
- Ambient Temperature 0 to 40°C
- Relative Humidity 95% non-condensing
- Auto-Off-Manual Switch
- Temperature controller with 7 Segment digital display and keys
- Thermocouple digital sensor
- Programmable Real time digital timer with LCD display

DTC
Hot water circulator control panel

Standard Features :

- Wall mounted IP 54 enclosures
- Input Power Supply 230VAC±10%, 50Hz
- Out Put Power Supply SPDT 230VAC, 10A max resistive
- Ambient Temperature 0 to 40°C
- Relative Humidity 85% non-condensing
- Auto-Off-Manual Switch
- Differential Temperature controller with 7 Segment digital display and keys
- Two Thermocouple/NTC Sensors
- Programmable Real time digital timer with LCD display (only in advanced version)

Application :

- Specially designed for automatic control of instant hot water in solar application for:
  - Bungalows & Villas
  - Apartment
  - Farm house
  - Hotels
  - Hostels
  - Hospitals
- Hot water circulation in heat pumps system and other systems
- Hot water circulation in industrial use

PB
Inline pressure booster

Technical Data:
Flow: upto 80 LPM
Head: upto 19 m
Power: upto 400 Watt
Available in 1 Ph

Application:
- Pressure boosting water transfer from roof tank to tap
- Silent operation

Standard Features:

- Automatic/manual operation
- Easy to carry, install and operate Motor built with Thermal Protector for safety
- Rust-proof casting by electric coating

Selection Table

Pump Model	Power Rating kW	HP	LPM	0	5	10	15	20	25	30	35	40	45	50	55	60	65
PB88	0.08	0.10	Head (m)	10	9	8	7	6	5	4	1						
PB200	0.20	0.27		16	15	14	13	12	11	10	9	6	3	1			
PB400	0.40	0.54		20	19	18	17	16	15	14	13	12	11	10	8	6	4

PW
Inline pressure booster

Technical Data:
Flow: 40 LPM
Head: 45 mts

Application:
- Boosting water pressure at taps and showers
- Water supply for household use
- Water transfer for small machines and instruments
- Sprinkler systems
- Gardening and car washing

Standard Features:

- Self priming function
- Automatic operation
- Thermal protector to avoid motor burn out
- Efficient cooling for motor by specially designed cooling fan
- Easy to carry, install and operate

Selection Table

Pump Model	Power Rating kW	HP	LPM	0	5	10	15	20	25	30	35	40	45
PW122	0.18	0.25	Head (m)	39	37	35	30	25	20	12	4	1	
PW175	0.18	0.25		35	33	30	27	27	18	12	6		
PW252	0.25	0.50		43	39	35	31	26	22	18	13	9	4

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

FWJ / HWJ
Single pump booster (SS Impeller)

Technical Data:
Flow: upto 80 LPM
Head: upto 46 m
Voltage: 1 ~ 230 V, 50 Hz.

Application:
Water transfer in

- ® Bungalows / farm houses
- ® Apartments / hostels

Standard Features:

- → Stainless steel pump body
- → Stainless steel impeller
- → Available with hydro pneumatic tank / electronic control for automatic operation
- → High efficient motor suitable for wide voltage fluctuations
- → Anti rust material
- → Component parts insensitive to corrosion
- → Easy to carry, install and operate

Selection Table

Pump Model	Power Rating		Connection		Flow Range	Head Range	Pressure Range
	kW	HP	Suction	Discharge	m^3/hr	m	bar
F/H WJ201	0.37	0.5	1"	1"	0.6 – 3.0	26 – 12	1.2 – 2.0
F/H WJ202	0.60	0.8	1"	1"	0.3 – 4.3	34 – 10	1.2 – 2.5
F/H WJ203	0.75	1.0	1"	1"	0.5 – 4.6	38 – 10	1.5 – 3.0
F/H WJ204	1.10	1.5	1"	1"	0.6 – 4.7	44 – 18	1.5 – 4.0

Technical Specifications of single pump boosters FWJ/HWJ are with fluid control / pressure switch and tank

Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

HMHIL / FMHIL
Single pump booster (SS Impeller)

Technical Data:
Flow: upto 215 LPM
Head: upto 62 m
Voltage: 1 ~ 230 V, 50 Hz.

Application:
Water transfer in

- ® Bungalows / farm houses
- ® Apartments / hostels
- ® Silent in Operation

Standard Features:

- → Stainless steel impeller
- → Wetted parts made up of stainless steel
- → Available with hydro pneumatic tank / electronic control for automatic operation
- → High efficient motor suitable for wide voltage fluctuations
- → Silent in operation
- → Easy to carry, install and operate

Selection Table

Pump Model	Motor Rate Power		Connection		Flow Range	Head Range	Pressure Range
	kW	HP	Suction	Discharge	m^3/hr	m	bar
F/H MHIL 102-EM-20	0.37	0.50	1"	1"	0.5 – 3	18.4 – 07.9	1.2 – 1.8
F/H MHIL 103-EM-20	0.37	0.50	1"	1"	0.5 – 3	27.1 – 12.2	1.8 – 2.8
F/H MHIL 104-EM-20	0.55	0.75	1"	1"	0.5 – 3	36.9 – 16.1	2.2 – 3.5
F/H MHIL 105-EM-20	0.55	0.75	1"	1"	0.5 – 3	46.7 – 18.9	2.8 – 4.2
F/H MHIL 106-EM-20	0.55	0.75	1"	1"	0.5 – 3	56.5 – 21.7	3.2 – 4.5
F/H MHIL 302-EM-20	0.37	0.50	1"	1"	0.4 – 5	21.5 – 06.3	1.2 – 1.8
F/H MHIL 303-EM-20	0.55	0.75	1"	1"	0.4 – 5	31.7 – 08.9	1.8 – 2.8
F/H MHIL 304-EM-20	0.55	0.75	1"	1"	0.4 – 5	42.0 – 11.0	2.2 – 3.5
F/H MHIL 305-EM-20	0.75	1.00	1"	1"	0.4 – 5	52.3 – 14.3	2.8 – 4.2
F/H MHIL 306-EM-20	1.10	1.50	1"	1"	0.4 – 5	64.6 – 20.6	3.2 – 4.5
F/H MHIL 502-EM-20	0.55	0.75	1¼"	1"	0.5 – 8	21.5 – 07.2	1.2 – 1.8
F/H MHIL 503-EM-20	0.55	0.75	1¼"	1"	0.5 – 8	31.4 – 07.8	1.8 – 2.8
F/H MHIL 504-EM-20	0.75	1.00	1¼"	1"	0.5 – 8	42.5 – 12.0	2.2 – 3.5
F/H MHIL 505-EM-20	1.10	1.50	1¼"	1"	0.5 – 8	55.2 – 19.6	2.8 – 4.2
F/H MHIL 506-EM-20	1.50	2.00	1¼"	1"	0.5 – 8	67.5 – 25.0	3.2 – 4.5
F/H MHIL 902-EM-20	0.75	1.00	1½"	1¼"	0.8 – 13	21.4 – 09.8	1.2 – 1.8
F/H MHIL 903-EM-20	1.10	1.50	1½"	1¼"	0.8 – 13	33.2 – 15.2	1.8 – 2.8
F/H MHIL 904-EM-20	1.50	2.00	1½"	1¼"	0.8 – 13	45.2 – 20.8	2.2 – 3.5

Technical Specifications of single pump boosters FMHIL/HMHIL are with fluid control / pressure switch and tank

Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

VMHIL / VMHI
Multistage pressure booster system with VFD (SS impeller)

Technical Data:
Flow: 10 m^3/hr
Head: 65 m

Application:

The pressure boosting pump with variable frequency drive is used to maintain the constant pressure in water supplies of

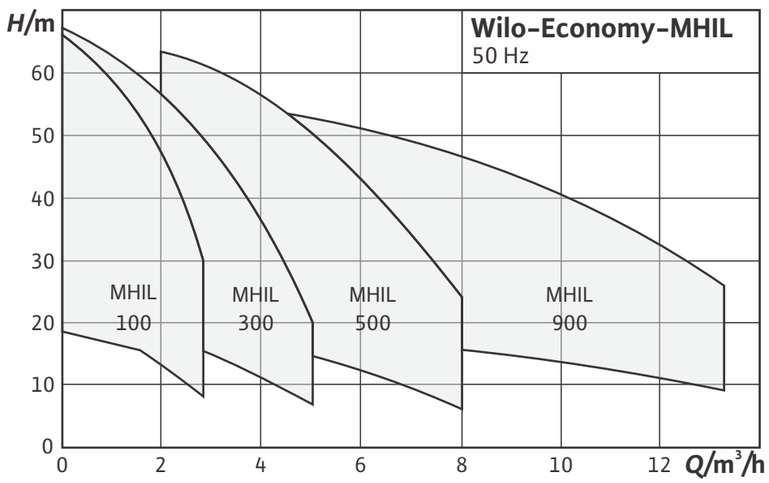
- ® Residential buildings
- ® Hotels
- ® Hospitals
- ® Water supply and distribution from a sump or a tank

Standard Features:

- → Horizontal multistage stainless steel centrifugal pump with electric motor.
- → Non return brass valve on delivery.
- → Five way connector on delivery line.
- → Pressure Transmitter and Pressure Gauge.
- → Pump and Panel Mounting Base Plate.
- → Factory assembled system supplied with pressure tank for ready to use.
- → Control Panel with Built in VFD, built in PLC and PID functions for pumping application.
- → VFD communication through RS 485 Modbus communication through RJ 45 Connector for BMS.
- → Built in over voltage, under voltage, short circuit motor overload and dry run protection with float.

Selection Table

Refer Page No. 10 for MHIL / Page No. 11 for MHI



Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

MHIL / MHI – BC
Horizontal twin pump booster (SS impeller)

Technical Data:
Flow: upto 430 LPM
Head: upto 65 m

Application:

Pressure boosting in

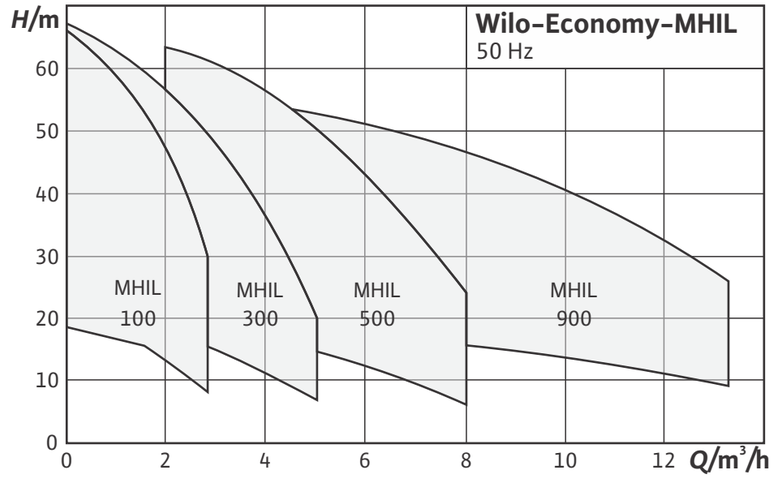
- ® Bungalows
- ® Farm houses
- ® Apartments and
- ® Hotels

Standard Features:

- → Horizontal multistage stainless steel centrifugal pump with electric motor
- → Factory assembled system along with control panel supplied for ready to use
- → Automatic pump cascading and alteration
- → Built in over voltage, under voltage, short circuit motor overload and dry run protection with float
- → Easy to install and operate

Selection Table

Refer Page No. 10 for MHIL / Page No. 11 for MHI



Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

WJ
Self–priming Jet pump (SS body)

Technical Data:
Flow: 83 LPM
Head: 50 m
Available in single and three phase

Application:

- Pumping water from wells
- Filling, pumping empty, transferring by pumping, irrigation and sprinkling
- As emergency pump for overflows farms.

Standard Features:

- Stainless steel pump body
- Stainless steel impeller
- High efficient motor suitable for wide voltage fluctuations
- Anti rust material
- Component parts insensitive to corrosion
- Easy to carry, install and operate

Selection Table

Pump Model	Power Rating			Head (m)											
	kW	HP		10	12	14	18	20	22	24	26	30	34	38	42	44
WJ201	0.37	0.5	Discharge in LPM		50	46	34	25	20	17	10					
WJ202	0.60	0.8		72	68	62	48	40	36	30	24	14	5			
WJ203	0.75	1.0		76	74	72	65	60	56	45	40	28	18	8		
WJ204	1.10	1.5					78	76	72	68	64	48	32	22	13	10

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

MHIL
Multistage pumpset (SS impeller)

Technical Data:
Flow: Upto 58 LPM / 13 m³/hr
Head: Upto 68 m
Temp.: –15˚C to +90˚C
Max. Operating Pressure: 10 bar
Max. Inlet pressure: 6 bar
Available in single and three phase

Application:
Water supply and pressure boosting

- Commerce and industry
- Washing and spraying systems
- Rainwater utilisation
- Cooling and cold water circuits

Standard Features:

- Stainless steel impeller
- Wetted parts made up of stainless steel
- High efficient motor suitable for wide voltage fluctuations
- Silent in operation
- Easy to carry, install and operate

Selection Table

Pump Model	Power Rating		LPM	0	8	17	25	33	42	50	58
	kW	HP	m³/hr	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5
MHIL102	0.37	0.50	Head (m)	20	19	18	16	14	11	8	8
MHIL103	0.37	0.50		29	27	26	24	21	17	13	13
MHIL104	0.55	0.75		39	38	35	32	28	23	16	16
MHIL105	0.55	0.75		50	47	44	40	34	28	20	20
MHIL106	0.55	0.75		61	57	53	47	40	32	22	22
MHIL107	0.55	0.75		67	64	59	53	45	35	24	24

Pipe size – Suction/Delivery – 1" (25 mm)

Pump Model	Power Rating		LPM	0	17	33	50	67	83	100
	kW	HP	m³/hr	0.0	1.0	2.0	3.0	4.0	5.0	6.0
MHIL302	0.37	0.50	Head (m)	22	21	19	15	11	6	1
MHIL303	0.55	0.75		33	32	27	22	16	9	1
MHIL304	0.55	0.75		43	40	35	28	21	11	1
MHIL305	0.75	1.00		55	50	44	36	26	14	2
MHIL306	1.10	1.50		67	62	56	47	36	21	3

Pipe size – Suction/Delivery – 1" (25 mm)

Pump Model	Power Rating		LPM	0	17	33	50	67	83	100	117	133	150
	kW	HP	m³/hr	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
MHIL502	0.55	0.75	Head (m)	22	21	20	19	17	15	13	10	7	4
MHIL503	0.55	0.75		32	31	29	27	24	21	17	13	8	2
MHIL504	0.75	1.00		44	42	40	37	34	29	25	19	12	5
MHIL505	1.10	1.50		56	54	52	49	46	41	35	28	19	8
MHIL506	1.10	1.50		68	67	64	61	56	51	44	36	25	12

Pipe size – Suction – 1 1/4" (32 mm) & Delivery – 1 " (25 mm)

Pump Model	Power Rating		LPM	0	33	67	100	133	150	167	183	200	217
	kW	HP	m³/hr	0	2	4	6	8	9	10	11	12	13
MHIL902	0.75	1.00	Head (m)	22	21	20	18	16	15	14	13	11	10
MHIL903	1.10	1.50		34	33	31	29	27	25	23	21	18	15
MHIL904	1.10	1.50		46	44	42	40	36	33	31	28	25	21
MHIL905	2.20	3.00		58	57	55	51	47	45	41	38	33	27

Pipe size – Suction – 1 1/2" (38 mm) & Delivery – 1 1/4" (32 mm)

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

MHI
Multistage pumpset (SS impeller)

Technical Data:
Flow: 83 LPM
Head: 70 m
Temp.: -15˚C to +90˚CMax.
Operating Pressure: 10 bar
Max. Inlet pressure: 6 bar
Available in single and three phase

Application:

- ® Pumping water from wells
- ® Filling, pumping empty, transferring by pumping, irrigation and sprinkling
- ® As emergency pump for overflows.

Standard Features:

- → All pump components made up of stainless steel
- → High efficient motor suitable for wide voltage fluctuations
- → Silent in operation
- → Light and compact construction

Selection Table

Pump Model	Power Rating kW	HP		LPM	0	16	25	33	50	67	83	96
				m^3/hr	0	1	1	2	3	4	5	6
MHI202	0.55	0.75	Head (m)		22	21	20	18	15	11	6	1
MHI203	0.55	0.75			32	30	28	26	21	15	8	1
MHI204	0.55	0.75			43	41	38	36	29	22	13	4
MHI205	0.75	1.00			56	55	52	49	42	33	23	10
MHI206	1.10	1.50			68	65	62	58	49	38	24	10

Pipe size - Suction/Delivery - 1" (25 mm)

Pump Model	Power Rating kW	HP		LPM	0	17	33	50	67	83	100	117	133	147
				m^3/hr	0	1	2	3	4	5	6	7	8	9
MHI402	0.55	0.75	Head (m)		22	21	20	19	17	15	12	9	4	0
MHI403	0.55	0.75			34	33	31	29	26	23	19	14	8	2
MHI404	0.75	1.00			45	44	42	39	35	31	26	19	11	2
MHI405	1.10	1.50			57	56	54	51	47	42	36	27	17	7
MHI406	1.50	2.00			69	68	65	61	57	51	44	34	22	8

Pipe size - Suction- 1 1/4" (32 mm) & Delivery - 1 " (25 mm)

Pump Model	Power Rating kW	HP		LPM	0	33	67	100	133	167	200	218	233
				m^3/hr	0	2	4	6	8	10	12	13	14
MHI802	0.75	1.00	Head (m)		24	23	21	20	18	15	11	8	6
MHI803	1.10	1.50			36	35	34	31	28	23	18	15	12
MHI804	1.50	2.00			48	47	44	42	38	32	24	19	15
MHI805	1.85	2.50			60	58	55	51	46	39	30	25	19

Pipe size - Suction - 1 1/2" (38 mm) & Delivery - 1 1/4" (32 mm)

Pump Model	Power Rating kW	HP		LPM	0	83	166	250	333	416	450
				m^3/hr	0.0	5.0	10.0	15.0	20.0	25.0	27.0
MHI1602	1.50	2.20	Head (m)		24	22	21	18	14	6	3
MHI1603	1.85	2.50			36	34	31	27	21	11	6
MHI1604	2.50	3.40			48	46	42	36	28	15	9

Pipe size - Suction - 2" (50 mm) & Delivery - 1 1/2" (38 mm)

Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

TWI 5
Multistage Submersible pumpset (SS)

Technical Data:
Flow: upto 266 LPM
Head: upto 88 m
TWI3 & TWI5- 1 Ph &
TWI9- 1 Ph & 3 Ph

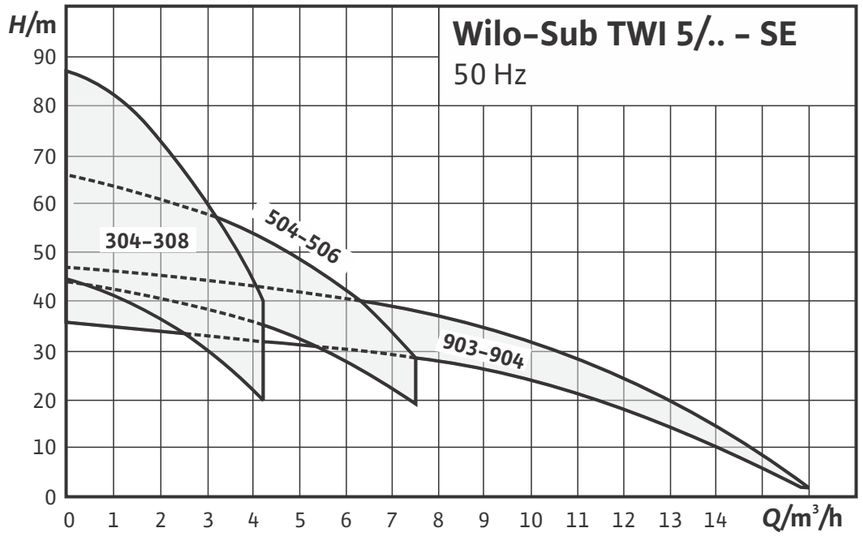
Application:
Pumping clear water from

- ® Well
- ® Rainwater storage tanks and vessels
- ® Irrigation, sprinkling and pumping out clear water
- ® Water supply
- ® Rainwater utilisation

Standard Features:

- → Easy installation and commissioning thanks to ready-to-plug delivery including all accessories
- → Thermal motor protection
- → Pump (housing, stages, impellers) made entirely of stainless steel
- → The self-cooling motor also enables the provision outside the water

Selection Table



Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

De-watering (Polypropylene) pump
TMW

Technical Data:
Flow: upto 220 LPM
Head: upto 10 m
Solid passage: upto 10 mm

Application:

- ® Dewatering of waste water in basements, sumps, bungalows
- ® Flood control
- ® Dewatering at construction sites.

Standard Features:

- → Constantly clean pump sump due to patented integrated turbulator (TMW)
- → Minimal residual water level of 2 mm (TMR)
- → For aggressive fluids (HD version)
- → With float switch (A version)
- → Incl. hose connection and 10 m cable

PD 300

Technical Data:
Flow: 160 LPM
Head: 7.5 m

Application:

- ® Clean public bath, water tanks
- ® Building basement, drainage of handy sewage facility
- ® Drainage to prevent flooding for small places

Standard Features:

- → Lower residual water level
- → Smaller motor size
- → Auto control by pressure sensor
- → Anti rust material
- → Component parts insensitive to corrosion

Selection Table

Pump Model	Power Rating kW	Power Rating HP	Phase	Sync. Speed (rpm)	Pipe Size (mm) Del.	Free passage (mm)		Total Head (m) 0	2	3	4	5	6	7	8	9
PD 300	0.37	0.50	1	2800	32	10	Discharge in LPM		160	140	125	100	70			
TMW 32/11	0.55	0.75	1	2800	32	10		240	215	200	180	165	150	120	100	70

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

De-watering pump
FAS / FAC

Technical Data:
Flow: upto 1700 LPM
Head: upto 30 m
Solid passage: upto 16 mms

Material of construction
Motor body: Stainless Steel
Pump body: Cast Iron
Impeller: Cast Iron

Application:

- ® Dewatering from residential buildings
- ® Commercial buildings
- ® Industry
- ® Hospitals

Standard Features:

- → Attached float switch (A-model) enables easy operation
- → Robust high efficiency motor
- → Stainless steel motor body with IP 68 protection
- → AC thermal motor protection
- → Integrated motor control for current overload and high temperature
- → Easy to carry and handle

Selection Table

Pump Model	Power Rating kW	Power Rating HP	Phase	Sync. Speed (rpm)	Pipe Size (mm) Del.	Free passage (mm)		Total Head (m) 3	5	8	10	15	20	25	30
FAS 50/15	0.75	1.0	1 / 3	2800	50	10	Discharge in LPM	330	300	235	180	20			
FAS 80/21	1.5	2.0	1 / 3	2800	80	11		680	630	530	480	300	100		
FAS 50/30	2.2	3.0	1 / 3	2800	50	11			525	480	465	380	300	190	25
FAS 80/26	2.2	3.0	1 / 3	2800	80	11		765	740	640	570	445	270		
FAS 100/21	2.2	3.0	1 / 3	2800	100	11		1000	920	780	690	400	100		

Pump Model	Power Rating kW	Power Rating HP	Phase	Sync. Speed (rpm)	Pipe Size (mm)	Free passage (mm)		Total Head (m) 7	8	9	10	12	13	14	15	16	18	20	22	24	26	28	30
FAC 80F/24.66/37*	3.70	5.0	3	2800	80	56	Discharge in LPM	950	910	860	820	750	700	650	600	550	350	200	100				
FAC 80/28 F	3.70	5.0	3	2800	80	15		1250	1200	1170	1110	1050	1000	950	900	850	750	650	500	350	200		
FAC 100/33 F	5.50	7.5	3	2800	100	15		1550	1500	1475	1450	1400	1350	1300	1200	1150	1075	1000	900	800	700	600	400

***** FAC 80 & 100 – Motor housing is in cast iron

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

Sewage pump
STS/PDV/TC

Technical Data:
Flow: 1500 LPM
Head: 32 m
Solid passage: upto 65 m

Material of construction
Motor body: Stainless Steel
Pump body: Cast Iron
Impeller: Cast Iron

Application:

- ® Sewage disposal from residential buildings
- ® Commercial buildings
- ® Industry
- ® Small hospitals

Standard Features:

- → Attached float switch (A-model) enables easy operation
- → Robust pump with high efficiency
- → Dry motor construction with sealing chamber
- → Stainless steel motor body with IP 68 protection
- → AC thermal motor protection
- → Integrated motor control for current overload and high temperature
- → Easy to carry and handle

Selection Table

Pump Model	Power Rating			Total Head (m)													
	kW	HP		3	4	5	6	7	8	9	10	12	13	14	15	16	17
TC 40/10*	0.60	0.8	Discharge in LPM	255	230	200	170	140	100	50							
PDV-S750*	0.75	1.0		300	270	240	200	160	120	80	20						
STS 50/10	0.37	0.5		280	240	210	170	130	100	50							
STS 80/12	0.75	1.0		500	440	370	325	270	230	170	100						
STS 50/13	0.75	1.0		350	325	300	270	225	200	175	125	100					
STS 50/15	0.75	1.0			400	340	320	270	255	225	200	100	50				
STS 80/18	1.50	2.0			700	650	600	550	490	470	450	350	270	230	200	150	
STS 80/20	2.20	3.0			900	850	800	750	670	620	600	470	400	350	300	200	100

* TC 40/10 – Impeller is made up of resin
* PDV-S750 – Impeller is made up of stainless steel

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

Rexa/MTC
Cutter pumpset

Technical Data:
Flow: upto 358 LPM
Head: upto 39 m
Power: upto 3.9 kW (5hp)
Voltage: 230 V / 400 V
Phase: Single / Three
Max. immersion depth: 20 m

Application:
Pumping of:

- ® Sewage containing faeces
- ® Pre-cleaned sewage without faeces and long fibre components
- ® Wasterwater

Standard Features:

- → High reliability through ATEX approval and longitudinally watertight cable inlet (CUT GE...)
- → High operational reliability through spherically-formed macerator with pulling cut
- → Long service life through a high-quality motor seal with two independent mechanical seals and optional pencil electrode for sealing chamber control

Selection Table

Pump Model	Motor Rating		Pressure Connection	Flow (LPM)	67	133	200	267	333
	kW	H.P.		Flow (m3/hr)	4	8	12	16	20
Drain MTC40 F 16.15/7/1-230-50	0.7	1.0	Rp 1½/DN 40	Head (m)	15	12	6		
Drain MTC40 F 16.15/7/3-400-50	0.7	1.0	Rp 1½/DN 40		15	22	6		
Drain MTC32 F 39.16/30/3-400-50-2	3.4	5.0	DN 32		37	34	30	25	
Rexa CUT GE03.25/P-T25-2-540X	2.5	3.0	DN 32/40, Rp 1¼		23	19	15	11	5
Rexa CUT GE03.34/P-T39-2-540X	3.9	5.0	DN 32/40, Rp 1¼		31	28	26	22	14
Rexa CUT GI03.26/S-T15-2-540	1.5	2.0	DN 32/40, Rp 1¼		20	16	12	9	2
Rexa CUT GI03.26/S-M15-2-523/P	1.5	2.0	DN 32/40, Rp 1¼		20	16	12	9	2

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

WP Mini

Self-priming mini monoset

Technical Data:
Flow: upto 63 LPM
Head: upto 45 m
Power: upto 0.75 kW (1hp)
Voltage: 240 V

Application:
Water transfer in:

- Bungalows
- Farm houses
- Apartments
- Industry Use

Standard Features:

- Suitable for wide band of voltage i.e. 160 volts to 250 volts
- Life long permanent lubricated bearings
- Built in thermal over-load protection
- TEFC, capacitor start & run Motor, insulation class B
- High suction lift upto 7.3 m (at 240 V, single phase)
- High quality aluminium extruded motor body
- Direction of rotation - anticlockwise, when viewed from drive end
- Low life cycle cost - low maintenance, low power consumption and easy motor rewinding

Selection Table

Pump Model	Motor Rating		Suction Size	Delivery Size		Head (m)							
	kW	H.P.	(mm)	(mm)		6	12	18	24	26	30	36	45
WP MINI 025/026	0.19	0.25	19	19	Flow (LPM)	28	21	15					
WP MINI 050/052	0.37	0.50	25	25		34	23	15		5			
WP MINI 051/053	0.37	0.50	25	25		40	30	24		20	15		
WP MINI 100/101	0.75	1.00	25	25		63	55	46		40	34	28	20
WP MINI 102	0.75	1.00	25	25		41	33	28		16	13	6	
WPMINI 103	0.75	1.00	25	25		45	35	30		22	15	6	
Wilo Crown 05	0.37	0.50	25	25		30	23	15	7				
Wilo Crown 10	0.75	1.00	25	25		52	45	37	28		20	6	

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

WHS C

Self-priming High suction pumpset

Technical Data:
Flow: upto 71 LPM
Head: upto 39 m
Power: upto 1 HP
Voltage: 220 V

Application:
Water transfer in:

- Water transfer for domestic use in Gardening, Apartments, Bungalows, Hotels etc.
- Washing - Garages, Laundries, Automobiles service station
- For lifting water to overhead storage tanks.
- Lawn sprinklers & Pressure Boosting system

Standard Features:

- Sturdy & compact design
- High suction lift upto 8 m at 220V
- Single shaft for pump & motor to ensure permanent correct alignment
- Suitable for wide band of voltage i.e. 160V to 240V
- Lifelong permanent lubricated (ZZ) bearings
- High performance TEFC, capacitor start capacitor run motor, class of insulation 'B'
- Built in thermal over-load protection
- Capacitor fixed inside the terminal box to avoid damage
- Dynamically balanced rotating parts to ensure min. vibration, noise free operation & long bearing life
- Sealing arrangement - Mech. seal (high quality for long life)
- Direction of Rotation - CW, from driving end
- High quality electric grade stamping are used for better efficiency
- High Tensile Brass (HTB-1) Impeller to avoid clogging & increase durability
- Safety Feature - earthing provision, TOP
- Low life cycle cost - low maintenance, low power consumption and easy motor rewinding

Selection Table

Pump Model	Motor Rating		Pipe Size (mm)			Total Head (m)											
	kW	HP	Suct.	Del.		6	9	12	*15*	18	*21*	24	27	30	33	36	39
WHS C05	0.37	0.50	25	25	Flow (LPM)	55	50	45	*39*	35	28	23					
WHS C10	0.75	1.00	25	25		71	67	61	56	51	*47*	44	39	35	31	27	23

Note : The above performance is based on mean supply voltage of 220 V @ 1425 RPM at 50 Hz and subject to change due to continuous R&D.

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

WHS V

Self-priming High suction pumpset

Technical Data:
Flow: upto 44 LPM
Head: upto 36 m
Power: upto 0.5 HP
Voltage: 240 V

Application:
- Water transfer for domestic use in gardening, apartments, bungalows, hotels etc.
- Washing – garages, laundries, automobiles service station
- Circulation of water in solar heater systems
- For lifting water to overhead storage tanks, lawn sprinklers & pressure boosting system

Standard Features:

- High performance TEFC, capacitor start & run motor, Class of insulation 'B'
- High suction lift upto 6 m at 240V
- Single shaft for pump & motor
  - to ensure permanent correct alignment
- Sealing arrangement – Mech. seal (high quality for long life)
- Direction of rotation – CW, from driving end
- Safety feature – earthing provision, TOP
- Brass impeller to avoid clogging & increase durability

Selection Table

Pump Model	Motor Rating (kW)	Motor Rating (H.P.)	Suc Size (mm)	Del Size (mm)		Total Head (m) 6	9	12	15	18	21	24	27	30	33	36
WHS V05	0.37	0.50	25	25	Flow (LPM)	44	42	39	36	33	29	26	22	18	13	9

Note: The above performance is based on mean supply voltage of 240 V @ 2800 RPM at 50 Hz and subject to change due to continuous R&D.

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

WMB / MPMS

Monoblock pumpset– 1 Phase

Technical Data:
Flow: upto 750 LPM
Head: upto 30 m
Power: 2 HP
Voltage: 220 V

Application:
Water supply in:
- Buildings
- Apartments
- Hotels
- Irrigation
- Clear water transfer in Industries

Standard Features:

- Suitable for wide band of voltage i.e. 160V to 240V
- Lifelong permanent lubricated (ZZ) bearings
- High performance TEFC, Class of insulation 'F'
- Built in thermal over-load protection
- Capacitor fixed inside the terminal box to avoid damage
- Dynamically balanced rotating parts to ensure min. vibration, noise free operation & long bearing life
- Sealing arrangement – Mech. Seal (High Quality for long life)
- Designed for automatic air release during priming
- Direction of Rotation – ACW, when viewed from suction side
- Safety Feature – Earthing provision, TOP
- Low life cycle cost – low maintenance, low power consumption and easy motor rewinding

Selection Table

WMB– 1 Phase @ 2790 RPM

Pump Model	Motor Rating kW	Motor Rating HP	Pipe Size (mm) Suct.	Pipe Size (mm) Del.		Head (m) 6	9	12	15	18	21	24	27	30
WMB05A	0.37	0.5	25	25	Discharge (LPM)	120	110	105	100	75	35			
WMB10A	0.75	1.0	25	25				100	98	95	93	90	70	45
WMB10C	0.75	1.0	40	40			225	210	185	150	105	45		
WMB15C	1.1	1.5	40	40		320	315	310	300	270	210	130		
WMB20C	1.5	2.0	40	40				340	335	325	275	195	70	
WMB20D	1.5	2.0	50	50		450	430	400	340	275	175			
WMB20E	1.5	2.0	65	50			555	535	425	245				
WMB20G	1.5	2.0	80	80		750	650	520	230					

Pump Model	Motor Rating kW	Motor Rating H.P.	Pipe Size (mm) Suct.	Pipe Size (mm) Del.		Head (m) 15	16	18	19	21	24	25	27	28	30
MPMS 10HH*	0.75	1.00	32	25	Discharge (LPM)	134	130	120	115	105	85	75	55	42	10
MPMS 20HH*	1.50	2.00	50	40			220	210	205	190	165	155	125	120	80

* 230 V

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

MPM
Non Self priming centrifugal monobloc

Technical Data:
Flow: upto 2300 LPM
Head: upto 78 m
Power: upto 30 HP
Voltage: 230 V (Single phase)
415 V (3 phase)

Application:
Water transfer in:
- ® Bungalows
- ® Farm houses
- ® Apartments

Material of construction:

Pump:	Cast Iron
Impeller:	Cast Iron / Bronze
Sealing arrangement:	Gland pack/Mech. seal

Standard Features:

- → Dynamically balanced rotating parts to ensure min. vibration, noise free operation & long bearing life
- → Designed for wide Voltage fluctuations

Selection Table

Pump Model	Motor Rating kW	Motor Rating H.P.	Pipe Size (mm) Suct.	Pipe Size (mm) Del.	Disharge in LPM	Head (m) 6	10	12	15	17	19	21	24	27	30
MPM 011	0.75	1.0	50	50		290	250	210	130						
MPM 012	0.75	1.0	32	25						160	145	125	100	60	20
MPM 013	0.75	1.0	32	25						135	125	115	105	80	50
MPM 014	0.75	1.0	40	32						150	135	120	100	50	
MPM 0155	1.10	1.5	40	40						260	240	225	210	160	100
MPM 0156	1.10	1.5	50	50			500	450	320						
MPM 021	1.50	2.0	50	40						200	190	180	165	140	110
MPM 022	1.50	2.0	50	40						290	275	260	235	170	
MPM 023	1.50	2.0	65	50			575	510	410	300					
MPM 023L	1.50	2.0	80	65		850	700	575							

Pump Model	Motor Rating kW	Motor Rating H.P.	Pipe Size (mm) Suct.	Pipe Size (mm) Del.	Disharge in LPM	Head (m) 10	12	15	17	19	21	24	27	30	32	33	35	38	42	48	50	53
MPM 034	2.20	3.0	50	40								245	230	205	190	190	150	100				
MPM 035	2.20	3.0	50	40						370	340	300	250									
MPM 036	2.20	3.0	65	50			685	585	520	435	300											
MPM 036H	2.20	3.0	65	50					525	460	350											
MPM 037	2.20	3.0	80	65		850	760	600	400													
MPM 058	3.70	5.0	50	40								475	460	430	410	410	380	340	250			
MPM 059	3.70	5.0	65	50										450	425	425	375	275				
MPM 0510	3.70	5.0	65	50						680	650	600	525	420	300	300						
MPM 0511	3.70	5.0	75	65			1100	1050	980	860	790	490										
MPM 0713	5.50	7.5	50	40															325	270	240	170
MPM 0714	5.50	7.5	65	50									720	670	605	605	530	440	150			
MPM 0715	5.50	7.5	80	65							990	920	840	750	660	660	400					
MPM 0716	5.50	7.5	100	75					1320	1200	1120	800										

Pump Model	Motor Rating kW	Motor Rating H.P.	Pipe Size (mm) Suct.	Pipe Size (mm) Del.	Disharge in LPM	Head (m) 17	19	21	24	27	30	32	33	35	38	42	48	50	53	56	59	62
MPM 1017	7.50	10.0	50	40													360	350	315	280	240	180
MPM 1018	7.50	10.0	65	50										800	740	650	465	300				
MPM 1019	7.50	10.0	80	65							1040	970	970	850	660							
MPM 1020	7.50	10.0	100	75				1465	1350	1200	1020	800	800									
MPM 1020L	7.50	10.0	100	75		1700	1500	1380	700													
MPM 1221	9.30	12.5	65	50										870	820	775	660	600	425			
MPM 1222	9.30	12.5	80	65							1110	1060	1060	1000	910	700						
MPM 1223	9.30	12.5	100	75					1620	1520	1360	1200	1200									
MPM 1223L	9.30	12.5	100	75				1650	1300	600												

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

Selection Table

Pump Model	Motor Rating kW	Motor Rating H.P.	Pipe Size (mm) Suct.	Pipe Size (mm) Del.	Disharge in LPM	Head (m) 17	19	21	24	27	30	32	33	35	38	42	48	50	53	56	59	62	68	71	74	78
MPM 1524	11.00	15.0	65	50															830	775	700	600	500	325		
MPM 1525	11.00	15.0	65	50													800	750	660	600	480					
MPM 1526	11.00	15.0	80	65										1180	1140	1000	740	630								
MPM 1527	11.00	15.0	100	75						1700	1600	1520	1520	1350	1000											
MPM 1527L	11.00	15.0	100	75		2250	2125	2050	1850	1600	1200															
MPM 2028	15.00	20.0	65	50																900	840	800	740	650	570	470	300
MPM 2029	15.00	20.0	80	65													1140	1110	1085	1044	950	720				
MPM 2030	15.00	20.0	100	75							1700	1700	1600	1450	1215	600										
MPM 2531	18.60	25.0	100	75											1700	1500	1420	1240	950							
MPM 3032	22.00	30.0	100	75											1840	1800	1780	1750	1700	1580	1500	1280				
MPM 4033	30.00	40.0	125	100															2250	2225	2200	2100	1980			

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

MNC
Self-priming Non-Clog pump & pumpset

Technical Data:
Flow: upto 4446LPM
Head: upto 34 m
Power: upto 26 HP

Available in 3 Ph

Application:

- ® De-watering from trenches and pits
- ® Mud transfer

Material of construction:

Pump:	Cast Iron
Impeller:	Cast Iron / Bronze
Sealing arrangement:	Gland pack/Mech. seal

Standard Features:

- → Self priming and back pull out design for easy maintenance
- → Non clog and semi open impeller enables to handle solids up to 40 mm
- → Non asbestos PTFE gland packing along with stuffing box arrangement
- → Motors are with high operating efficiency and suitable for wide voltage fluctuations
- → Replaceable wearing parts and rewind able motor.
- → Stator and rotors are coated with rust proof solution for better corrosion resistance.

Selection Table

Pump Model	Power Rating kW	Power Rating HP	Rated Speed (RPM)	Pipe Size (mm) Suct.	Pipe Size (mm) Del.	Total Head (m) 6	8	10	12	14	15	16	18	19	20	22	24	25	26	28	30	32	34	Solid Size (mm)	Imp. Ø dia. (mm)	Dir. of Rotation
Monobloc Pumpsets						Discharge (LPM)																				
MNC011M	0.75	1.00	2900	40	40	330	300	266	228	162	138	86												7.00	116.00	ACW
MNC022M	1.50	2.00	2900	40	40			408	372	318	295	268	200	160	120									8.50	134.00	ACW
MNC033M	2.20	3.00	2900	50	50			564	540	516	474	444	378	342	306	216	126	60						10.50	144.30	ACW
MNC055M	3.70	5.00	1450	80	80		1110	1032	935	827	758	684	523	399	276									15.50	224.00	CW
MNC056M	3.70	5.00	2900	80	80										532	502	456	428	409	342	295	209	133	7.00	174.00	ACW
MNC077M	5.50	7.50	2900	80	80										846	831	817	798	770	678	570	439	291	14.50	174.00	ACW
Motor Coupled																										
MNC011	0.75	1.00	2850	40	40	288	264	240	180	132	78													7.00	116.00	ACW
MNC022	1.50	2.00	2850	40	40			366	330	282	258	216	174	132	90									8.50	134.00	ACW
MNC033	2.20	3.00	2850	50	50			558	534	492	462	438	378	342	306	222	132	72						10.50	144.30	ACW
MNC055	3.70	5.00	1420	80	80	1182	1110	1032	936	810	720	576	342	210										15.50	224.00	CW
MNC056	3.70	5.00	2900	80	80										532	502	456	428	409	342	295	209	133	7.00	174.00	ACW
MNC077	5.50	7.50	2900	80	80										846	831	817	798	770	678	570	439	291	14.50	174.00	ACW
MNC1010	7.50	10.00	1450	100	100			1900	1786	1653	1558	1482	1330	1254	1159	912	646	475						18.50	292.00	CW
MNC1212	9.30	12.50	1450	100	100			2280	2138	1976	1900	1824	1682	1590	1464	1300	1060	923	764	325				23.00	292.00	CW
MNC2020	15.00	20.00	1450	150	150			3753	3515	3306	3183	3050	2774	2588	2405	1900	1330							34.00	296.00	ACW
MNC2525	18.70	25.00	1450	150	150			4218	4093	3870	3756	3637	3323	3146	2947	2470	1921	1520	1123					40.00	296.00	ACW
Engine Coupled																										
MNC055	4.50	6.00	1500	80	80				1044	912	858	732	516	372										15.50	224.00	CW
MNC055	9.00	12.00	1800	80	80						1242	1218	1146	1104	1050	924	756	660	552	312				15.50	224.00	CW
MNC1010	9.00	12.00	1500	100	100				1998	1866	1794	1716	1542	1440	1350	1158	918	762	588					18.50	292.00	CW
MNC1212	10.50	14.00	1500	100	100				2310	2184	2124	2010	1890	1818	1740	1506	1236	1062	918	546				23.00	292.00	CW
MNC2020	16.50	22.00	1500	150	150			3900	3780	3600	3534	3396	3078	2970	2772	2358	1878	1596	1248					34.00	296.00	ACW
MNC2525	19.50	26.00	1500	150	150			4446	4284	4128	4062	3912	3624	3588	3300	2934	2424	2196	1830					40.00	296.00	ACW

NOTE: Performance applicable to liquid of specific gravity 1 & Viscosity as of water.
*MNC011M – 1 Ph & 3 Ph

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

WPO
Horizontal Open well Submersible pumpset– 1 Phase

Technical Data:
Flow: 740 LPM
Head: 33 m
Power: upto 3 HP
Voltage: 230 V

Application:
Water transfer in:

- ® Bungalows
- ® Farm houses
- ® Apartments

Standard Features:

- → Compact mechanical design
- → Highly durable water cooled rewindable motor
- → Designed for underwater applications in submerged condition
- → Designed for wide Voltage fluctuations
- → Dynamically balanced rotating parts to ensure
  – min. vibration, noise free operation & long bearing life
- → Carbon vs SS thrust bearing pads
  – for low power consumption & long life
- → Rotors are painted with epoxy paint
  – to protect from corrosion
- → All internal parts are specially coated
  – to prevent internal rusting
- → No suction & priming problem
- → High operating efficiencies of pumpset – result into Low power consumption & electric bills
- → Single Phase Pump set are supplied with Starter Box

Selection Table

Pump Model	Motor Rating kW	Motor Rating HP	Pipe Size (mm) Suct.	Pipe Size (mm) Del.		Total Head (m) 6.0	9.0	10.5	12	13.5	15	18	19.5	21	24	25.5	27	28.5	30	33
WPO05L	0.37	0.50	25	25		180	140	120	105	80	55									
WPO05H	0.37	0.50	25	25			125	115	105	95	85	60	40							
WPO010L	0.75	1.00	40	40		360	315	290	270	245	225	180	150	100						
WPO010H	0.75	1.00	32	25									150	140	115	100	90	75	60	
WPO015L	1.12	1.50	50	50			420	390	365	340	310	255	220	180	80					
WPO015H	1.12	1.50	40	40									200	180	150	135	118	100	80	
WPO020L	1.50	2.00	50	50			450	430	410	390	370	315	285	250	160	100				
WPO020H	1.50	2.00	40	40							290	270	260	250	225	210	190	170	150	80
WPO030L	2.24	3.00	65	50			740	700	660	630	590	500	450	400	210					

Discharge (LPM)

Pump Model	Motor Rating kW	Motor Rating HP	Pipe Size (mm) Suct.	Pipe Size (mm) Del.		Total Head (m) 9	12	15	*18*	21	*24*	27	30	33
WPO Maxima 05*	0.37	0.5	25	25	Discharge (LPM)	130	120	110	*85*	55	6			
WPO Maxima 10*	0.75	1.0	32	25			160	158	156	150	*135*	115	80	46

*220V

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

MPO
Horizontal Open well Submersible pumpset– 3 Phase

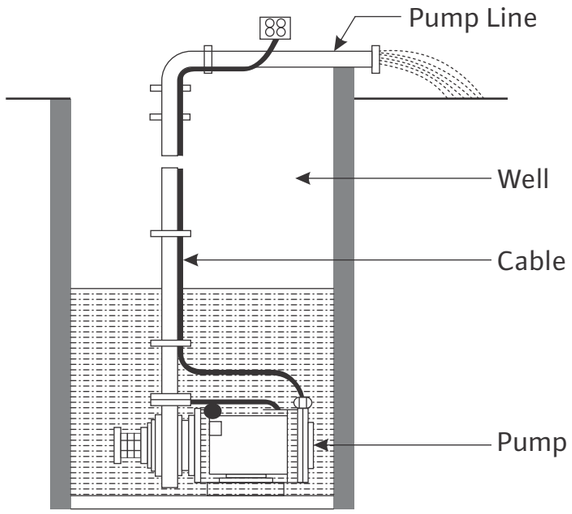
Technical Data:
Flow: 1460 LPM
Head: upto 62 m
Power: upto 10 hp
Voltage: available in 3 phase

Application:
Water transfer in:
- Bungalows
- Farm houses
- Apartments
- Agriculture

Standard Features:

- No need of foundation and foot wall as installed under water
- SS shaft for long and trouble free life
- Energy efficient motor design
- Motor designed to operate in wide voltage range
- Motor filled with anti corrosive liquid to increase life of internal parts
- Strong carbon v/s stainless steel thrust bearing for longer life

Typical Submerged Installation



Selection Table

Openwell 3 Phase

Pump Model	kW	HP	Outlet Size (mm)	Discharge (LPM)	Head (m)																									
					8	11	12	15	16	18	19	21	22	24	25	26	28	30	32	33	35	39	41	48	50	56
MPO020	1.50	2.00	40						250	235	220	195	180	150	130	115	50									
MPO020L	1.50	2.00	50		640	550	500	410	350																	
MPO031	2.20	3.00	40											250	240	235	220	205	190	180	150					
MPO032	2.20	3.00	40								350	330	320	290	275	250	180									
MPO033	2.20	3.00	50			680	660	585	550	485	435	300														
MPO034	2.20	3.00	65		930	810	775	600	400																	

Pump Model	kW	HP	Outlet Size (mm)	Discharge (LPM)	Head (m)																									
					8	11	12	15	16	18	19	21	22	24	25	26	28	30	32	33	35	39	41	48	50	56
MPO055	3.70	5.00	40												500	490	470	445	425	410	380	300	270			
MPO056	3.70	5.00	50								690	650	635	600	575	550	500	450	325							
MPO057	3.70	5.00	65				1150	1020	960	860	805	690	600	430												
MPO078	5.50	7.50	40																				330	240	210	60
MPO079	5.50	7.50	50													720	685	655	620	590	530	340	250			
MPO0710	5.50	7.50	65								1040	1000	980	920	900	870	785	730	640	590	420					
MPO0711	5.50	7.50	80						1450	1320	1270	1100	1030	850	780	620										

Pump Model	HP	Outlet Size (mm)	Discharge (LPM)	Head (m)																								
				19	21	24	27	30	32	33	34	35	38	42	48	50	53	56	59	60	62	65	68	71	74	78
MPO1012	10.0	40												470	420	405	370	325	250	230	100					
MPO1013	10.0	50							820	810	790	770	730	650	420	300										
MPO1014	10.0	65				1250	1150	1050	970	925	900	810	400													
MPO1015	10.0	80			1540	1390	1210	990	750	600																
MPO1016	10.0	80		1400	1200	500																				
MPO1217	12.5	50					1000	920	900	880	870	850	800	740	600	550	400									
MPO1218	12.5	65					1200	1140	1090	1050	1040	1000	910	650												
MPO1219	12.5	80			1770	1640	1470	1300	1060	920	780															

Pump Model	HP	Outlet Size (mm)	Discharge (LPM)	Head (m)																								
				19	21	24	27	30	32	33	34	35	38	42	48	50	53	56	59	60	62	65	68	71	74	78
MPO1520	15.0	50												900	780	735	660	550	440	400						
MPO1521	15.0	50														880	840	785	710	670	625	480	300			
MPO1522	15.0	65										1250	1160	1050	800	600										
MPO1523	15.0	80			1980	1860	1760	1640	1520	1475	1380	1290	800													
MPO2024	20.0	50																850	810	800	740	690	630	550	460	300
MPO2025	20.0	65													1280	1230	1150	1045	900	800	650					
MPO2026	20.0	80							1650	1620	1580	1540	1420	1200	600											
MPO2527	25.0	80											1860	1760	1550	1450	1300	1100								
MPO3028	30.0	80												2250	2080	2000	1830	1710	1550	1500	1350					

Conversion Table: 1 m = 3.281 ft and 1 m^3/hr = 16.67 LPM = 3.67 GPM

WBW4 – (Water filled)
Borewell submersible pumpset (100 mm)

Technical Data:
Flow: 500 LPM
Head: 1142 ft
Power: upto 5 HP

Application
- Domestic household water supply
- Water supply to high rise building, housing complex, villas, farm houses, gardens and nurseries
- Washing – garages, poultry farms, cattle farms, and stud farms
- Fountains

Standard Fetures:
- Discharge upto to 500 LPM
- Head upto 348 mts (1142 ft)
- Pumps from 0.37 kW (0.5 HP) upto 3.7 kW (5 HP)
- Wide voltage range available in single phase and three phase
- High grade engineered polymer – glass filled virgin Noryl
- High quality Winding Wires to ensure reliability & capability to withstand wide voltage fluctuation
- Adequate Bearing supports are provided at top, bottom and middle for better stability
- Casings are provided with wear ring (SS) for Longer life and ease in maintenance
- Top & Suction Bush are protected by proper Sand Guard arrangement
- Non return valve designed for minimum friction loss
- Water lubricated and fully rewindable motor with 2.75 m 3 core PVC flat cable along with earthing provision
- Resistant to corrosion and abrasion

Selection Table

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → B Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)					
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	10	20	30	40	50
WBW4B-05/07	7	0.50	0.37	5.3	–	32	Total Head (m)	53	49	43	37	30	19
WBW4B-08/09	9	0.75	0.55	6.2	2.75	32		66	60	53	44	34	21
WBW4B-08/10	10	0.75	0.55	6.2	2.75	32		73	67	59	49	38	23
WBW4B-10/12	12	1.00	0.75	7.5	3.25	32		86	77	69	59	43	25
WBW4B-10/13	13	1.00	0.75	7.5	3.25	32		93	84	75	63	47	28
WBW4B-10/14	14	1.00	0.75	7.5	3.25	32		101	90	81	68	51	30
WBW4B-10/16	16	1.00	0.75	7.5	3.25	32		115	103	92	78	58	34
WBW4B-15/18	18	1.50	1.10	10.5	4.00	32		131	119	106	90	68	40
WBW4B-15/20	20	1.50	1.10	10.5	4.00	32		145	132	118	100	76	44
WBW4B-20/25	25	2.00	1.50	13.8	4.80	32		189	165	141	124	98	60
WBW4B-30/36	36	3.00	2.20	19.8	6.90	32		264	238	209	176	126	72
WBW4B-30/38	38	3.00	2.20	19.8	6.90	32		278	251	220	185	133	76
WBW4B-30/40	40	3.00	2.20	19.8	6.90	32		293	264	232	195	140	80

Note: The above performance is based on mean supply voltage of 220 V / 415 V at 50 Hz and subject to change due to continuous R&D.

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → C Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)					
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	25	25	35	45	55
WBW4C-10/10	10	1.0	0.75	7.5	3.25	32	Total Head (m)	78	68	62	50	38	23
WBW4C-10/12	12	1.0	0.75	7.5	3.25	32		93	81	74	60	45	28
WBW4C-15/15	15	1.5	1.10	10.5	4.00	32		116	108	95	78	55	32
WBW4C-15/16	16	1.5	1.10	10.5	4.00	32		124	115	102	83	58	34
WBW4C-20/18	18	2.0	1.50	13.8	4.80	32		142	129	114	95	67	38
WBW4C-20/20	20	2.0	1.50	13.8	4.80	32		158	143	127	105	74	42
WBW4C-20/22	22	2.0	1.50	13.8	4.80	32		174	157	140	116	81	46
WBW4C-30/25	25	3.0	2.20	19.8	6.90	32		191	171	146	121	86	53
WBW4C-30/28	28	3.0	2.20	19.8	6.90	32		214	192	164	136	96	59
WBW4C-30/31	31	3.0	2.20	19.8	6.90	32		237	212	181	150	106	65
WBW4C-30/35	35	3.0	2.20	19.8	6.90	32		268	240	205	170	120	74
WBW4C-40/45	45	4.0	3.00	24.3	9.00	32		332	288	250	212	148	95
WBW4C-50/50	50	5.0	3.70	28.0	10.60	32		348	315	275	234	164	105

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → D Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)						
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	20	35	50	60	70	80
WBW4D-08/05	5	0.75	0.55	6.2	2.75	32	Total Head (m)	41	40	38	33	27	25	17
WBW4D-08/06	6	0.75	0.55	6.2	2.75	32		49	47	45	40	33	28	20
WBW4D-10/08	8	1.00	0.75	7.5	3.25	32		65	60	55	52	43	35	25
WBW4D-15/10	10	1.50	1.10	10.5	4.00	32		82	75	68	62	54	42	32
WBW4D-15/11	11	1.50	1.10	10.5	4.00	32		90	83	75	68	59	46	35
WBW4D-20/13	13	2.00	1.50	13.8	4.80	32		106	102	97	85	71	61	46
WBW4D-20/15	15	2.00	1.50	13.8	4.80	32		122	118	111	98	82	71	53
WBW4D-30/19	19	3.00	2.20	19.8	6.90	32		155	140	130	112	94	80	59
WBW4D-30/21	21	3.00	2.20	19.8	6.90	32		171	155	144	124	104	89	65
WBW4D-30/24	24	3.00	2.20	19.8	6.90	32		196	177	164	142	119	102	74
WBW4D-40/28	28	4.00	3.00	24.3	9.00	32		224	205	191	165	140	118	87
WBW4D-50/31	31	5.00	3.70	28.0	10.60	32		245	220	206	180	155	130	93
WBW4D-50/33	33	5.00	3.70	28.0	10.60	32		261	234	219	191	165	139	99
WBW4D-50/35	35	5.00	3.70	28.0	10.60	32		277	249	232	203	175	147	105
WBW4D-50/36	36	5.00	3.70	28.0	10.60	32		284	256	239	209	180	151	108
WBW4D-50/38	38	5.00	3.70	28.0	10.60	32		300	270	252	220	190	160	114

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → E Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)						
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	35	50	70	90	110	130
WBW4E-10/05	5	1.0	0.75	7.5	3.25	40	Total Head (m)	39	37	35	33	26	19	13
WBW4E-15/07	7	1.5	1.10	10.5	4.00	40		55	51	48	46	36	27	17
WBW4E-15/08	8	1.5	1.10	10.5	4.00	40		63	58	55	52	41	31	20
WBW4E-20/10	10	2.0	1.50	13.8	4.80	40		79	72	68	63	52	38	25
WBW4E-20/12	12	2.0	1.50	13.8	4.80	40		95	86	82	75	62	46	30
WBW4E-30/15	15	3.0	2.20	19.8	6.90	40		119	107	101	90	75	58	36
WBW4E-30/16	16	3.0	2.20	19.8	6.90	40		127	114	107	96	80	62	38
WBW4E-30/18	18	3.0	2.20	19.8	6.90	40		143	128	121	108	90	69	43
WBW4E-40/21	21	4.0	3.00	24.3	9.00	40		161	145	138	120	101	76	49
WBW4E-50/25	25	5.0	3.70	28.0	10.60	40		193	175	166	153	123	95	65

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → F Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)							
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	50	60	75	90	110	130	150
WBW4F-10/04	4	1.0	0.75	7.5	3.25	40	Total Head (m)	33	29	28	26	23	20	13	9
WBW4F-15/06	6	1.5	1.10	10.5	4.00	40		51	45	43	41	36	30	23	13
WBW4F-20/08	8	2.0	1.50	13.8	4.80	40		66	58	56	50	46	38	28	16
WBW4F-20/10	10	2.0	1.50	13.8	4.80	40		83	73	70	63	57	48	35	20
WBW4F-30/12	12	3.0	2.20	19.8	6.90	40		101	90	86	81	72	60	47	26
WBW4F-30/15	15	3.0	2.20	19.8	6.90	40		126	112	108	101	90	75	58	33
WBW4F-40/16	16	4.0	3.00	24.3	9.00	40		132	115	111	104	94	78	60	35
WBW4F-50/20	20	5.0	3.70	28.0	10.60	40		158	139	133	124	110	94	66	40
WBW4F-50/22	22	5.0	3.70	28.0	10.60	40		174	153	146	136	121	104	73	44
WBW4F-50/25	25	5.0	3.70	28.0	10.60	40		198	174	166	155	138	119	83	50

Note: The above performance is based on mean supply voltage of 220 V / 415 V at 50 Hz and subject to change due to continuous R&D.

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → G Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)								
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	100	120	140	*160*	180	200	220	240
WBW4G-20/08	8	2.0	1.50	13.80	4.80	50	Total Head (m)	55	45	41	37	*32*	27	22	16	9
WBW4G-30/10	10	3.0	2.20	19.80	6.90	50		68	57	52	47	*40*	34	28	20	12
WBW4G-30/12	12	3.0	2.20	19.80	6.90	50		82	68	62	56	*48*	41	33	24	14
WBW4G-50/17	17	5.0	3.70	28.00	10.60	50		116	96	88	79	*68*	58	47	34	20
WBW4G-50/20	20	5.0	3.70	28.00	10.60	50		137	113	103	93	*80*	68	55	40	23

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → H Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)								
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	120	180	240	*280*	320	360	400	415
WBW4H-30/07	7	3.0	2.20	19.80	6.90	50	Total Head (m)	41	34	31	27	*25*	21	16	13	10
WBW4H-30/09	9	3.0	2.20	19.80	6.90	50		52	43	40	35	*32*	27	21	16	13
WBW4H-50/12	12	5.0	3.70	28.00	10.60	50		70	58	53	47	*42*	36	28	22	17
WBW4H-50/14	14	5.0	3.70	28.00	10.60	50		82	68	62	55	*49*	42	33	26	20

Selection Chart – 4" (100mm) WILO Borehole Submersible Pump Sets → I Series, 1 Phase / 3 Phase @ 2800 RPM

Pump Set – Description	No. of Stage	Motor Rating		Rated Current		Discharge		Discharge (LPM)								
		HP	kW	1 Ph	3 Ph	Dia. (mm)		0	180	220	280	*340*	380	420	460	500
WBW4I-20/05	5	2.0	1.50	13.80	4.80	50/65*	Total Head (m)	31	24	21	20	*17*	15	14	12	10
WBW4I-30/07	7	3.0	2.20	19.80	6.90	50/65*		43	33	30	28	*24*	21	20	17	13
WBW4I-40/09	9	4.0	3.00	24.30	9.00	50/65*		56	43	38	36	*30*	27	25	22	17
WBW4I-50/11	11	5.0	3.70	28.00	10.60	50/65*		68	52	47	44	*37*	33	31	27	21

Note: The above performance is based on mean supply voltage of 220 V / 415 V at 50 Hz and subject to change due to continuous R&D.

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

WBW6 – (Water filled)

Borewell submersible pumpset (150 mm)

Technical Data:
Flow: 1250 LPM
Head: 745 ft
Power: upto 12.5 HP

Application

- Domestic & community water supply
- Water supply to high rise building, housing complex, villas & hotels, fountains
- Farm houses, gardens and nurseries
- Drip and sprinkler irrigation
- Washing – garages, poultry farms, cattle farms, and stud farms
- Industrial applications

Standard Fetures:

- Discharge upto to 440 LPM
- Head upto 227 m (745 ft)
- Pumps from 2.2 kW (3.0 HP) upto 9.3 kW (12.5 HP)
- Wide voltage range available
- High quality winding wires to ensure reliability & capability to withstand wide voltage fluctuation
- Adequate bearing supports are provided at top, bottom and middle for better stability
- Top & suction bush are protected by proper sand guard arrangement
- Non return valve designed for minimum friction loss
- Water lubricated and fully rewindable motor with 2.75 m 3 core PVC flat cable along with earthing provision
- WBW6-A to K Series with in-built CI diffuser, S S impeller and SS sleeve with hard chrome plating

Conversion Table: 1 m = 3.281 ft and 1 m³/hr = 16.67 LPM = 3.67 GPM

SELECTION CHART

Selection Chart– 6" (150 mm) WILO Borehole Submersible Pump Sets → A to K Series, 3 Phase @ 2900 RPM

Pump Set – Description	No. of Stage	Motor Rating HP	Motor Rating kW	Starting method	Rated Current 3 Ph	Discharge Dia. (mm)	Discharge (LPM)							
							0	**50**	**75**	**100**	***130***	**150**	**175**	**200**
WBW6A–30/08	8	3.0	2.2	DOL	6.5	50	81	73	69	62	*50*	41	29	17
							0	**75**	**100**	***140***	**150**	**175**	**200**	**225**
WBW6B–30/06	6	3.0	2.2	DOL	6.5	50	68	60	56	*46*	43	35	25	13
WBW6B–40/10	10	4.0	3.0	DOL	8.5	50	113	100	93	*77*	72	58	42	22
WBW6B–50/12	12	5.0	3.7	DOL	10.0	50	136	120	112	*92*	86	70	50	26
WBW6B–75/16	16	7.5	5.5	DOL	14.5	50	181	160	149	*123*	115	93	67	35
WBW6B–75/16	16	7.5	5.5	S/D	14.5	50	181	160	149	*123*	115	93	67	35
WBW6B–75/20	20	7.5	5.5	DOL	14.5	50	227	200	187	*153*	143	117	83	43
WBW6B–75/20	20	7.5	5.5	S/D	14.5	50	227	200	187	*153*	143	117	83	43
							0	**100**	**125**	**150**	***190***	**200**	**250**	**300**
WBW6C–50/08	8	5.0	3.7	DOL	10.0	50	87	79	76	72	*63*	60	44	24
WBW6C–60/10	10	6.0	4.5	DOL	12.0	50	109	99	95	90	*79*	75	55	30
WBW6C–75/12	12	7.5	5.5	DOL	14.5	50	131	119	114	108	*95*	90	66	36
WBW6C–75/12	12	7.5	5.5	S/D	14.5	50	131	119	114	108	*95*	90	66	36
WBW6C–100/16	16	10.0	7.5	S/D	19.5	50	174	158	152	144	*126*	120	88	48
							0	**125**	**150**	**200**	***245***	**300**	**350**	**400**
WBW6E–30/04	4	3.0	2.2	DOL	6.5	50	45	41	40	37	*33*	27	22	14
							0	**100**	**175**	***235***	**300**	**350**	**400**	**440**
WBW6F–30/03	3	3.0	2.2	DOL	6.5	50	37	36	35	*32*	27	23	17	13
WBW6F–50/05	5	5.0	3.7	DOL	10.0	50	62	60	58	*54*	46	38	29	21
WBW6F–75/08	8	7.5	5.5	DOL	14.5	50	98	96	93	*86*	73	61	46	34
WBW6F–75/08	8	7.5	5.5	S/D	14.5	50	98	96	93	*86*	73	61	46	34
WBW6F–100/10	10	10.0	7.5	S/D	19.5	50	123	120	116	*107*	91	76	58	42
							0	**350**	**400**	***450***	**520**	**570**	**620**	**715**
WBW6G–50/05	5	5.0	3.7	DOL	10.0	65	54	42	40	*36*	32	28	16	6
WBW6G–75/08	8	7.5	5.5	DOL	14.5	65	87	67	64	*58*	51	44	26	10
WBW6G–75/08	8	7.5	5.5	S/D	14.5	65	87	67	64	*58*	51	44	26	10
WBW6G–100/10	10	10.0	7.5	S/D	19.5	65	109	84	80	*73*	64	55	33	13
WBW6G–125/12	12	12.5	9.3	S/D	25.0	65	131	101	96	*87*	77	66	39	15
							0	**400**	**450**	***510***	**600**	**650**	**700**	**750**
WBW6H–50/04	4	5.0	3.7	DOL	10.0	65	44	33	31	*28*	22	18	13	9
							0	**450**	**550**	***660***	**700**	**750**	**850**	**930**
WBW6I–50/03	3	5.0	3.7	DOL	10.0	75	37	28	26	*22*	20	19	13	8
WBW6I–75/05	5	7.5	5.5	DOL	14.5	75	62	47	43	*37*	34	31	21	13
WBW6I–75/05	5	7.5	5.5	S/D	14.5	75	62	47	43	*37*	34	31	21	13
							0	**550**	**650**	***750***	**850**	**950**	**1050**	**1200**
WBW6J–75/04	4	7.5	5.5	DOL	14.5	75	48	36	34	*33*	30	27	22	14
WBW6J–75/04	4	7.5	5.5	S/D	14.5	75	48	36	34	*33*	30	27	22	14
WBW6J–100/05	5	10.0	7.5	S/D	19.5	75	60	45	43	*41*	38	34	28	18
							0	**650**	**750**	***860***	**950**	**1050**	**1150**	**1250**
WBW6K–75/03	3	7.5	5.5	DOL	14.5	75	41	29	28	*26*	25	22	17	12
WBW6K–75/03	3	7.5	5.5	S/D	14.5	75	41	29	28	*26*	25	22	17	12
WBW6K–100/04	4	10.0	7.5	S/D	19.5	75	55	39	37	*35*	33	29	22	16

Total Head (m)

• Contact us for higher duties

Note: The above performance is based on mean supply voltage of 415 V at 50 Hz and subject to change due to continuous R&D.

Conversion Table: 1 m = 3.281 ft

1 m^3/hr = 16.67 LPM = 3.67 GPM

Control Panel for WBW4

Control Panel for Borewell submersible pumpset (WBW4)

Technical Data:
Power: 0.5 HP to 5.0 HP
Phase: 1 Ph & 3 Ph

Application

- ® Domestic household water supply
- ® Water supply to high rise buildings, housing complex, villas, farm houses, gardens & nurseries
- ® Washing – garages, poultry farms, cattle farms & stud farms
- ® Fountains

Common Standard Features:

- → Excellent aesthetically designed & Robust construction
- → Wall mounted/Floor Mounted Powder coated sheet metal enclosure, 1 nos. of earth terminal
- → Easy to install, operate & maintain
- → Fitted with 4 Pole heavy duty contactor it's can operate under wide voltage range
- → Backup O/L Protection by OLR
- → Highly Precise Digital display unit for Full Fledged Motor Protection
- → Password protection for security
- → Plug & Play– interchangeable parts

Control Panel– Single Phase:

- → Digital DRP Controller with Dry Run, Over Voltage, Under Voltage protection
- → Over Load Relay for Over Load protection with wide range of Relay setting suitable for site conditions
- → Start & Stop Push Buttons
- → Start Capacitor for starting torque, run capacitor with connector for easy replacement

Control Panel– Three Phase:

- → Digital Multifunction Controller with Dry Run, Over Voltage, Under Voltage, Single Phase Protection
- → Over Load Relay for Over Load protection with wide range of Relay setting suitable for site conditions
- → Controller working in three modes – Auto Mode, Manual Mode & Timer Mode
- → Twin Start & Stop Push Buttons, ON + OFF Timer & Auto Switch for Automatic Operation

Technical Specification of Control Panel

Motor Rating		Control Panel– Single Phase						Control Panel– Three Phase			
		Running Capacitor	Starting Capacitor	Full Load Current (FLC)	OLR Selection	Overvoltage (OV)	Undervoltage (UV)	Full Load Current (FLC)	OLR Selection	Overvoltage (OV)	Undervoltage (UV)
HP	kW	(MFD)	(MFD)	(A)	(A)	(V)	(V)	(A)	(A)	(V)	(V)
0.50	0.37	36	120/150	5.3	*6–10*	240	150	NA	*NA*	NA	NA
0.75	0.55	36	120/150	6.2	*6–10*	240	150	2.75	*2.5 – 4.0*	440	250
1.00	0.75	36	120/150	7.5	*9–14*	240	150	3.25	*2.5 – 4.0*	440	250
1.50	1.10	45	150/200	10.5	*9–14*	240	150	4.00	*4.0 – 6.5*	440	250
2.00	1.50	60	150/200	13.8	*13–21*	240	150	4.80	*4.0 – 6.5*	440	250
3.00	2.20	72	200/250	19.8	*20–32*	240	150	6.90	*6.0 – 10.0*	440	250
4.00	3.00	100	200/250	26.0	*20–32*	240	150	9.00	*9.0 – 14.0*	440	250
5.00	3.70	100	200/250	30.0	*30–40*	240	150	10.60	*9.0 – 14.0*	440	250

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