atac

ATAC Solutions Ltd is a leading environmental engineering company based in Maidstone, United Kingdom.

ATAC Solutions is known for its state-of-the-art liquid collection fleet and its expertise in providing bespoke turnkey wastewater process solutions.

With a focus on sustainability and accreditation in ISO 9001 & ISO 14001, the company serves domestic and industrial clients across the South-East and London.

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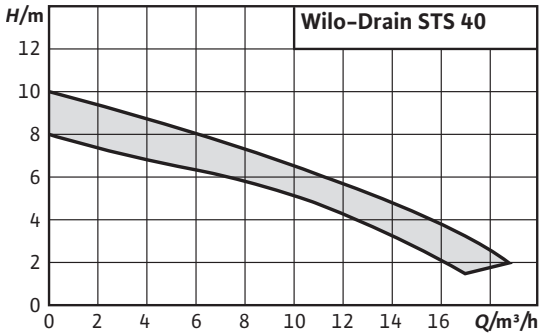
Series description: Wilo-Drain STS 40



Design
Submersible sewage pump

Application
Pumping of heavily contaminated fluids for:
- Domestic and site drainage
- Sewage disposal (pumping of sewage free of faeces) in accordance with DIN EN 12050-2)
- Water management
- Environmental and water treatment technology
- Industrial and process engineering

Type key

e.g.:	Wilo-Drain STS 40/10-A
STS	Submersible pump
40	Nominal diameter [mm]
10	Max. delivery head [m]
A	With float switch

Special features/product advantages
- Attached float switch (A-model) enables easy operation
- Integrated pump base for easy installation
- Impeller made of stainless steel
- Low weight

Technical data
- Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz
- Immersed operating mode: S1 or S3 25%
- Protection class: IP 68
- Insulation class: B
- Thermal winding monitoring
- Max. fluid temperature: 3 - 35 °C
- Cable length: 10 m
- Free ball passage: 40 mm
- Max. immersion depth: 5 m

Equipment/function
- Ready-to-plug single-phase version
- A-model version including float switch
- Thermal motor monitoring

Description/design
Submersible sewage pump as submersible monobloc unit for stationary and portable wet well installation.
Hydraulics
The outlet on the pressure side is designed as vertical threaded connection Rp 1½. Vortex impellers are used as the impeller shapes.
Motor
Dry motors give off their heat directly to the surrounding fluid via the housing components and can be used in immersed state for permanent or intermittent operation.
A sealing chamber protects the motor from fluid ingress. The filling fluid used is potentially biodegradable and environmentally safe.
The single-phase AC motors are equipped with shockproof plugs, and A-model versions with float switches. The three-phase AC motors are equipped with bare cable ends.
Sealing
Sealing on the fluid side is achieved by a bidirectional mechanical seal, while sealing on the motor side is achieved by a rotary shaft seal.

Materials
- Pump housing: EN-GJL-250
- Pedestal: grey cast iron
- Impeller: stainless steel 1.4301
- Shaft: stainless steel 1.4404
- Mechanical seal on pump side: carbon/ceramic
- Shaft seal on motor side: NBR
- Static gasket: NBR
- Motor housing: stainless steel 1.4301

Scope of delivery
- Pump ready for connection with 10 m connection cable
  - For 1~230 V with shock-proof plug
  - For 3~400 V with bare cable end
- A-model version with attached float switch
- Installation and operating instructions

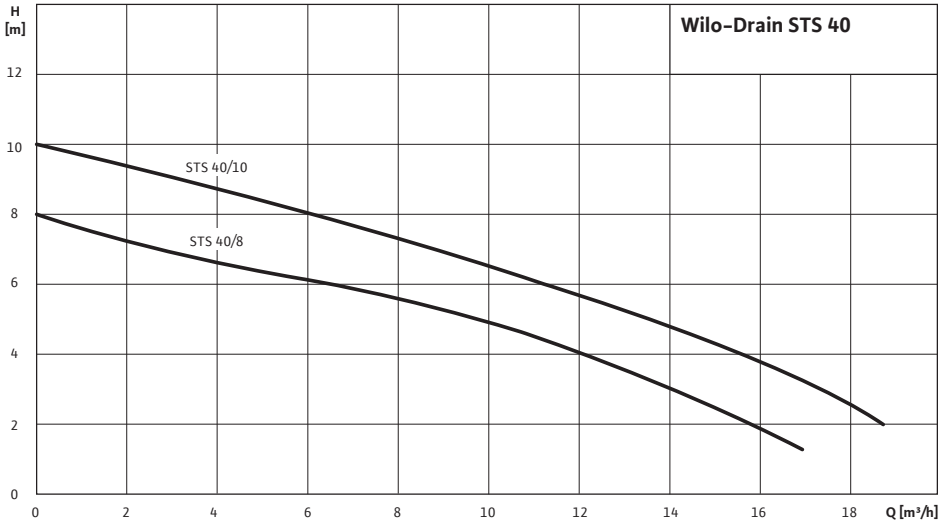
Series description: Wilo-Drain STS 40

Accessories

- Non-return valve and gate valve
- Various pressure outlets and hoses
- Switchgears and relays

Duty chart: Wilo-Drain STS 40

Duty chart



Equipment/function: Wilo-Drain STS 40

Design	
Submersible	•
Single-channel impeller	–
Vortex impeller	•
Multi-channel impeller	–
Open multi-channel impeller	–
Macerator	–
Turbulator	–
Sealing chamber	•
Leakage chamber	–
Sealing by mechanical seal on motor side	–
Sealing by rotary shaft seal on motor side	•
Sealing by mechanical seal on fluid side	•
AC motor	•
Three-phase motor	•
Direct activation	•
Star-delta activation	–
FC operation	–
dry motor	•
Motor with oil cooling	–
Dry motor with closed-circuit cooling	–
Application	
Wet well installation, stationary	–
Wet well installation, portable	•
Dry well installation, stationary	–
Dry well installation, portable	–
Equipment/function	
Motor leakage monitoring	–
Sealing chamber monitoring	–
Leakage chamber monitoring	–
Motor temperature monitoring, bimetal	•
PTC motor temperature monitoring	–
Explosion protection	–
Float switch	Version A
Capacitor box for 1~230 V	integrated
Ready-to-plug	1~
Materials	
Pump housing	Cast iron
Impeller	Cast iron
Motor housing	Stainless steel

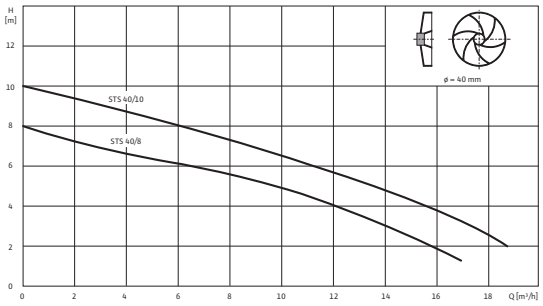
• = available, - = not available; o = optional

Product list: Wilo-Drain STS 40

Pump type	Mains connection	Max. volume flow	Max. delivery head	Rated current	Nominal motor power	Max. immersion depth	Art no.
		Q_{max} / m^3/h	H_{max} / m	I_N / A	P_2 / kW		
STS 40/8-A	1~230 V, 50 Hz	15	8	4	0.6	5	2065868
STS 40/8	1~230 V, 50 Hz	15	8	4	0.6	5	2065866
STS 40/8	3~400 V, 50 Hz	15	8	2	0.6	5	2065870
STS 40/10-A	1~230 V, 50 Hz	20	10	4	0.75	5	2065874
STS 40/10	1~230 V, 50 Hz	20	10	4	0.75	5	2065872
STS 40/10	3~400 V, 50 Hz	20	10	2	0.75	5	2065876

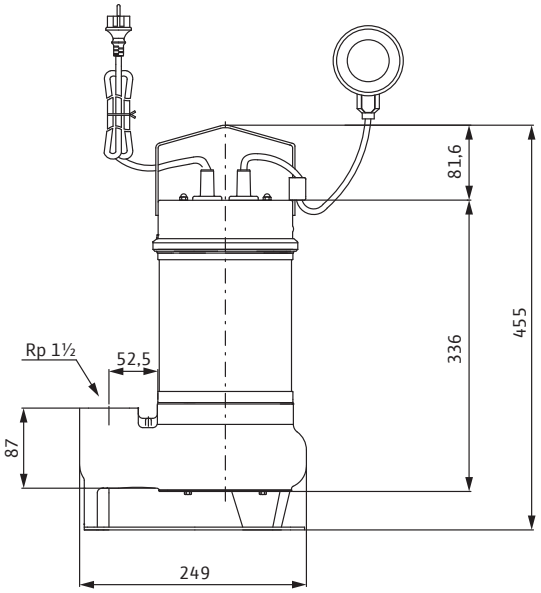
Data sheet: Wilo-Drain STS 40/8-A (1~230 V)

Pump curves Wilo-Drain STS 40 - 50 Hz - No. of poles: 2



Pump curves in accordance with ISO 9906, Appendix A

Dimension drawing Wilo-Drain STS 40/8-A (1~230V)



Unit		
Max. delivery head	H_{max}	8.0 m
Max. volume flow	Q_{max}	15.0 m³/h
Pressure connection		R 1½
Maximum operating pressure	p_{max}	2 bar
Free ball passage		40 mm
Operating mode (immersed)		S1
Operating mode (non-immersed)		–
Max. immersion depth		5 m
Protection class		IP 68
Fluid temperature	T	+3 ... +35 °C
Weight approx.	m	20.2 kg
Motor data		
Mains connection		1~230 V, 50 Hz
Rated current	I_N	3.6 A
Nominal motor power	P_2	0.6 kW
Power consumption	P_1	0.8 kW
Power factor	$\cos \varphi$	0.99
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		B
Recommended switching frequency		20 1/h
Max. switching frequency		50 1/h
Permitted voltage tolerance		±10 %
Cable		
Length of connecting cable		10 m
Cable type		H07RN-F
Cable cross-section		3G1 mm²
Type of connecting cable		Detachable
Mains plug		Shock-proof
Equipment/function		
Float switch		•
Motor protection		WSK
Materials		
Static seal		NBR
Impeller		1.4301 [AISI304]

Data sheet: Wilo-Drain STS 40/8-A (1~230 V)

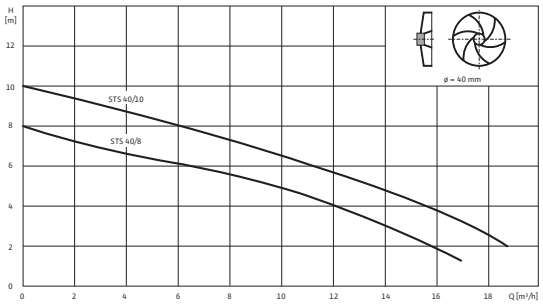
Sealing on motor side	NBR
Mechanical seal	Carbon/ceramic
Motor housing	1.4301
Pump housing	EN-GJL-250
Pump shaft	1.4404 [AISI316L]

Information for order placements

Make	Wilo
Art no.	2065868
EAN number	4016322869993
Price group	PG7

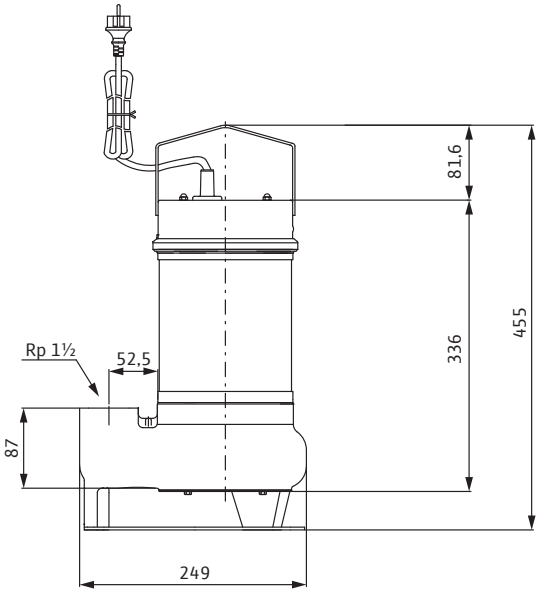
Data sheet: Wilo-Drain STS 40/8 (1~230 V)

Pump curves Wilo-Drain STS 40 - 50 Hz - No. of poles: 2



Pump curves in accordance with ISO 9906, Appendix A

Dimension drawing Wilo-Drain STS 40/8 (1~230V)



Unit		
Max. delivery head	H_{max}	8.0 m
Max. volume flow	Q_{max}	15.0 m³/h
Pressure connection		R 1½
Maximum operating pressure	p_{max}	2 bar
Free ball passage		40 mm
Operating mode (immersed)		S1
Operating mode (non-immersed)		–
Max. immersion depth		5 m
Protection class		IP 68
Fluid temperature	T	+3 ... +35 °C
Weight approx.	m	20.0 kg

Motor data		
Mains connection		1~230 V, 50 Hz
Rated current	I_N	3.6 A
Nominal motor power	P_2	0.6 kW
Power consumption	P_1	0.8 kW
Power factor	$\cos \varphi$	0.99
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		B
Recommended switching frequency		20 1/h
Max. switching frequency		50 1/h
Permitted voltage tolerance		±10 %

Cable	
Length of connecting cable	10 m
Cable type	H07RN-F
Cable cross-section	3G1 mm²
Type of connecting cable	Detachable
Mains plug	Shock-proof

Equipment/function	
Float switch	–
Motor protection	WSK

Materials	
Static seal	NBR
Impeller	1.4301 [AISI304]

Data sheet: Wilo-Drain STS 40/8 (1~230 V)

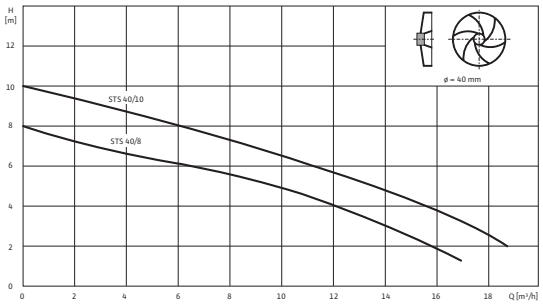
Sealing on motor side	NBR
Mechanical seal	Carbon/ceramic
Motor housing	1.4301
Pump housing	EN-GJL-250
Pump shaft	1.4404 [AISI316L]

Information for order placements

Make	Wilo
Art no.	2065866
EAN number	4016322869979
Price group	PG7

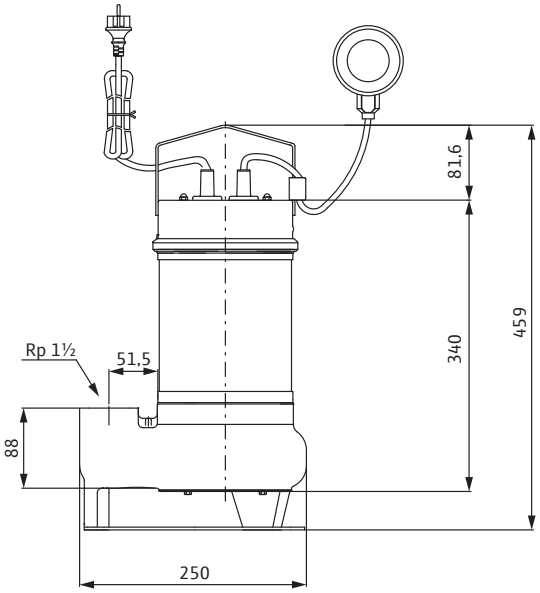
Data sheet: Wilo-Drain STS 40/10-A (1~230 V)

Pump curves Wilo-Drain STS 40 - 50 Hz - No. of poles: 2



Pump curves in accordance with ISO 9906, Appendix A

Dimension drawing Wilo-Drain STS 40/10-A (1~230V)



Unit		
Max. delivery head	H_{max}	10.0 m
Max. volume flow	Q_{max}	20.0 m³/h
Pressure connection		R 1½
Maximum operating pressure	p_{max}	2 bar
Free ball passage		40 mm
Operating mode (immersed)		S1
Operating mode (non-immersed)		–
Max. immersion depth		5 m
Protection class		IP 68
Fluid temperature	T	+3 ... +35 °C
Weight approx.	m	20.2 kg

Motor data		
Mains connection		1~230 V, 50 Hz
Rated current	I_N	4.5 A
Nominal motor power	P_2	0.75 kW
Power consumption	P_1	1.0 kW
Power factor	$\cos \varphi$	0.97
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		B
Recommended switching frequency		20 1/h
Max. switching frequency		50 1/h
Permitted voltage tolerance		±10 %

Cable	
Length of connecting cable	10 m
Cable type	H07RN-F
Cable cross-section	3G1 mm²
Type of connecting cable	Detachable
Mains plug	Shock-proof

Equipment/function	
Float switch	•
Motor protection	WSK

Materials	
Static seal	NBR
Impeller	1.4301 [AISI304]

Data sheet: Wilo-Drain STS 40/10-A (1~230 V)

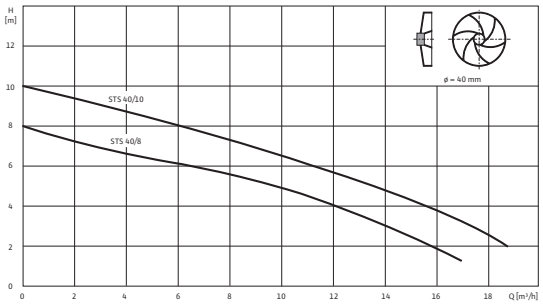
Sealing on motor side	NBR
Mechanical seal	Carbon/ceramic
Motor housing	1.4301
Pump housing	EN-GJL-250
Pump shaft	1.4404 [AISI316L]

Information for order placements

Make	Wilo
Art no.	2065874
EAN number	4016322870159
Price group	PG7

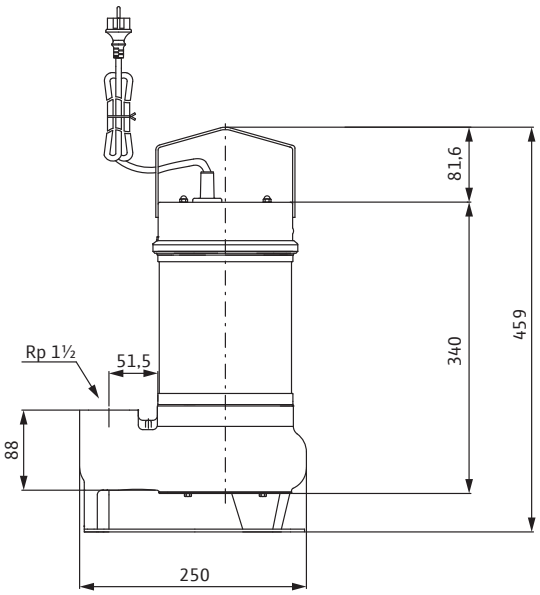
Data sheet: Wilo-Drain STS 40/10 (1~230 V)

Pump curves Wilo-Drain STS 40 - 50 Hz - No. of poles: 2



Pump curves in accordance with ISO 9906, Appendix A

Dimension drawing Wilo-Drain STS 40/10 (1~230V)



Unit		
Max. delivery head	H_{max}	10.0 m
Max. volume flow	Q_{max}	20.0 m³/h
Pressure connection		R 1½
Maximum operating pressure	p_{max}	2 bar
Free ball passage		40 mm
Operating mode (immersed)		S1
Operating mode (non-immersed)		–
Max. immersion depth		5 m
Protection class		IP 68
Fluid temperature	T	+3 ... +35 °C
Weight approx.	m	20.0 kg

Motor data		
Mains connection		1~230 V, 50 Hz
Rated current	I_N	4.5 A
Nominal motor power	P_2	0.75 kW
Power consumption	P_1	1.0 kW
Power factor	$\cos \varphi$	0.97
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		B
Recommended switching frequency		20 1/h
Max. switching frequency		50 1/h
Permitted voltage tolerance		±10 %

Cable	
Length of connecting cable	10 m
Cable type	H07RN-F
Cable cross-section	3G1 mm²
Type of connecting cable	Detachable
Mains plug	Shock-proof

Equipment/function	
Float switch	–
Motor protection	WSK

Materials	
Static seal	NBR
Impeller	1.4301 [AISI304]

Data sheet: Wilo-Drain STS 40/10 (1~230 V)

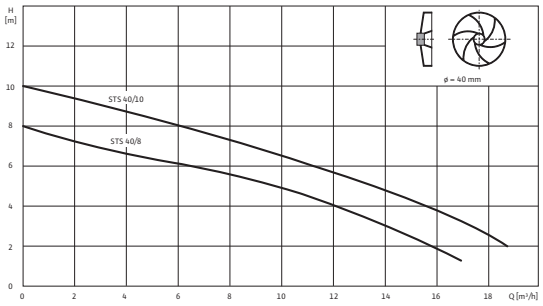
Sealing on motor side	NBR
Mechanical seal	Carbon/ceramic
Motor housing	1.4301
Pump housing	EN-GJL-250
Pump shaft	1.4404 [AISI316L]

Information for order placements

Make	Wilo
Art no.	2065872
EAN number	4016322870036
Price group	PG7

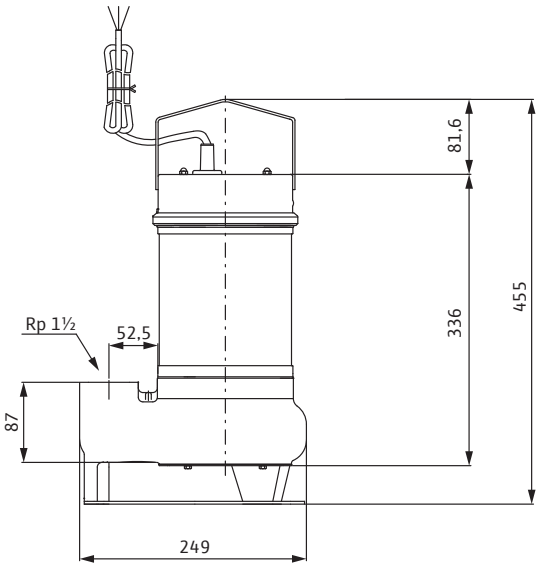
Data sheet: Wilo-Drain STS 40/8 (3~400 V)

Pump curves Wilo-Drain STS 40 - 50 Hz - No. of poles: 2



Pump curves in accordance with ISO 9906, Appendix A

Dimension drawing Wilo-Drain STS 40/8 (3~400V)



Unit		
Max. delivery head	H_{max}	8.0 m
Max. volume flow	Q_{max}	15.0 m³/h
Pressure connection		R 1½
Maximum operating pressure	p_{max}	2 bar
Free ball passage		40 mm
Operating mode (immersed)		S1
Operating mode (non-immersed)		–
Max. immersion depth		5 m
Protection class		IP 68
Fluid temperature	T	+3 ... +35 °C
Weight approx.	m	20.0 kg

Motor data		
Mains connection		3~400 V, 50 Hz
Rated current	I_N	1.7 A
Nominal motor power	P_2	0.6 kW
Power consumption	P_1	0.8 kW
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		B
Recommended switching frequency		20 1/h
Max. switching frequency		50 1/h
Permitted voltage tolerance		±10 %

Cable	
Length of connecting cable	10 m
Cable type	H07RN-F
Cable cross-section	4G1 mm²
Type of connecting cable	Detachable
Mains plug	–

Equipment/function	
Float switch	–
Motor protection	WSK

Materials	
Static seal	NBR
Impeller	1.4301 [AISI304]
Sealing on motor side	NBR

Data sheet: Wilo-Drain STS 40/8 (3~400 V)

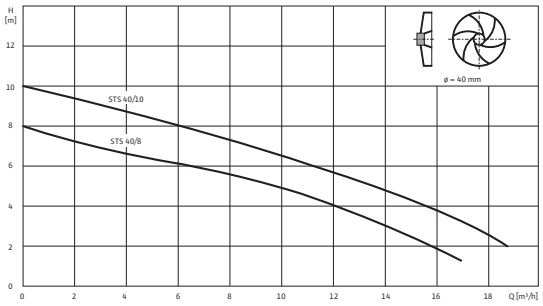
Mechanical seal	Carbon/ceramic
Motor housing	1.4301
Pump housing	EN-GJL-250
Pump shaft	1.4404 [AISI316L]

Information for order placements

Make	Wilo
Art no.	2065870
EAN number	4016322870012
Price group	PG7

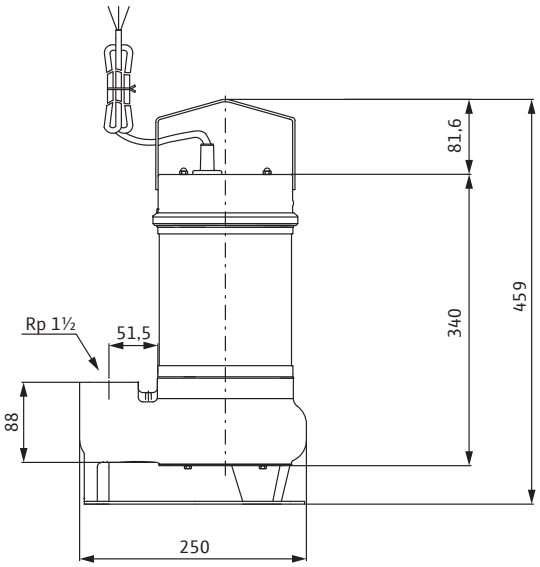
Data sheet: Wilo-Drain STS 40/10 (3~400 V)

Pump curves Wilo-Drain STS 40 - 50 Hz - No. of poles: 2



Pump curves in accordance with ISO 9906, Appendix A

Dimension drawing Wilo-Drain STS 40/10 (3~400V)



Unit		
Max. delivery head	H_{max}	10.0 m
Max. volume flow	Q_{max}	20.0 m³/h
Pressure connection		Rp 1½
Maximum operating pressure	p_{max}	2 bar
Free ball passage		40 mm
Operating mode (immersed)		S1
Operating mode (non-immersed)		–
Max. immersion depth		5 m
Protection class		IP 68
Fluid temperature	T	+3 ... +35 °C
Weight approx.	m	20.0 kg

Motor data		
Mains connection		3~400 V, 50 Hz
Rated current	I_N	2.0 A
Nominal motor power	P_2	0.75 kW
Power consumption	P_1	0.92 kW
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		B
Recommended switching frequency		20 1/h
Max. switching frequency		50 1/h
Permitted voltage tolerance		±10 %

Cable	
Length of connecting cable	10 m
Cable type	H07RN-F
Cable cross-section	4G1 mm²
Type of connecting cable	Detachable
Mains plug	–

Equipment/function	
Float switch	–
Motor protection	WSK

Materials	
Static seal	NBR
Impeller	1.4301 [AISI304]
Sealing on motor side	NBR

Data sheet: Wilo-Drain STS 40/10 (3~400 V)

Mechanical seal	Carbon/ceramic
Motor housing	1.4301
Pump housing	EN-GJL-250
Pump shaft	1.4404 [AISI316L]

Information for order placements

Make	Wilo
Art no.	2065876
EAN number	4016322870173
Price group	PG7