



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.

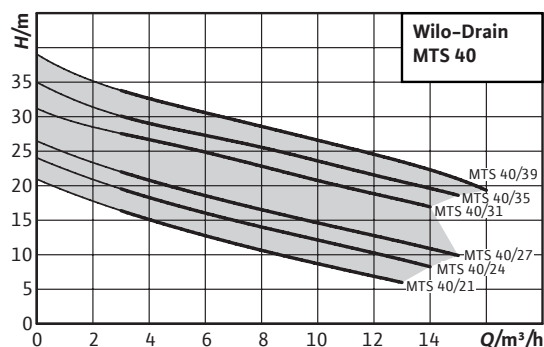


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Axiom Water companies

Series description: Wilo-Drain MTS



Design

Submersible sewage pump with internal macerator for intermittent operation with grey cast iron hydraulics and stainless steel motor for stationary and portable wet well installation.

Application

Pumping of sewage containing faeces as well as municipal and industrial sewage, including long-fibre constituents, in

- Pressure drainage
- House drainage
- Sewage disposal
- Water management
- Environmental and water treatment technology

Type key

e.g.:	Wilo-Drain MTS 40/27-1-230-50-2
MT	Macerator technology
S	Stainless steel motor
40	Nominal diameter of pressure port [mm]
27	Max. delivery head [m]
1	Phase specification
230	Rated voltage
50	Frequency
2	Number of poles

Special features/product advantages

- Internal macerator
- Low weight because of stainless steel motor
- With explosion protection as standard

Technical data

- Mains connection: 3~400 V, 50 Hz
- Submerged operating mode: S1

Equipment/function

- Patented, spherically formed macerator with internal rotating blade and pulling cut
- Winding temperature monitoring with bimetallic strip
- ATEX approval

Description/design

Submersible sewage pump with spherically formed, internal macerator as submersible monobloc unit for stationary and portable wet well installation in intermittent operation.

Hydraulics

The outlet on the pressure side is designed as horizontal threaded connection (Rp 1¼" for MTS 40/21...27) or flange connection. The maximum possible dry matter is 8 % (depending on the hydraulics) Single-channel impellers are used.

Motor

Three-phase current glanded motors for direct starting are used as the motors. The waste heat is given off directly to the surrounding fluid via the motor housing. These motors can operated immersed in permanent operation (S1) and non-immersed in short-term operation (S2) or intermittent operation (S3).

Furthermore the motors are equipped with thermal winding monitoring. This protects the motor windings against overheating. Bimetallic strips are used for this as standard.

The connection cable has bare cable ends and a length of 10 m as standard.

Seal

There is a sealing chamber between the motor and hydraulics. It is filled with medical white oil and protects the motor from media ingress by the seal on pump side. Sealing on the pump side is achieved by a bidirectional mechanical seal, while sealing on the motor side is achieved by a rotary shaft seal.

Materials

- Motor housing: Stainless steel 1.4404
- Hydraulic housing: EN-GJL-250
- Impeller: EN-GJL-250

Series description: Wilo-Drain MTS

- Non-immersed operating mode: S2-8 min; S3 25%
- Protection class: IP 68
- Insulation class: F
- Fluid temperature: 3...40 °C
- Max. submersion depth: 10 m
- Cable length: 10 m

- Shaft: Stainless steel 1.4021
- Macerator: Stainless steel 1.4528
- Sealing on pump side: SiC/SiC
- Sealing on motor side: NBR
- Static gasket: NBR

Scope of delivery

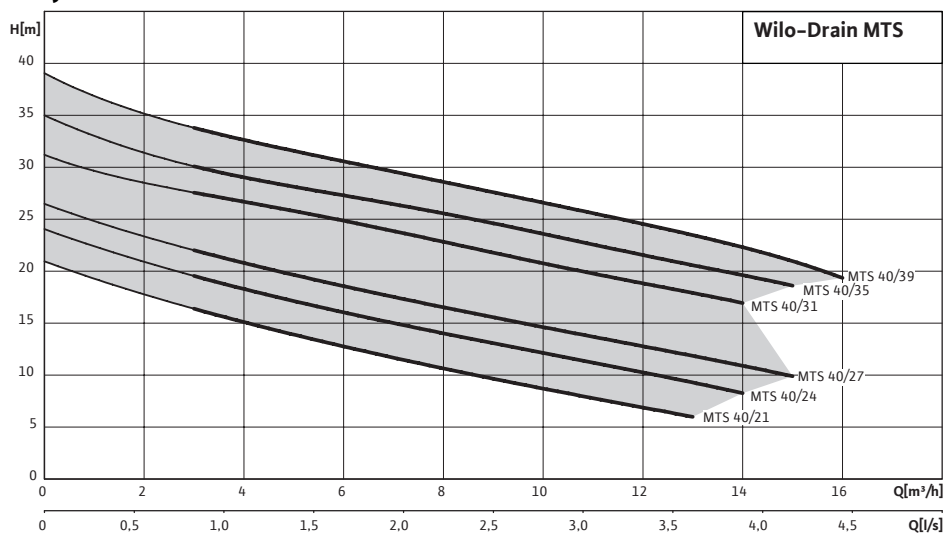
- Pump
- 10-metre connection cable with bare cable end
- Installation and operating instructions

Accessories

- Suspension unit or pump base
- Chains
- Switchgears, relays and plugs
- Fixation sets with anchor bolts

Duty chart: Wilo-Drain MTS

Duty chart



Equipment/function: Wilo-Drain MTS

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	–
Capacitor box for 1~230 V	–
Ready-to-plug	–

Materials

Pump housing	Cast iron
Impeller	Cast iron
Motor housing	Stainless steel

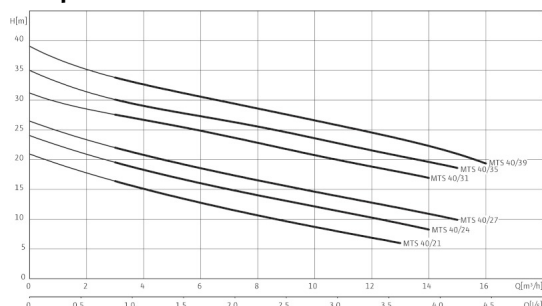
• = available, – = not available; o = optional

Product list: Wilo-Drain MTS

Pump type	Mains connection	Max. volume flow	Max. delivery head	Optimum volume flow	Optimal delivery head	Rated current	Nominal motor power	Pressure connection	Explosion protection	Max. immersion depth	Art no.
		$Q_{max}/m^3/h$	H_{max}/m	$Q_{opt}/m^3/h$	H_{opt}/m	I_N/A	P_2/kW				
MTS 40/21	3~400 V, 50 Hz	13.0	21.0	9.0	10.0	2.5	1.0	Rp 1¼/DN 40	ATEX	10	2060176
MTS 40/24	3~400 V, 50 Hz	14.0	24.0	10.0	12.0	2.8	1.2	Rp 1¼/DN 40	ATEX	10	2060175
MTS 40/27	3~400 V, 50 Hz	15.0	27.0	11.0	14.0	3.2	1.5	Rp 1¼/DN 40	ATEX	10	2056253
MTS 40/31	3~400 V, 50 Hz	14.0	31.0	13.0	18.0	4.2	1.9	DN 40	ATEX	10	6046761
MTS 40/35	3~400 V, 50 Hz	15.0	35.0	14.0	19.0	4.4	2.0	DN 40	ATEX	10	6046760
MTS 40/39	3~400 V, 50 Hz	16.0	39.0	13.0	24.0	4.6	2.1	DN 40	ATEX	10	6045558

Data sheet: Wilo-Drain MTS 40/24 (3~400 V)

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



Pump curves in accordance with ISO 9906, Appendix A

Unit

Max. delivery head	H_{max}	24.0 m
Max. volume flow	Q_{max}	14.0 m³/h
Optimal delivery head	H_{opt}	12.0 m
Optimum volume flow	Q_{opt}	10.0 m³/h
Pressure connection	Rp 1¼/DN 40	
Flanges (according to EN 1092-2)	PN	10
Maximum operating pressure	p_{max}	3 bar
Operating mode (immersed)	S1	
Operating mode (non-immersed)	S2–8 min S3–25%	
Max. immersion depth	10 m	
Protection class	IP 68	
Fluid temperature	T	+3 ... +40 °C
Weight approx.	m	30.0 kg

Motor data

Mains connection	3~400 V, 50 Hz	
Rated current	I_N	2.8 A
Nominal motor power	P_z	1.2 kW
Power consumption	P_1	1.45 kW
Power factor	$\cos \varphi$	0.82
Activation type	Direct	
Nominal speed	n	2900 rpm
No. of poles	2	
Insulation class	F	
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	6G1 mm²
Type of connecting cable	Detachable
Mains plug	–

Equipment/function

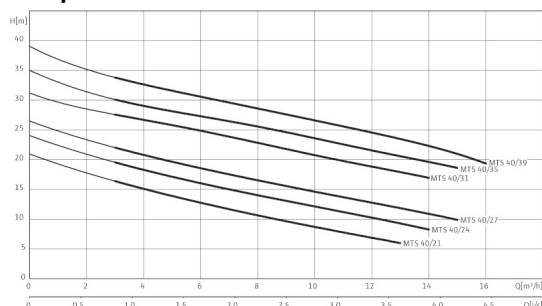
Float switch	–
Motor protection	WSK

Data sheet: Wilo-Drain MTS 40/24 (3~400 V)

Explosion protection	ATEX
Materials	
Static seal	NBR
Impeller	EN-GJL-250
Macerator	1.4528
Sealing on motor side	NBR
Mechanical seal	SiC/SiC
Motor housing	1.4404
Pump housing	EN-GJL-250
Pump shaft	1.4021 [AISI420]
Information for order placements	
Make	Wilo
Art no.	2060175
Price group	PG8
EAN number	4016322801184

Data sheet: Wilo-Drain MTS 40/21 (3~400 V)

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



Pump curves in accordance with ISO 9906, Appendix A

Unit

Max. delivery head	H_{max}	21.0 m
Max. volume flow	Q_{max}	13.0 m³/h
Optimal delivery head	H_{opt}	10.0 m
Optimum volume flow	Q_{opt}	9.0 m³/h
Pressure connection	Rp 1¼/DN 40	
Flanges (according to EN 1092-2)	PN	10
Maximum operating pressure	p_{max}	2 bar
Operating mode (immersed)	S1	
Operating mode (non-immersed)	S2–8 min S3–25%	
Max. immersion depth	10 m	
Protection class	IP 68	
Fluid temperature	T	+3 ... +40 °C
Weight approx.	m	30.0 kg

Motor data

Mains connection	3~400 V, 50 Hz	
Rated current	I_N	2.5 A
Nominal motor power	P_z	1.0 kW
Power consumption	P_1	1.2 kW
Power factor	$\cos \varphi$	0.82
Activation type	Direct	
Nominal speed	n	2900 rpm
No. of poles	2	
Insulation class	F	
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	6G1 mm²
Type of connecting cable	Detachable
Mains plug	–

Equipment/function

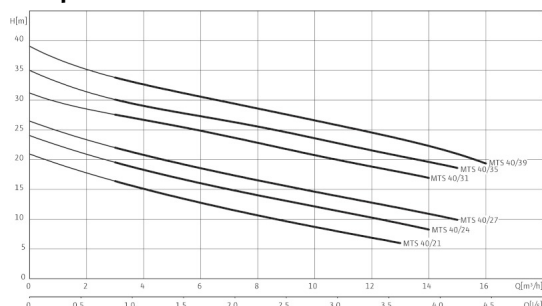
Float switch	–
Motor protection	WSK

Data sheet: Wilo-Drain MTS 40/21 (3~400 V)

Explosion protection	ATEX
Materials	
Static seal	NBR
Impeller	EN-GJL-250
Macerator	1.4528
Sealing on motor side	NBR
Mechanical seal	SiC/SiC
Motor housing	1.4404
Pump housing	EN-GJL-250
Pump shaft	1.4021 [AISI420]
Information for order placements	
Make	Wilo
Art no.	2060176
Price group	PG8
EAN number	4016322801177

Data sheet: Wilo-Drain MTS 40/27 (3~400 V)

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



Pump curves in accordance with ISO 9906, Appendix A

Unit

Max. delivery head	H_{max}	27.0 m
Max. volume flow	Q_{max}	15.0 m³/h
Optimal delivery head	H_{opt}	14.0 m
Optimum volume flow	Q_{opt}	11.0 m³/h
Pressure connection	Rp 1¼/DN 40	
Flanges (according to EN 1092-2)	PN	10
Maximum operating pressure	p_{max}	3 bar
Operating mode (immersed)	S1	
Operating mode (non-immersed)	S2–8 min S3–25%	
Max. immersion depth	10 m	
Protection class	IP 68	
Fluid temperature	T	+3 ... +40 °C
Weight approx.	m	30.0 kg

Motor data

Mains connection	3~400 V, 50 Hz	
Rated current	I_N	3.2 A
Nominal motor power	P_z	1.5 kW
Power consumption	P_1	1.7 kW
Power factor	$\cos \varphi$	0.82
Activation type	Direct	
Nominal speed	n	2900 rpm
No. of poles	2	
Insulation class	F	
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	6G1 mm²
Type of connecting cable	Detachable
Mains plug	–

Equipment/function

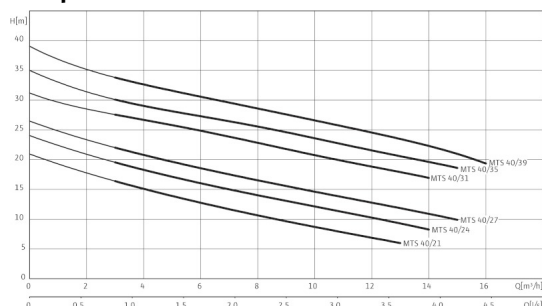
Float switch	–
Motor protection	WSK

Data sheet: Wilo-Drain MTS 40/27 (3~400 V)

Explosion protection	ATEX
Materials	
Static seal	NBR
Impeller	EN-GJL-250
Macerator	1.4528
Sealing on motor side	NBR
Mechanical seal	SiC/SiC
Motor housing	1.4404
Pump housing	EN-GJL-250
Pump shaft	1.4021 [AISI420]
Information for order placements	
Make	Wilo
Art no.	2056253
Price group	PG8
EAN number	4016322771364

Data sheet: Wilo-Drain MTS 40/31 (3~400 V)

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



Pump curves in accordance with ISO 9906, Appendix A

Unit

Max. delivery head	H_{max}	31.0 m
Max. volume flow	Q_{max}	14.0 m^3/h
Optimal delivery head	H_{opt}	18.0 m
Optimum volume flow	Q_{opt}	13.0 m^3/h
Pressure connection		DN 40
Flanges (according to EN 1092-2)	PN	10
Maximum operating pressure	p_{max}	3 bar
Operating mode (immersed)		S1
Operating mode (non-immersed)		S2-8 min S3-25%
Max. immersion depth		10 m
Protection class		IP 68
Fluid temperature	T	+3 ... +40 °C
Weight approx.	m	39.0 kg

Motor data

Mains connection		3~400 V, 50 Hz
Rated current	I_N	4.2 A
Nominal motor power	P_z	1.9 kW
Power consumption	P_1	2.3 kW
Power factor	$\cos \varphi$	0.77
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		F
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		6G1 mm^2
Type of connecting cable		Detachable
Mains plug		—

Equipment/function

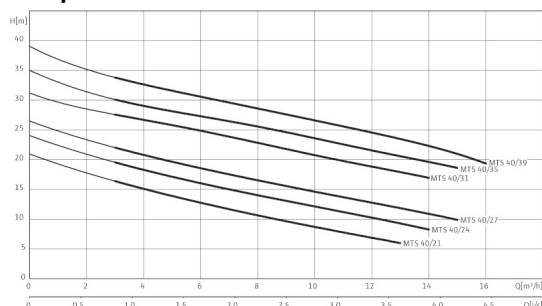
Float switch		—
Motor protection		WSK

Data sheet: Wilo-Drain MTS 40/31 (3~400 V)

Explosion protection	ATEX
Materials	
Static seal	NBR
Impeller	EN-GJL-250
Macerator	1.4528
Sealing on motor side	NBR
Mechanical seal	SiC/SiC
Motor housing	1.4404
Pump housing	EN-GJL-250
Pump shaft	1.4021 [AISI420]
Information for order placements	
Make	Wilo
Art no.	6046761
Price group	PG8
EAN number	4044966491980

Data sheet: Wilo-Drain MTS 40/35 (3~400 V)

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



Pump curves in accordance with ISO 9906, Appendix A

Unit

Max. delivery head	H_{max}	35.0 m
Max. volume flow	Q_{max}	15.0 m ³ /h
Optimal delivery head	H_{opt}	19.0 m
Optimum volume flow	Q_{opt}	14.0 m ³ /h
Pressure connection		DN 40
Flanges (according to EN 1092-2)	PN	10
Maximum operating pressure	p_{max}	4 bar
Operating mode (immersed)		S1
Operating mode (non-immersed)		S2-8 min S3-25%
Max. immersion depth		10 m
Protection class		IP 68
Fluid temperature	T	+3 ... +40 °C
Weight approx.	m	39.0 kg

Motor data

Mains connection		3~400 V, 50 Hz
Rated current	I_N	4.4 A
Nominal motor power	P_z	2.0 kW
Power consumption	P_1	2.5 kW
Power factor	$\cos \varphi$	0.78
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		F
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		6G1 mm ²
Type of connecting cable		Detachable
Mains plug		–

Equipment/function

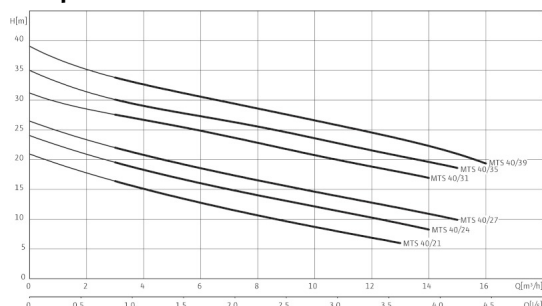
Float switch		–
Motor protection		WSK

Data sheet: Wilo-Drain MTS 40/35 (3~400 V)

Explosion protection	ATEX
Materials	
Static seal	NBR
Impeller	EN-GJL-250
Macerator	1.4528
Sealing on motor side	NBR
Mechanical seal	SiC/SiC
Motor housing	1.4404
Pump housing	EN-GJL-250
Pump shaft	1.4021 [AISI420]
Information for order placements	
Make	Wilo
Art no.	6046760
Price group	PG8
EAN number	4044966491973

Data sheet: Wilo-Drain MTS 40/39 (3~400 V)

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



Pump curves in accordance with ISO 9906, Appendix A

Unit

Max. delivery head	H_{max}	39.0 m
Max. volume flow	Q_{max}	16.0 m^3/h
Optimal delivery head	H_{opt}	24.0 m
Optimum volume flow	Q_{opt}	13.0 m^3/h
Pressure connection		DN 40
Flanges (according to EN 1092-2)	PN	10
Maximum operating pressure	p_{max}	4 bar
Operating mode (immersed)		S1
Operating mode (non-immersed)		S2-8 min S3-25%
Max. immersion depth		10 m
Protection class		IP 68
Fluid temperature	T	+3 ... +40 °C
Weight approx.	m	39.0 kg

Motor data

Mains connection		3~400 V, 50 Hz
Rated current	I_N	4.6 A
Nominal motor power	P_z	2.1 kW
Power consumption	P_1	2.6 kW
Power factor	$\cos \varphi$	0.8
Activation type		Direct
Nominal speed	n	2900 rpm
No. of poles		2
Insulation class		F
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		6G1 mm^2
Type of connecting cable		Detachable
Mains plug		–

Equipment/function

Float switch		–
Motor protection		WSK

Data sheet: Wilo-Drain MTS 40/39 (3~400 V)

Explosion protection	ATEX
Materials	
Static seal	NBR
Impeller	EN-GJL-250
Macerator	1.4528
Sealing on motor side	NBR
Mechanical seal	SiC/SiC
Motor housing	1.4404
Pump housing	EN-GJL-250
Pump shaft	1.4021 [AISI420]
Information for order placements	
Make	Wilo
Art no.	6045558
Price group	PG8
EAN number	4044966480823