PRODUCT CATALOG

Franklin Electric

SUBMERSIBLE PUMPS FOR SEWAGE

ED-EGT/EGF, FWS-FWC, FGR AND FLV SERIES

MENU

Franklin Electric

INDEX

ED-EGT/EGF SERIES - DRAINAGE PUMPS 50 HZ

FWS-FWC SERIES - WASTEWATER LIFT PUMPS 50 HZ

MENU

ED-EGT/EGF Series - Drainage pumps 50 Hz

ED - STAINLESS STEEL DRAINAGE SUBMERSIBLE PUMPS FOR DIRTY WATER

FEATURES & BENEFITS

APPLICATIONS

For clean and dirty water, containing solids up to 35 mm grain size

The construction with smooth surfaces in rolled-stainless steel and easy access for cleaning is suitable for certain uses in the food industry

FOR CLEAN AND DIRTY WATER, SOLIDS UP TO 35 MM

- Containing solids up to 35 mm grain size
- Stainless steel pump casing and impeller
- Vertical delivery port
- Double mechanical seal in oil chamber
- Dry winding motor, designed in accordance with: EN 60034-1; EN 60335-1, EN 60335-2-41

PUMP IDENTIFICATION CODE

ED	7	T	400	50

- 50 — Motor frequency
- 400 — Motor voltage
- T — Empty for single phase
- 7 — Nominal power
- ED — Pump model

00140020EN 09/2023

GENERAL FEATURES

Model		ED
Max. head		13
Flow [m³/h]		up to 26 m³/h
Liquid temperature range [°C]		up to 35 °C
Minimum immersion depth		248 mm
Maximum immersion depth:		5 m
Maximum solids size:		35 mm
Power cable:	**Single-phase**	H07RN-F, 3G1 mm², length 10 m (5 m for ED5), with plug Cel-UneL 47166 / Schuko
	Three-phase	H07RN-F, 4G1 mm², length 10 m (5 m for ED5), without plug
Motor power [kW]:		0.55 - 0.9 kW
Motor type:		2-pole induction motor, 50 Hz (n ≈ 2900 rpm)
Motor standard voltage:	**Single-phase**	230 V ± 10 %; with float switch and thermal protector
	Three-phase	400 V ± 10 %
Protections:		Insulation class: F Protection: IPX8 (for continuous immersion) Triple impregnation humidity-proof dry winding
Capacitor:		Built-in for single phase version
Float switch:		Included in single phase version

DESIGN FEATURES

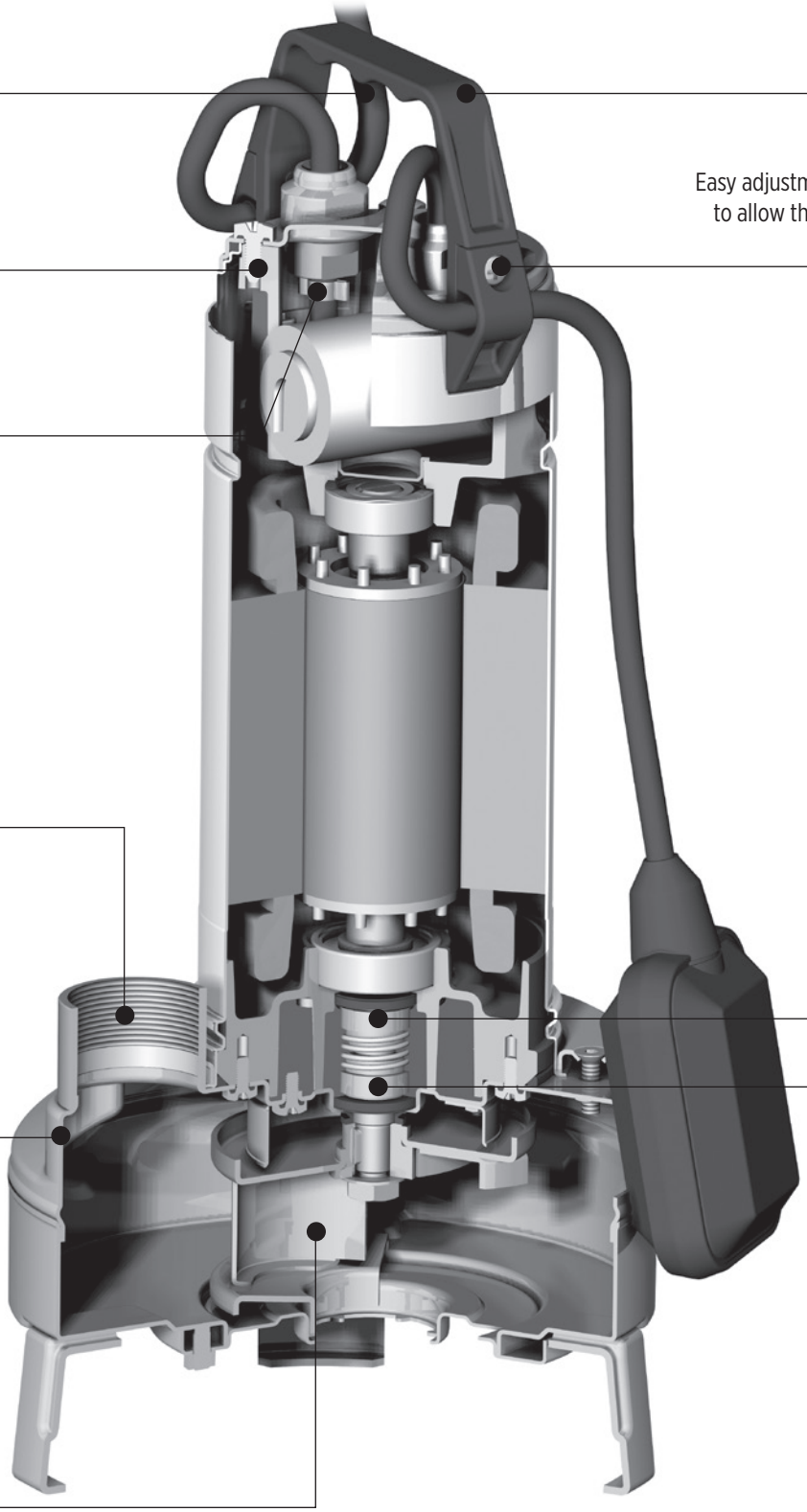
Power cable with plug on single-phase pumps

Handle in polypropylene, with frame in stainless steel

Easy inspection of the capacitor area

Easy adjustment of the float switch: to allow the adjustement of start/ stop pump levels

Ring against accidental extraction of the cable



G 1 ½ vertical, upward delivery port for installation in small pits, without the need for an elbow on the pump

The double shaft seal with oil chamber separates the motor from the water and provides further protection against accidental operation when dry

Shaft in chrome-nickel stainless steel

Totally in stainless steel all parts in contact with the pumped liquid both internal and external are in stainless steel AISI 304

ED

The two-passage impeller costruction is particulary suitable for liquids containing solids up to 35 mm grain size.

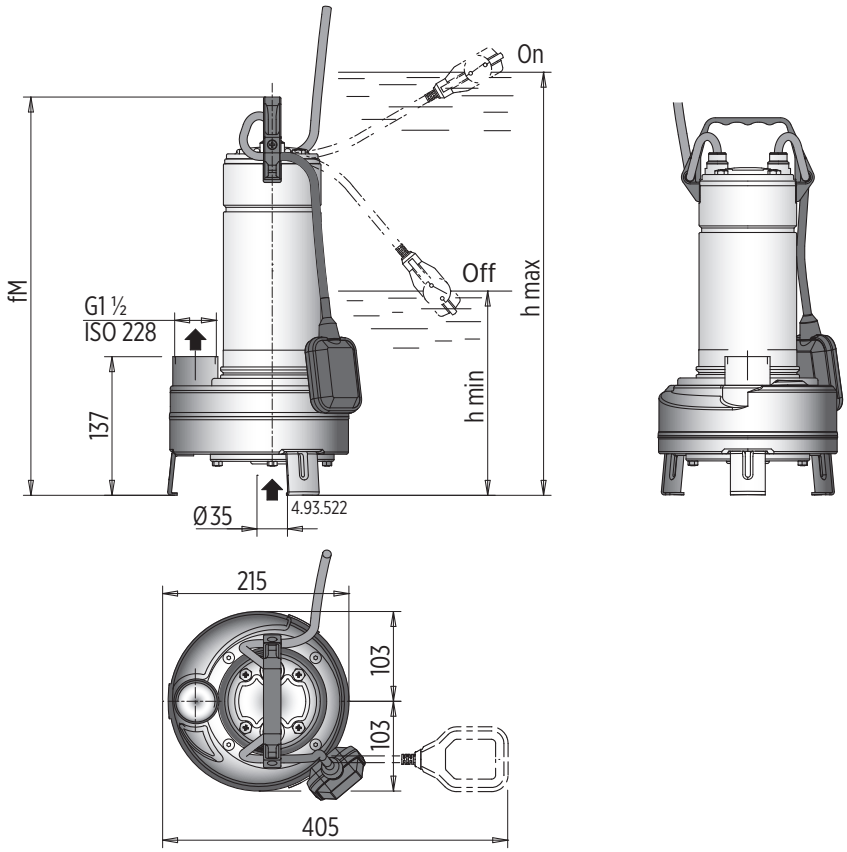
SPARE PARTS AND MATERIALS

Parts description	Material	Standard	
		ASTM/AISI	DIN/EN
Pump casing / Impeller Motor jacket / Jacket cover Casing cover / Shaft	Chrome-nickel steel	AISI 304	1.4301 / EN 10088
Handle	Polypropylene (with frame in AISI 304)	-	-
Upper mechancal seal / Lower mechanical seal	Ceramic alumina / Carbon / NBR	-	-
Seal lubrification oil	Oil for food / Pharmaceutical machinery	-	-

DIMENSIONS AND WEIGHTS

Pump model	Dimensions [mm]			h min	
	fM	h max	h min	Single-phase	Three-phase
ED 5	433	508	248	12	10.3
ED 9	458	533	273	14	12.5

DIMENSIONAL DRAWINGS



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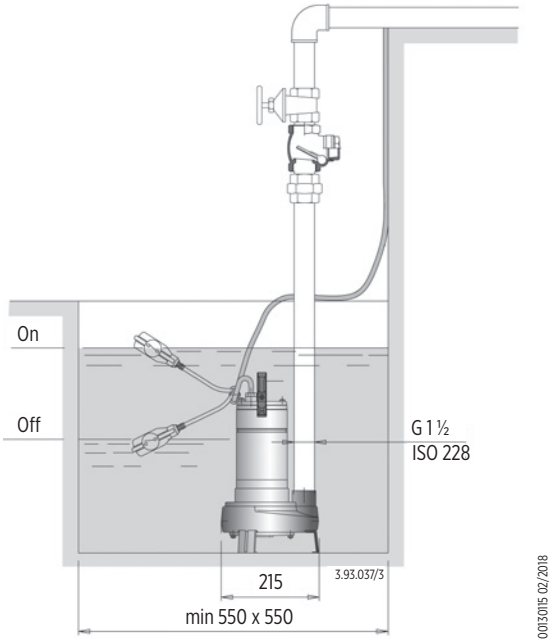
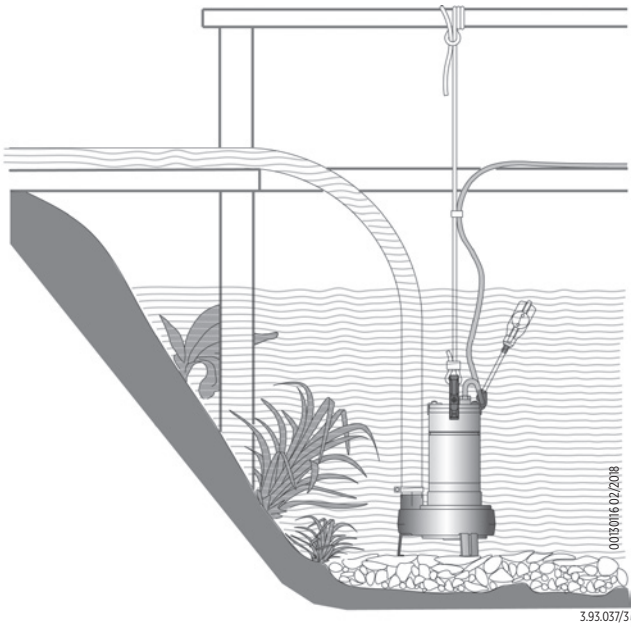
INSTALLATION

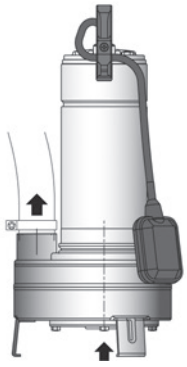
STATIONARY INSTALLATION



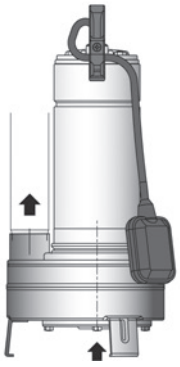
TRANSPORTABLE INSTALLATION



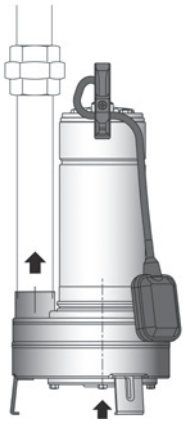
CONNECTION EXAMPLES



Pump with hosetail seat and clamp
(locally available)



Pump with pipe screwed into
the delivery port



Pump with pipe and union
(locally available)

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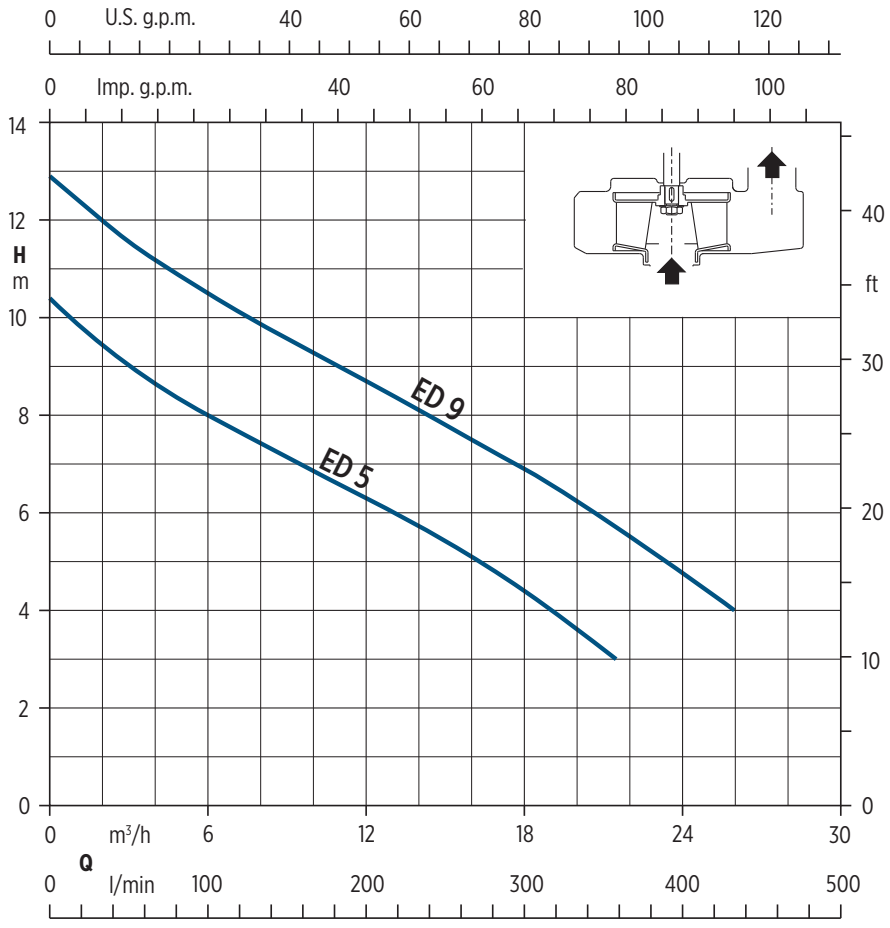
ED HYDRAULIC PERFORMANCE AT 50 HZ ≈ 2900 1/MIN

Pump model	1x230 V	Capacitor		P_1	P_2		Q = Delivery									
							l/min 0	50	100	150	200	250	300	350	400	433
							m^3/h 0	3	6	9	12	15	18	21	24	26
	[A]	[µf]	[Vc]	[kW]	[kW]	[HP]	H = Total meters head of water column [m]									
ED 5	4.6	16	450	1	0.55	0.75	10.4	9	8	7.1	6.3	5.4	4.4	3.2	-	-
ED 9	6.6	25	450	1.45	0.9	1.2	12.9	11.6	10.5	9.5	8.7	7.8	6.9	5.9	4.7	4

P_1 : Max absorbed power P_2 : Motor nominal power Density ρ= 1000 Kg/m^3 Viscosity kinematic v = max 20 mm^2/sec

Pump model	3x230 V	3x400 V	P_1	P_2		Q = Delivery									
						l/min 0	50	100	150	200	250	300	350	400	433
						m^3/h 0	3	6	9	12	15	18	21	24	26
	[A]		[kW]	[kW]	[HP]	H = Total meters head of water column [m]									
ED 5 T	2.8	1.6	1	0.55	0.75	10.4	9	8	7.1	6.3	5.4	4.4	3.2	-	-
ED 9 T	4	2.3	1.45	0.9	1.2	12.9	11.6	10.5	9.5	8.7	7.8	6.9	5.9	4.7	4

P_1 : Max absorbed power P_2 : Motor nominal power Density ρ= 1000 Kg/m^3 Viscosity kinematic v = max 20 mm^2/sec



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EGT/EGF - SUBMERSIBLE DRAINAGE PUMP FOR DIRTY WATER

FEATURES & BENEFITS

APPLICATIONS

Domestic or industrial waste water, dirty water containing solids up to 50 mm grain size, for liquids which are compatible with the pump materials

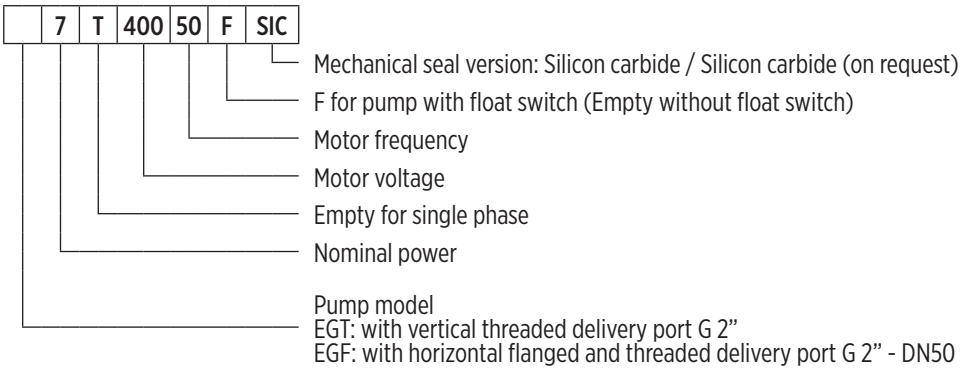
Draining rooms, tank drainage

Extraction of water from ponds, streams or pits and for rainwater collection

FOR DIRTY WATER, SOLIDS UP TO 50 mm

- Containing solids up to 50 mm grain size, for liquids which are compatible with the pump materials
- Free-flow (Vortex) impeller construction
- Cast iron pump casing and impeller with epoxy cataphoresis treatment
- Vertical delivery port (G 2")
- Double mechanical seal in oil chamber, to protect against dry-running
- Silicon carbide mechanical seal version on request
- Dry winding motor, designed in accordance with: EN 60034-1; EN 60335-1, EN 60335-2-41

PUMP IDENTIFICATION CODE



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GENERAL FEATURES

Model		EGT	EGF
Max. head		15	
Flow [m3/h]		up to 26 m3/h	
Liquid temperature range [°C]		up to 35 °C	
Minimum immersion depth		275 mm	
Maximum immersion depth:		5 m	
Maximum solids size:		50 mm	
Power cable:	**Single-phase**	H07RN-F, 3G1 mm2, length 10 m, with plug CeI-UneL 47166	
	Three-phase	H07RN-F, 4G1 mm2, length 10 m (5 m for ED5), without plug	
Motor power [kW]:		0.55 - 1.5 kW	
Motor type:		2-pole induction motor, 50 Hz (n ≈ 2900 rpm)	
Motor standard voltage:	**Single-phase**	230 V ± 10 %; with float switch and thermal protector	
	Three-phase	400 V ± 10 %	
Protections:		Insulation class: F Protection: IPX8 (for continuous immersion) Triple impregnation humidity-proof dry winding	
Capacitor:		Built-in for single phase version	
Float switch:		Included in single phase version	

DESIGN FEATURES

Cable length 10 m, pump single-phase with plug

Handle in polypropylene, with frame in stainless steel

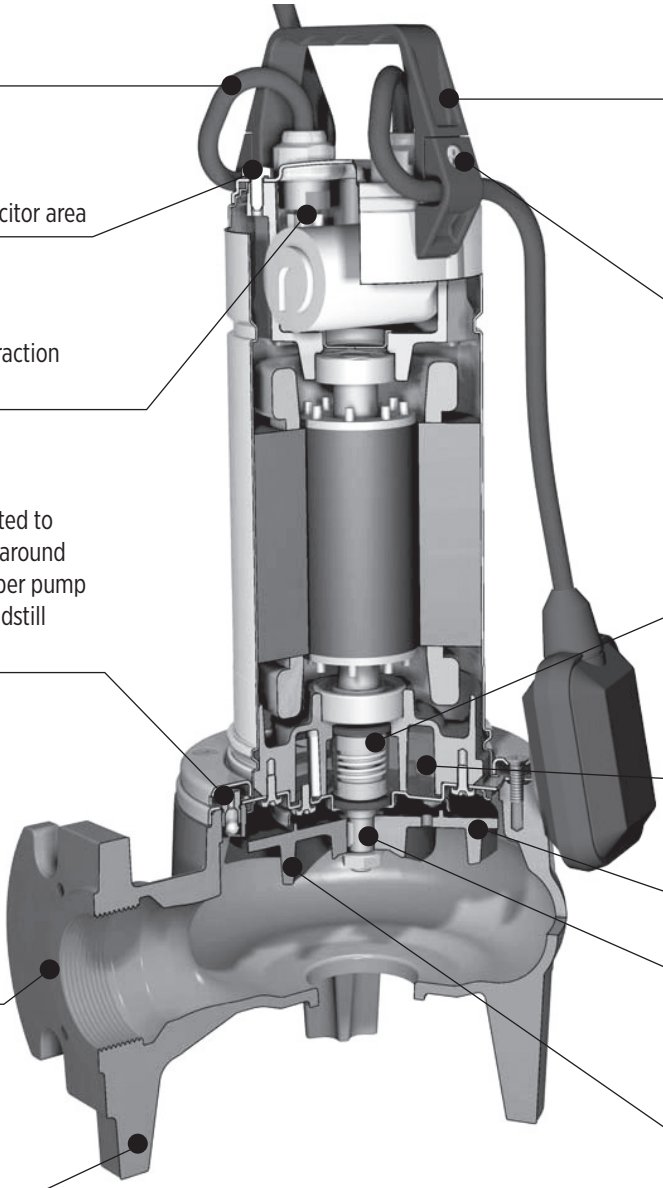
Easy inspection of the capacitor area

Easy adjustment of the float switch to allow the adjustement of start/stop pump levels

Ring against accidental extraction of the cable

The double shaft seal with oil chamber separates the motor from the water and provides further protection against accidental operation when dry

Relief valve: the pump is fitted to a relief valve for air release around the impeller granting a proper pump priming also after long standstill periods



Chamber with food / Pharmaceutical machinery oil

Maximum flexibility of connection:

- Flange DN 50 PN 10 EN 1092-2
- N. 4 M8 holes on Ø 90 for duck foot coupling SA-G2"
- G 2" ISO 228

Impeller with epoxy cataphoresis treatment for a greater protection against corrosion

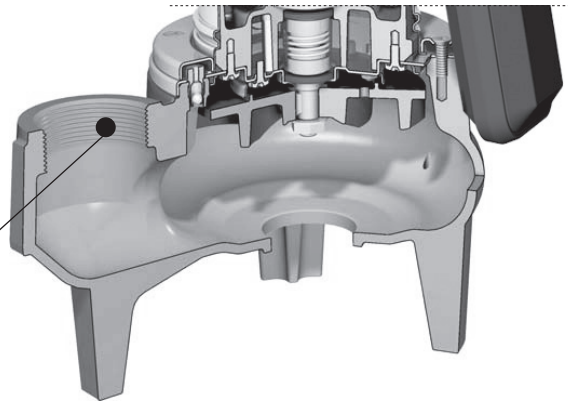
Shaft in chrome-nickel stainless steel

Pump casing with epoxy cataphoresis treatment joined to the external paint for a greater protection against the corrosion

The free-fow impeller (vortex) costruction is particulary suitable for liquids containing solids up to 50 mm grain size

EGT

G 2" vertical, upward delivery port for installation in small pits, without the need for an elbow on the pump.



SPARE PARTS AND MATERIALS

Parts description	Material	Standard	
		ASTM/AISI	DIN/EN
Pump casing / Impeller	Cast iron GJL 200	-	EN 1561
Strainer / Motor jacket / Jacket cover Casing cover / Shaft	Chrome-nickel steel	AISI 304	1.4301 / EN 10088
Handle	Polypropylene (with frame in AISI 304)	-	-
Upper mechancal seal / Lower mechanical seal	Ceramic alumina / Carbon / NBR	-	-
Seal lubrification oil	Oil for food / Pharmaceutical machinery	-	-

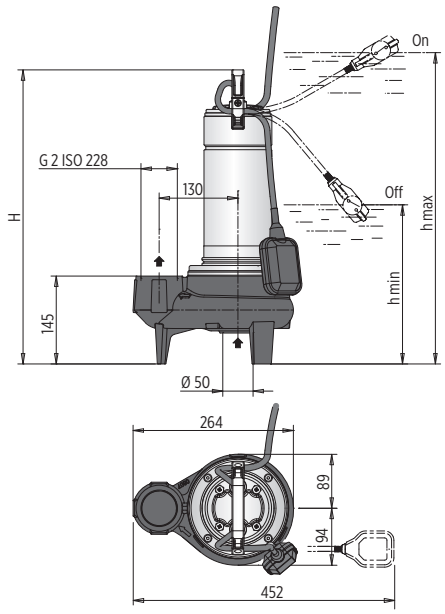
DIMENSIONS AND WEIGHTS

Pump model	Dimensions [mm]			h min	
	H	h max	h min	Single-phase	Three-phase
EGT 7 (T)	460	535	275	16	15
EGT 9 (T)	485	560	300	17.8	15.8
EGT 11 (T)	505	580	320	20.3	18.8
EGT 15 T	505	580	320	-	20.3
EGT 15	535	610	350	21.8	-

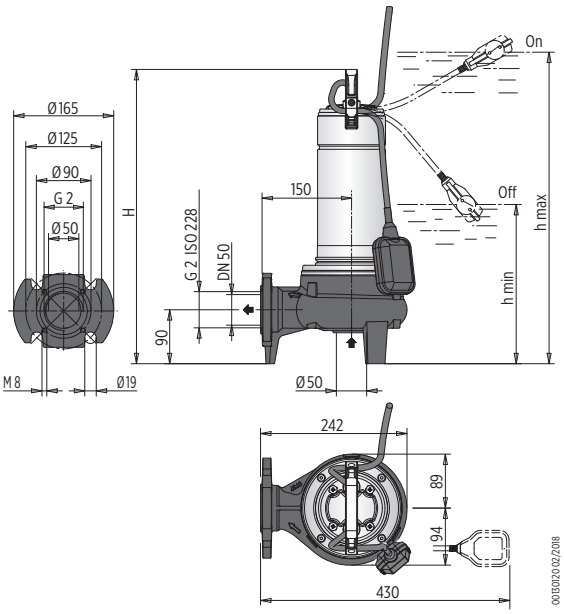
Pump model	Dimensions [mm]			h min	
	H	h max	h min	Single-phase	Three-phase
EGF 7 (T)	460	535	275	16.2	15.2
EGF 9 (T)	485	560	300	18	16
EGF 11 (T)	505	580	320	20.5	19
EGF 15 T	505	580	320	-	20.5
EGF 15	535	610	350	22	-

DIMENSIONAL DRAWINGS

EGT

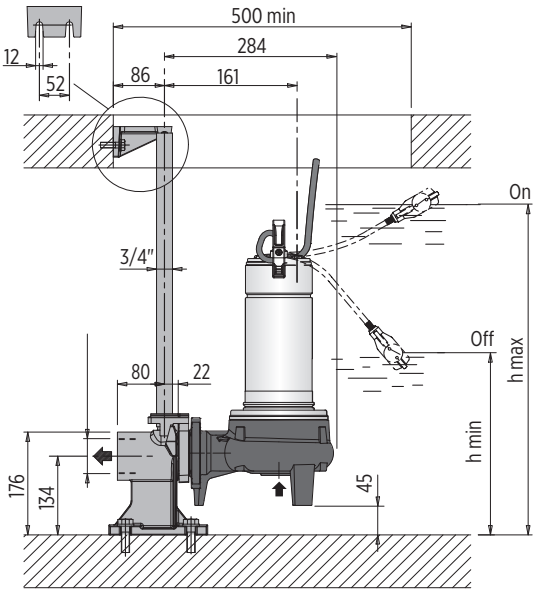


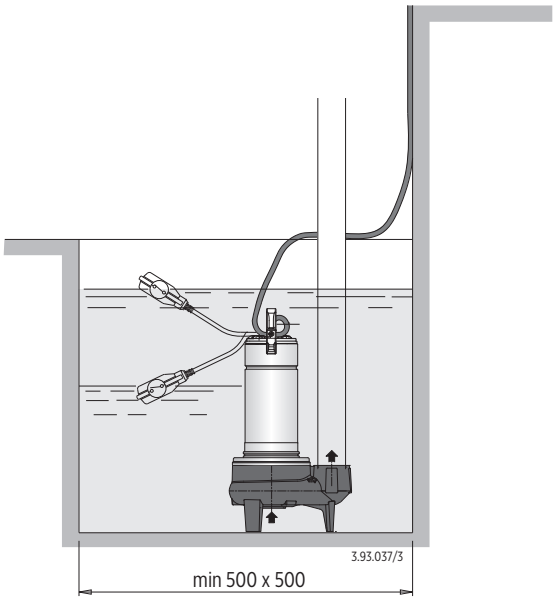
EGF

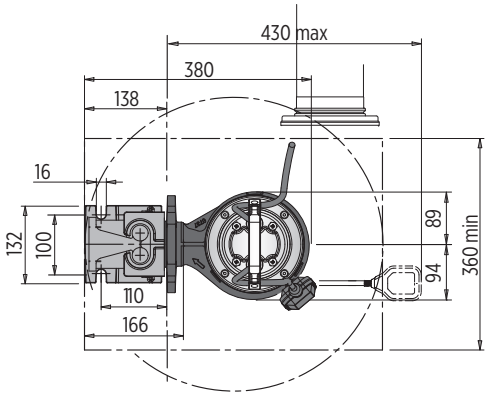


INSTALLATION

STATIONARY INSTALLATION







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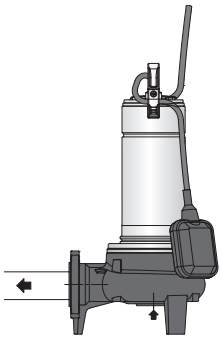
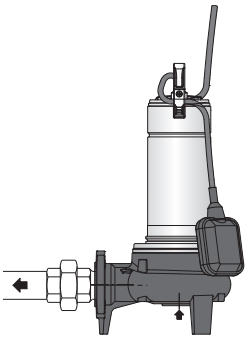
EGT		
Pump model	Dimensions [mm]	
	h max	h min
EGT 7 (T)	535	275
EGT 9 (T)	560	300
EGT 11 (T)	580	320
EGT 15 T	580	320
EGT 15	610	350

EGF		
Pump model	Dimensions [mm]	
	h max	h min
EGF 7 (T)	535	275
EGF 9 (T)	560	300
EGF 11 (T)	580	320
EGF 15 T	580	320
EGF 15	610	350

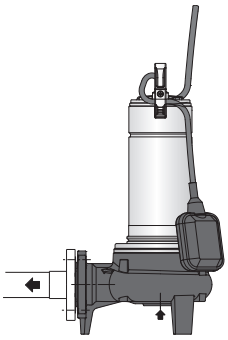
CONNECTION EXAMPLES



Pump with threaded ports:
pipes screwed into the ports



Pump with threaded ports:
pipes with union couplings (locally available)



Pump with DN 50 flanged ports:
pipes with counter-flanges

00130122EN 02/2018

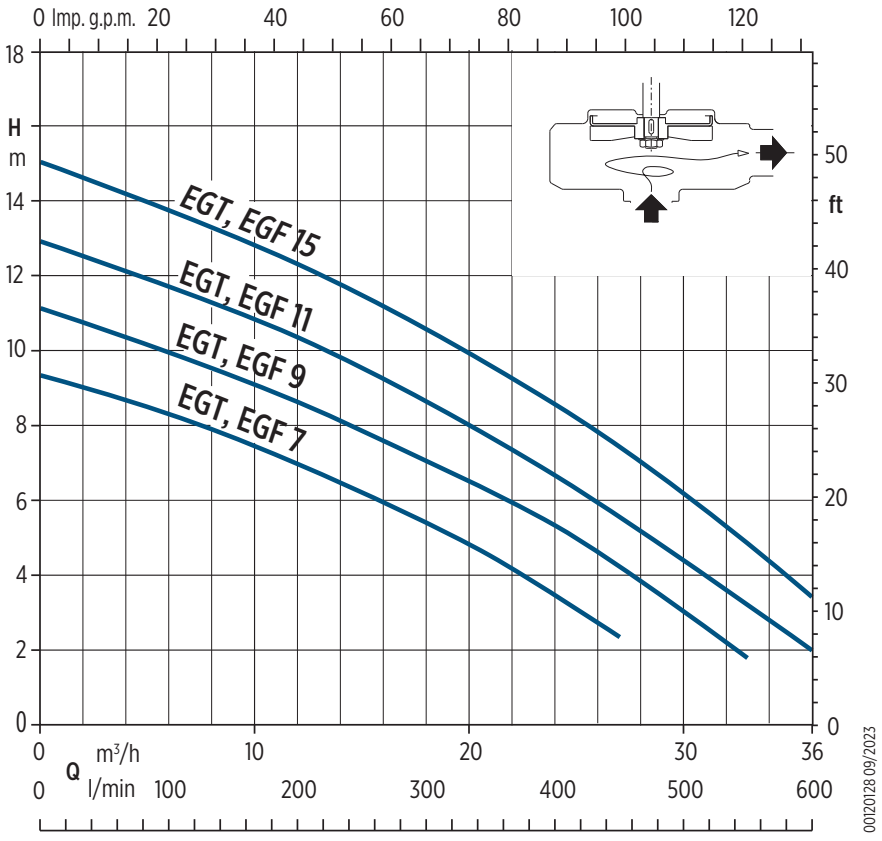
EGT/EGF HYDRAULIC PERFORMANCE AT 50 HZ ≈ 2900 1/MIN

Pump model	1x230 V	Capacitor		P_1	P_2		Q = Delivery											
							l/min 0	50	100	150	200	250	300	350	400	500	550	600
							m^3/h 0	3	6	9	12	15	18	21	24	30	33	36
	[A]	[µF]	[Vc]	[kW]	[kW]	[HP]	H = Total meters head of water column [m]											
EGT/F 7	4.8	16	450	1.1	0.75	1	9.3	8.8	8.3	7.7	7	6.2	5.3	4.3	3.2	2.2	-	-
EGT/F 9	6.6	25	450	1.45	0.9	1.2	11	10.5	10	9.3	8.6	7.8	7	6.2	5.2	4.2	1.8	-
EGT/F 11	8.4	30	450	1.8	1.1	1.5	12.8	12.2	11.6	11	10.3	9.5	8.6	7.7	6.7	5.7	3.3	2
EGT/F 15	12	35	450	2.2	1.5	2	15	14.4	13.7	13	12.2	11.3	10.4	9.5	8.5	7.4	4.5	3.5

P_1 : Max absorbed power P_2 : Motor nominal power Density ρ= 1000 Kg/m^3 Viscosity kinematic v = max 20 mm^2/sec

Pump model	3x230 V	3x400 V	P_1	P_2		Q = Delivery											
						l/min 0	50	100	150	200	250	300	350	400	500	550	600
						m^3/h 0	3	6	9	12	15	18	21	24	30	33	36
	[A]		[kW]	[kW]	[HP]	H = Total meters head of water column [m]											
EGT/F 7 T	3.1	1.8	1.1	0.75	1	9.3	8.8	8.3	7.7	7	6.2	5.3	4.3	3.2	2.2	-	-
EGT/F 9 T	4	2.3	1.45	0.9	1.2	11	10.5	10	9.3	8.6	7.8	7	6.2	5.2	4.2	1.8	-
EGT/F 11 T	5.2	3	1.8	1.1	1.5	12.8	12.2	11.6	11	10.3	9.5	8.6	7.7	6.7	5.7	3.3	2
EGT/F 15 T	6.9	4	2.2	1.5	2	15	14.4	13.7	13	12.2	11.3	10.4	9.5	8.5	7.4	4.5	3.5

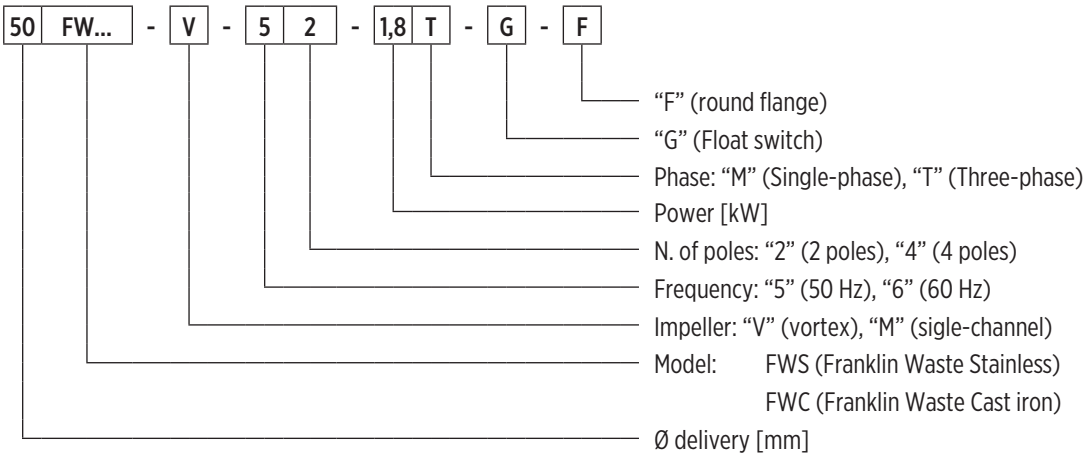
P_1 : Max absorbed power P_2 : Motor nominal power Density ρ= 1000 Kg/m^3 Viscosity kinematic v = max 20 mm^2/sec



FWS-FWC Series - Wastewater lift pumps 50 Hz

FWS-FWC SERIES - WASTEWATER LIFT PUMPS 50 HZ

PUMP IDENTIFICATION CODE



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32FWS V SERIES 50 HZ

FEATURES & BENEFITS

APPLICATIONS

Pumping of clear non-loaded fluids

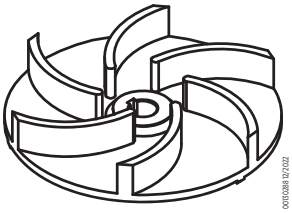
Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

MARKETS

STAINLESS STEEL AND CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pump particularly suitable for the emptying of basements, garages, cellars and flooded premises.



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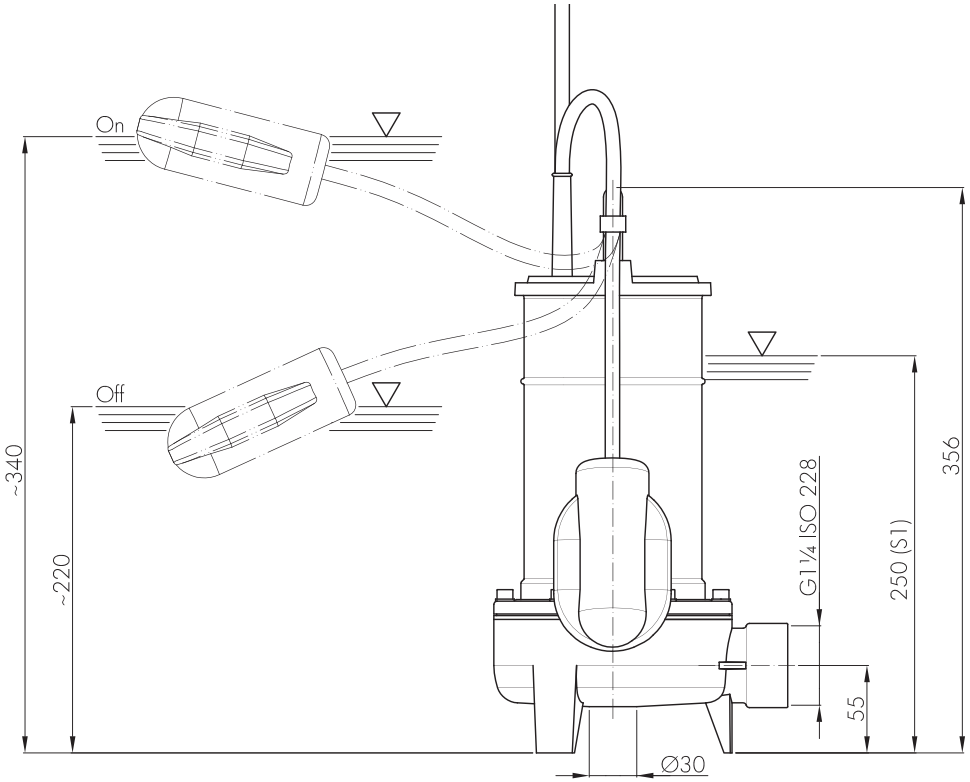
VORTEX IMPELLER

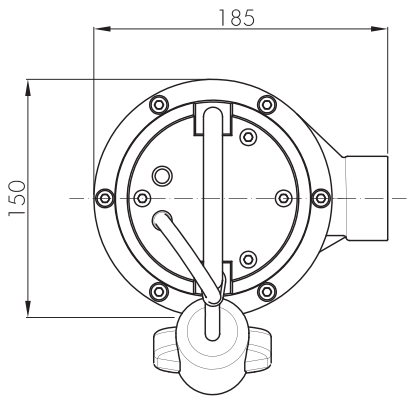
GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal	**motor side**	Seal ring
	pump side	Graphite/Alumina
Motor shaft		Stainless steel AISI416
Power cable		10 m H07RN-F type, 3G1 mm^2 and SCHUKO plug
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection, built in capacitor, float switch as optional
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		250 mm
Free passage		30 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS





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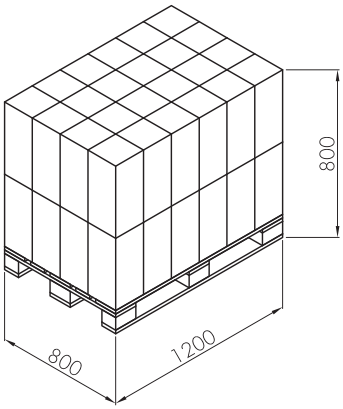
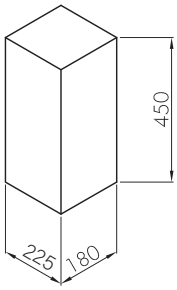
Packaging		
Pump model	Dimensions [mm]	Weight [kg]
32 FWS V	225x180x450	11,5

Pallet		
Dimensions [mm]	N° of pumps	Weight [kg]
1200x800x800	32	400





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TECHNICAL DATA

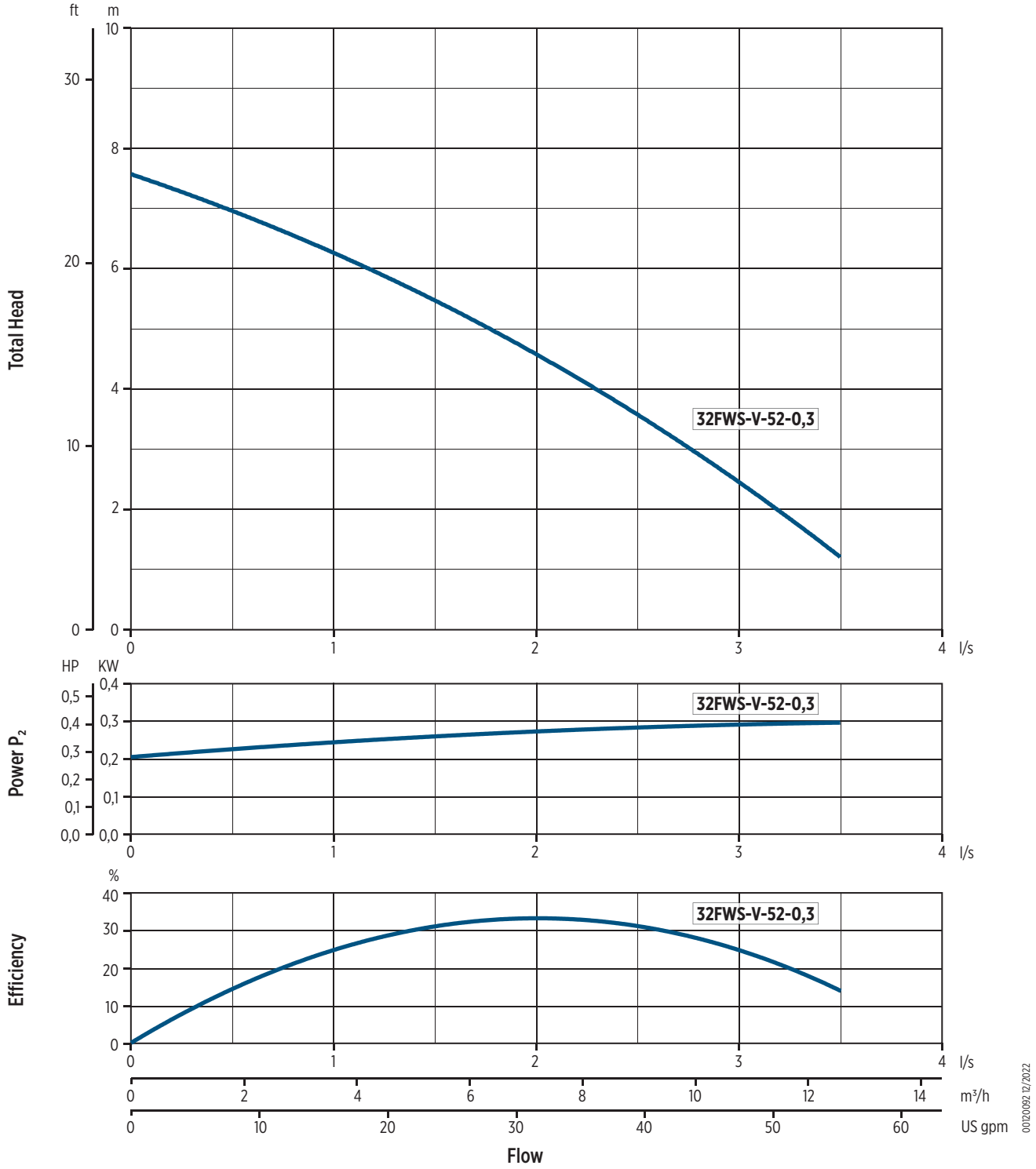
Pump model	Motor absorbed power P1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
32FWS-V-52-0,3M	0,57	0,3	0,4	230	2,8	1 ~	10	3G1	-	8	G1¼	11
32FWS-V-52-0,3M-G	0,57	0,3	0,4	230	2,8	1 ~	10	3G1	•	8	G1¼	11

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery							
		l/sec 0	0,5	1	1,5	2	2,5	3	3,5
		m3/h 0	1,8	3,6	5,4	7,2	9	10,8	12,6
		US gpm 0	7,9	15,8	23,7	31,7	39,6	47,5	55,5
		H = Total meters head of water column [m]							
32FWS-V-52-0,3	1 ~	7,6	6,9	6,3	5,5	4,6	3,5	2,5	1,2

PERFORMANCE CURVES AT 50 HZ

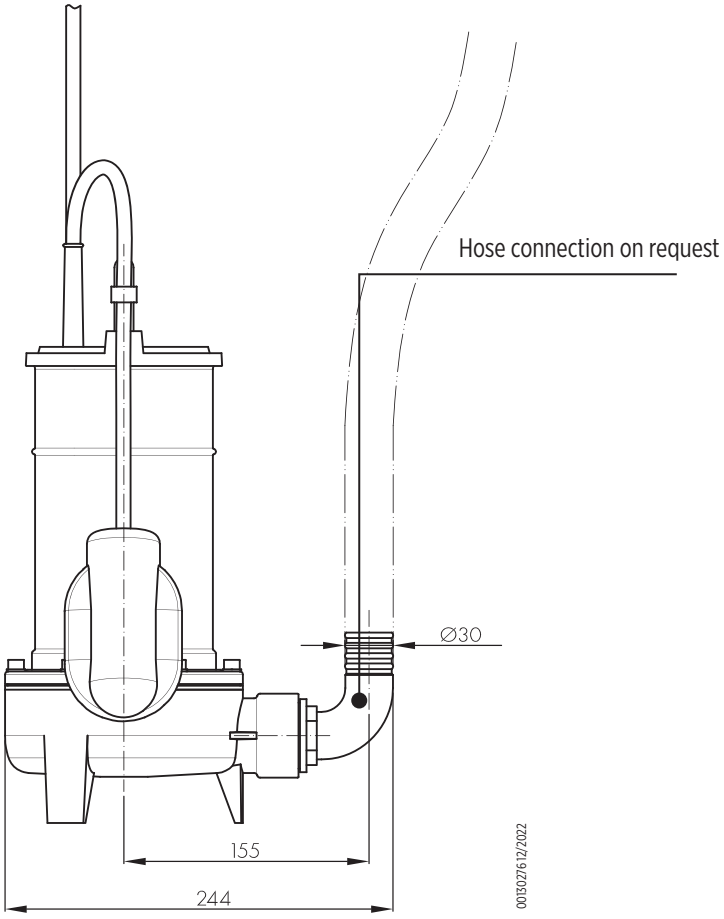


INSTALLATION

INSTALLATION INSTRUCTIONS

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



40FWS V SERIES 50 HZ

FEATURES & BENEFITS

APPLICATIONS

Pumping of clear non-loaded fluids

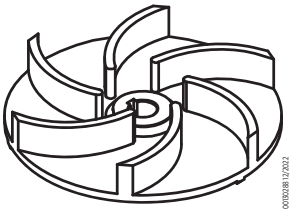
Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

MARKETS

STAINLESS STEEL AND CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pump particularly suitable for the emptying of basements, garages, cellars and flooded premises.



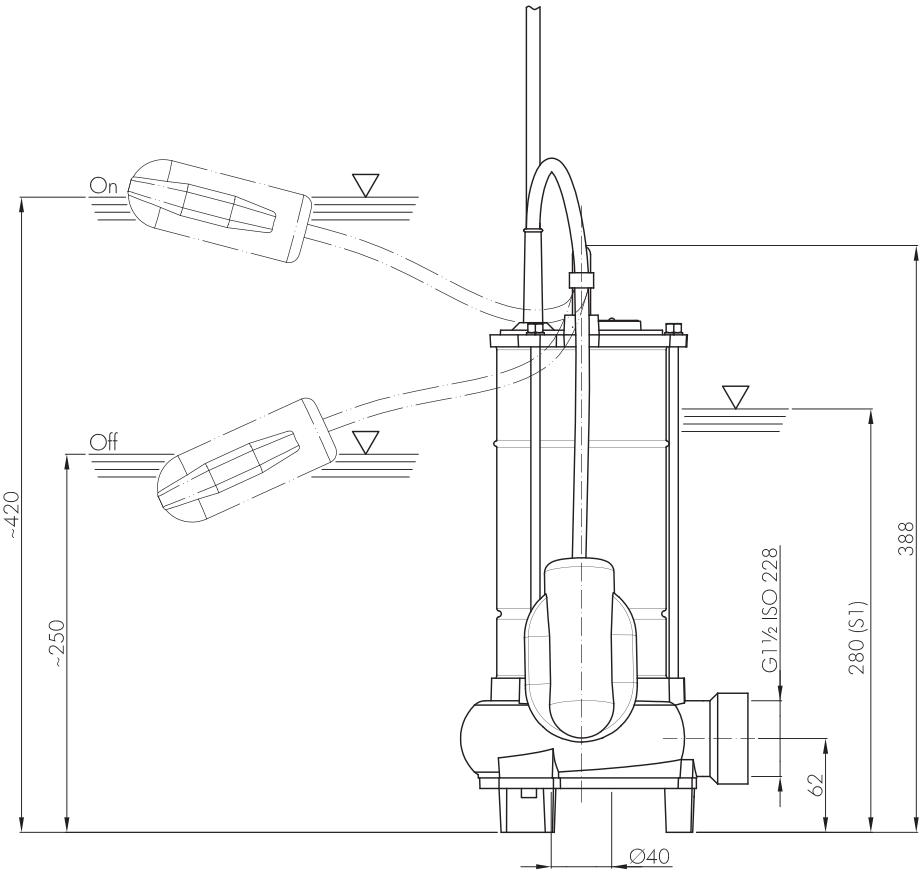
VORTEX IMPELLER

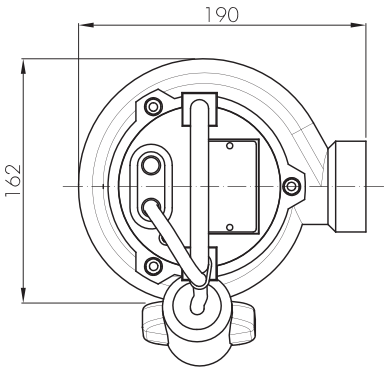
GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal	**motor side**	Seal ring
	pump side	Graphite/Alumina
Motor shaft		Stainless steel AISI416
Power cable	**Type**	10 m H07RN-F type
	Single-phase	3G1mm² with SCHUKO plug (CEE 7/VII)
	Three-phase	4G1 mm²
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230 V ±6% built-in overheating protection, built in capacitor, float switch as optional
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		280 mm
Free passage		20 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil
- Silicon carbide (SiC/SiC) mechanical seal

DIMENSIONAL DRAWINGS





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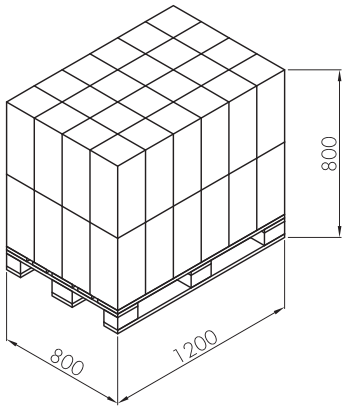
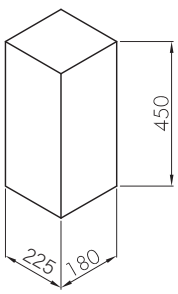
Packaging		
Pump model	Dimensions [mm]	Weight [kg]
40 FWS V	225x180x450	13,5

Pallet		
Dimensions [mm]	N° of pumps	Weight [kg]
1200x800x800	32	460





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TECHNICAL DATA

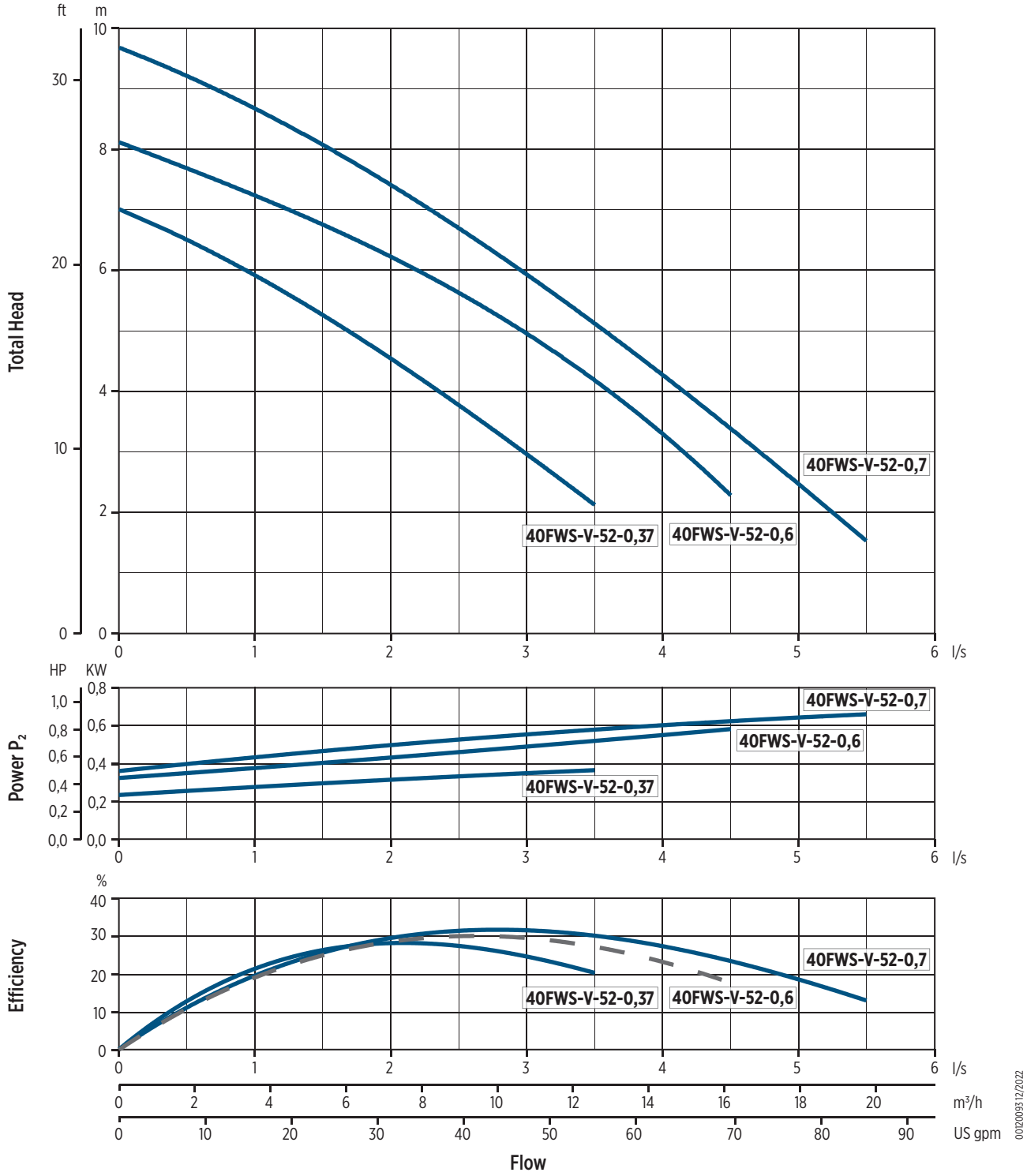
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
40FWS-V-52-0,37M	0,58	0,37	0,5	230	3	1 ~	10	3G1	-	8	G1½	13
40FWS-V-52-0,37M-G	0,58	0,37	0,5	230	3	1 ~	10	3G1	•	8	G1½	13
40FWS-V-52-0,6M	0,72	0,6	0,8	230	3,7	1 ~	10	3G1	-	10	G1½	13
40FWS-V-52-0,6M-G	0,72	0,6	0,8	230	3,7	1 ~	10	3G1	•	10	G1½	13
40FWS-V-52-0,7M	0,88	0,7	0,95	230	4,8	1 ~	10	3G1	-	14	G1½	14
40FWS-V-52-0,7M-G	0,88	0,7	0,95	230	4,8	1 ~	10	3G1	•	14	G1½	14
40FWS-V-52-0,7T	0,88	0,7	0,95	400	1,8	3 ~	10	4G1	-	-	G1½	14
40FWS-V-52-0,7T-G	0,88	0,7	0,95	400	1,8	3 ~	10	4G1	•	-	G1½	14

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery											
		l/sec 0	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5
		m3/h 0	1,8	3,6	5,4	7,2	9	10,8	12,6	14,4	16,2	18	19,8
		US gpm 0	7,9	15,8	23,7	31,7	39,6	47,5	55,5	63,4	71,3	79,2	87,2
		H = Total meters head of water column [m]											
40FWS-V-52-0,37	1 ~	7	6,5	6	5,2	4,5	3,8	3	2,1				
40FWS-V-52-0,6	1 ~	8,1	7,8	7,1	6,8	6,2	5,7	5	4,1	3,3	2,3		
40FWS-V-52-0,7	1 ~	9,8	9	8,7	8,1	7,5	6,8	5,9	5	4,2	3,5	2,5	1,5
	3 ~	9,8	9	8,7	8,1	7,5	6,8	5,9	5	4,2	3,5	2,5	1,5

PERFORMANCE CURVES AT 50 HZ



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The hydraulic characteristics are guaranteed, according to ISO standard 9906:2012, grade 3B

INSTALLATION

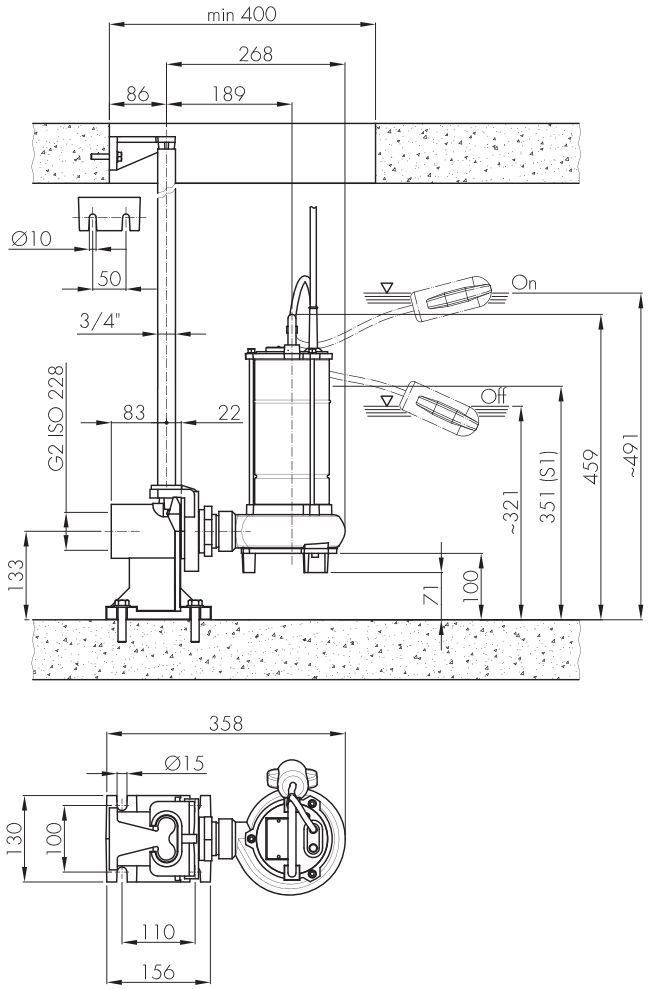
INSTALLATION INSTRUCTIONS

PERMANENT INSTALLATION WITH COUPLING SYSTEM

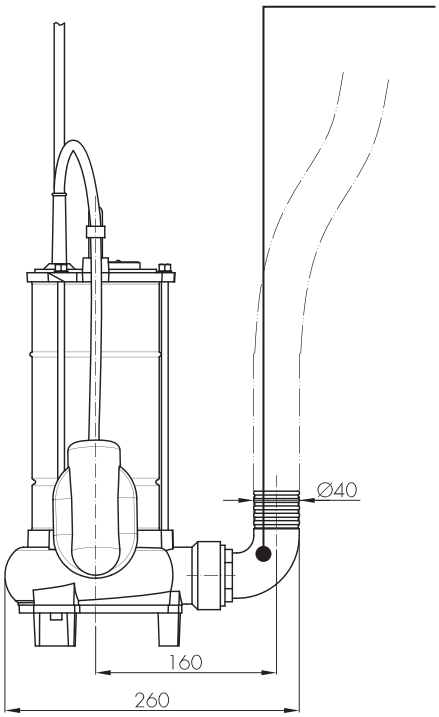
It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



Hose connection on request



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50FWS V SERIES 50 HZ

FEATURES & BENEFITS

APPLICATIONS

Pumping of clear non-loaded fluids

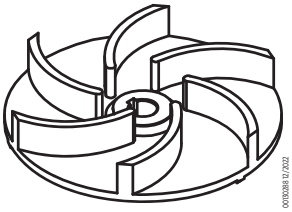
Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

MARKETS

STAINLESS STEEL AND CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pump particularly suitable for the emptying of basements, garages, cellars and flooded premises.



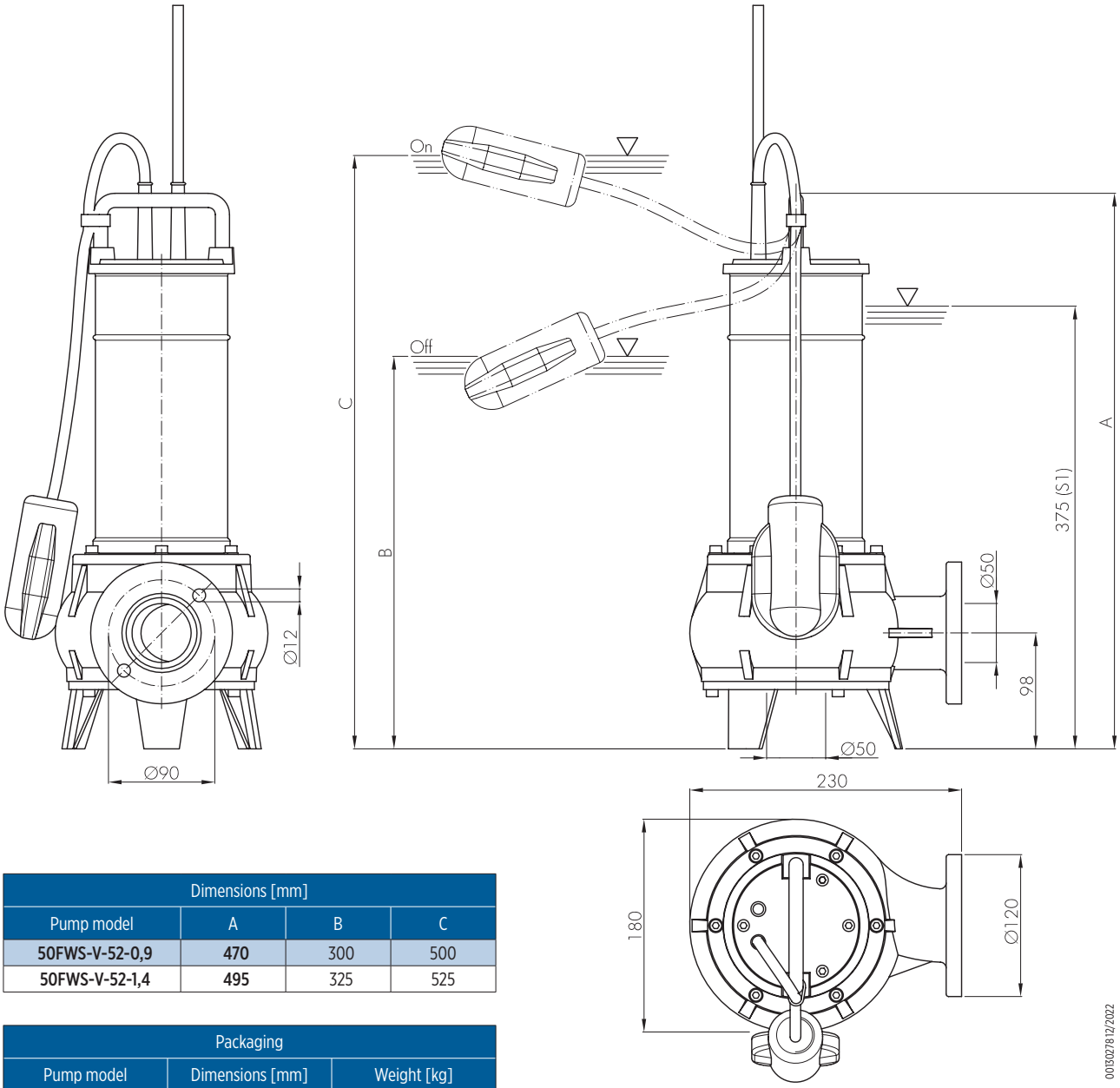
VORTEX IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal	**motor side**	Seal ring
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI416
Power cable	**Type**	10 m H07RN-F type
	Single-phase	3G1 mm^2 with SCHUKO plug (CEE 7/VII)
	Three-phase	4G1 mm^2
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection, built in capacitor, float switch as optional
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		375 mm
Free passage		50 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- External capacitor with 4G1mm^2 cable

DIMENSIONAL DRAWINGS



Dimensions [mm]			
Pump model	A	B	C
50FWS-V-52-0,9	**470**	300	500
50FWS-V-52-1,4	**495**	325	525

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
50FWS-V-52-0,9	255x205x560	18,7
50FWS-V-52-1,4	255x205x560	19,7

TECHNICAL DATA

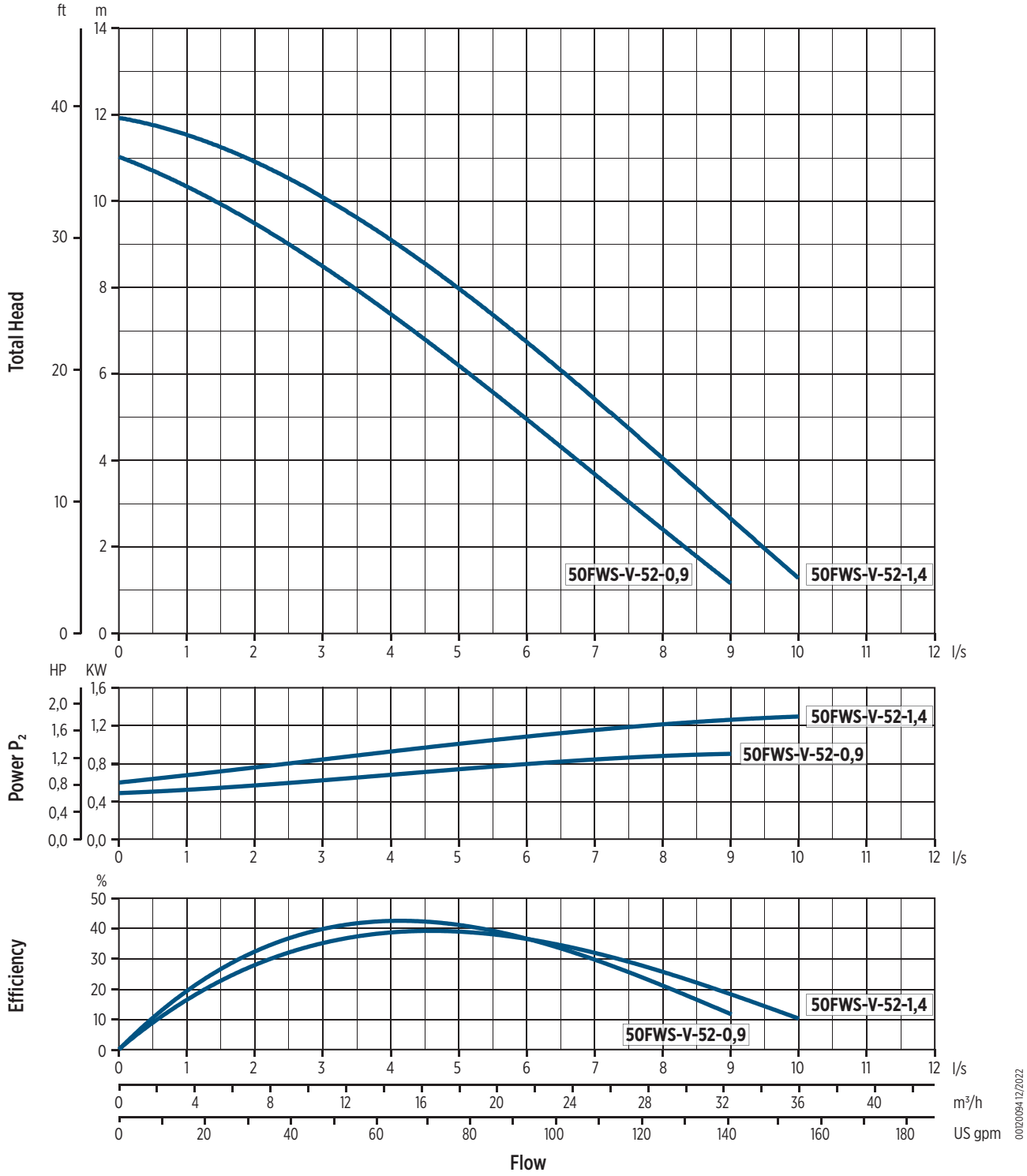
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
50FWS-V-52-0,9M	1,3	0,9	1,2	230	6	1 ~	10	3G1	-	20	G2	18
50FWS-V-52-0,9M-F	1,3	0,9	1,2	230	6	1 ~	10	3G1	-	20	Ø50	18
50FWS-V-52-0,9M-G	1,3	0,9	1,2	230	6	1 ~	10	3G1	•	20	G2	18
50FWS-V-52-0,9M-G-F	1,3	0,9	1,2	230	6	1 ~	10	3G1	•	20	Ø50	18
50FWS-V-52-0,9T	1,3	0,9	1,2	400	2	3 ~	10	4G1	-	-	G2	18
50FWS-V-52-0,9T-F	1,3	0,9	1,2	400	2	3 ~	10	4G1	-	-	Ø50	18
50FWS-V-52-0,9T-G	1,3	0,9	1,2	400	2	3 ~	10	4G1	•	-	G2	18
50FWS-V-52-0,9T-G-F	1,3	0,9	1,2	400	2	3 ~	10	4G1	•	-	Ø50	18
50FWS-V-52-1,4M	1,7	1,4	1,9	230	7,7	1 ~	10	3G1	-	25	G2	19
50FWS-V-52-1,4M-F	1,7	1,4	1,9	230	7,7	1 ~	10	3G1	-	25	Ø50	19
50FWS-V-52-1,4M-G	1,7	1,4	1,9	230	7,7	1 ~	10	3G1	•	25	G2	19
50FWS-V-52-1,4M-G-F	1,7	1,4	1,9	230	7,7	1 ~	10	3G1	•	25	Ø50	19
50FWS-V-52-1,4T	1,7	1,4	1,9	400	3,2	3 ~	10	4G1	-	-	G2	19
50FWS-V-52-1,4T-F	1,7	1,4	1,9	400	3,2	3 ~	10	4G1	-	-	Ø50	19

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery														
		l/sec 0	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8	9	10
		m^3/h 0	3,6	5,4	7,2	9	10,8	12,6	14,4	16,2	18	21,6	25,2	28,8	32,4	36
		US gpm 0	15,8	23,7	31,7	39,6	47,5	55,5	63,4	71,3	79,2	92,1	110,9	126,8	142,6	158,5
		H = Total meters head of water column [m]														
50FWS-V-52-0,9	1 ~	11	10,3	9,9	9,4	8,9	8,5	7,9	7,4	6,8	6,2	4,9	3,7	2,3	1,2	
	3 ~	11	10,3	9,9	9,4	8,9	8,5	7,9	7,4	6,8	6,2	4,9	3,7	2,3	1,2	
50FWS-V-52-1,4	1 ~	12	11,5	11,2	10,8	10,5	10,1	9,7	9,2	8,6	8	6,7	5,4	4	2,7	1,3
	3 ~	12	11,5	11,2	10,8	10,5	10,1	9,7	9,2	8,6	8	6,7	5,4	4	2,7	1,3

HYDRAULIC PERFORMANCE AT 50 HZ



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INSTALLATION

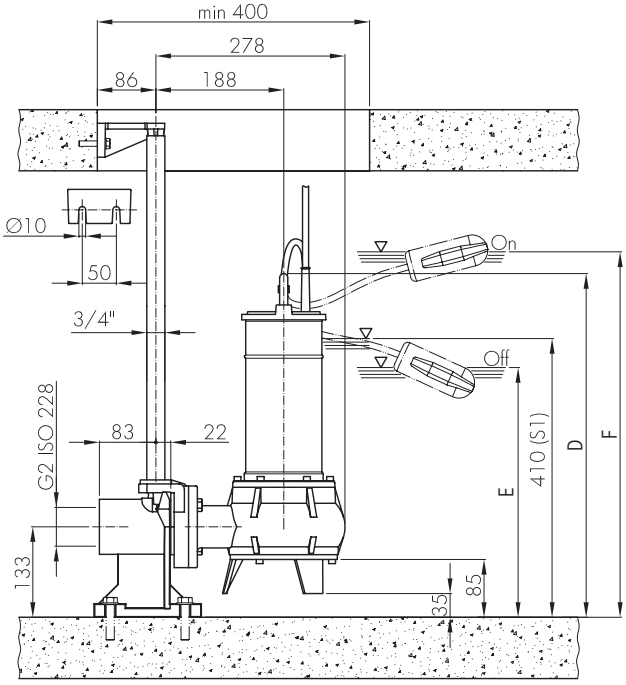
INSTALLATION INSTRUCTIONS

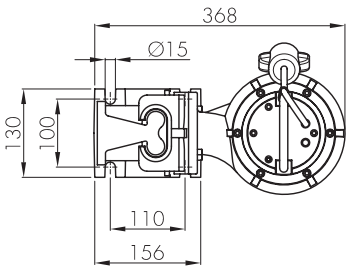
PERMANENT INSTALLATION WITH COUPLING SYSTEM

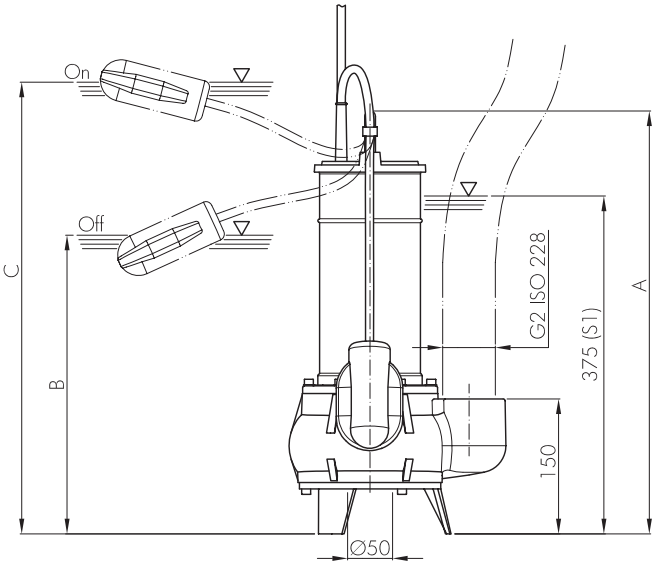
It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

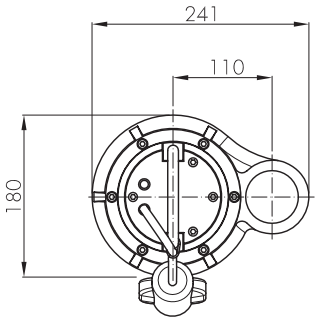
TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.









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Installation Dimensions [mm]						
Pump model	A	B	C	D	E	F
50FWS-V-52-0,9	470	300	500	505	335	535
50FWS-V-52-1,4	495	325	525	530	360	560

50FWC V SERIES 50 HZ

FEATURES & BENEFITS

APPLICATIONS

Pumping of clear non-loaded fluids

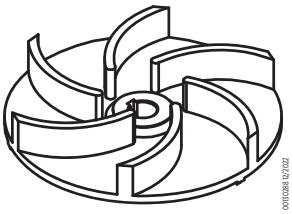
Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

MARKETS

CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps suitable for pumping screened waste water, draining the sewage of blocks of flats and houses and flooded premises in general.



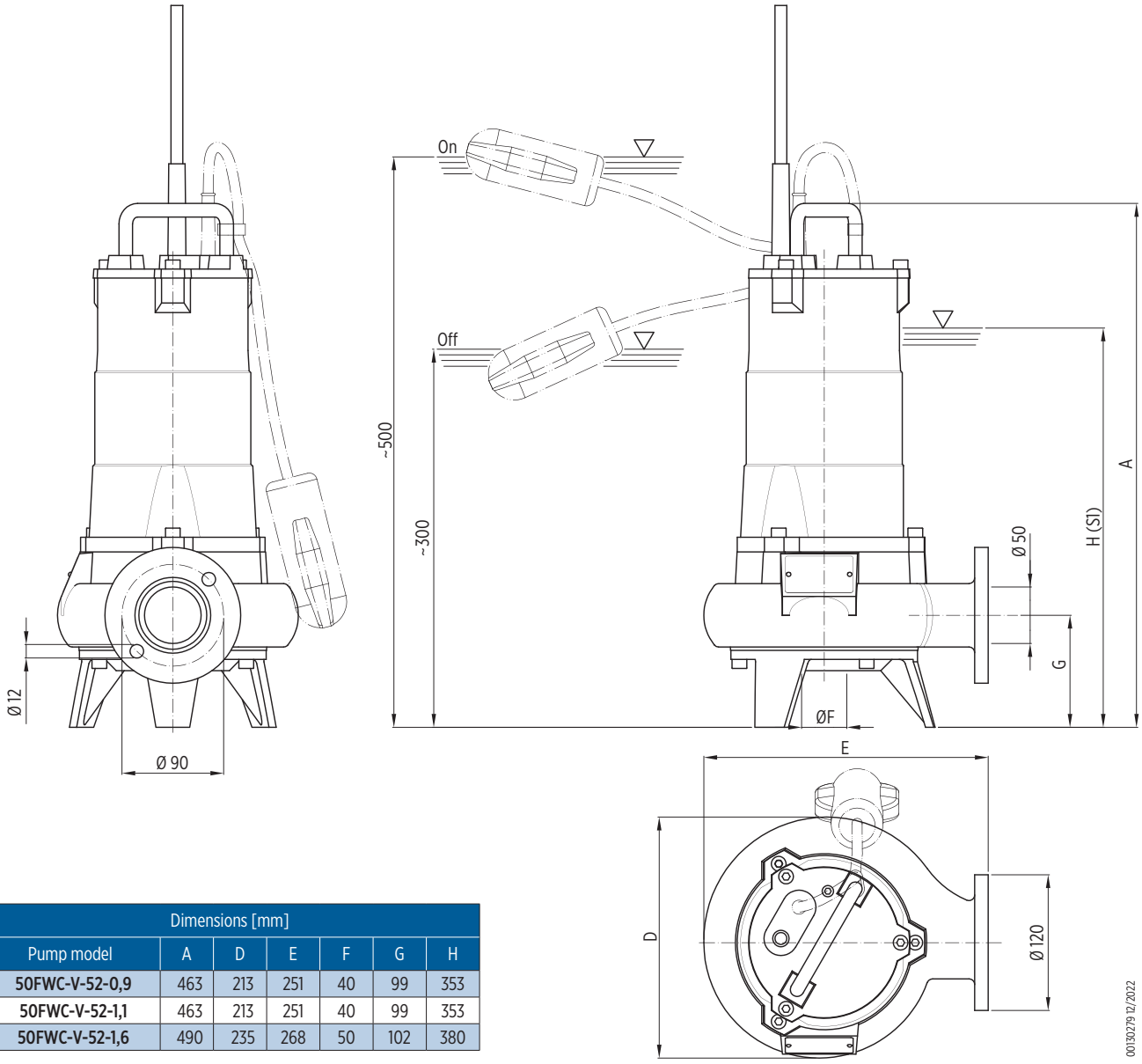
VORTEX IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal		Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI416
Power cable	**Type**	10 m H07RN-F type
	Single-phase	4G1,5mm², capacitor box and SCHUKO plug (CEE 7/VII)
	Single-phase 50FWC-V-52-1,6M	4G2,5mm², capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	4G1,5mm²
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection (up to 1,1 kW), float switch as optional capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		
50FWC-V-52-0,9M/T, 50FWC-V-52-1,1M/T		353 mm
50FWC-V-52-1,6M/T		380 mm
Free passage	**50FWC-V-52-0,9M/T, 50FWC-V-52-1,1M/T**	40 mm
	50FWC-V-52-1,6M/T	50 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Dimensions [mm]						
Pump model	A	D	E	F	G	H
50FWC-V-52-0,9	463	213	251	40	99	353
50FWC-V-52-1,1	463	213	251	40	99	353
50FWC-V-52-1,6	490	235	268	50	102	380

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
50FWC-V-52-0,9	290x245x585	30
50FWC-V-52-1,1	290x245x585	30
50FWC-V-52-1,6	300x260x585	36

TECHNICAL DATA

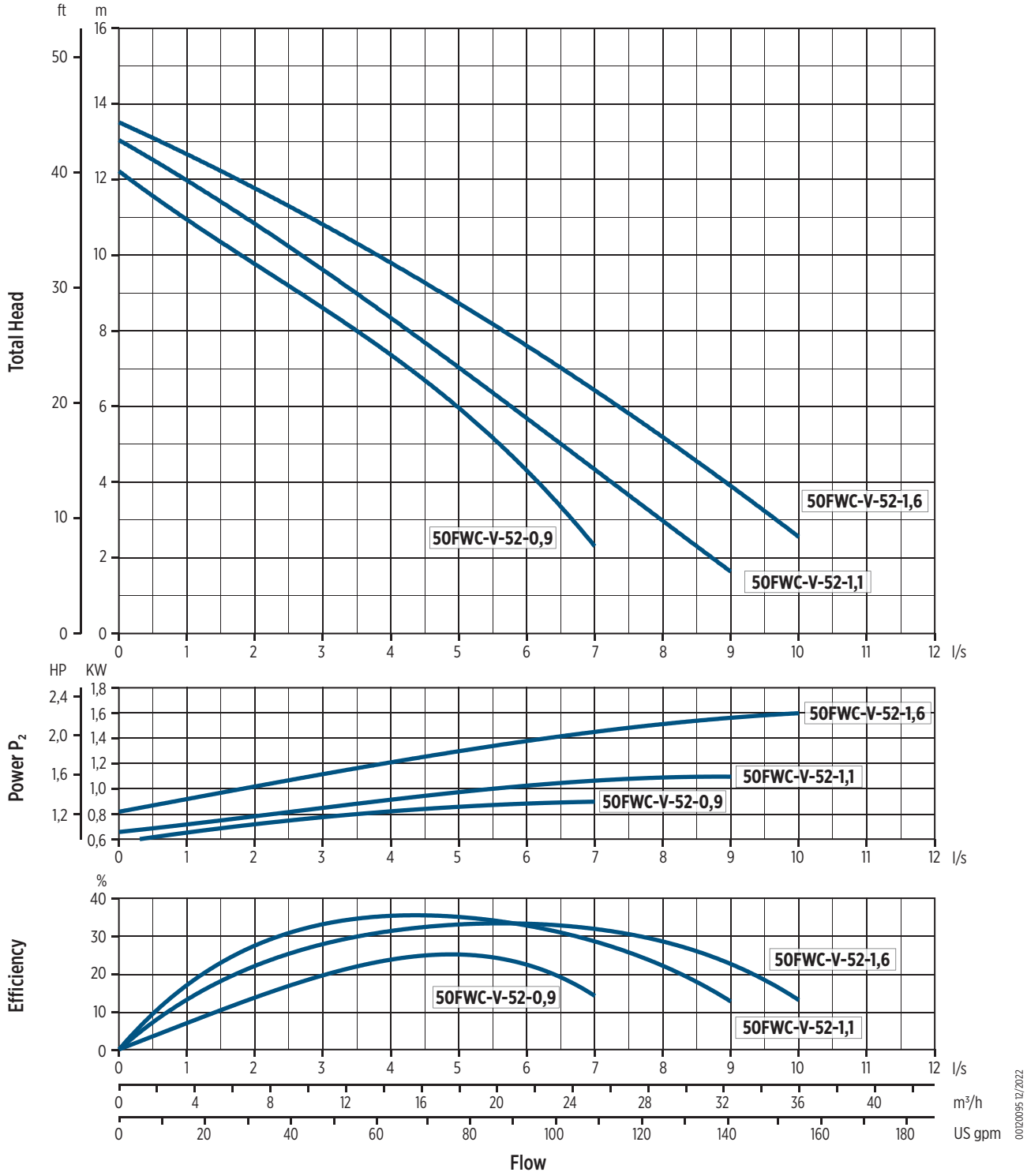
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
50FWC-V-52-0,9M	1,3	0,9	1,2	230	5,8	1 ~	10	4G1,5	-	25	G2 (Ø50)	29
50FWC-V-52-0,9M-G	1,3	0,9	1,2	230	5,8	1 ~	10	4G1,5	•	25	G2 (Ø50)	29
50FWC-V-52-0,9T	1,3	0,9	1,2	400	2	3 ~	10	4G1,5	-	-	G2 (Ø50)	29
50FWC-V-52-0,9T-G	1,3	0,9	1,2	400	2	3 ~	10	4G1,5	•	-	G2 (Ø50)	29
50FWC-V-52-1,1M	1,7	1,1	1,5	230	7	1 ~	10	4G1,5	-	30	G2 (Ø50)	29
50FWC-V-52-1,1M-G	1,7	1,1	1,5	230	7	1 ~	10	4G1,5	•	30	G2 (Ø50)	29
50FWC-V-52-1,1T	1,7	1,1	1,5	400	3	3 ~	10	4G1,5	-	-	G2 (Ø50)	29
50FWC-V-52-1,1T-G	1,7	1,1	1,5	400	3	3 ~	10	4G1,5	•	-	G2 (Ø50)	29
50FWC-V-52-1,6M	2,3	1,6	2,1	230	9,1	1 ~	10	4G2,5	-	40	G2 (Ø50)	35
50FWC-V-52-1,6M-G	2,3	1,6	2,1	230	9,1	1 ~	10	4G2,5	•	40	G2 (Ø50)	35
50FWC-V-52-1,6T	2,3	1,6	2,1	400	4	3 ~	10	4G1,5	-	-	G2 (Ø50)	35
50FWC-V-52-1,6T-G	2,3	1,6	2,1	400	4	3 ~	10	4G1,5	•	-	G2 (Ø50)	35

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery										
		l/sec 0	1	2	3	4	5	6	7	8	9	10
		m3/h 0	3,6	7,2	10,8	14,4	18	21,6	25,2	28,8	32,4	36
		US gpm 0	15,8	31,7	47,5	63,4	79,2	92,1	110,9	126,8	142,6	158,5
		H = Total meters head of water column [m]										
50FWC-V-52-0,9	1 ~	12,2	11	9,8	8,5	7,4	6	4,3	2,3			
	3 ~	12,2	11	9,8	8,5	7,4	6	4,3	2,3			
50FWC-V-52-1,1	1 ~	13	12	11	9,5	8,3	7	5,7	4,4	3	1,6	
	3 ~	13	12	11	9,5	8,3	7	5,7	4,4	3	1,6	
50FWC-V-52-1,6	1 ~	14	12,5	11,5	10,5	9,6	8,7	7,8	6,8	5,5	4	2,1
	3 ~	14	12,5	11,5	10,5	9,6	8,7	7,8	6,8	5,5	4	2,1

HYDRAULIC PERFORMANCE AT 50 HZ



0012009S 12/2022

INSTALLATION

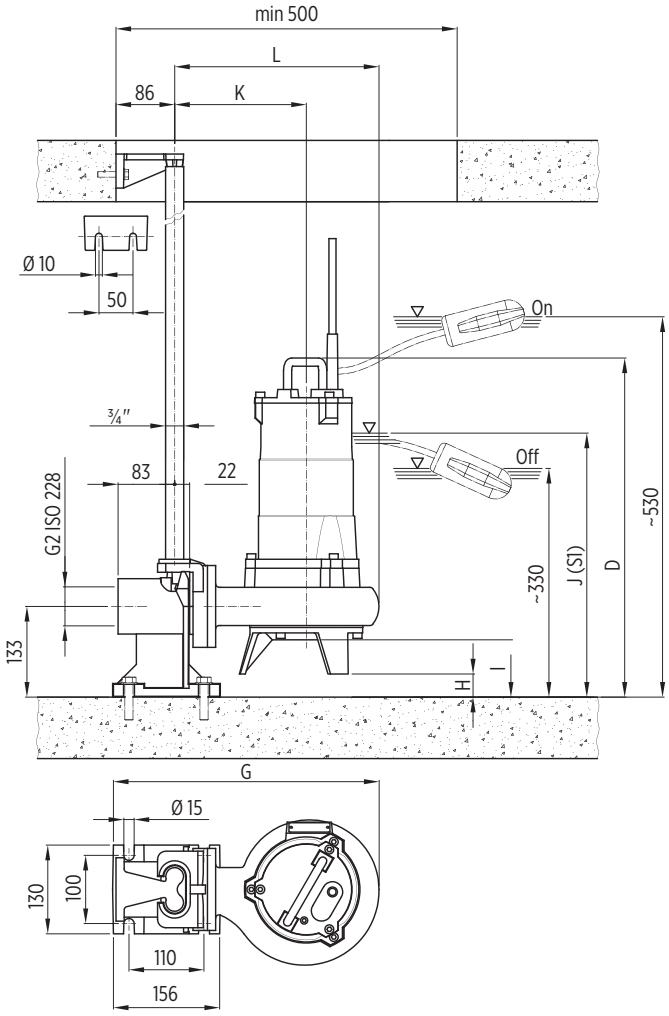
INSTALLATION INSTRUCTIONS

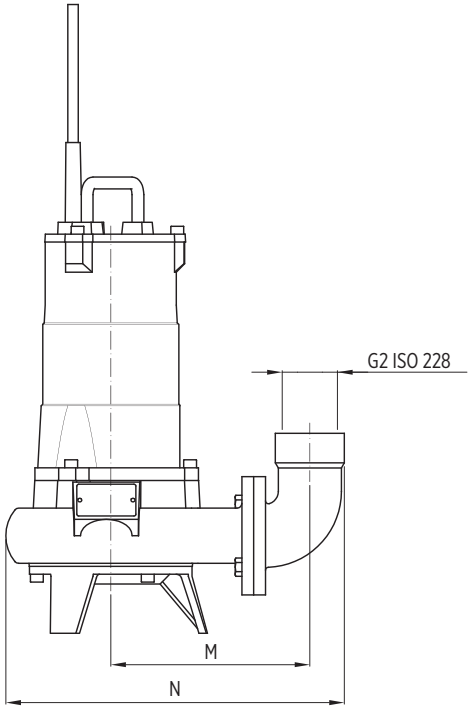
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.





00130279 12/2022

Installation Dimensions [mm]									
Pump model	D	G	H	I	J	K	L	M	N
50FWC-V-52-0,9	497	390	34	84	387	193	300	202	344
50FWC-V-52-1,1	497	390	34	84	387	193	300	202	344
50FWC-V-52-1,6	521	407	31	81	414	200	316	209	360

50FWC M SERIES 50 HZ

FEATURES & BENEFITS

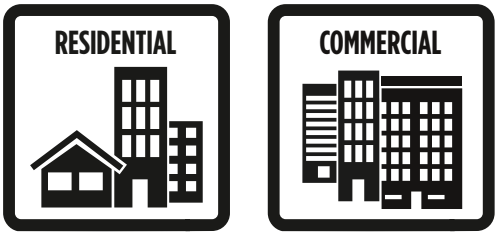
APPLICATIONS

Pumping of clear non-loaded fluids

Extraction of water from ponds, streams or pits and for rainwater collection

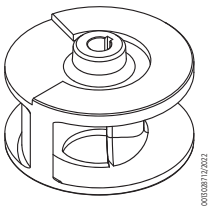
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps suitable for pumping screened waste water, draining the sewage of blocks of flats and houses and flooded premises in general.



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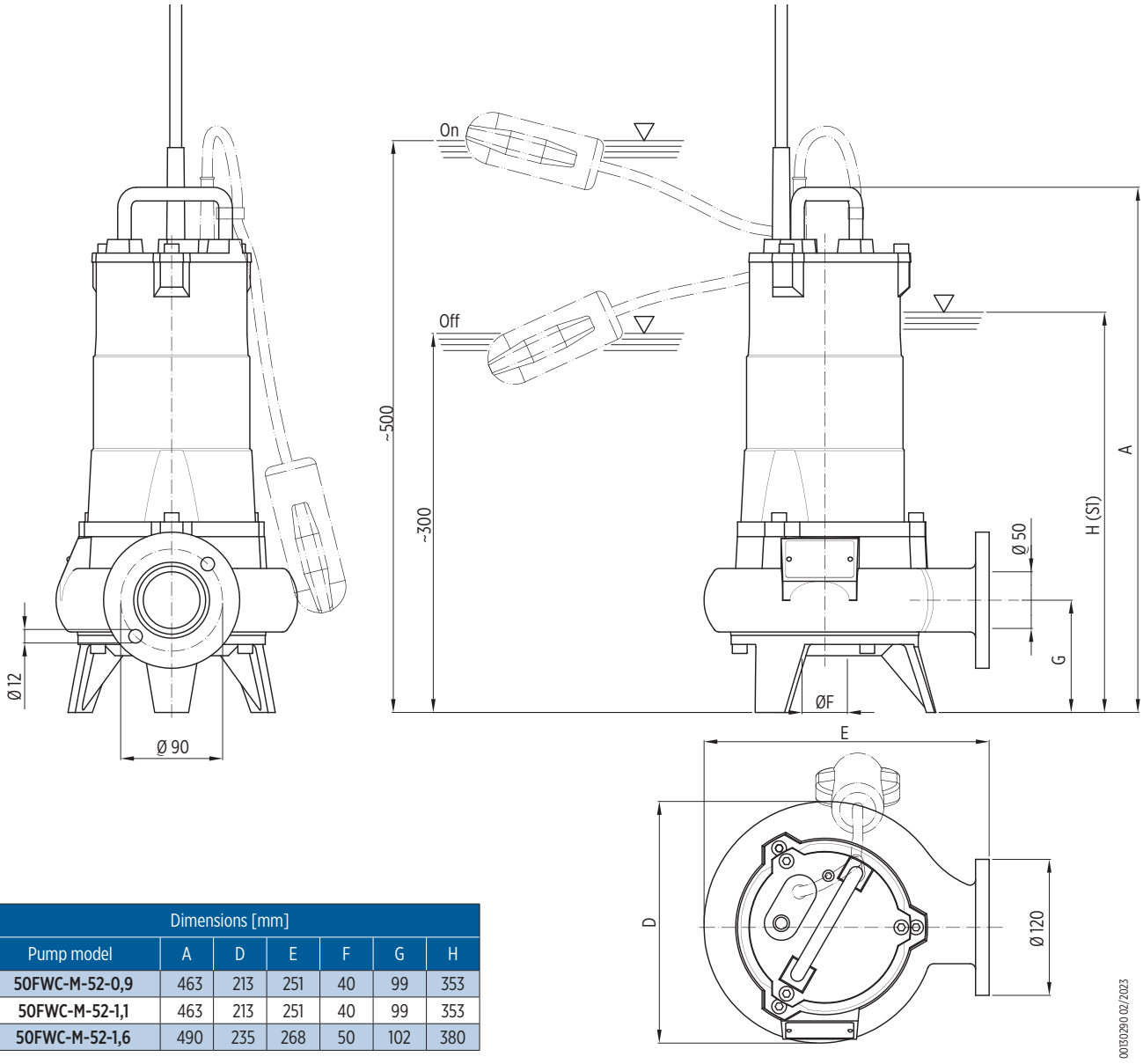
SINGLE-CHANNEL IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal		Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI416
Power cable	**Type**	10 m H07RN-F type
	Single-phase	4G1,5mm², capacitor box and SCHUKO plug (CEE 7/VII)
	Single-phase 50FWC-M-52-1,6M	4G2,5mm², capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	4G1,5mm²
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection, float switch as optional capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		
50FWC-M-52-0,9M/T, 50FWC-M-52-1,1M/T		353 mm
50FWC-M-52-1,6M/T, 50FWC-M-52-1,6T-HH		380 mm
Free passage	**50FWC-M-52-0,9M/T, 50FWC-M-52-1,1M/T**	40 mm
	50FWC-M-52-1,6M/T, 50FWC-M-52-1,6T-HH	50 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Dimensions [mm]						
Pump model	A	D	E	F	G	H
50FWC-M-52-0,9	463	213	251	40	99	353
50FWC-M-52-1,1	463	213	251	40	99	353
50FWC-M-52-1,6	490	235	268	50	102	380

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
50FWC-M-52-0,9	290x245x585	31
50FWC-M-52-1,1	290x245x585	31
50FWC-M-52-1,6	300x260x585	35

TECHNICAL DATA

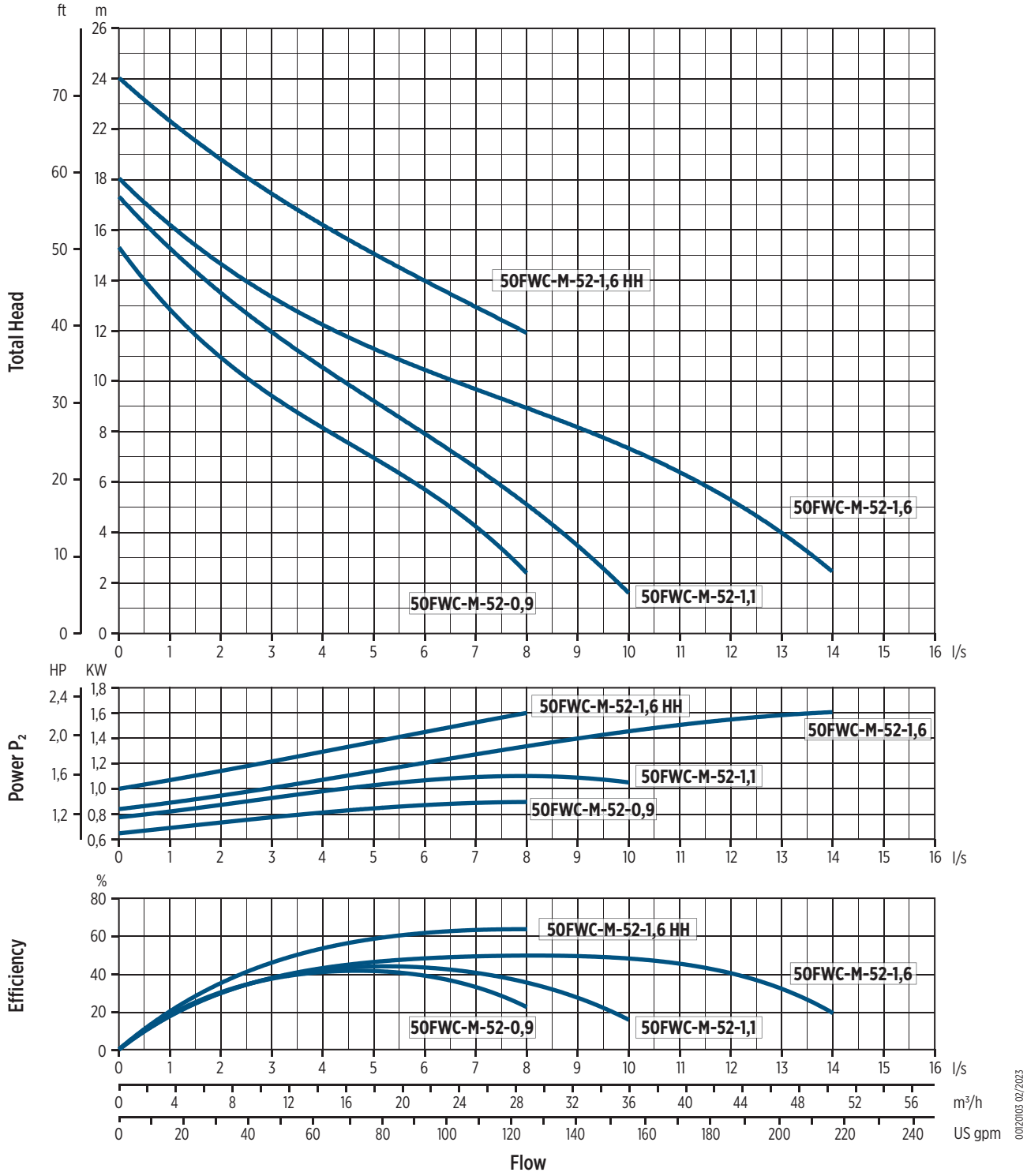
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
50FWC-M-52-0,9M	1,3	0,9	1,2	230	5,8	1 ~	10	4G1,5	-	25	G2 (Ø50)	30
50FWC-M-52-0,9M-G	1,3	0,9	1,2	230	5,8	1 ~	10	4G1,5	•	25	G2 (Ø50)	30
50FWC-M-52-0,9T	1,3	0,9	1,2	400	2	3 ~	10	4G1,5	-	-	G2 (Ø50)	30
50FWC-M-52-0,9T-G	1,3	0,9	1,2	400	2	3 ~	10	4G1,5	•	-	G2 (Ø50)	30
50FWC-M-52-1,1M	1,7	1,1	1,5	230	7	1 ~	10	4G1,5	-	30	G2 (Ø50)	30
50FWC-M-52-1,1M-G	1,7	1,1	1,5	230	7	1 ~	10	4G1,5	•	30	G2 (Ø50)	30
50FWC-M-52-1,1T	1,6	1,1	1,5	400	3	3 ~	10	4G1,5	-	-	G2 (Ø50)	30
50FWC-M-52-1,1T-G	1,6	1,1	1,5	400	3	3 ~	10	4G1,5	•	-	G2 (Ø50)	30
50FWC-M-52-1,6M	2,3	1,6	2,1	230	11	1 ~	10	4G2,5	-	40	G2 (Ø50)	34
50FWC-M-52-1,6M-G	2,3	1,6	2,1	230	11	1 ~	10	4G2,5	•	40	G2 (Ø50)	34
50FWC-M-52-1,6T	2,2	1,6	2,1	400	4	3 ~	10	4G1,5	-	-	G2 (Ø50)	34
50FWC-M-52-1,6T-HH	2,2	1,6	2,1	400	4,2	3 ~	10	4G1,5	-	-	G2 (Ø50)	34
50FWC-M-52-1,6T-G	2,2	1,6	2,1	400	4	3 ~	10	4G1,5	•	-	G2 (Ø50)	34

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery													
		l/sec 0	1	2	3	4	5	6	7	8	9	10	12	13	14
		m3/h 0	3,6	7,2	10,8	14,4	18	21,6	25,2	28,8	32,4	36	43,2	46,8	50,4
		US gpm 0	15,8	31,7	47,5	63,4	79,2	92,1	110,9	126,8	142,6	158,5	190,2	206	221,9
		H = Total meters head of water column [m]													
50FWC-M-52-0,9	1 ~	15,5	12,5	11	9,5	8,3	7	5,6	4,1	2,5					
	3 ~	15,5	12,5	11	9,5	8,3	7	5,6	4,1	2,5					
50FWC-M-52-1,1	1 ~	17,5	15	13,5	12	10,5	9,4	8	6,5	5	3,4	1,7			
	3 ~	17,5	15	13,5	12	10,5	9,4	8	6,5	5	3,4	1,7			
50FWC-M-52-1,6	1 ~	19	17	15,5	14	13	12	11	10	9,4	8,6	7,7	5,8	4,2	2,5
	3 ~	19	17	15,5	14	13	12	11	10	9,4	8,6	7,7	5,8	4,2	2,5
	3 ~ HH	24	22	20,5	19	17,5	16,5	15,2	14	13					

HYDRAULIC PERFORMANCE AT 50 HZ



The hydraulic characteristics are guaranteed, according to ISO standard 9906:2012, grade 3B

INSTALLATION

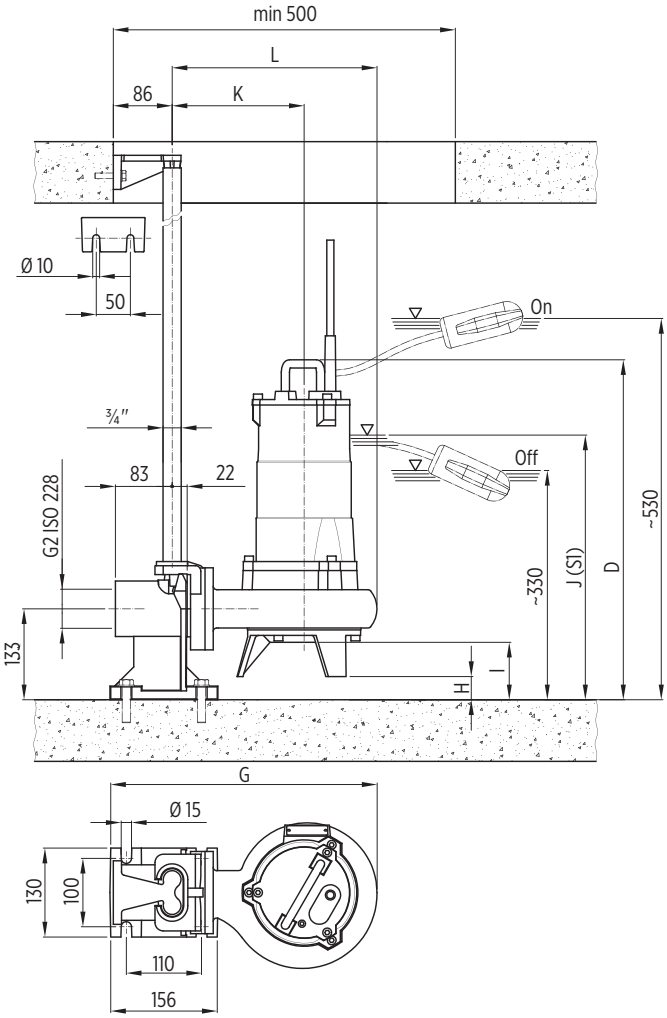
INSTALLATION INSTRUCTIONS

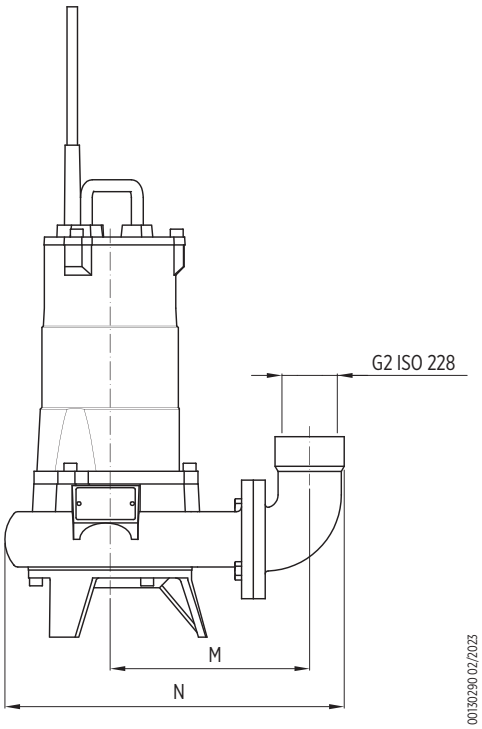
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.





00130290 02/2023

Installation Dimensions [mm]									
Pump model	D	G	H	I	J	K	L	M	N
50FWC-M-52-0,9	497	390	34	84	387	193	300	202	344
50FWC-M-52-1,1	497	390	34	84	387	193	300	202	344
50FWC-M-52-1,6	521	407	31	81	414	200	316	209	360

50FWC V4 SERIES 50 HZ

FEATURES & BENEFITS

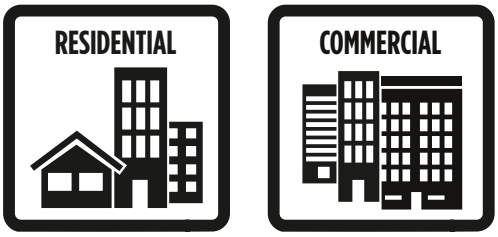
APPLICATIONS

Pumping of clear non-loaded fluids

Extraction of water from ponds, streams or pits and for rainwater collection

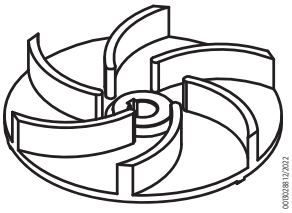
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps suitable for pumping screened waste water, draining the sewage of blocks of flats and houses and flooded premises in general.



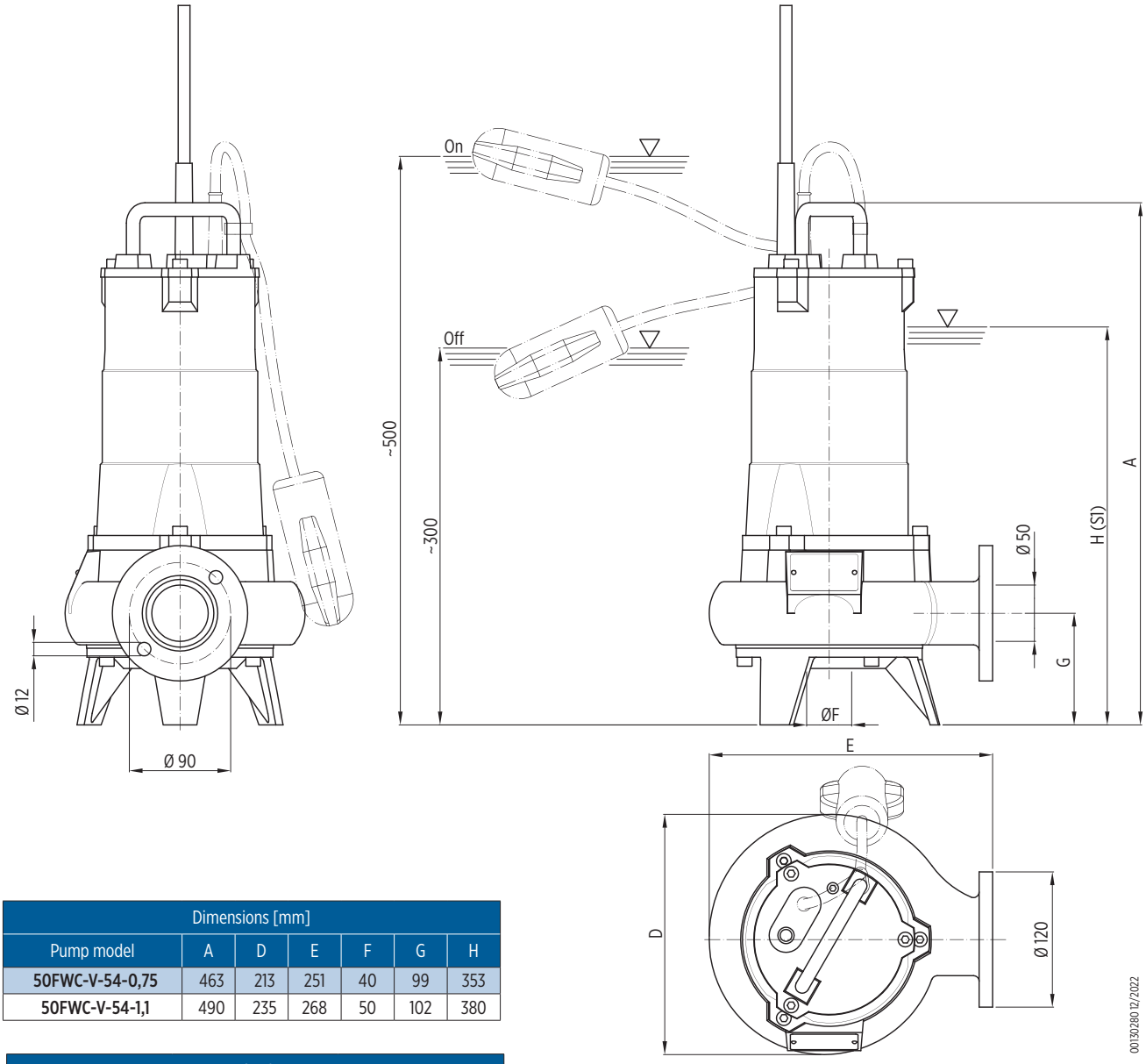
VORTEX IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal		Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI416
Power cable	**Type**	10 m H07RN-F type
	Single-phase	4G1,5mm², capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	4G1,5mm²
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		4 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection (up to 1,1 kW), float switch as optional capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		
50FWC-V-54-0,75M/T		353 mm
50FWC-V-54-1,1M/T		380 mm
Free passage	**50FWC-V-54-0,75M/T**	40 mm
	50FWC-V-54-1,1M/T	50 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Dimensions [mm]						
Pump model	A	D	E	F	G	H
50FWC-V-54-0,75	463	213	251	40	99	353
50FWC-V-54-1,1	490	235	268	50	102	380

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
50FWC-V-54-0,75	290x245x585	30
50FWC-V-54-1,1	300x260x585	34

TECHNICAL DATA

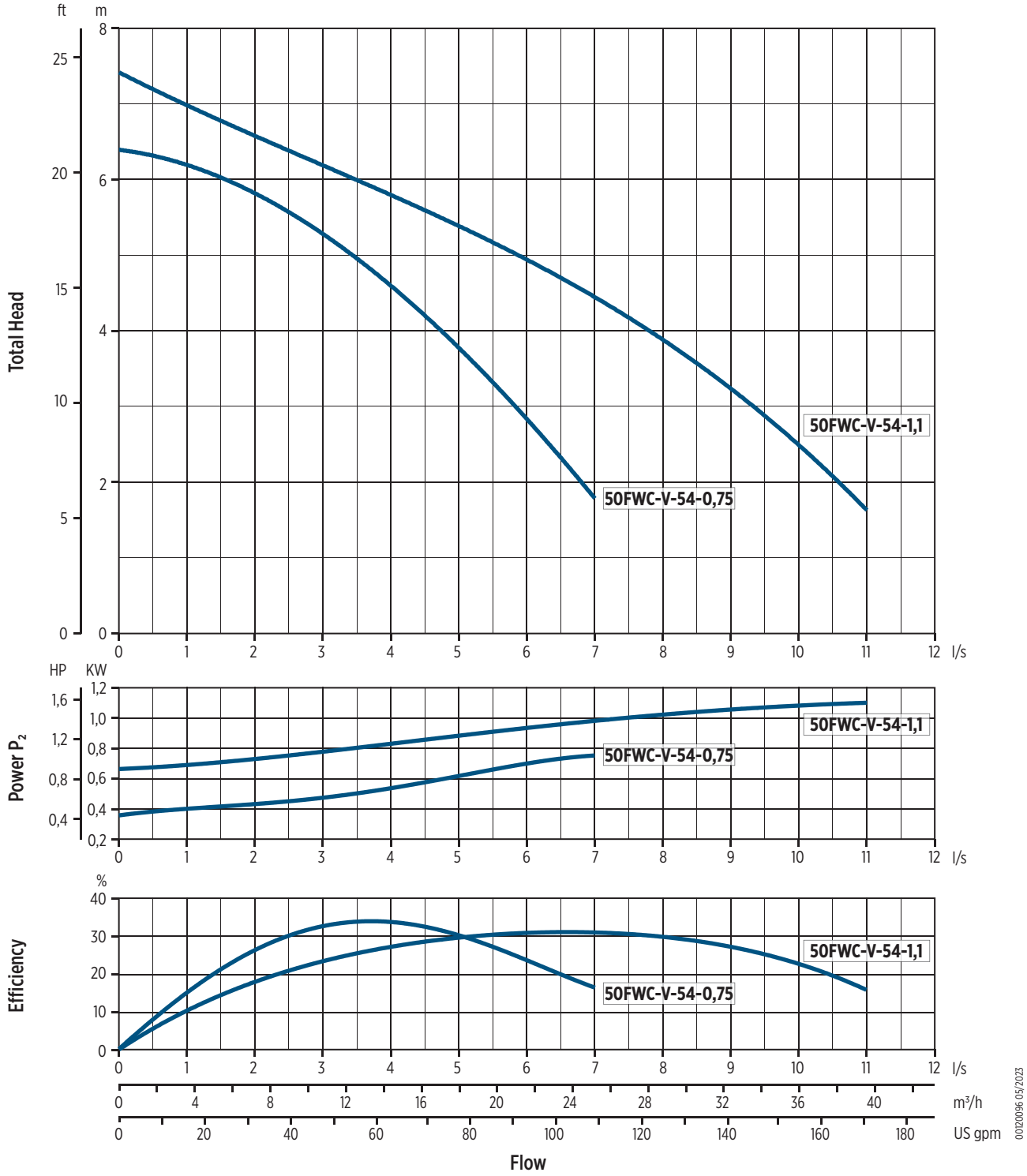
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
50FWC-V-54-0,75M	1,2	0,75	1	230	5	1 ~	10	4G1,5	-	14	G2 (Ø50)	29
50FWC-V-54-0,75M-G	1,2	0,75	1	230	5	1 ~	10	4G1,5	•	14	G2 (Ø50)	29
50FWC-V-54-0,75T	1,2	0,75	1	400	1,9	3 ~	10	4G1,5	-	-	G2 (Ø50)	29
50FWC-V-54-0,75T-G	1,2	0,75	1	400	1,9	3 ~	10	4G1,5	•	-	G2 (Ø50)	29
50FWC-V-54-1,1M	1,5	1,1	1,5	230	7,7	1 ~	10	4G1,5	-	20	G2 (Ø50)	33
50FWC-V-54-1,1M-G	1,5	1,1	1,5	230	7,7	1 ~	10	4G1,5	•	20	G2 (Ø50)	33
50FWC-V-54-1,1T	1,5	1,1	1,5	400	2,8	3 ~	10	4G1,5	-	-	G2 (Ø50)	33
50FWC-V-54-1,1T-G	1,5	1,1	1,5	400	2,8	3 ~	10	4G1,5	•	-	G2 (Ø50)	33

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery											
		l/sec 0	1	2	3	4	5	6	7	8	9	10	11
		m3/h 0	3,6	7,2	10,8	14,4	18	21,6	25,2	28,8	32,4	36	39,6
		US gpm 0	15,8	31,7	47,5	63,4	79,2	92,1	110,9	126,8	142,6	158,5	174,3
		H = Total meters head of water column [m]											
50FWC-V-54-0,75	1 ~	6,4	6,2	5,8	5,3	4,6	3,8	2,8	1,8				
	3 ~	6,4	6,2	5,8	5,3	4,6	3,8	2,8	1,8				
50FWC-V-54-1,1	1 ~	7,4	7	6,6	6,2	5,8	5,4	4,9	4,4	3,9	3,3	2,5	1,6
	3 ~	7,4	7	6,6	6,2	5,8	5,4	4,9	4,4	3,9	3,3	2,5	1,6

HYDRAULIC PERFORMANCE AT 50 HZ



INSTALLATION

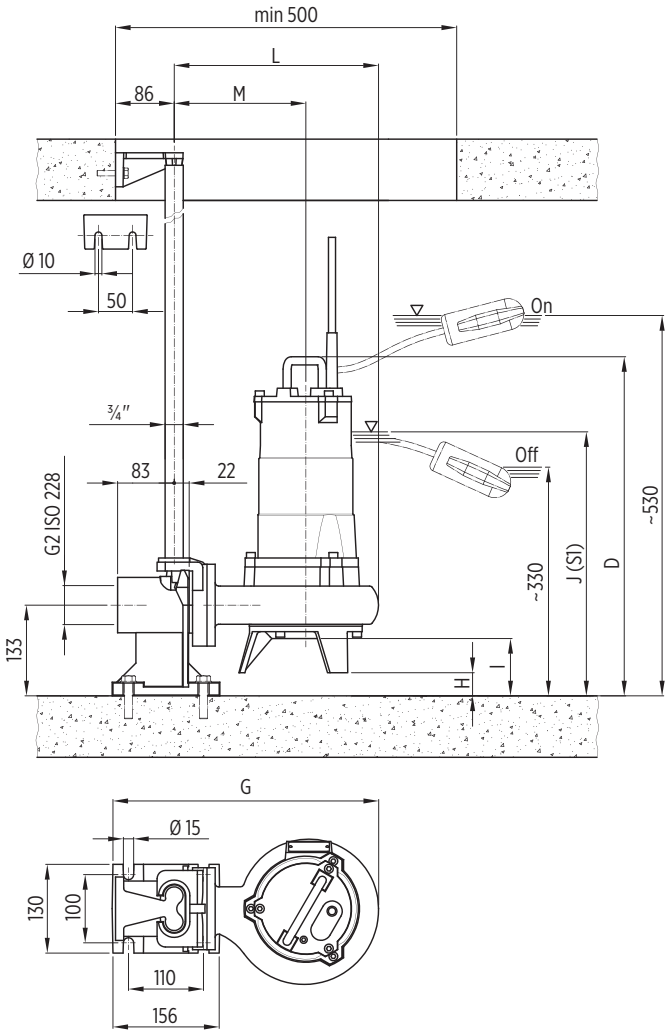
INSTALLATION INSTRUCTIONS

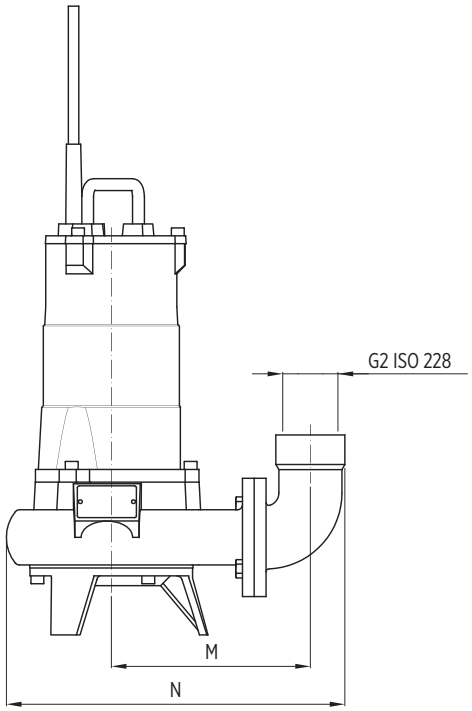
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.





00130280 12/2022

Installation Dimensions [mm]									
Pump model	D	G	H	I	J	K	L	M	N
50FWC-V-54-0,75	497	390	34	84	387	193	300	202	344
50FWC-V-54-1,1	521	407	31	81	414	200	316	209	360

65FWC V SERIES 50 HZ

FEATURES & BENEFITS

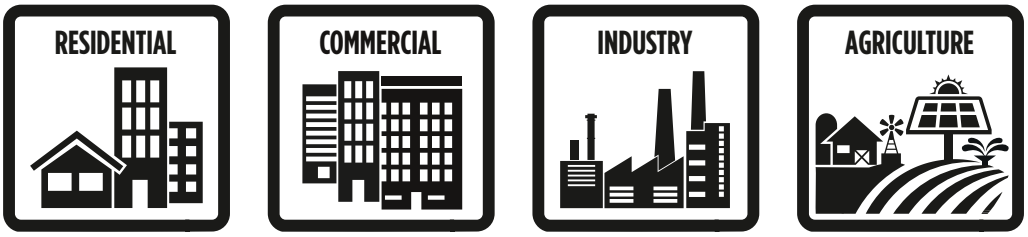
APPLICATIONS

Domestic / industrial grey water

Extraction of water from ponds, streams or pits and for rainwater collection

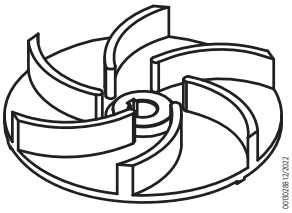
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps particularly suitable for pumping industrial sewage, screened waste water and mud in the pumping stations. They can be used also to lift clear and dirty water and rain water.



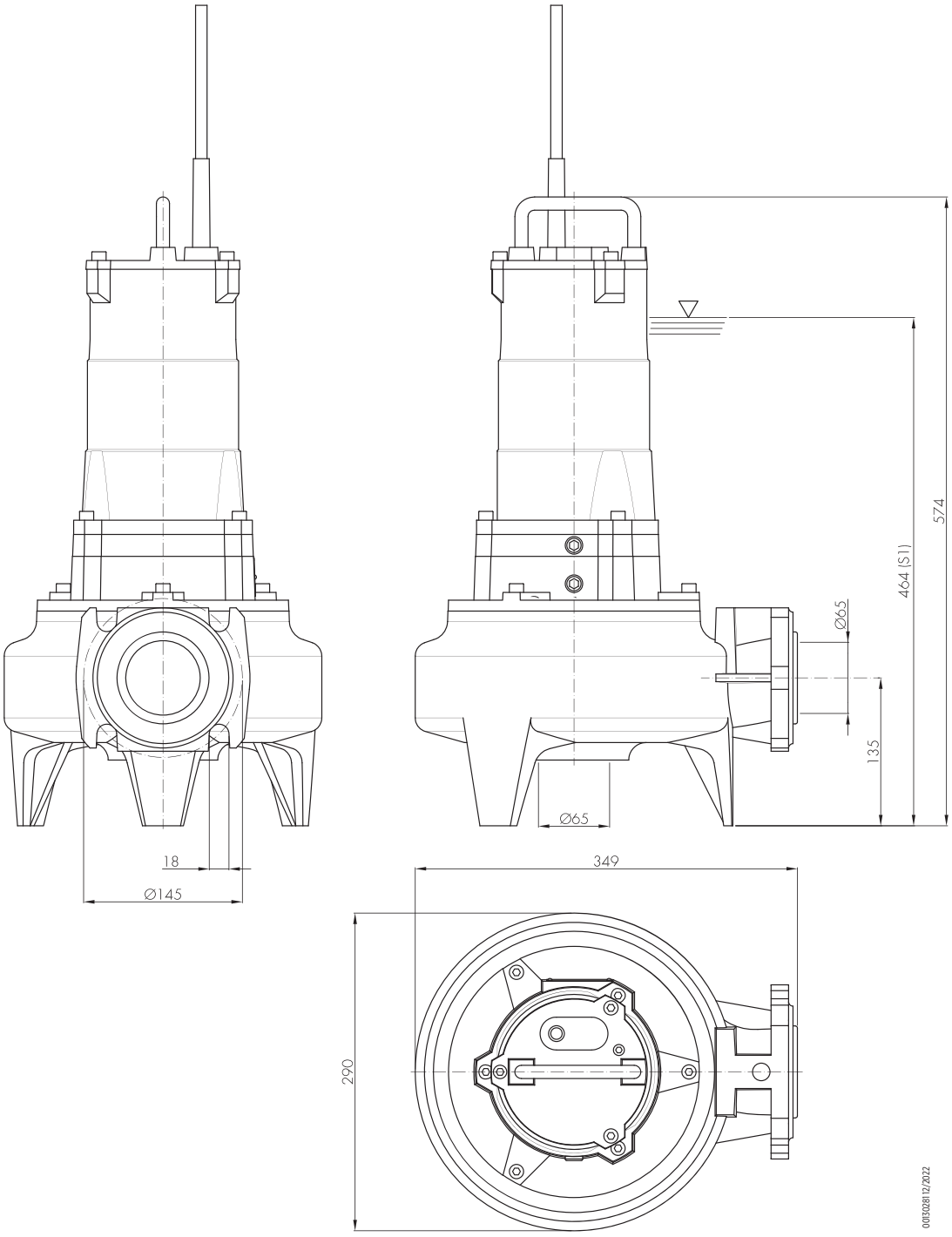
VORTEX IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal	**motor side**	Seal ring
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable		10 m H07RN-F type, 4G1,5mm^2
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Three-phase**	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		464 mm
Free passage		65 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Packaging		
Pump model	Dimensions [mm]	Weight [kg]
65FWC-V-52-2,2	420x325x675	50

TECHNICAL DATA

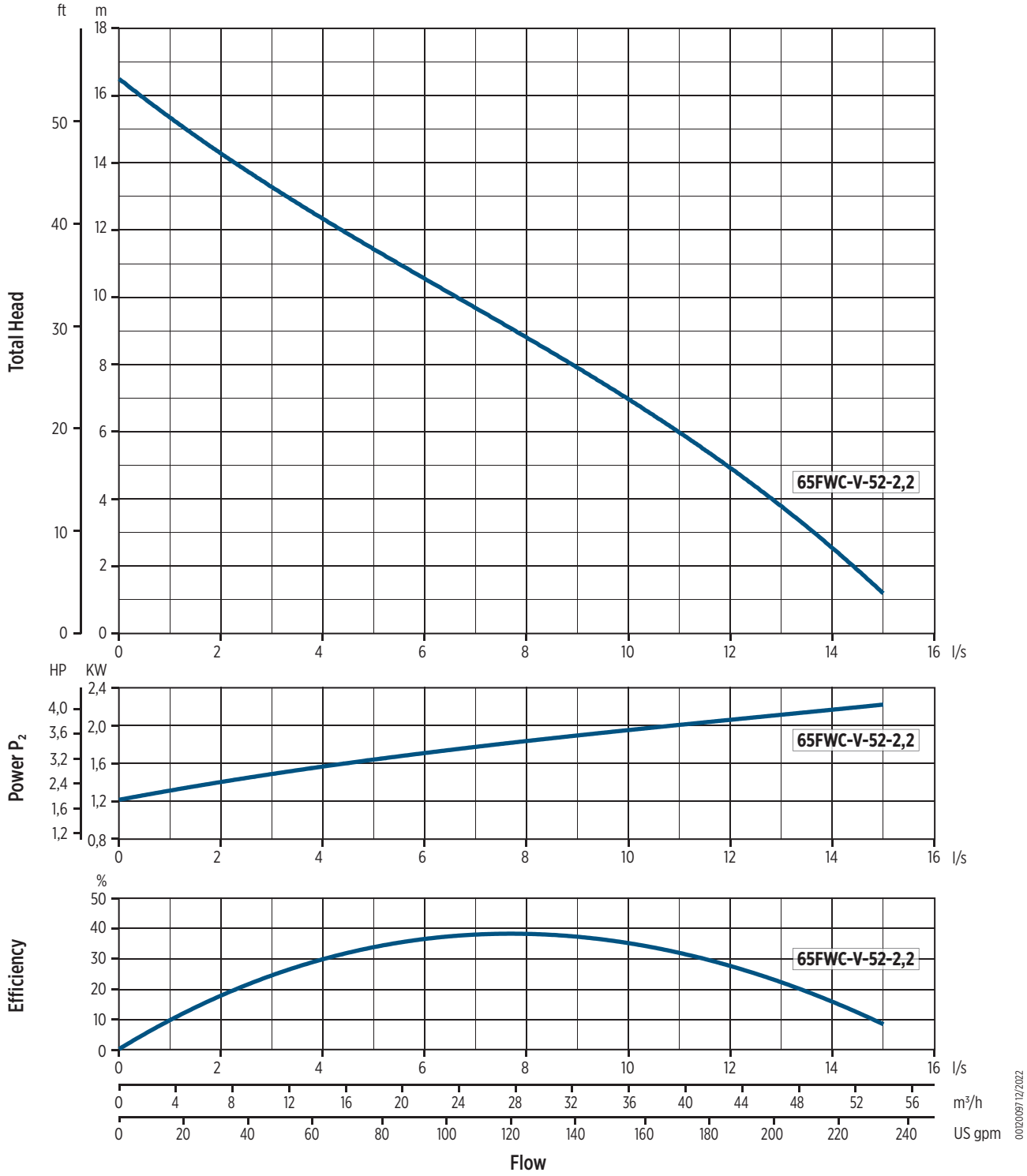
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
65FWC-V-52-2,2T	3,2	2,2	3	400	5,2	3 ~	10	4G1,5	-	-	DN65	48

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery										
		l/sec 0	4	6	8	9	10	11	12	13	14	15
		m3/h 0	14,4	21,6	28,8	32,4	36	39,6	43,2	46,8	50,4	54
		US gpm 0	63,4	92,1	126,8	142,6	158,5	174,3	190,2	206	221,9	237,7
		H = Total meters head of water column [m]										
65FWC-V-52-2,2	3 ~	16,5	12,5	10,2	9	8	6,8	6	5,3	3,7	2	1,5

HYDRAULIC PERFORMANCE AT 50 HZ

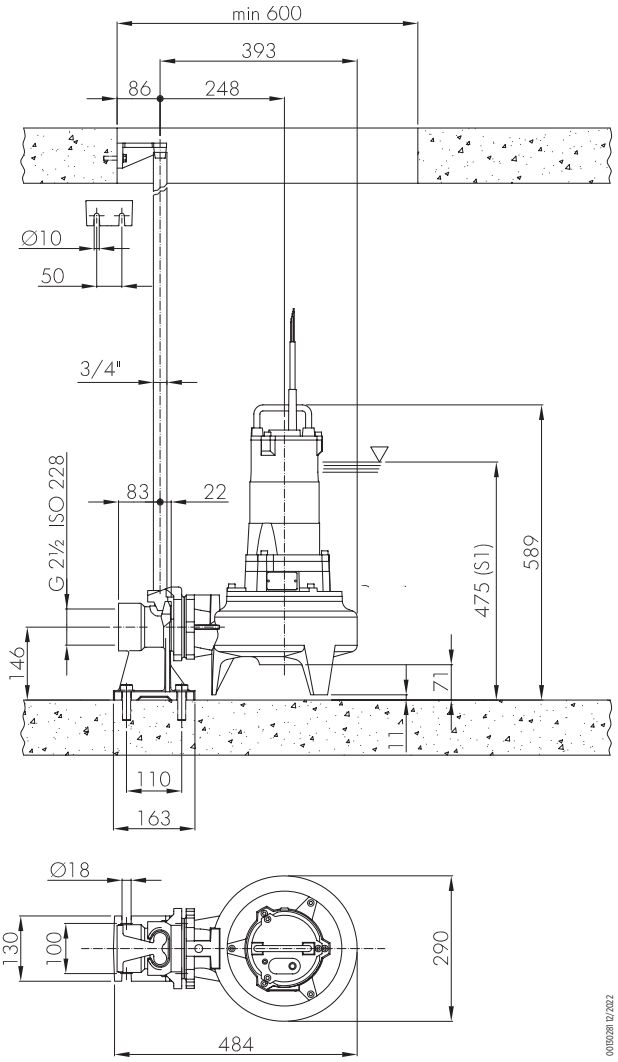


INSTALLATION

INSTALLATION INSTRUCTIONS

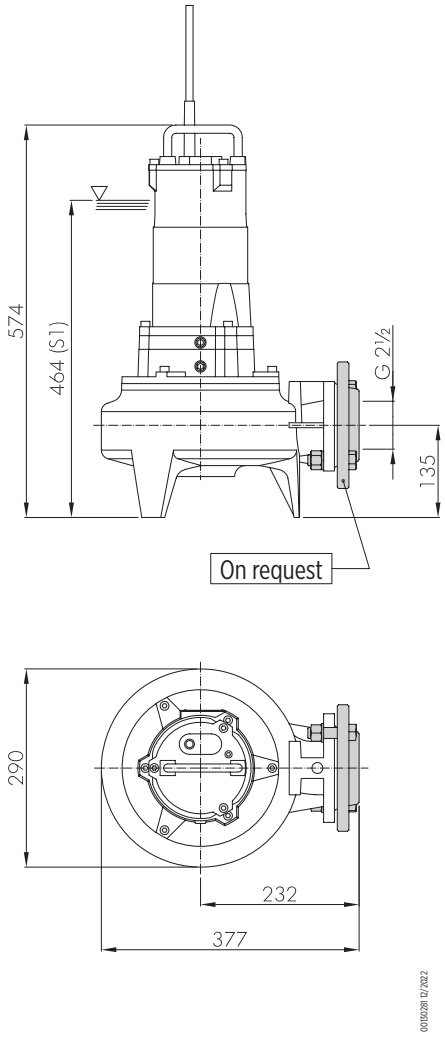
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.



TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



65FWC M SERIES 50 HZ

FEATURES & BENEFITS

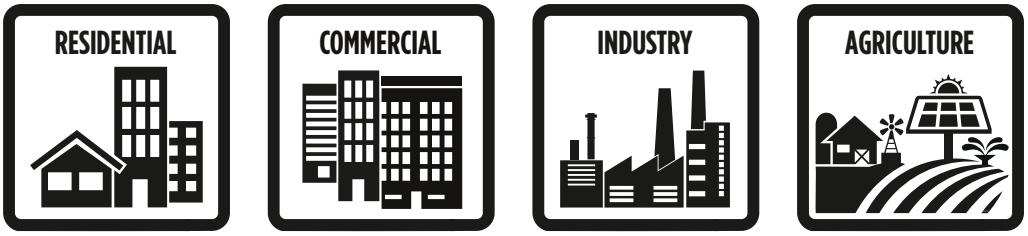
APPLICATIONS

Domestic / industrial grey water

Extraction of water from ponds, streams or pits and for rainwater collection

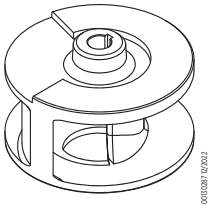
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps suitable for pumping screened waste water, draining the sewage of blocks of flats and houses and flooded premises in general.



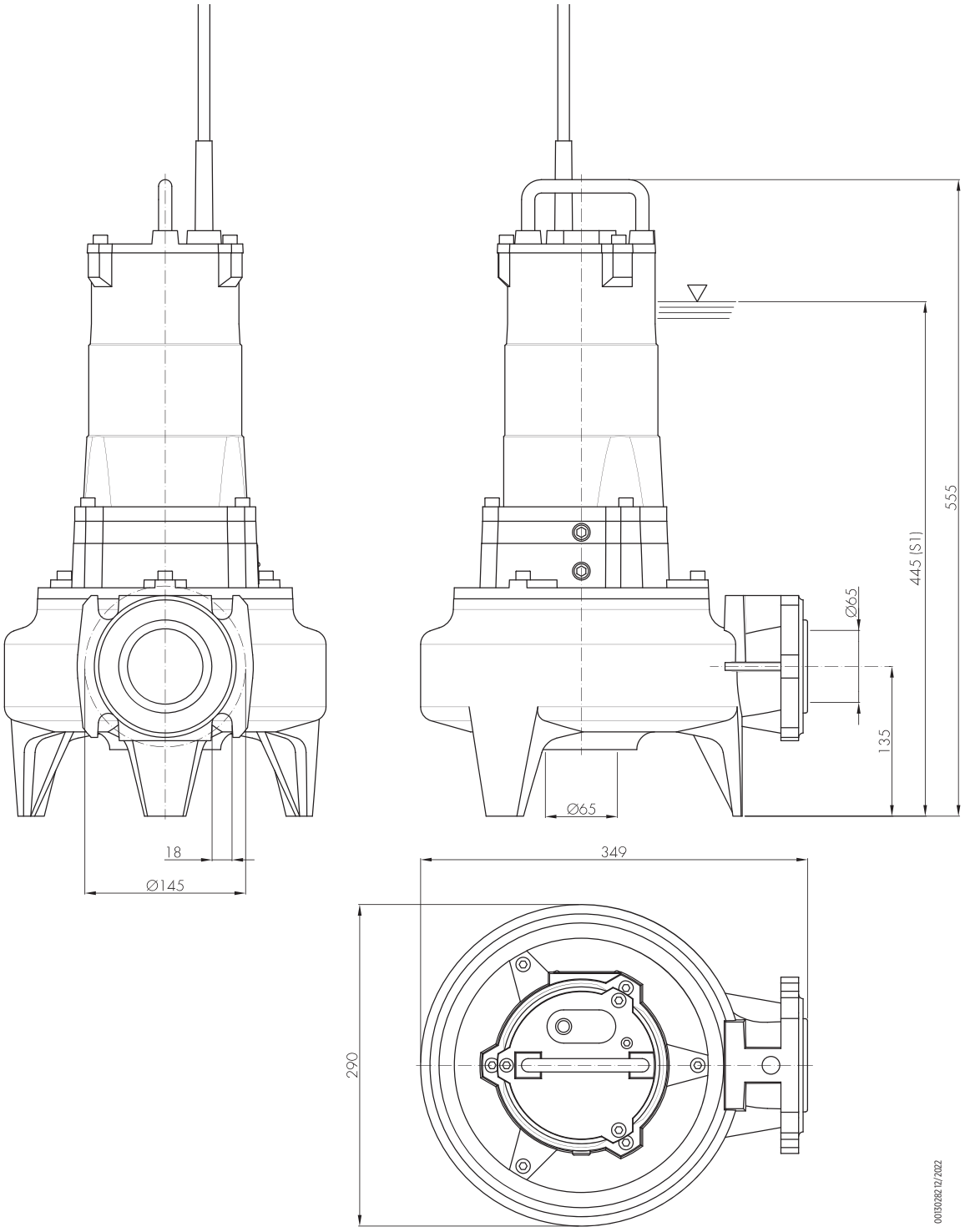
SINGLE-CHANNEL IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Single-channel impeller		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal	**motor side**	Seal ring
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable		10 m H07RN-F type, 4G1,5mm^2
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Three-phase**	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		6 - 10
pH of pumped liquid		1,0 kg/dm^3
Liquid density		5 m
Maximum immersion depth:		445 mm
Min. immersion depth for continuous service		50 mm
Free passage		20
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Packaging		
Pump model	Dimensions [mm]	Weight [kg]
65FWC-M-52-1,6T	420x325x675	52
65FWC-M-52-2,2T	420x325x675	52

TECHNICAL DATA

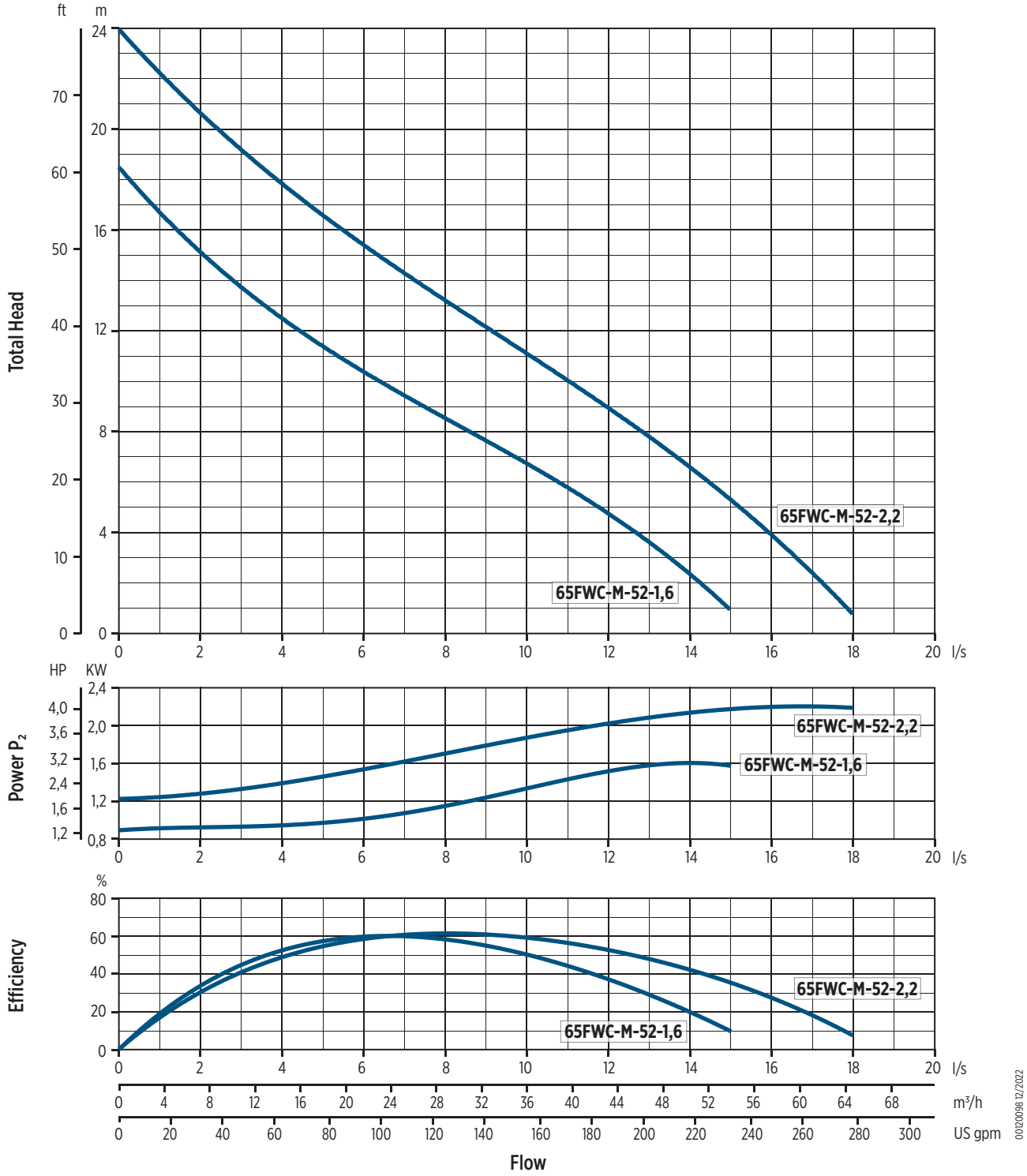
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
65FWC-M-52-1,6T	2,5	1,6	2,1	400	4,4	3 ~	10	4G1,5	-	-	DN65	50
65FWC-M-52-2,2T	3,2	2,2	3	400	5,2	3 ~	10	4G1,5	-	-	DN65	50

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery												
		l/sec 0	4	6	8	9	10	11	12	13	14	15	16	18
		m3/h 0	14,4	21,6	28,8	32,4	36	39,6	43,2	46,8	50,4	54	57,6	64,8
		US gpm 0	63,4	92,1	126,8	142,6	158,5	174,3	190,2	206	221,9	237,7	253,6	285,3
		H = Total meters head of water column [m]												
65FWC-M-52-1,6	3 ~	18,5	12,5	10,4	8,5	7,7	6,8	5,7	4,9	3,6	2,3	1		
65FWC-M-52-2,2	3 ~	24	17,8	15,3	13,2	12	11,3	10,2	9,1	7,9	6,6	5,1	3,6	1

HYDRAULIC PERFORMANCE AT 50 HZ

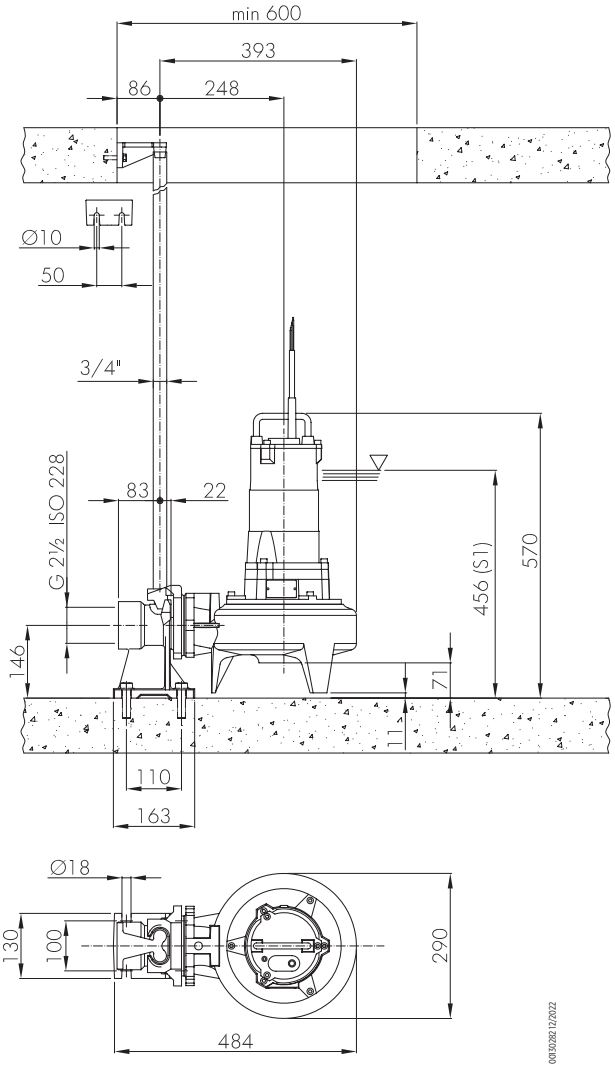


INSTALLATION

INSTALLATION INSTRUCTIONS

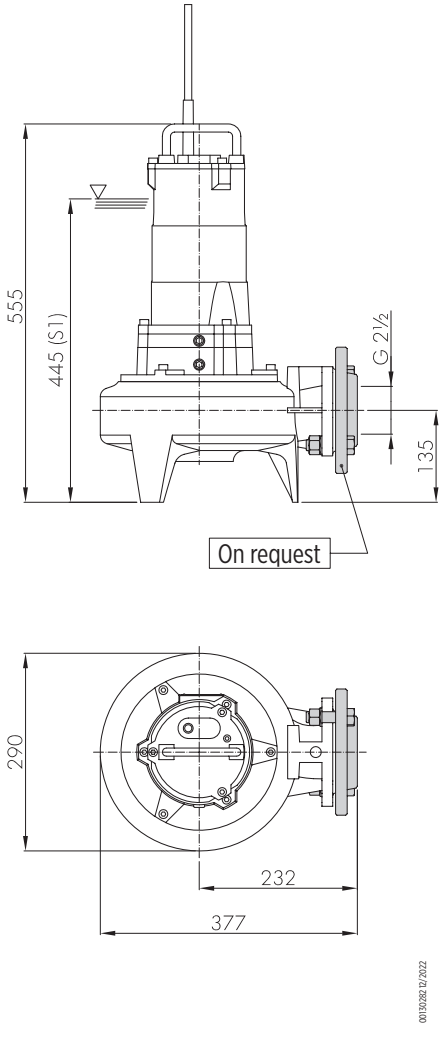
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.



TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



65FWC V4 SERIES 50 HZ

FEATURES & BENEFITS

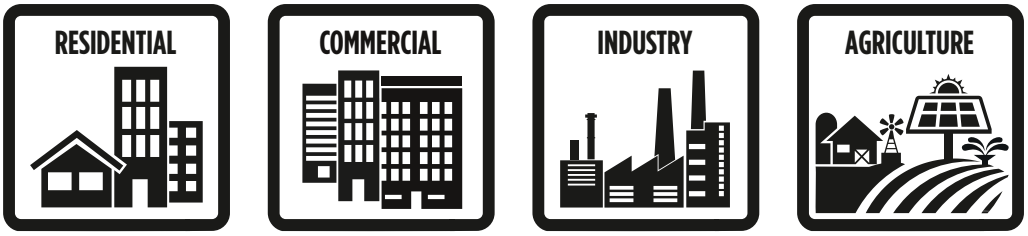
APPLICATIONS

Domestic / industrial grey water

Extraction of water from ponds, streams or pits and for rainwater collection

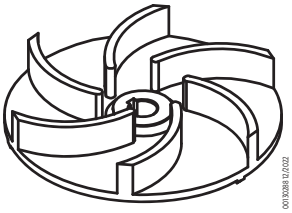
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps particularly suitable for pumping industrial sewage, screened waste water and mud in the pumping stations. They can be used also to lift clear and dirty water and rain water.



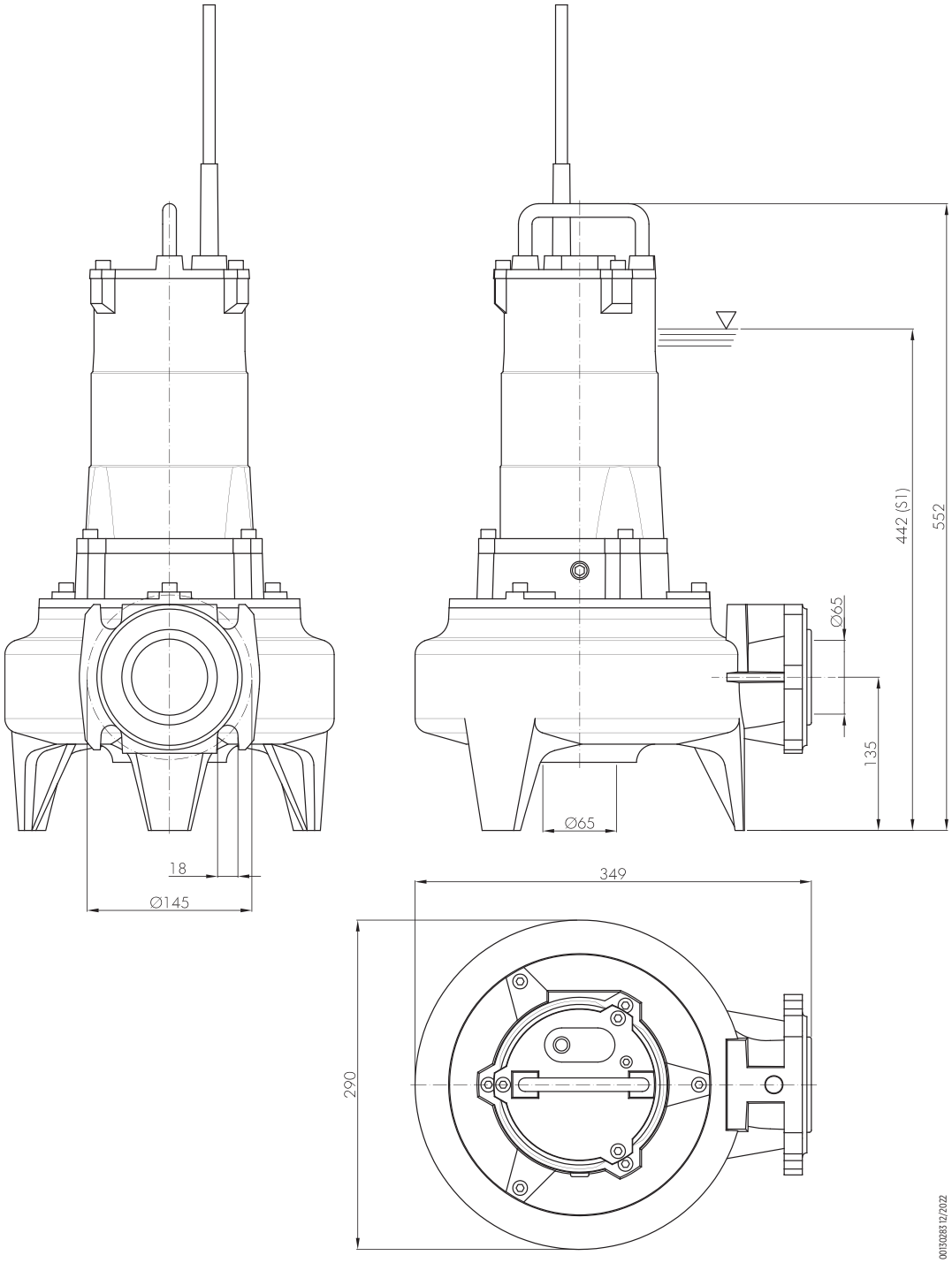
VORTEX IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal		Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	**Type**	10 m H07RN-F type
	Single-phase	4G1,5mm², capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	4G1,5mm²
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		4 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		442 mm
Free passage		60 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Packaging		
Pump model	Dimensions [mm]	Weight [kg]
65FWC-V-54-0,75	420x325x675	40
65FWC-V-54-1,1	420x325x675	41
65FWC-V-54-1,6	420x325x675	42

TECHNICAL DATA

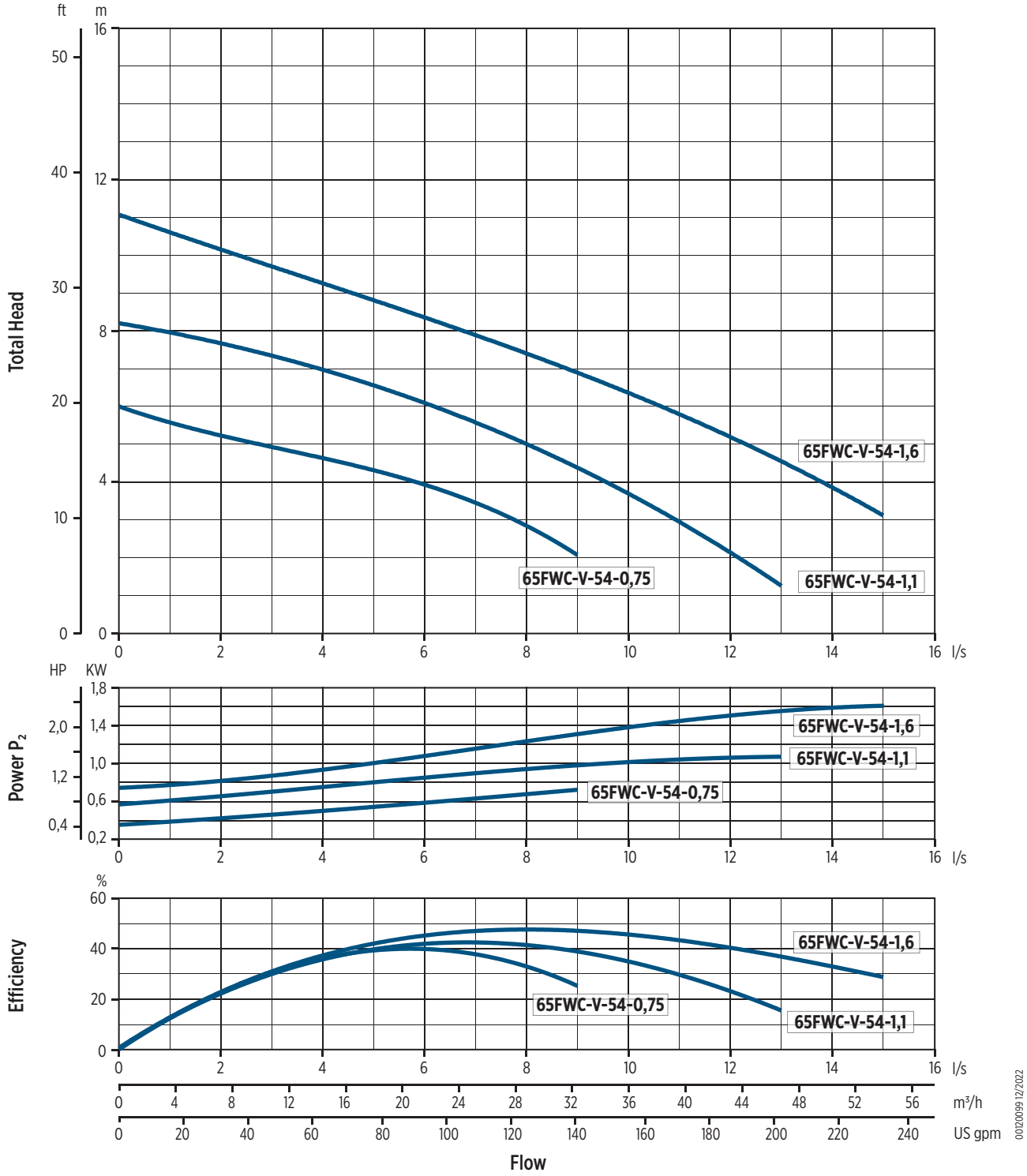
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
65FWC-V-54-0,75M	1	0,75	1	230	5	1 ~	10	4G1,5	-	14	DN65	38
65FWC-V-54-0,75M-G	1	0,75	1	230	5	1 ~	10	4G1,5	•	14	DN65	38
65FWC-V-54-0,75T	1	0,75	1	400	1,9	3 ~	10	4G1,5	-	-	DN65	38
65FWC-V-54-0,75T-G	1	0,75	1	400	1,9	3 ~	10	4G1,5	•	-	DN65	38
65FWC-V-54-1,1M	1,5	1,1	1,5	230	7	1 ~	10	4G1,5	-	20	DN65	39
65FWC-V-54-1,1M-G	1,5	1,1	1,5	230	7	1 ~	10	4G1,5	•	20	DN65	39
65FWC-V-54-1,1T	1,5	1,1	1,5	400	2,8	3 ~	10	4G1,5	-	-	DN65	39
65FWC-V-54-1,1T-G	1,5	1,1	1,5	400	2,8	3 ~	10	4G1,5	•	-	DN65	39
65FWC-V-54-1,6T	2,5	1,6	2,1	400	4,4	3 ~	10	4G1,5	-	-	DN65	40

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery										
		l/sec 0	4	6	8	9	10	11	12	13	14	15
		m3/h 0	14,4	21,6	28,8	32,4	36	39,6	43,2	46,8	50,4	54
		US gpm 0	63,4	92,1	126,8	142,6	158,5	174,3	190,2	206	221,9	237,7
		H = Total meters head of water column [m]										
65FWC-V-54-0,75	1 ~	6	4.7	3.8	3	2						
	3 ~	6	4.7	3.8	3	2						
65FWC-V-54-1,1	1 ~	8.2	7	6.1	5	4.3	3.7	3	2.2	1.2		
	3 ~	8.2	7	6.1	5	4.3	3.7	3	2.2	1.2		
65FWC-V-54-1,6	3 ~	11	9.5	8.5	7.2	6.6	6.1	5.9	5.4	4.9	4	2.8

HYDRAULIC PERFORMANCE AT 50 HZ



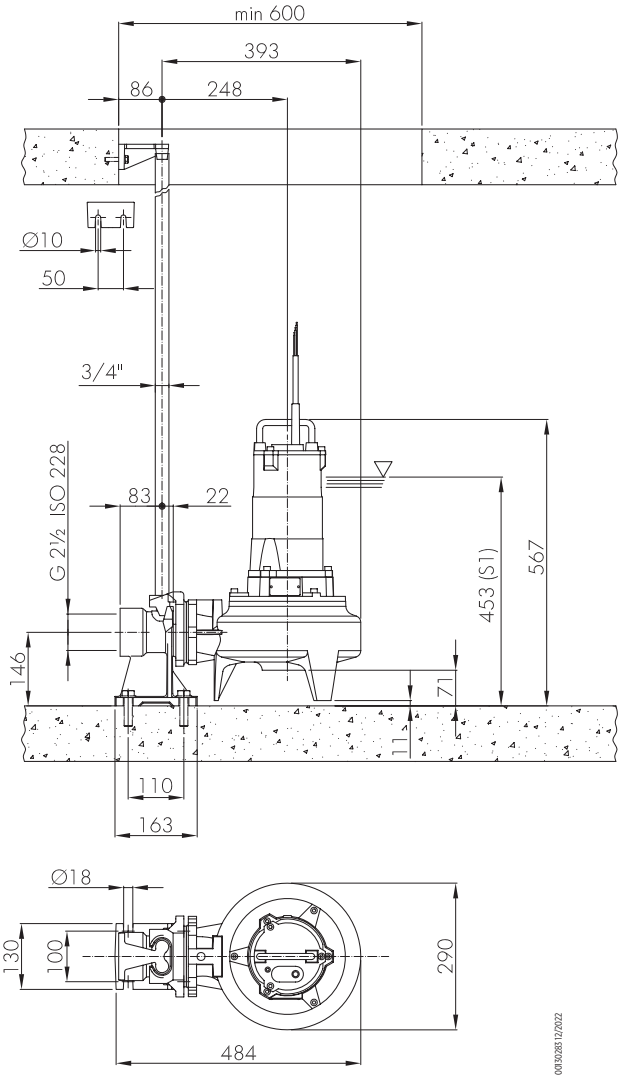
00120099 12/2022

INSTALLATION

INSTALLATION INSTRUCTIONS

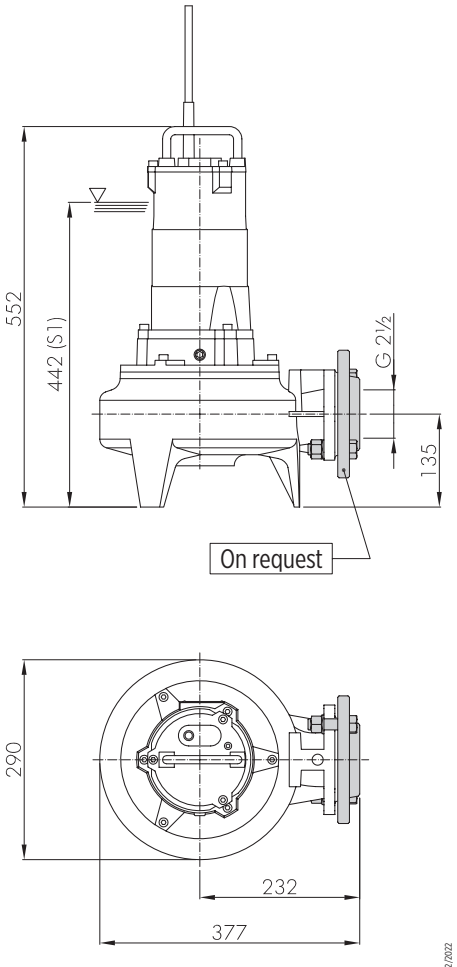
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.



TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



80FWC M4 SERIES 50 HZ

FEATURES & BENEFITS

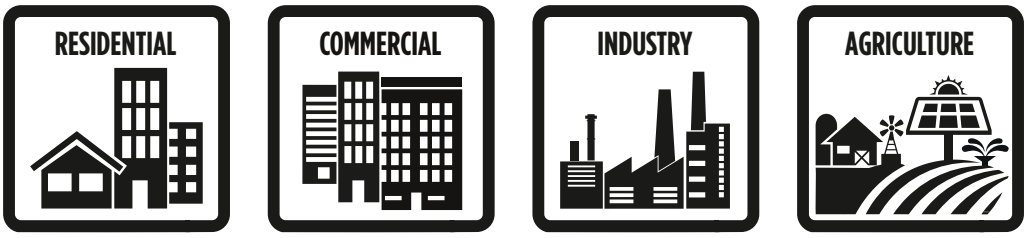
APPLICATIONS

Domestic / industrial grey water

Extraction of water from ponds, streams or pits and for rainwater collection

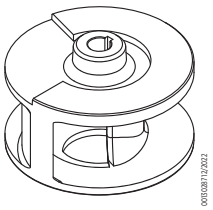
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps particularly suitable for pumping industrial sewage, screened waste water and mud in the pumping stations. They can be used also to lift clear and dirty water and rain water.



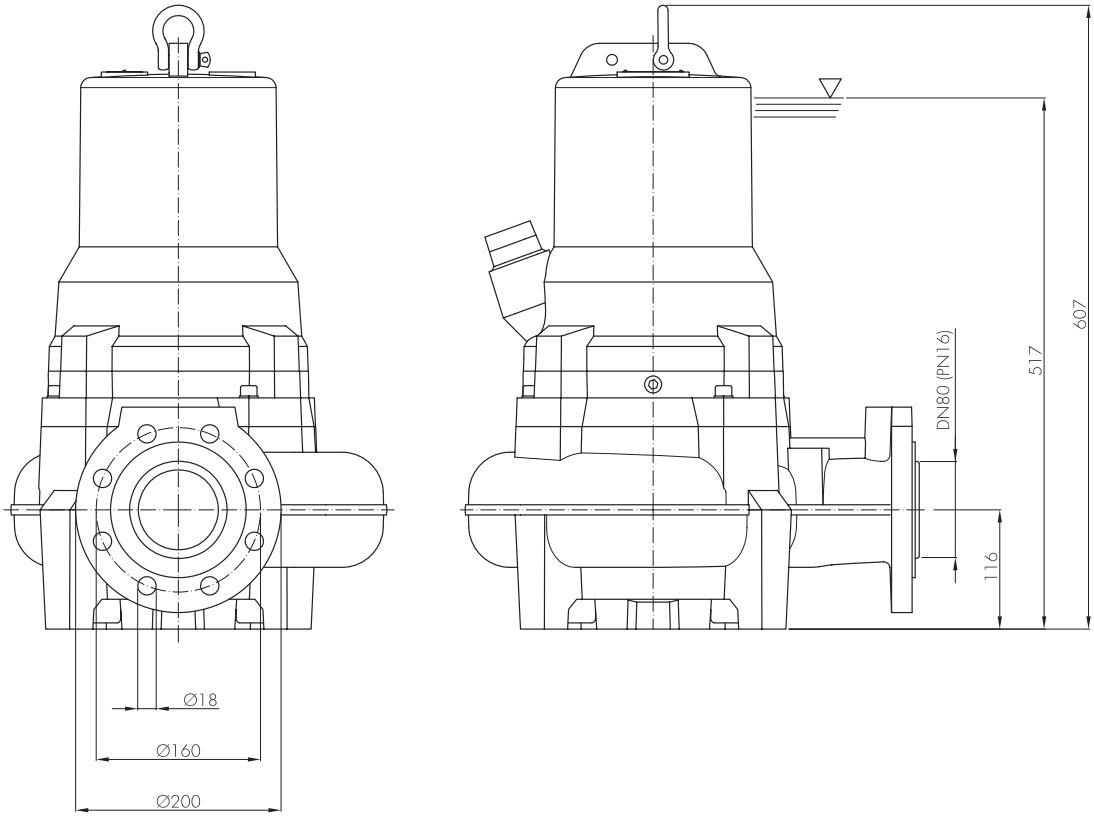
SINGLE-CHANNEL IMPELLER

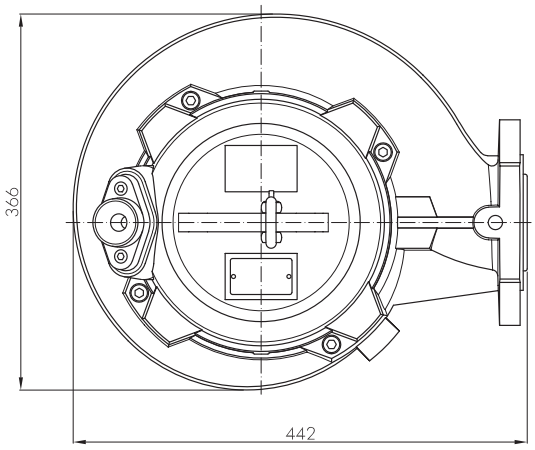
GENERAL FEATURES

Materials/Constr.design		
Single-channel impeller		Cast iron EN GJS400
External casing		Cast iron EN GJL250
Pump body		Cast iron EN GJL250
Cover		Cast iron EN GJL250
Mechanical seal	**Mechanical seal**	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	**Type**	10 m S1RN8-F type
	80FWC-M-54-2,2T, 80FWC-M-54-3,1T	4G1,5+3x1mm^2
	80FWC-M-54-5,5T	4G2,5+3x1mm^2
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		4 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Three-phase**	400V ±10%
Probe		Thermal in the winding
		Conductivity in the oil chamber
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		517 mm
Free passage		80 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages

DIMENSIONAL DRAWINGS





00130285 12/2022

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
80FWC-M-54-2,2T	475x370x985	99
80FWC-M-54-3,1T	475x370x985	102
80FWC-M-54-5,5T	475x370x985	114

TECHNICAL DATA

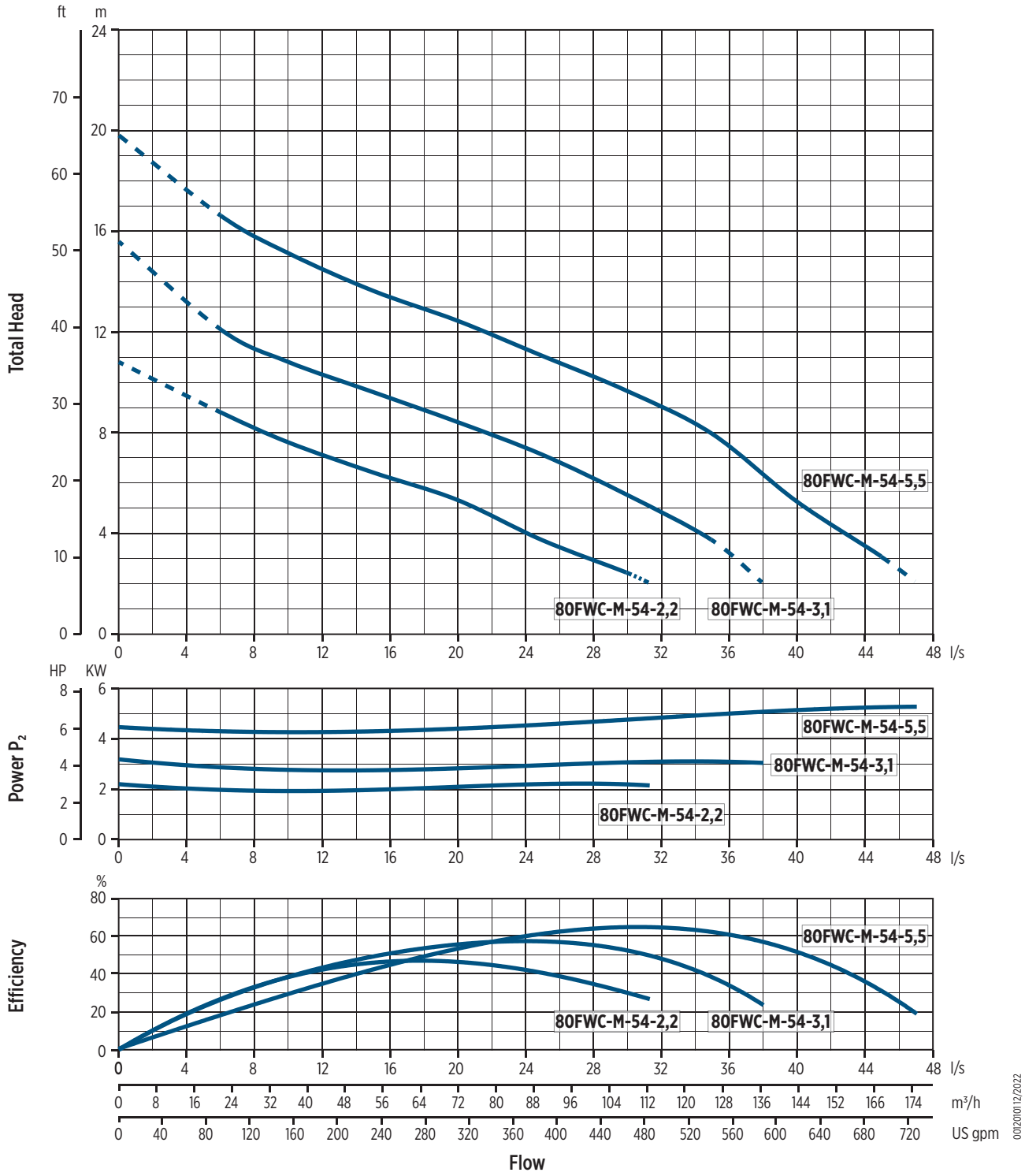
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type			
80FWC-M-54-2,2T	2,8	2,2	3	400	5,4	3 ~	10	4G1,5+3x1	-	DN80	96
80FWC-M-54-3,1T	3,9	3,1	4,2	400	7,5	3 ~	10	4G1,5+3x1	-	DN80	99
80FWC-M-54-5,5T	6,6	5,5	7,5	400	11,7	3 ~	10	4G2,5+3x1	-	DN80	111

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery												
		l/sec 0	6	10	15	20	25	30	35	38	40	42,8	45	47
		m3/h 0	21,6	36	54	72	90	108	126	136,8	144	154,1	162	169,2
		US gpm 0	92,1	158,5	237,7	317	396,2	475,5	554,8	602,3	634	678,4	713,3	745
		H = Total meters head of water column [m]												
80FWC-M-54-2,2T	3 ~	10,8	8,8	7,6	6,4	5,3	3,7	2,4	2					
80FWC-M-54-3,1T	3 ~	15,6	12,1	10,8	9,6	8,4	7,1	5,5	5,2	3,7	2			
80FWC-M-54-5,5T	3 ~	19,8	16,6	15,1	13,6	12,4	11	9,6	9,2	7,9	6,6	5,2	3	2

HYDRAULIC PERFORMANCE AT 50 HZ



00120101 12/2022

INSTALLATION

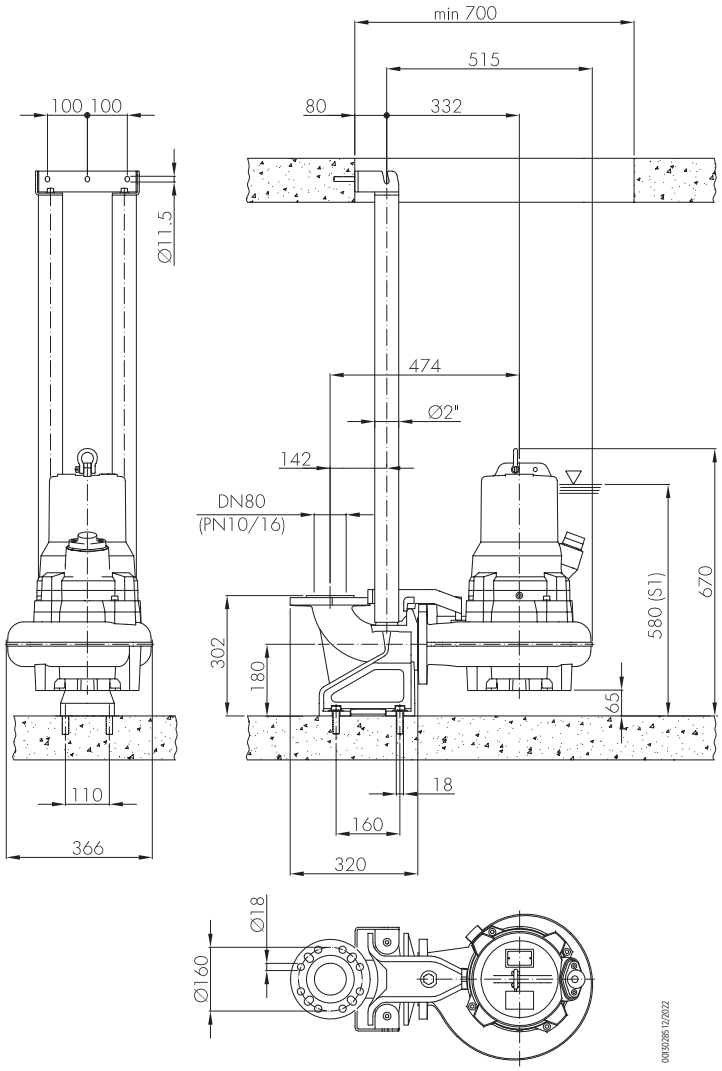
INSTALLATION INSTRUCTIONS

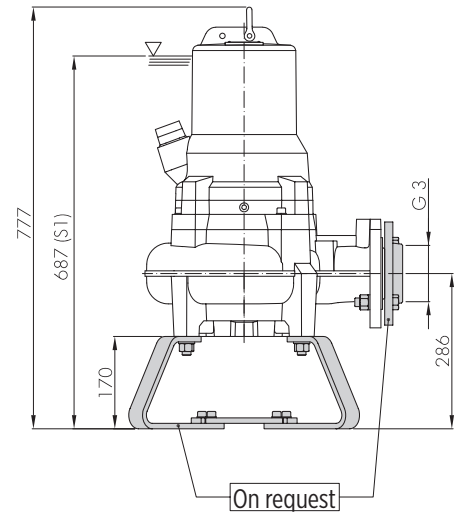
PERMANENT INSTALLATION WITH COUPLING SYSTEM

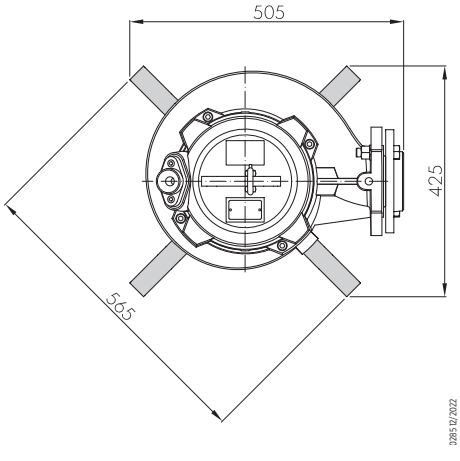
It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.







80FWC V4 SERIES 50 HZ

FEATURES & BENEFITS

APPLICATIONS

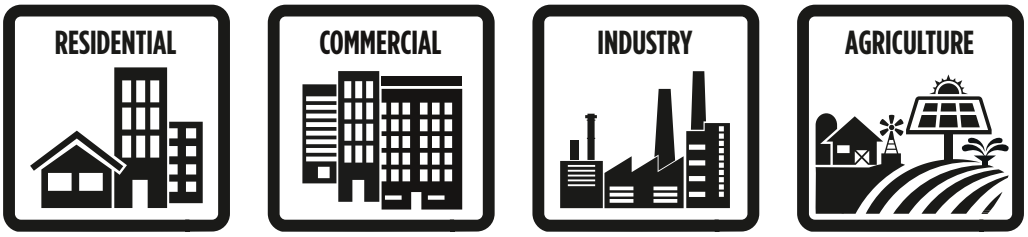
Domestic / industrial grey water

Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

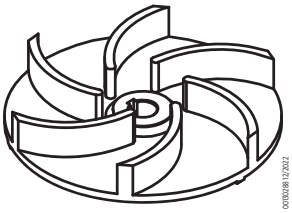
For liquids with an high solid content or with filamentous particles

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps particularly suitable for pumping industrial sewage, screened waste water and mud in the pumping stations. They can be used also to lift clear and dirty water and rain water.



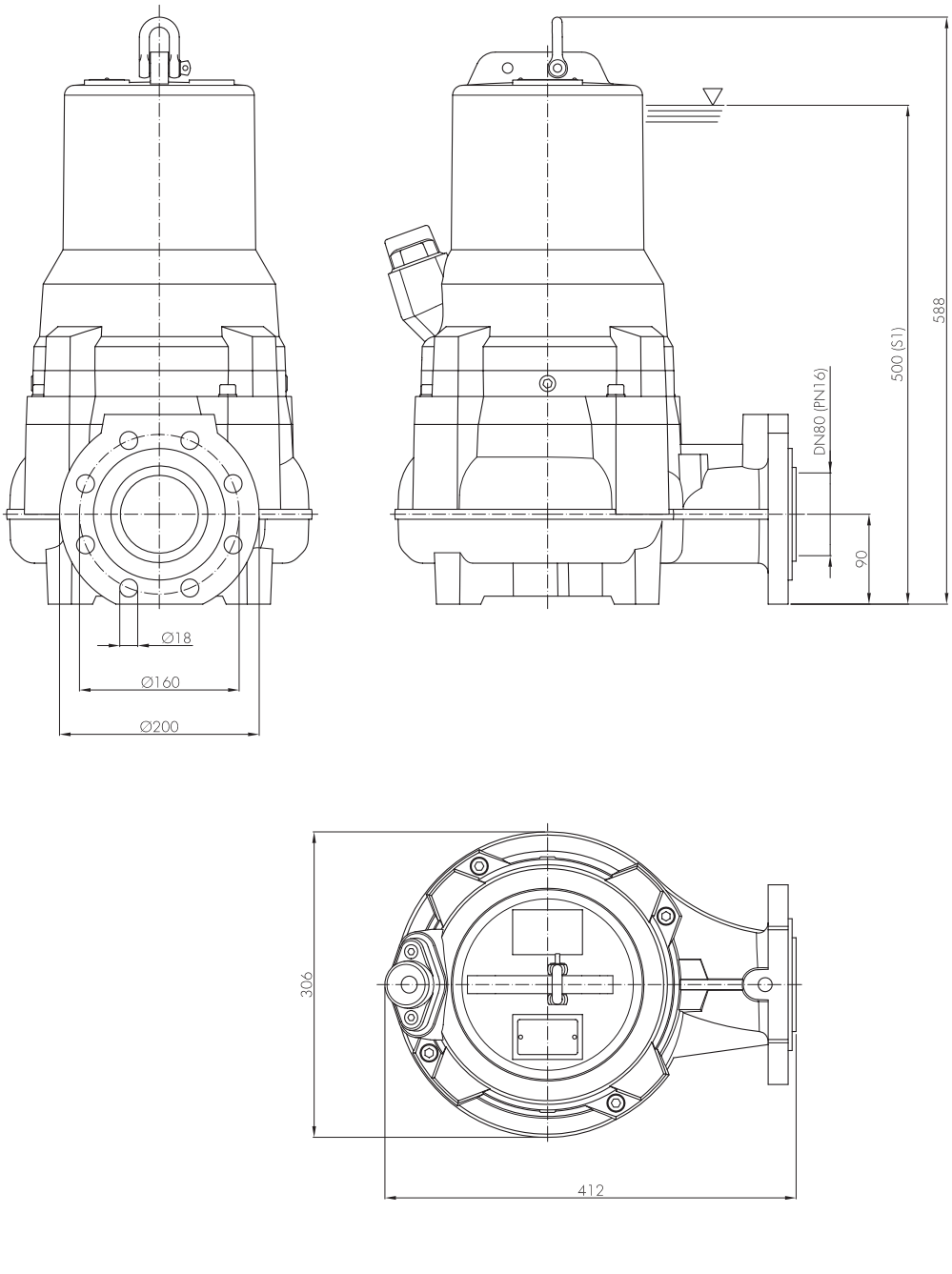
VORTEX IMPELLER

GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJL250
External casing		Cast iron EN GJL250
Pump body		Cast iron EN GJL250
Cover		Cast iron EN GJL250
	Mechanical seal	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	**Type**	10 m S1RN8-F type
	80FWC-V-54-1,6T, 80FWC-V-54-2,2T, 80FWC-V-54-3,1T	4G1,5+3x1mm^2
	80FWC-V-54-5,5T	4G2,5+3x1mm^2
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		4 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Three-phase**	400V ±10%
Probe		Thermal in the winding
		Conductivity in the oil chamber
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		500 mm
Free passage		80 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages

DIMENSIONAL DRAWINGS



Packaging		
Pump model	Dimensions [mm]	Weight [kg]
80FWC-M-54-2,2T	475x370x985	99
80FWC-M-54-3,1T	475x370x985	102
80FWC-M-54-5,5T	475x370x985	114
80FWC-V-54-1,6T	420x325x675	85
80FWC-V-54-2,2T	420x325x675	87
80FWC-V-54-3,1T	420x325x675	91
80FWC-V-54-5,5T	420x325x675	102

TECHNICAL DATA

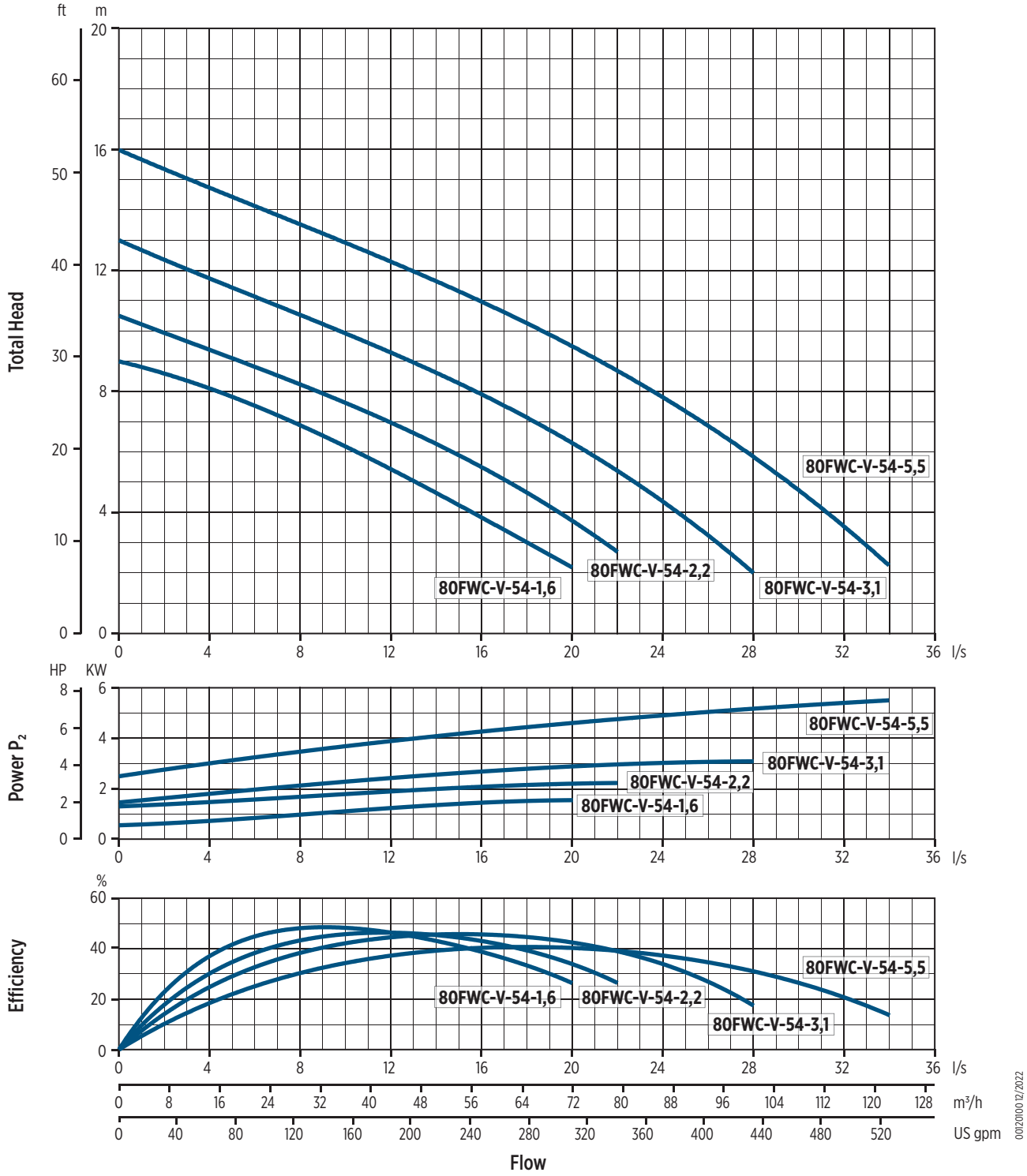
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type			
80FWC-V-54-1,6T	2,3	1,6	2,1	400	4,1	3 ~	10	4G1,5+3x1	-	DN80	83
80FWC-V-54-2,2T	2,8	2,2	3	400	5,4	3 ~	10	4G1,5+3x1	-	DN80	85
80FWC-V-54-3,1T	3,9	3,1	4,2	400	7,5	3 ~	10	4G1,5+3x1	-	DN80	89
80FWC-V-54-5,5T	6,6	5,5	7,5	400	11,7	3 ~	10	4G2,5+3x1	-	DN80	100

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery															
		l/sec 0	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34
		m3/h 0	21,6	28,8	36	43,2	50,4	57,6	64,8	72	79,2	86,4	93,6	100,8	108	115,2	122,4
		US gpm 0	92,1	126,8	158,5	190,2	221,9	253,6	285,3	317	348,7	380,4	412,1	443,8	475,5	507,2	538,9
		H = Total meters head of water column [m]															
80FWC-V-54-1,6T	3 ~	9	7,5	6,9	6,2	5,4	4,7	3,8	3	2,2							
80FWC-V-54-2,2T	3 ~	10,5	8,8	8,3	7,6	6,9	6,3	5,5	4,7	3,7	2,7						
80FWC-V-54-3,1T	3 ~	13	11,1	10,6	9,9	9,3	8,6	7,9	7,1	6,3	5,4	4,4	3,2	2			
80FWC-V-54-5,5T	3 ~	16	14,1	13,6	12,8	12,3	11,7	11	10,3	9,5	8,7	7,8	6,9	5,8	4,8	3,5	2,3

HYDRAULIC PERFORMANCE AT 50 HZ



INSTALLATION

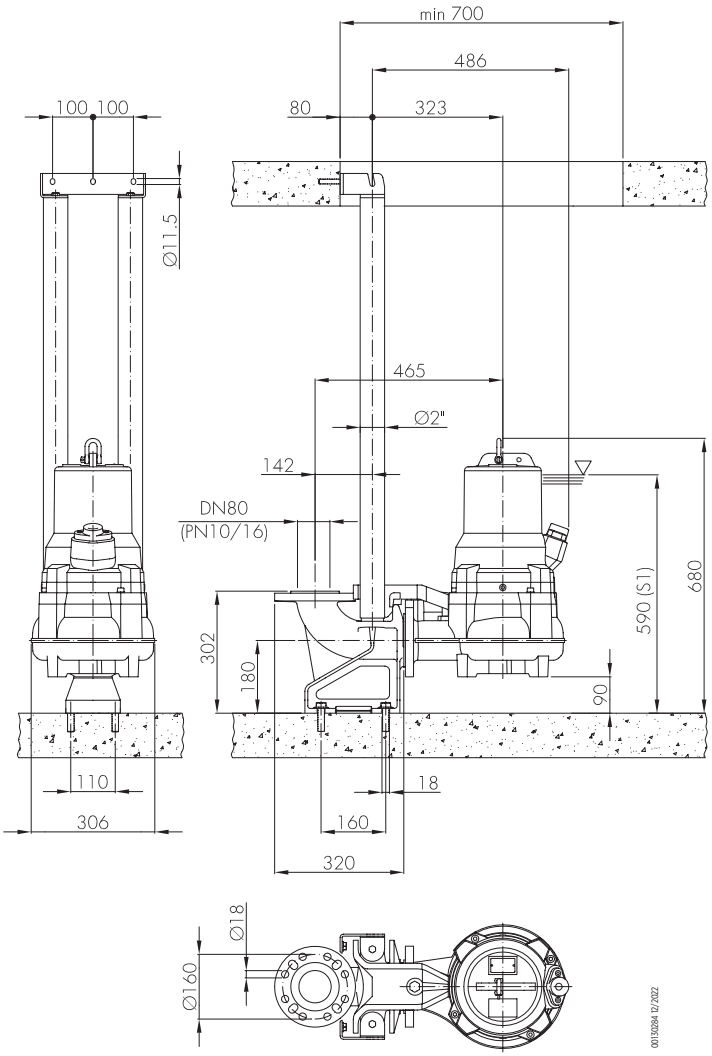
INSTALLATION INSTRUCTIONS

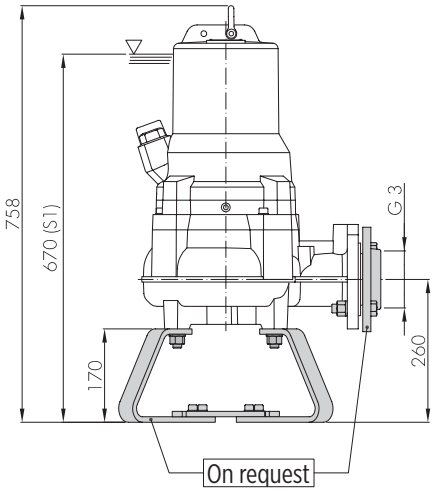
PERMANENT INSTALLATION WITH COUPLING SYSTEM

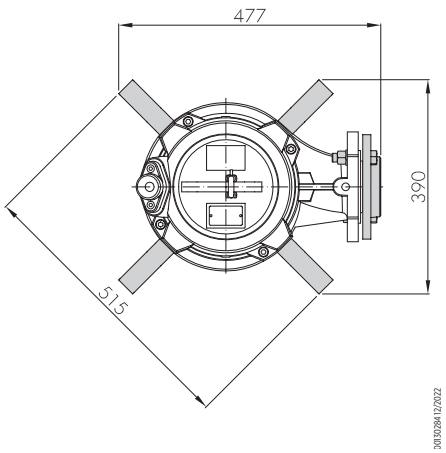
It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.







100FWC M4 SERIES 50 HZ

FEATURES & BENEFITS

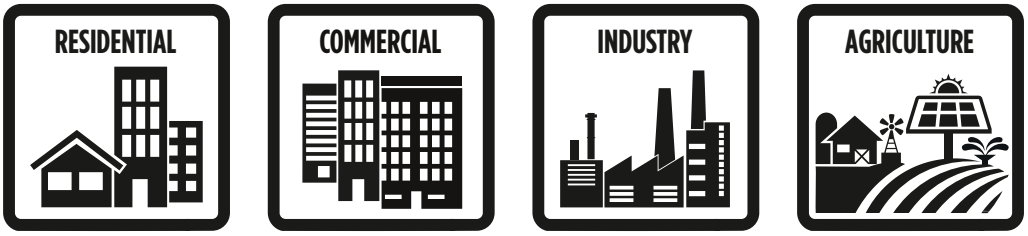
APPLICATIONS

Domestic / industrial grey water

Extraction of water from ponds, streams or pits and for rainwater collection

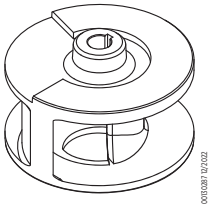
Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS

Submersible electric pumps particularly suitable for pumping industrial sewage, screened waste water and mud in the pumping stations. They can be used also to lift clear and dirty water and rain water.



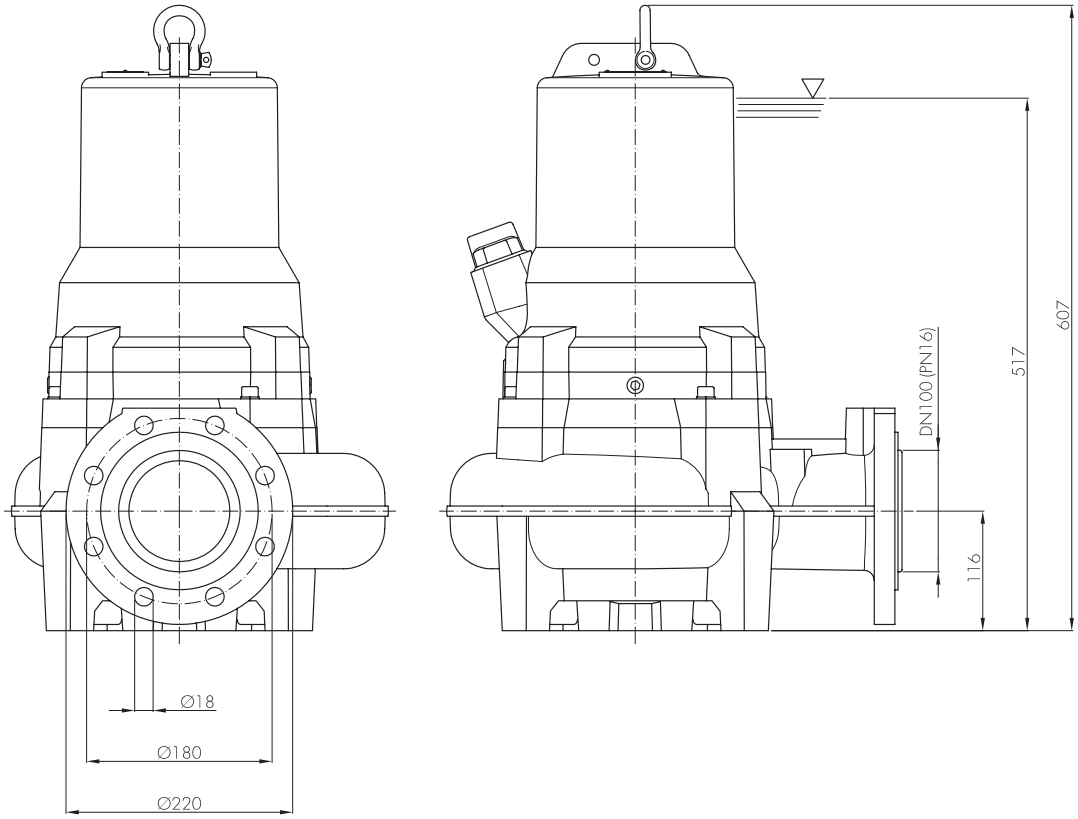
SINGLE-CHANNEL IMPELLER

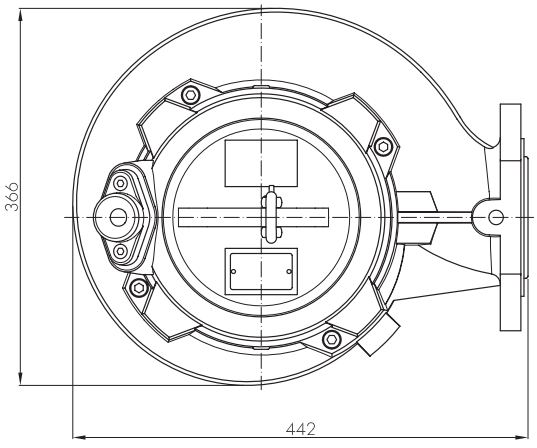
GENERAL FEATURES

Materials/Constr.design		
Vortex impeller		Cast iron EN GJS400
External casing		Cast iron EN GJL250
Pump body		Cast iron EN GJL250
Cover		Cast iron EN GJL250
	Mechanical seal	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	**Type**	10 m S1RN8-F type
	100FWC-M-54-2,2T, 100FWC-M-54-3,1T	4G1,5+3x1mm^2
	100FWC-M-54-5,5T	4G2,5+3x1mm^2
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		4 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Three-phase**	400V ±10%
Probe		Thermal in the winding
		Conductivity in the oil chamber
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		517 mm
Free passage		80 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages

DIMENSIONAL DRAWINGS





0030286 12/2022

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
100FWC-M-54-2,2T	475x370x985	100
100FWC-M-54-3,1T	475x370x985	103
100FWC-M-54-5,5T	475x370x985	115

TECHNICAL DATA

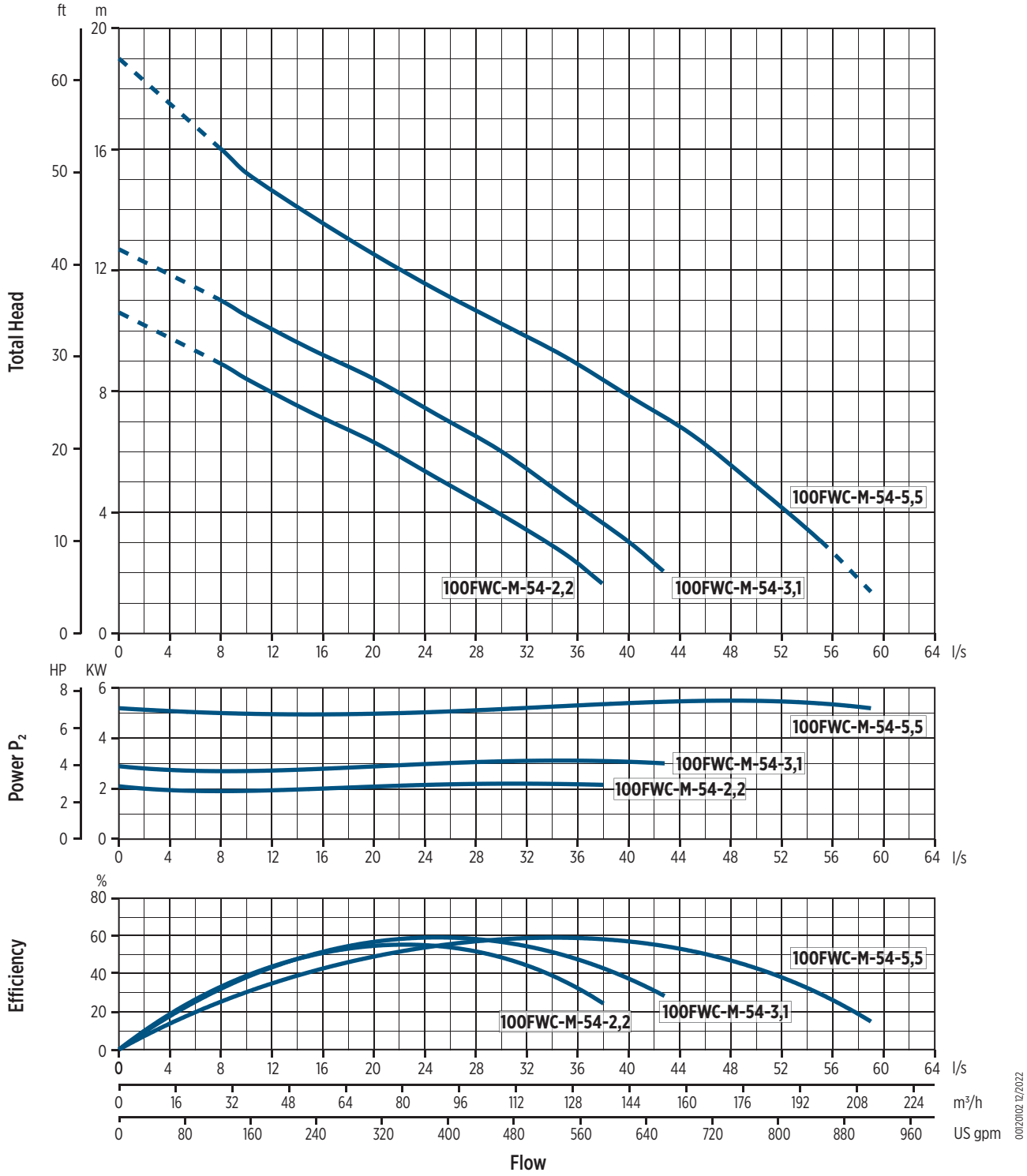
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type			
100FWC-M-54-2,2T	2,8	2,2	3	400	5,4	3 ~	10	4G1,5+3x1	-	DN100	97
100FWC-M-54-3,1T	3,9	3,1	4,2	400	7,5	3 ~	10	4G1,5+3x1	-	DN100	100
100FWC-M-54-5,5T	6,6	5,5	7,5	400	11,7	3 ~	10	4G2,5+3x1	-	DN100	112

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery														
		l/sec 0	8	10	15	20	25	30	35	38	40	42,8	45	50	55	59
		m3/h 0	28,8	36	54	72	90	108	126	136,8	144	154,1	162	180	198	212,4
		US gpm 0	126,8	158,5	237,7	317	396,2	475,5	554,8	602,3	634	678,4	713,3	792,5	871,8	935,2
		H = Total meters head of water column [m]														
100FWC-M-54-2,2T	3 ~	10,6	8,9	8,4	7,3	6,3	5,1	3,9	2,6	1,6						
100FWC-M-54-3,1T	3 ~	12,7	11	10,5	9,4	8,4	7,2	6	4,5	3,6	3	2				
100FWC-M-54-5,5T	3 ~	19	16	15,2	13,8	12,5	11,3	10,2	9,1	8,3	7,8	7,1	6,5	4,8	3	1,3

HYDRAULIC PERFORMANCE AT 50 HZ



0012002 12/2022

INSTALLATION

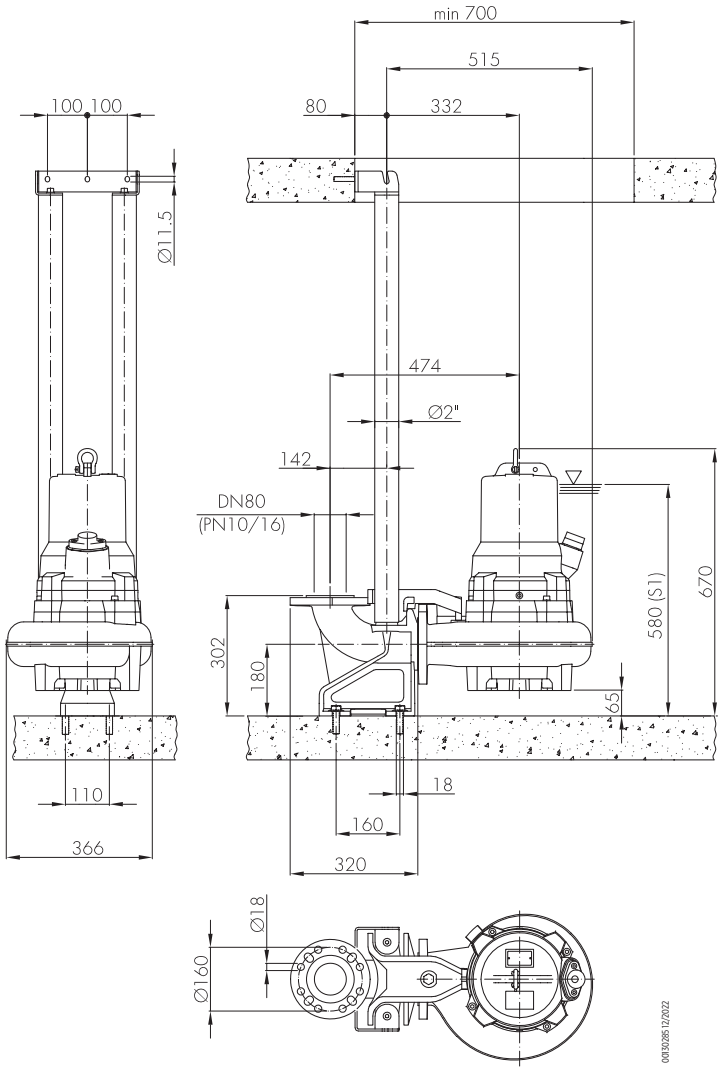
INSTALLATION INSTRUCTIONS

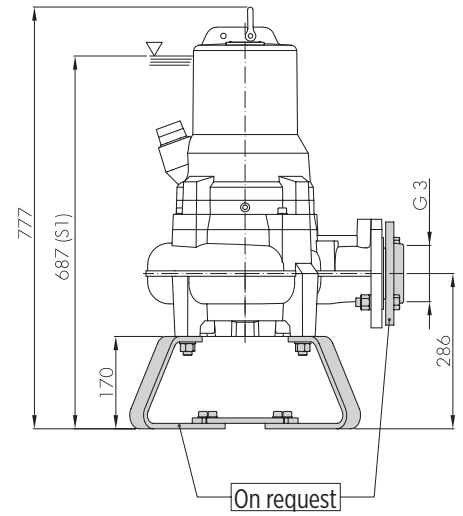
PERMANENT INSTALLATION WITH COUPLING SYSTEM

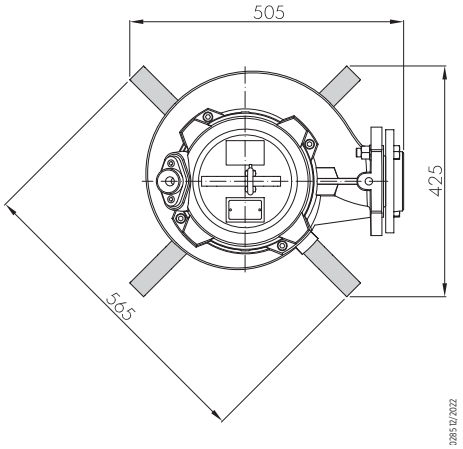
It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



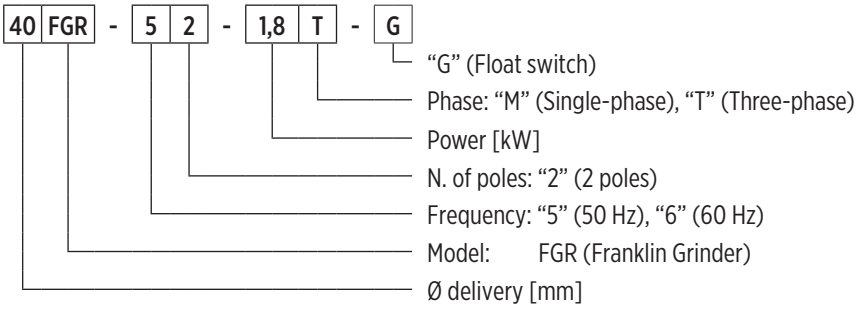




FGR Series - Pumps with grinder unit 50 Hz

FGR SERIES – PUMPS WITH GRINDER UNIT 50 HZ

PUMP IDENTIFICATION CODE



00140087 01/2023

40FGR SERIES 50 HZ

FEATURES & BENEFITS

APPLICATIONS

Pumping of clear non-loaded fluids

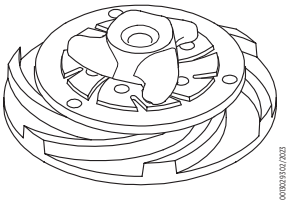
Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

MARKETS

CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS WITH GRINDER UNIT

These series of grinder pumps are particularly used in civil and industrial sewage plants. They have been designed to pump the liquid at high head with very low capacity. The cutter unit, in a special hard stainless steel, cuts into small pieces threadlike materials contained in the liquids. As the risk of clogging is avoided small diameter pipes are used. These pumps can be used to lift the sewage of blocks of flats and villas, small isolated areas far from the sewer systems; the sewage of hotels and campsites, in the food and paper industry and in those particular situations where the installation is often expensive by using a gravity system.



IMPELLER WITH GRINDER UNIT

GENERAL FEATURES

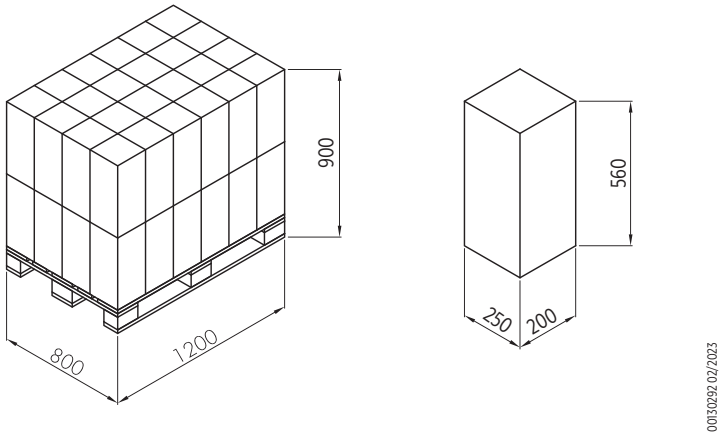
Materials/Constr.design		
Impeller with grinder unit		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Grinder unit		Hardened stainless steel
Mechanical seal	**motor side**	Seal ring
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI416
Power cable	**Type**	10 m H07RN-F type
	Single-phase	4G1mm² with SHUKO plug (CEE7/VII), box with manual overload cut-out and with starting and operating capacitors.
	Three-phase	4G1mm²
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection, float switch as optional
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		303 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages

DIMENSIONAL DRAWINGS

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
40FGR-52-0,75	255x205x560	18,7
40FGR-52-1,1	255x205x560	20,7

Pallet			
Pump model	Dimensions [mm]	N° of pumps	Weight [kg]
40FGR-52-0,75	800x1200x900	32	600
40FGR-52-1,1	800x1200x900	32	670



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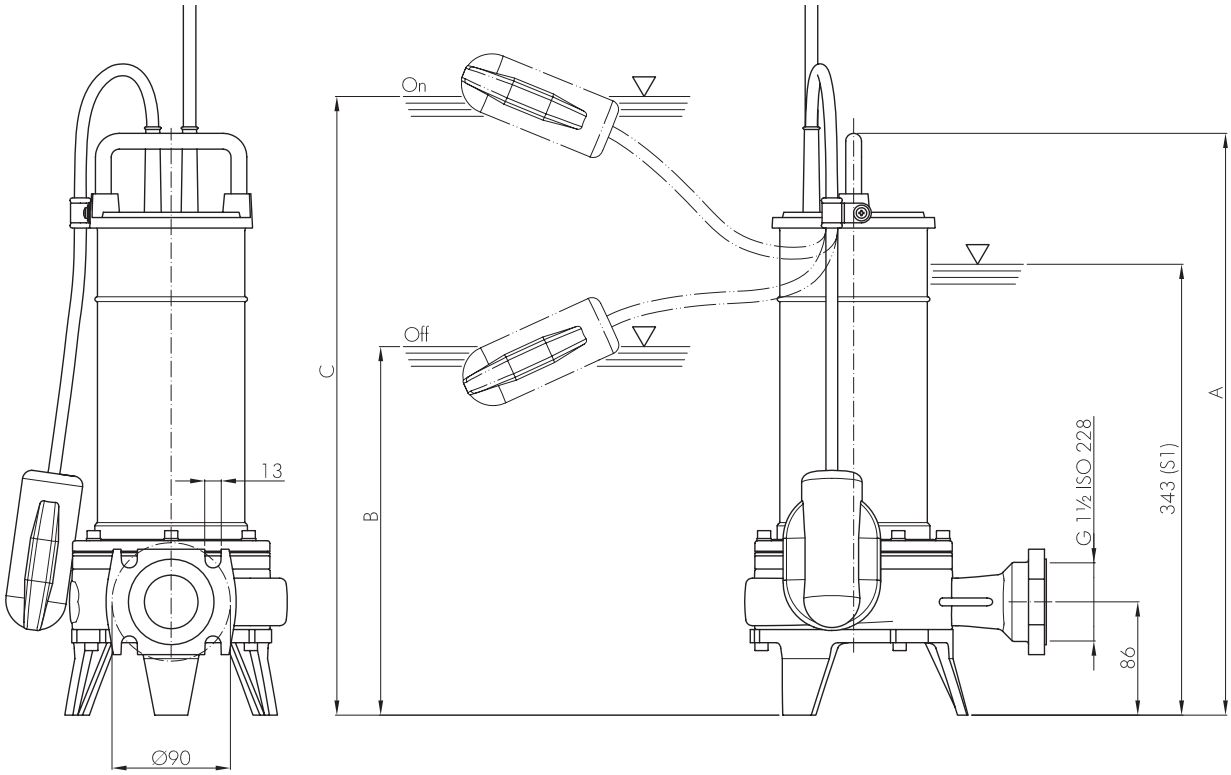
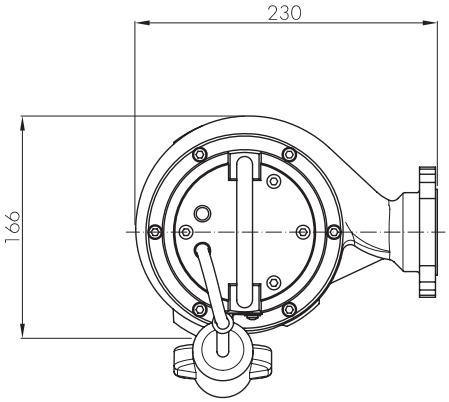


Dimensions [mm]			
Pump model	A	B	C
40FGR-52-0,75	**438**	280	470
40FGR-52-1,1	**463**	305	495



00130291 02/2023

TECHNICAL DATA

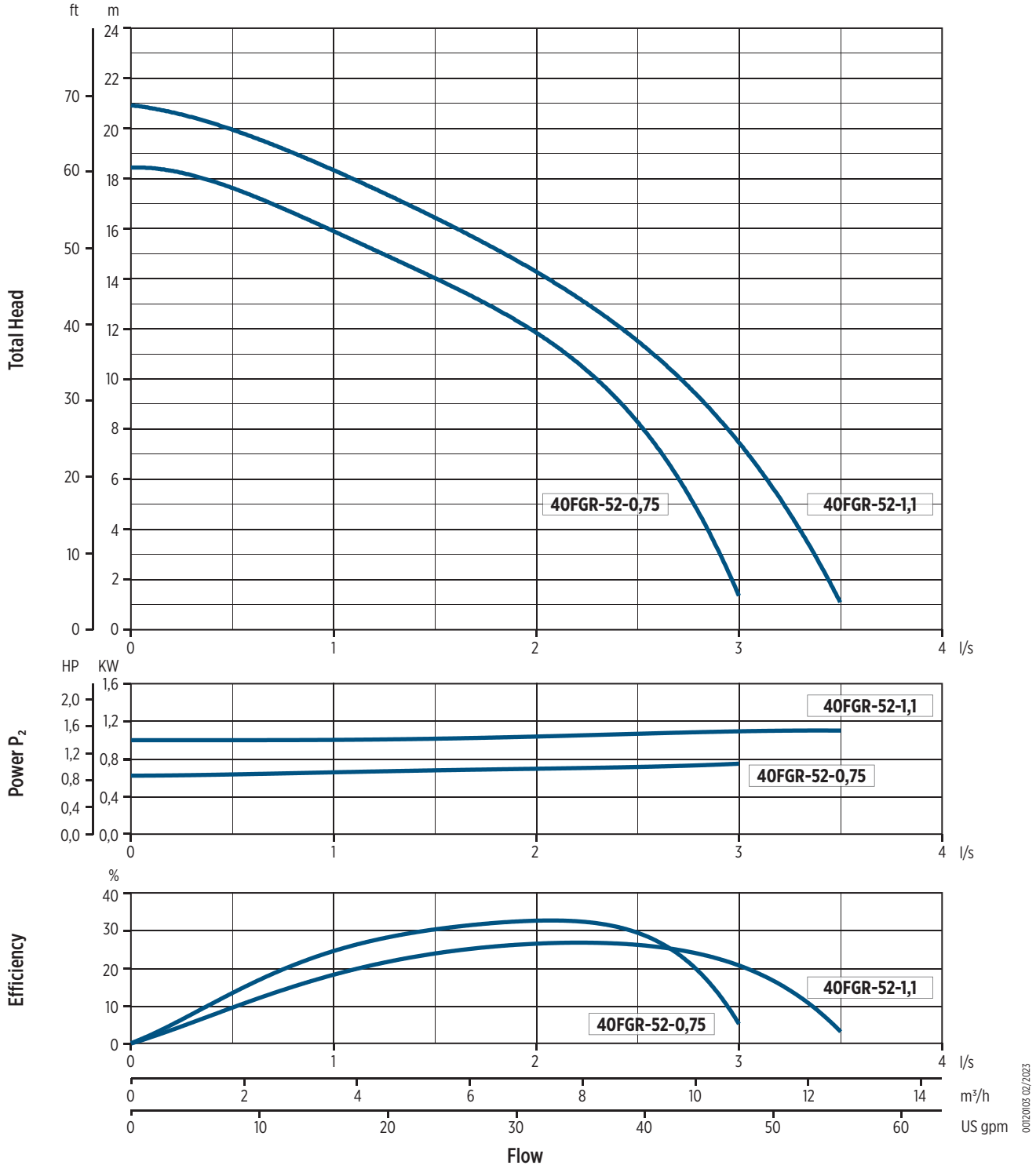
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
40FGR-52-0,75M	0,9	0,75	1	230	4,8	1 ~	10	4G1	-	20	G1½	18
40FGR-52-0,75M-G	0,9	0,75	1	230	4,8	1 ~	10	4G1	•	20	G1½	18
40FGR-52-0,75T	0,9	0,75	1	400	1,8	3 ~	10	4G1	-	-	G1½	18
40FGR-52-1,1M	1,4	1,1	1,5	230	6	1 ~	10	4G1	-	25	G1½	20
40FGR-52-1,1M-G	1,4	1,1	1,5	230	6	1 ~	10	4G1	•	25	G1½	20
40FGR-52-1,1T	1,4	1,1	1,5	400	2,1	3 ~	10	4G1	-	-	G1½	20

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery							
		l/sec 0	0,5	1	1,5	2	2,5	3	3,5
		m3/h 0	1,8	3,6	5,4	7,2	9	10,8	12,6
		US gpm 0	7,9	15,8	23,7	31,7	39,6	47,5	55,5
		H = Total meters head of water column [m]							
40FGR-52-0,75	1 ~	18,5	17,4	16,2	14	11,6	8,5	1,3	
	3 ~	18,5	17,4	16,2	14	11,6	8,5	1,3	
40FGR-52-1,1	1 ~	21	19,7	18,5	16,6	14,2	11,2	7,8	1
	3 ~	21	19,7	18,5	16,6	14,2	11,2	7,8	1

PERFORMANCE CURVES AT 50 HZ



0012010S 02/2023

INSTALLATION

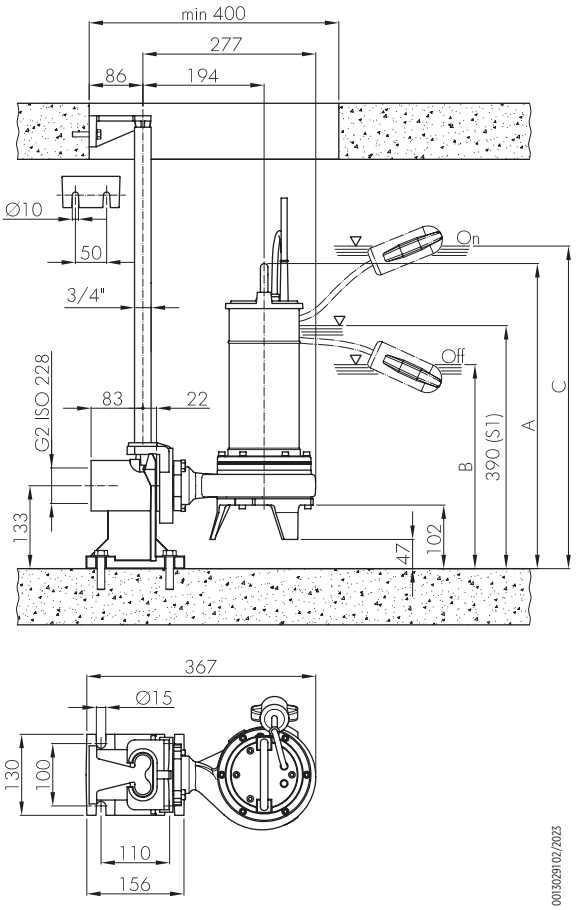
INSTALLATION INSTRUCTIONS

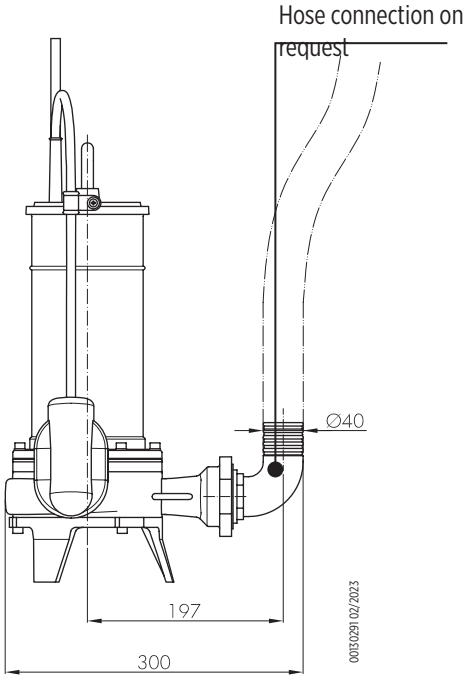
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.





Pump model	Installation Dimensions [mm]		
	A	B	C
40FGR-52-0,75	485	330	515
40FGR-52-1,1	510	355	540

50FGR SERIES 50 HZ

FEATURES & BENEFITS

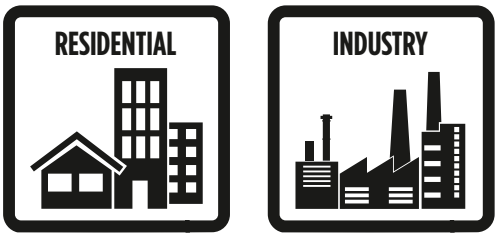
APPLICATIONS

Pumping of clear non-loaded fluids

Extraction of water from ponds, streams or pits and for rainwater collection

Wastewater

MARKETS



CAST IRON SUBMERSIBLE WASTEWATER LIFT PUMPS WITH GRINDER UNIT

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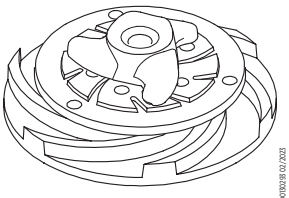


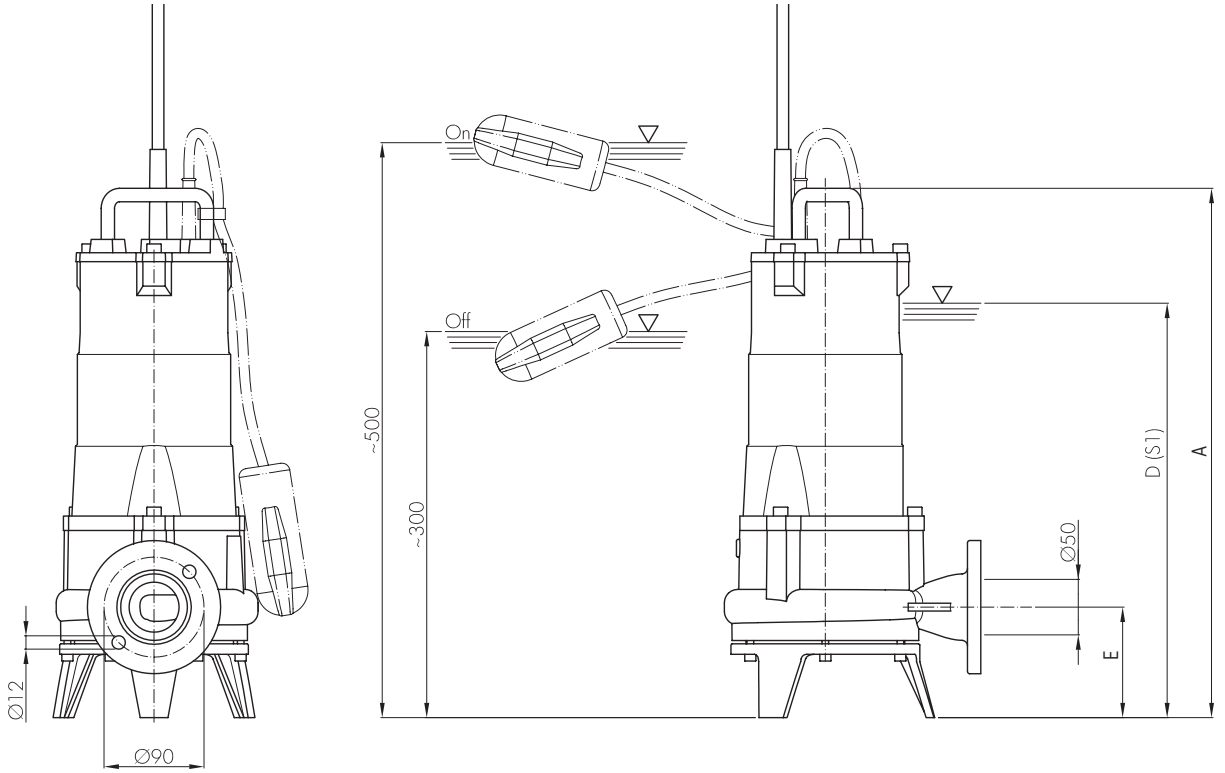
IMPELLER WITH GRINDER UNIT

GENERAL FEATURES

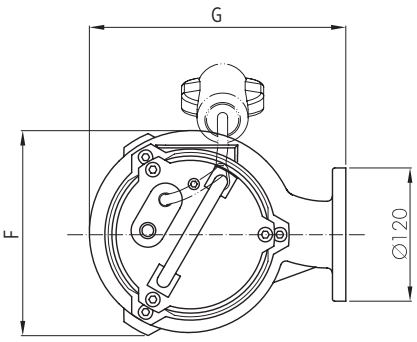
Materials/Constr.design		
Impeller with grinder unit		Cast iron EN GJL200
External casing		Cast iron EN GJL200
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Grinder unit		Stainless steel AISI431
Mechanical seal	**motor side**	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI431
Power cable	**Type**	10 m H07RN-F type
	Single-phase	4G1mm² with SHUKO plug (CEE7/VII), box with manual overload cut-out and with starting and operating capacitors.
	Single-phase 50FGR-52-1,6M	4G2,5mm² with SHUKO plug (CEE7/VII), box with manual overload cut-out and with starting and operating capacitors.
	Three-phase	4G1,5mm²
Motor		
Constr.design		asynchronous squirrel cage-type oil filled
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	**Single-phase**	230V ±6% built-in overheating protection (up to 1,1 kW), float switch as optional
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm³
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		
50FGR-52-1,1M/T		373 mm
50FGR-52-1,6M/T / 50FGR-52-2,2T		440 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil

DIMENSIONAL DRAWINGS



Pump model	Dimensions [mm]				
	A	D	E	F	G
50FGR-52-1,1	477	373	100	185	231
50FGR-52-1,6	550	440	110	220	276
50FGR-52-2,2	550	440	110	220	276



Packaging		
Pump model	Dimensions [mm]	Weight [kg]
50FGR-52-1,1	290x245x585	35
50FGR-52-1,6	300x260x585	41
50FGR-52-2,2	300x260x585	43

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TECHNICAL DATA

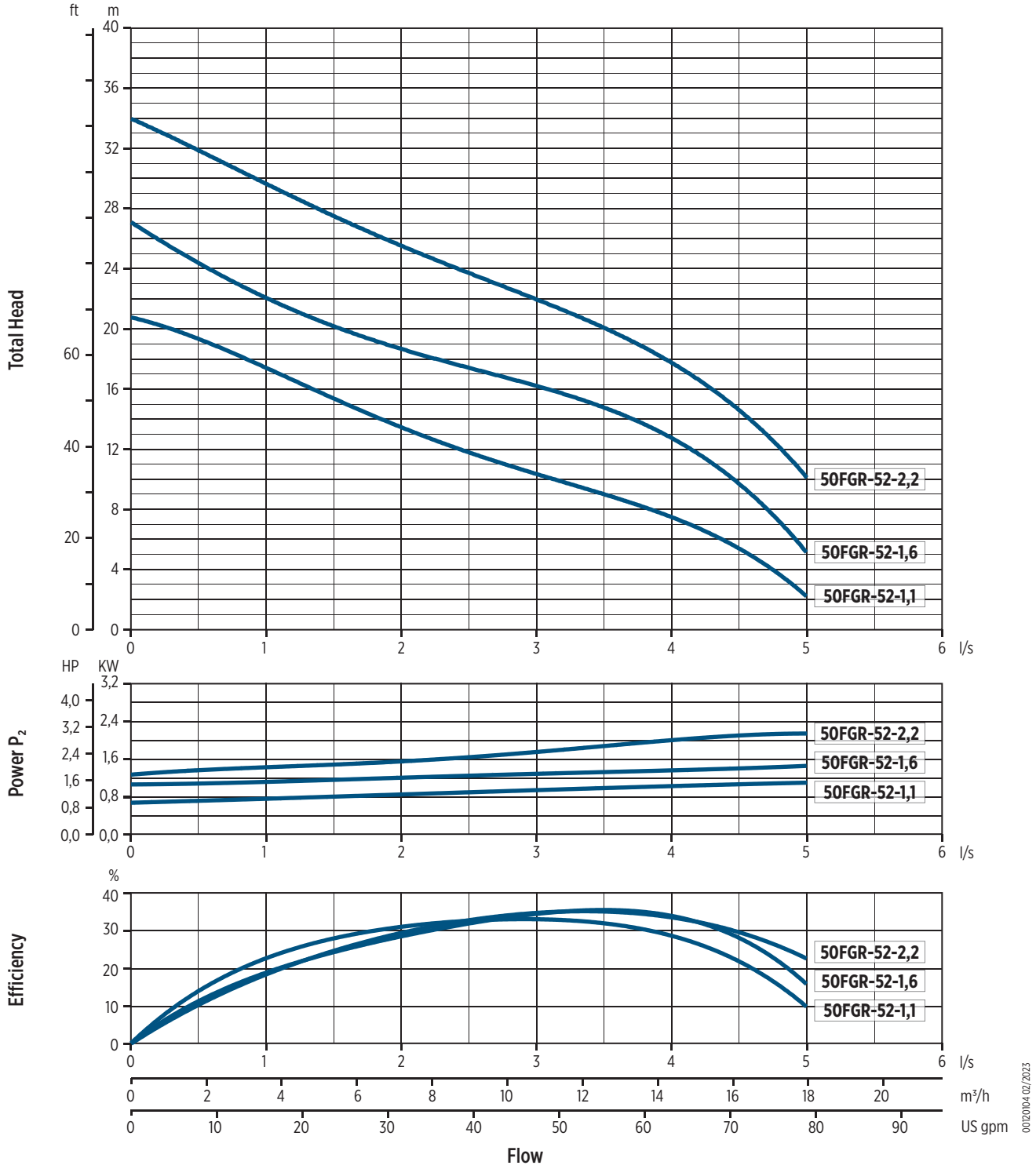
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		Length [m]	Type		[µF]		
50FGR-52-1,1M	1,4	1,1	1,5	230	7	1 ~	10	4G1,5	-	30	G2 (Ø50)	34
50FGR-52-1,1M-G	1,4	1,1	1,5	230	7	1 ~	10	4G1,5	•	30	G2 (Ø50)	34
50FGR-52-1,1T	1,4	1,1	1,5	400	11	3 ~	10	4G2,5	•	-	G2 (Ø50)	34
50FGR-52-1,1T-G	1,4	1,1	1,5	400	11	3 ~	10	4G2,5	-	-	G2 (Ø50)	34
50FGR-52-1,6M	2,3	1,6	2,1	230	3	1 ~	10	4G1,5	-	40	G2 (Ø50)	40
50FGR-52-1,6M-G	2,3	1,6	2,1	230	3	1 ~	10	4G1,5	•	40	G2 (Ø50)	40
50FGR-52-1,6T	2,3	1,6	2,1	400	4	3 ~	10	4G1,5	-	-	G2 (Ø50)	40
50FGR-52-1,6T-G	2,3	1,6	2,1	400	4	3 ~	10	4G1,5	•	-	G2 (Ø50)	40
50FGR-52-2,2T	3,1	2,2	3	400	5	3 ~	10	4G1,5	-	-	G2 (Ø50)	42

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery										
		l/sec 0	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5
		m3/h 0	1,8	3,6	5,4	7,2	9	10,8	12,6	14,4	16,2	18
		US gpm 0	7,9	15,8	23,7	31,7	39,6	47,5	55,5	63,4	71,3	79,2
		H = Total meters head of water column [m]										
50FGR-52-1,1	1 ~	21	19	17	15,8	14	12	9,5	8,8	7,8	5,8	2
	3 ~	21	19	17	15,8	14	12	9,5	8,8	7,8	5,8	2
50FGR-52-1,6	1 ~	27	25	21	20,5	19	18	15,5	14,5	13	10	5
	3 ~	27	25	21	20,5	19	18	15,5	14,5	13	10	5
50FGR-52-2,2	3 ~	34	32	29,5	27,5	25,7	23,8	22	20	17,5	15	10

PERFORMANCE CURVES AT 50 HZ



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INSTALLATION

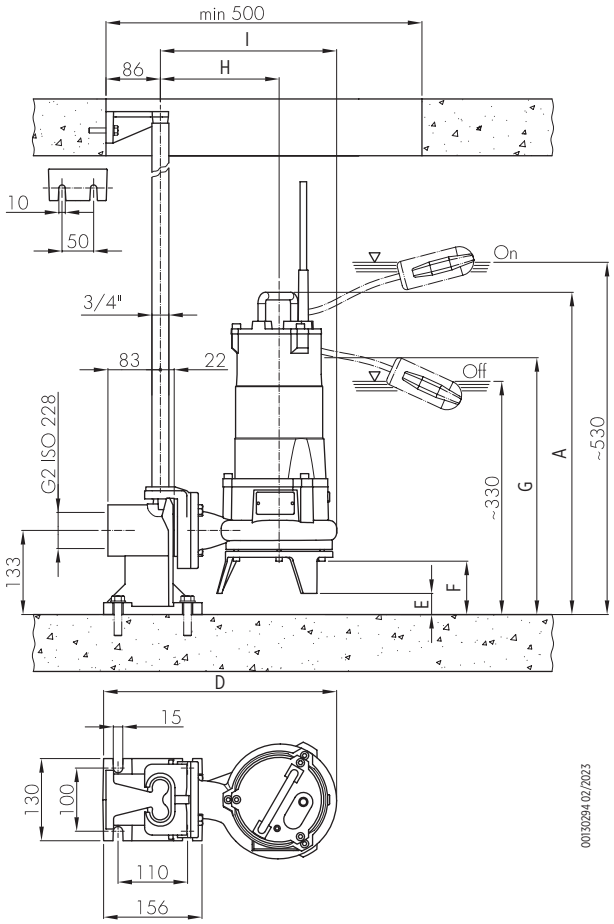
INSTALLATION INSTRUCTIONS

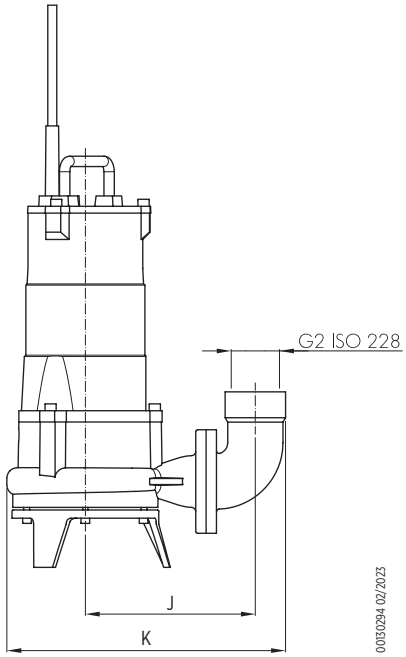
PERMANENT INSTALLATION WITH COUPLING SYSTEM

It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



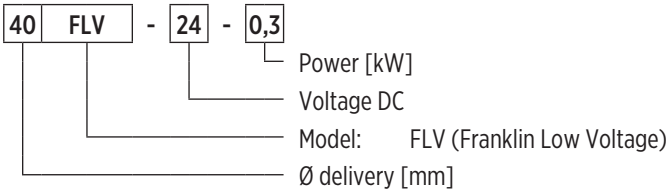


Pump model	Installation Dimensions [mm]								
	A	D	E	F	G	H	I	J	K
50FGR-52-1,1	510	370	34	85	407	193	279	197	232
50FGR-52-1,6	574	414	24	76	464	215	324	224	368
50FGR-52-2,2	574	414	24	76	464	215	324	224	368

FLV Series - D.C. motor submersible waste water lift pumps 50 Hz

D.C. MOTOR SUBMERSIBLE WASTE WATER LIFT PUMPS

PUMP IDENTIFICATION CODE



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40FLV SERIES

FEATURES & BENEFITS

APPLICATIONS

drainage

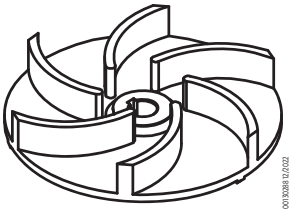
Domestic / industrial grey water

MARKETS

RESIDENTIAL

D.C. MOTOR SUBMERSIBLE WASTE WATER LIFT PUMPS

The D.C. electric submersible pumps are suitable for the drainage of water from road drain wells, basements and from sites where the electric current is not available. Easy to install and silent, this model offer the maximum safety.



VORTEX IMPELLER

GENERAL FEATURES

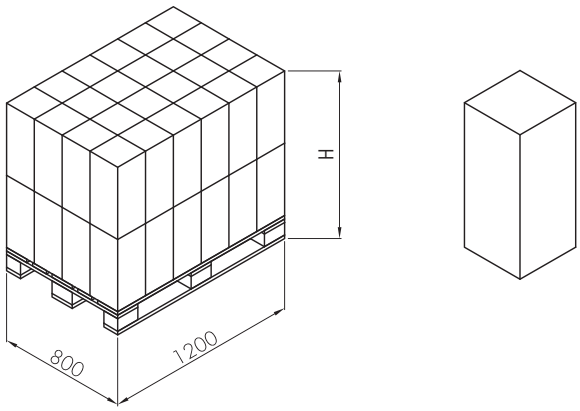
Materials/Constr.design		
Vortex impeller		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Mechanical seal	**motor side 40FLV-24-0,3, 40FLV-24-0,5, 40FLV-24-0,75**	Seal ring
	pump side 40FLV-24-0,3, 40FLV-24-0,5, 40FLV-24-0,75	Graphite/Alumina
	pump side 40FLV-12-0,3	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI416
Power cable		5 m H07RN-F type, 2x6mm^2
Motor		
Constr.design		D.C. permanent magnet in dry chamber
Type		-
Insulation class		F
Protection degree		IP68
Main voltage values and relative tolerance in relation to the rated voltage value:		24V C.C. +10% / -5% 12V C.C. +10% / -5%
Limits of use		
Maximum liquid temperature		+40 °C
pH of pumped liquid		6 - 10
Liquid density		1,0 kg/dm^3
Maximum immersion depth:		2 m
Free passage		20 mm
Min. immersion depth for continuous service	**40FLV-24-0,3, 40FLV-12-0,3,40FLV-24-0,5**	300 mm
	40FLV-24-0,75	350 mm
Max. number of starting/hour		20
Construction options		

- Mechanical seal in Silicon carbide (SiC/SiC)
- Model 40FLV-12-0,3 with 10 m 1x16mm^2 cable and battery clamps
- Inlet with strainer (free passage 8 mm)

DIMENSIONAL DRAWINGS

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
40FLV-24-0,3	220x180x450	11,5
40FLV-24-0,5	220x180x450	12,5
40FLV-24-0,75	220x200x450	17,7
40FLV-12-0,3	220x180x450	11,5

Pallet			
Pump model	Dimensions [mm]	N° of pumps	Weight [kg]
40FLV-24-0,3	800x1200x800	32	400
40FLV-24-0,5	800x1200x800	32	440
40FLV-24-0,75	800x1200x900	24	460
40FLV-12-0,3	800x1200x800	32	400



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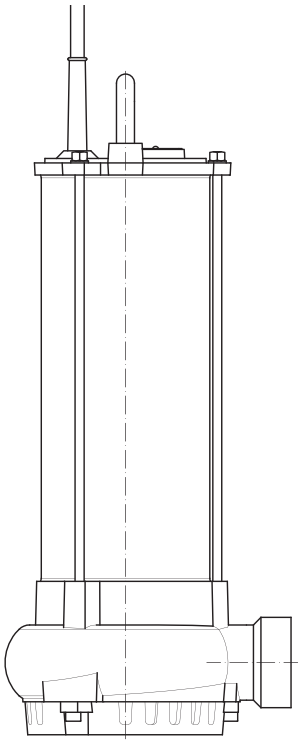
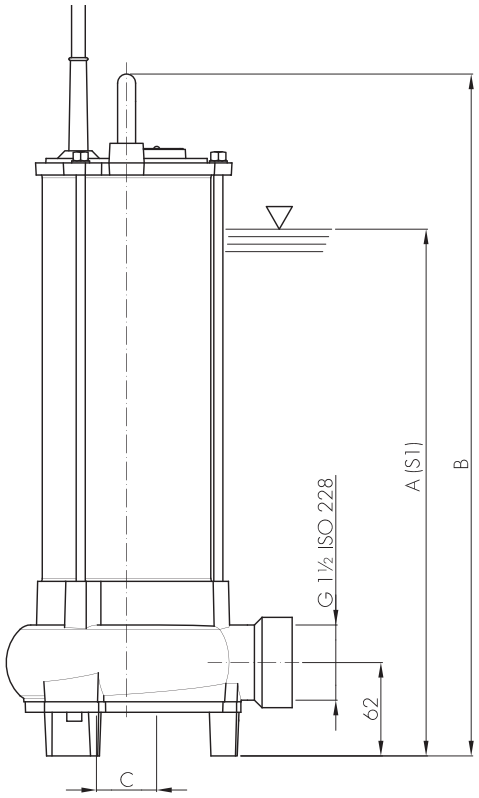
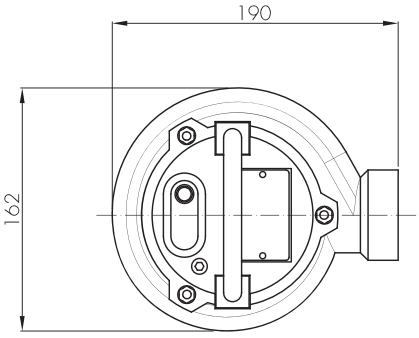


Version with filter on request



Dimensions [mm]			
Pump model	A	B	C
40FLV-24-0,3	300	402	30
40FLV-24-0,5	300	402	30
40FLV-24-0,75	350	453	40
40FLV-12-0,3	300	402	30



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TECHNICAL DATA

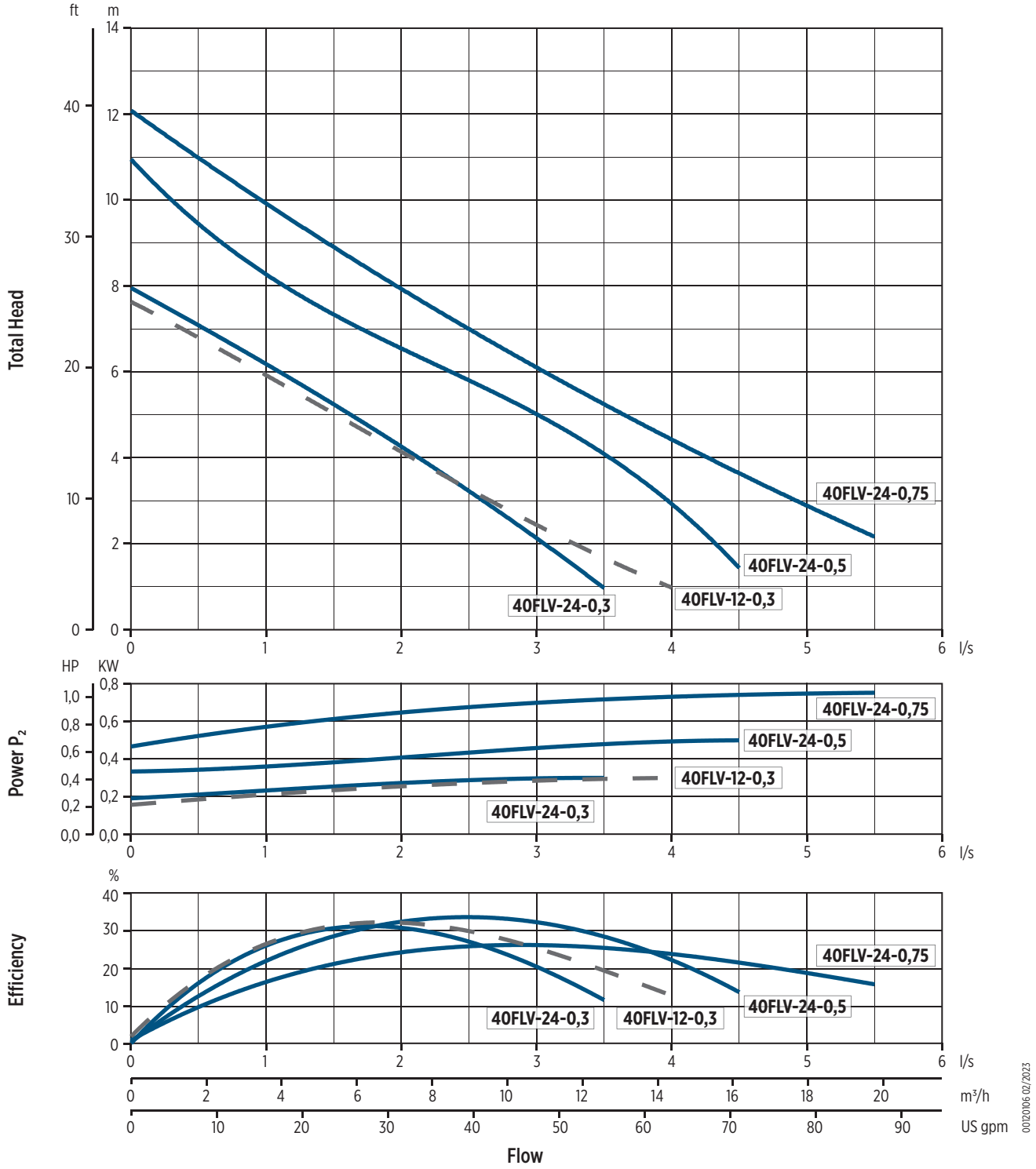
Pump model	Motor absorbed power P_1	Rated power P_2		Voltage	Rated current	Power cable		Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]	Length [m]	Type		
40FLV-24-0,3	0,4	0,3	0,4	24CC	17	5	2X6	G1½	11
40FLV-24-0,5	0,62	0,5	0,7	24CC	26	5	2X6	G1½	12
40FLV-24-0,75	0,84	0,75	1	24CC	35	5	2X6	G1½	17
40FLV-12-0,3	0,4	0,3	0,4	12CC	34	5	2X6	G1½	11

"-" = not available
• = available

HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Voltage	Q = Delivery											
		l/sec 0	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5
		m3/h 0	1,8	3,6	5,4	7,2	9	10,8	12,6	14,4	16,2	18	19,8
		US gpm 0	7,9	15,8	23,7	31,7	39,6	47,5	55,5	63,4	71,3	79,2	87,2
	[V]	H = Total meters head of water column [m]											
40FLV-24-0,3	24CC	8	7	6,2	5,3	4,3	3,2	2,1	1				
40FLV-24-0,5	24CC	10,9	9,7	8	7,1	6,8	6	5	3,9	2,9	1,5		
40FLV-24-0,75	24CC	12	11	10	9	8	7	5,8	5,1	4,5	3,9	3	2
40FLV-12-0,3	12CC	7,5	7	6	5	4	3,1	2,5	2	0,8			

PERFORMANCE CURVES AT 50 HZ

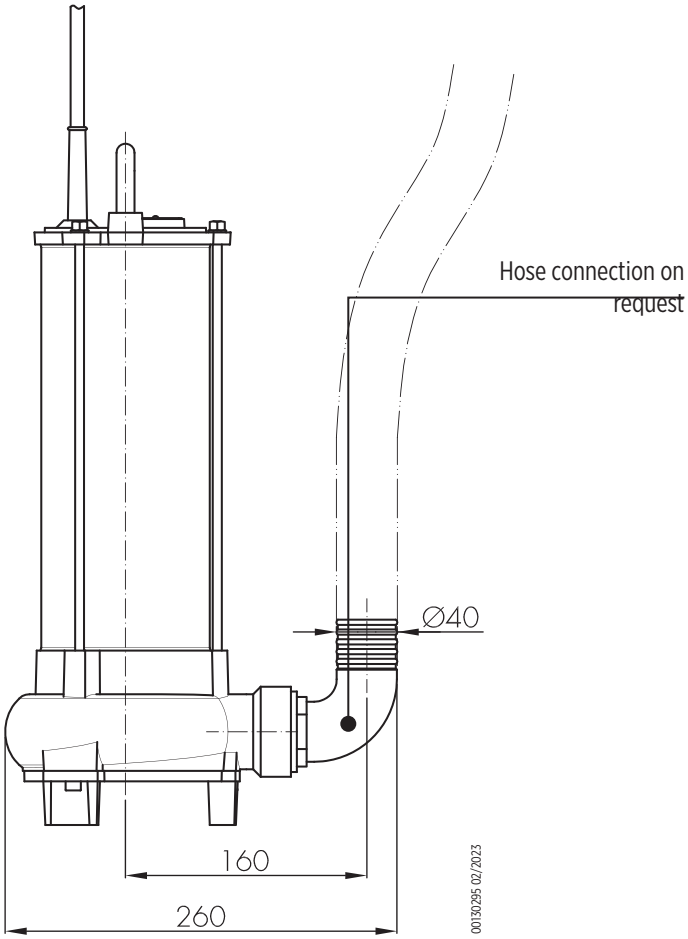


INSTALLATION

INSTALLATION INSTRUCTIONS

TRANSPORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



CATALOG REVISION CHANGES NOTICE

Rev. No.	Changes	Page
01	40FGR Technical data correction	84
02	Model correction: from “50FWC-V-54-1,5” to “50FWC-V-54-1,1”	38-42
03	Deleted sentence “Hose connection on request” from 50FWC and 50FGR	30, 36, 42, 92
	40FGR General Features data table correction about power cable single-phase	82
	50FGR General Features data table correction about power cable single-phase	88
	50FWC-V-52-1,6M power cable sigle-phase correction to “4G2,5mm^2, capacitor box and SCHUKO plug (CEE 7/VII)”	38
	50FWC V and 50FWC M Technical data correction from “0,75 HP” to “1,2 HP”	28, 34
	50FGR (50FGR-52-1,1T, 50FGR-52-1,1T-G, 50FGR-52-1,6M, 50FGR-52-1,6M-G) Technical data correction: Motor absorbed Power P1 and Rated Power P2	90
	50FGR Technical data correction - Running capacitor section	90
	32FWS V, 40FWS V, 50FWS V General Features motor voltage single-phase correction	8, 14, 20
04	Added ED-EGT/EGF drainage pump models	5-16
	“EDV Hydraulic Performance 50 Hz ≈ 2900 1/min” section removed	10
	“EGN - Submersible Drainage Pumps for Clean Water” section removed	Tutte
	Updated tables	6, 8, 10, 14, 15, 16
	Pump Identification Code section modified	6
	EGN model removed	All
	EDV model removed	All
	“HH” (High Head version) deleted from FWS-FWC series pump identification code	18
	50FWC V General Features update: voltage single-phase	38
	50FWC M General Features update: voltage single-phase	44
	50FWC V4 General Features update: voltage single-phase	50
	65FWC V4 General Features update: voltage single-phase	68
	50FGR Technical Data table update	102
05	Pump Identification Code section modified	6
	ED General Features update: power cable, motor standard voltage	6
	ED dimensions and weights data table update	8
	ED Hydraulic Performance three-phase data table deleted	10

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