



**Franklin Electric**

# SUBMERSIBLE DRAINAGE PUMPS

FDR, FDP SERIES





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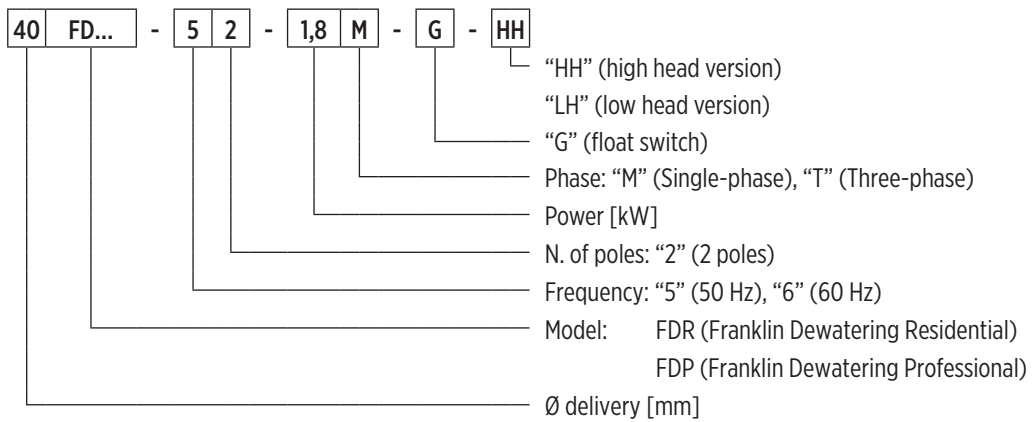
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# FDR Series - Submersible pumps for residential drainage 50 Hz



## FDR SERIES - SUBMERSIBLE PUMPS FOR RESIDENTIAL DRAINAGE 50 HZ

### PUMP IDENTIFICATION CODE



00140089 04/2023

## 40FDR SERIES 50 HZ

### FEATURES & BENEFITS

#### APPLICATIONS



Drainage and dewatering  
draining rooms, tank  
drainage



Rainwater Recovery



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

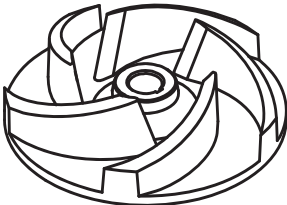


#### MARKETS



### SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps in cast iron and stainless steel, suitable for draining clear and turbid waters. They can be used as ready-to-use portable pumps both for construction site use, basement wells, and for fixed installations with control panel.



003205 04/2023

**OPEN IMPELLER**



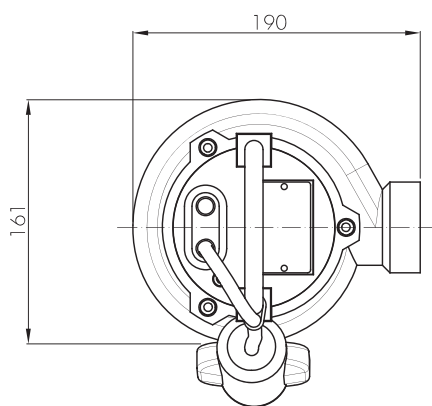
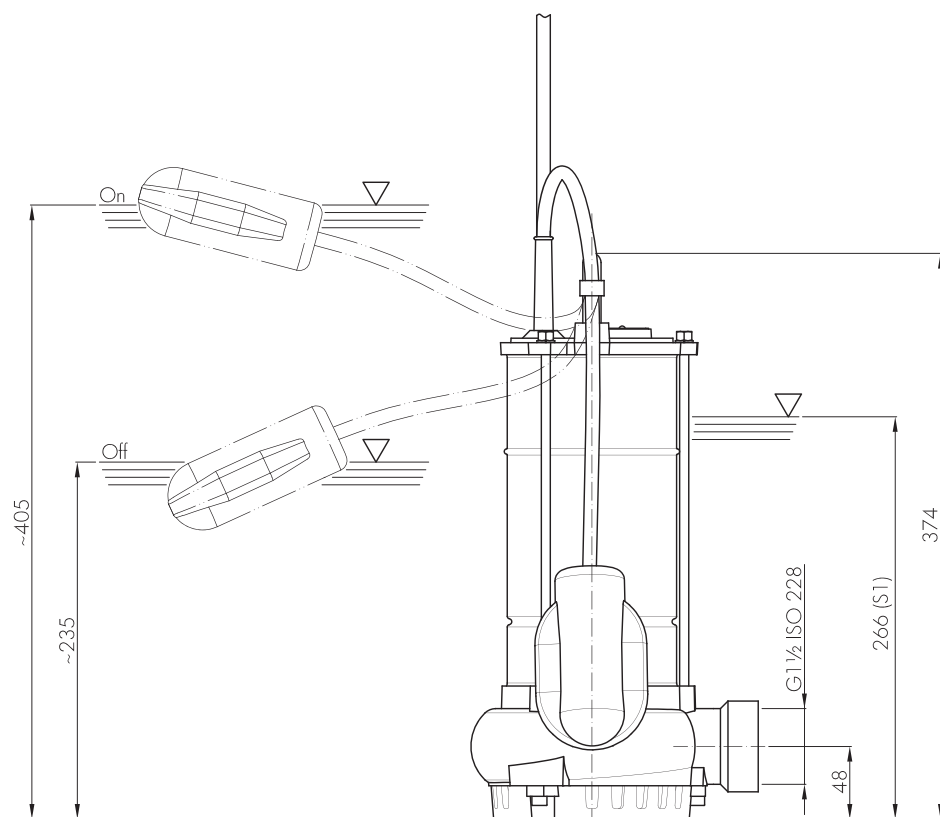
## GENERAL FEATURES

Materials/Constr.design		
Open impeller		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Filter		Aluminium alloy
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	3G1mm <sup>2</sup> with SCHUKO plug (CEE 7/VII)
	Three-phase	4G1mm <sup>2</sup>
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
	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 <sup>3</sup>
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		266 mm
Free passage		8 mm
Max. number of starting/hour		20
Construction options		

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



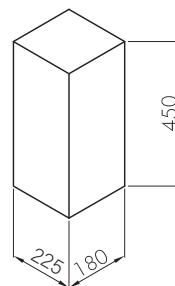
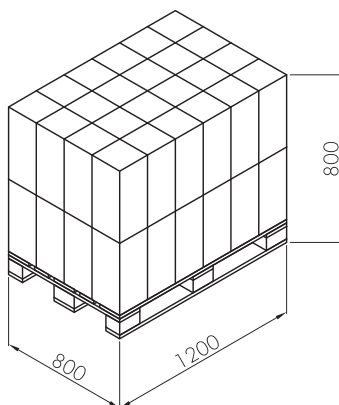
## DIMENSIONAL DRAWINGS



00130259 04/2023

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
40FDR	225x180x450	11,5

Pallet			
Pump model	Dimensions [mm]	N° of pumps	Weight [kg]
40FDR-52-0,37	1200x800x800	32	400
40FDR-52-0,6	1200x800x800	32	400
40FDR-52-0,7	1200x800x800	32	500



00130288 02/2023

## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[μf]		
40FDR-52-0,37M	0,58	0,37	0,5	230	3	1 ~	10	3G1	-	8	G1½	11
40FDR-52-0,37M-G	0,58	0,37	0,5	230	3	1 ~	10	3G1	•	8	G1½	11
40FDR-52-0,6M	0,72	0,6	0,8	230	3,7	1 ~	10	3G1	-	10	G1½	11
40FDR-52-0,6M-G	0,72	0,6	0,8	230	3,7	1 ~	10	3G1	•	10	G1½	11
40FDR-52-0,7M	0,88	0,7	0,95	230	4,8	1 ~	10	3G1	-	14	G1½	14
40FDR-52-0,7T	0,88	0,7	0,95	400	1,8	3 ~	10	4G1	-	-	G1½	14
40FDR-52-0,7M-G	0,88	0,7	0,95	230	4,8	1 ~	10	3G1	•	14	G1½	14
40FDR-52-0,7T-G	0,88	0,7	0,95	400	1,8	3 ~	10	4G1	•	-	G1½	14

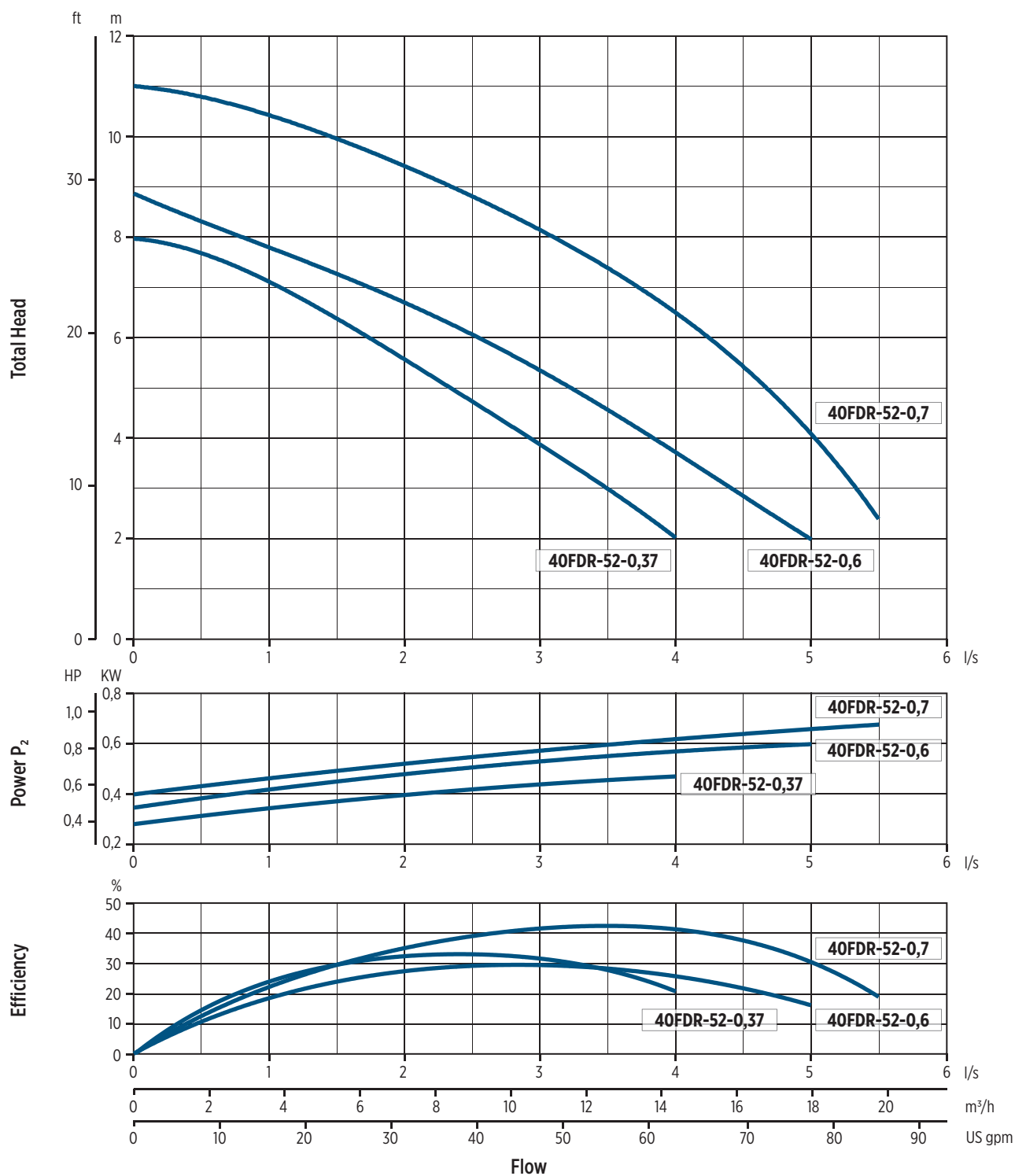
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## HYDRAULIC PERFORMANCE AT 50 HZ

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]											
40FDR-52-0,37	1 ~	8	7,6	7,1	6,5	5,6	4,5	4	3	2			
40FDR-52-0,6	1 ~	8,9	8,2	8	7,1	6,8	6	5,4	4,5	3,8	2,8	2	
40FDR-52-0,7	1 ~	11	10,8	10,5	9,9	9,4	8,8	8,2	7,4	6,5	5,4	4,1	2,4
40FDR-52-0,7	3 ~	11	10,8	10,5	9,9	9,4	8,8	8,2	7,4	6,5	5,4	4,1	2,4

## PERFORMANCE CURVES AT 50 HZ

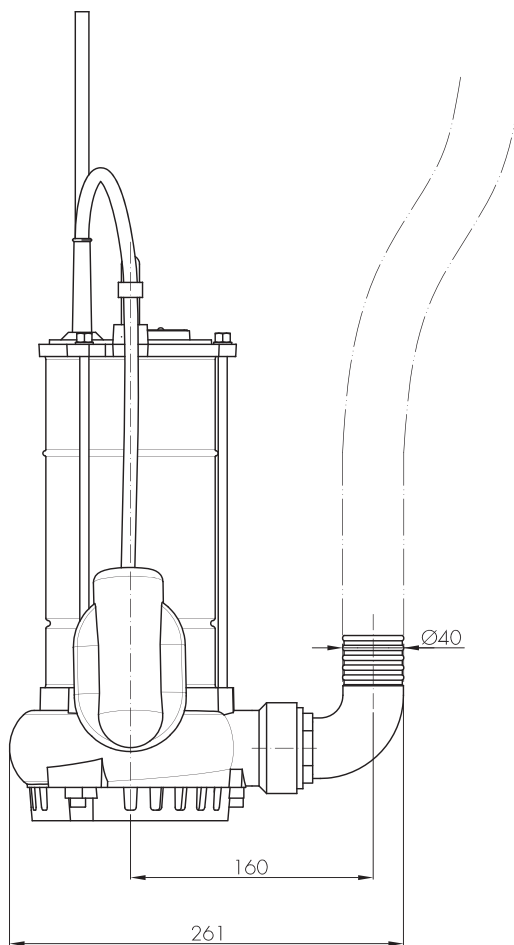


## INSTALLATION

### INSTALLATION INSTRUCTIONS

#### TRANSPORTABLE INSTALLATION

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



00130237 04/2023

## 50FDR SERIES 50 HZ

### FEATURES & BENEFITS

#### APPLICATIONS



Drainage and dewatering  
Draining rooms, tank  
drainage



Rainwater Recovery



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

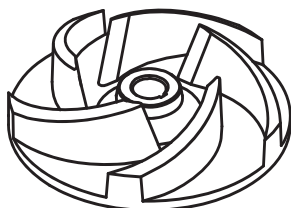


#### MARKETS



### SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps in cast iron and stainless steel, suitable for draining clear and turbid waters. They can be used as ready-to-use portable pumps both for construction site use, basement wells, and for fixed installations with control panel.



003205 04/2023

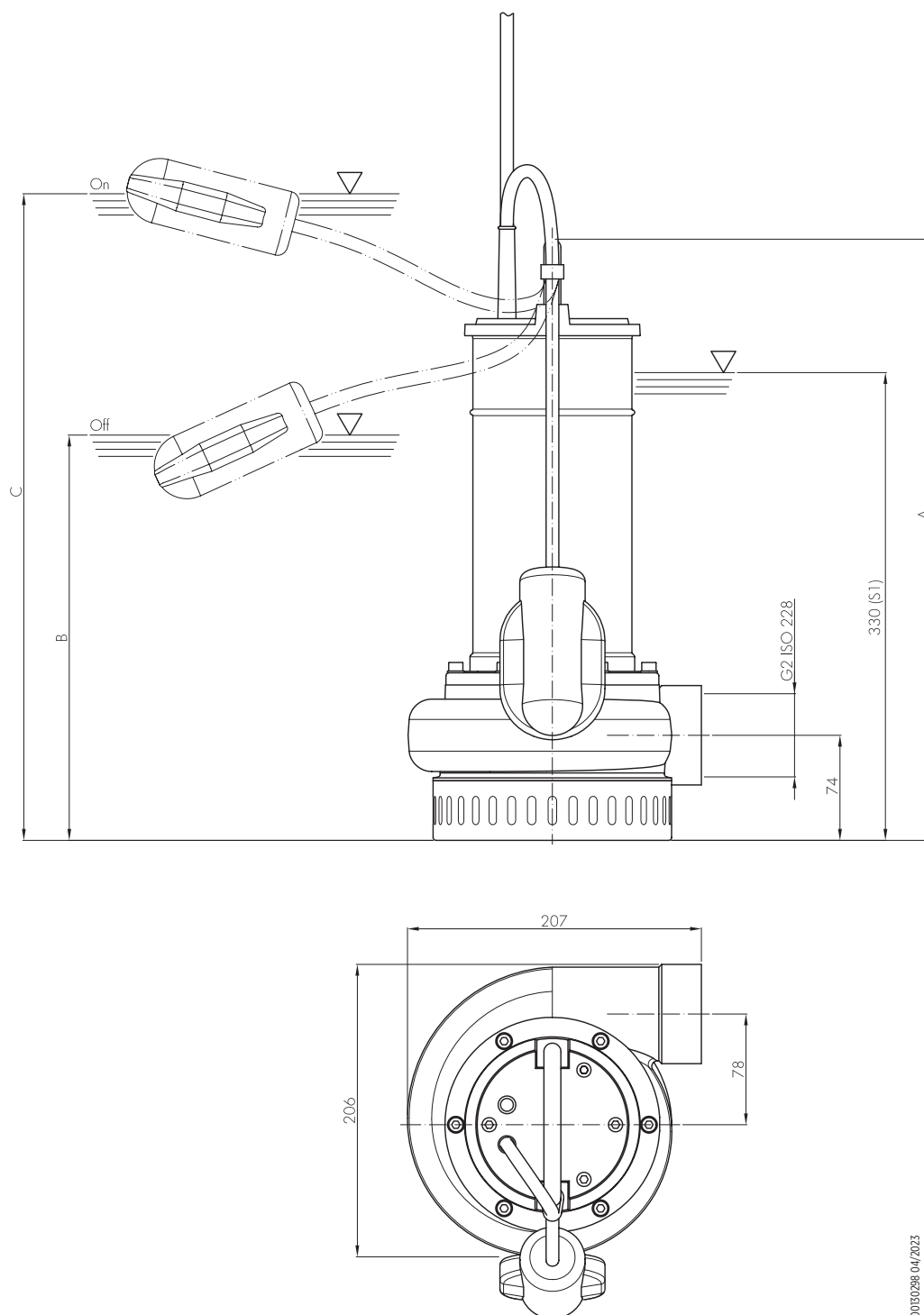
**OPEN IMPELLER**

## GENERAL FEATURES

Materials/Constr.design		
Open impeller		Cast iron EN GJL200
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL200
Cover		Cast iron EN GJL200
Filter		Stainless steel AISI304
Mechanical seal	motor side	Seal ring
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	Type	10 m H07RN-F type
	Single-phase	3G1mm <sup>2</sup> with SCHUKO plug (CEE 7/VII)
	Three-phase	4G1mm <sup>2</sup>
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 <sup>3</sup>
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		329 mm
Free passage		6 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- Food-grade white oil
- External capacitor with 4G1mm<sup>2</sup> cable

## DIMENSIONAL DRAWINGS



00150288 04/2023

Pump model	Dimensions [mm]		
	A	B	C
50FDR-52-0,9	424	260	460
50FDR-52-1,4	449	285	485

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
50FDR-52-0,9	255x205x560	18,7
50FDR-52-1,4	255x205x560	20,7



## 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]		
50FDR-52-0,9M	1,2	0,9	1,2	230	5,6	1 ~	10	3G1	-	20	G2	18
50FDR-52-0,9M-G	1,2	0,9	1,2	230	5,6	1 ~	10	3G1	•	20	G2	18
50FDR-52-0,9T	1,2	0,9	1,2	400	2	3 ~	10	4G1	-	-	G2	18
50FDR-52-0,9T-G	1,2	0,9	1,2	400	2	3 ~	10	4G1	•	-	G2	18
50FDR-52-1,4M	1,8	1,4	1,9	230	8	1 ~	10	3G1	-	25	G2	20
50FDR-52-1,4M-G	1,8	1,4	1,9	230	8	1 ~	10	3G1	•	25	G2	20
50FDR-52-1,4T	1,8	1,4	1,9	400	3,8	3 ~	10	4G1	-	-	G2	20

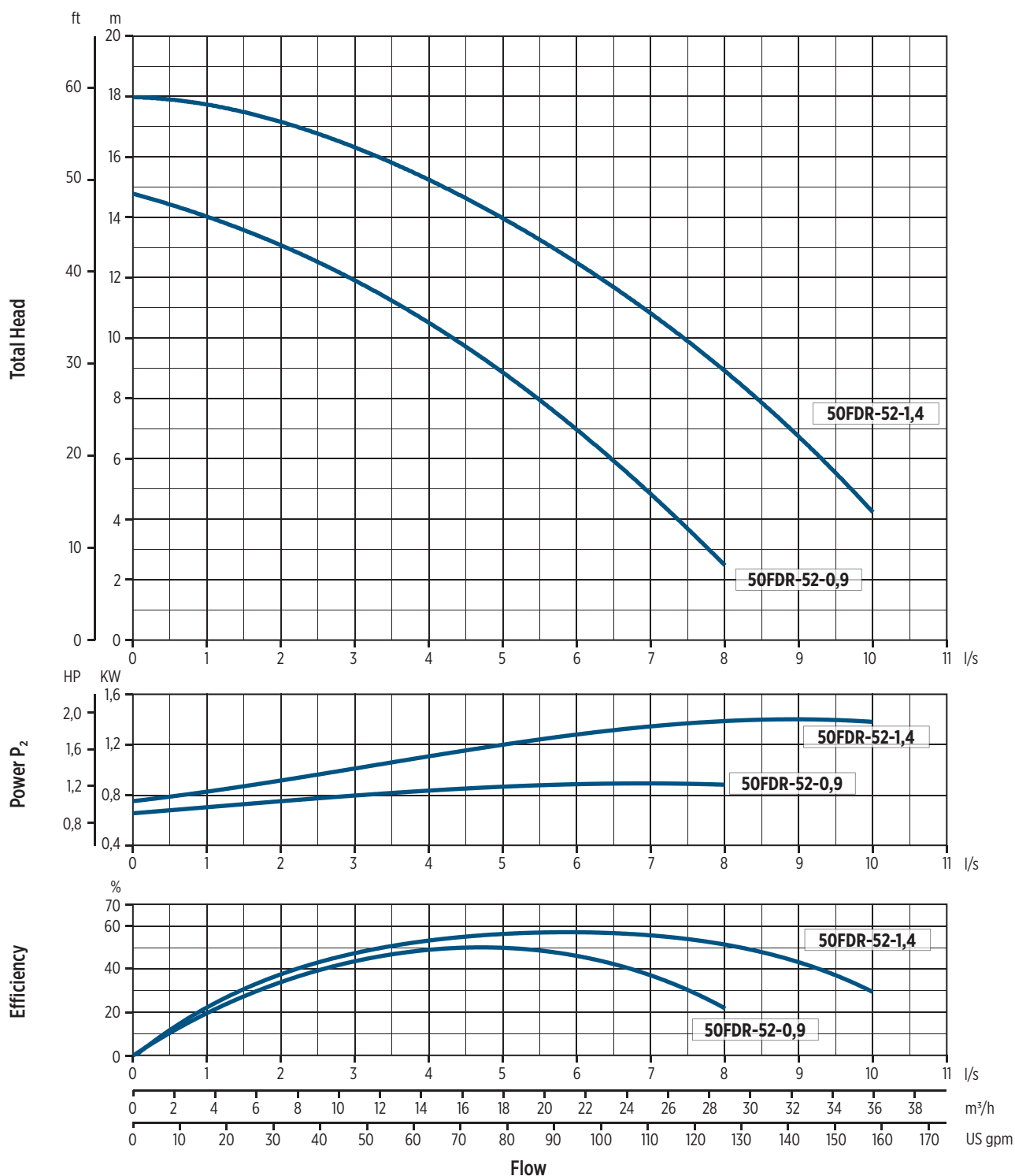
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## HYDRAULIC PERFORMANCE AT 50 HZ

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
		m³/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]														
50FDR-52-0,9	1 ~	14,8	14	13,5	13,2	12,5	12	11,1	10,6	9,7	8,7	7,2	4,7	2,5		
	3 -	14,8	14	13,5	13,2	12,5	12	11,1	10,6	9,7	8,7	7,2	4,7	2,5		
50FDR-52-1,4	1 ~	18	17,7	17,5	17,2	16,6	16,4	15,9	15,5	14,2	14	12,8	10,5	9	6,8	4,2
	3 -	18	17,7	17,5	17,2	16,6	16,4	15,9	15,5	14,2	14	12,8	10,5	9	6,8	4,2

## PERFORMANCE CURVES AT 50 HZ



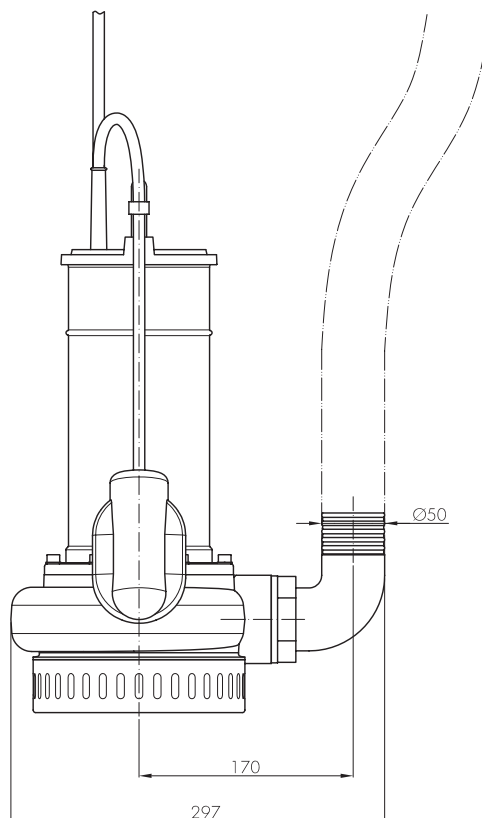
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## INSTALLATION

### INSTALLATION INSTRUCTIONS

#### TRANSPORTABLE INSTALLATION

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



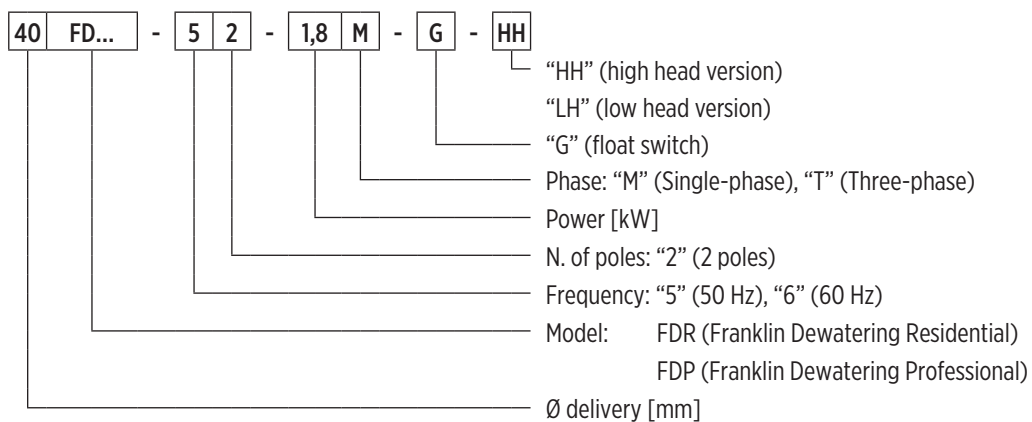
00130298 04/2023

# FDP Series – Submersible pumps for professional drainage 50 Hz



## FDP SERIES - SUBMERSIBLE PUMPS FOR PROFESSIONAL DRAINAGE 50 HZ

### PUMP IDENTIFICATION CODE



00140089 04/2023

## 40-50FDP SERIES 50 HZ

### FEATURES & BENEFITS

### APPLICATIONS



Drainage and dewatering



Rainwater Recovery



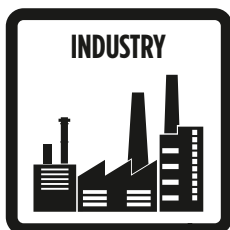
Construction site  
drainage and  
dewatering



Mining, Quarrying  
drainage and  
dewatering

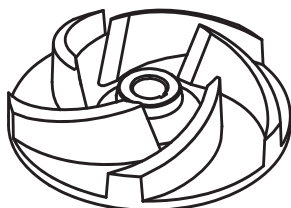


### MARKETS



### SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps in cast iron and stainless steel, suitable for draining clear and turbid waters. They can be used as ready-to-use portable pumps both for construction site use, basement wells, and for fixed installations with control panel.



0030305 04/2023

**OPEN IMPELLER**

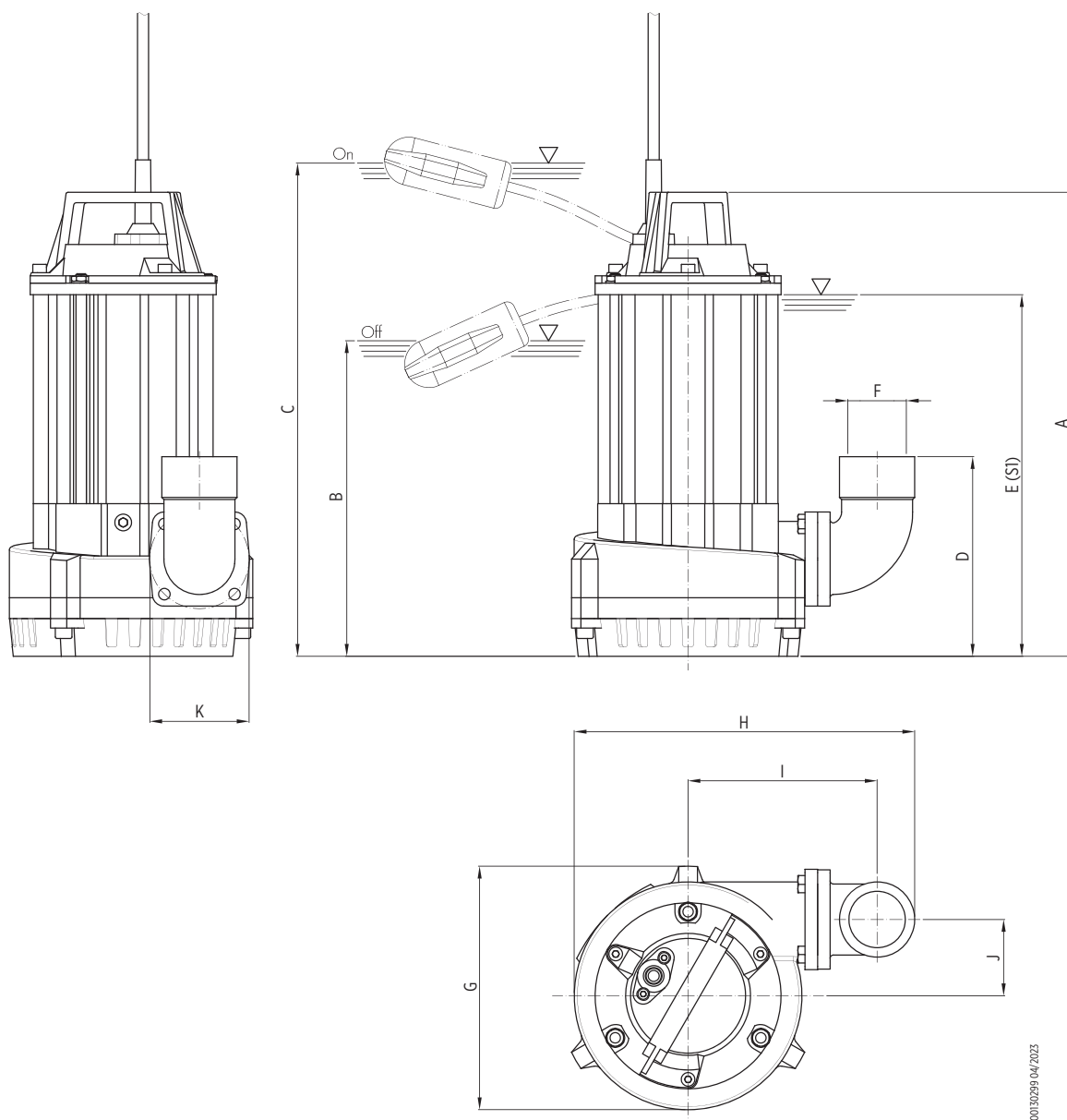
## GENERAL FEATURES

Materials/Constr.design		
Open impeller		Cast iron EN GJL200
External casing		Aluminium alloy EN AW6060
Pump body		Aluminium alloy
Cover		Aluminium alloy
Filter		Aluminium alloy
Wear plate	40FDP-52-1,0M	Stainless steel AISI304
	50FDP-52-1,4M, 50FDP-52-1,8M	Aluminium alloy with rubber coating
Mechanical seal		Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	Type	10 m H07RN-F type
	Single-phase 40FDP-52-1,0M	4G1,5mm <sup>2</sup> , capacitor box and SCHUKO plug (CEE 7/VII)
	Single-phase 50FDP-52-1,4M, 50FDP-52-1,8M	4G2,5mm <sup>2</sup> , capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	4G1,5mm <sup>2</sup>
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		5 - 8
Liquid density		1,0 kg/dm <sup>3</sup>
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		see "Dimensional drawings"
Free passage		6 mm
Max. number of starting/hour		20
Construction options		

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



## DIMENSIONAL DRAWINGS



00130295 04/2023

Pump model	Dimensions [mm]										
	A	B	C	D	E	F	G	H	I	J	K
40FDP-52-1,0M	390	-	-	162	290	G1½	190	290	175	60	75
40FDP-52-1,0T	390	-	-	162	290	G1½	190	290	175	60	75
40FDP-52-1,0M-G	390	230	440	162	290	G1½	190	290	175	90	75
40FDP-52-1,0T-G	390	-	-	162	290	G1½	190	290	175	60	75
40FDP-52-1,1T	390	-	-	162	290	G1½	190	290	175	60	75
40FDP-52-1,1T-G	390	-	-	162	290	G1½	190	290	175	60	75
50FDP-52-1,4M	445	-	-	190	345	G2	233	326	180	73	95
50FDP-52-1,4M-G	485	240	530	190	345	G2	233	326	180	73	95
50FDP-52-1,8M	445	-	-	190	345	G2	233	326	180	73	95
50FDP-52-1,8T	445	-	-	190	345	G2	233	326	180	73	95
50FDP-52-1,8M-G	485	240	530	190	345	G2	233	326	180	73	95
50FDP-52-1,8T-G	485	240	530	190	345	G2	233	326	180	73	95
50FDP-52-2,2T	445	-	-	190	345	G2	233	326	180	73	95
50FDP-52-2,2T-G	485	240	530	190	345	G2	233	326	180	73	95

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
40FDP-52-1,0M	255x205x560	20,7
40FDP-52-1,0T	255x205x560	20,7
40FDP-52-1,0M-G	290x245x585	21
40FDP-52-1,0T-G	255x205x560	20,7
40FDP-52-1,1T	255x205x560	20,7
40FDP-52-1,1T-G	255x205x560	22,7
50FDP-52-1,4M	300x260x585	24
50FDP-52-1,4M-G	300x260x585	26
50FDP-52-1,8M	300x260x585	28
50FDP-52-1,8T	300x260x585	26
50FDP-52-1,8M-G	300x260x585	30
50FDP-52-1,8T-G	300x260x585	28
50FDP-52-2,2T	300x260x585	27
50FDP-52-2,2T-G	300x260x585	29

## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[μf]		
40FDP-52-1,0M	1,4	1	1,36	230	7,2	1 ~	10	4G1,5	-	25	G1½	20
40FDP-52-1,0T	1,4	1	1,36	400	2	3 ~	10	4G1,5	-	-	G1½	20
40FDP-52-1,0M-G	1,4	1	1,36	230	7,2	1 ~	10	4G1,5	•	25	G1½	20
40FDP-52-1,0T-G	1,4	1	1,36	400	2	3 ~	10	4G1,5	•	-	G1½	20
40FDP-52-1,1T	1,7	1,1	1,5	400	3	3 ~	10	4G1,5	-	-	G1½	20
40FDP-52-1,1T-G	1,7	1,1	1,5	400	3	3 ~	10	4G1,5	•	-	G1½	22
50FDP-52-1,4M	2,1	1,4	1,9	230	12	1 ~	10	4G2,5	-	25	G2	23
50FDP-52-1,4M-G	2,1	1,4	1,9	230	12	1 ~	10	4G2,5	•	25	G2	25
50FDP-52-1,8M	2,4	1,8	2,4	230	14	1 ~	10	4G2,5	-	30	G2	27
50FDP-52-1,8T	2,4	1,8	2,4	400	4,6	3 ~	10	4G1,5	-	-	G2	25
50FDP-52-1,8M-G	2,4	1,8	2,4	230	14	1 ~	10	4G2,5	•	30	G2	29
50FDP-52-1,8T-G	2,4	1,8	2,4	400	4,6	3 ~	10	4G1,5	•	-	G2	27
50FDP-52-2,2T	2,9	2,2	3	400	5	3 ~	10	4G1,5	-	-	G2	26
50FDP-52-2,2T-G	2,9	2,2	3	400	5	3 ~	10	4G1,5	•	-	G2	28

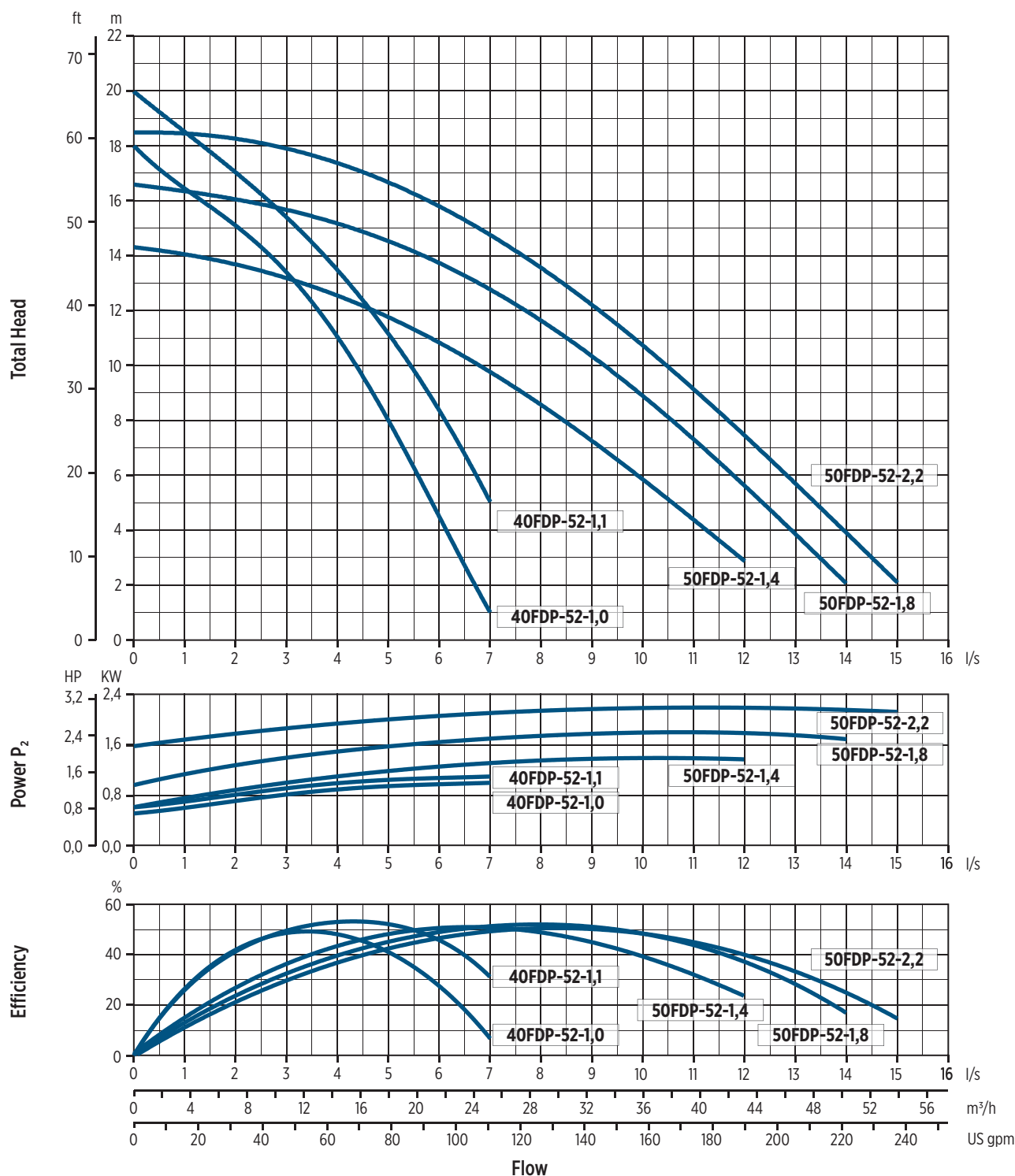
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## HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery															
		l/sec 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		m³/h 0	3,6	7,2	10,8	14,4	18	21,6	25,2	28,8	32,4	36	39,6	43,2	46,8	50,4	54
		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	190,2	206	221,9	237,7
		H = Total meters head of water column [m]															
40FDP-52-1,0	1 -	18	16,5	15	13,5	11	8	4,5	1								
	3 -	18	16,5	15	13,5	11	8	4,5	1								
40FDP-52-1,1	3 -	20	18,5	17	15,5	13,5	11	8,5	5								
50FDP-52-1,4	1 -	14,3	14,1	13,7	13,1	12,5	11,8	11	9,8	8,5	7	6	4,5	2,8			
50FDP-52-1,8	1 -	16,6	16,3	16,1	15,8	15,1	14,2	14	12,8	11,8	10,2	9	7	5,8	4	2	
	3 -	16,6	16,3	16,1	15,8	15,1	14,2	14	12,8	11,8	10,2	9	7	5,8	4	2	
50FDP-52-2,2	3 -	18,5	18,5	18,2	17,8	17,5	16,5	16	14,7	13,9	12	10,5	9,1	7,5	5,8	4	2

## PERFORMANCE CURVES AT 50 HZ



## 40FDP-HH SERIES 50 HZ

### FEATURES & BENEFITS

#### APPLICATIONS



Drainage and dewatering



Rainwater Recovery



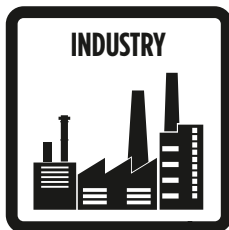
Construction site  
drainage and  
dewatering



Mining, Quarrying  
drainage and  
dewatering

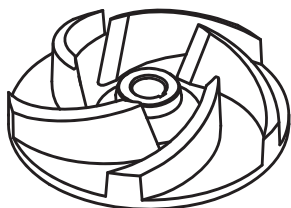


#### MARKETS



### HIGH HEAD VERSION SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps in cast iron and stainless steel, suitable for draining clear and turbid waters. They can be used as ready-to-use portable pumps both for construction site use, basement wells, and for fixed installations with control panel.



0013056 04/2023

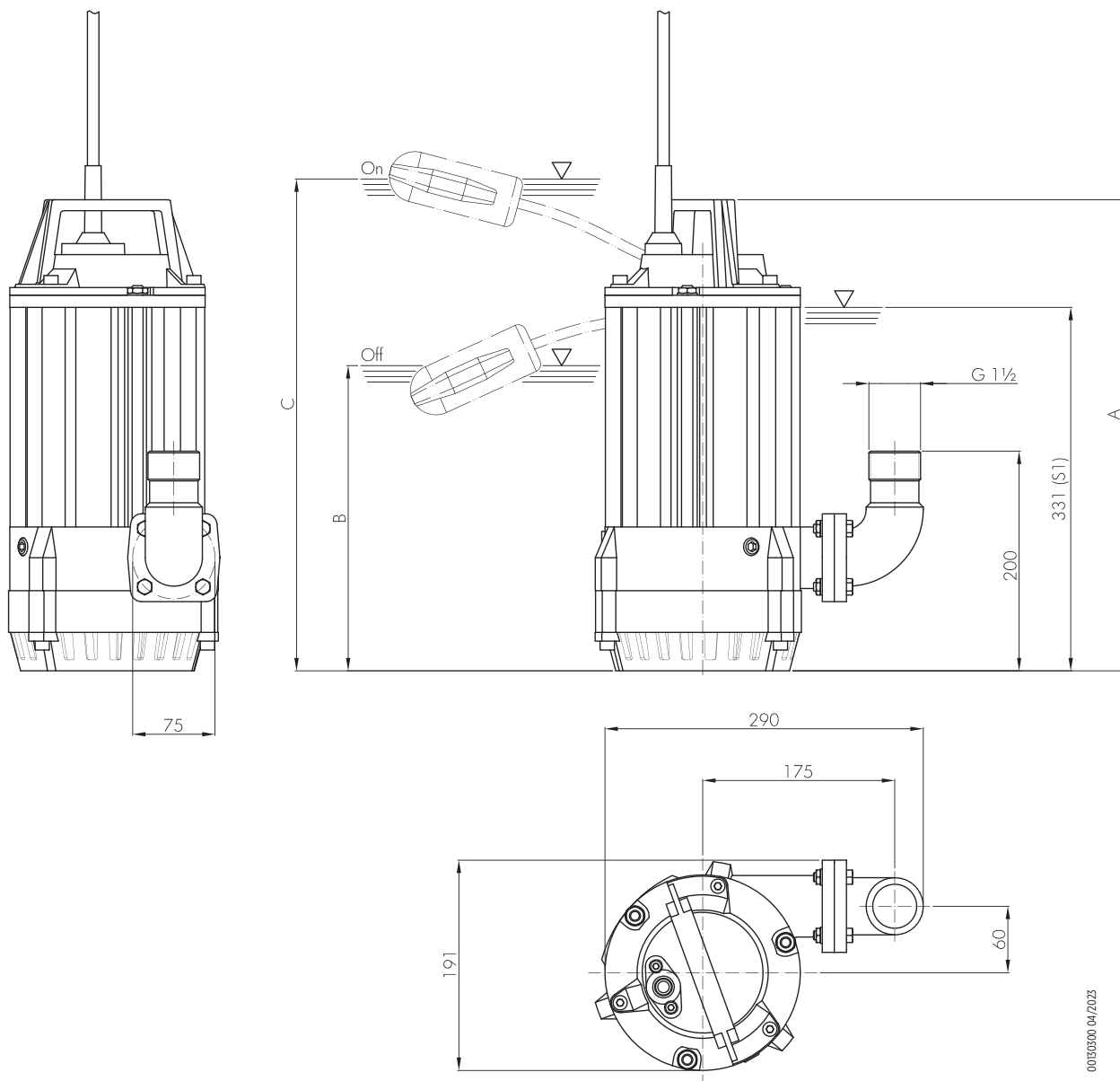
#### DOUBLE OPEN IMPELLER

## GENERAL FEATURES

Materials/Constr.design		
Double open impeller		Cast iron EN GJL200
External casing		Aluminium alloy EN AW6060
Pump body		Aluminium alloy
Cover		Aluminium alloy
Filter		Aluminium alloy
Wear plate		Stainless steel AISI304
Mechanical seal		Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI431
Power cable	Type	10 m H07RN-F type
	Single-phase	4G2,5mm <sup>2</sup> , capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase	4G1,5mm <sup>2</sup>
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%, float switch as optional
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+ 40°C
pH of pumped liquid		5 - 8
Liquid density		1,0 kg/dm <sup>3</sup>
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		331 mm
Free passage		6 mm
Max. number of starting/hour		20
Construction options		

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

# DIMENSIONAL DRAWINGS



0035300 04/2023

Pump model	Dimensions [mm]		
	A	B	C
40FDP-52-1,4M-HH	429	-	-
40FDP-52-1,4M-G-HH	469	250	570
40FDP-52-1,8M-HH	429	-	-
40FDP-52-1,8T-HH	429	-	-
40FDP-52-1,8M-G-HH	469	250	570
40FDP-52-1,8T-G-HH	469	250	570

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
40FDP-52-1,4M-HH	290x245x585	23
40FDP-52-1,4M-G-HH	290x245x585	25
40FDP-52-1,8M-HH	290x245x585	26
40FDP-52-1,8T-HH	255x205x560	22,7
40FDP-52-1,8M-G-HH	290x245x585	28
40FDP-52-1,8T-G-HH	290x245x585	25

## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[μf]		
40FDP-52-1,4M-HH	2,2	1,4	1,9	230	12	1 ~	10	4G2,5	-	25	G1½	22
40FDP-52-1,4M-G-HH	2,2	1,4	1,9	230	12	1 ~	10	4G2,5	•	25	G1½	24
40FDP-52-1,8M-HH	2,7	1,8	2,4	230	14	1 ~	10	4G2,5	-	30	G1½	25
40FDP-52-1,8T-HH	2,4	1,8	2,4	400	4,6	3 ~	10	4G1,5	-	-	G1½	22
40FDP-52-1,8M-G-HH	2,7	1,8	2,4	230	14	1 ~	10	4G2,5	•	30	G1½	27
40FDP-52-1,8T-G-HH	2,4	1,8	2,4	400	4,6	3 ~	10	4G1,5	•	-	G1½	24

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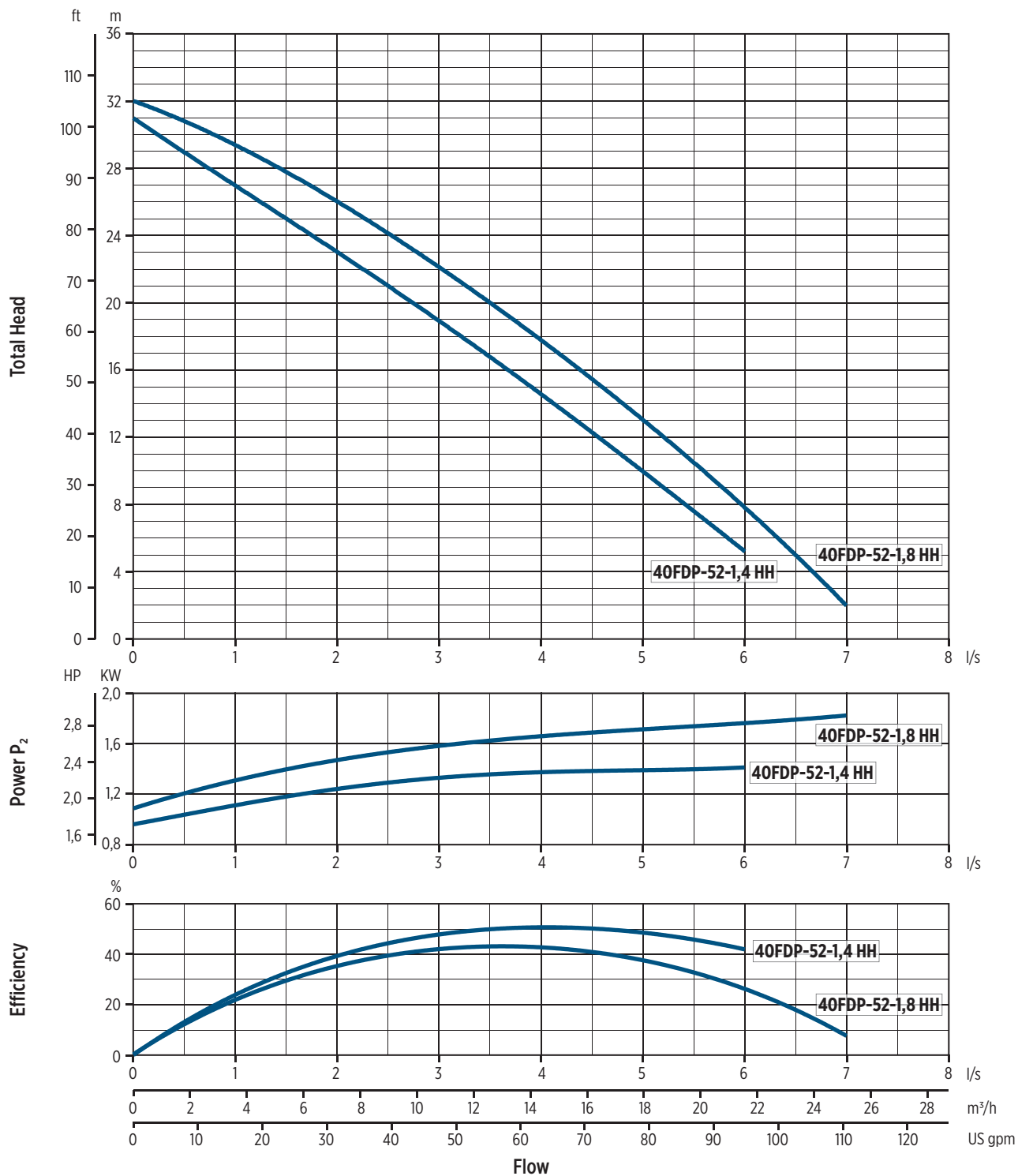
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## HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery							
		l/sec 0	1	2	3	4	5	6	7
		m³/h 0	3,6	7,2	10,8	14,4	18	21,6	25,2
		US gpm 0	15,8	31,7	47,5	63,4	79,2	92,1	110,9
		H = Total meters head of water column [m]							
40FDP-52-1,4 HH	1 ~	31	27	23	19	14,5	10	5,2	
40FDP-52-1,8 HH	1 ~	32	29,5	26	22	18	13	7,8	2
40FDP-52-1,8 HH	3 ~	32	29,5	26	22	18	13	7,8	2



## PERFORMANCE CURVES AT 50 HZ



002010 04/2023

## 70/80FDP SERIES 50 HZ

### FEATURES & BENEFITS

#### APPLICATIONS



Drainage and dewatering



Rainwater Recovery



Construction site  
drainage and  
dewatering



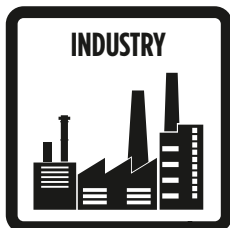
Mining, Quarrying  
drainage and  
dewatering



Emergency flood water  
drainage

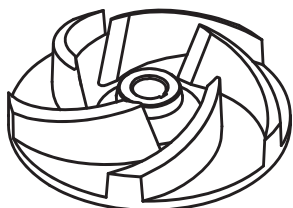


#### MARKETS



### SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps suitable for draining clear and turbid water. Suitable for use on construction sites and for pumping liquids, including abrasive ones. Due to their handling they can be easily transported.



0030305 04/2023

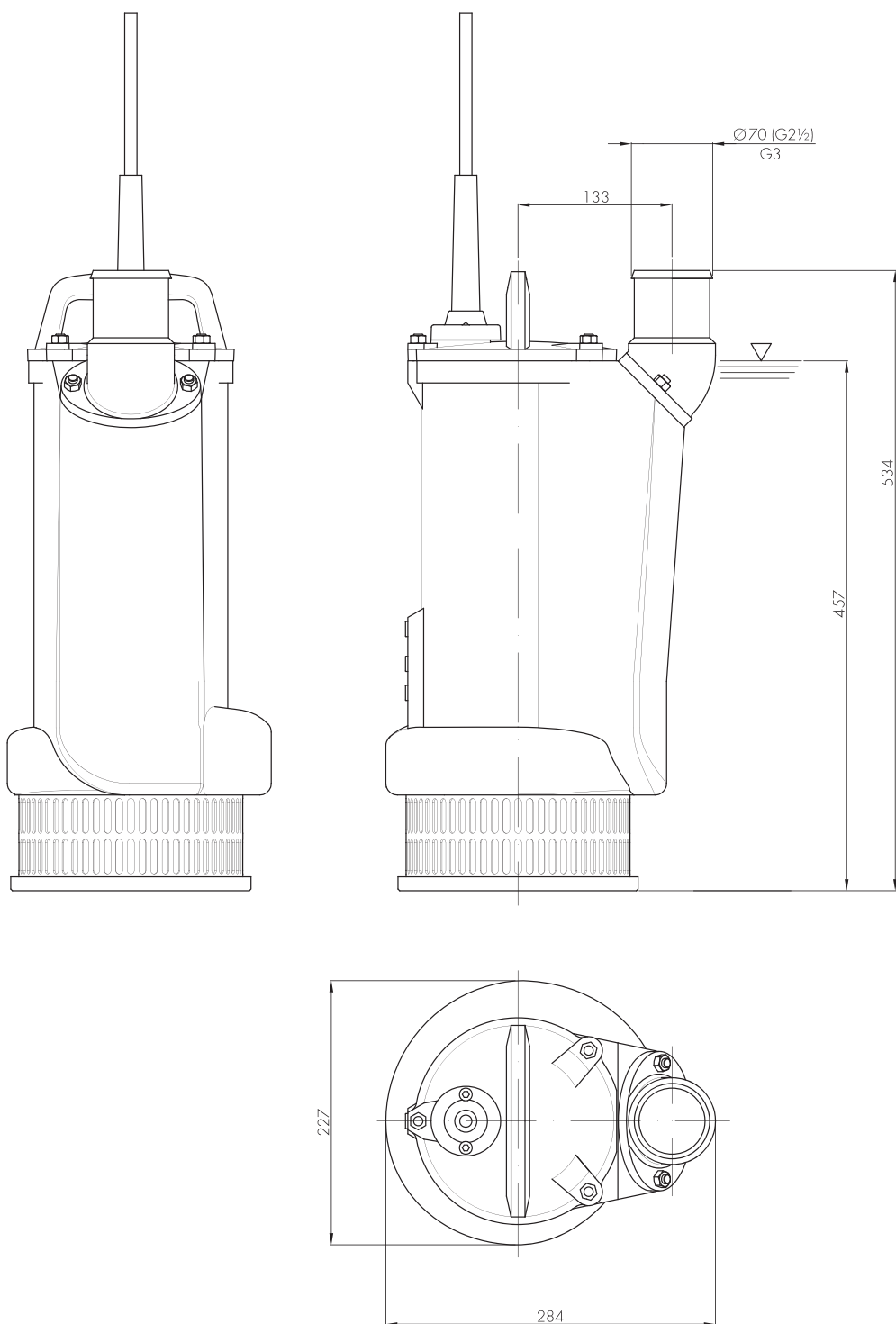
**OPEN IMPELLER**

## GENERAL FEATURES

Materials/Constr.design		
Open impeller		Martensitic stainless steel
External casing		Aluminium alloy
Pump body		Aluminium alloy
Cover		Aluminium alloy
Filter		Stainless steel AISI304
Wear plate		Aluminium alloy with rubber coating
Mechanical seal	motor side	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI420
Power cable	Type	10 m H07RN-F type
	Single-phase 70FDP-52-2,2M	4G2,5mm <sup>2</sup> , capacitor box and SCHUKO plug (CEE 7/VII)
	Three-phase 80FDP-52-4,1T	4G2,5mm <sup>2</sup>
	Three-phase	4G1,5mm <sup>2</sup>
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	Single-phase	230 V ±6%
	Three-phase	230V ±10%, 400V ±10%
Limits of use		
Maximum liquid temperature		+ 40°C
pH of pumped liquid		5 - 8
Liquid density		1,1 kg/dm <sup>3</sup>
Maximum immersion depth:		5 m
Min. immersion depth for continuous service		457 mm
Free passage		6 mm
Max. number of starting/hour		20
Construction options		

- 60 Hz version
- Different voltages
- With coating in composite material for wear protection (possible variations of the hydraulic performance)

## DIMENSIONAL DRAWINGS



0013030104/2023

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
70FDP-52-2,2	300x260x585	34
70FDP-52-3,5	290x245x585	32
80FDP-52-4,1	300x260x585	36

## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[μf]		
70FDP-52-2,2M	3	2,2	3	230	14	1 ~	10	4G2,5	-	50	Ø70	33
70FDP-52-2,2T	3	2,2	3	400	5,2	3 ~	10	4G1,5	-	-	Ø70	30
70FDP-52-3,5T	4,7	3,5	4,7	400	8	3 ~	10	4G1,5	-	-	Ø70	31
80FDP-52-4,1T	6,2	4,1	5,5	400	9,9	3 ~	10	4G2,5	-	-	G3	35

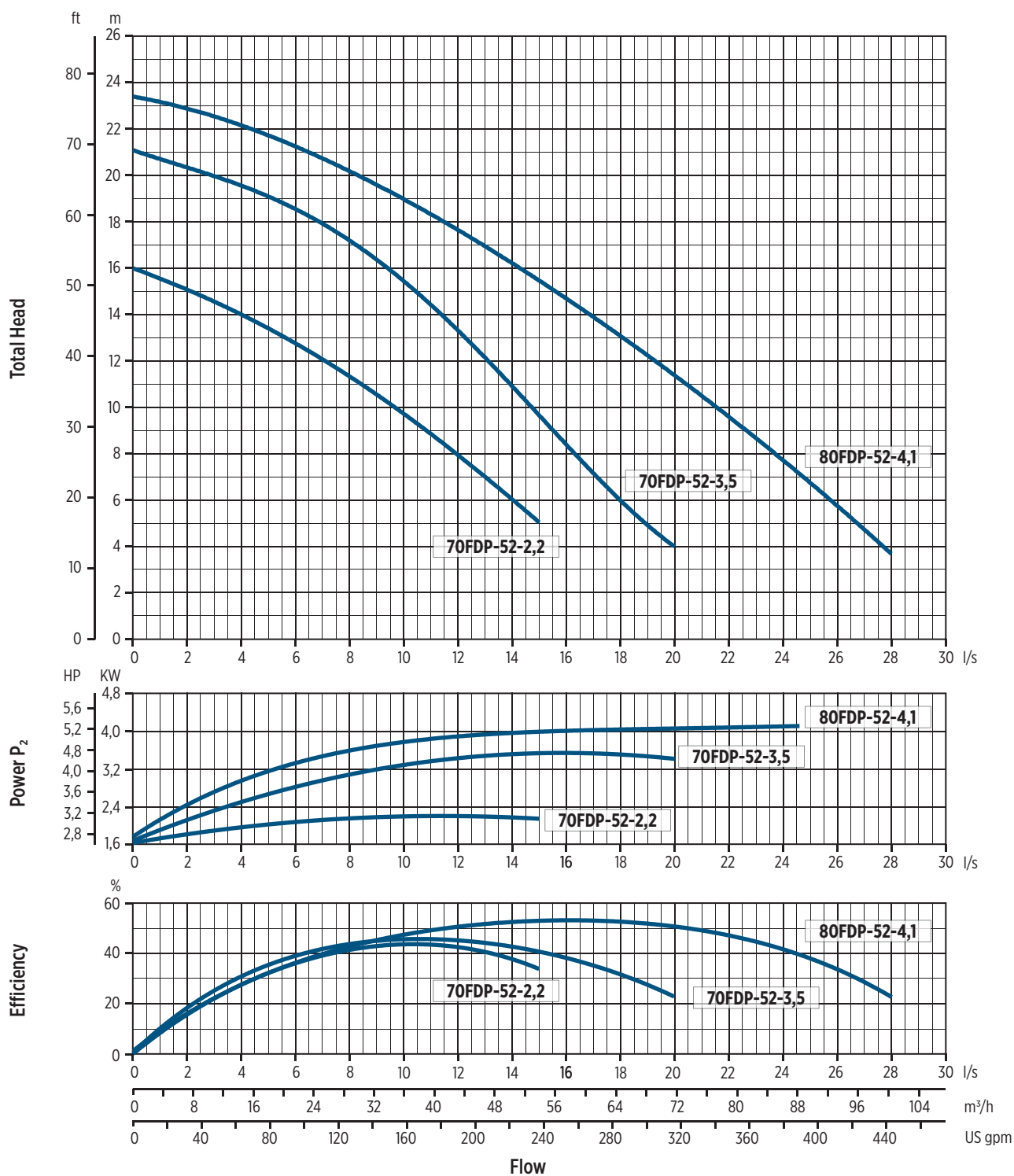
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## HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery										
		l/sec 0	2	4	6	8	10	12	15	20	25	28
		m³/h 0	7,2	14,4	21,6	28,8	36	43,2	54	72	90	100,8
		US gpm 0	31,7	63,4	92,1	126,8	158,5	190,2	237,7	317	396,2	443,8
		H = Total meters head of water column [m]										
70FDP-52-2,2	1 ~	16	15	14	12,8	11,3	9,6	8	5			
70FDP-52-2,2	3 ~	16	15	14	12,8	11,3	9,6	8	5			
70FDP-52-3,5	3 ~	21	20,5	19,5	18,5	17	15,5	13,5	9,5	4		
80FDP-52-4,1	3 ~	23,3	22,9	22,5	21	20,5	18,5	17,5	15,8	11,5	6,5	3,8

## PERFORMANCE CURVES AT 50 HZ



# 100FDP SERIES 50 HZ

## FEATURES & BENEFITS

### APPLICATIONS



Drainage and dewatering



Rainwater Recovery



Construction site  
drainage and  
dewatering



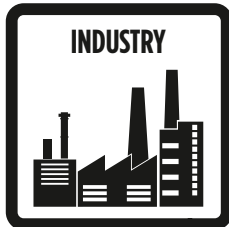
Mining, Quarrying  
drainage and  
dewatering



Emergency flood water  
drainage

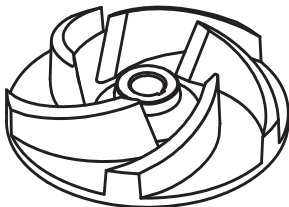


### MARKETS



### SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps suitable for draining clear and turbid water. Suitable for use on construction sites and for pumping liquids, including abrasive ones.



0030305 04/2023

OPEN IMPELLER

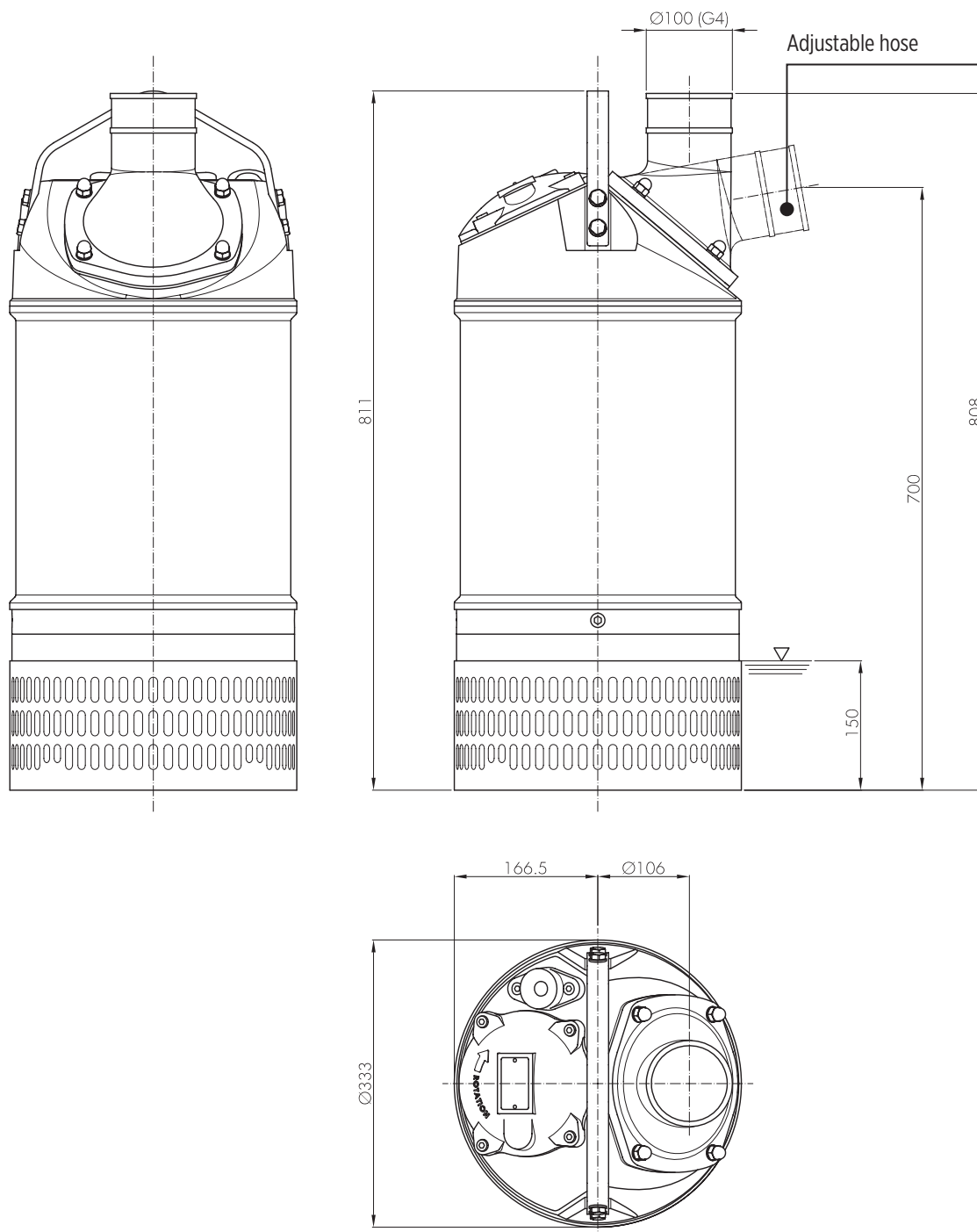


## GENERAL FEATURES

Materials/Constr.design		
Open impeller		High chrome cast iron
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL 200 with rubber coating
Cover		Cast iron EN GJL250
Filter		Stainless steel AISI304
Wear plate		Cast iron EN GJL 250 with rubber coating
Mechanical seal	motor side	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI431
Power cable	Type	20 m SIRN8-F type
	Three-phase 100FDP-52-5,5T, 100FDP-52-6,5T	4G2,5+3x1mm <sup>2</sup>
	Three-phase 100FDP-52-8,1T	4G4+3x1mm <sup>2</sup>
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	Three-phase	400V ±10%
Limits of use		
Maximum liquid temperature		+ 40°C
pH of pumped liquid		6 - 10
Liquid density		1,1 kg/dm <sup>3</sup>
Maximum immersion depth:		15 m
Min. immersion depth for continuous service		150 mm
Free passage		10 mm
Max. number of starting/hour		15
Construction options		

- 60 Hz version
- Different voltages
- Inner control of the thermal probes in the winding, control sequence and lack of phase (on request)

## DIMENSIONAL DRAWINGS



00150302 04/2023

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
100FDP-52-5,5T-LH	475x370x985	128
100FDP-52-5,5T-HH	475x370x985	128
100FDP-52-6,5T-LH	475x370x985	133
100FDP-52-6,5T-HH	475x370x985	133
100FDP-52-8,1T-LH	475x370x985	138
100FDP-52-8,1T-HH	475x370x985	138

## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[µf]		
100FDP-52-5,5T-LH	6	5,5	7,5	400	11	3 ~	20	4G2,5+3x1	-	-	Ø100	125
100FDP-52-5,5T-HH	6	5,5	7,5	400	11	3 ~	20	4G2,5+3x1	-	-	Ø100	125
100FDP-52-6,5T-LH	7,2	6,5	8,8	400	13	3 ~	20	4G2,5+3x1	-	-	Ø100	130
100FDP-52-6,5T-HH	7,2	6,5	8,8	400	13	3 ~	20	4G2,5+3x1	-	-	Ø100	130
100FDP-52-8,1T-LH	9	8,1	11	400	16	3 ~	20	4G4+3x1	-	-	Ø100	135
100FDP-52-8,1T-HH	9	8,1	11	400	15	3 ~	20	4G4+3x1	-	-	Ø100	135

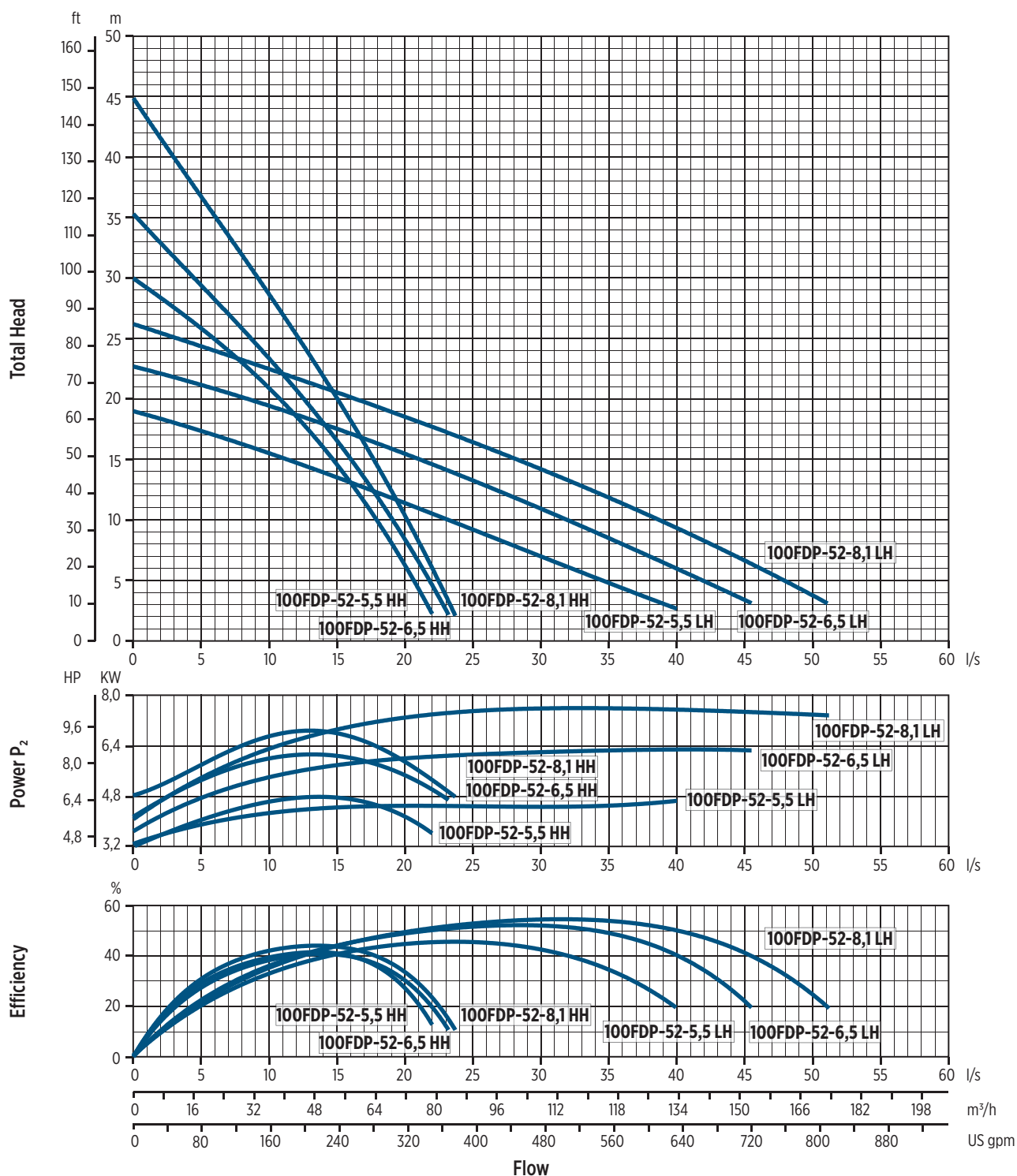
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## HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery											
		l/sec 0	2,5	5	10	15	20	25	30	35	40	45	50
		m³/h 0	9	18	36	54	72	90	100,8	108	144	162	180
		US gpm 0	39,6	79,2	158,5	237,7	317	396,2	443,8	475,5	634	713,3	792,5
		H = Total meters head of water column [m]											
100FDP-52-5,5 LH	3 ~	18,9		17,5	15,7	13,4	11,3	9,1	7	5,1	2,5		
100FDP-52-5,5 HH	3 ~	30	27,9	26	20,8	14,6	6,3						
100FDP-52-6,5 LH	3 ~	22,4	0	21,4	20	17,6	15,1	12,7	10,9	8,8	6,6	3	
100FDP-52-6,5 HH	3 ~	35,3	32,3	29,5	23,2	16,7	8,3						
100FDP-52-8,1 LH	3 ~	25,9		24,6	22,9	20,7	18,3	15,9	14,1	12,1	9,7	6,8	3
100FDP-52-8,1 HH	3 ~	45	40,7	36,6	28,8	20,2	10,1						

## PERFORMANCE CURVES AT 50 HZ



002012\_04/2023

# 100/150 FDP-LH/HH SERIES 50 HZ

## FEATURES & BENEFITS

### APPLICATIONS



Drainage and dewatering



Rainwater Recovery



Construction site  
drainage and  
dewatering



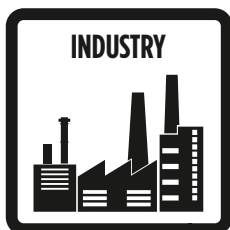
Mining, Quarrying  
drainage and  
dewatering



Emergency flood water  
drainage

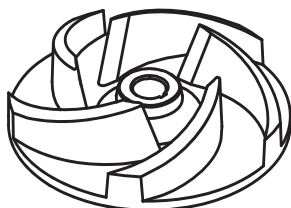


### MARKETS



## SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps suitable for draining clear and turbid water. Suitable for use on construction sites and for pumping liquids, including abrasive ones.



003205 04/2023

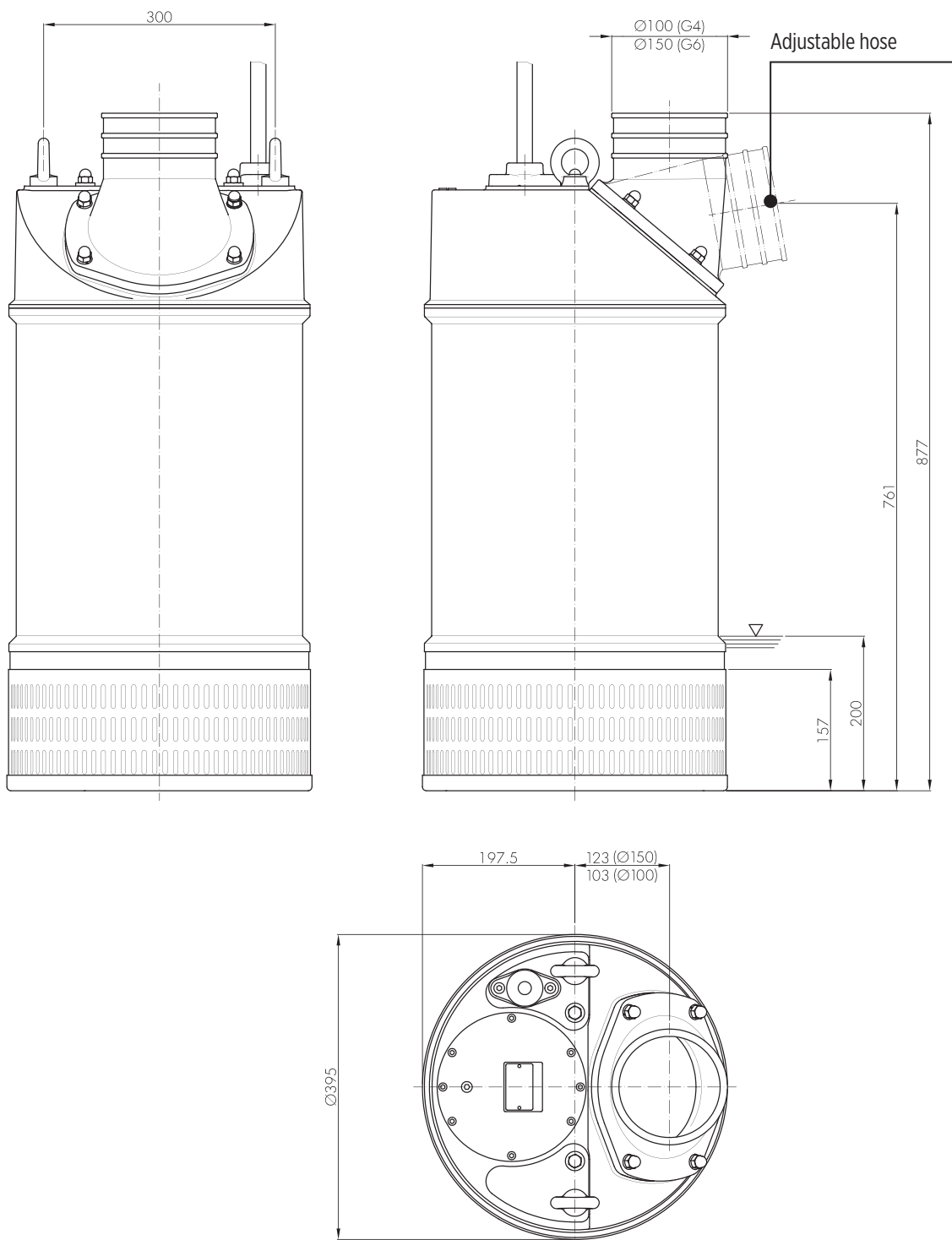
**OPEN IMPELLER**

## GENERAL FEATURES

Materials/Constr.design		
Open impeller		High chrome cast iron
External casing		Stainless steel AISI304
Pump body		Cast iron EN GJL 200 with rubber coating
Cover		Cast iron EN GJL250
Filter		Stainless steel AISI304
Wear plate		Cast iron EN GJL 250 with rubber coating
Mechanical seal	motor side	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI431
Power cable		20 m 7G4+2x1,5mm <sup>2</sup> , 07RN-F type
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	Three-phase	400V ±10%
Limits of use		
Maximum liquid temperature		+ 40°C
pH of pumped liquid		6 - 10
Liquid density		1,1 kg/dm <sup>3</sup>
Maximum immersion depth:		15 m
Min. immersion depth for continuous service		200 mm
Free passage		6 mm
Max. number of starting/hour		10
Construction options		

- 60 Hz version
- Different voltages
- Inner control of the thermal probes in the winding, control sequence and lack of phase (on request)

## DIMENSIONAL DRAWINGS



00130303 04/2023

Packaging		
Pump model	Dimensions [mm]	Weight [kg]
150FDP-52-11T-LH	620x420x1030	196
100FDP-52-11T-HH	620x420x1030	196
150FDP-52-15T-LH	620x420x1030	208
100FDP-52-15T-HH	620x420x1030	208

## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[μf]		
150FDP-52-11T-LH	13	11	14,9	400	22	3 ~	20	7G4+2x1,5	-	-	Ø150	192
100FDP-52-11T-HH	13	11	14,9	400	22	3 ~	20	7G4+2x1,5	-	-	Ø100	192
150FDP-52-15T-LH	17	15	20,4	400	28	3 ~	20	7G4+2x1,5	-	-	Ø150	204
100FDP-52-15T-HH	17	15	20,4	400	28	3 ~	20	7G4+2x1,5	-	-	Ø100	204

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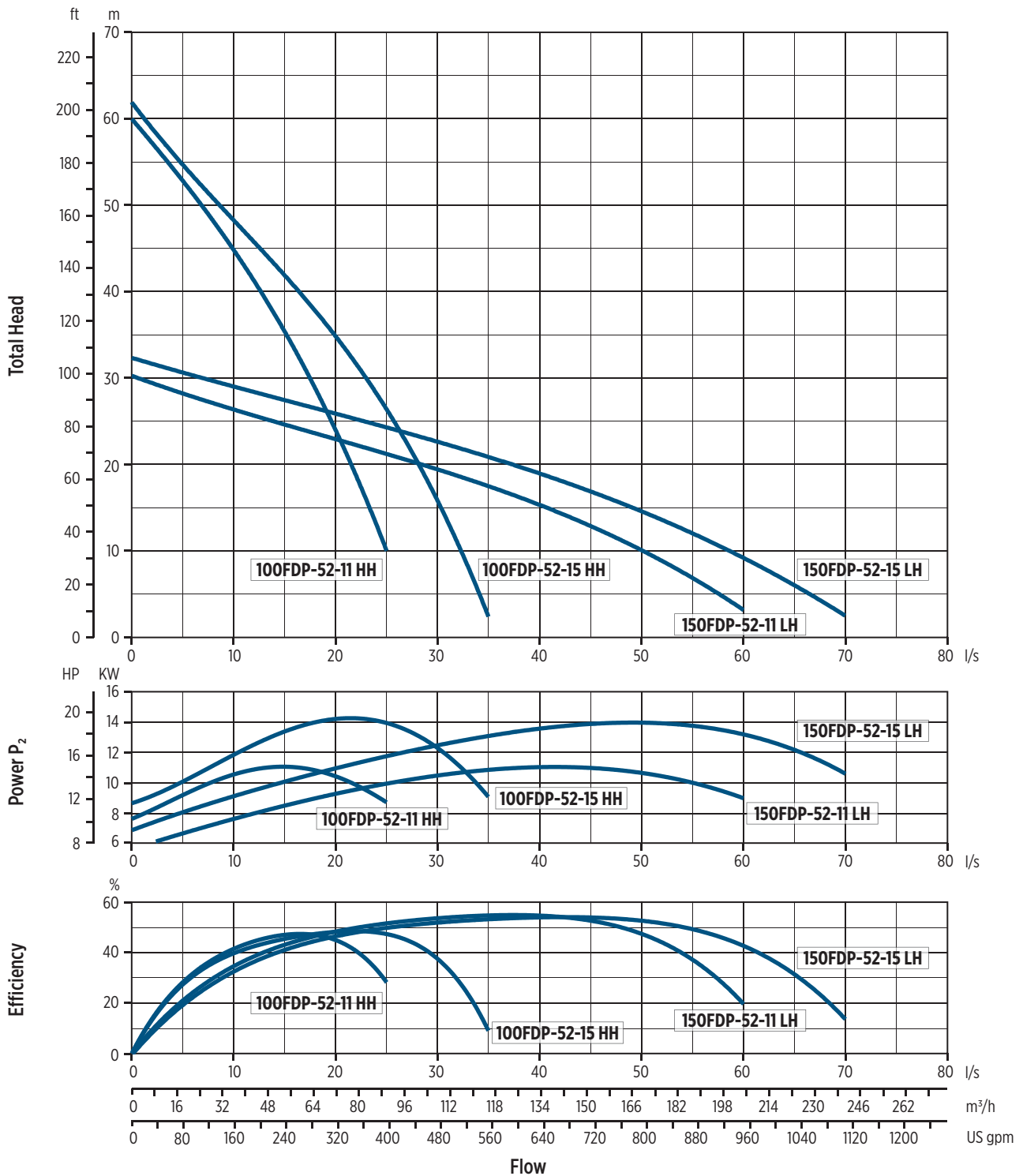
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## HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery														
		l/sec 0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
		m³/h 0	18	36	54	72	90	100,8	108	144	162	180	198	216	234	252
		US gpm 0	79,2	158,5	237,7	317	396,2	443,8	475,5	634	713,3	792,5	871,8	951	1.030,3	1.109,5
		H = Total meters head of water column [m]														
150FDP-52-11 LH	3 -	30	28,3	26,8	24,8	22,8	21	19,3	17,2	15,3	13	10,7	6,7	3		
100FDP-52-11 HH	3 -	60	52,8	44,9	35,3	24	10									
150FDP-52-15 LH	3 -	32	30,6	29,3	27,8	26,4	24,3	22,3	20,3	18,5	16,6	14,8	12,4	10,1	6	2
100FDP-52-15 HH	3 -	62	54,6	48,4	42	35,1	25,8	16,4	2,3							



PERFORMANCE CURVES AT 50 HZ



# 150FDP SERIES 50 HZ

## FEATURES & BENEFITS

### APPLICATIONS



Drainage and dewatering



Rainwater Recovery



Construction site drainage and dewatering



Mining, Quarrying drainage and dewatering



Emergency flood water drainage

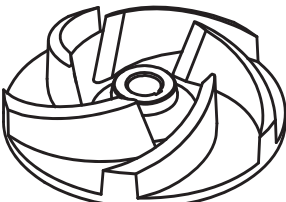


### MARKETS



## SUBMERSIBLE PUMPS FOR CLEAR AND TURBID WATER DRAINAGE

Submersible electric pumps suitable for draining clear and turbid water. Suitable for use on construction sites and for pumping liquids, including abrasive ones.



0030305 04/2023

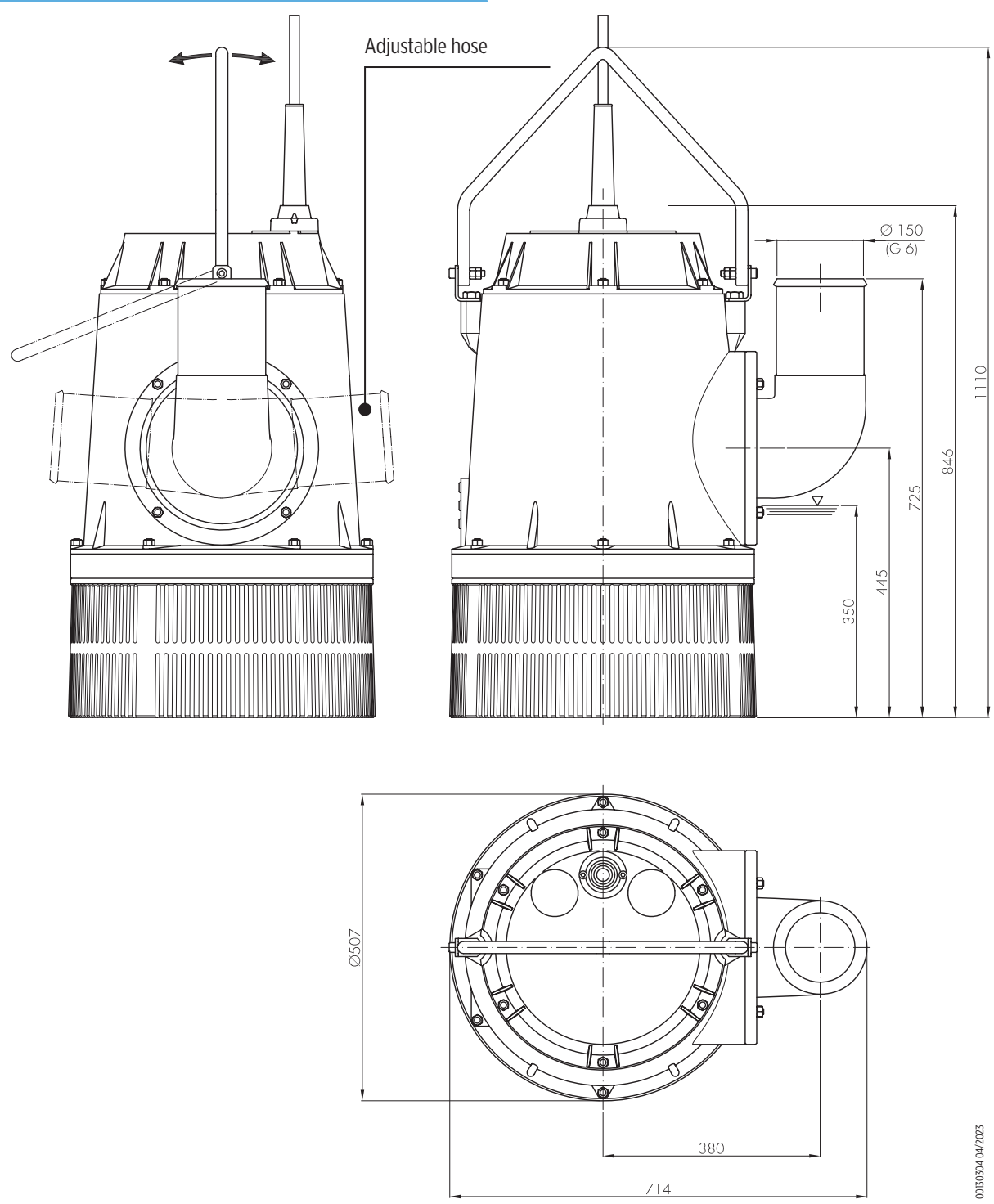
OPEN IMPELLER

## GENERAL FEATURES

Materials/Constr.design		
Open impeller		Stainless steel AISI304
External casing		Aluminium alloy
Pump body		Aluminium alloy with rubber coating
Cover		Aluminium alloy
Filter		Aluminium alloy
Wear plate		Stainless steel AISI304 with rubber coating
Mechanical seal	motor side	Graphite/Alumina
	pump side	Silicon carbide (SiC/SiC)
Motor shaft		Stainless steel AISI431
Power cable		20 m 7G4+2x1,5mm <sup>2</sup> , 07RN-F type
Motor		
Constr.design		asynchronous squirrel cage-type in dry chamber
Type		2 poles; 50 Hz
Insulation class		F
Protection degree		IP68
Voltage	Three-phase	400V ±10%
Limits of use		
Maximum liquid temperature		+ 40°C
pH of pumped liquid		5 - 8
Liquid density		1,1 kg/dm <sup>3</sup>
Maximum immersion depth:		15 m
Min. immersion depth for continuous service		350 mm
Free passage		7 mm
Max. number of starting/hour		10
Construction options		

- 60 Hz version
- Different voltages

DIMENSIONAL DRAWINGS



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Packaging		
Pump model	Dimensions [mm]	Weight [kg]
150FDP-52-22T	650x800x1200	233



## TECHNICAL DATA

Pump model	Motor absorbed power P <sub>1</sub>	Rated power P <sub>2</sub>		Voltage	Rated current	Phase	Power cable		Float switch	Running capacitor	Delivery port	Weight [kg]
	[kW]	[kW]	[HP]	[V]	[A]		length [m]	Type		[μf]		
150FDP-52-22T	28	22	30	400	46	3 ~	20	7G4+2x1,5	-	-	Ø150	183

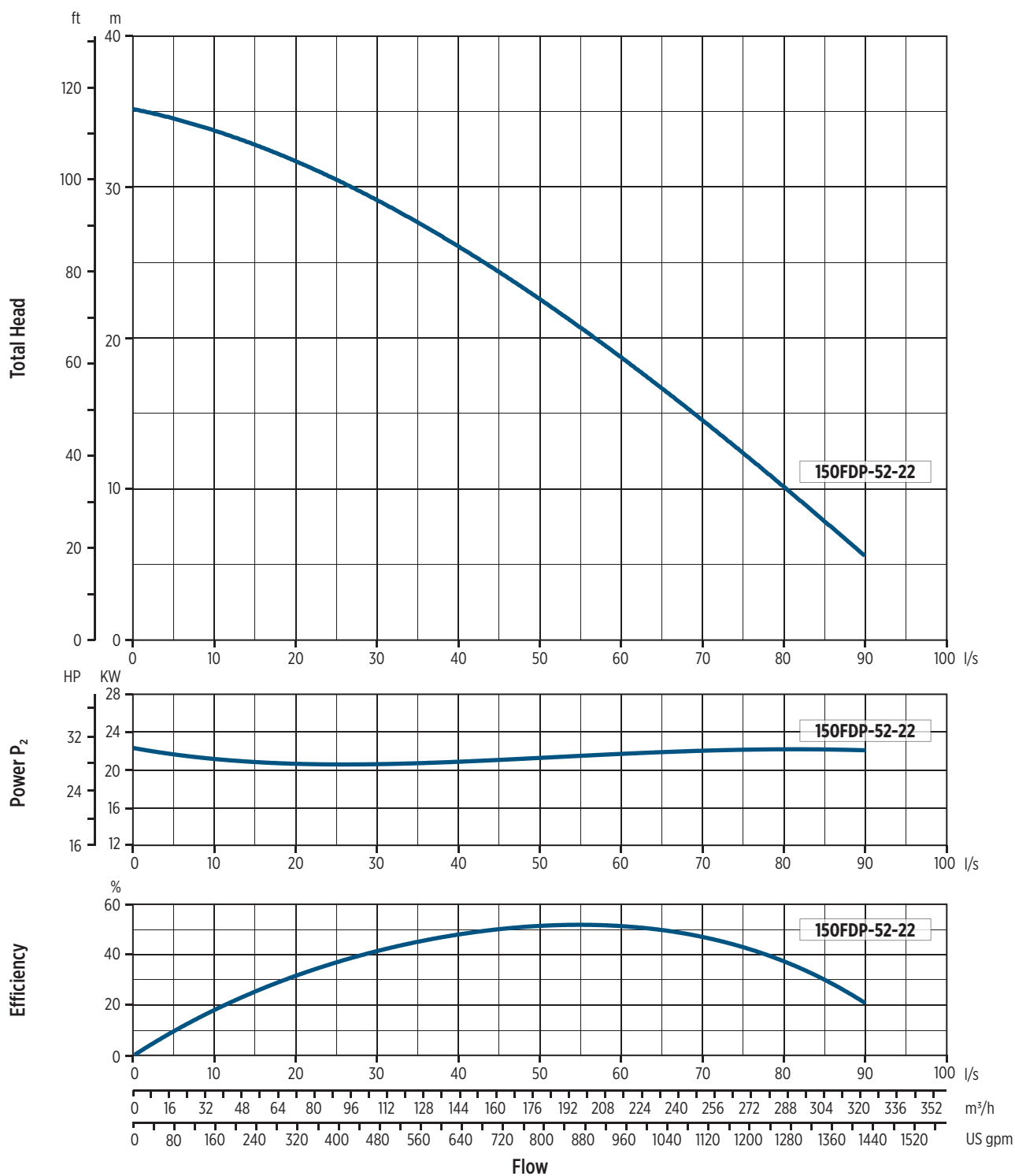
“-” = not available

• = available

## HYDRAULIC PERFORMANCE AT 50 HZ

Pump model	Phase	Q = Delivery											
		l/sec 0	20	25	30	35	40	45	50	60	70	80	90
		m³/h 0	72	90	100,8	108	144	162	180	216	252	288	324
		US gpm 0	317	396,2	443,8	475,5	634	713,3	792,5	951	1.109,5	1.268	1.426,5
		H = Total meters head of water column [m]											
150FDP-52-22	3 -	35	32	31	29	28	26	24	22	18,5	15	11	5

## PERFORMANCE CURVES AT 50 HZ



002014-04/2023

## CATALOG REVISION CHANGE NOTICE

Rev. No.	Changes	Page
01	150FDP Performance curves graphic scale correction	48
01	40FDR and 50FDR General Features motor voltage single-phase correction	6, 12
02	70/80 FDP serie General Features table correction	30





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