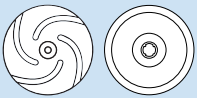




DRAINAGE AND SEWAGE

DRAINAGE AND SEWAGE PUMPS

Plastic



SP

SPV

SPM



High Head



FC

DR



Single/Double-channel



FM

FM4

DB



Grinder



FTR

FTR 101



Vortex



DC

DS

FV

FV4



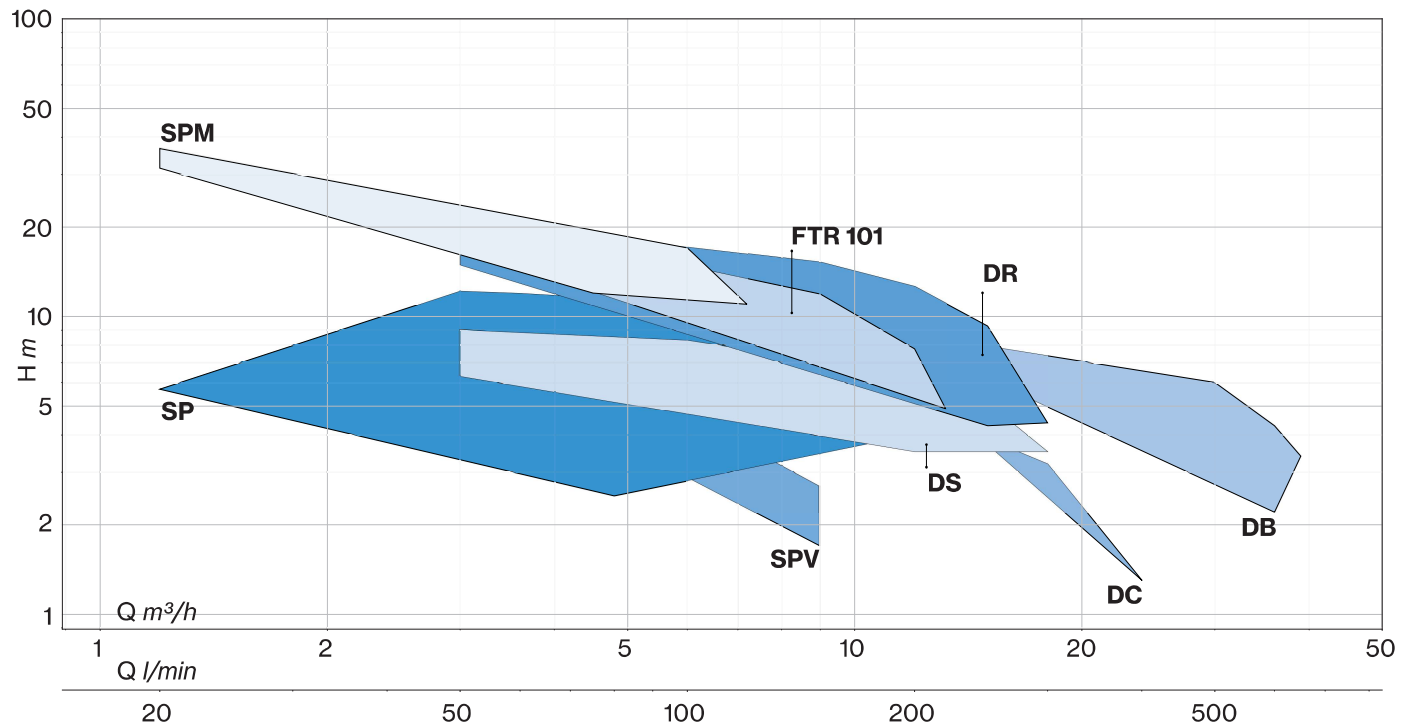
Different models available in relation to performance requirements: centrifugal, Vortex, single or double channels pumps suitable for clean water, sewage and slurry. Impeller with grinding system available.

Applications:

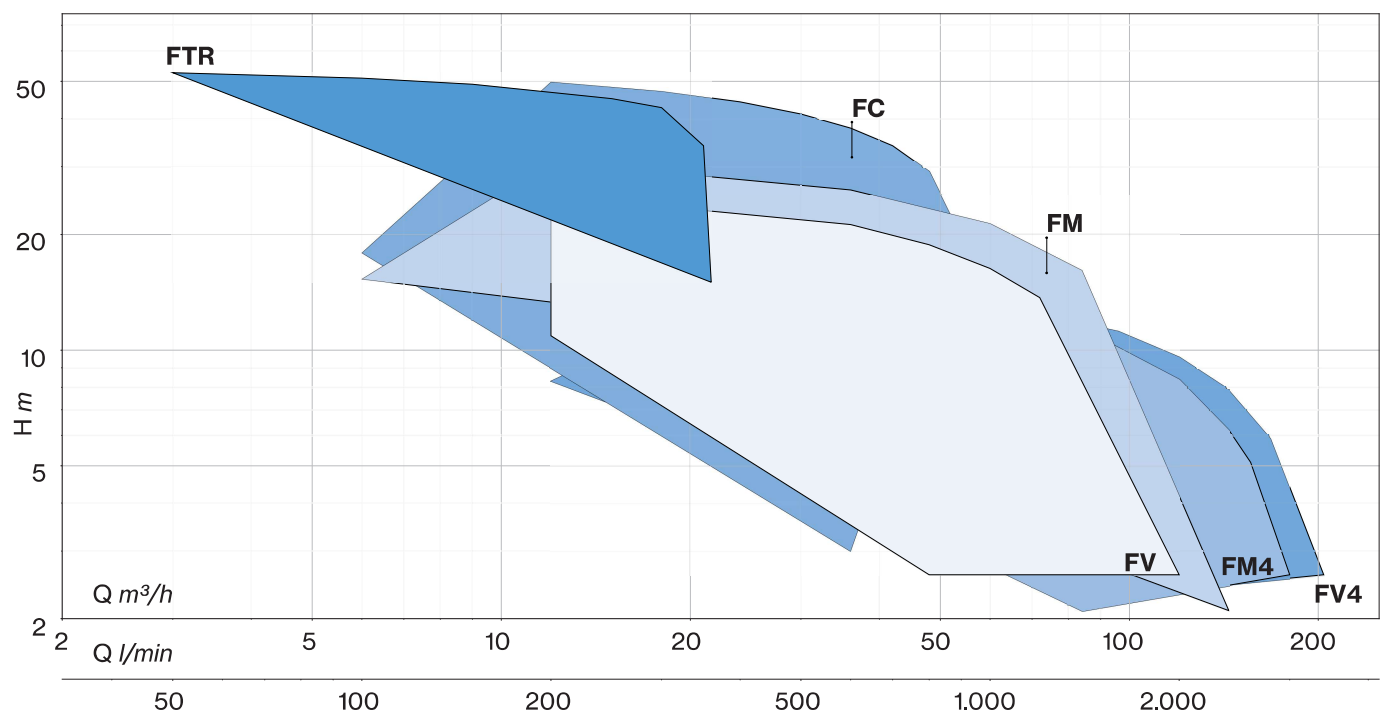
- Emptying of cisterns
- Fountains
- Swimming pools
- Draining of liquids from collection tanks and sumps

DRAINAGE AND SEWAGE PUMPS

Drainage



Sewage



SP/SPV

Drainage
Plastic



Drainage pumps for emptying pits and cisterns, for gardening; completely constructed in anticorrosive material. Brass insert on the delivery opening (SP 80/100 - SPV 80/100). The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch.



SP 40

SP 80

SPV 80



SP 60

SP 100

SPV 100



White water

Construction features

Pump body polypropylene



Impeller Noryl®

Mechanical seal double lip seal on ceramic bush

Motor shaft stainless steel AISI 416 with ceramic bush

Free passage
Ø max 4 mm (SP 40/60)
Ø max 7 mm (SP 80/100)
Ø max 15 mm (SPV 80/100)

Max submergence 5 m

Liquid temperature 0 - 40 °C

Cable
H05 RN8F, 10 m (SP 40/60)
H07 RN8F, 10 m (SP 80/100, SPV 80/100)

G float switch

Motor

3~ 400V - 50Hz
(SPV 80/100)

2 Poles induction motor

1~ 230V - 50Hz
(with thermal protection)

Insulation class F

Protection degree IPX8

SPV 80 G

T 3-

1- without float switch

G

1- with float switch

— pump type

LOTS				
TYPE	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
SP 40-60	80×120×175	135	80×120×205	162
SP 80-100	80×120×145	57	80×120×190	76
SPV 80-100	80×120×145	57	80×120×190	76

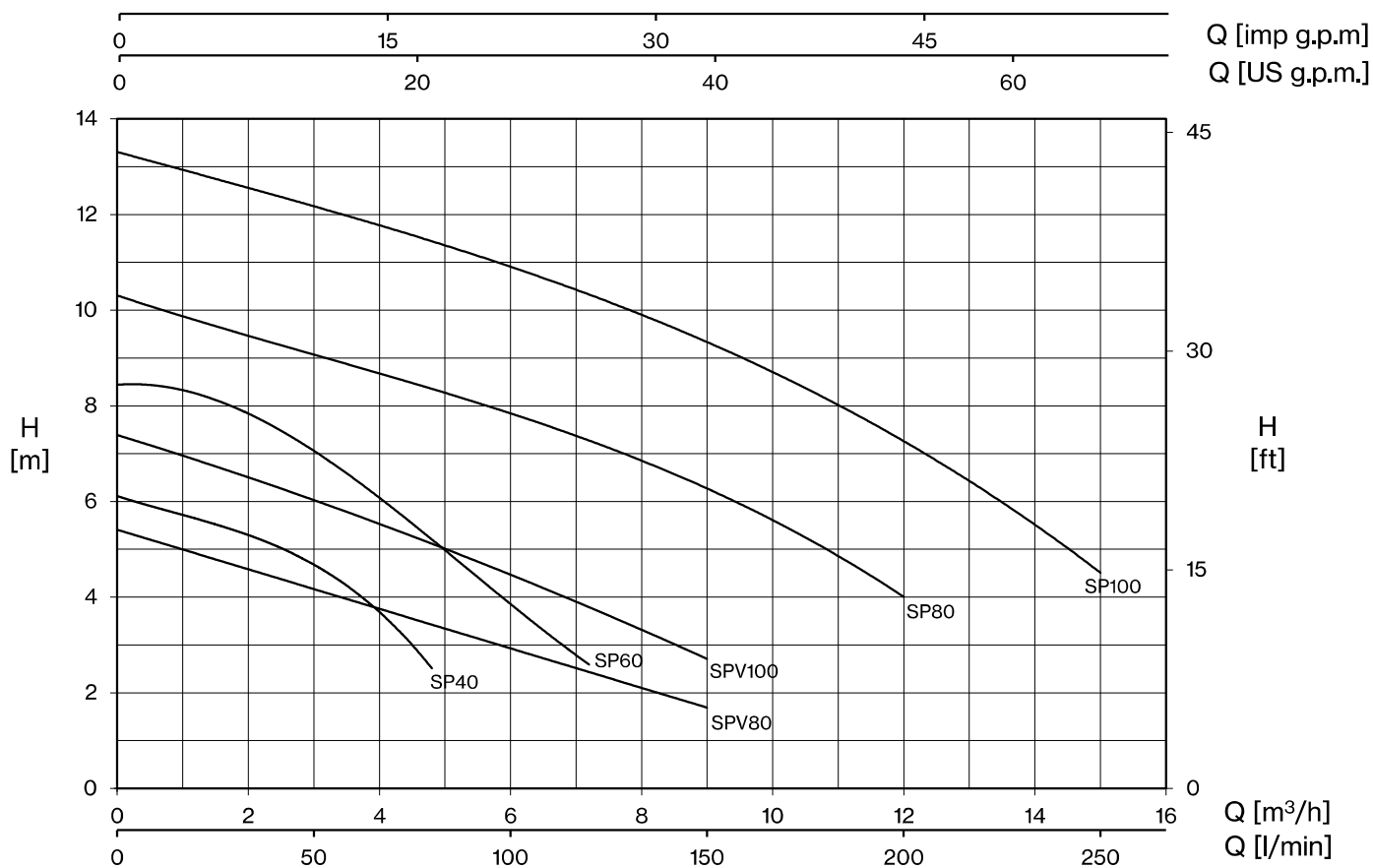


SP



SPV

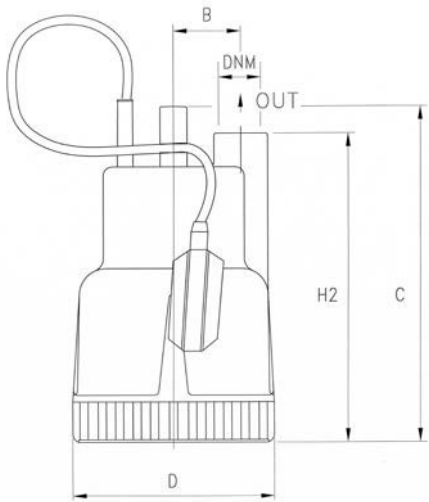
SP/SPV



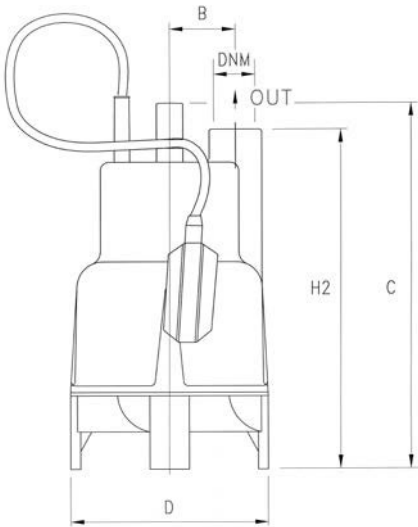
TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)										
1~	3~		1~ 230V	3~ 400V	0	1,2	2,4	3	3,6	4,8	6	7,2	9	12	15
					0	20	40	50	60	80	100	120	150	200	250
		kW	A		H (m)										
SP 40 (G)	-	0,2	1	-	6,1	5,7	5,0	4,7	4,2	2,5					
SP 60 (G)	-	0,4	2,1	-	8,5	8,1	7,6	7,2	6,7	5,0	3,9	2,6			
SP 80 (G)	SP 80T	0,8	3,7	1,8	10,3			9,1	8,8	8,3	7,8	7,3	6,3	4,0	
SP 100 (G)	SP 100T	1.05	5.1	2.3	13.3			12.2	12.0	11.5	10.9	10.3	9.3	7.3	4.5

TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)			
1~	3~		1~ 230V	3~ 400V	0	3	6	9
					0	50	100	150
			kW	A		H (m)		
SPV 80 (G)	SPV 80T	0,5	2,6	1,2	5,4	4,2	2,9	1,7
SPV 100 (G)	SPV 100T	0,75	3,8	1,7	7,4	5,8	4,7	2,7

SP/SPV



TYPE		DIMENSIONS (mm)								
1~	3~	B	C	D	H2	DNM	I	L	M	
SP 40 (G)	-	50	250	150	230	1" G	170	200	320	5
SP 60 (G)	-	50	250	150	230	1" G	170	200	320	6,5
SP 80 (G)	SP 80T	55,5	296	176	276	1" ¼ G	185	230	310	8,5
SP 100 (G)	SP 100T	55,5	296	176	276	1" ¼ G	185	230	310	10



TYPE		DIMENSIONS (mm)								
1~	3~	B	C	D	H2	DNM	I	L	M	
SPV 80 (G)	SPV 80T	55,5	331	176	310	1" ¼ G	185	230	345	8,5
SPV 100 (G)	SPV 100T	55,5	331	176	310	1" ¼ G	185	230	345	10



Multistage drainage pumps for clean water made of technopolymer material used for pumping liquid from wells, tanks and reservoirs, pressurization of domestic systems, irrigation of gardens and vegetable gardens. The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch. Suitable to be installed with the Hidrotank flow controller.



White water

Construction features

Pump body technopolymer



Impeller, diffusers Noryl®

Shell, motor cover, base support Noryl®

Mechanical seal double seal with oil barrier; silicon carbide on pump side, sealing ring on motor side

Motor shaft stainless steel AISI 303

Max submergence 5 m

Liquid temperature 0 - 35 °C

Cable H07 RN8F, 10 m

G float switch

Motor

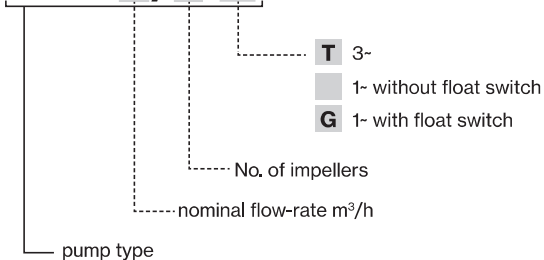
3~ 400V - 50Hz

2 Poles induction motor 1~ 230V - 50Hz
(with thermal protection)

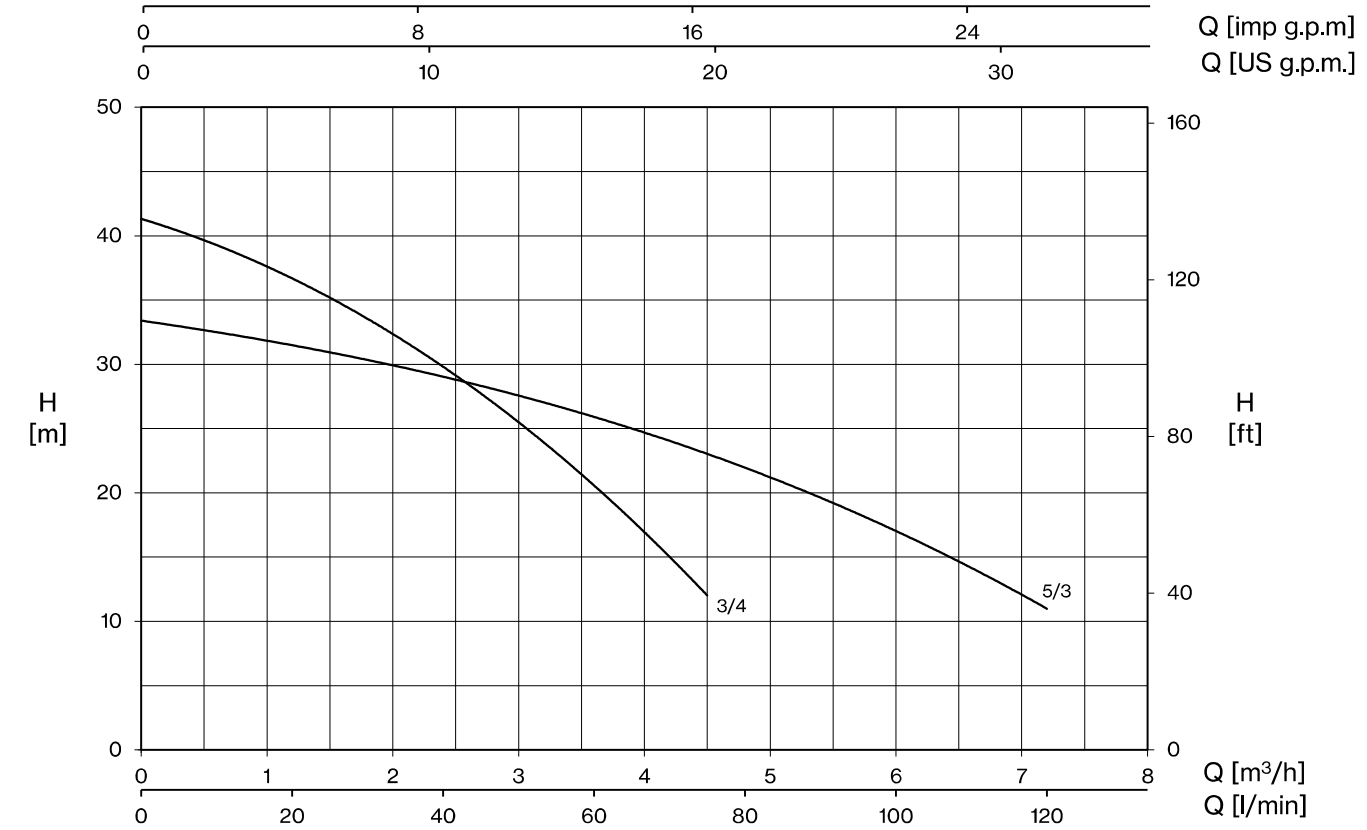
Insulation class F

Protection degree IPX8

SPM 5/3 G

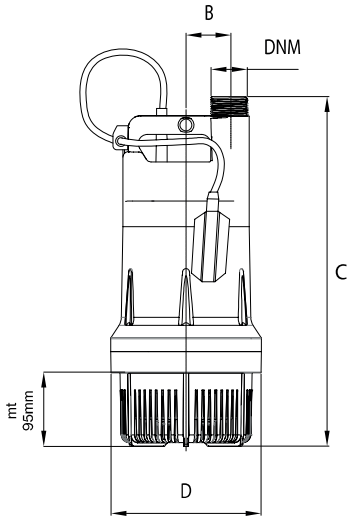


SPM



TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)								
1~	3~		1~ 230V	3~ 400V	0	0,6	1,2	1,8	2,4	3,6	4,5	6	7,2
					0	10	20	30	40	60	75	100	120
			kW	A		H (m)							
SPM 5/3 (G)	SPM 5/3T	0,9	3,9	1,7	33,4	32,5	31,5	30,3	29,0	26,0	23,0	17,0	11,0
SPM 3/4 (G)	SPM 3/4T	0,8	3,4	1,6	41,3	39,3	36,7	33,5	29,8	20,6	12,0		

mt: minimum working level



TYPE		DIMENSIONS (mm)							 Kg
1~	3~	B	C	D	DNM	I	L	M	
SPM 5/3 (G)	SPM 5/3T	56	454	196	1" ½	264	203	482	10
SPM 3/4 (G)	SPM 3/4T	56	454	196	1" ½	264	203	482	10,5



Drainage pumps with open impeller for pumping liquids with suspended solids. Characterized by high head. The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch.



Construction features

Painting cataphoresis

Pump body cast iron

Shell, motor cover, base support stainless steel



Impeller brass

Mechanical seal double seal with oil barrier; silicon carbide on pump side, sealing ring on motor side

Motor shaft stainless steel AISI 430

Free passage Ø max 10 mm

Max submergence 5 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

G float switch

Motor

3~ 400V - 50Hz

2 Poles induction motor 1~ 230V - 50Hz
(with thermal protection)

Insulation class F

Protection degree IPX8

DR 100 G

T 3~
1~ without float switch
G 1~ with float switch

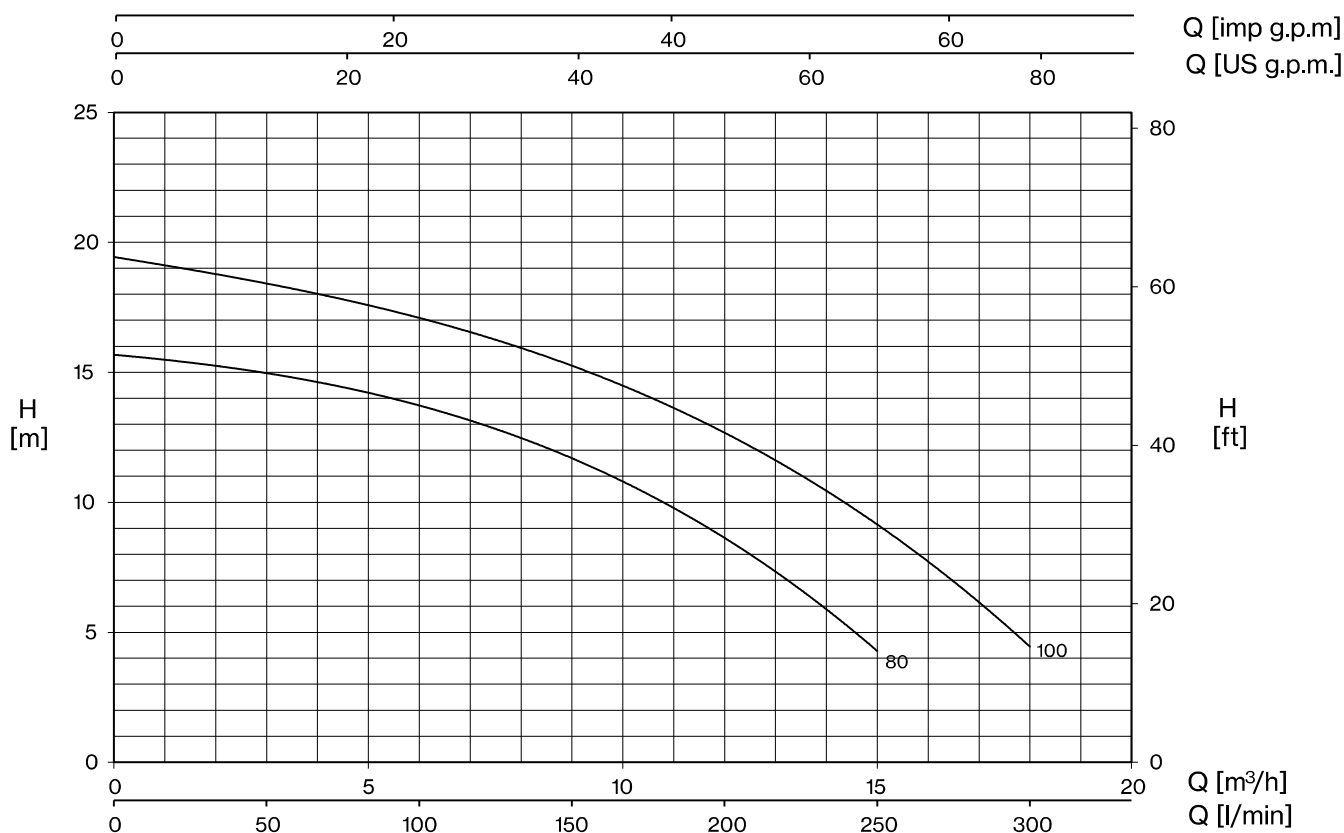
pump type



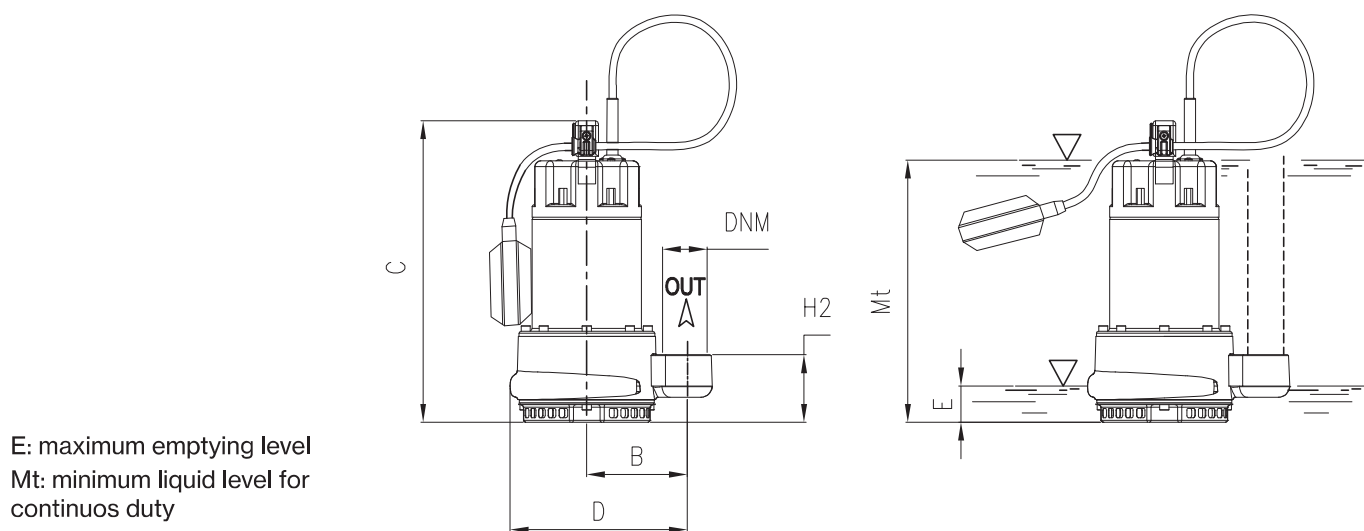
TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
DR	80×120×125	57	80×120×165	76



DR



TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)						
1-	3-		1- 230V	3- 400V	0	3	6	9	12	15	18
					0	50	100	150	200	250	300
			kW	A		H (m)					
DR 80 (G)	DR 80T	0,98	4,3	2,1	15,7	14,9	13,8		8,6	4,3	
DR 100 (G)	DR 100T	1,37	6,2	2,8	19,4	18,5	17,1	15,2	12,6	9,3	4,4



TYPE		DIMENSIONS (mm)										Kg
1~	3~	B	C	D	E	H2	Mt	DNM	I	L	M	
DR 80 (G)	DR 80T	105	330	218,5	45	70	190	1" ½ G	180	255	380	14,5
DR 100 (G)	DR 100T	105	330	218,5	45	70	190	1" ½ G	180	255	380	16

FC 160-310

FC 410-1000 T

FC 410-1000 T/P

Centrifugal drainage high head pumps ideal for civil and industrial applications, specifically designed for very heavy use. Available in the mobile or permanent versions with coupling feet.



Construction features

Painting cataphoresis

Pump body cast iron



Impeller cast iron

Mechanical seal

double seal with oil barrier;
silicon carbide on pump
side, ceramic-graphite on
motor side

Motor shaft stainless steel AISI 304

Free passage Ø max 10 mm

Max submergence 20 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

Bolts A2 stainless steel

Foot support galvanized iron

Gaskets NBR rubber

Motor

3~ 230V - 50Hz

3~ 400V - 50Hz

3~ 230/400V - 50Hz

3~ 400/690V - 50Hz

2 Poles induction motor

1~ 230V-50Hz

required run capacitor (35µF
for 1,5HP model, 50µF for 2HP
model)

Insulation class F

Protection degree IPX8

FC 560 T -CF

counter-flange

not included

CF included

motor 1~ T 3~

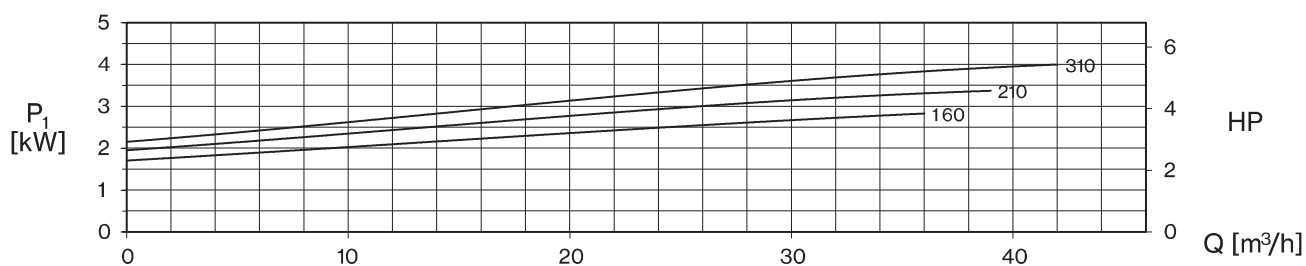
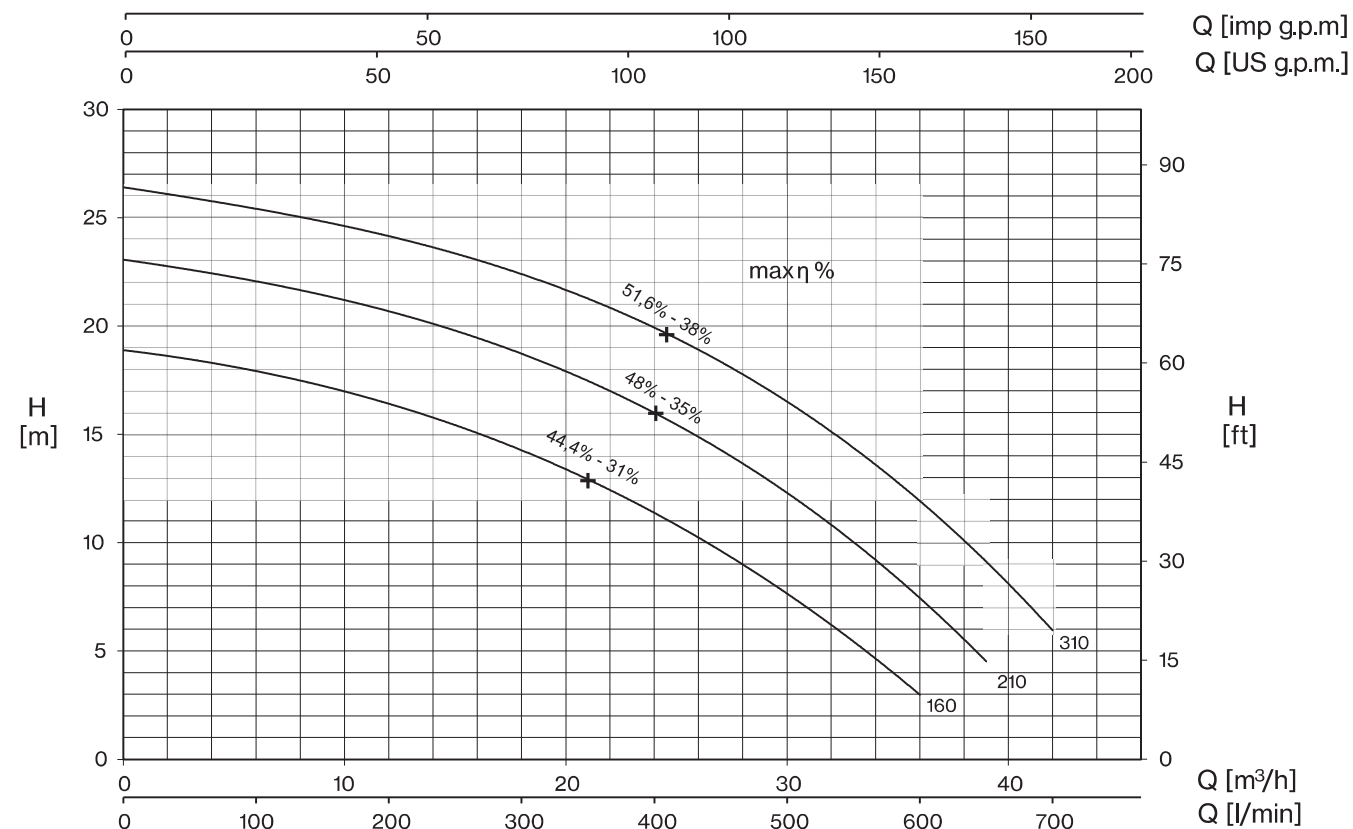
pump type



TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FC 160÷310	85×110×145	18	85×110×190	27
FC 410-560T	85×110×170	12	85×110×170	12
FC 750-1000T	100×120×190	12	100×120×190	12



FC



TYPE - 50 Hz		CURRENT				
1~	3~	1~ 230 V	3~ 230V (*)	3~ 400V	230/400 V λ/Δ (*)	400/690 V λ/Δ
FC 160	FC 160T	13,8	8,3	4,8	-	-
FC 210	FC 210T	16,5	10,2	5,9	-	-
-	FC 310T	-	12,0	6,9	-	-

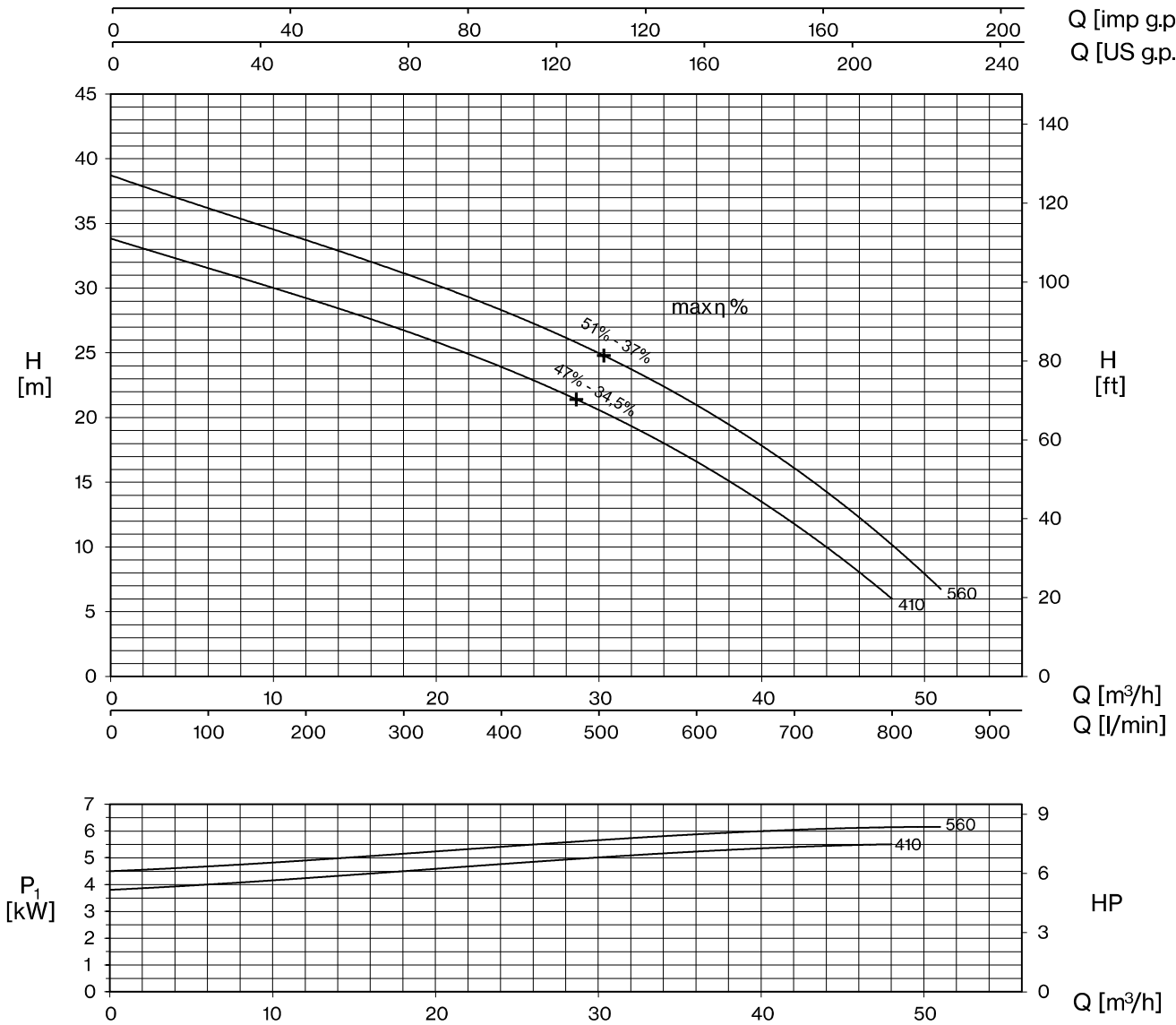
+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

TYPE - 50 Hz		P2		P1		Q (m³/h - l/min)								
1~	3~			1~	3~	0	6	12	18	24	30	36	39	42
						0	100	200	300	400	500	600	650	700
				HP	kW	kW		H (m)						
FC 160	FC 160T	1,5	1,1	3,0	2,8	18,9	17,9	16,4	14,3	11,4	7,6	3,0		
FC 210	FC 210T	2	1,5	3,7	3,4	23,0	22,2	20,7	18,6	15,9	12,5	7,4	4,5	
-	FC 310T	3	2,2	-	4,0	26,4	25,4	24,2	22,4	19,9	16,4	12,1	9,1	5,9

FC



TYPE - 50 Hz	CURRENT			
3~	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FC 410T	15,4	8,9	-	-
FC 560T	17,6	10,2	-	-

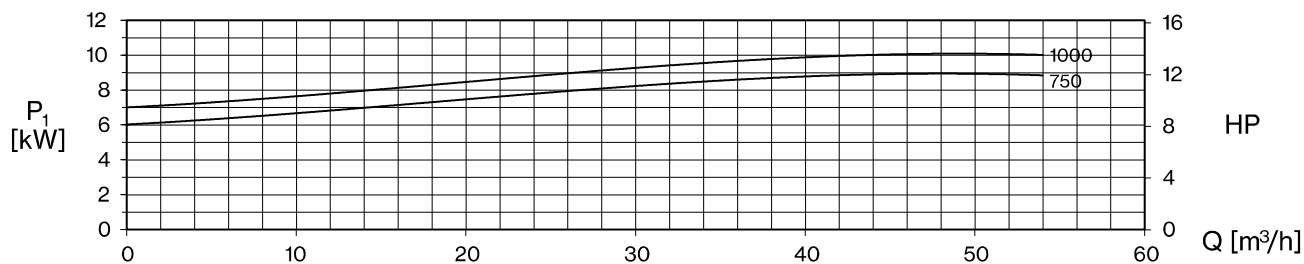
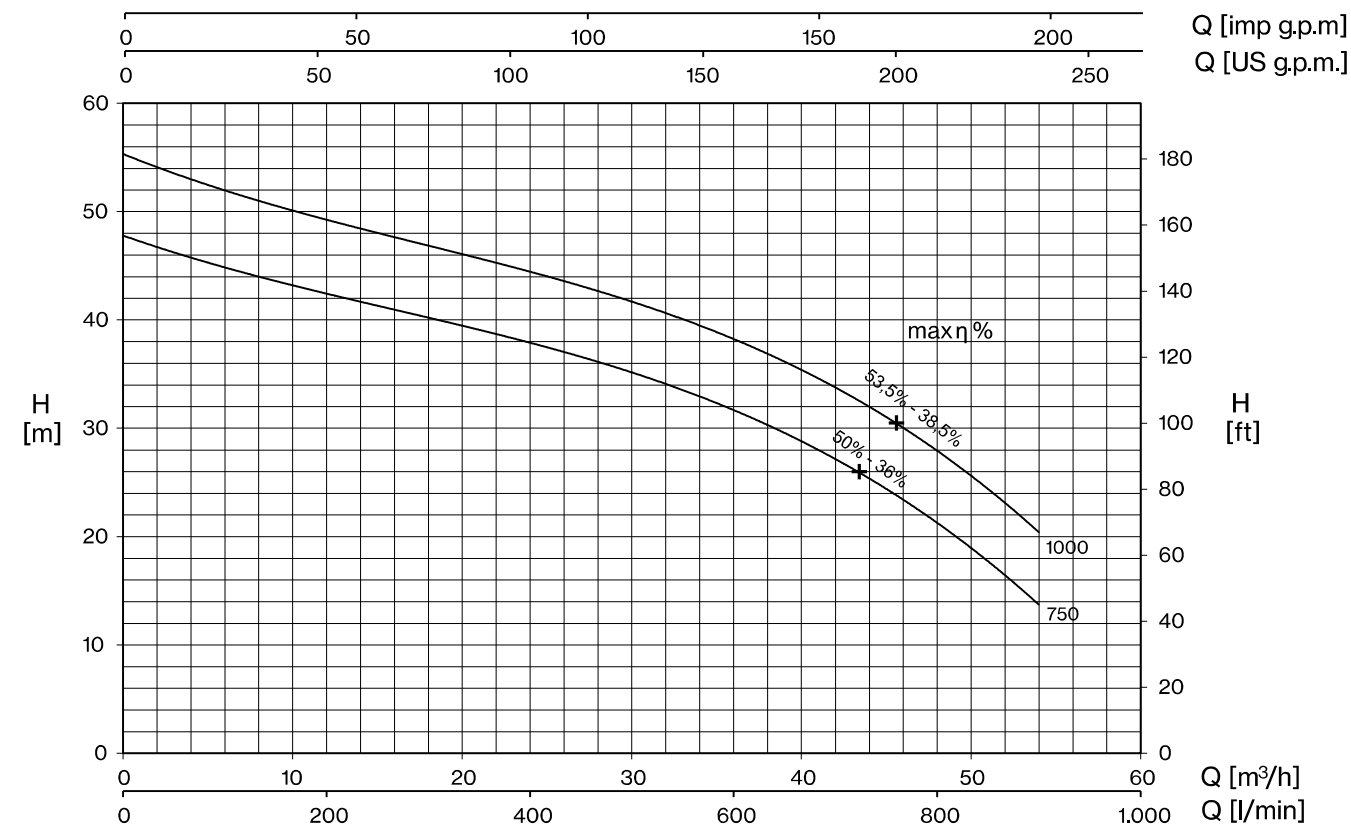
+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

TYPE - 50 Hz	P2			Q (m³/h - l/min)									
				0	6	12	18	24	30	36	42	48	51
				0	100	200	300	400	500	600	700	800	850
3~	HP		kW	H (m)									
FC 410T	4	3	5,5	33,8	31,6	29,2	26,8	23,9	20,5	16,5	12,0	5,9	
FC 560T	5,5	4	6,3	38,7	36,1	33,9	31,2	28,3	24,7	20,9	16,3	10,4	6,5

FC



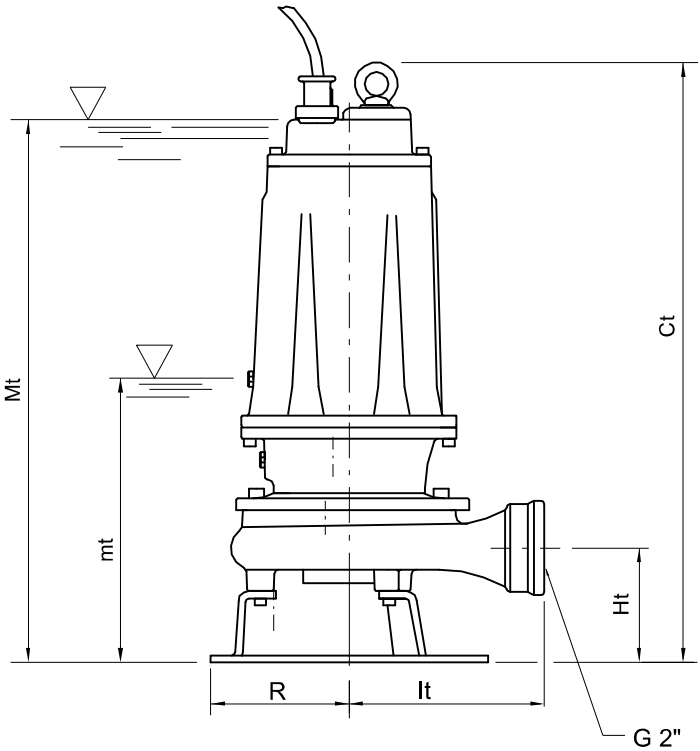
TYPE - 50 Hz	CURRENT			
3~	3- 230V (*)	3- 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FC 750T	-	15,3	26,5	15,3
FC 1000T	-	17,5	30,3	17,5

(*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)								
				0	12	18	24	30	36	42	48	54
				0	200	300	400	500	600	700	800	900
3~	HP	kW	kW	H (m)								
FC 750T	7,5	5,5	9,0	47,6	42,9	40,4	37,7	34,7	31,2	27,4	22,3	13,1
FC 1000T	10	7,5	10,3	55,1	49,8	47,1	44,2	41,1	37,8	34	29,1	19,7

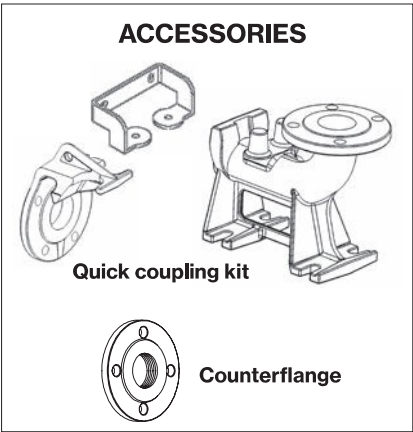
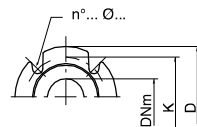
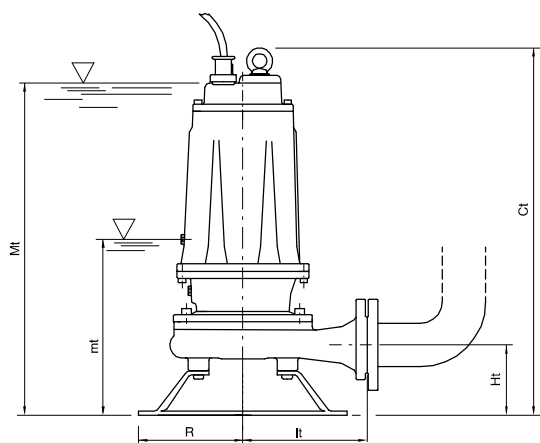


mt: minimum working level
Mt: minimum submersion level for
continuos duty

TYPE		DIMENSIONS (mm)							
1~	3~	Ct	Ht	R	lt	mt	Mt	DNM	
FC 160	FC 160T	513	102	117	174	205	475	2" G	37
FC 210	FC 210T	513	102	117	174	205	475	2" G	37,5
-	FC 310T	513	102	117	174	205	475	2" G	37

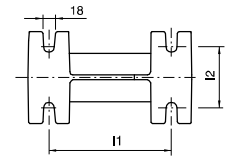
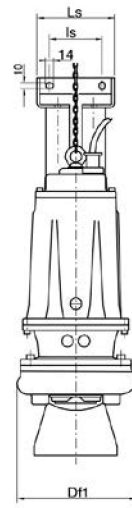
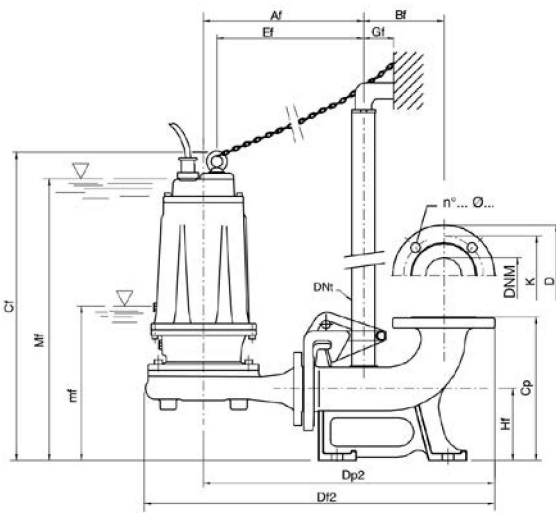
TYPE	PROTECTION		1 PUMP CONTROL PANEL			2 PUMPS CONTROL PANEL		
	1- 230V	3- 400V	1- 230V	3- 400V	400/690 V	1- 230V	3- 400V	400/690 V
FC 160	PMC 15/35-15	PT 20-30-40/4.3-6.8	EQSM + 35µF	EQSMT 10		EQ2SM + 2×35µF	EQ2SMT 10	
FC 210	PMC 20/50-18	PT 20-30-40/4.3-6.8	EQSM + 50µF	EQSMT 10		EQ2SM + 2×50µF	EQ2SMT 10	
FC 310T		PT 40-50/5.7-9.1		EQSMT 10			EQ2SMT 10	
FC 410T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FC 560T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FC 750T		PT 100/12.5-16.5		EQSMT 10	QST 7		EQ2SMT 10	Q2ST 7
FC 1000T		PT 125-150/16-21		EQSMT 10	QST 10		EQ2SMT 15	Q2ST 10

FC



mt: minimum working level
Mt: minimum submersion level for continuos duty

TYPE	DIMENSIONS (mm)							 Kg
	Ct	Ht	R	It	mt	Mt	DNM	
FC 410T	595	112	160	187	263	550	50	60,5
FC 560T	595	112	160	187	263	550	50	63,5
FC 750T	680	160	180	250	280	630	65	91
FC 1000T	680	160	180	250	280	630	65	93,5



mf: minimum working level
Mf: minimum submersion level for continuos duty

TYPE	DIMENSIONS (mm)																	
	Af	Bf	Cf	Cp	Df1	Df2	Dp2	DNt	Ef	Gf	Hf	I1	I2	Is	Ls	mf	Mf	DNM
FC 410T/P	300	145	614	260	237	654	535	1" ¼	269	55	130	200	100	95	140	290	566	50
FC 560T/P	300	145	614	260	237	654	535	1" ¼	269	55	130	200	100	95	140	290	566	50
FC 750T/P	331	145	656	260	279	701	569	1" ¼	296	55	130	200	100	95	140	290	600	65
FC 1000T/P	331	145	656	260	279	701	569	1" ¼	296	55	130	200	100	95	140	290	600	65

Flange UNI PN 10 (mm)			
DNM	K	D	n°... Ø...
50	125	165	4... 18...
65	145	185	4... 18...



Drainage pumps with “Double-channel” impeller for pumping waste waters and liquids with suspended solids; ideal for civil and household applications. The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch.



Construction features

Painting cataphoresis

Pump body cast iron

Shell, motor cover, base support stainless steel



Impeller stainless steel

Mechanical seal

double seal with oil chamber: silicon carbide on pump side, ceramic-graphite on motor size

Motor shaft stainless steel AISI 430

Free passage Ø max 50 mm

Max submergence 5 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

G float switch

Motor

3~ 400V - 50Hz

2 Poles induction motor 1~ 230V - 50Hz
(with thermal protection)

Insulation class F

Protection degree IPX8

TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
DB	80×120×160	51	80×120×160	51

DB 100 G

T 3~

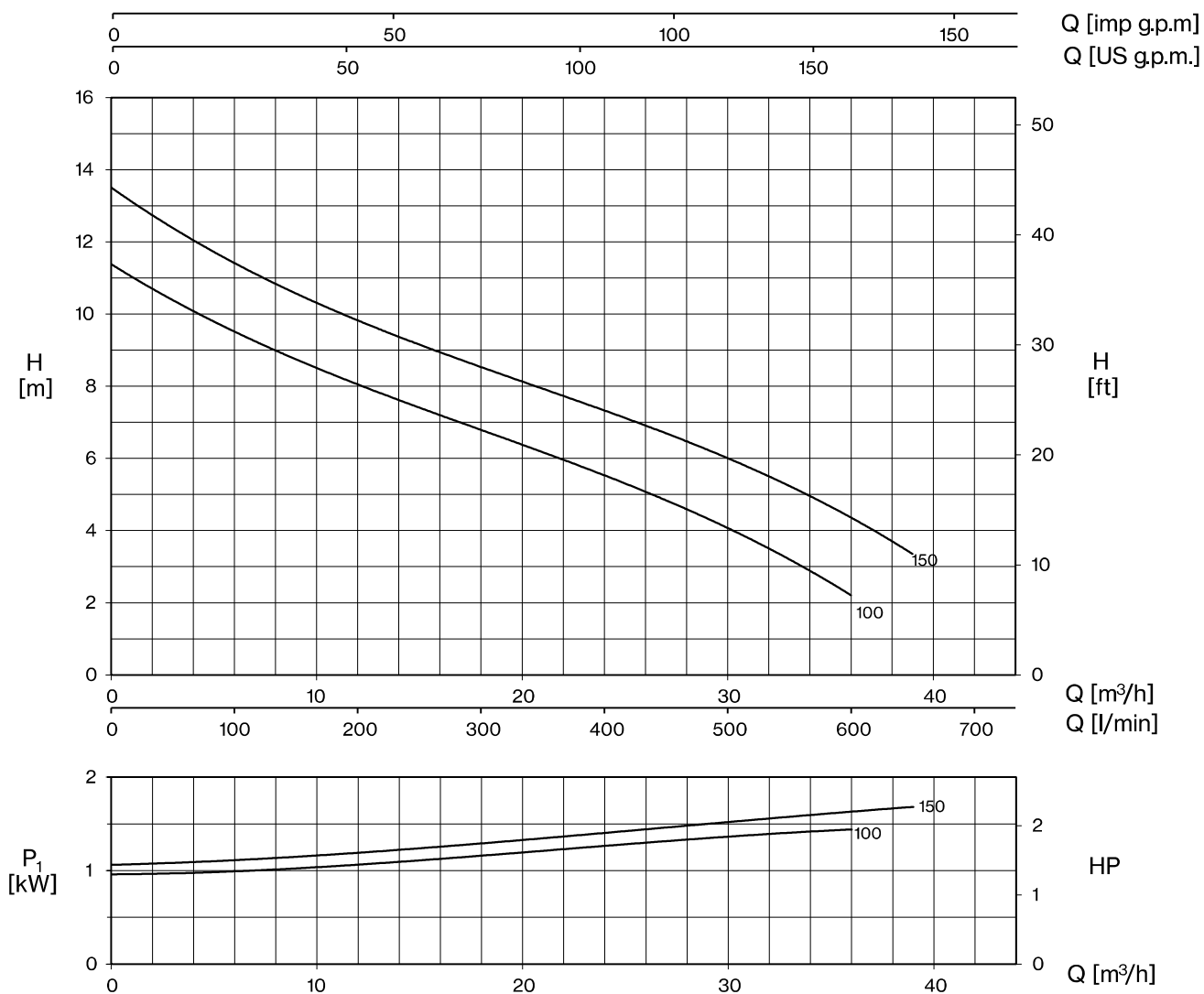
1~ without float switch

G 1~ with float switch

— pump type

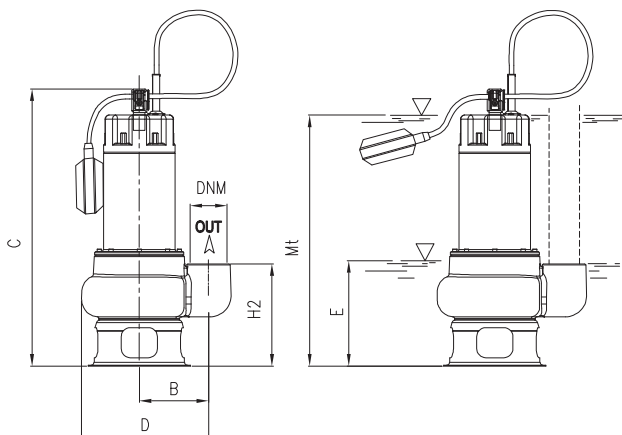


DB



TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)							
1~	3~		1~ 230V	3~ 400V	0	6	12	18	24	30	36	39
					0	100	200	300	400	500	600	650
			kW	A		H (m)						
DB 100 (G)	DB 100T	1,35	5,9	2,8	11,4	9,5	8,0	6,8	5,6	4,0	2,2	
DB 150 (G)	DB 150T	1,7	8,0	3,0	13,6	11,5	9,8	8,5	7,3	6,0	4,3	3,4

E: maximum emptying level
Mt: minimum liquid level for continuous duty



TYPE		DIMENSIONS (mm)										
1~	3~	B	C	D	E	H2	Mt	DNM	I	L	M	
DB 100 (G)	DB 100T	142,5	461	247,5	185	170	390	2" G	200	260	470	17
DB 150 (G)	DB 150T	142,5	461	247,5	185	170	390	2" G	200	260	470	18,5



Single channel centrifugal drainage pumps. Specifically designed for heavy duty applications they guarantee high capacity at medium head; ideal for civil and industrial applications. Available in mobile or permanent version with coupling feet.

Construction features

Painting cataphoresis

Pump body cast iron



Impeller cast iron

Mechanical seal

double seal with oil barrier; silicon carbide on pump side, ceramic-graphite on motor side

Motor shaft stainless steel AISI 304

Free passage Ø max 50 mm

Max submergence 20 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

Bolts A2 stainless steel

Foot support galvanized iron

Gaskets NBR rubber

Motor

3~ 230V - 50Hz

3~ 400V - 50Hz

3~ 230/400V - 50Hz

3~ 400/690V - 50Hz

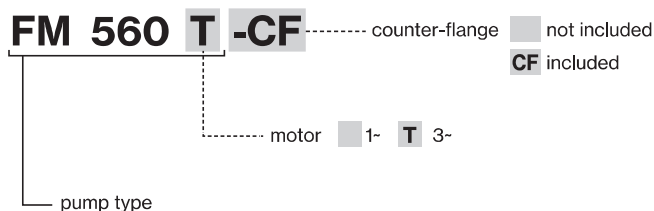
2 Poles induction motor

1~ 230V - 50Hz

required run capacitor (35µF for 1,5HP model, 50µF for 2HP model)

Insulation class F

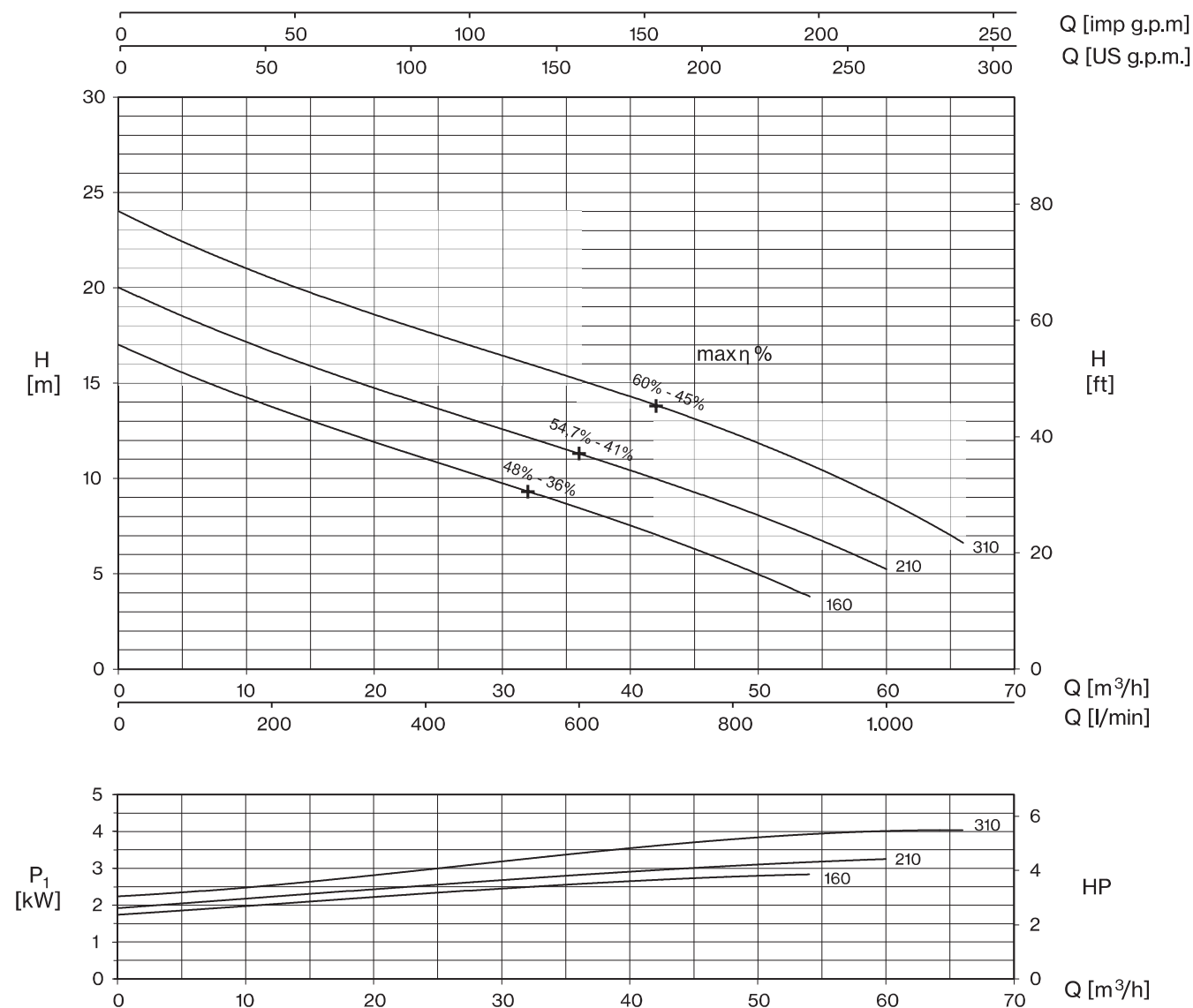
Protection degree IPX8



TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FM 160÷310	85×110×145	18	85×110×190	27
FM 410-560T	85×110×170	12	85×110×170	12
FM 1000T	100×120×190	12	100×120×190	12



FM



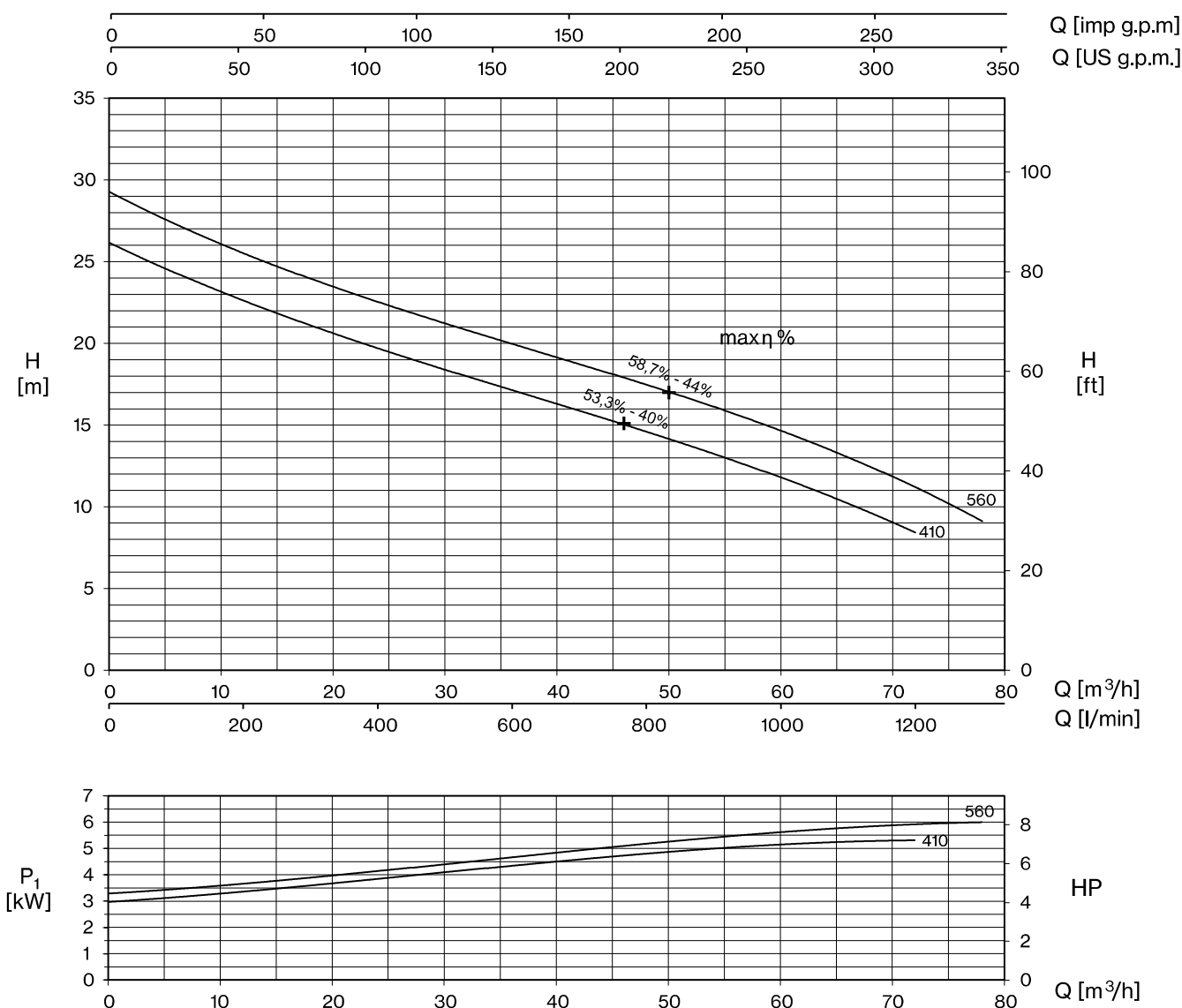
TYPE - 50 Hz		CURRENT				
1~	3~	230 V	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FM 160	FM 160T	12,5	7,6	4,4	-	-
FM 210	FM 210T	15,0	9,5	5,5	-	-
-	FM 310T	-	12,0	6,9	-	-

(*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

TYPE - 50 Hz		P2		P1		Q (m³/h - l/min)											
1~	3~			1~	3~	0	6	12	18	24	30	36	42	48	54	60	66
						0	100	200	300	400	500	600	700	800	900	1000	1100
				HP	kW	kW		H (m)									
FM 160	FM 160T	1,5	1,1	2,8	2,6	17,0	15,3	13,8	12,3	11,0	9,8	8,4	7,1	5,5	3,8		
FM 210	FM 210T	2	1,5	3,3	3,1	19,9	18,4	16,7	15,2	13,8	12,4	11,3	10,1	8,6	7,0	5,2	
-	FM 310T	3	2,2	-	4,1	23,9	22,2	20,6	19,1	17,8	16,3	15,0	13,8	12,3	10,9	9,1	6,4

FM


TYPE - 50 Hz	CURRENT			
3~	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FM 410T	15,4	8,9	-	-
FM 560T	17,6	10,2	-	-

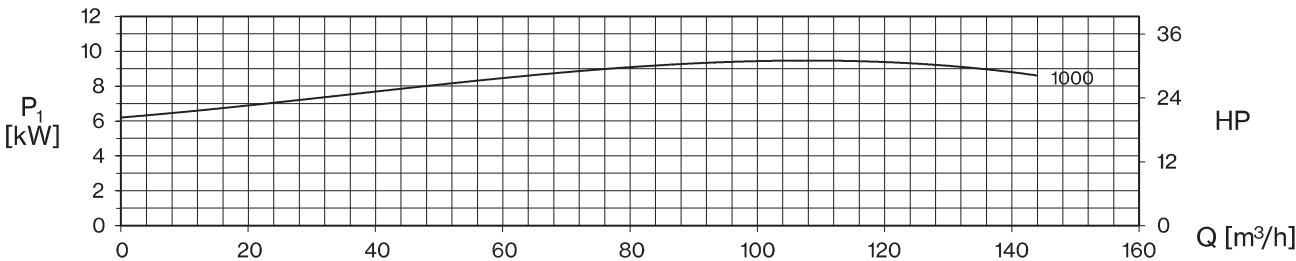
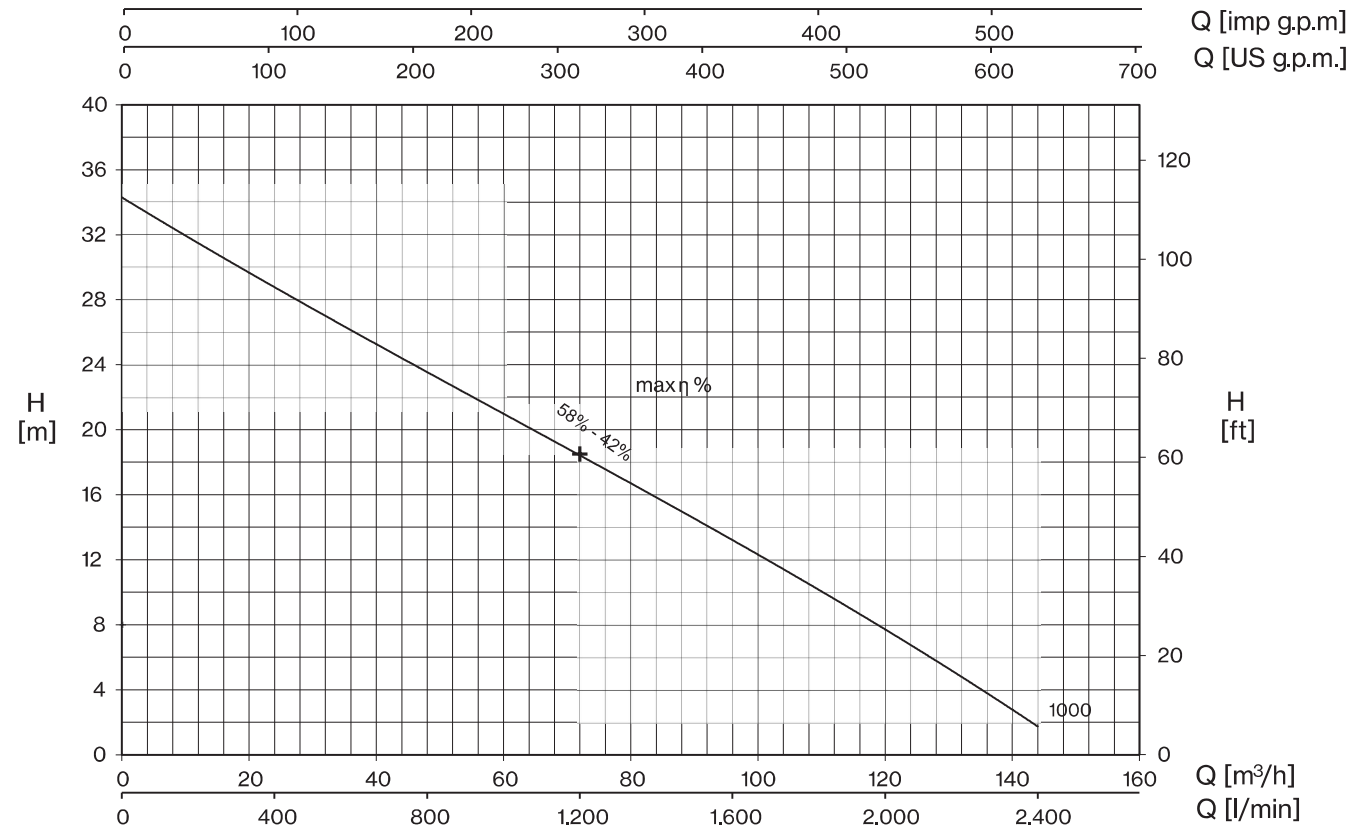
(*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)									
3~				0	6	18	30	42	54	60	66	72	78
				0	100	300	500	700	900	1000	1100	1200	1300
	HP	kW	kW	H (m)									
FM 410T	4	3	5,3	26,0	24,6	21,1	18,2	15,9	13,3	11,8	10,3	8,3	
FM 560T	5,5	4	6	29,1	27,5	24,1	21,1	18,6	16,1	14,7	13,1	11,4	8,9

FM

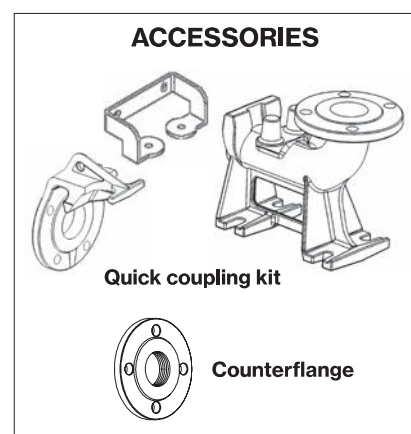
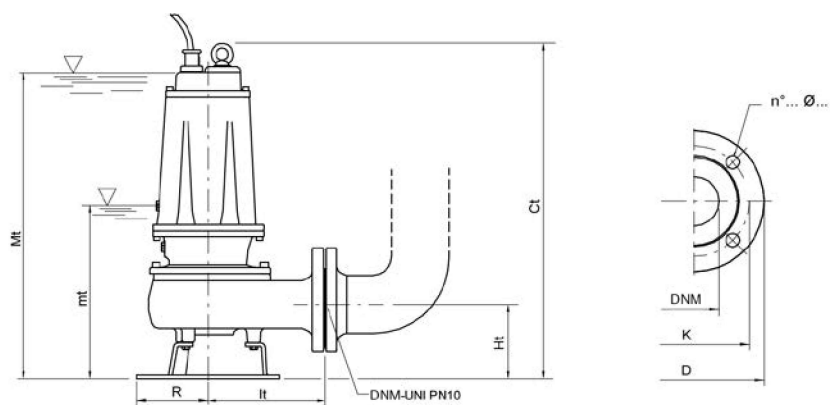


TYPE - 50 Hz	CURRENT			
3~	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FM 1000T	-	16,3	28,2	16,3

(*) no standard execution

+ max η %
max hydraulic efficiency and respective
total efficiency

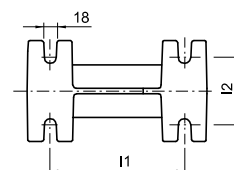
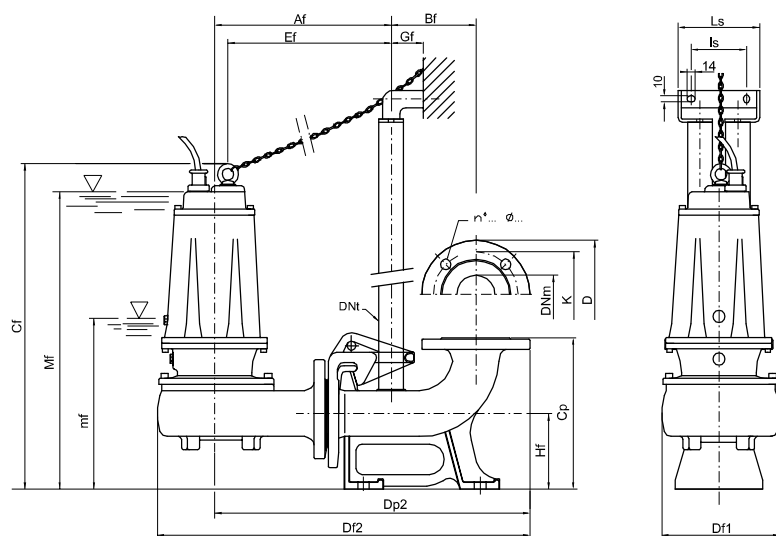
TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)													
0				12	24	36	48	60	72	84	96	108	120	132	144		
0				200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400		
3~	HP	kW	kW	H (m)													
FM 1000T	10	7,5	9,6	34,9	30,9	28,3	26,1	23,7	21,3	18,7	16,1	13,2	10,2	7,4	4,6	2,1	



mt: minimum working level

Mt: minimum submersion level for continuous duty

TYPE		DIMENSIONS (mm)							Kg	
1~	3~	Ct	Ht	R	It	mt	Mt	DNM	1~	3~
FM 160	FM 160T	551	123	117	191	243	513	65	41,5	40
FM 210	FM 210T	551	123	117	191	243	513	65	42,5	41,5
-	FM 310T	551	123	117	191	243	513	65	-	42,5
-	FM 410T	645	148	160	210	285	600	80	-	68
-	FM 560T	645	148	160	210	285	600	80	-	71,5
-	FM 1000T	725	178	180	232	358	670	80	-	94



mf: minimum working level

Mf: minimum submersion level for continuous duty

Flange UNI PN 10 (mm)			
DNM	K	D	n°... Ø...
65	145	185	4... 18...
80	160	200	8... 18...

TYPE	DIMENSIONS (mm)																	
	Af	Bf	Cf	Cp	Df1	Df2	Dp2	DNt	Ef	Gf	Hf	l1	l2	ls	Ls	mf	Mf	DNM
FM 160/P - FM 160T/P	303	145	560	260	200	639	542	1" ¼	280	55	130	200	100	95	140	251	521	65
FM 210/P - FM 210T/P	303	145	560	260	200	639	542	1" ¼	280	55	130	200	100	95	140	251	521	65
FM 310T/P	303	145	560	260	200	639	542	1" ¼	280	55	130	200	100	95	140	251	521	65
FM 410T/P	350	165	690	340	220	722	615	2"	319	85	190	250	140	130	180	327	642	80
FM 560T/P	350	165	690	340	220	722	615	2"	319	85	190	250	140	130	180	327	642	80
FM 1000T/P	370	165	745	340	240	750	638	2"	350	85	190	250	140	130	180	380	690	80

TYPE	PROTECTION		1 PUMP CONTROL PANEL			2 PUMPS CONTROL PANEL		
	1- 230V	3- 400V	1- 230V	3- 400V	400/690 V	1- 230V	3- 400V	400/690 V
FM 160	PMC 15/35-15	PT 20-30-40/4.3-6.8	EQSM + 35µF	EQSMT 10		EQ2SM + 2×35µF	EQ2SMT 10	
FM 210	PMC 20/50-18	PT 20-30-40/4.3-6.8	EQSM + 50µF	EQSMT 10		EQ2SM + 2×50µF	EQ2SMT 10	
FM 310T		PT 40-50/5.7-9.1		EQSMT 10			EQ2SMT 10	
FM 400T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FM 560T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FM 1000T		PT 125-150/16-21		EQSMT 10	QST 10		EQ2SMT 15	Q2ST 10

FM4

Sewage
Single-channel

FM 250-750-4 T

FM 250-750-4 T/P



Single-channel centrifugal drainage pumps: besides the high capacity they guarantee excellent head; ideal for civil and industrial applications; specifically designed for very heavy use; available in the mobile or permanent versions with coupling feet.



FM 250-4 T

FM 300-4 T

FM 400-4 T



FM 550-4 T

FM 750-4 T



Grey water



Black water

Construction features

Painting cataphoresis

Pump body cast iron



Impeller cast iron

Mechanical seal

double seal with oil barrier; silicon carbide on pump side, ceramic-graphite on motor side

Motor shaft stainless steel AISI 304

Free passage

Ø max 60 mm (FM 250/4÷400/4 T)
Ø max 90 mm (FM 550/4-750/4 T)

Max submergence 20 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

Bolts A2 stainless steel

Foot support galvanized iron

Gaskets NBR rubber

Motor

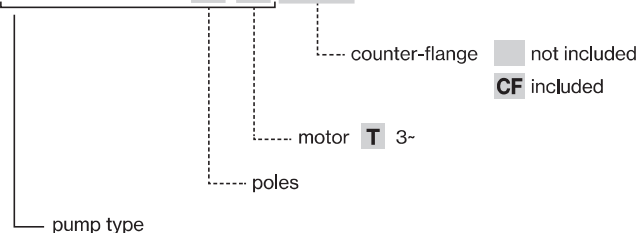
4 Poles induction motor
3~ 230V - 50Hz
3~ 400V - 50Hz
3~ 230/400V - 50Hz
3~ 400/690V - 50Hz

Insulation class F

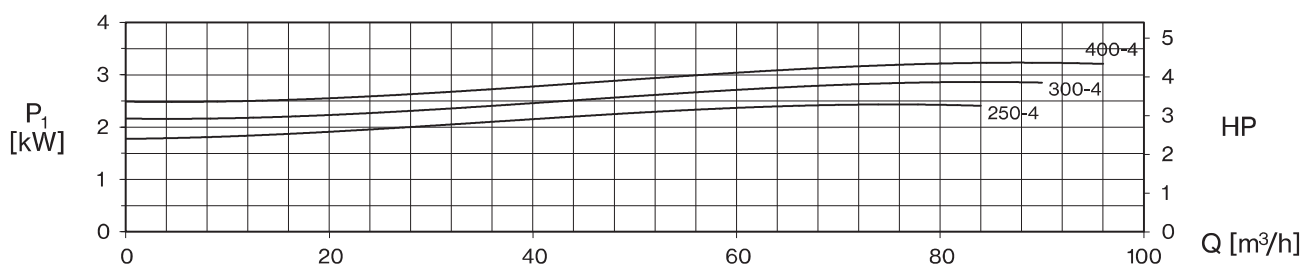
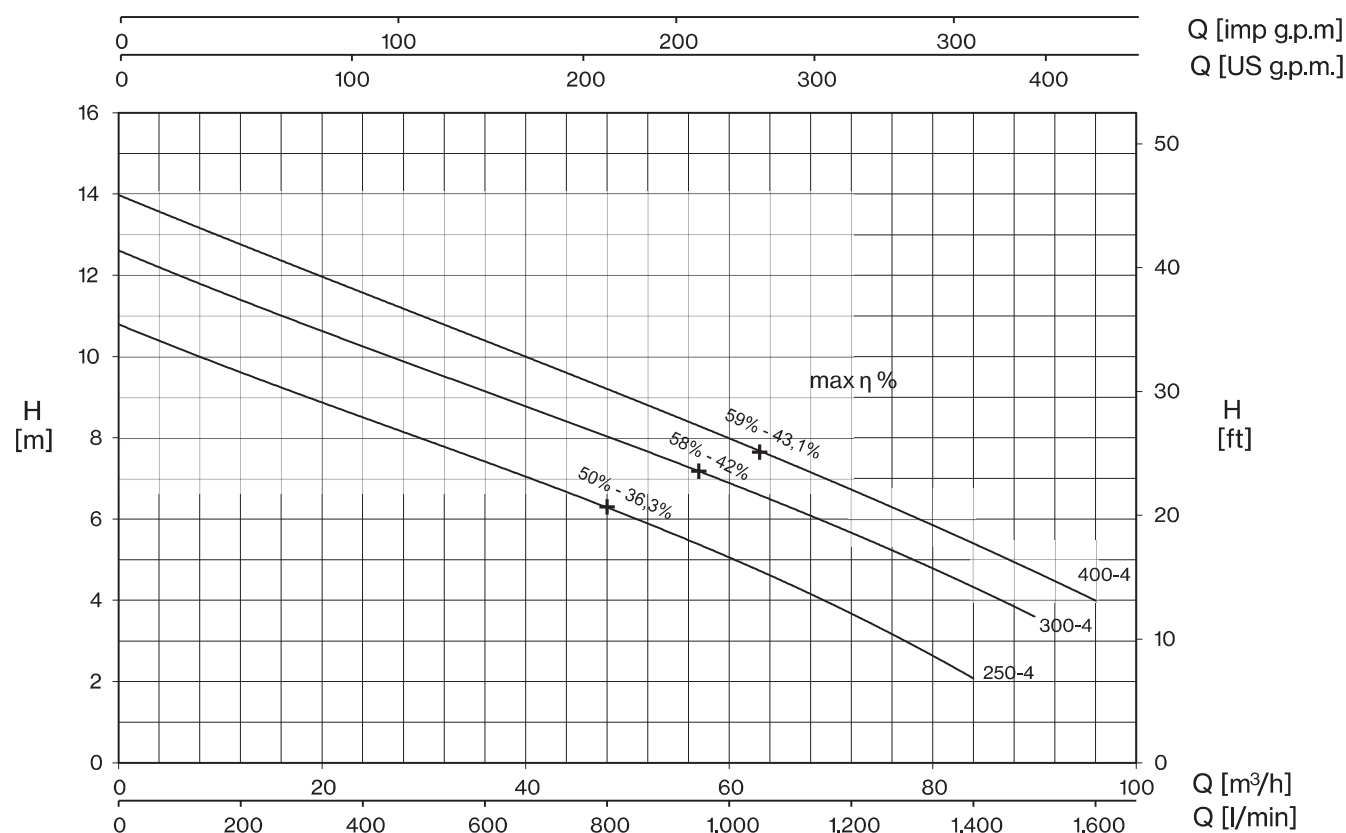
Protection degree IPX8

TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FM 250-4÷750-4T	85×110×190	12	100×120×190	12

FM 550 - 4 T -CF



FM4



TYPE - 50 Hz	CURRENT			
3~	3- 230V (*)	3- 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FM 250-4T	7,8	4,5	-	-
FM 300-4T	9,0	5,2	-	-
FM 400-4T	11,2	6,5	-	-

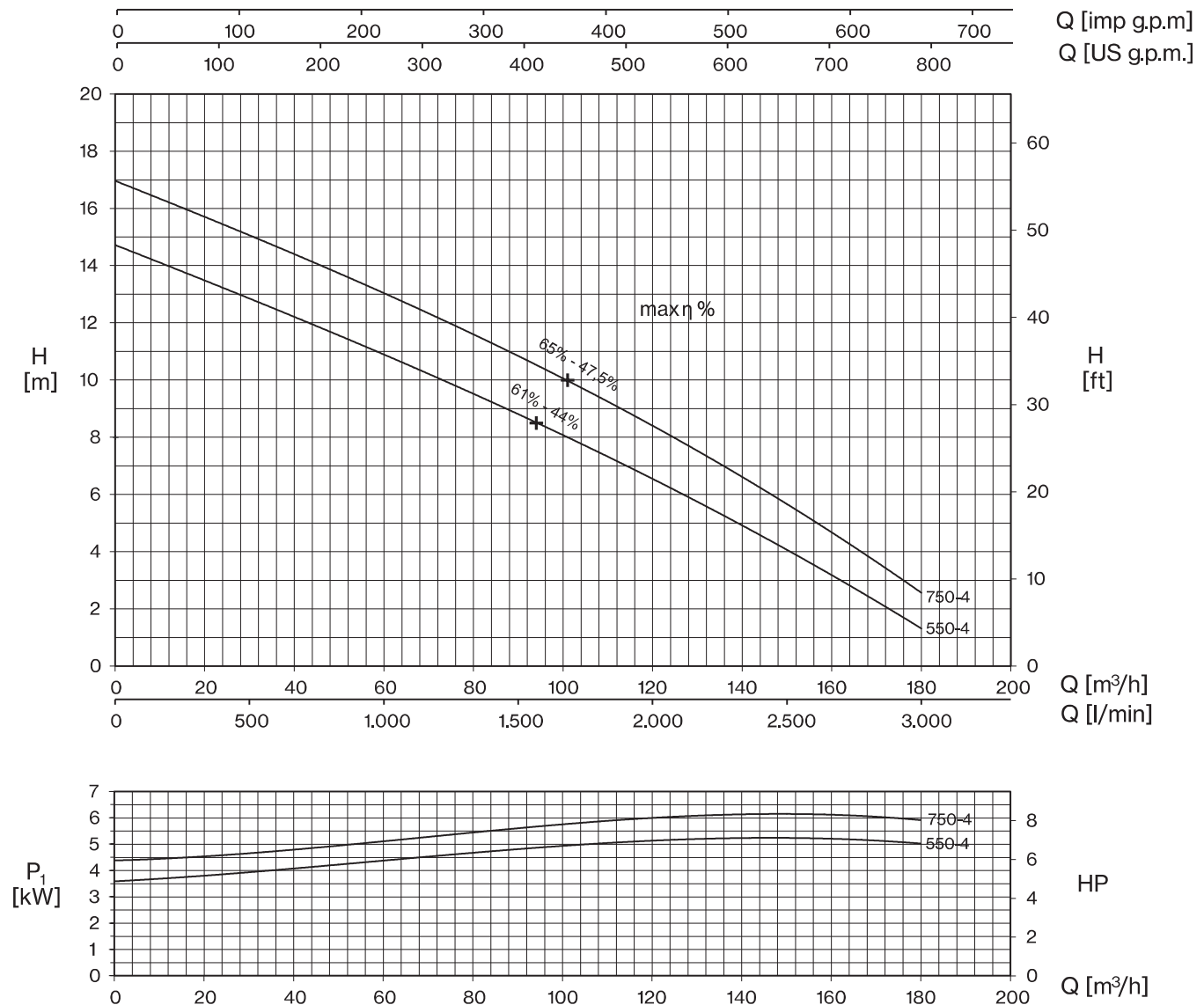
+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)									
3~				0	12	24	36	48	60	72	84	90	96
	HP	kW	kW	0	200	400	600	800	1000	1200	1400	1500	1600
	H (m)												
FM 250-4T	2,5	1,8	2,4	10,8	9,6	8,5	7,4	6,3	5,1	3,6	2,1		
FM 300-4T	3	2,2	2,9	12,6	11,4	10,3	9,1	8,0	6,9	5,7	4,3	3,6	
FM 400-4T	4	3	3,2	14,0	12,7	11,6	10,4	9,2	8,0	6,7	5,4	4,7	4,0

FM4



TYPE - 50 Hz	CURRENT			
3~	3- 230V (*)	3- 400V	230/400V Λ / Δ (*)	400/690V Λ / Δ
FM 550-4T	-	9,4	16,3	9,4
FM 750-4T	-	11,8	20,4	11,8

+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

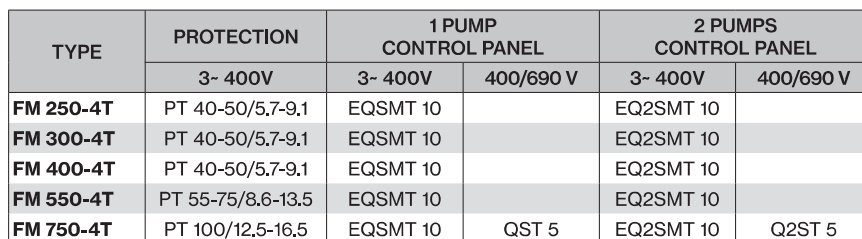
TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)																
				0	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	
	3-				0	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000
		HP	kW	kW	H (m)															
FM 550-4T	5,5	4	5,2	14,7	14,0	13,2	12,5	11,7	10,9	10,1	9,2	8,3	7,5	6,5	5,6	4,6	3,6	2,4	1,3	
FM 750-4T	7,5	5,5	6,1	17,0	16,2	15,4	14,7	13,8	13,0	12,2	11,4	10,4	9,4	8,4	7,3	6,2	5,1	3,8	2,6	

ACCESSORIES

The diagram shows an exploded view of a quick coupling kit. On the left, there is a circular component with a central hole and four smaller holes around the perimeter, labeled 'Quick coupling kit'. To its right is a larger, more complex component with a flange and a central protrusion, labeled 'Counterflange'. The components are shown in a perspective view, indicating their relative positions and how they fit together.

Quick coupling kit

Counterflange



FTR 101

Drainage
Grinder



Drainage pumps with open impeller characterized by head in ratio to the type and size of the machine. The grinder allows to pumps sewage containing textile or filamentous fibres have to be crushed. The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch.



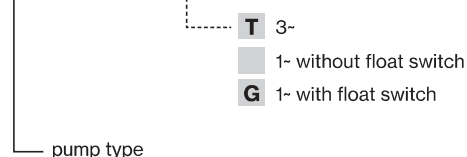
Construction features

Painting	cataphoresis
Pump body	cast iron
Shell, motor cover	stainless steel
Impeller	brass
Mechanical seal	double seal with oil barrier; silicon carbide on pump side, sealing ring on motor side
Motor shaft	stainless steel AISI 430
	Grinder treated stainless steel
Max submergence	max 5 m
Liquid temperature	0 - 40 °C
Cable	H07 RNF, 10 m
G	float switch

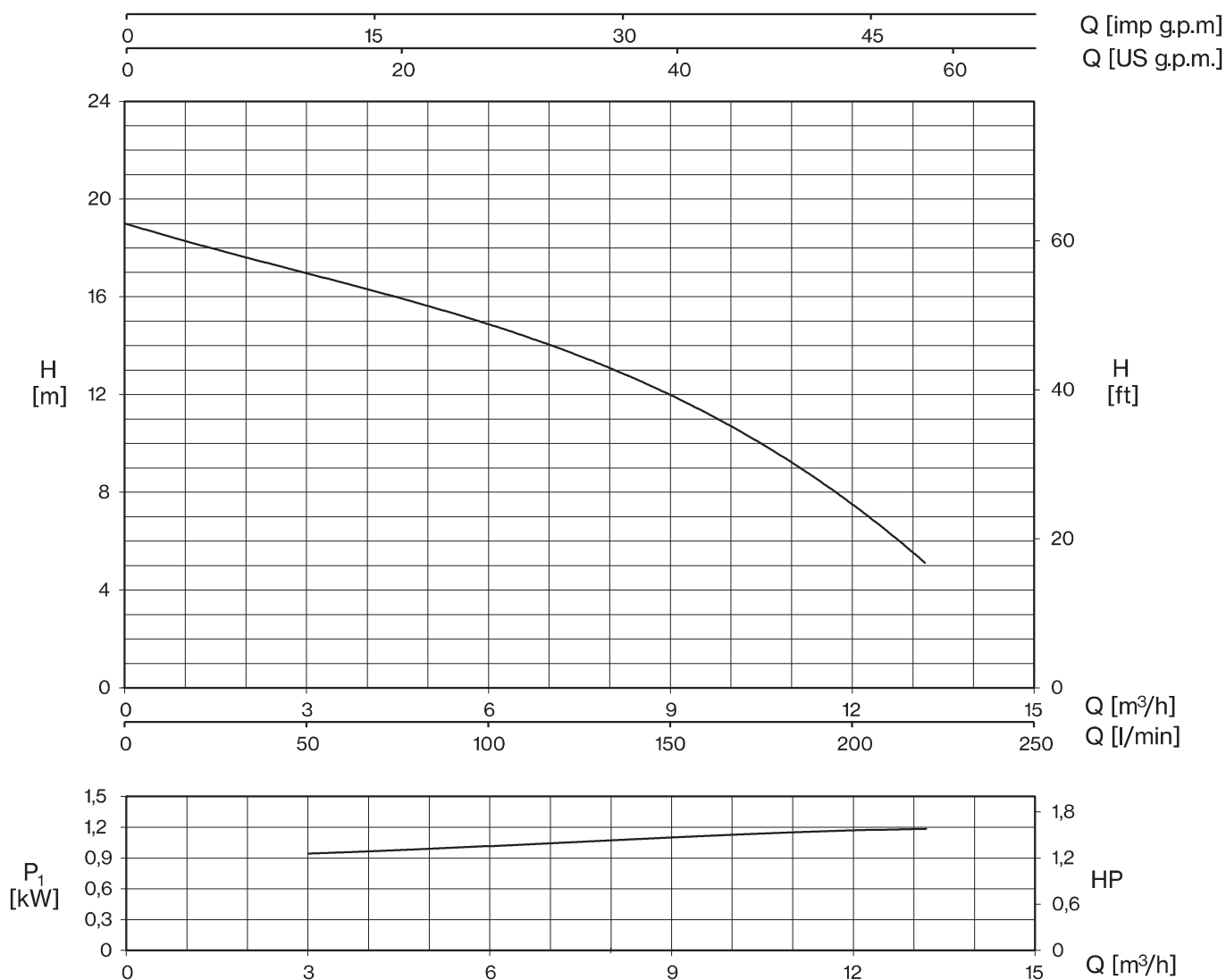
Motor

	3~ 400V - 50Hz
2 Poles induction motor	1~ 230V - 50Hz (with thermal protection)
Insulation class	F
Protection degree	IPX8

FTR 101 G

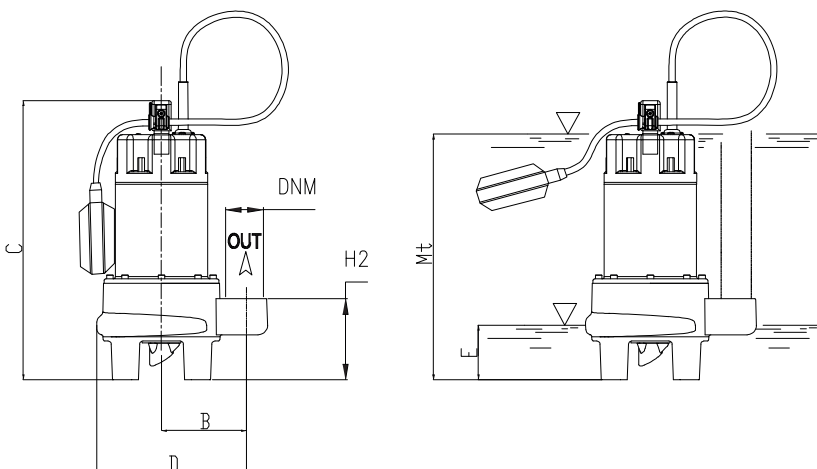


FTR 101



TYPE - 50 Hz		P ₁	CURRENT		Q (m³/h - l/min)					
1~	3~		1~ 230V	3~ 400V	0	3	6	9	12	13,2
					0	50	100	150	200	220
		kW	A		H (m)					
FTR 101 (G)	FTR 101T	1,2	5,3	2,2	19,0	17,1	14,8	11,9	7,8	4,9

E: maximum emptying level
Mt: minimum liquid level for
continuous duty



TYPE		DIMENSIONS (mm)										
1~	3~	B	C	D	E	H2	Mt	DNM	I	L	M	Kg
FTR 101 (G)	FTR 101T	105	359	218,5	70	104,5	313	1" ½ G	260	185	450	16,5

FTR/FTRT

Sewage
Grinder



FTR 150-300

FTR 400-1000 T

FTR 400-1000 T/P

Drainage and waste water pumps equipped with open impeller and grinder system able to shred sewage with suspended solids and prevent the pump from clogging. Best for emptying of septic tanks and residential sumps as well as for rain water systems and for draining of flooded areas where seamless operation is required. The quick coupling feet DN50 and DN65 is available for flanged pumps.



Grey water



Black water

Construction features

Painting cataphoresis

Pump body cast iron

Impeller cast iron

Mechanical seal double seal with oil barrier: silicon carbide on pump side, ceramic-graphite on motor side

Motor shaft stainless steel AISI 304

Max submergence 20 m

Liquid temperature 0 - 40 °C



Grinder treated stainless steel

Bolts A2 stainless steel

Foot support galvanized iron

Gaskets NBR rubber

Motor

3~ 230V - 50Hz

3~ 400V - 50Hz

3~ 230/400V - 50Hz

3~ 400/690V - 50Hz

**2 Poles
induction motor**

1~ 230V - 50Hz

run capacitor (35µF for 1,5HP models, 50µF for 2HP model) + start capacitor (80µF with disjuntor) required

Insulation class F

Protection degree IPX8

FTR 150 **-CF** counter-flange ☐ not included
CF ☒ included

..... motor ☐ 1~ **T** 3~

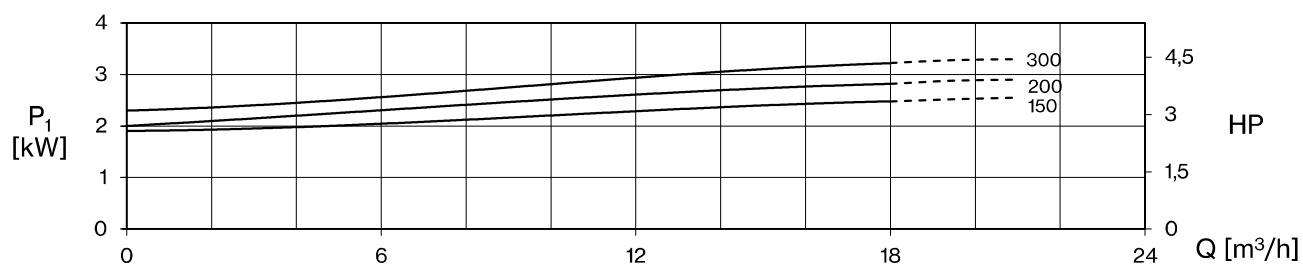
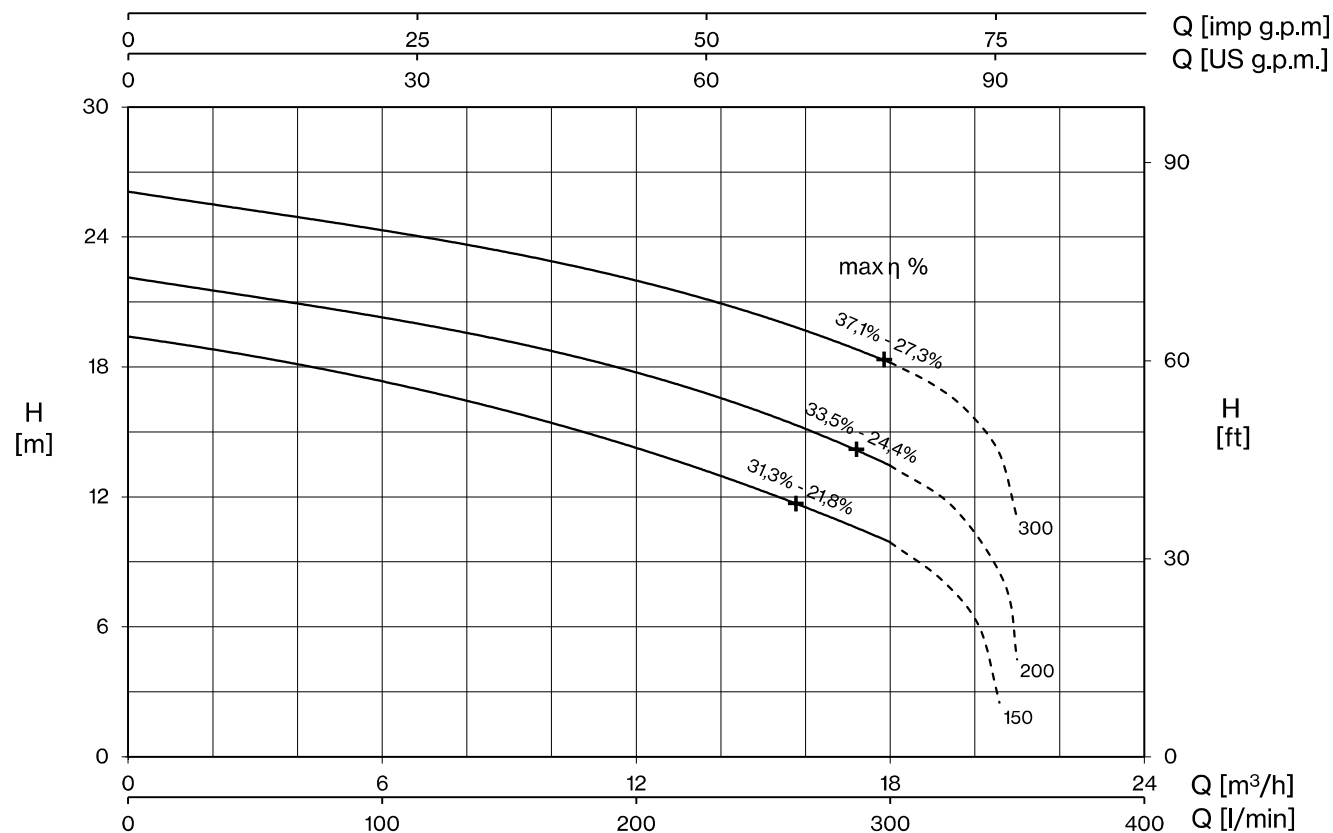
— pump type



TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FTR 150÷300T	85×110×145	18	85×110×190	27
FTR 400-550T	85×110×170	12	85×110×170	12
FTR 1000T	100×120×190	12	100×120×190	12



FTR/FTRT



TYPE - 50 Hz		CURRENT				
1~	3~	230 V	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FTR 150	FTR 150T	11,5	7,6	4,4	-	-
FTR 200	FTR 200T	13,6	8,8	5,1	-	-
-	FTR 300T	-	10,0	5,8	-	-

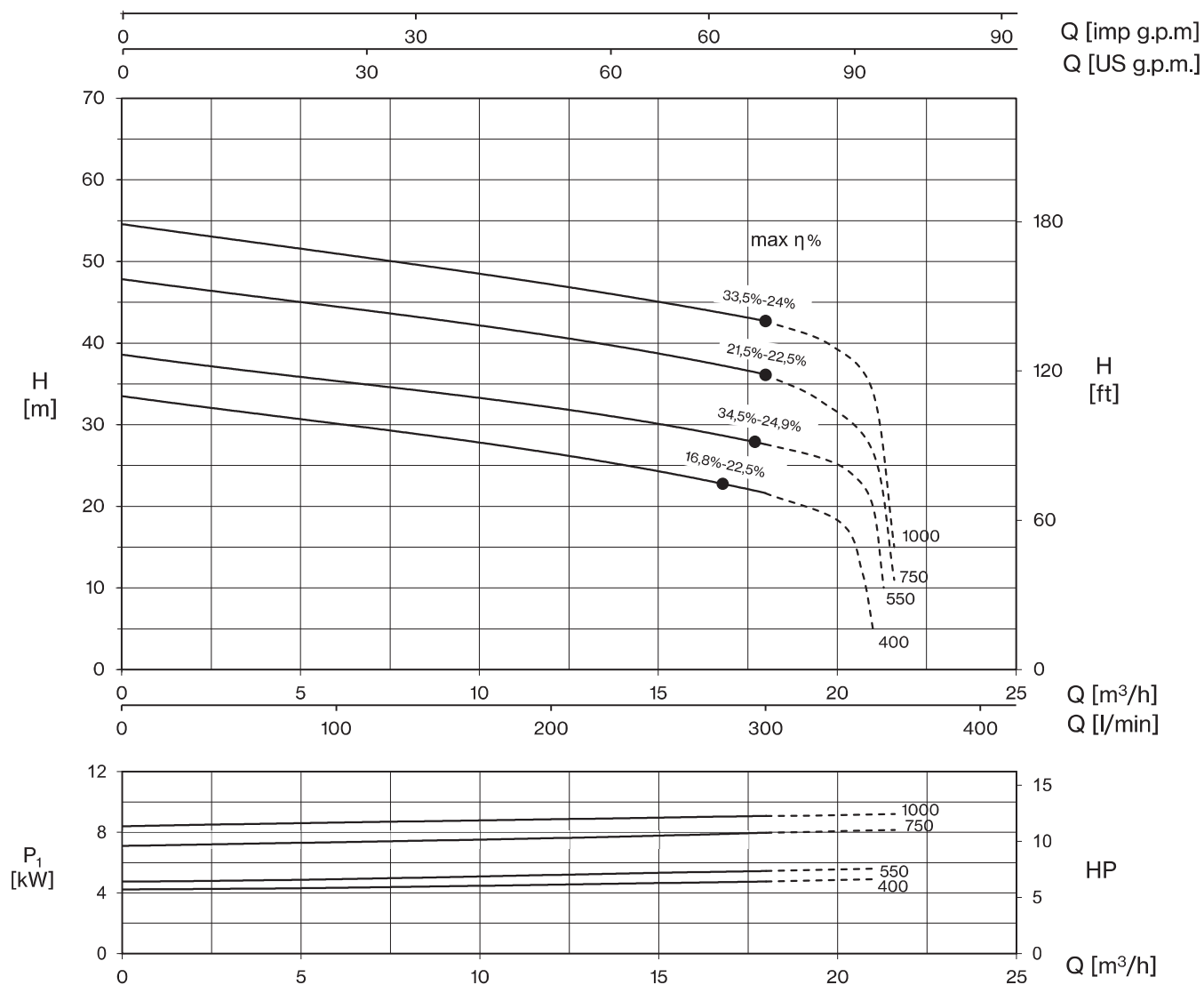
+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

TYPE - 50 Hz		P2		P1		Q (m³/h - l/min)							
1~	3~			1~	3~	0	3	6	9	12	13,2	15	18
						0	50	100	150	200	220	250	300
				HP	kW	kW		H (m)					
FTR 150	FTR 150T	1,5	1,1	2,6	2,5	19,4	18,5	17,3	16,0	14,2	13,5	12,3	9,9
FTR 200	FTR 200T	2	1,5	3,0	2,8	22,1	21,3	20,3	19,1	17,7	17,1	16,0	13,4
-	FTR 300T	3	2,2	-	3,2	26,1	25,2	24,3	23,3	22,0	21,4	20,3	18,2

FTR/FTRT



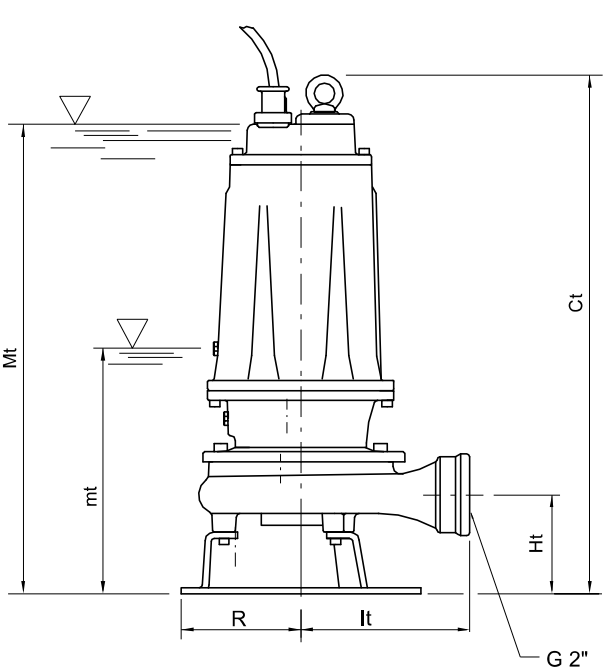
TYPE - 50 Hz	CURRENT			
3~	3~ 230V (*)	3~ 400V	230/400V λ / Δ (*)	400/690V λ / Δ
FTR 400T	13,0	7,5	-	-
FTR 550T	15,9	9,2	-	-
FTR 750T	-	13,9	24	13,9
FTR 1000T	-	15,5	26,8	15,5

(*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)						
				0	3	6	9	12	15	18
	HP	kW	kW	0	50	100	150	200	250	300
3~	H (m)									
FTR 400T	4	3	4,5	33,5	31,8	30,1	28,5	26,4	24,4	21,6
FTR 550T	5,5	4	5,3	38,6	36,9	35,3	33,9	32,1	30,1	27,6
FTR 750T	7,5	5,5	8,0	47,8	46,2	44,5	42,7	40,8	38,9	36,1
FTR 1000T	10	7,5	9,1	54,6	52,7	51,0	49,2	47,1	45,1	42,7



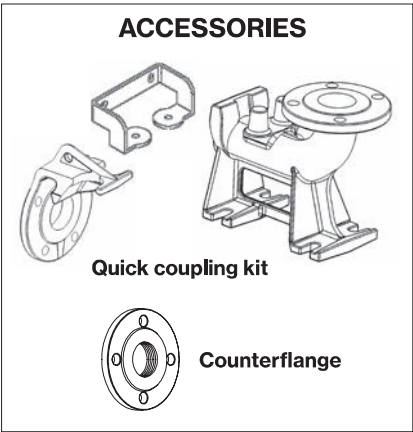
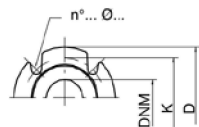
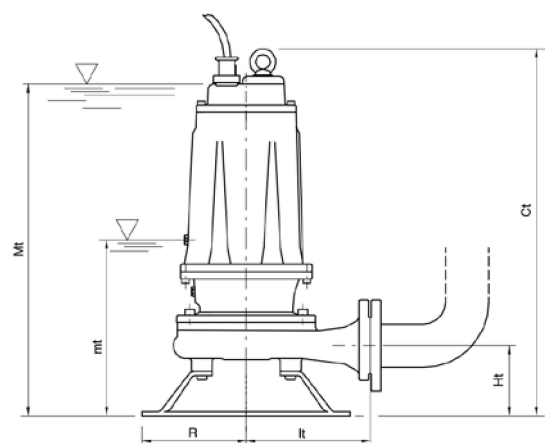
mt: minimum working level
Mt: minimum submersion level for
continuous duty

TYPE		DIMENSIONS (mm)							
1~	3~	Ct	Ht	R	Lt	mt	Mt	DNM	
FTR 150	FTR 150T	513	102	117	174	205	475	2" G	38
FTR 200	FTR 200T	513	102	117	174	205	475	2" G	38,5
-	FTR 300T	513	102	117	174	205	475	2" G	38

TYPE	PROTECTION		1 PUMP CONTROL PANEL			2 PUMPS CONTROL PANEL		
	1- 230V	3- 400V	1- 230V	3- 400V	400/690 V	1- 230V	3- 400V	400/690 V
FTR 150	PMLD 15/35-13	PT 20-30-40/4.3-6.8	EQSM + 35µF + 80µF*	EQSMT 10		EQ2SM + 2×35µF + 2×80µF*	EQ2SMT 10	
FTR 200	PMLD 20/50-15	PT 20-30-40/4.3-6.8	EQSM + 50µF + 80µF*	EQSMT 10		EQ2SM + 2×50µF + 2×80µF*	EQ2SMT 10	
FTR 300T		PT 20-30-40/4.3-6.8		EQSMT 10			EQ2SMT 10	
FTR 400T		PT 40-50/5.7-9.1		EQSMT 10			EQ2SMT 10	
FTR 550T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FTR 750T		PT 100/12.5-16.5		EQSMT 10	QST 7		EQ2SMT 10	Q2ST 7
FTR 1000T		PT 125-150/16-21		EQSMT 10	QST 10		EQ2SMT 15	Q2ST 10

*start capacitor with disjuntor

FTR/FTRT



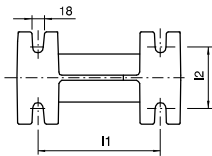
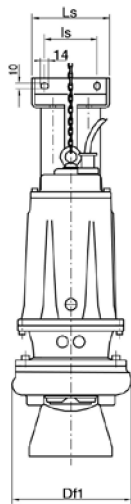
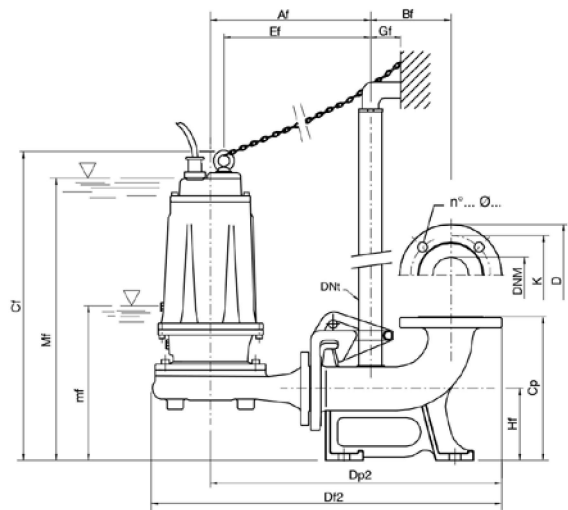
ACCESSORIES

Quick coupling kit

Counterflange

mt: minimum working level
Mt: minimum submersion level for continuous duty

TYPE	DIMENSIONS (mm)							Kg
3~	Ct	Ht	R	It	mt	Mt	DNM	
FTR 400T	595	112	160	190	265	550	50	62,5
FTR 550T	595	112	160	190	265	550	50	65,5
FTR 750T	680	160	180	250	280	630	65	91,5
FTR 1000T	680	160	180	250	280	630	65	94,5



mf: minimum working level
Mf: minimum submersion level for continuous duty

TYPE	DIMENSIONS (mm)																	
3~	Af	Bf	Cf	Cp	Df1	Df2	Dp2	DNT	Ef	Gf	Hf	I1	I2	Is	Ls	mf	Mf	DNM
FTR 400T/P	300	145	614	260	237	654	538	1" ¼	269	55	130	200	100	95	140	290	566	50
FTR 550T/P	300	145	614	260	237	654	538	1" ¼	269	55	130	200	100	95	140	290	566	50
FTR 750T/P	331	145	656	260	279	710	569	1" ¼	297	55	130	200	100	95	140	290	600	65
FTR 1000T/P	331	145	656	260	279	710	569	1" ¼	297	55	130	250	100	95	140	290	600	65

Flange UNI PN 10 (mm)			
DNM	K	D	n°... Ø...
50	125	165	4... 18...
65	145	185	4... 18...



DC 80-102



DC 150



DC 80-102



DC 150



Drainage pumps with set-back Vortex type impeller for pumping sewage waters and liquids with suspended solids; ideal for civil and household applications. The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch.

Construction features

Painting cataphoresis

Pump body cast iron

Shell, motor cover, base support stainless steel



Impeller Vortex stainless steel (80-102); brass (150)

Mechanical seal

double seal with oil barrier: pump side with silicon carbide mechanical seal; motor side with sealing ring (80÷102) or ceramic-graphite mechanical seal (150)

Motor shaft stainless steel AISI 430

Free passage Ø max 35 mm (80-100)
Ø max 50 mm (82÷150)

Max submergence 5 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

G float switch

Motor

3~ 400V - 50Hz

2 Poles induction motor 1~ 230V - 50Hz
(with thermal protection)

Insulation class F

Protection degree IPX8

TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
DC 80÷102	80×120×145	48	80×120×190	76
DC 150	80×120×160	51	80×120×160	51

DC 80 **G**

T 3~

 1~ without float switch

G 1~ with float switch

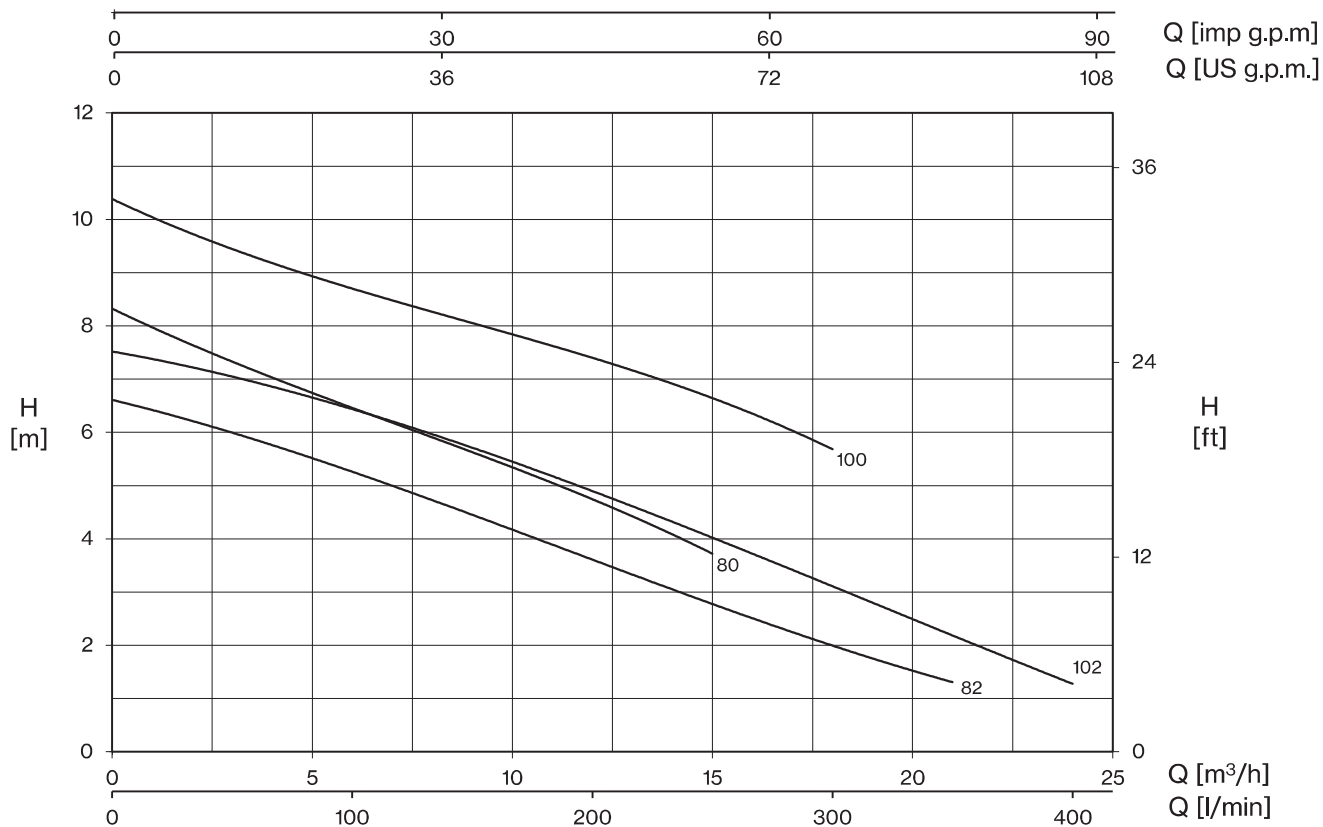
..... delivery port size standard

/2 larger

— pump type

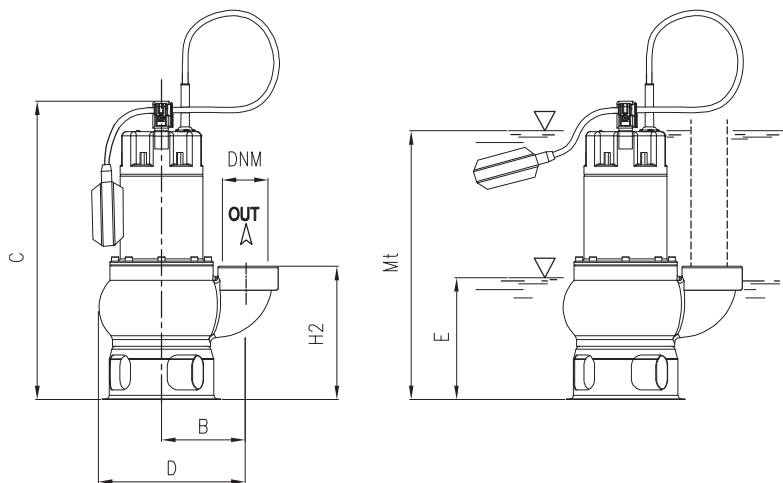


DC



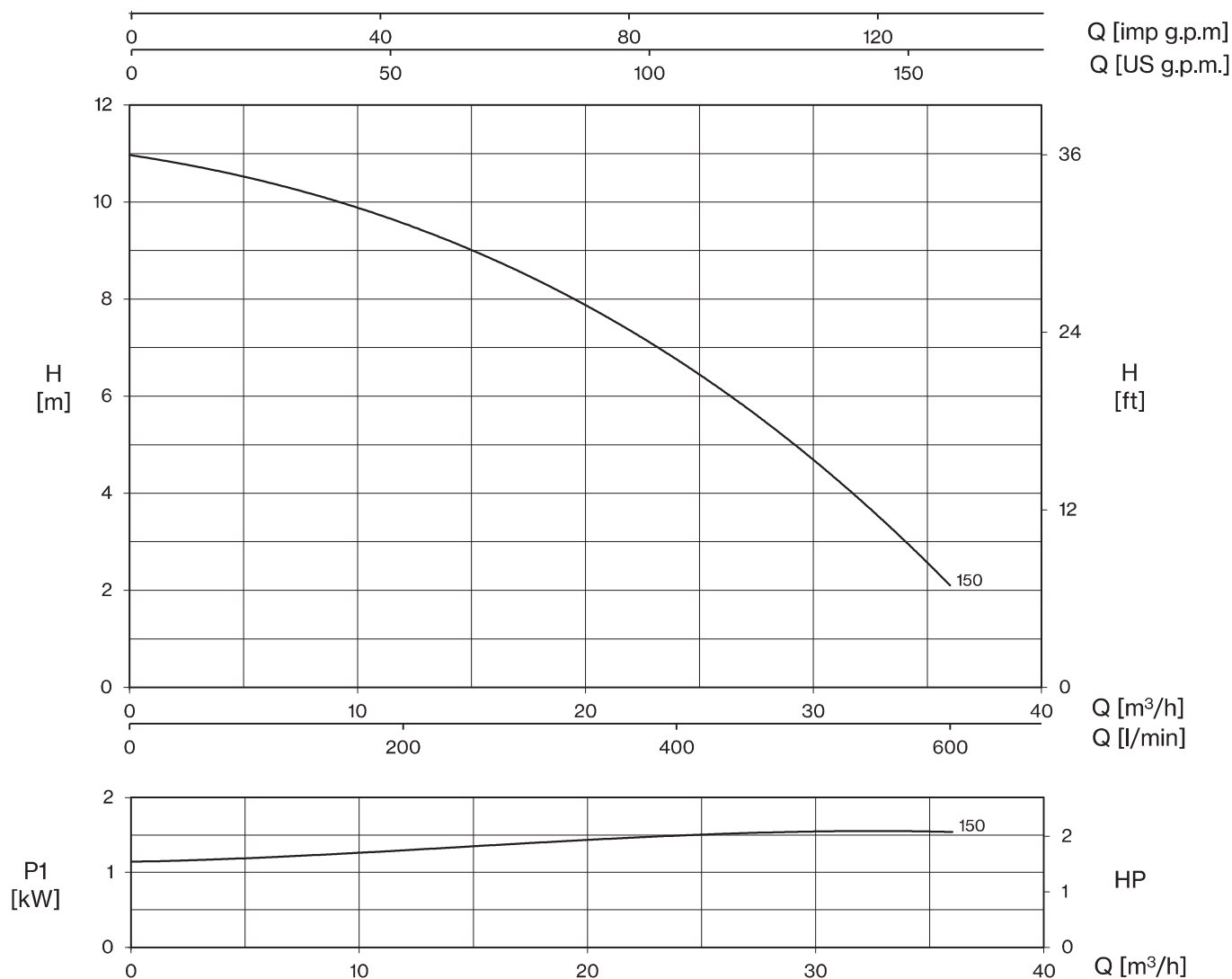
TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)								
1~	3~		1~ 230V	3~ 400V	0	3	6	9	12	15	18	21	24
					0	50	100	150	200	250	300	350	400
		kW	A		H (m)								
DC 80 (G)	DC 80T	1,05	4,7	2,2	8,3	7,4	6,4	5,6	4,8	3,7			
DC 80/2 (G)	DC 80/2T	1,05	4,7	2,2	8,3	7,4	6,4	5,6	4,8	3,7			
DC 100 (G)	DC 100T	1,35	6,2	2,8	10,4	9,4	8,7	8,1	7,4	6,6	5,7		
DC 100/2 (G)	DC 100/2T	1,35	6,2	2,8	10,4	9,4	8,7	8,1	7,4	6,6	5,7		
DC 82 (G)	DC 82T	1	4,5	2,1	6,6	6	5,3	4,4	3,6	2,8	2	1,3	
DC 102 (G)	DC 102T	1,2	5,3	2,4	7,5	7,1	6,4	5,7	4,9	4	3,2	2,1	1,3

E: maximum emptying level
Mt: minimum liquid level for
continuos duty



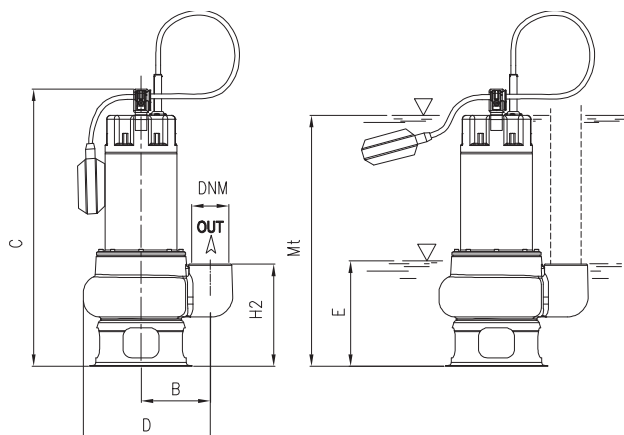
TYPE		DIMENSIONS (mm)										 Kg
1~	3~	B	C	D	E	H2	Mt	DNM	I	L	M	
DC 80 (G)	DC 80T	110	410	230	140	174	290	1" ½ G	250	183	448	14
DC 80/2 (G)	DC 80/2T	110	410	230	140	174	290	2" G	250	183	448	14
DC 100 (G)	DC 100T	110	410	230	140	174	290	1" ½ G	250	183	448	15
DC 100/2 (G)	DC 100/2T	110	410	230	140	174	290	2" G	250	183	448	15,5
DC 82 (G)	DC 82T	120	426	250	150	190	300	2" G	265	205	500	15
DC 102 (G)	DC 102T	120	426	250	150	190	300	2" G	265	205	500	16

DC



TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)						
1~	3~		1- 230V	3- 400V	0	6	12	18	24	30	36
					0	100	200	300	400	500	600
		kW	A		H (m)						
DC 150 (G)	DC 150T	1,55	7,1	2,9	11,0	10,4	9,6	8,3	6,8	4,6	2,1

E: maximum emptying level
Mt: minimum liquid level for continuous duty



TYPE		DIMENSIONS (mm)										Kg
1~	3~	B	C	D	E	H2	Mt	DNM	I	L	M	
DC 150 (G)	DC 150T	142,5	461	247,5	185	170	390	2" G	200	260	470	19



Drainage pumps with set-back Vortex type impeller for pumping charged waters and liquids with suspended solids; ideal for civil and household applications. The single-phase version includes a built-in capacitor, a thermal protector and it can be equipped with a float switch.



Construction features

Pump body stainless steel with openings 1½" and 2"

Shell, motor cover, base support stainless steel



Impeller stainless steel Vortex type

Mechanical seal double seal with oil barrier; silicon carbide on pump side, sealing ring on motor side

Motor shaft stainless steel AISI 430

Free passage Ø max 28 mm

Max submergence 5 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

G float switch

Motor

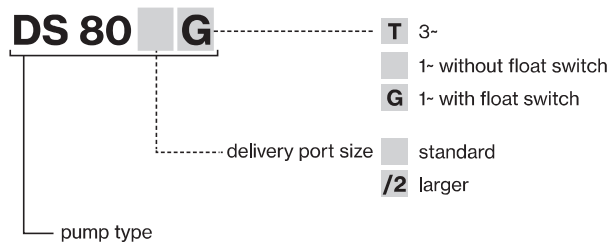
3~ 400V - 50Hz

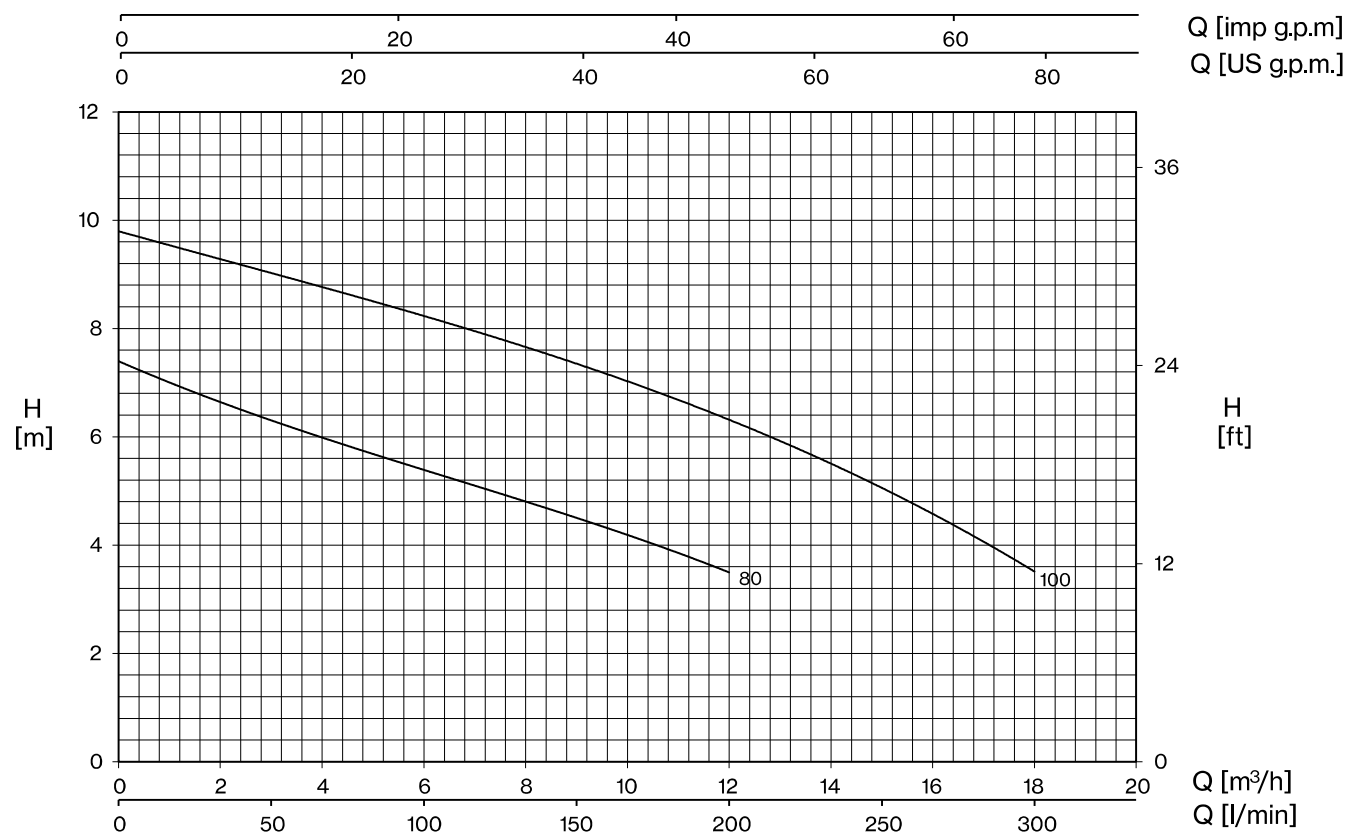
2 Poles induction motor 1~ 230V - 50Hz
(with thermal protection)

Insulation class F

Protection degree IPX8

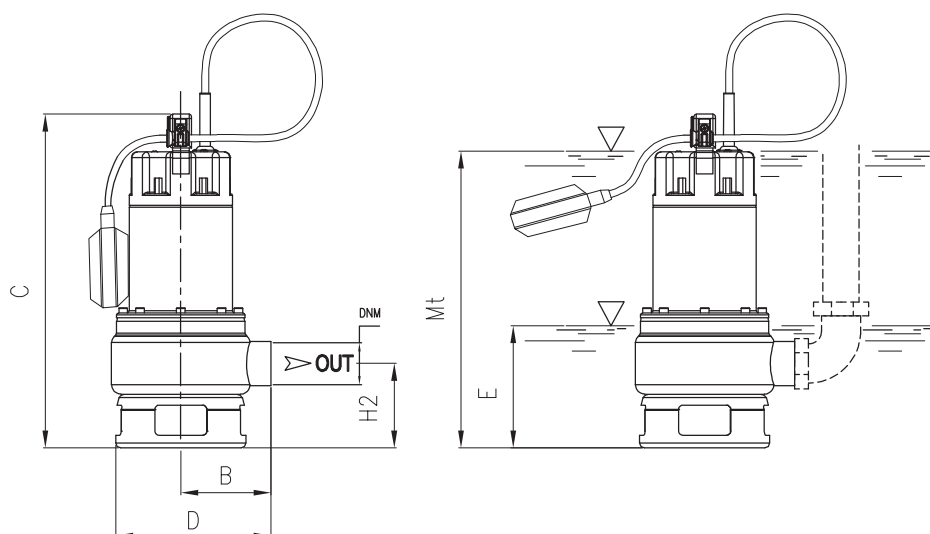
TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
DS	80×120×145	48	80×120×190	76



DS


TYPE - 50 Hz		P1	CURRENT		Q (m³/h - l/min)						
1~	3~		1~ 230V	3~ 400V	0	3	6	9	12	15	18
					0	50	100	150	200	250	300
			kW	A		H (m)					
DS 80 (G)	DS 80T	1050	4,7	2,2	7,4	6,3	5,4	4,5	3,5		
DS 80/2 (G)	DS 80/2T	1050	4,7	2,2	7,4	6,3	5,4	4,5	3,5		
DS 100 (G)	DS 100T	1350	6,2	2,8	9,8	9	8,3	7,3	6,3	5,1	3,5
DS 100/2 (G)	DS 100/2T	1350	6,2	2,8	9,8	9	8,3	7,3	6,3	5,1	3,5

E: maximum emptying level
 Mt: minimum liquid level for
 continuous duty



TYPE		DIMENSIONS (mm)										
1~	3~	B	C	D	E	H2	Mt	DNM	I	L	M	
DS 80 (G)	DS 80T	104	400	183	125	112	280	1" ½ G	250	183	448	10,5
DS 80/2 (G)	DS 80/2T	114	400	183	125	112	280	2" G	250	183	448	10,5
DS 100 (G)	DS 100T	104	400	183	125	112	280	1" ½ G	250	183	448	12
DS 100/2 (G)	DS 100/2T	114	400	183	125	112	280	2" G	250	183	448	12

FV 160-1000

FV 160-1000/P



Drainage pumps for charged liquids with set-back Vortex type impeller for civil and industrial applications; specifically designed for very heavy use; available in the mobile or permanent versions with coupling feet.



Construction features

Painting cataphoresis

Pump body cast iron



Impeller cast iron

Mechanical seal

double seal with oil barrier; silicon carbide on pump side, ceramic-graphite on motor side

Motor shaft

stainless steel AISI 304

Free passage

Ø max 50 mm (160÷310;
750-1000)
Ø max 45 mm (400-550)

Max submergence

20 m

Liquid temperature

0 - 40 °C

Cable

H07 RN8F, 10 m

Bolts

A2 stainless steel

Foot support

galvanized iron

Gaskets

NBR rubber

Motor

3~ 230V - 50Hz

3~ 400V - 50Hz

3~ 230/400V - 50Hz

3~ 400/690V - 50Hz

2 Poles induction motor

1~ 230V - 50Hz

required run capacitor (35µF for 1,5HP model, 50µF for 2HP model)

Insulation class F

Protection degree IPX8

FV 160 T -CF

counter-flange ☐ not included

CF ☒ included

motor ☐ 1~ **T** 3~

— pump type



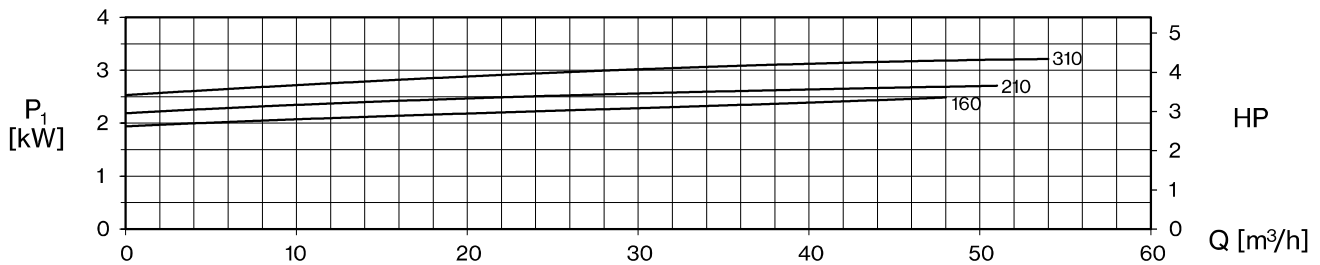
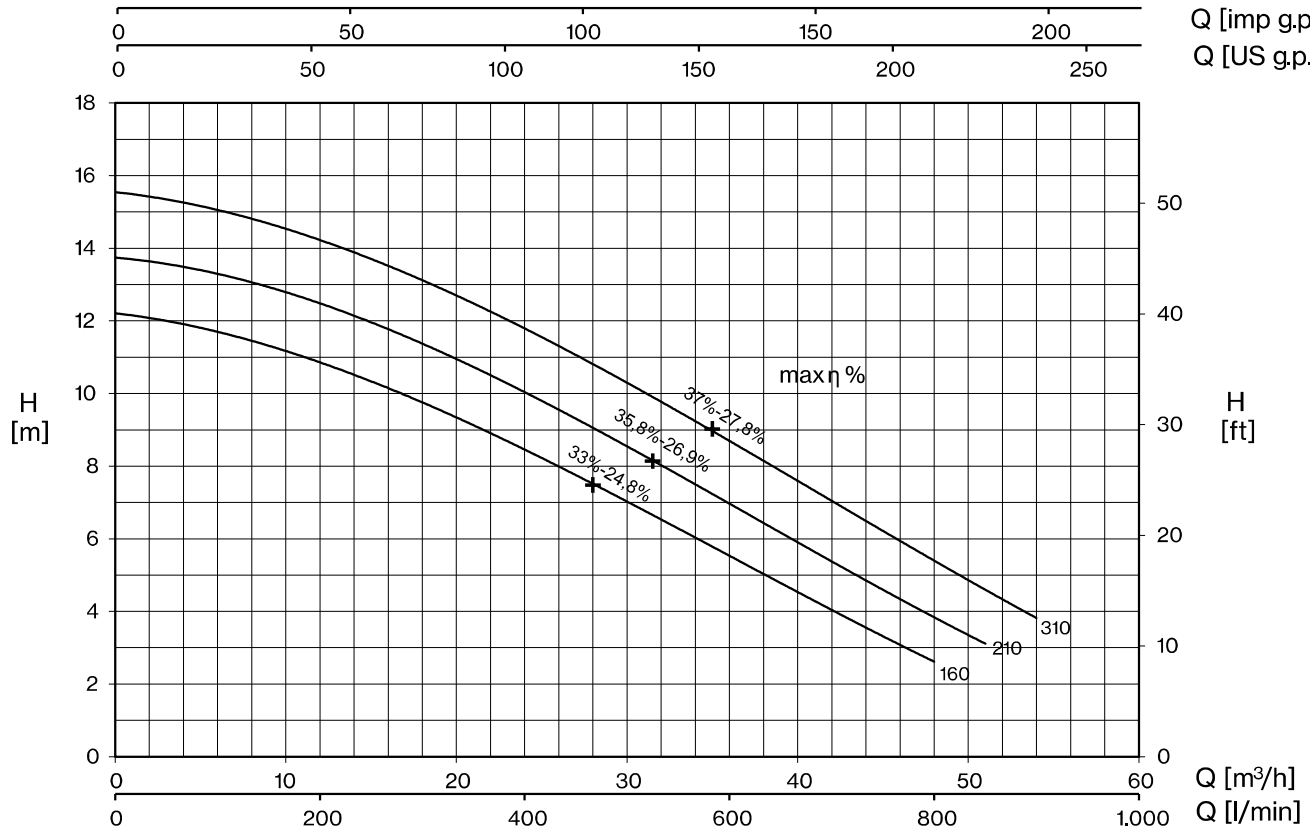
TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FV 160÷310	85×110×145	18	85×110×190	27
FV 400-550T	85×110×170	12	85×110×170	12
FV 750-1000T	100×120×190	12	100×120×190	12



FV

Q [imp g.p.m.]

Q [US g.p.m.]



TYPE - 50 Hz		CURRENT				
1~	3~	230V	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FV 160	FV 160T	11,3	7,1	4,1	-	-
FV 210	FV 210T	12,6	8,7	5,0	-	-
-	FV 310T	-	9,9	5,7	-	-

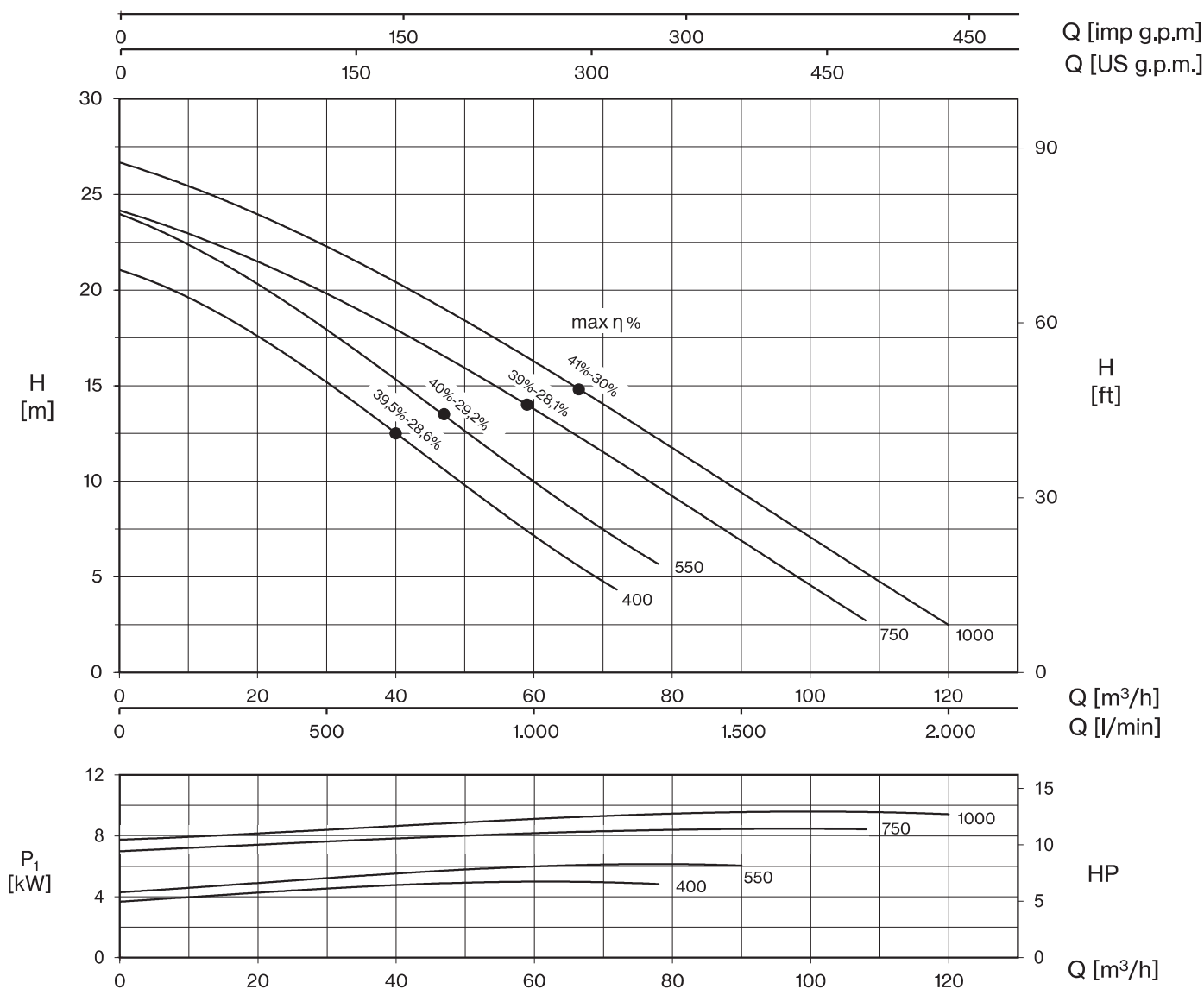
+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

TYPE - 50 Hz		P2		P1		Q (m³/h - l/min)							
1~	3~			1~	3~	0	12	24	36	42	48	51	54
						0	200	400	600	700	800	850	900
				HP	kW	kW		H (m)					
FV 160	FV 160T	1,5	1,1	2,5	2,3	12,2	10,9	8,4	5,6	4,1	2,6		
FV 210	FV 210T	2	1,5	2,8	2,7	13,7	12,6	9,9	7,0	5,4	3,8	3,1	
-	FV 310T	3	2,2	-	3,3	15,5	14,4	11,6	8,8	7,1	5,4	4,5	3,8

FV



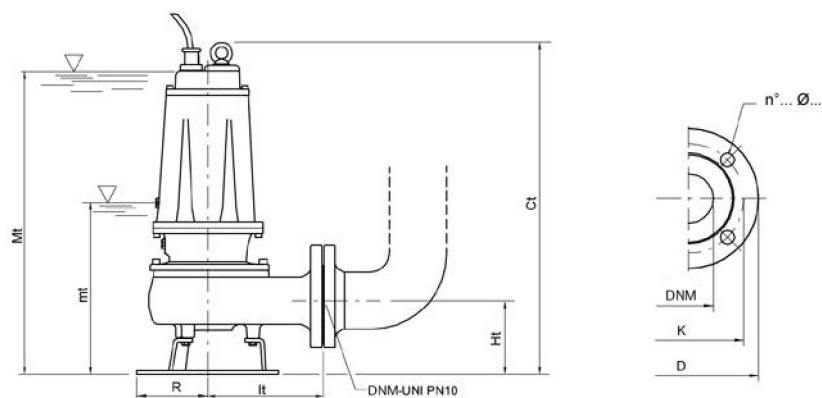
TYPE - 50 Hz	CURRENT			
3~	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FV 400T	14,1	8,1	-	-
FV 550T	18,1	10,4	-	-
FV 750T	-	14,4	25	14,4
FV 1000T	-	16,4	28,5	16,4

(*) no standard execution

+ max η %

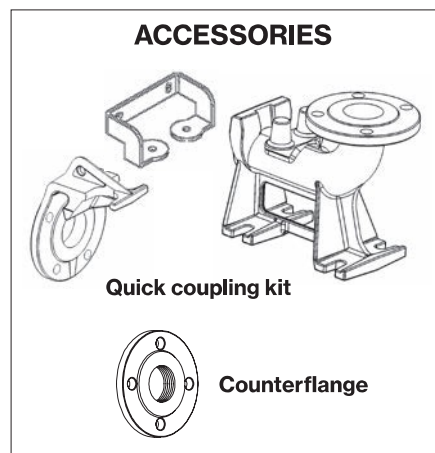
max hydraulic efficiency and respective total efficiency

TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)																		
				0	12	24	36	42	48	51	54	60	72	78	84	90	96	108	114	120		
	3~					0	200	400	600	700	800	850	900	1000	1200	1300	1400	1500	1600	1800	1900	2000
		HP	kW	kW	H (m)																	
FV 400T	4	3	4,9	21,0	19,4	16,6	13,5	12,0	10,4	9,6	8,8	7,2	4,3	2,8								
FV 550T	5,5	4	6,1	23,9	22,2	19,3	16,3	14,8	13,2	12,4	11,6	10	7,1	5,6	4,1	2,6						
FV 750T	7,5	5,5	8,5	24,2	22,7	20,7	18,7	17,6	16,4	15,8	15,2	13,9	11,1	9,7	8,2	6,8	5,4	2,8				
FV 1000T	10	7,5	9,6	26,7	25,2	23,2	21,2	20,0	18,8	18,2	17,6	16,3	13,7	12,3	10,8	9,4	8,0	5,1	3,8	2,6		

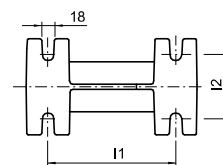
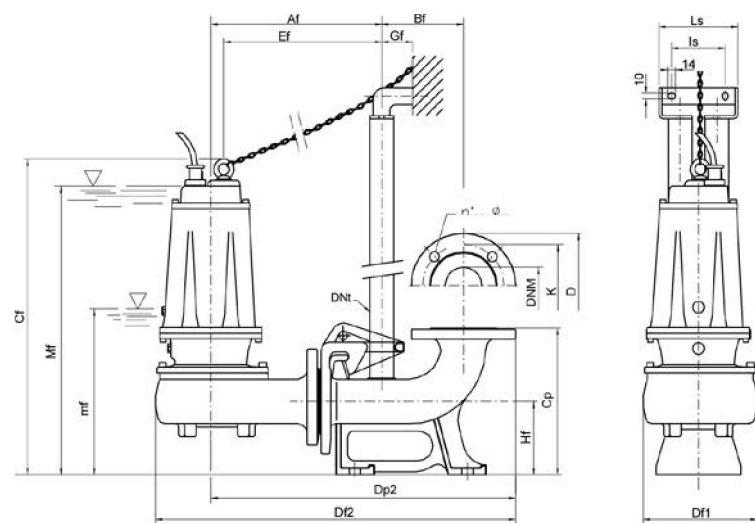


mt: minimum working level

Mt: minimum submersion level for continuous duty



TYPE		DIMENSIONS (mm)							Kg	
1~	3~	Ct	Ht	R	It	mt	Mt	DNM	1~	3~
FV 160	FV 160T	551	123	117	191	243	513	65	40,5	39,5
FV 210	FV 210T	551	123	117	191	243	513	65	-	40,5
-	FV 310T	551	123	117	191	243	513	65	-	41,5
-	FV 400T	645	148	160	210	285	600	80	-	68
-	FV 550T	645	148	160	210	285	600	80	-	71
-	FV 750T	725	178	180	232	358	670	80	-	90
-	FV 1000T	725	178	180	232	358	670	80	-	92,5



mf: minimum working level

Mf: minimum submersion level for continuous duty

Flange UNI PN 10 (mm)			
DNM	K	D	n°... Ø...
65	145	185	4... 18...
80	160	200	8... 18...

TYPE	DIMENSIONS (mm)																	
	Af	Bf	Cf	Cp	Df1	Df2	Dp2	DNt	Ef	Gf	Hf	I1	I2	I3	I4	I5	I6	I7
FV 160/P - FV 160T/P	303	145	559	260	200	639	541	1" 1/4	280	55	130	200	100	95	140	251	521	65
FV 210/P - FV 210T/P	303	145	559	260	200	639	541	1" 1/4	280	55	130	200	100	95	140	251	521	65
FV 310T/P	303	145	559	260	200	639	541	1" 1/4	280	55	130	200	100	95	140	251	521	65
FV 400T/P	350	165	690	340	220	720	615	2"	319	85	190	250	140	130	180	327	642	80
FV 550T/P	350	165	690	340	220	720	615	2"	319	85	190	250	140	130	180	327	642	80
FV 750T/P	370	165	745	340	235	750	638	2"	338	85	190	250	140	130	180	380	690	80
FV 1000T/P	370	165	745	340	235	750	638	2"	338	85	190	250	140	130	180	380	690	80

TYPE	PROTECTION		1 PUMP CONTROL PANEL			2 PUMPS CONTROL PANEL		
	1- 230V	3- 400V	1- 230V	3- 400V	400/690 V	1- 230V	3- 400V	400/690 V
FV 160	PMC 15/35-15	PT 20-30-40/4.3-6.8	EQSM + 35µF	EQSMT 10		EQ2SM + 35µF	EQ2SMT 10	
FV 210	PMC 20/50-18	PT 20-30-40/4.3-6.8	EQSM + 50µF	EQSMT 10		EQ2SM + 50µF	EQ2SMT 10	
FV 310T		PT 40-50/5.7-9.1		EQSMT 10			EQ2SMT 10	
FV 400T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FV 550T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FV 750T		PT 100/12.5-16.5		EQSMT 10	QST 7		EQ2SMT 10	Q2ST 7
FV 1000T		PT 125-150/16-21		EQSMT 10	QST 10		EQ2SMT 15	Q2ST 10

FV4

Sewage
Vortex

FV 250-750-4 T

FV 250-750-4 T/P



Drainage pumps for charged liquids with set-back Vortex type impeller for civil and industrial applications; specifically designed for very heavy use; available in the mobile or permanent versions with coupling feet.



Construction features

Painting cataphoresis

Pump body cast iron



Impeller cast iron

Mechanical seal

double seal with oil barrier;
silicon carbide on pump
side, ceramic-graphite on
motor side

Motor shaft stainless steel AISI 304

Free passage Ø max 50 mm

Max submergence 20 m

Liquid temperature 0 - 40 °C

Cable H07 RN8F, 10 m

Bolts A2 stainless steel

Foot support galvanized iron

Gaskets NBR rubber

Motor

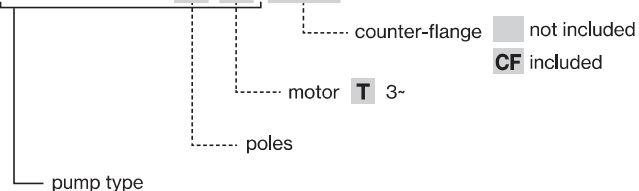
4 Poles induction motor
3~ 230V - 50Hz
3~ 400V - 50Hz
3~ 230/400V - 50Hz
3~ 400/690V - 50Hz

Insulation class F

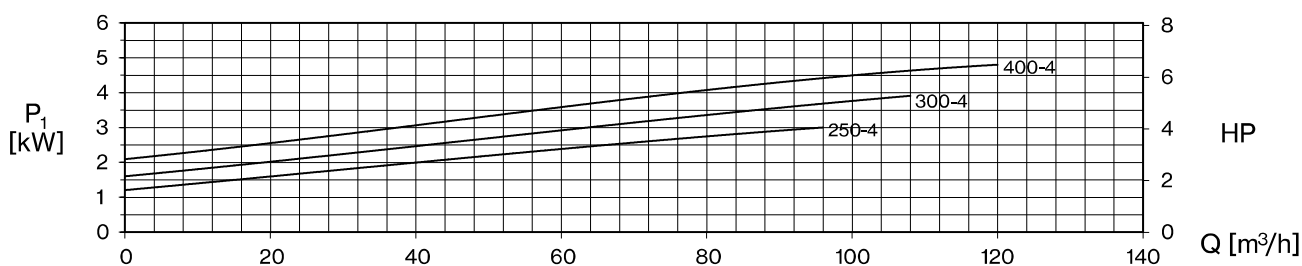
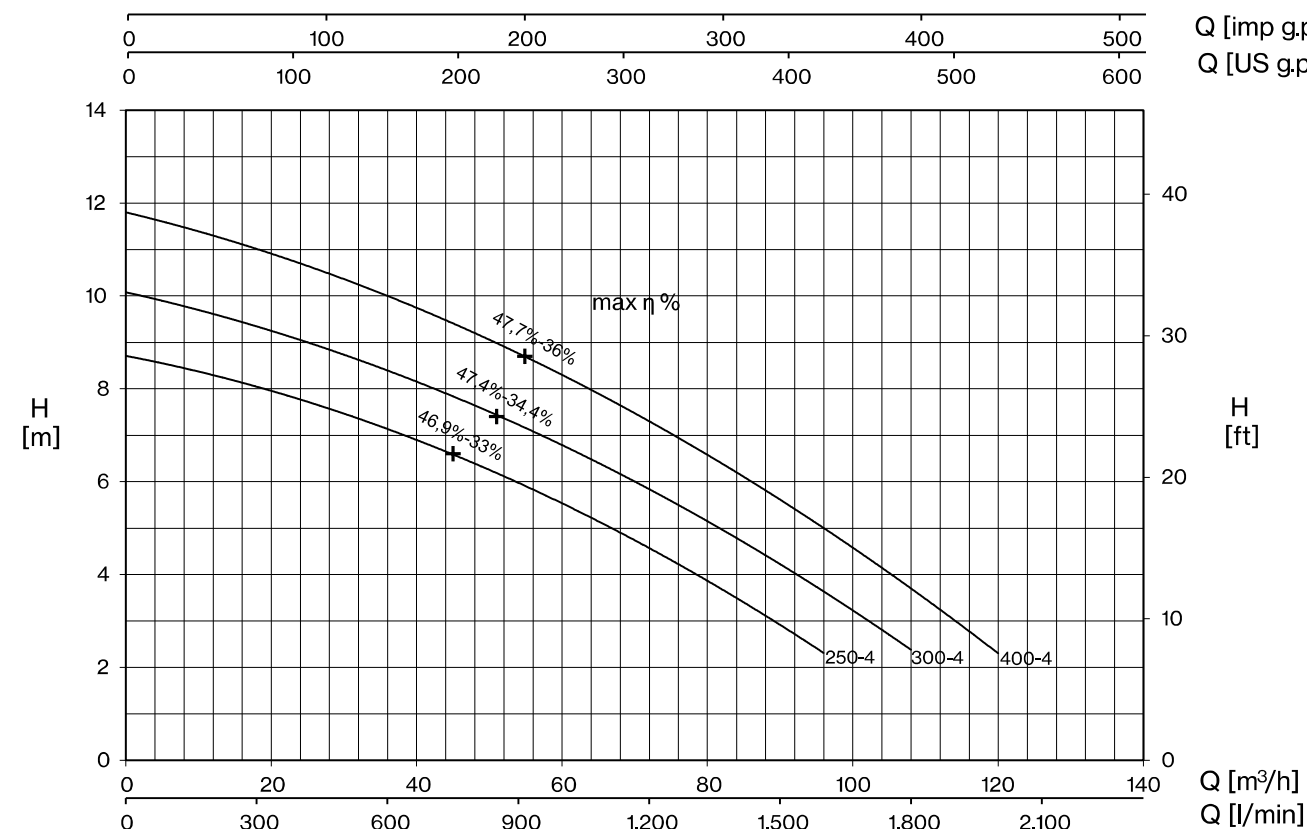
Protection degree IPX8

TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FV 250-4÷750-4T	85×110×190	8	100×120×190	12

FV 550 - 4 T -CF



FV4



TYPE - 50 Hz	CURRENT			
3~	3- 230V (*)	3- 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FV 250-4T	10,0	5,8	-	-
FV 300-4T	11,8	6,8	-	-
FV 400-4T	15,1	8,7	-	-

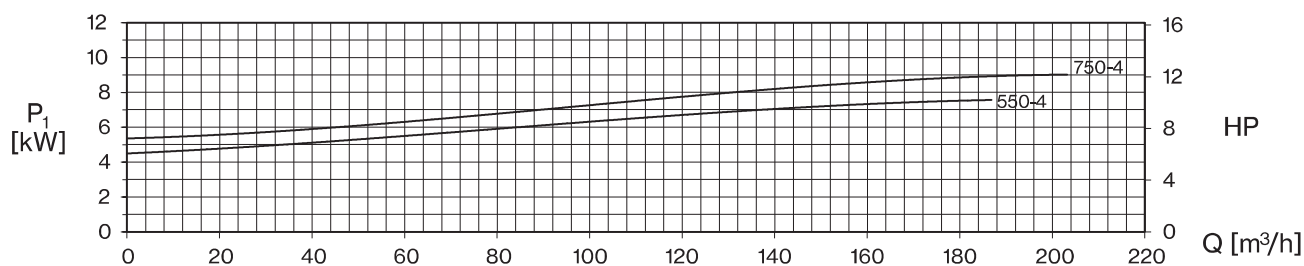
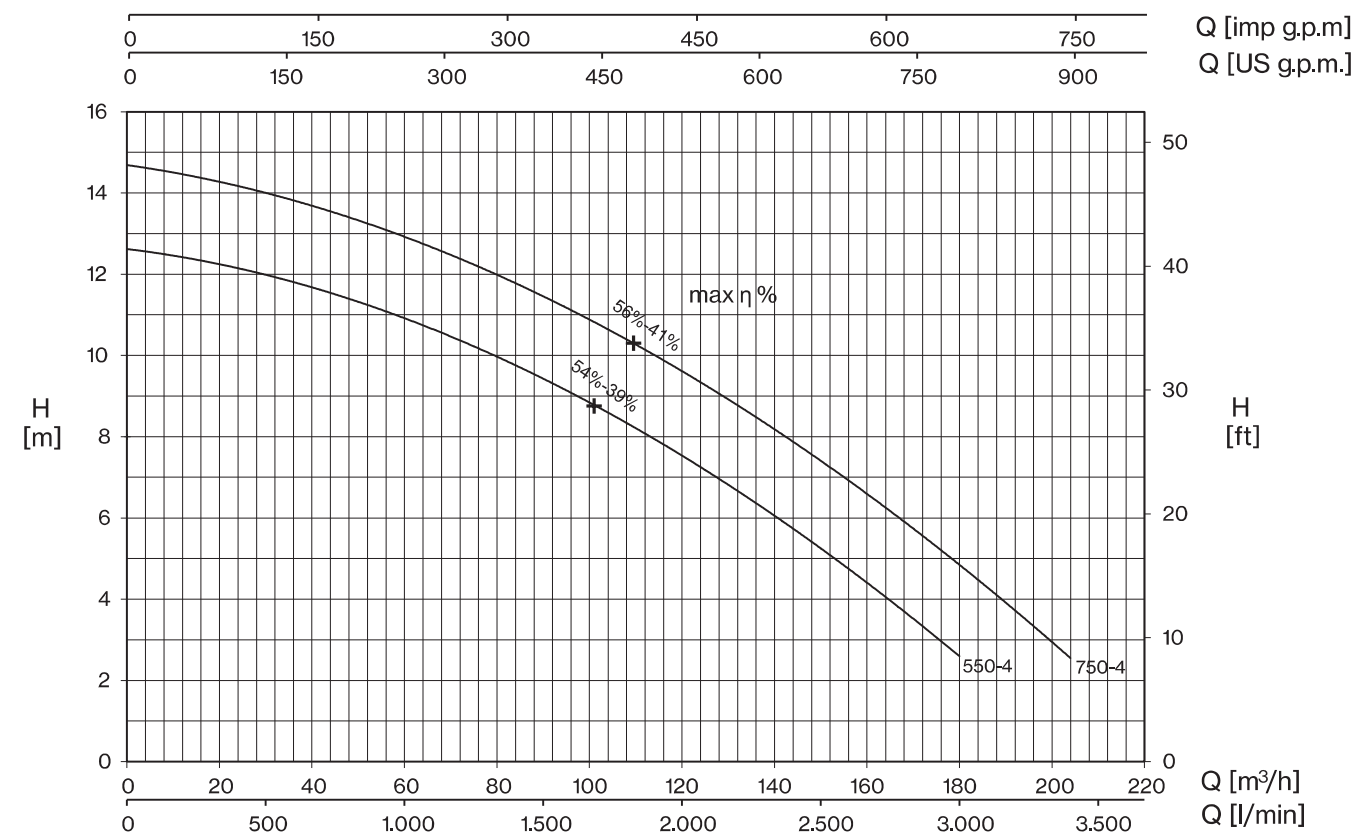
+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)											
0				12	24	36	48	60	72	84	96	108	120		
0				200	400	600	800	1000	1200	1400	1600	1800	2000		
3~	HP	kW	kW	H (m)											
FV 250-4T	2,5	1,8	3,3	8,7	8,3	7,8	7,1	6,4	5,5	4,6	3,5	2,3			
FV 300-4T	3	2,2	4,1	10,1	9,6	9	8,4	7,7	6,8	5,8	4,8	3,6	2,4		
FV 400-4T	4	3	4,9	11,8	11,3	10,7	10	9,2	8,3	7,3	6,2	5	3,7	2,3	

FV4



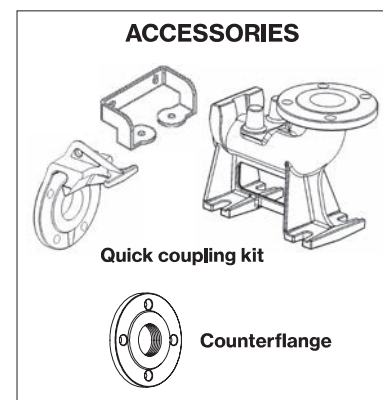
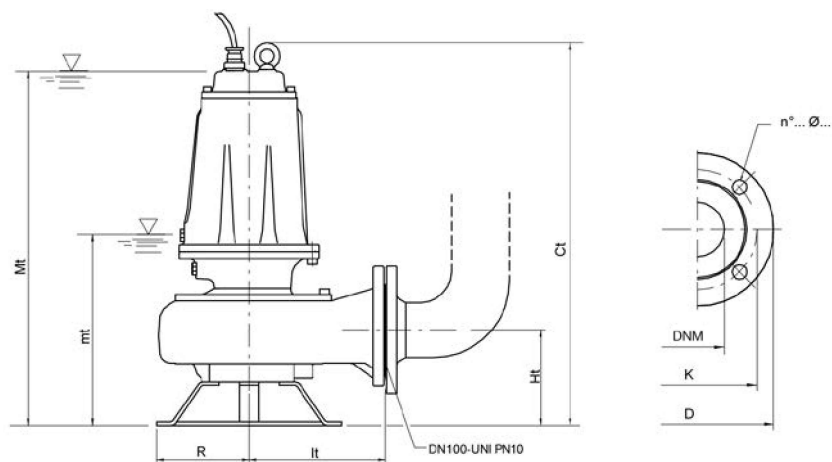
TYPE - 50 Hz	CURRENT			
3~	3~ 230V (*)	3~ 400V	230/400 V λ / Δ (*)	400/690 V λ / Δ
FV 550-4T	-	12,9	22,3	12,9
FV 750-4T	-	15,4	26,6	15,4

+ max η %

max hydraulic efficiency and respective total efficiency

(*) no standard execution

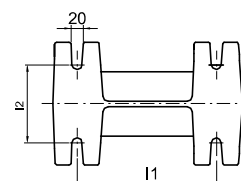
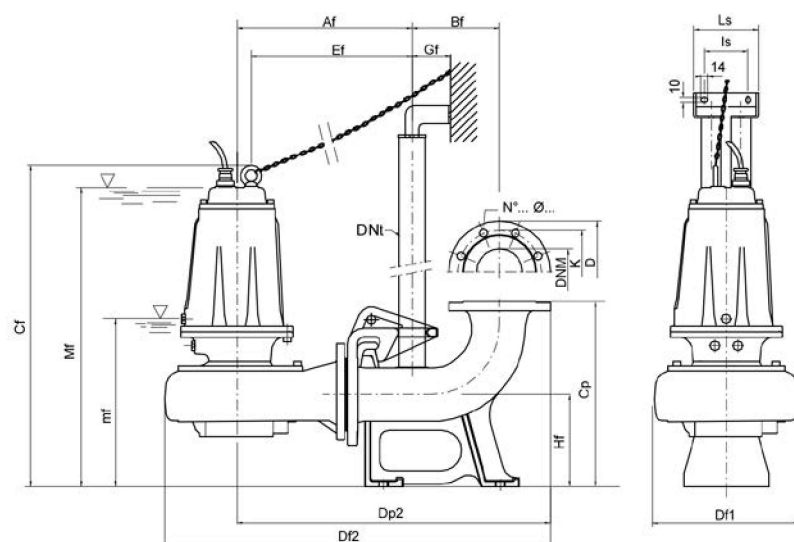
TYPE - 50 Hz	P2		P1	Q (m³/h - l/min)											
				0	24	48	72	96	120	144	168	180	192	204	
	3~				0	400	800	1200	1600	2000	2400	2800	3000	3200	3400
		HP	kW	kW	H (m)										
FV 550-4T	5,5	4	7,5	12,6	12,2	11,4	10,3	9,1	7,6	5,7	3,7	2,6			
FV 750-4T	7,5	5,5	9	14,7	14,2	13,3	12,4	11,2	9,6	7,9	5,9	4,8	3,7	2,6	



mt: minimum working level

Mt: minimum submersion level for continuous duty

TYPE	DIMENSIONS (mm)							Kg
	Ct	Ht	R	Lt	mt	Mt	DNM	
FV 250-4T	660	165	160	235	300	614	100	69,5
FV 300-4T	660	165	160	235	300	614	100	71
FV 400-4T	660	165	160	235	300	614	100	74,5
FV 550-4T	715	195	180	276	385	695	100	101,5
FV 750-4T	715	195	180	276	385	695	100	106



mf: minimum working level

Mf: minimum submersion level for continuous duty

Flange UNI PN 10 (mm)			
DNM	K	D	n°... Ø...
100	180	220	8... 18...

TYPE	DIMENSIONS (mm)																	
	Af	Bf	Cf	Cp	Df1	Df2	Dp2	DNt	Ef	Gf	Hf	L1	L2	Ls	Ls	mf	Mf	DNM
FV 250-4T/P	378	190	695	400	317	835	678	2"	347	85	200	250	140	130	180	335	650	100
FV 300-4T/P	378	190	695	400	317	835	678	2"	347	85	200	250	140	130	180	335	650	100
FV 400-4T/P	378	190	695	400	317	835	678	2"	347	85	200	250	140	130	180	335	650	100
FV 550-4T/P	419	190	755	400	371	900	719	2"	384	85	200	250	140	130	180	390	700	100
FV 750-4T/P	419	190	755	400	371	900	719	2"	384	85	200	250	140	130	180	390	700	100

TYPE	PROTECTION	1 PUMP CONTROL PANEL		2 PUMPS CONTROL PANEL	
	3~ 400V	3~ 400V	400/690 V	3~ 400V	400/690 V
FV 250-4T	PT 40-50/5,7-9,1	EQSMT 10		EQ2SMT 10	
FV 300-4T	PT 40-50/5,7-9,1	EQSMT 10		EQ2SMT 10	
FV 400-4T	PT 55-75/8,6-13,5	EQSMT 10		EQ2SMT 10	
FV 550-4T	PT 55-75/8,6-13,5	EQSMT 10		EQ2SMT 10	
FV 750-4T	PT 100/12,5-16,5	EQSMT 10	QST 10	EQ2SMT 10	Q2ST 10

