FCR Stainless steel multi-stage centrifugal pumps

Clean water

Domestic use

Civil use

※ Quiet, energy-efficient stainless steel multi-stage pumps

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **67 m**

INSTALLATION AND USE

Quiet performance and efficient energy use make them perfect for water supply and pressurization tasks. They integrate with pressure tanks for optimal water distribution, making them suitable for a wide range of uses from industrial applications to irrigation systems.

KEY FEATURES

※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation.

APPLICATION LIMITS

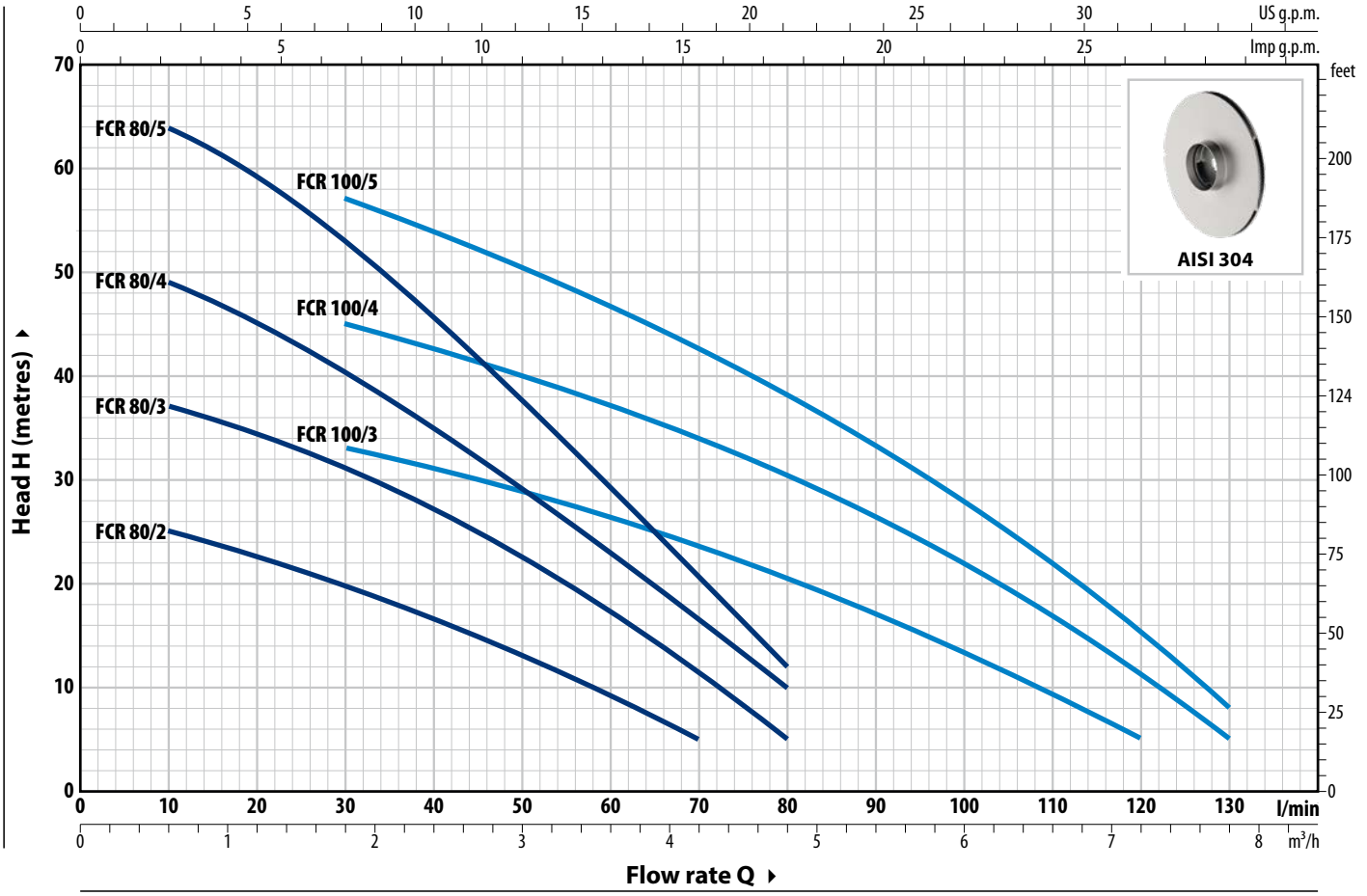
- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **7 bar**

AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Different voltage or frequency
※ Certified pumps WRAS APPROVED PRODUCT

CURVES AND PERFORMANCE DATA – HS=0 m

60 Hz



TYPE		POWER (P2)			Q	m³/h	0	0.3	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8
Single-ph.	**Three-ph.**	**kW**	**HP**	**3~**		l/min	**0**	**5**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**	**130**
FCRm 80/2	**FCR 80/2**	0.37	0.50				27	26	25	22.5	20	16.5	13	9	5						
FCRm 80/3	**FCR 80/3**	0.45	0.60	**IE2**			40	38	37	34.5	31	27	22.5	17	11	5					
FCRm 80/4	**FCR 80/4**	0.55	0.75				52	50	49	44.5	40	34	28.5	22.5	16	10					
FCRm 80/5	**FCR 80/5**	0.75	1	**IE3**	**H** metres		67	66	64	59	53	45.5	37.5	29.5	20.5	12					
FCRm 100/3	**FCR 100/3**	0.55	0.75	**IE2**			38	37	36	34.5	33	31	28	26	23	20	17	13.5	10	5	
FCRm 100/4	**FCR 100/4**	0.75	1				50	50	49	47	45	42	39.5	37	34	30.5	26.5	22	17	11	5
FCRm 100/5	**FCR 100/5**	1.1	1.5	**IE3**			63	62	61.5	59.5	57	53.5	50.5	46.5	42.5	38	33	28	22	15	8

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

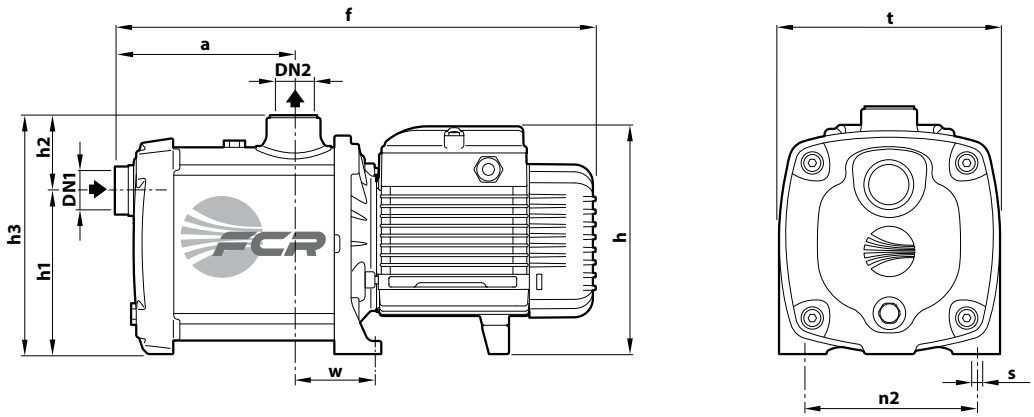
ABSORPTION

TYPE	VOLTAGE
Single-phase	**220 V**
FCRm 80/2	2.5 A
FCRm 80/3	3.4 A
FCRm 80/4	4.5 A
FCRm 80/5	6.0 A
FCRm 100/3	5.0 A
FCRm 100/4	6.2 A
FCRm 100/5	6.6 A

TYPE	VOLTAGE	
Three-phase	**220 V - Δ**	**380 V - Y**
FCR 80/2	1.7 A	1.0 A
FCR 80/3	2.3 A	1.3 A
FCR 80/4	3.0 A	1.7 A
FCR 80/5	5.0 A	2.9 A
FCR 100/3	3.0 A	1.7 A
FCR 100/4	4.5 A	2.6 A
FCR 100/5	4.8 A	2.8 A

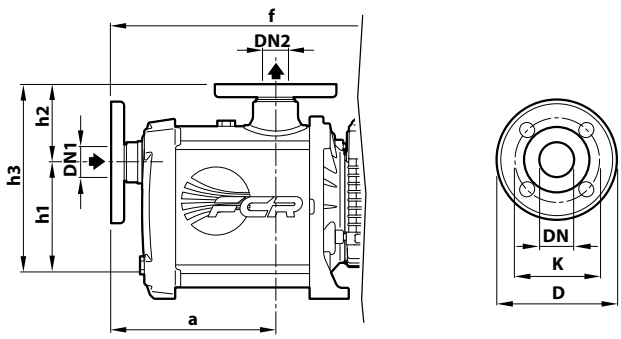
DIMENSIONS AND WEIGHT

WITH THREADED PORTS



MODEL		PORTS		DIMENSIONS mm									kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	f	h	h1	h2	h3	t	n2	w	s	1~	3~
FCRm 80/2	**FCR 80/2**	**1"**	**1"**	107	333	171	122	56	178	160	125	56.5	9	6.9	6.9
FCRm 80/3	**FCR 80/3**													7.9	7.9
FCRm 80/4	**FCR 80/4**			132	358									9.3	9.1
FCRm 80/5	**FCR 80/5**				377	189								11.8	11.8
FCRm 100/3	**FCR 100/3**			107	333	171								8.8	8.1
FCRm 100/4	**FCR 100/4**			132	377	189								11.6	11.6
FCRm 100/5	**FCR 100/5**													12.4	12.1

WITH FLANGED PORTS



TYPE	PORTS		DIMENSIONS mm				
	DN1	DN2	a	f	h1	h2	h3
FCR 80/2	**25**	**25**	129	355	122	78	200
FCR 80/3							
FCR 80/4			154	380			
FCR 80/5				399			
FCR 100/3			129	355			
FCR 100/4			154	399			
FCR 100/5							

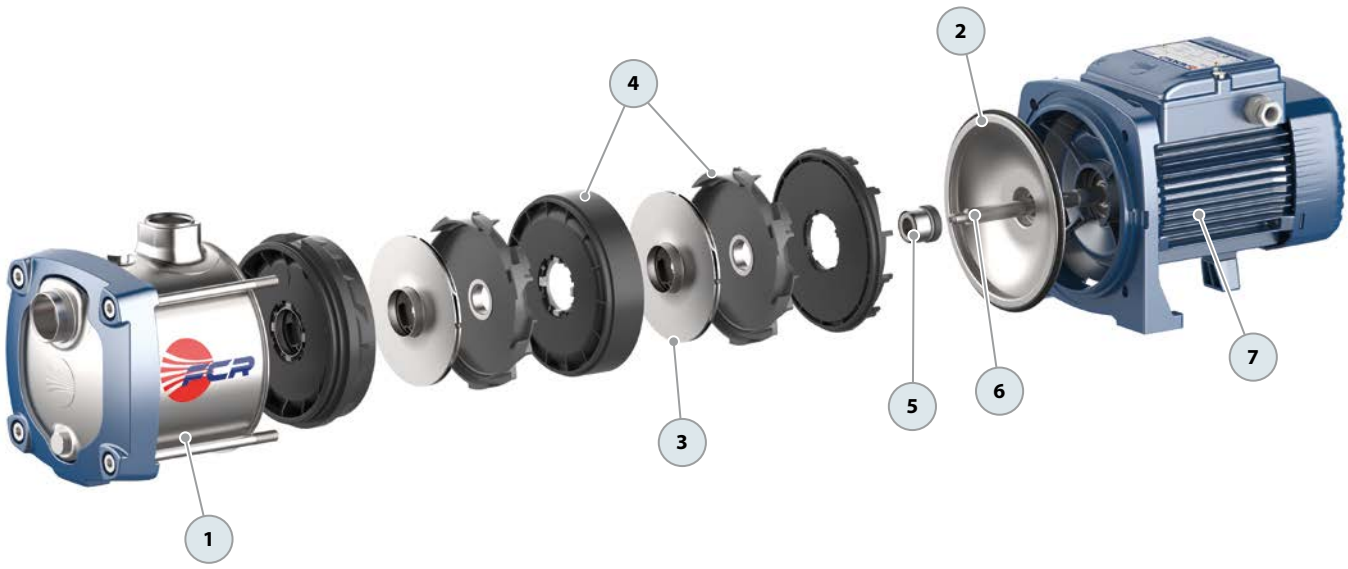
FLANGE	D	K	HOLES	
DN	mm	mm	N°	Ø (mm)
25	85	115	4	14
25	85	115	4	14

MATERIALS AND COMPONENTS

1	**Pump body**	Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports
2	**Cover**	Stainless steel **AISI 304**
3	**Impellers**	Stainless steel **AISI 304**
4	**Diffusers**	Noryl™ complete with wear rings
5	**Mechanical seal**	

Seal	Shaft	Materials
AR-13	Ø 13 mm	Ceramic / Graphite / NBR

6	**Motor shaft**	Stainless steel **AISI 431**
7	**Electric motor**	**FCRm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection **FCR**: three-phase 220/380 V - 60 Hz – The three-phase pumps are fitted with high performance motors up to P2=0.55 kW in class IE2 and from P2=0.75 kW in class IE3 (IEC 60034-30-1) – Continuous running duty **S1**



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※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

PERFORMANCE RANGE

- Flow rate up to **250 l/min** (15 m³/h)
- Head up to **113 m**

INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and safe liquids that will not damage any of the pump's components. Highly reliable and quiet, they are suitable for domestic applications.

They work seamlessly with small to medium-sized pressure tanks, offering an ideal setup for all irrigation requirements.

KEY FEATURES

※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation.

APPLICATION LIMITS

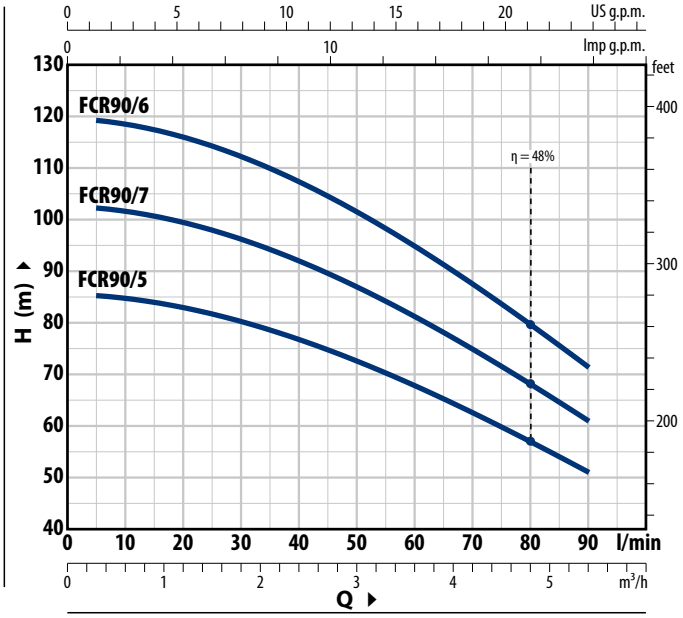
- Manometric suction head up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **11 bar**

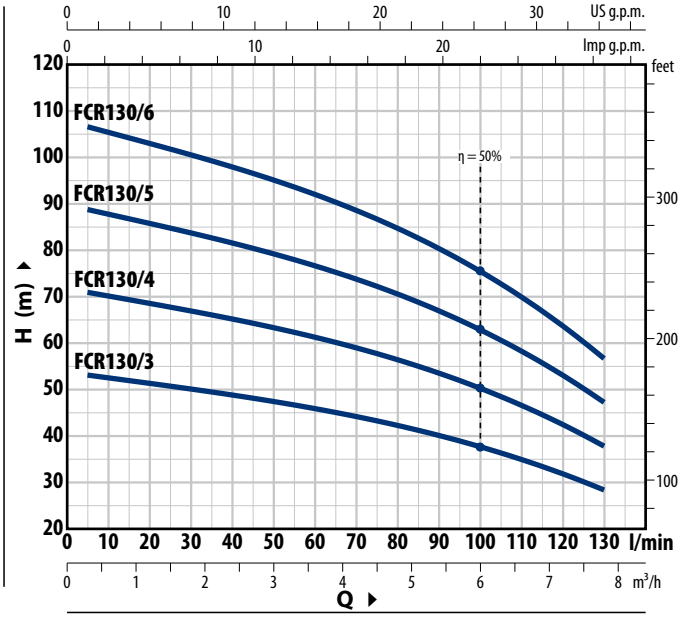
AVAILABLE UPON REQUEST

※ Technopolymer impeller (cost-effective version)
※ Mechanical seal options available
※ Different voltage or frequency
※ IPX5 protection
※ Certified pumps WRAS APPROVED PRODUCT
※ ISO 228/1 standard flanges for suction and discharge openings, made of AISI 304 stainless steel

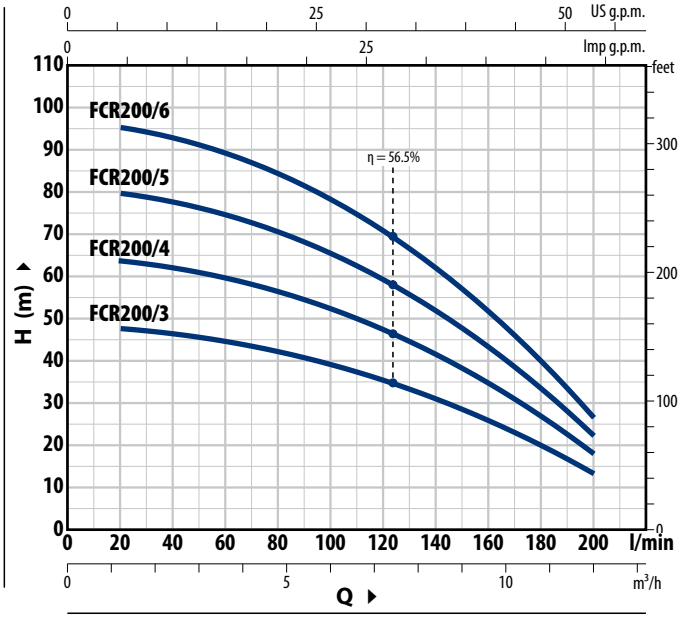
CURVES AND PERFORMANCE DATA – HS=0 m

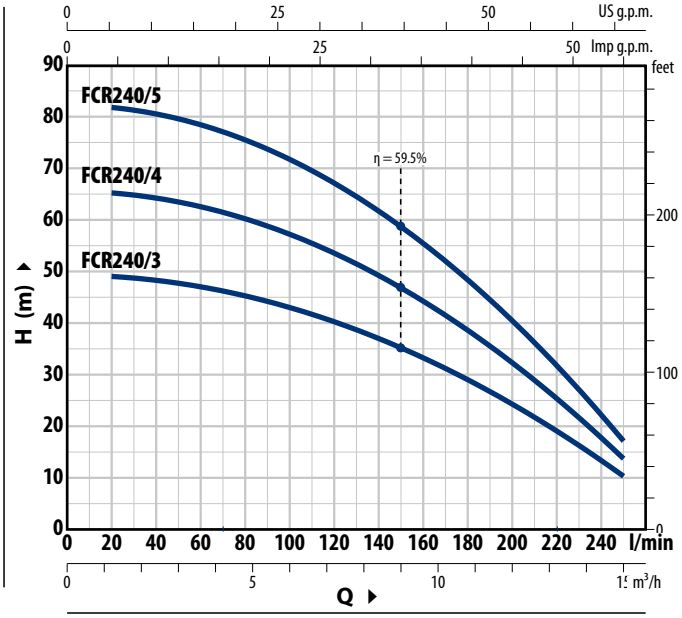
60 Hz





TYPE		POWER (P2)			Q m³/h	0	0.3	0.6	1.2	2.4	3.6	4.8	5.4	6.0	7.8
Single-ph.	**Three-ph.**	**kW**	**HP**	**3~**	Q l/min	**0**	**5**	**10**	**20**	**40**	**60**	**80**	**90**	**100**	**130**
FCRm 90/5	**FCR 90/5**	1.1	1.5			81	80	79	77	71	62.5	51	44		
FCRm 90/6	**FCR 90/6**	1.5	2	**IE3**	**H** metres	97	96	95	93	86	75	61	52		
FCRm 90/7	**FCR 90/7**	1.8	2.5			113	112	111	108	100	88	71	61		
FCRm 130/3	**FCR 130/3**	1.1	1.5			51.5	51.5	51	50.5	49	46.5	43	41	39	31
FCRm 130/4	**FCR 130/4**	1.5	2	**IE3**	**H** metres	68.5	68.5	68	67	65	62	57.5	55	52	41
FCRm 130/5	**FCR 130/5**	1.8	2.5			86	85	85	84	81	77	72	68.5	65	51.5
FCRm 130/6	**FCR 130/6**	2.2	3			103	103	102	101	98	93	86	82	78	62





TIPO		POTENZA (P2)			Q m³/h	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0	13.2	15
Monofase	**Trifase**	**kW**	**HP**	**3~**	Q l/min	**0**	**20**	**40**	**60**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**220**	**250**
FCRm 200/3	**FCR 200/3**	1.1	1.5			47	46.5	45.5	44	42	39.5	36.5	32.5	28	23.1	17		
FCRm 200/4	**FCR 200/4**	1.5	2	**IE3**	**H** metres	62.5	62	60.5	58.5	56	53	48.5	43.5	37.5	31	23		
FCRm 200/5	**FCR 200/5**	1.8	2.5			78	77.5	76	73	70	66	61	54.5	47	38.5	28.5		
FCRm 200/6	**FCR 200/6**	2.2	3			94	93	91	88	84	79	73	65.5	56.5	46	34.5		
※ **FCRm 240/3**	**FCR 240/3**	1.5	2			49.5	49	48.5	47	45.5	43	40.5	37	33.5	29	24.4	19.2	10.5
※ **FCRm 240/4**	**FCR 240/4**	1.8	2.5	**IE3**	**H** metres	66	65.5	64.5	63	60.5	57.5	54	49.5	44.5	39	32.5	25.5	14
※ **FCRm 240/5**	**FCR 240/5**	2.2	3			82	82	81	79	76	72	67.5	62	55.5	48.5	40.5	32	17.5

Q = Portata **H** = Prevalenza manometrica totale **HS** = Altezza di aspirazione

Tolleranza delle curve di prestazione secondo EN ISO 9906 Grado 3B.

※ **Start of production 04.2024** ※

FCR

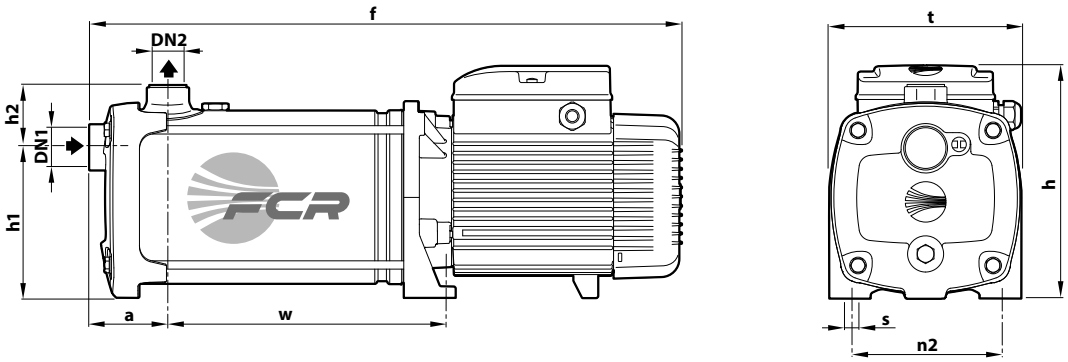
ABSORPTION

TYPE	VOLTAGE
Single-phase	**220 V**
FCRm 90/5	9.0 A
FCRm 90/6	10.5 A
FCRm 90/7	12.5 A
FCRm 130/3	8.0 A
FCRm 130/4	10.0 A
FCRm 130/5	11.8 A
FCRm 130/6	14.2 A
FCRm 200/3	8.0 A
FCRm 200/4	11.0 A
FCRm 200/5	12.5 A
FCRm 200/6	15.2 A
FCRm 240/3	n.a.
FCRm 240/4	n.a.
FCRm 240/5	n.a.

TYPE	VOLTAGE			
Three-phase	**220 V - Δ**	**380 V - Y**	**220 V - Δ**	**440 V - Y**
FCR 90/5	6.9 A	4.0 A	6.0 A	3.5 A
FCR 90/6	7.6 A	4.4 A	6.6 A	3.8 A
FCR 90/7	9.2 A	5.3 A	7.9 A	4.6 A
FCR 130/3	6.6 A	3.8 A	5.7 A	3.3 A
FCR 130/4	7.4 A	4.3 A	6.4 A	3.7 A
FCR 130/5	9.2 A	5.3 A	7.9 A	4.6 A
FCR 130/6	10.0 A	5.8 A	8.7 A	5.0 A
FCR 200/3	6.6 A	3.8 A	5.7 A	3.3 A
FCR 200/4	7.8 A	4.5 A	6.7 A	3.9 A
FCR 200/5	9.5 A	5.5 A	8.2 A	4.8 A
FCR 200/6	10.4 A	6.0 A	9.0 A	5.2 A
FCR 240/3	n.a.	n.a.	n.a.	n.a.
FCR 240/4	n.a.	n.a.	n.a.	n.a.
FCR 240/5	n.a.	n.a.	n.a.	n.a.

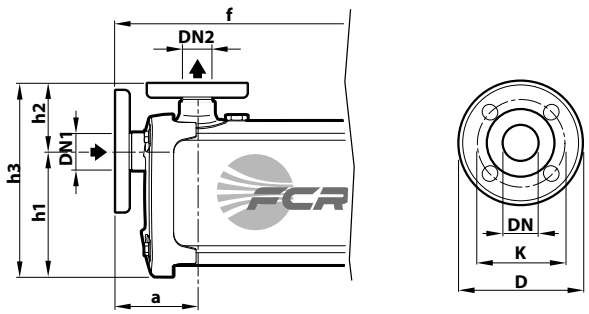
DIMENSIONS AND WEIGHT

※ WITH THREADED PORTS



TYPE		PORTS		DIMENSIONS mm									kg	
Single-phase	**Three-phase**	**DN1**	**DN2**	a	f	h	h1	h2	t	n2	w	s	1~	3~
FCRm 90/5	**FCR 90/5**				492						191		20.0	20.0
FCRm 90/6	**FCR 90/6**				518						217		22.0	22.0
FCRm 90/7	**FCR 90/7**				564						243		25.7	25.7
FCRm 130/3	**FCR 130/3**				440						139		18.0	18.0
FCRm 130/4	**FCR 130/4**				466						165		20.2	20.2
FCRm 130/5	**FCR 130/5**				512						191		23.7	23.7
FCRm 130/6	**FCR 130/6**	**1¼"**	**1"**	75	538	228	145	59	185	145	217	11	24.7	24.7
FCRm 200/3	**FCR 200/3**				440						139		18.0	18.0
FCRm 200/4	**FCR 200/4**				466						165		20.2	20.2
FCRm 200/5	**FCR 200/5**				512						191		23.7	23.7
FCRm 200/6	**FCR 200/6**				538						217		24.7	24.7
FCRm 240/3	**FCR 240/3**				440						139		19.2	19.2
FCRm 240/4	**FCR 240/4**				486						165		22.7	22.7
FCRm 240/5	**FCR 240/5**				512						191		23.7	23.7

※ WITH FLANGED PORTS

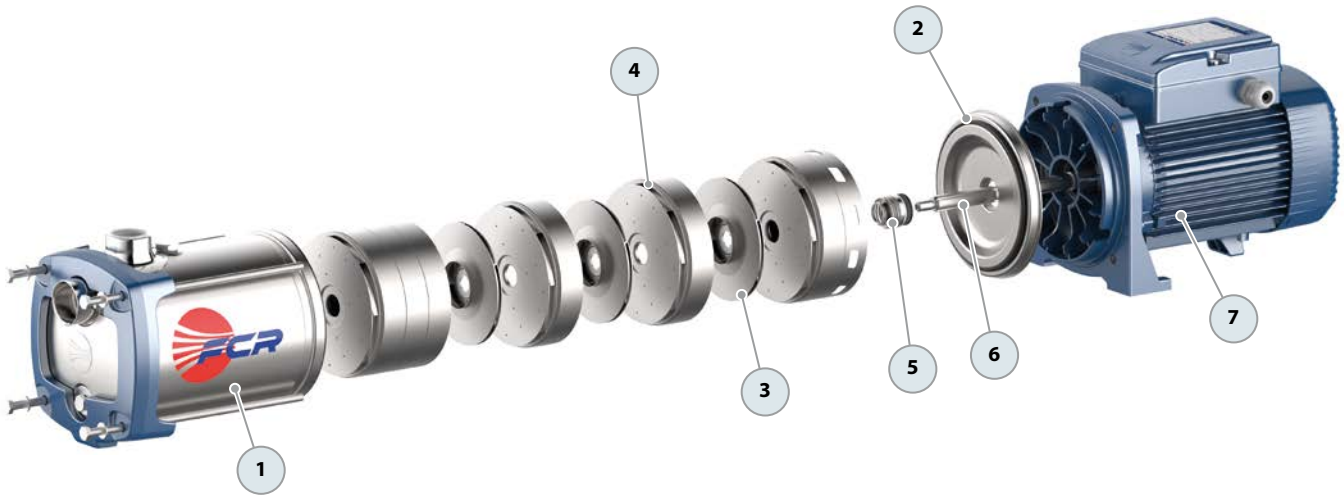


TYPE	PORTS		DIMENSIONS mm				
	DN1	DN2	a	f	h1	h2	h3
FCR 90/5				515			
FCR 90/6				541			
FCR 90/7				587			
FCR 130/3				463			
FCR 130/4				489			
FCR 130/5				535			
FCR 130/6	**25**	**32**	97.5	561	145	82	227
FCR 200/3				463			
FCR 200/4				489			
FCR 200/5				535			
FCR 200/6				561			
FCR 240/3				463			
FCR 240/4				509			
FCR 240/5				535			

FLANGES **DN**	D (mm)	K (mm)	N° HOLES	Ø (mm)
25	85	115	4	14
32	100	140	4	18

MATERIALS AND COMPONENTS

1	**Pump body**	Stainless steel **AISI 304** with ISO 228/1 threaded ports
2	**Cover**	Stainless steel **AISI 304**
3	**Impellers**	Stainless steel **AISI 304**
4	**Diffusers**	Stainless steel **AISI 304**
5	**Mechanical seal**	Seal: **FN-18** · Shaft: Ø 18 mm · Materials: Graphite / Ceramic / NBR
6	**Motor shaft**	Stainless steel **AISI 431**
7	**Electric motor**	**FCRm**: single-phase 220 V - 60 Hz with winding integrated thermal motor protection **FCR**: three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz – The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1) – Continuous running duty **S1**



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Clean water
Civil use
Industrial use

※ Low noise, low energy stainless steel multi-stage pumps

※ Pump body: **Stainless steel AISI 304**
※ Cover: **Stainless steel AISI 304**
※ Diffusers: **Stainless steel AISI304**
※ Impellers: **Stainless steel AISI 304**
※ Shaft: **Stainless steel AISI 431**

PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **104 m**

INSTALLATION AND USE

Due to their silent operation and energy efficiency, these pumps are ideal for water supply and pressurization, water distribution in conjunction with autoclaves, industrial uses, and irrigation systems.

KEY FEATURES

※ Stainless steel components extend service life and enhance efficiency.
※ Multi-stage design results in exceptionally quiet operation.

APPLICATION LIMITS

- Manometric suction head up to **7 m**
- Liquid temperature between **-15 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **12 bar**

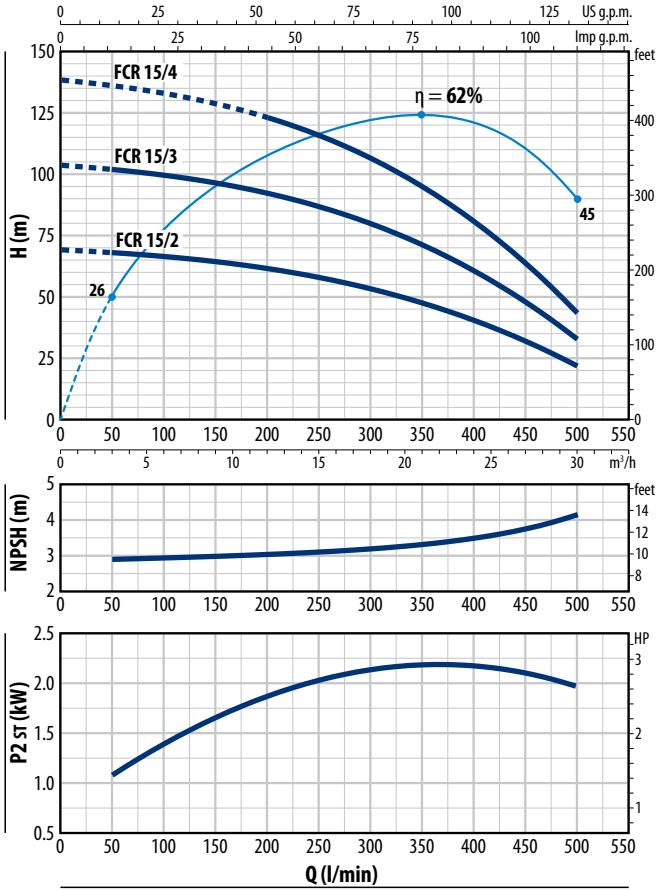
AVAILABLE UPON REQUEST

※ AISI 316 stainless steel pump.
※ Handling of liquids with higher or lower temperatures.
※ Different voltage or frequency
※ **WRAS-certified** pumps
※ ISO 228/1 standard flanges for suction and discharge openings, made of AISI 304 stainless steel.

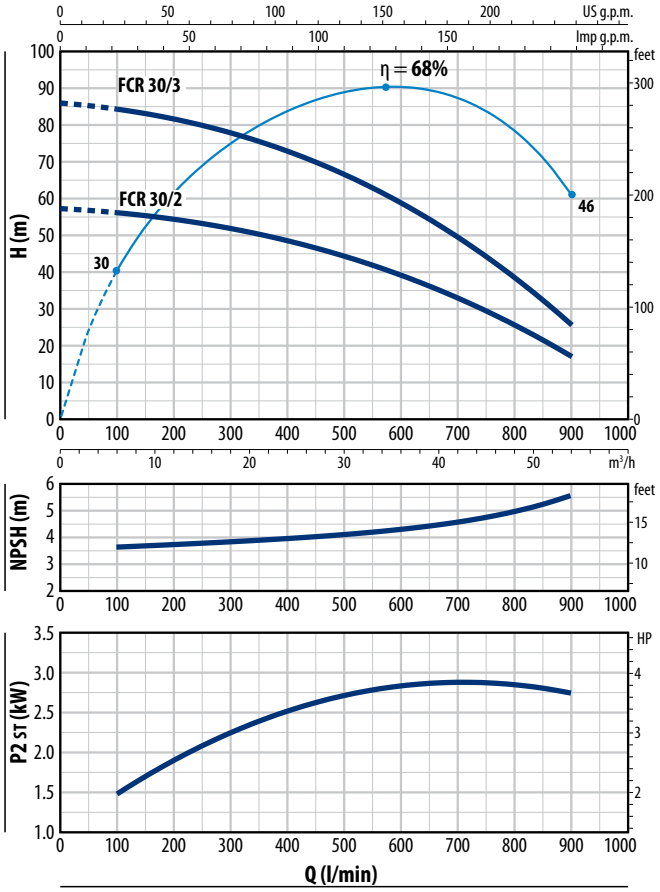
CURVES AND PERFORMANCE DATA – HS=0 m

60 Hz

FCR 15



FCR 30



FCR 15

MODEL	POWER (P2)			Q	m³/h	0	3	6	12	18	24	30
Three-phase	kW	HP	▲		l/min	**0**	**50**	**100**	**200**	**300**	**400**	**500**
FCR 15/2	5.5	7.5	**IE3**	**H**	metres	69	68	66.5	61.5	53	40.5	21.5
FCR 15/3	7.5	10				104	102	100	92	80	60.5	32.5
FCR 15/4	9.2	12.5				–	–	–	123	106	81	43.5

FCR 30

MODEL	POWER (P2)			Q	m³/h	0	6	12	21	30	39	48	54
Three-phase	kW	HP	▲		l/min	**0**	**100**	**200**	**350**	**500**	**650**	**800**	**900**
FCR 30/2	7.5	10	**IE3**	**H**	metres	57.5	56.5	54.5	50.5	44.5	36	25.6	17
FCR 30/3	9.2	12.5				86	84	82	76	66.5	54.5	38.5	25.5

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

FCR

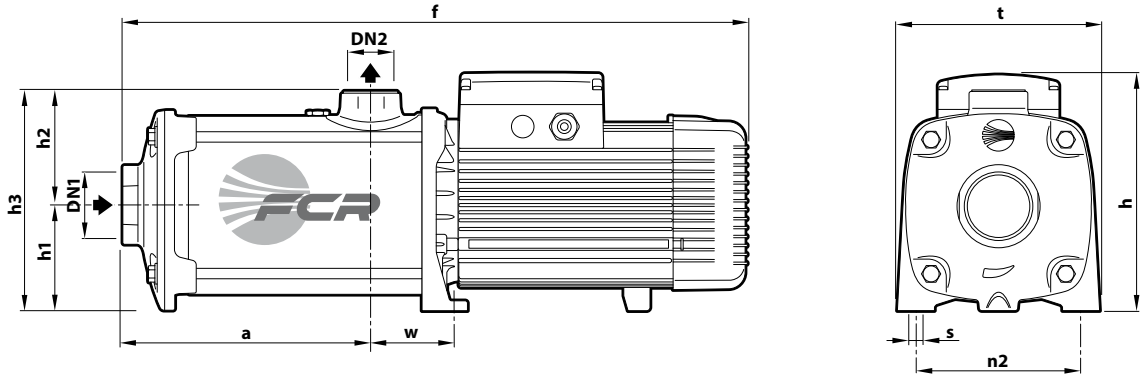
ABSORPTION

TYPE	VOLTAGE			
Three-ph.	**220 V - Δ**	**380 V - Y**	**220 V - Δ**	**440 V - Y**
FCR 15/2	19.0 A	11.0 A	16.8 A	10.5 A
FCR 15/3	24.2 A	14.0 A	21.3 A	13.3 A
FCR 15/4	31.2 A	18.0 A	27.7 A	17.3 A

TYPE	VOLTAGE			
Three-ph.	**220 V - Δ**	**380 V - Y**	**220 V - Δ**	**440 V - Y**
FCR 30/2	23.7 A	13.7 A	20.9 A	13.0 A
FCR 30/3	31.5 A	18.2 A	27.7 A	17.3 A

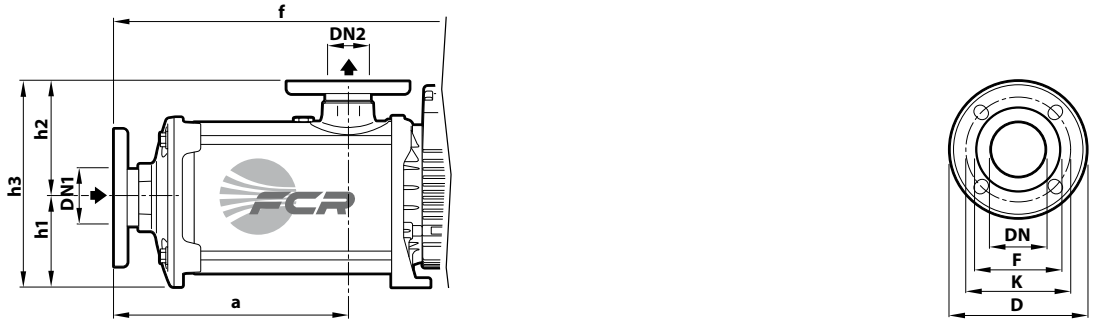
DIMENSIONS AND WEIGHT

※ WITH THREADED PORTS



TYPE	PORTS		N°	DIMENSIONS mm									kg
Three-phase	**DN1**	**DN2**	STAGES	a	f	h	h1	h2	h3	t	n2	w	s	3~
FCR 15/2	**2½"**	**2"**	2	155	533	271	120	132	252	234	190	96	12	33.9
FCR 15/3			3	199	627									39.5
FCR 15/4			4	243	671									49.4
FCR 30/2			2	155	583	271	120	132	252	234	190	96	12	36.9
FCR 30/3			3	199	627									44.3

※ WITH FLANGED PORTS



TYPE	PORTS		DIMENSIONS mm				
Three-phase	DN1	DN2	a	f	h1	h2	h3
FCR 15/2	**65**	**50**	189	566	120	162	285
FCR 15/3			233	660			
FCR 15/4			277	704			
FCR 30/2			189	616	120	162	285
FCR 30/3			233	660			

FLANGE	D	K	F	HOLES	
DN	mm	mm	mm	N°	Ø (mm)
50	165	125	99	4	18
65	185	145	118	4	18

MATERIALS AND COMPONENTS

1	**Pump body**	Stainless steel **AISI 304**,provided with ISO 228/1 threaded ports
2	**Cover**	Stainless steel **AISI 304**
3	**Impellers**	Stainless steel **AISI 304**
4	**Diffusers**	Stainless steel **AISI 304**
5	**Mechanical seal**	Seal: **FN-KU-24** ISO 3069 EN 12756 / Shaft: Ø 24 mm / Materials: Graphite / Ceramic / NBR
6	**Pump shaft**	Stainless steel **AISI 316L**
7	**Electric motor**	– Three-phase 220/380 V - 60 Hz or 220/440 V - 60 Hz – The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1) – Continuous running duty **S1**