

FC SERIES

IN-LINE ELECTRIC PUMPS

In-line electric pumps with cast iron pump body, AISI 316L stainless steel impeller entirely welded using laser technology (for models with 40, 50 and 65 nominal port diameter). Suitable for handling hot or cold moderately aggressive liquids.

APPLICATIONS

- Circulation of hot and cold water for heating and conditioning systems.
- Water pumping in the civil, industrial and agricultural sectors.
- Water supply systems in rural applications.

AVAILABLE MODELS

- **FCE:** close-coupled with special motor shaft extension.
- **FCS:** with stub shaft and standardised motor.

SPECIFICATIONS

- **Maximum delivery: 190 m³/h.**
- **Maximum head: 90 m.**
- Continuous duty.
- Pumped liquid **temperature: -20°C to 130°C.**
- **Maximum operating pressure: 12 bar (PN 12).**
- **Port nominal diameter: up to 100 mm.**
- **Impeller nominal diameter: up to 250 mm.**
- **Mechanical seal in compliance with (ex DIN 24960), lubricated by internal recirculation of pumped liquid.**
- **Flanged suction and delivery ports** (in compliance with EN 1092-2).
- **Bleed valve available on all models.**
- IP 55 protection.
- Class F insulation.
- 2- and 4-pole versions
- 50 and 60 Hz motor frequencies.
- **Version with HYDROVAR frequency converter (variable speed) available on request.**
- **For in-line twin pumps contact Lowara sales network.**



TABLE OF MATERIALS

PART	MATERIAL
Pump body	200 CAST IRON (UNI ISO 185)
Impeller	STAINLESS STEEL* (AISI 316L - DIN 1.4404)
Wear ring	STAINLESS STEEL
Counterwear ring	(AISI 316 - DIN 1.4571)
Shaft	
Seal housing	200 CAST IRON (UNI ISO 185)
Adapter	200 CAST IRON (UNI ISO 185)* *
Mechanical seal	CERAMIC/CARBON/EPDM
O-Rings	EPDM
Fill/drain plugs	NICKEL-PLATED BRASS
Base (optional)	ALUMINIUM

* Cast iron versions:

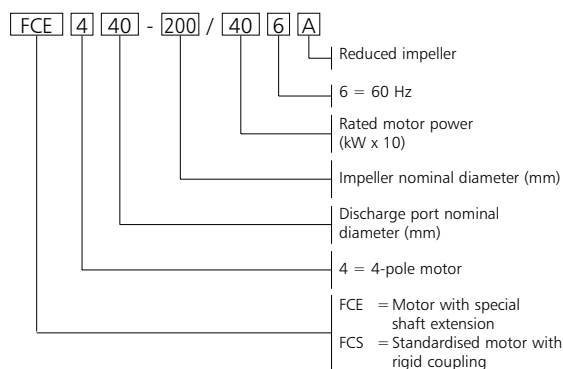
DN 80 and DN 100

** Aluminium versions:

40/50 - 125 2/4 poles

40/50 - 160 2/4 poles

IDENTIFICATION CODE



FCE SERIES

ELECTRICAL SPECIFICATIONS OF MOTORS WITH SPECIAL SHAFT EXTENSION

THREE-PHASE 50 Hz 2 POLES MOTORS

MOTOR TYPE			INPUT CURRENT				DATA FOR 400 V 50 Hz					
kW	IEC SIZE *	CONSTRUCTION DESIGN	In (A)				rpm	Is / In	n %	cosφ	Cn Nm	Cs/Cn
			Δ 220-240 V	Y 380-415 V	Δ 380-415 V	Y 660-690 V						
0.75	90R	B14	3.72	2.15	-	-	2915	8.23	77.7	0.65	2.45	5.20
1.1	90R	B14	4.52	2.61	-	-	2875	6.78	78.9	0.77	3.65	3.49
1.5	90R	B14	5.98	3.45	-	-	2875	7.04	80.1	0.78	4.98	3.83
2.2	90R	B14	8.71	5.03	-	-	2860	7.32	81.1	0.78	7.34	4.12
3	90	B14	10.8	6.22	-	-	2845	6.81	80.4	0.87	10.1	3.00
4	112R	B14	-	-	8.14	4.70	2900	7.86	83.5	0.85	13.2	2.86
5.5	112	B14	-	-	11.0	6.35	2910	7.71	84.5	0.85	18.0	2.66
7.5	112	B14	-	-	14.6	8.43	2910	7.62	87.2	0.85	24.6	3.03
9.2	132	B14	-	-	17.5	10.1	2925	8.72	86.3	0.88	30.0	3.33
11	132	B14	-	-	21.2	12.2	2925	8.75	88.8	0.84	35.9	3.66
15	160	B14	-	-	28.6	16.5	2940	8.56	85.3	0.89	48.7	3.10
18.5	160	B14	-	-	34.2	19.7	2945	8.80	87.3	0.90	60.0	4.06
22	160	B14	-	-	40.3	23.3	2945	8.61	89.5	0.88	71.2	4.79

* R = Reduced size of motor casing as compared to shaft extension and flange.

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THREE-PHASE 50 Hz 4 POLES MOTORS

MOTOR TYPE			INPUT CURRENT				DATA FOR 400 V 50 Hz					
kW	IEC SIZE *	CONSTRUCTION DESIGN	In (A)				rpm	Is / In	n %	cosφ	Cn Nm	Cs/Cn
			Δ 220-240 V	Y 380-415 V	Δ 380-415 V	Y 660-690 V						
0.25	71	B5	1.71	0.99	-	-	1390	3.58	62.0	0.59	1.71	3.16
0.37	71	B5	2.53	1.46	-	-	1370	3.39	61.4	0.60	2.57	3.40
0.55	90R	B5-B14	3.03	1.75	-	-	1390	3.95	68.2	0.67	3.77	2.45
0.75	90R	B5	4.04	2.33	-	-	1395	4.06	70.1	0.66	5.13	2.73
1.1	90	B5	4.35	2.51	-	-	1415	4.65	78.0	0.81	7.42	2.15
1.5	90	B5	5.85	3.38	-	-	1420	4.99	79.9	0.80	10.1	2.26
2.2	100	B5	8.28	4.78	-	-	1410	5.53	81.4	0.82	14.9	2.52
3	100	B5	11.0	6.37	-	-	1425	6.03	82.5	0.82	20.1	2.53
4	112	B5	-	-	8.38	4.84	1440	5.81	84.8	0.81	26.5	2.50
5.5	132	B14	-	-	11.3	6.52	1445	5.98	85.8	0.82	36.3	2.60
7.5	132	B14	-	-	15.2	8.78	1450	6.70	88.1	0.81	49.3	3.17

* R = Reduced size of motor casing as compared to shaft extension and flange.

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FCS SERIES STANDARD MOTOR ELECTRICAL SPECIFICATIONS

THREE-PHASE 50 Hz 2 POLES MOTORS

MOTOR TYPE			INPUT CURRENT In (A)				DATA FOR 400 V 50 Hz					
kW	IEC SIZE *	CONSTRUCTION DESIGN	In (A)				rpm	Is / In	n %	cosφ	Cn Nm	Cs/Cn
			Δ 220-240 V	Y 380-415 V	Δ 380-415 V	Y 660-690 V						
0.75	80R	B5	3.50	2.02	-	-	2855	5.81	74.3	0.72	2.51	3.76
1.1	80	B5	4.52	2.61	-	-	2875	6.78	78.9	0.77	3.65	3.49
1.5	90R	B5	5.98	3.45	-	-	2875	7.04	80.1	0.78	4.98	3.83
2.2	90R	B5	8.71	5.03	-	-	2860	7.32	81.1	0.78	7.34	4.12
3	100R	B5	10.8	6.22	-	-	2845	6.81	80.4	0.87	10.1	3.00
4	112R	B5	-	-	8.14	4.70	2900	7.86	83.5	0.85	13.2	2.86
5.5	132R	B5	-	-	11.0	6.35	2910	7.71	84.5	0.85	18.0	2.66
7.5	132R	B5	-	-	14.6	8.43	2910	7.62	87.2	0.85	24.6	3.03
11	160R	B5	-	-	21.2	12.2	2925	8.75	88.8	0.84	35.9	3.66
15	160	B5	-	-	28.6	16.5	2940	8.56	85.3	0.89	48.7	3.10
18.5	160	B5	-	-	34.2	19.7	2945	8.80	87.3	0.90	60.0	4.06
22	180R	B5	-	-	40.3	23.3	2945	8.61	89.5	0.88	71.2	4.79

* R = Reduced size of motor casing as compared to shaft extension and flange.

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THREE-PHASE 50 Hz 4 POLES MOTORS

MOTOR TYPE			INPUT CURRENT In (A)				DATA FOR 400 V 50 Hz					
kW	IEC SIZE *	CONSTRUCTION DESIGN	In (A)				rpm	Is / In	n %	cosφ	Cn Nm	Cs/Cn
			Δ 220-240 V	Y 380-415 V	Δ 380-415 V	Y 660-690 V						
0.55	80	B5	3.03	1.75	-	-	1390	3.95	68.2	0.67	3.77	2.45
0.75	80	B5	4.04	2.33	-	-	1395	4.06	70.1	0.66	5.13	2.73
1.1	90	B5	4.35	2.51	-	-	1415	4.65	78.0	0.81	7.42	2.15
1.5	90	B5	5.85	3.38	-	-	1420	4.99	79.9	0.80	10.1	2.26
2.2	100	B5	8.28	4.78	-	-	1410	5.53	81.4	0.82	14.9	2.52
3	100	B5	11.0	6.37	-	-	1425	6.03	82.5	0.82	20.1	2.53
4	112	B5	-	-	8.38	4.84	1440	5.81	84.8	0.81	26.5	2.50
5.5	132	B5	-	-	11.3	6.52	1445	5.98	85.8	0.82	36.3	2.60
7.5	132	B5	-	-	15.2	8.78	1450	6.7	88.1	0.81	49.3	3.17

* R = Reduced size of motor casing as compared to shaft extension and flange.

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FCE - FCS SERIES

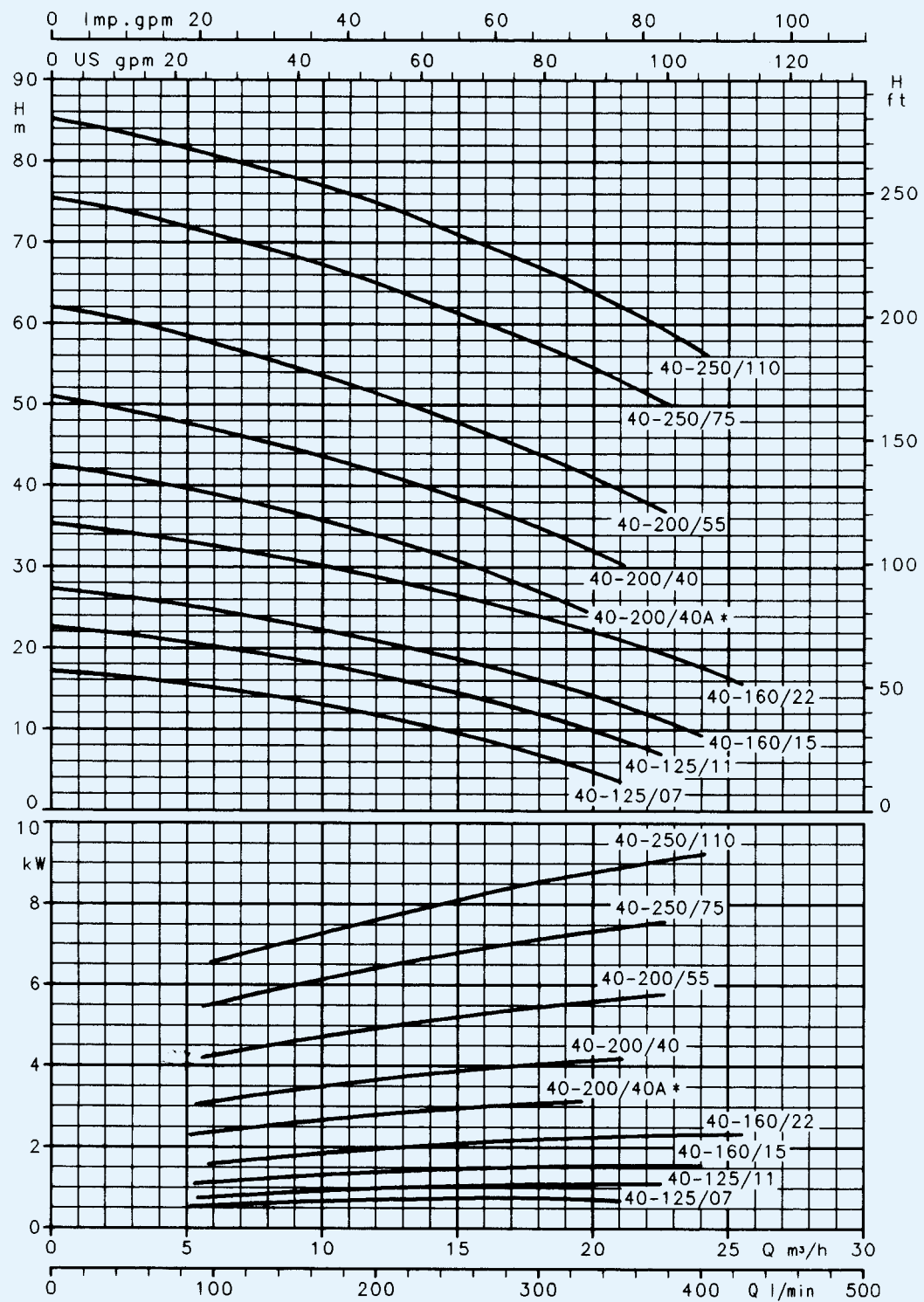
HYDRAULIC PERFORMANCE TABLE 50 Hz, 4 POLES

PUMP TYPE	POWER		Q = DELIVERY																											
			l/min	0	50	75	100	125	150	175	200	250	300	350	400	450	500	600	800	1000	1200	1400	1600	1800	2000	2500	2700			
	m³/h	0	3	4,5	6	7,5	9	10,5	12	15	18	21	24	27	30	36	48	60	72	84	96	108	120	150	162					
	kW	HP	H = TOTAL HEAD METERS COLUMN OF WATER																											
40-125/02A	0,25	0,33	4,7	4,3	4	3,6	3	2,4	1,7																					
40-125/02	0,25	0,33	5,8	5,3	4,9	4,5	4	3,3	2,6																					
40-160/02	0,25	0,33	7,1	6,4	6	5,5	5	4,3	3,6	2,6																				
40-160/03	0,37	0,5	8,9	8,2	7,7	7,2	6,7	6	5,2	4,4																				
40-200/05	0,55	0,75	12,4	11,5	10,8	10,1	9,2	8,2	7,1																					
40-200/07	0,75	1	15	13,8	13	12,2	11,3	10,3	9,1	7,9																				
40-250/11	1,1	1,5	18,6	17,3	16,5	15,7	14,8	13,8	12,8	11,6																				
40-250/15	1,5	2	21	19,8	19	18,2	17,4	16,4	15,4	14,3																				
50-125/02	0,25	0,33	6,2			5,5	5,7	5	4,6	4,3	3,6	2,7	1,8																	
50-125/03	0,37	0,5	8,1			7,4	7,6	6,8	6,5	6,1	5,3	4,4	3,5	2,5																
50-160/05	0,55	0,75	9,4			8,8	9	8,2	7,9	7,6	6,8	5,9	4,9	3,9	2,7															
50-200/07	0,75	1	11,4			10,5	10,3	9,9	9,5	9,1	8,2	7,1	5,6	3,7																
50-200/11	1,1	1,5	13,6			12,6	12,4	12	11,6	11,2	10,3	9,2	7,8	5,9																
50-250/15	1,5	2	17			15,9	15,6	15,2	14,8	14,4	13,5	12,6	11,5	10,1	8,7	7														
50-250/22	2,2	3	20,2			19	18,6	18,2	17,8	17,4	16,5	15,5	14,4	13	11,5	9,9														
65-125/03	0,37	0,5	5,6							4,9	4,6	4,3	3,9	3,5	3,1	2,6	1,6													
65-125/05	0,55	0,75	6,7							5,9	5,7	5,4	5,1	4,7	4,3	3,9	2,8													
65-160/07	0,75	1	8,6							7,8	7,6	7,2	6,8	6,4	5,9	5,4	4,3													
65-160/11	1,1	1,5	10,4							9,7	9,4	9	8,6	8,2	7,7	7,2	5,9	3,1												
65-200/15	1,5	2	14,7							13,2	12,7	12,2	11,6	11	10,4	9,7	8,1													
65-250/22	2,2	3	19							17,6	17	16,5	16	15,4	14,8	14,1	12,7	9												
65-250/30	3	4	21,5							20,1	19,7	19,2	18,7	18	17,4	16,6	15,1	11,7												
80-125/07	0,75	1	5,6									5,2	5,1	5	4,8	4,6	4,3	3,3	2,2											
80-125/11	1,1	1,5	6,8									6,4	6,3	6,2	6,1	5,9	5,7	4,8	3,8	2,5										
80-200/15	1,5	2	10,5									9,6	9,4	9,2	9	8,7	8,2	6,7	4,7											
80-200/22	2,2	3	13,7									12,7	12,5	12,3	12,1	11,9	11,3	10	7,9	5,5										
80-200/30	3	4	15,8									14,7	14,5	14,3	14,1	13,9	13,3	12	10,3	8,1										
80-250/40	4	5,5	19,9									18,7	18,5	18,3	18	17,6	17	15,5	13,6	11,3	8,4									
80-250/55	5,5	7,5	23,2									22	21,8	21,5	21,3	21	20,3	18,9	17	14,8	12									
100-160/15	1,5	2	7,8													7,4	7,2	6,8	6,3	5,6	4,9	4	3							
100-200/22	2,2	3	10,5													9,6	9,3	8,7	8	7,1	6	4,9	3,5	2						
100-200/30	3	4	12,8													11,8	11,5	11	10,2	9,4	8,3	7,1	5,8	4,3						
100-250/40	4	5,5	17													15,8	15,5	14,8	13,9	12,9	11,8	10,4	9,2	7,8						
100-250/55	5,5	7,5	20,5													19,2	19	18,2	17,5	16,5	15,4	14,3	13,2	11,8	8					
100-250/75	7,5	10	24													22,8	22,5	21,8	21	20,3	19,3	18,3	17,2	15,9	11,9	10				

Performances in compliance with ISO 9906 – Annex A



FC 40 SERIES OPERATING CHARACTERISTICS AT 2900 rpm 50 Hz, 2 POLES



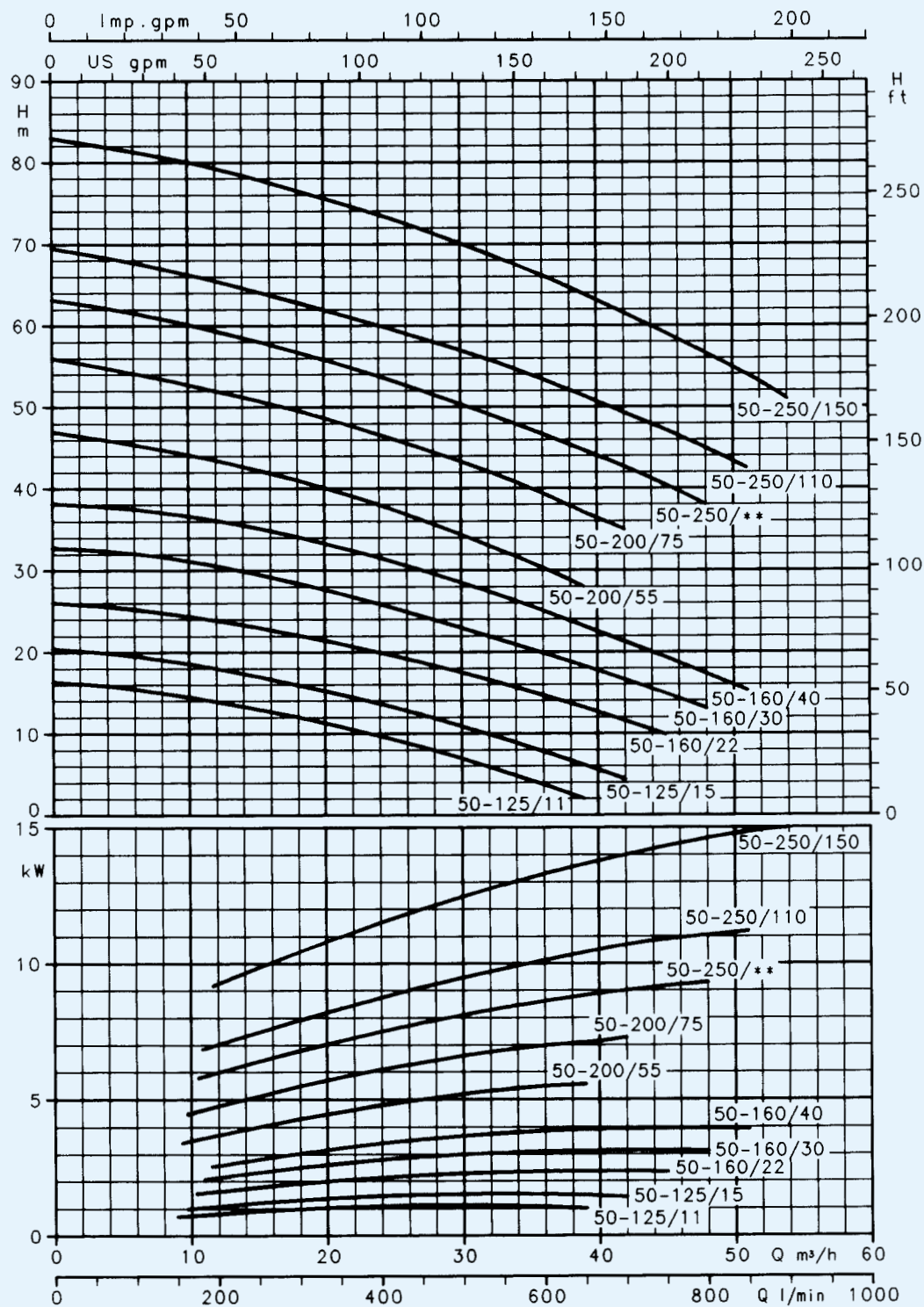
* /40A - 4 kW - 4 kW - 5,5 HP for FCE version - /30 - 3kW - 4 HP for FCS version

Please verify with the price list the availability of model type FCE-FCS

These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC 50 SERIES

OPERATING CHARACTERISTICS AT 2900 rpm 50 Hz, 2 POLES

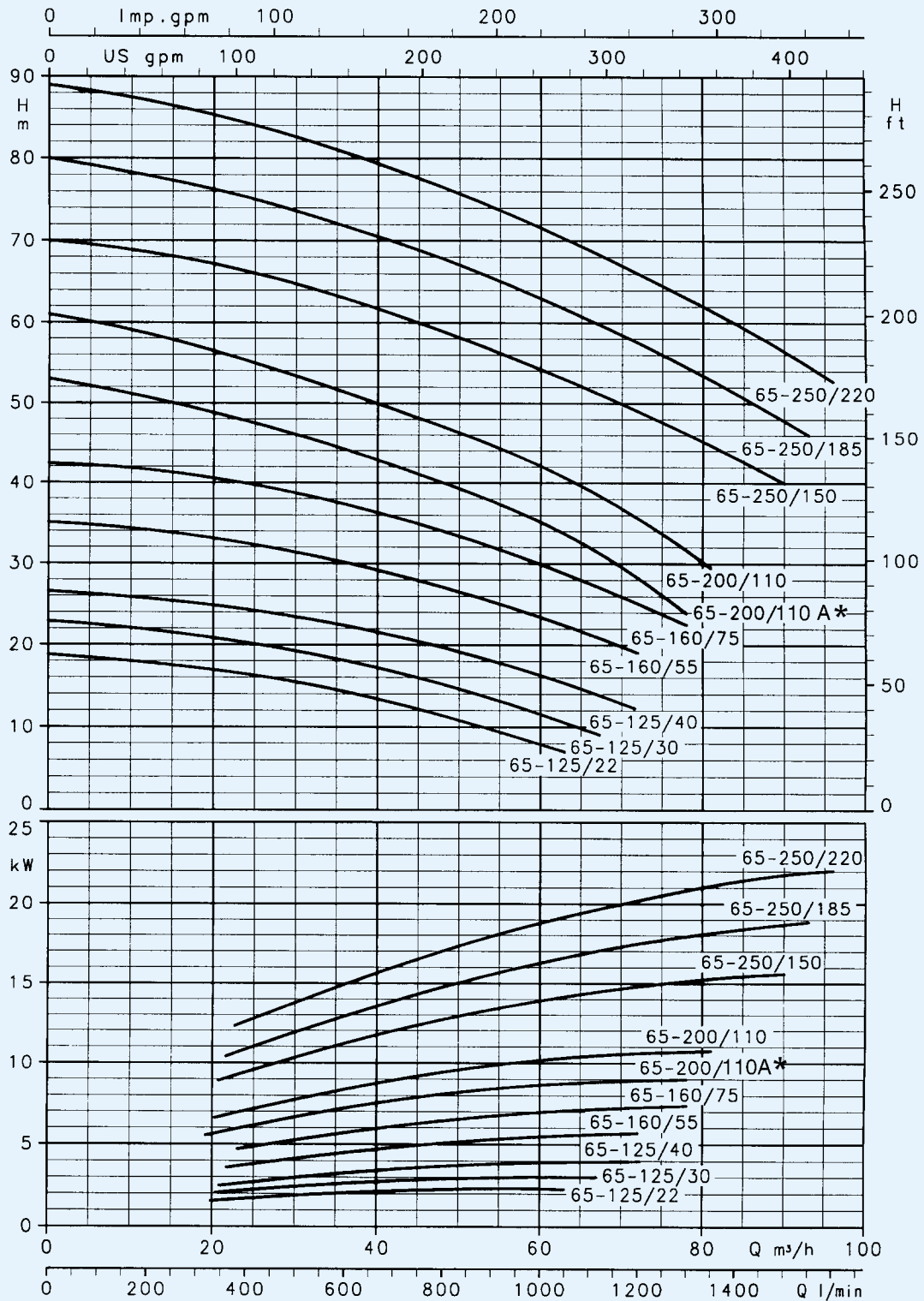


** /92 - 9,2 kW - 12,5 HP for FCE version - /110A - 11 kW - 15 HP for FCS version

Please verify with the price list the availability of model type FCE-FCS

These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC 65 SERIES OPERATING CHARACTERISTICS AT 2900 rpm 50 Hz, 2 POLES



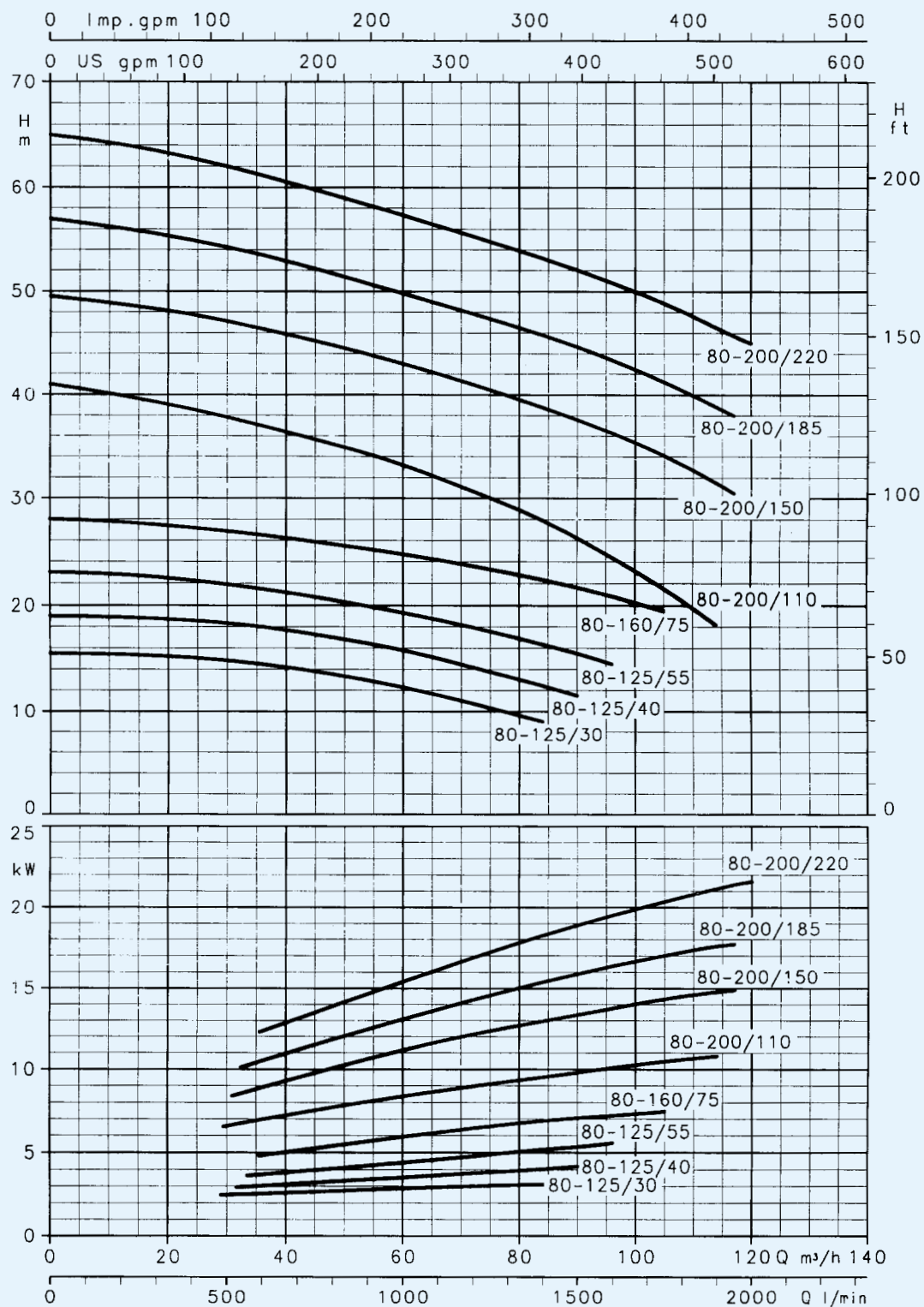
* 92/- 9,2 kW - 12,5 HP for FCE version - /110A - 11 kW - 15 HP for FCS version

Please verify with the price list the availability of model type FCE-FCS

These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

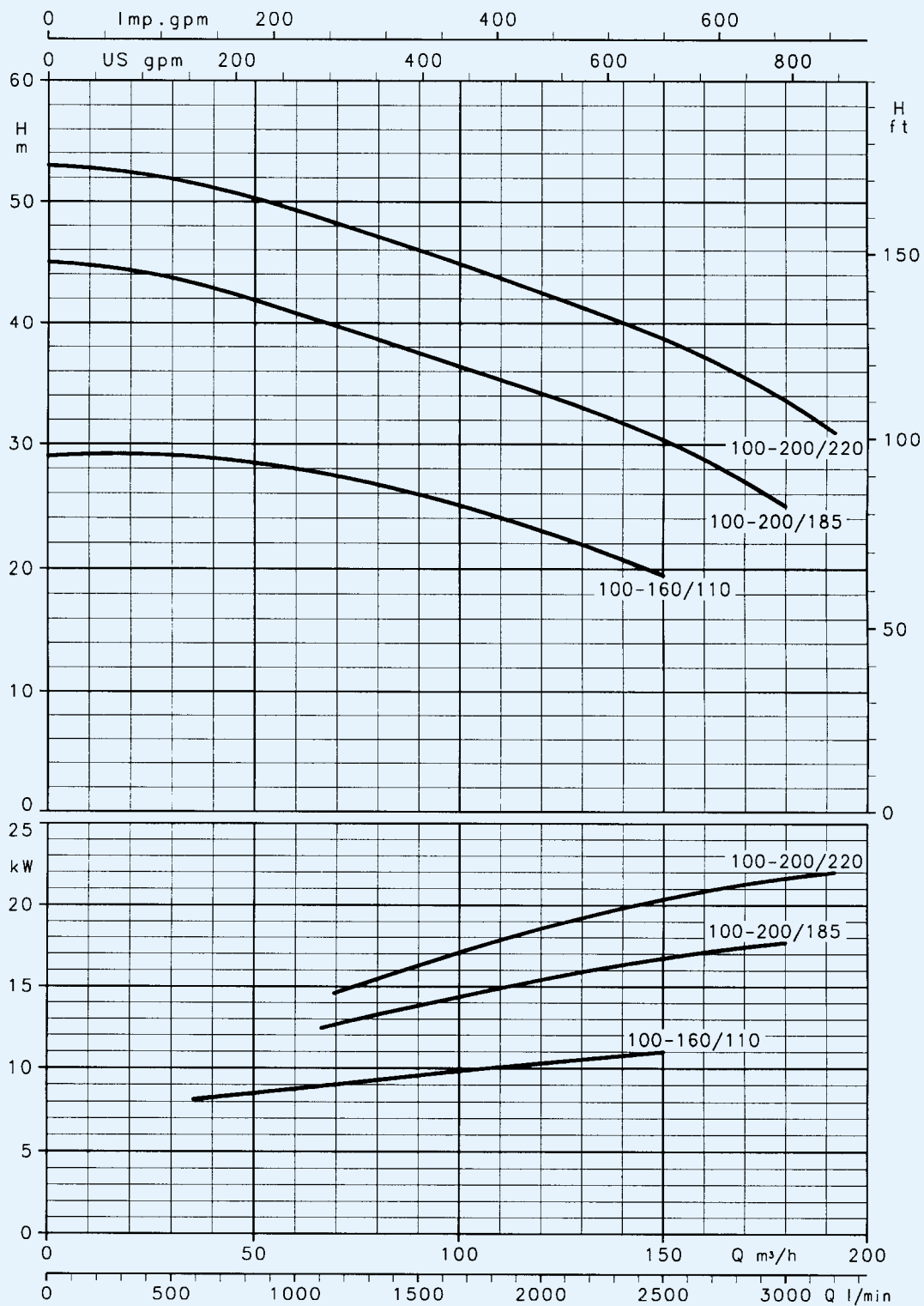
FC 80 SERIES

OPERATING CHARACTERISTICS AT 2900 rpm 50 Hz, 2 POLES



Please verify with the price list the availability of model type FCE-FCS
 These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

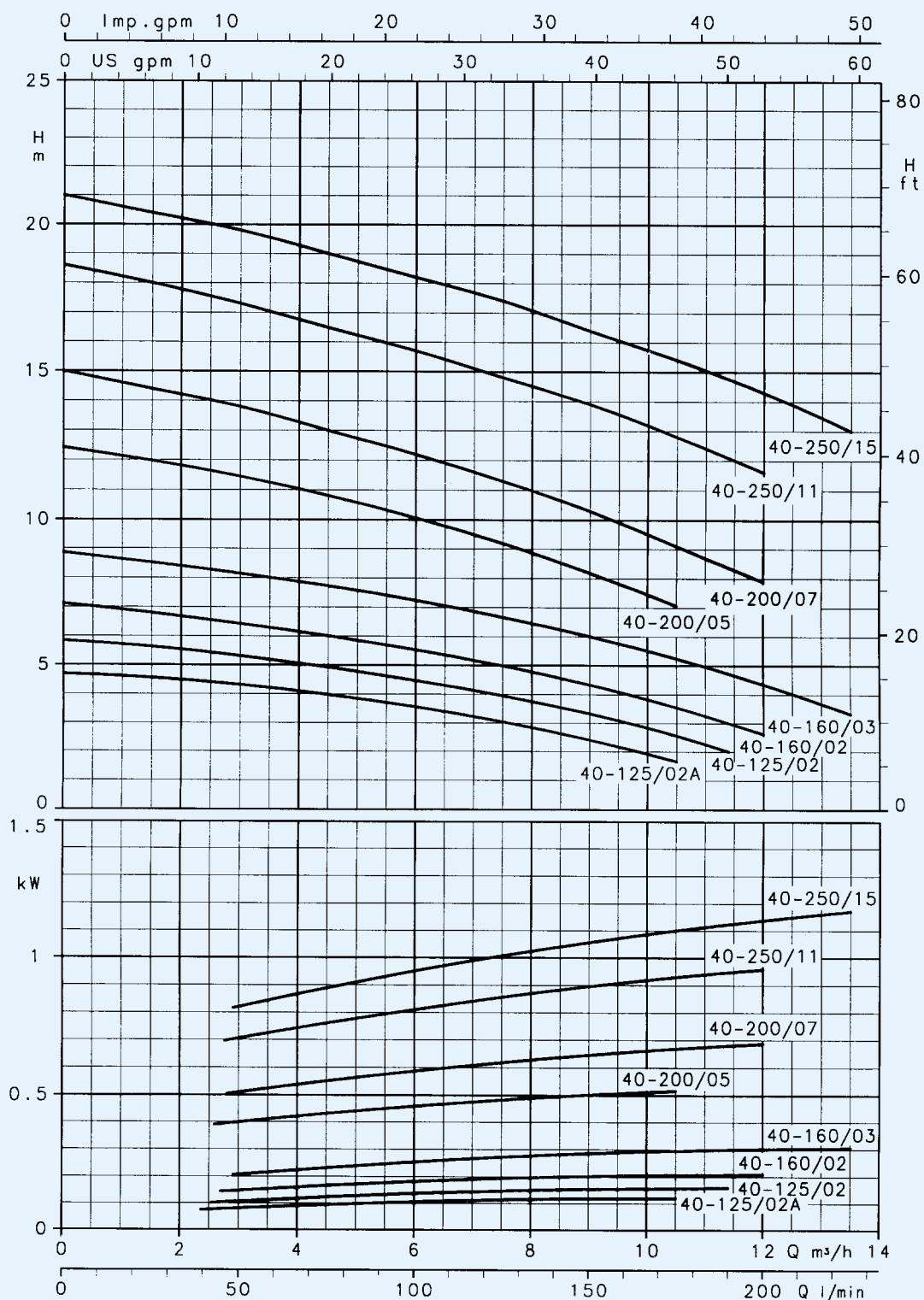
FC 100 SERIES OPERATING CHARACTERISTICS AT 2900 rpm 50 Hz, 2 POLES



Please verify with the price list the availability of model type FCE-FCS
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC4 40 SERIES

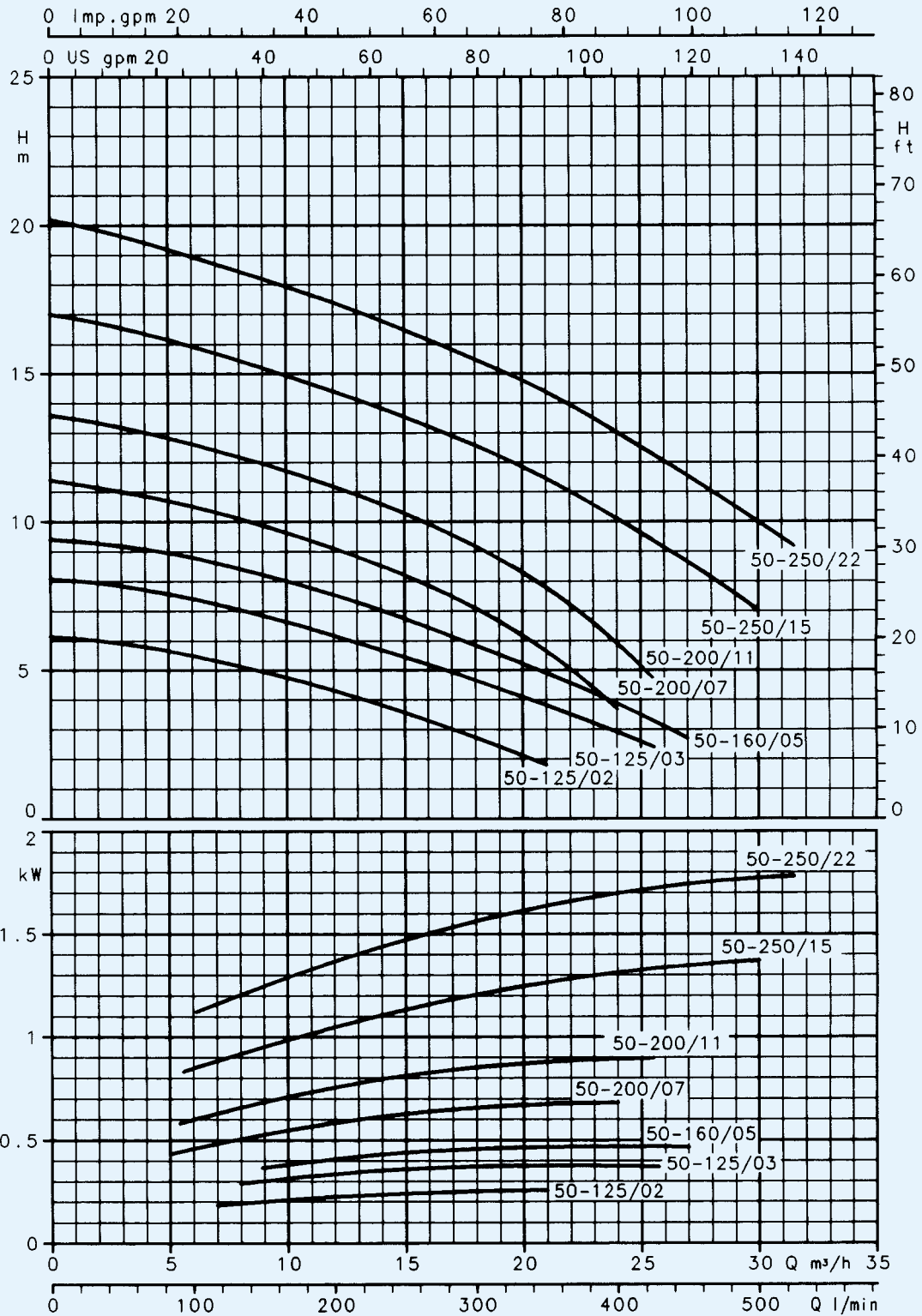
OPERATING CHARACTERISTICS AT 1450 rpm 50 Hz, 4 POLES



Please verify with the price list the availability of model type FCE-FCS

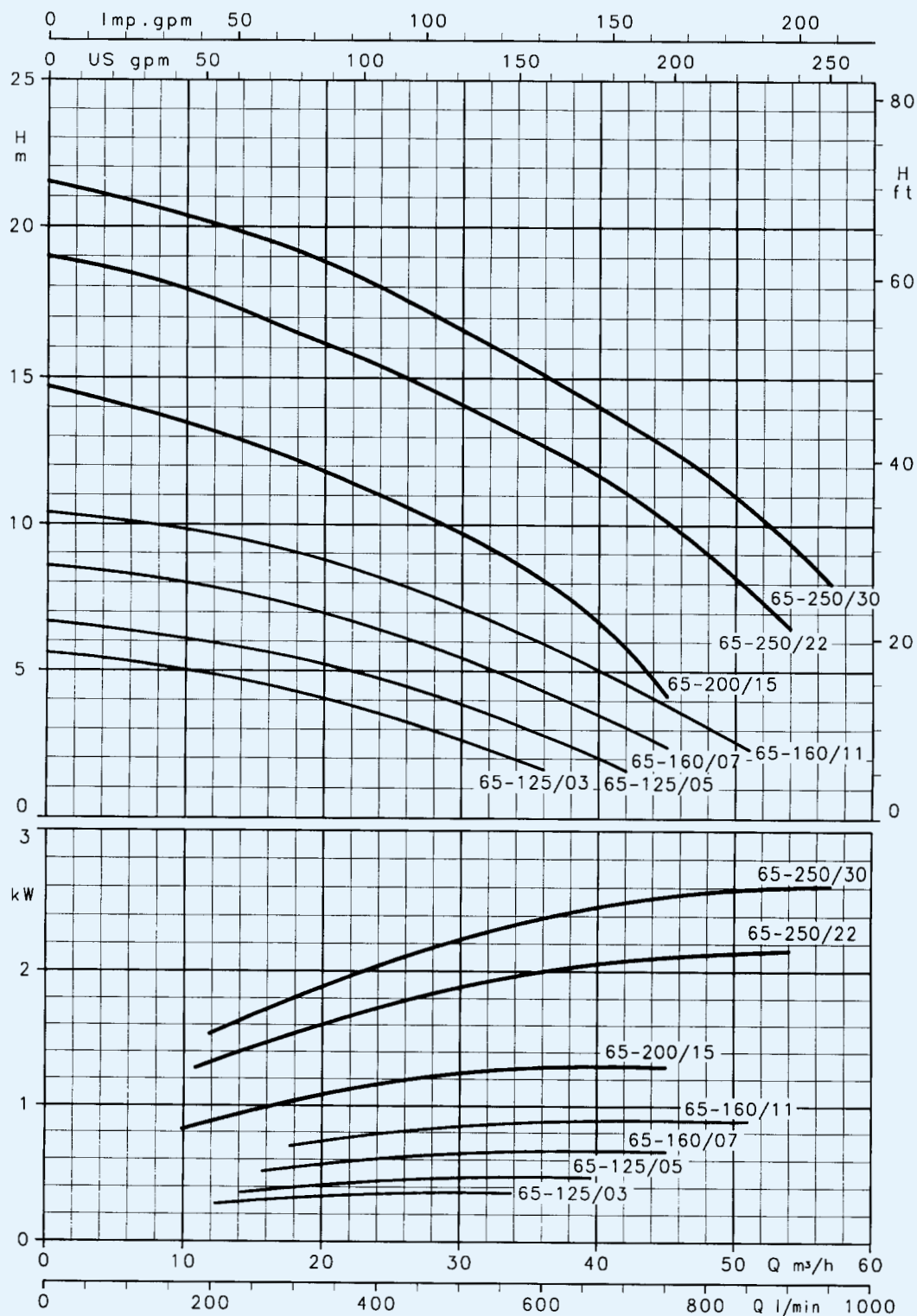
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC4 50 SERIES OPERATING CHARACTERISTICS AT 1450 rpm 50 Hz, 4 POLES



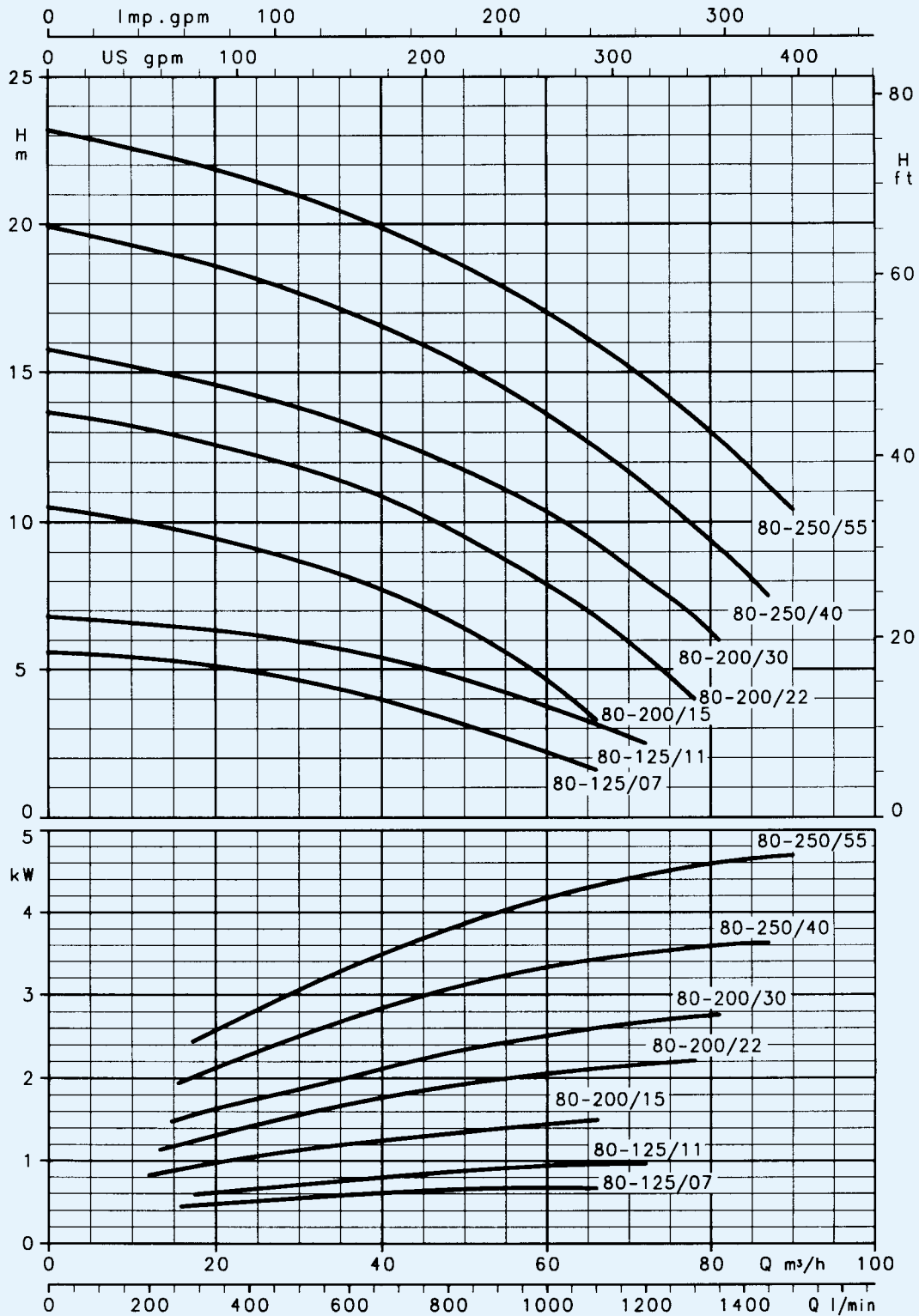
Please verify with the price list the availability of model type FCE-FCS
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC4 65 SERIES OPERATING CHARACTERISTICS AT 1450 rpm 50 Hz, 4 POLES



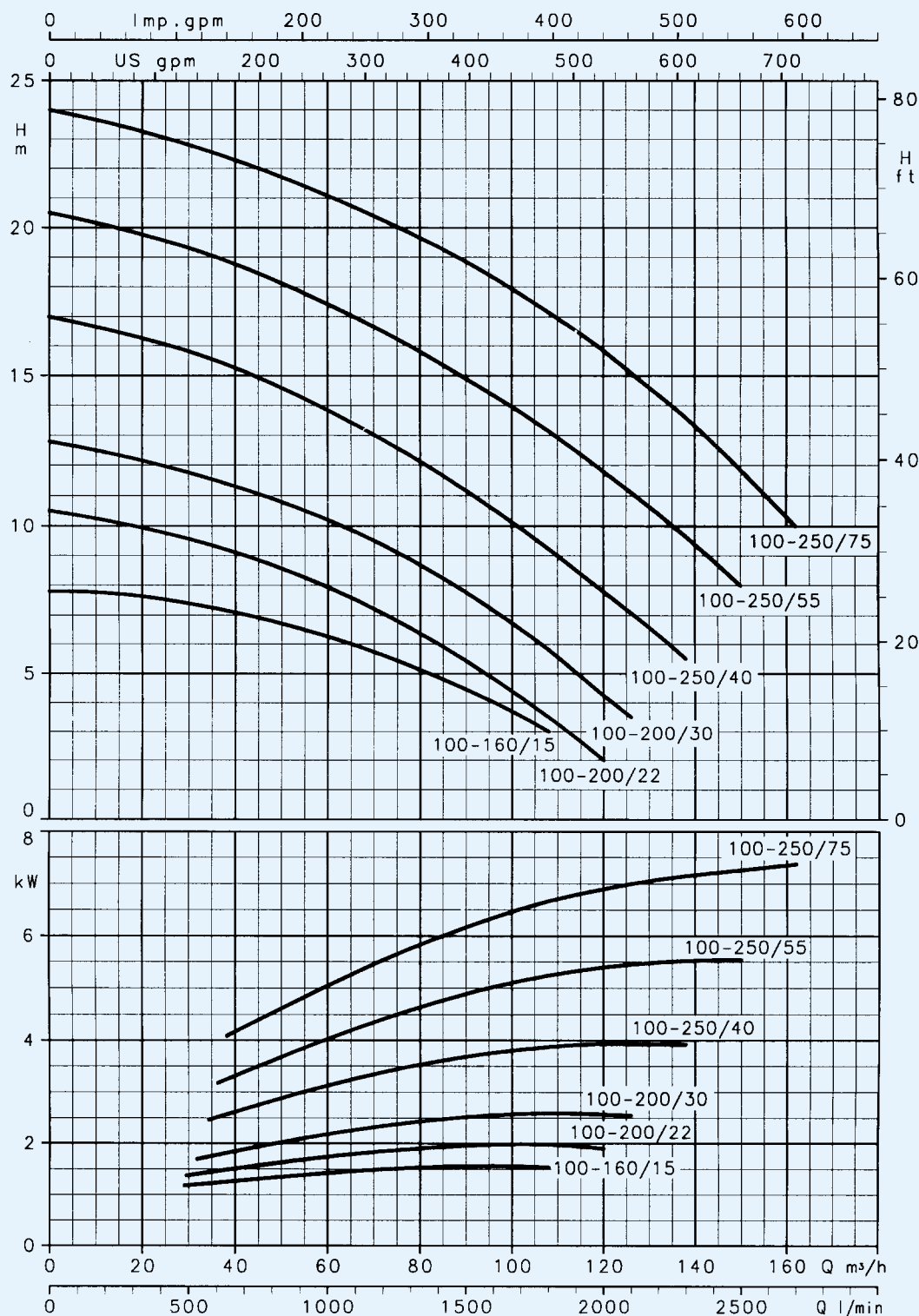
Please verify with the price list the availability of model type FCE-FCS
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC4 80 SERIES OPERATING CHARACTERISTICS AT 1450 rpm 50 Hz, 4 POLES



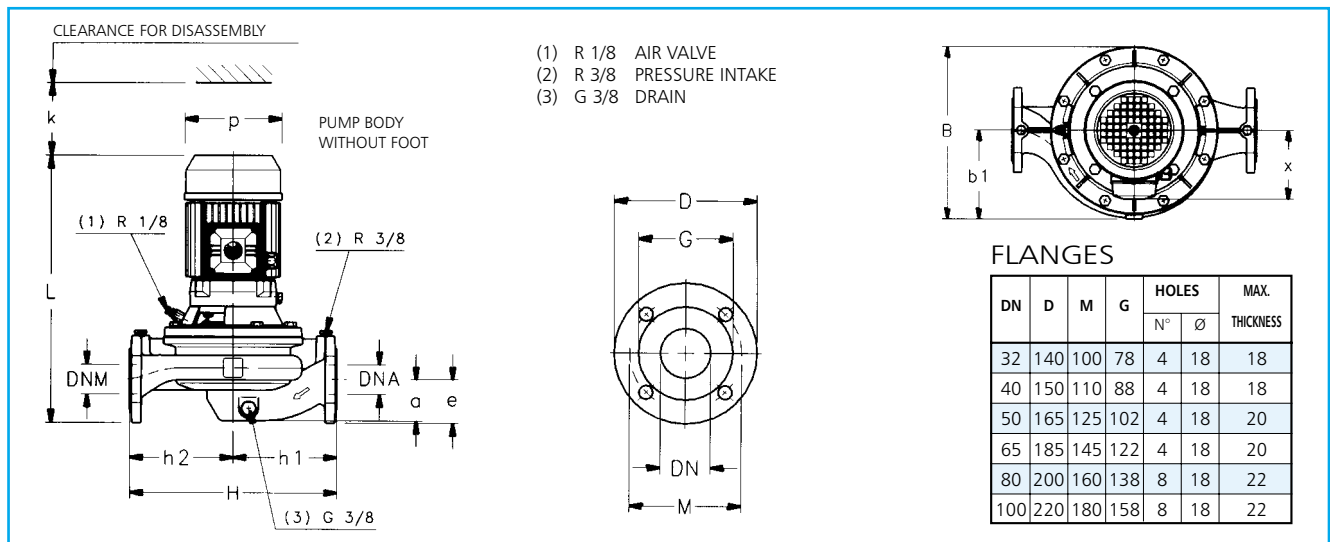
Please verify with the price list the availability of model type FCE-FCS
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

FC4 100 SERIES OPERATING CHARACTERISTICS AT 1450 rpm 50 Hz, 4 POLES



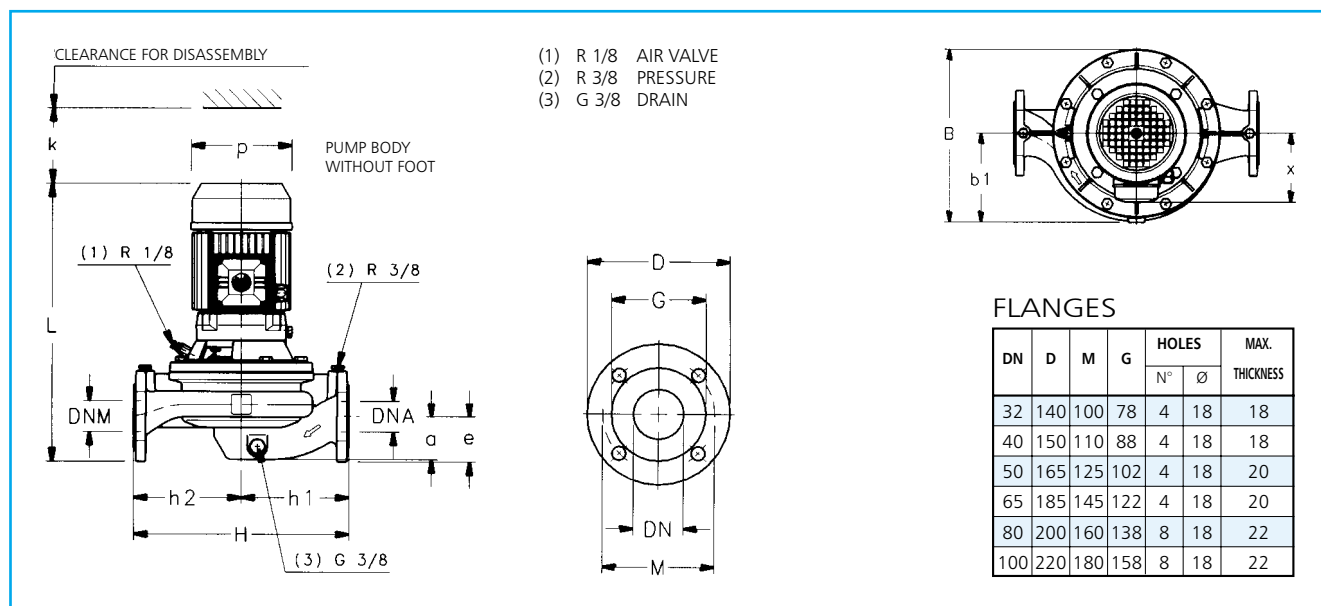
Please verify with the price list the availability of model type FCE-FCS
These performances are valid for liquids with density $\rho = 1.0 \text{ kg/dm}^3$ and kinematic viscosity $\gamma = 1 \text{ mm}^2/\text{sec}$.

DIMENSIONS AND WEIGHTS, FCE SERIES



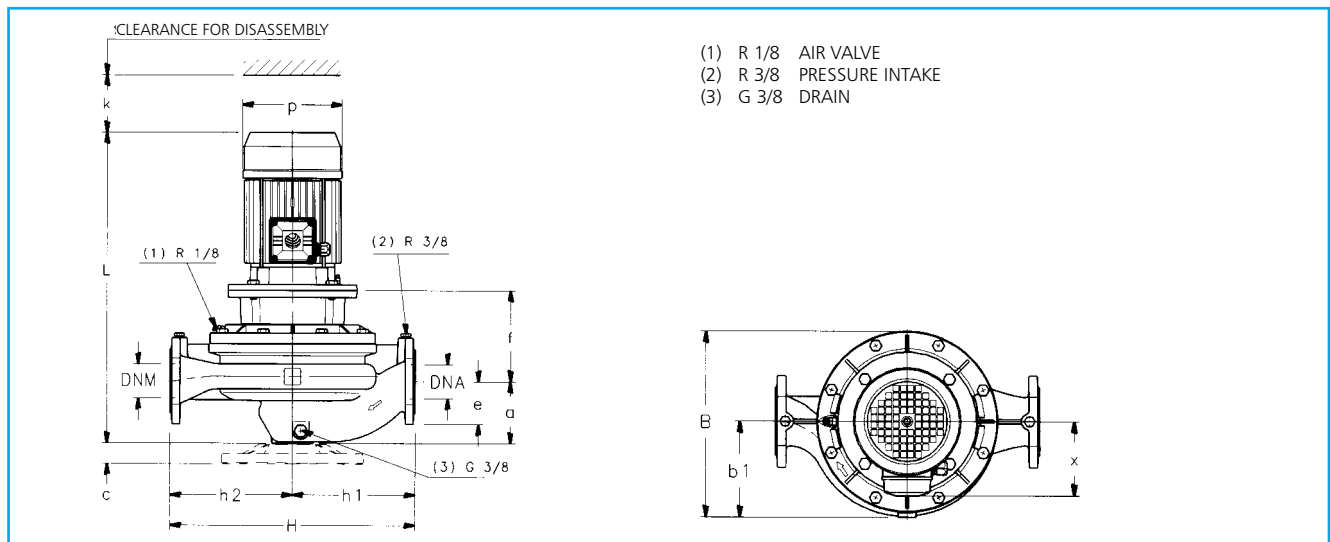
PUMP TYPE	PUMP									B	H max	L	k	WEIGHT kg
	DNM	DNA	a	e	h1	h2	x	b1	p					
FCE 40-125/07	40	40	70	70	160	160	129	116	155	243	320	448	86	27
FCE 40-125/11	40	40	70	70	160	160	129	116	155	243	320	448	86	29
FCE 40-160/15	40	40	70	70	160	160	129	116	155	243	320	448	86	31
FCE 40-160/22	40	40	70	70	160	160	129	116	155	243	320	448	86	33
FCE 40-220/40A	40	40	95	65	220	220	133	163	193	502	440	548	98	65
FCE 40-200/40	40	40	95	65	220	220	133	163	193	502	440	548	98	65
FCE 40-200/55	40	40	95	65	220	220	151	163	220	325	440	548	98	72
FCE 40-250/75	40	40	95	65	220	220	151	163	220	325	440	548	98	76
FCE 40-250/110	40	40	95	65	220	220	191	163	257	354	440	599	98	99
FCE 50-125/11	50	50	69	73	170	170	129	122	155	243	340	457	88	32
FCE 50-125/15	50	50	69	73	170	170	129	122	155	243	340	457	88	35
FCE 50-160/22	50	50	69	73	170	170	129	122	155	243	340	457	88	37
FCE 50-160/30	50	50	69	73	170	170	121	122	176	236	340	475	88	39
FCE 50-160/40	50	50	69	73	170	170	133	122	193	247	340	501	88	47
FCE 50-200/55	50	50	110	73	220	220	151	163	220	326	440	577	100	72
FCE 50-200/75	50	50	110	73	220	220	151	163	220	326	440	577	100	79
FCE 50-200/92	50	50	110	73	220	220	191	163	257	354	440	628	100	93
FCE 50-250/110	50	50	110	73	220	220	191	163	257	354	440	628	100	99
FCE 50-250/150	50	50	110	73	220	220	232	163	310	395	440	712	100	123
FCE 65-125/22	65	65	77	83	170	170	129	137	155	274	340	476	92	45
FCE 65-125/30	65	65	77	83	170	170	121	137	176	274	340	494	92	47
FCE 65-125/40	65	65	77	83	170	170	133	137	193	274	340	520	92	56
FCE 65-160/55	65	65	77	83	170	170	151	137	220	288	340	566	92	65
FCE 65-160/75	65	65	77	83	170	170	151	137	220	288	340	566	92	69
FCE 65-200/92	65	65	119	83	237,5	237,5	191	172	257	354	475	633	104	96
FCE 65-200/110	65	65	119	83	237,5	237,5	191	172	257	354	475	633	104	105
FCE 65-250/150	65	65	119	83	237,5	237,5	232	172	310	395	475	717	104	130
FCE 65-250/185	65	65	119	83	237,5	237,5	232	172	310	395	475	761	104	140
FCE 65-250/220	65	65	119	83	237,5	237,5	232	172	310	395	475	761	104	154
FCE 80-125/30	80	80	90	90	175	185	121	148	176	287	360	528	102	59
FCE 80-125/40	80	80	90	90	175	185	133	148	193	287	360	554	102	69
FCE 80-125/55	80	80	90	90	175	185	151	148	220	290	360	600	102	77
FCE 80-160/75	80	80	90	90	175	185	151	148	220	290	360	600	102	81
FCE 80-200/110	80	80	130	90	250	250	191	184	257	354	500	660	112	112
FCE 80-200/150	80	80	130	90	250	250	232	184	310	395	500	788	112	140
FCE 80-200/185	80	80	130	90	250	250	232	184	310	395	500	788	112	155
FCE 80-200/220	80	80	130	90	250	250	232	184	310	395	500	788	112	165
FCE 100-160/110	100	100	105	105	225	191	172	257	-	330	450	675	117	98
FCE 100-200/185	100	100	140	105	275	275	232	196	310	398	550	809	129	155
FCE 100-200/220	100	100	140	105	275	275	232	196	310	398	550	809	129	169

DIMENSIONS AND WEIGHTS, FCE4 SERIES



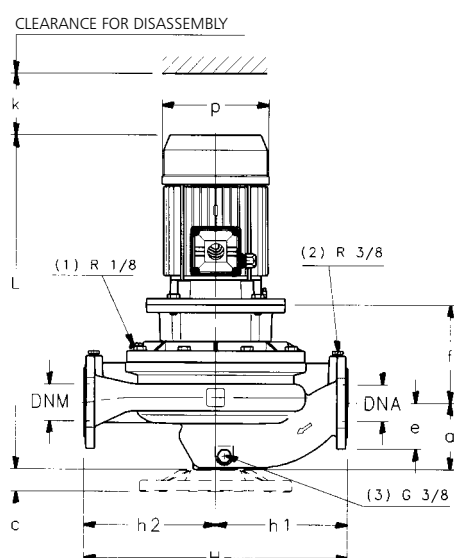
PUMP TYPE	PUMP									B max	H	L	k	WEIGHT kg
	DNM	DNA	a	e	h1	h2	x	b1	p					
FCE4 40-125/02A	40	40	70	70	160	160	121	116	140	235	320	416	86	24
FCE4 40-125/02	40	40	70	70	160	160	121	116	140	235	320	416	86	24
FCE4 40-160/02	40	40	70	70	160	160	121	116	140	235	320	416	86	25
FCE4 40-160/03	40	40	70	70	160	160	121	116	140	235	320	416	86	26
FCE4 40-200/05	40	40	95	65	220	220	129	163	155	325	440	458	98	43
FCE4 40-200/07	40	40	95	65	220	220	129	163	155	325	440	458	98	43
FCE4 40-250/11	40	40	95	65	220	220	121	163	176	325	440	476	98	45
FCE4 40-250/15	40	40	95	65	220	220	121	163	176	325	440	476	98	45
FCE4 50-125/02	50	50	69	73	170	170	121	122	140	236	340	425	88	24
FCE4 50-125/03	50	50	69	73	170	170	121	122	140	236	340	425	88	24
FCE4 50-160/05	50	50	69	73	170	170	129	122	155	243	340	457	88	27
FCE4 50-200/07	50	50	110	73	220	220	129	163	155	326	440	487	100	43
FCE4 50-200/11	50	50	110	73	220	220	121	163	176	326	440	505	100	49
FCE4 50-250/15	50	50	110	73	220	220	121	163	176	326	440	505	100	51
FCE4 50-250/22	50	50	110	73	220	220	133	163	193	326	440	531	100	60
FCE4 65-125/03	65	65	77	83	170	170	121	137	140	274	340	444	92	33
FCE4 65-125/05	65	65	77	83	170	170	129	137	155	274	340	476	92	36
FCE4 65-160/07	65	65	77	83	170	170	129	137	155	274	340	476	92	36
FCE4 65-160/11	65	65	77	83	170	170	121	137	176	274	340	494	92	43
FCE4 65-200/15	65	65	119	83	237,5	237,5	121	172	176	335	475	510	104	60
FCE4 65-250/22	65	65	119	83	237,5	237,5	133	172	193	335	475	536	104	64
FCE4 65-250/30	65	65	119	83	237,5	237,5	133	172	193	335	475	536	104	75
FCE4 80-125/07	80	80	90	90	175	185	129	148	155	287	360	510	102	60
FCE4 80-125/11	80	80	90	90	175	185	121	148	176	287	360	528	102	64
FCE4 80-200/15	80	80	130	90	250	250	121	184	176	347	500	537	112	75
FCE4 80-200/22	80	80	130	90	250	250	133	184	193	347	500	563	112	71
FCE4 80-200/30	80	80	130	90	250	250	133	184	193	347	500	563	112	80
FCE4 80-250/40	80	80	130	90	250	250	151	184	220	347	500	586	112	103
FCE4 80-250/55	80	80	130	90	250	250	191	184	257	354	500	622	112	108
FCE4 100-160/15	100	100	105	105	225	225	121	172	176	311	450	552	117	64
FCE4 100-200/22	100	100	140	105	275	275	133	196	193	362	550	584	129	93
FCE4 100-200/30	100	100	140	105	275	275	133	196	193	362	550	584	129	100
FCE4 100-250/40	100	100	140	105	275	275	151	196	220	362	550	607	129	105
FCE4 100-250/55	100	100	140	105	275	275	191	196	257	362	550	643	129	108
FCE4 100-250/75	100	100	140	105	275	275	191	196	257	362	550	681	129	111

DIMENSIONS AND WEIGHTS, FCS SERIES

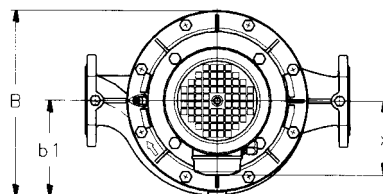


PUMP TYPE	PUMP										B	H max	L	k	WEIGHT kg
	DNM	DNA	a	e	f	h1	h2	x	b1	p					
FCS 40-125/07	40	40	70	70	170	160	160	121	116	140	235	320	466	86	32
FCS 40-125/11	40	40	70	70	170	160	160	129	116	155	243	320	503	86	34
FCS 40-160/15	40	40	70	70	170	160	160	129	116	155	243	320	503	86	36
FCS 40-160/22	40	40	70	70	170	160	160	129	116	155	243	320	503	86	39
FCS 40-200/30	40	40	95	65	165	220	220	121	163	176	325	440	563	98	54
FCS 40-200/40	40	40	95	65	165	220	220	133	163	193	325	440	567	98	67
FCS 40-200/55	40	40	95	65	192	220	220	151	163	220	325	440	661	98	76
FCS 40-250/75	40	40	95	65	192	220	220	151	163	220	325	440	661	98	79
FCS 40-250/110	40	40	95	65	222	220	220	191	163	257	366	440	744	98	120
FCS 50-125/11	50	50	69	73	176	170	170	129	122	155	243	340	512	88	34
FCS 50-125/15	50	50	69	73	176	170	170	129	122	155	243	340	512	88	37
FCS 50-160/22	50	50	69	73	176	170	170	129	122	155	243	340	512	88	40
FCS 50-160/30	50	50	69	73	186	170	170	121	122	176	247	340	562	88	45
FCS 50-160/40	50	50	69	73	186	170	170	133	122	193	258	340	566	88	47
FCS 50-200/55	50	50	110	73	206	220	220	151	163	220	326	440	690	100	76
FCS 50-200/75	50	50	110	73	206	220	220	151	163	220	326	440	690	100	80
FCS 50-250/110A	50	50	110	73	236	220	220	191	163	257	366	440	773	100	120
FCS 50-250/110	50	50	110	73	236	220	220	191	163	257	366	440	773	100	120
FCS 50-250/150	50	50	110	73	236	220	220	232	163	310	407	440	834	100	137
FCS 65-125/22	65	65	77	83	185	170	170	129	137	155	274	340	531	92	46
FCS 65-125/30	65	65	77	83	195	170	170	121	137	176	274	340	581	92	50
FCS 65-125/40	65	65	77	83	195	170	170	153	137	193	274	340	585	92	59
FCS 65-160/55	65	65	77	83	222	170	170	151	137	20	301	340	679	92	80
FCS 65-160/75	65	65	77	83	222	170	170	151	137	20	301	340	679	92	84
FCS 65-200/110A	65	65	119	83	232	237,5	237,5	191	172	257	366	475	778	104	115
FCS 65-200/110	65	65	119	83	232	237,5	237,5	191	172	257	366	475	778	104	115
FCS 65-255/150	65	65	119	83	232	237,5	237,5	232	172	310	407	475	839	104	140
FCS 65-250/185	65	65	119	83	232	237,5	237,5	232	172	310	407	475	883	104	153
FCS 65-250/220	65	65	119	83	232	237,5	237,5	232	172	310	407	475	883	104	167
FCS 80-125/30	80	80	90	90	222	175	185	121	148	176	287	360	615	102	68
FCS 80-125/40	80	80	90	90	222	175	185	133	148	193	287	360	619	102	73
FCS 80-125/55	80	80	90	90	249	175	185	151	148	220	301	360	713	102	84
FCS 80-160/75	80	80	90	90	249	175	185	151	148	220	301	360	713	102	87
FCS 80-200/110	80	80	130	90	248	250	250	191	184	257	366	500	805	112	126
FCS 80-200/150	80	80	130	90	248	250	250	191	184	257	407	500	866	112	149
FCS 80-200/185	80	80	130	90	248	250	250	232	184	310	407	500	910	112	149
FCS 80-200/220	80	80	130	90	248	250	250	232	184	310	407	500	910	112	170
FCS 100-160/110	100	100	105	105	288	225	225	191	172	257	366	450	820	117	130
FCS 100-200/185	100	100	140	105	259	275	275	232	196	310	407	550	931	129	160
FCS 100-200/220	100	100	140	105	259	275	275	232	196	310	407	550	931	129	180

DIMENSIONS AND WEIGHTS, FCS4 SERIES



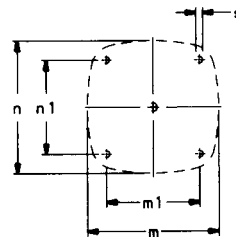
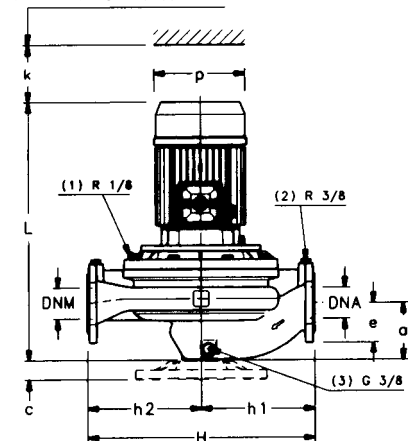
- (1) R 1/8 AIR VALVE
- (2) R 3/8 PRESSURE INTAKE
- (3) G 3/8 DRAIN



PUMP TYPE	PUMP										B	H max	L	k	WEIGHT kg
	DNM	DNA	a	e	f	h1	h2	x	b1	p					
FCS4 40-200/05	40	40	95	65	155	220	220	129	163	155	325	440	513	98	50
FCS4 40-200/07	40	40	95	65	155	220	220	129	163	155	325	440	513	98	52
FCS4 40-250/11	40	40	95	65	155	220	220	121	163	176	325	440	531	98	53
FCS4 40-250/15	40	40	95	65	155	220	220	121	163	176	325	440	531	98	53
FCS4 50-200/07	50	50	110	73	169	220	220	129	163	155	326	440	542	100	44
FCS4 50-200/11	50	50	110	73	169	220	220	121	163	176	326	440	560	100	51
FCS4 50-250/15	50	50	110	73	169	220	220	121	163	176	326	440	560	100	63
FCS4 50-250/22	50	50	110	73	179	220	220	133	163	193	326	440	596	100	68
FCS4 65-160/07	65	65	77	83	185	170	170	129	137	155	274	340	531	92	48
FCS4 65-160/11	65	65	77	83	185	170	170	121	137	176	274	340	549	92	53
FCS4 65-200/15	65	65	119	83	165	237,5	237,5	121	172	176	335	475	565	104	65
FCS4 65-250/22	65	65	119	83	175	237,5	237,5	133	172	193	335	475	601	104	68
FCS4 65-250/30	65	65	119	83	175	237,5	237,5	133	172	193	335	475	601	104	80
FCS4 80-125/07	80	80	90	90	212	175	185	129	148	155	287	360	565	102	54
FCS4 80-125/11	80	80	90	90	212	175	185	121	148	176	287	360	583	102	57
FCS4 80-200/15	80	80	130	90	181	250	250	121	184	176	347	500	592	112	77
FCS4 80-200/22	80	80	130	90	191	250	250	133	184	193	347	500	628	112	75
FCS4 80-200/30	80	80	130	90	191	250	250	133	184	193	347	500	628	112	85
FCS4 80-250/40	80	80	130	90	191	250	250	151	184	220	347	500	651	112	109
FCS4 80-250/55	80	80	130	90	218	250	250	191	184	257	354	500	714	112	115
FCS4 100-160/15	100	100	105	105	221	225	225	121	172	176	311	450	607	117	72
FCS4 100-200/22	100	100	140	105	202	275	275	133	196	193	362	550	649	129	98
FCS4 100-200/30	100	100	140	105	202	275	275	133	196	193	362	550	649	129	105
FCS4 100-250/40	100	100	140	105	202	275	275	151	196	220	362	550	672	129	113
FCS4 100-250/55	100	100	140	105	229	275	275	191	196	257	362	550	735	129	116
FCS4 100-250/75	100	100	140	105	229	275	275	191	196	257	362	550	773	129	120

FCE SUPPORT

CLEARANCE FOR DISASSEMBLY

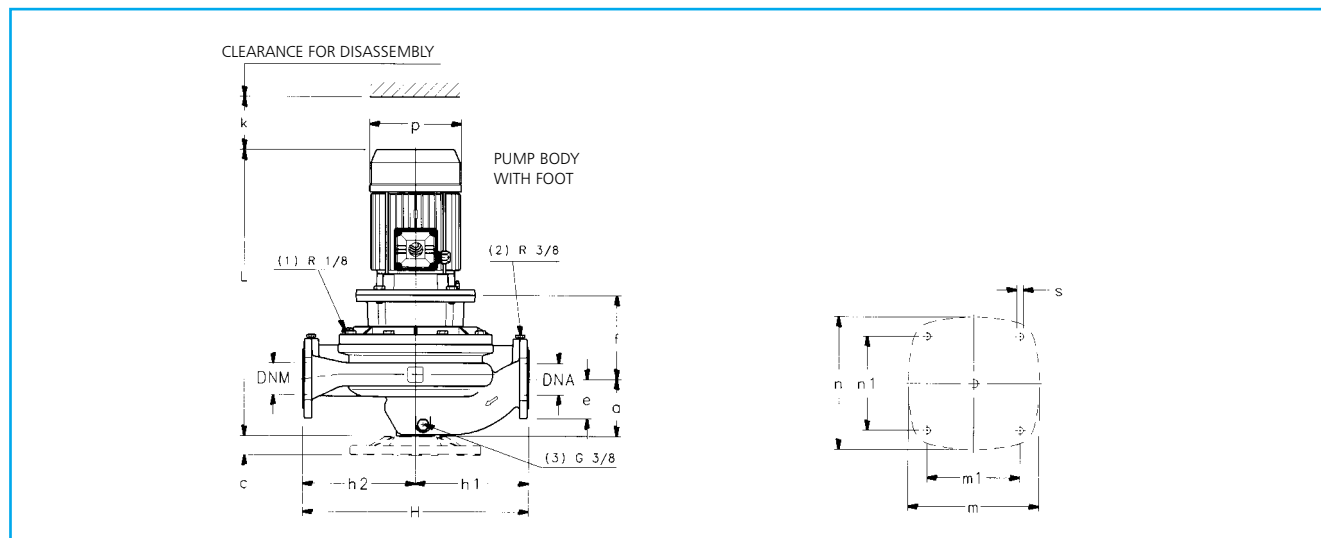


PUMP TYPE	c	m	m1	n	n1	s
FCE 40-125/07	—	—	—	—	—	—
FCE 40-125/11	—	—	—	—	—	—
FCE 40-160/15	—	—	—	—	—	—
FCE 40-160/22	—	—	—	—	—	—
FCE 40-200/40A	40	275	195	275	195	14
FCE 40-200/40	40	275	195	275	195	14
FCE 40-200/55	40	275	195	275	195	14
FCE 40-250/75	40	275	195	275	195	14
FCE 40-250/110	40	275	195	275	195	14
FCE 50-125/11	—	—	—	—	—	—
FCE 50-125/15	—	—	—	—	—	—
FCE 50-160/22	—	—	—	—	—	—
FCE 50-160/30	—	—	—	—	—	—
FCE 50-160/40	—	—	—	—	—	—
FCE 50-200/40	40	275	195	275	195	14
FCE 50-200/55	40	275	195	275	195	14
FCE 50-200/75	40	275	195	275	195	14
FCE 50-250/92	40	275	195	275	195	14
FCE 50-250/110	40	275	195	275	195	14
FCE 50-250/150	40	275	195	275	195	14
FCE 65-125/22	—	—	—	—	—	—
FCE 65-125/30	—	—	—	—	—	—
FCE 65-125/40	—	—	—	—	—	—
FCE 65-160/55	—	—	—	—	—	—
FCE 65-160/75	—	—	—	—	—	—
FCE 65-200/92	40	275	195	275	195	14
FCE 65-200/110	40	275	195	275	195	14
FCE 65-250/150	40	275	195	275	195	14
FCE 65-250/185	40	275	195	275	195	14
FCE 65-250/220	40	275	195	275	195	14
FCE 80-125/30	—	—	—	—	—	—
FCE 80-125/40	—	—	—	—	—	—
FCE 80-125/55	—	—	—	—	—	—
FCE 80-160/75	—	—	—	—	—	—
FCE 80-200/110	40	275	195	275	195	14
FCE 80-200/150	40	275	195	275	195	14
FCE 80-200/185	40	275	195	275	195	14
FCE 80-200/220	40	275	195	275	195	14
FCE 100-160/110	—	—	—	—	—	—
FCE 100-200/185	40	275	195	275	195	14
FCE 100-200/220	40	275	195	275	195	14

PUMP TYPE	c	m	m1	n	n1	s
FCE4 40-125/02A	—	—	—	—	—	—
FCE4 40-125/02	—	—	—	—	—	—
FCE4 40-160/02	—	—	—	—	—	—
FCE4 40-160/03	—	—	—	—	—	—
FCE4 40-200/05	40	275	195	275	195	14
FCE4 40-200/07	40	275	195	275	195	14
FCE4 40-250/11	40	275	195	275	195	14
FCE4 40-250/15	40	275	195	275	195	14
FCE4 50-125/02	—	—	—	—	—	—
FCE4 50-125/03	—	—	—	—	—	—
FCE4 50-160/05	—	—	—	—	—	—
FCE4 50-200/07	40	275	195	275	195	14
FCE4 50-200/11	40	275	195	275	195	14
FCE4 50-250/15	40	275	195	275	195	14
FCE4 50-250/22	40	275	195	275	195	14
FCE4 65-125/03	—	—	—	—	—	—
FCE4 65-125/05	—	—	—	—	—	—
FCE4 65-160/07	—	—	—	—	—	—
FCE4 65-160/11	—	—	—	—	—	—
FCE4 65-200/11	40	275	195	275	195	14
FCE4 65-200/15	40	275	195	275	195	14
FCE4 65-250/22	40	275	195	275	195	14
FCE4 65-250/30	40	275	195	275	195	14
FCE4 80-125/07	—	—	—	—	—	—
FCE4 80-125/11	—	—	—	—	—	—
FCE4 80-160/15	—	—	—	—	—	—
FCE4 80-200/15	40	275	—	—	—	—
FCE4 80-200/22	40	275	195	275	195	14
FCE4 80-200/30	40	275	195	275	195	14
FCE4 80-250/30	40	275	195	275	195	14
FCE4 80-250/40	40	275	195	275	195	14
FCE4 80-250/55	40	275	195	275	195	14
FCE4 100-160/15	—	—	—	—	—	—
FCE4 100-200/22	40	275	195	275	195	14
FCE4 100-200/30	40	275	195	275	195	14
FCE4 100-200/40	40	275	195	275	195	14
FCE4 100-250/40	40	275	195	275	195	14
FCE4 100-250/55	40	275	195	275	195	14
FCE4 100-250/75	40	275	195	275	195	14

— : Not available

FCS SUPPORT



PUMP TYPE	SUPPORT					
	c	m	m1	n	n1	s
FCS 40-125/7	—	—	—	—	—	—
FCS 40-125/11	—	—	—	—	—	—
FCS 40-160/15	—	—	—	—	—	—
FCS 40-160/22	—	—	—	—	—	—
FCS 40-200/30	40	275	195	275	195	14
FCS 40-200/40	40	275	195	275	195	14
FCS 40-200/55	40	275	195	275	195	14
FCS 40-250/75	40	275	195	275	195	14
FCS 40-250/110	40	275	195	275	195	14
FCS 50-125/11	—	—	—	—	—	—
FCS 50-125/15	—	—	—	—	—	—
FCS 50-160/22	—	—	—	—	—	—
FCS 50-160/30	40	275	195	275	195	14
FCS 50-160/40	40	275	195	275	195	14
FCS 50-200/55	40	275	195	275	195	14
FCS 50-200/75	40	275	195	275	195	14
FCS 50-250/110A	40	275	195	275	195	14
FCS 50-250/110	40	275	195	275	195	14
FCS 50-250/150	40	275	195	275	195	14
FCS 65-125/22	—	—	—	—	—	—
FCS 65-125/30	—	—	—	—	—	—
FCS 65-125/40	—	—	—	—	—	—
FCS 65-160/55	—	—	—	—	—	—
FCS 65-160/75	—	—	—	—	—	—
FCS 65-200/110A	40	275	195	275	195	14
FCS 65-200/110	40	275	195	275	195	14
FCS 65-250/150	40	275	195	275	195	14
FCS 65-250/185	40	275	195	275	195	14
FCS 65-250/220	40	275	195	275	195	14
FCS 80-125/30	—	—	—	—	—	—
FCS 80-125/40	—	—	—	—	—	—
FCS 80-125/55	—	—	—	—	—	—
FCS 80-160/75	—	—	—	—	—	—
FCS 80-200/110	40	275	195	275	195	14
FCS 80-200/150	40	275	195	275	195	14
FCS 80-200/185	40	275	195	275	195	14
FCS 80-200/220	40	275	195	275	195	14
FCS 100-160/110	—	—	—	—	—	—
FCS 100-200/185	40	275	195	275	195	14
FCS 100-200/220	40	275	195	275	195	14

PUMP TYPE	SUPPORT					
	c	m	m1	n	n1	s
FCS4 40-200/05	40	275	195	275	195	14
FCS4 40-200/07	40	275	195	275	195	14
FCS4 40-250/11	40	275	195	275	195	14
FCS4 40-250/15	40	275	195	275	195	14
FCS4 50-200/07	40	275	195	275	195	14
FCS4 50-200/11	40	275	195	275	195	14
FCS4 50-250/15	40	275	195	275	195	14
FCS4 50-250/22	40	275	195	275	195	14
FCS4 65-160/07	—	—	—	—	—	—
FCS4 65-160/11	—	—	—	—	—	—
FCS4 65-200/15	40	275	195	275	195	14
FCS4 65-250/22	40	275	195	275	195	14
FCS4 65-250/30	40	275	195	275	195	14
FCS4 80-125/07	—	—	—	—	—	—
FCS4 80-125/11	—	—	—	—	—	—
FCS4 80-200/15	40	275	—	—	—	—
FCS4 80-200/22	40	275	195	275	195	14
FCS4 80-200/30	40	275	195	275	195	14
FCS4 80-250/40	40	275	195	275	195	14
FCS4 80-250/55	40	275	195	275	195	14
FCS4 100-160/15	—	—	—	—	—	—
FCS4 100-200/22	40	275	195	275	195	14
FCS4 100-200/30	40	275	195	275	195	14
FCS4 100-200/40	40	275	195	275	195	14
FCS4 100-250/40	40	275	195	275	195	14
FCS4 100-250/55	40	275	195	275	195	14
FCS4 100-250/75	40	275	195	275	195	14

— : Not available

VIEW OF FCE LIQUID END

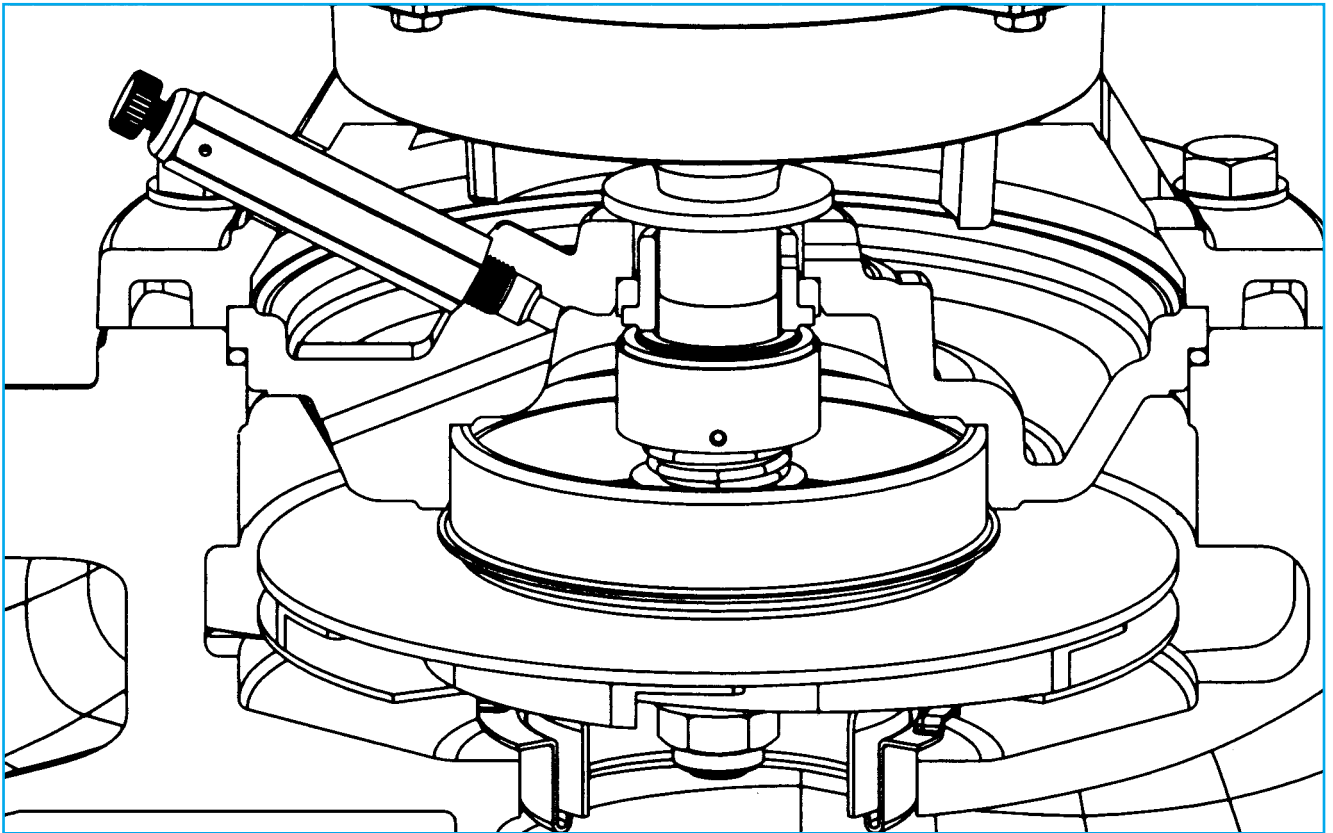


Fig. 1

Fig. 1: Standard design.

Mechanical seal in compliance with DIN 24960, lubricated by internal recirculation of pumped liquid to seal housing.

Air valve seat (valve included).