Equipment and solutions

BJ4 Submersible Pump

Product technical datasheet

Compact BJ4 series submersible pumps.



FT-P022 · Rev. 1

BJ4 multistage submersible pumps for boreholes and wells. Designed for clean water pumping in domestic, agricultural and industrial applications. Equipped with floating impellers that provide high sand resistance and extended service life. Fitted with an integrated check valve at.

Applications

- Water abstraction from boreholes, reservoirs and water courses.
- Domestic water supply.
- Agricultural irrigation and gardens.
- Hydropneumatic systems.

Operating conditions

- Confirm the installation conditions, power supply and duty point before commissioning.

Engineering note	Confirm the installation conditions, power supply and duty point before commissioning.
Complementary equipment	Contact JOVAL for compatible accessories and equipment.
Resources and support	Pump selection guide · JOVAL technical support
Contact	+351 253 490 740 · joval@joval.pt

Technical specifications

Type

Multistage centrifugal pump

Material

Noryl or Polycarbonate impellers

Installation

Vertical / Horizontal

Diameter

4" (~98mm)

Sand Fighter®

Up to 150g/m³

Voltage

230 V (1~) / 400 V (3~)

Max Temperature

35° C

Starts/Hour

Maximum 20 starts per hour

Discharge

1" 1/4 - 2"

Applications

- Water abstraction from boreholes, reservoirs and water courses.
- Domestic water supply.
- Agricultural irrigation and gardens.
- Hydropneumatic systems.

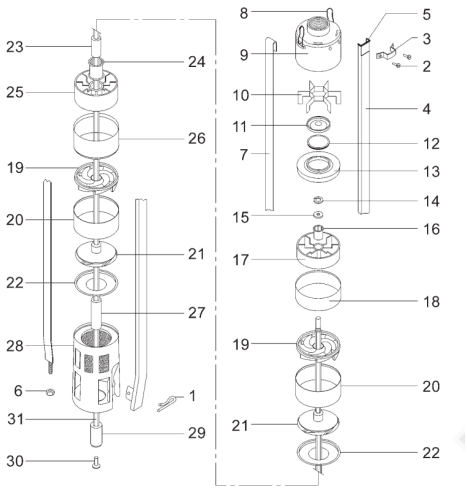
Operating conditions

- Confirm the installation conditions, power supply and duty point before commissioning.

Engineering note Confirm the installation conditions, power supply and duty point before commissioning.

List of materials

Materials

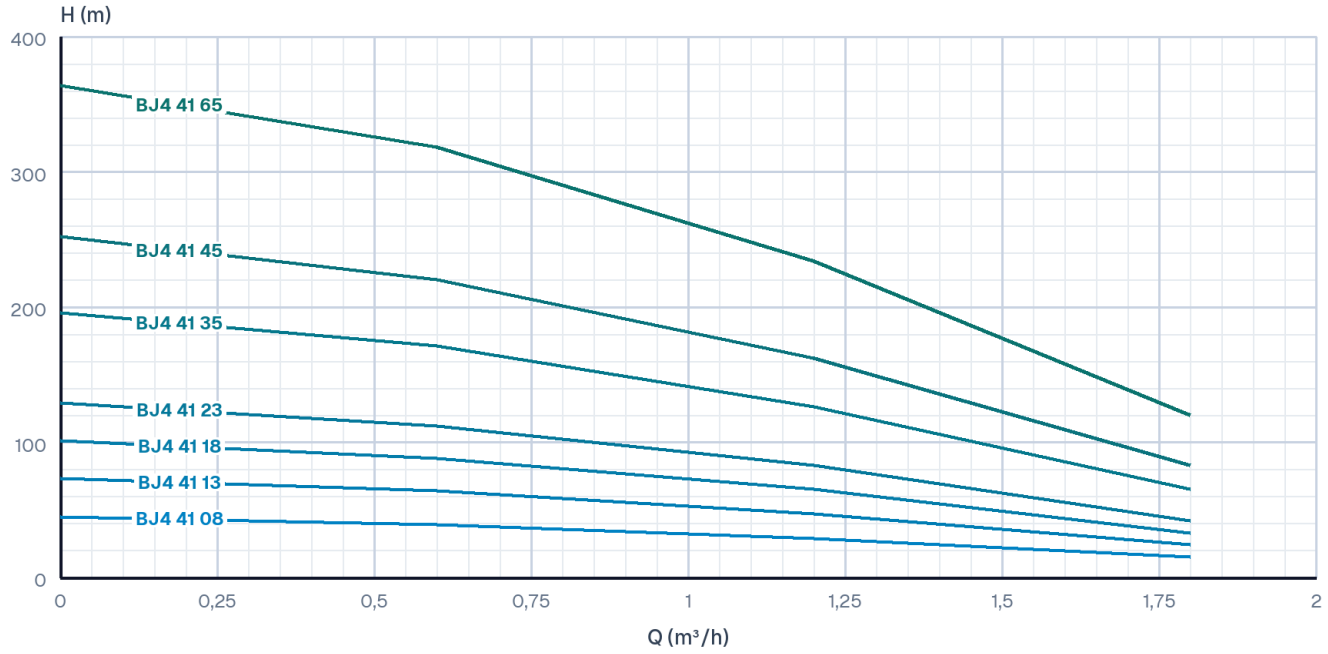


Pos.	Description
1	Pin
2	Screw
3	Clamp
4	Cable guard
5	Protection rubber
6	Nut
7	Tie rod
8	Support hook
9	Upper support / Discharge head
10	Valve guide
11	Valve
12	O'ring
13	Valve seat
14	Circlip/Snap ring
15	Washer
16	Upper guide bushing

Pos.	Description
17	Upper guide
18	Upper guide ring
19	Diffuser
20	Diffuser ring
21	Impellers
22	Diffuser cover
23	Bushing
24	Central guide bushing
25	Central guide
26	Central guide ring
27	Lower bushing
28	Suction chamber
29	Coupling
30	Screw
31	Pump shaft

Series BJ4 41

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 41 08	0,25	0,33	—
BJ4 41 13	0,37	0,5	—
BJ4 41 18	0,55	0,75	—
BJ4 41 23	0,75	1	—

Model	kW	HP	Amp (1~/3~)
BJ4 41 35	1,1	1,5	—
BJ4 41 45	1,5	2	—
BJ4 41 65	2,2	3	—

Series BJ4 41

Hydraulic performance

Total head H in metres

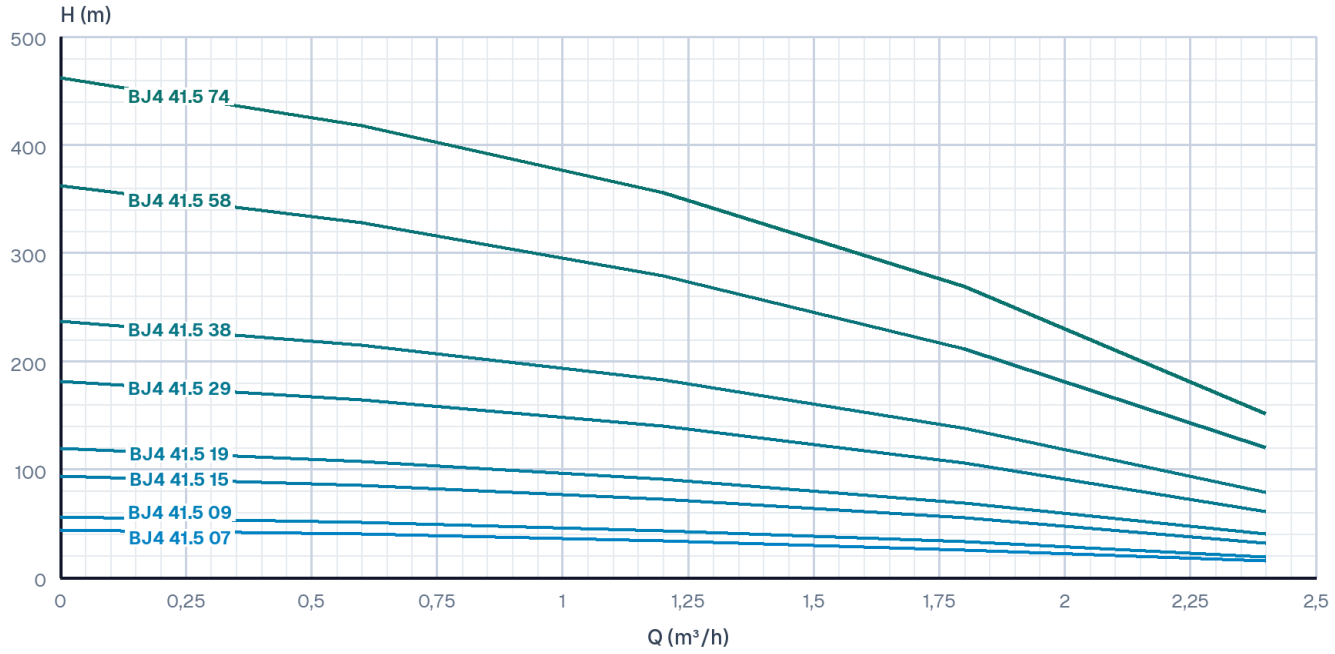
Q · Flow (m³/h)

Model	0	0,6	1,2	1,8
BJ4 41 08	45	39	29	15
BJ4 41 13	73	64	47	24
BJ4 41 18	101	88	65	33
BJ4 41 23	129	112	83	42
BJ4 41 35	196	171	126	65
BJ4 41 45	252	220	162	83
BJ4 41 65	364	318	234	120

Select the duty point at the intersection of Q and H.

Series BJ4 41.5

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 41.5 07	0,25	0,33	—
BJ4 41.5 09	0,37	0,5	—
BJ4 41.5 15	0,55	0,75	—
BJ4 41.5 19	0,75	1	—

Model	kW	HP	Amp (1~/3~)
BJ4 41.5 29	1,1	1,5	—
BJ4 41.5 38	1,5	2	—
BJ4 41.5 58	2,2	3	—
BJ4 41.5 74	3	4	—

Series BJ4 41.5

Hydraulic performance

Total head H in metres

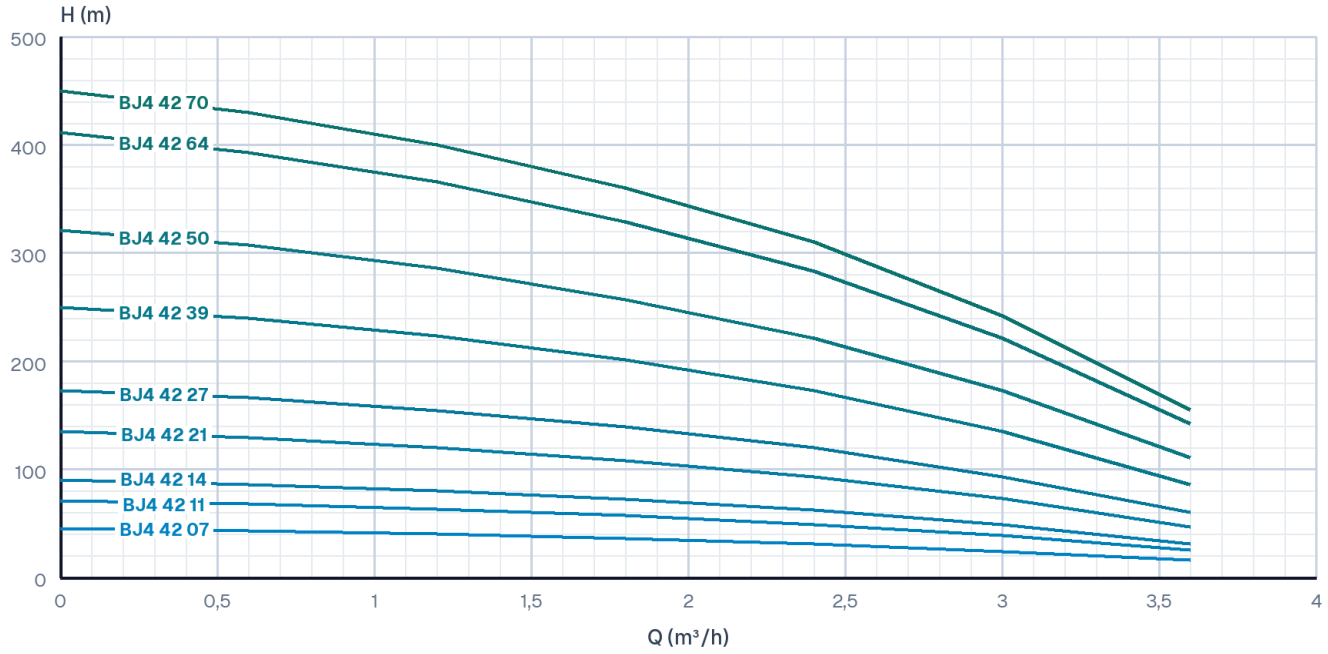
Q · Flow (m³/h)

Model	0	0,6	1,2	1,8	2,4
BJ4 41.5 07	44	40	34	25	15
BJ4 41.5 09	56	51	43	33	19
BJ4 41.5 15	94	85	72	55	32
BJ4 41.5 19	119	107	91	69	40
BJ4 41.5 29	181	164	140	106	61
BJ4 41.5 38	237	215	183	138	79
BJ4 41.5 58	362	328	279	211	120
BJ4 41.5 74	462	418	356	269	151

Select the duty point at the intersection of Q and H.

Series BJ4 42

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 42 07	0,37	0,5	—
BJ4 42 11	0,55	0,75	—
BJ4 42 14	0,75	1	—
BJ4 42 21	1,1	1,5	—
BJ4 42 27	1,5	2	—

Model	kW	HP	Amp (1~/3~)
BJ4 42 39	2,2	3	—
BJ4 42 50	3	4	—
BJ4 42 64	3,7	5	—
BJ4 42 70	4	5,5	—

Series BJ4 42

Hydraulic performance

Total head H in metres

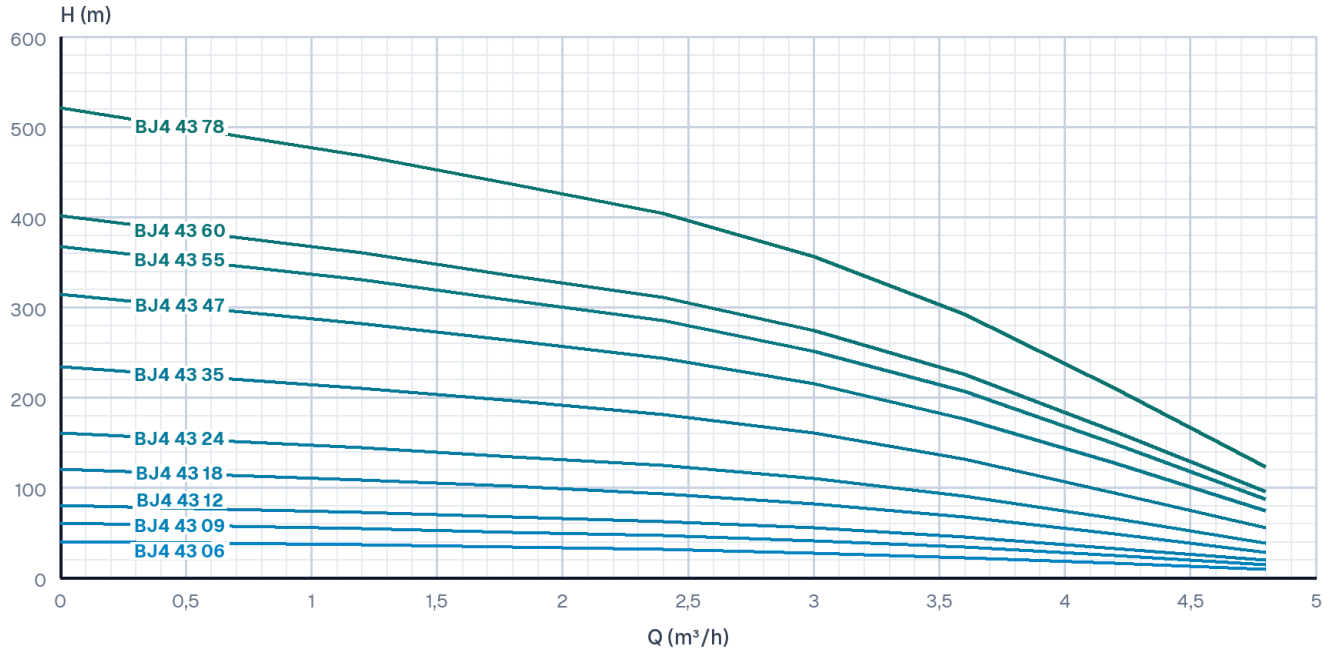
Q · Flow (m³/h)

Model	0	0,6	1,2	1,8	2,4	3	3,6
BJ4 42 07	45	43	40	36	31	24	16
BJ4 42 11	71	68	63	57	49	39	25
BJ4 42 14	90	86	80	72	62	49	31
BJ4 42 21	135	129	120	108	93	73	47
BJ4 42 27	173	166	154	139	120	93	60
BJ4 42 39	250	240	223	201	173	135	86
BJ4 42 50	321	307	286	257	221	173	111
BJ4 42 64	411	393	366	329	283	221	142
BJ4 42 70	450	430	400	360	310	242	155

Select the duty point at the intersection of Q and H.

Series BJ4 43

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 43 06	0,37	0,5	—
BJ4 43 09	0,55	0,75	—
BJ4 43 12	0,75	1	—
BJ4 43 18	1,1	1,5	—
BJ4 43 24	1,5	2	—

Model	kW	HP	Amp (1~/3~)
BJ4 43 35	2,2	3	—
BJ4 43 47	3	4	—
BJ4 43 55	3,7	5	—
BJ4 43 60	4	5,5	—
BJ4 43 78	5,5	7,5	—

Series BJ4 43

Hydraulic performance

Total head H in metres

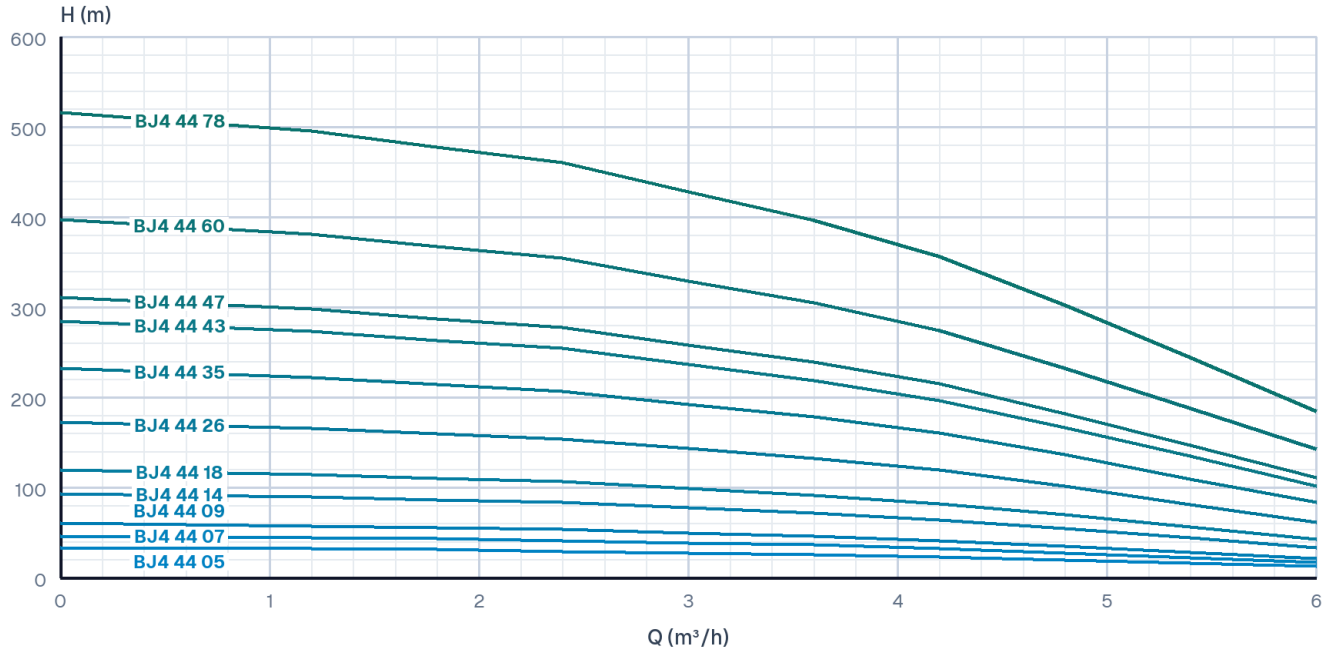
Q · Flow (m³/h)

Model	0	1,2	1,8	2,4	3	3,6	4,2	4,8
BJ4 43 06	40	36	34	31	27	22	16	9
BJ4 43 09	60	54	50	47	41	34	24	14
BJ4 43 12	80	72	67	62	55	45	32	19
BJ4 43 18	120	108	101	93	82	67	48	28
BJ4 43 24	160	144	134	124	110	90	65	38
BJ4 43 35	234	210	196	181	160	131	94	55
BJ4 43 47	314	282	263	243	215	176	127	74
BJ4 43 55	367	330	307	285	251	206	148	87
BJ4 43 60	401	360	335	311	274	225	162	95
BJ4 43 78	521	468	436	404	356	292	210	123

Select the duty point at the intersection of Q and H.

Series BJ4 44

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 44 05	0,37	0,5	—
BJ4 44 07	0,55	0,75	—
BJ4 44 09	0,75	1	—
BJ4 44 14	1,1	1,5	—
BJ4 44 18	1,5	2	—
BJ4 44 26	2,2	3	—

Model	kW	HP	Amp (1~/3~)
BJ4 44 35	3	4	—
BJ4 44 43	3,7	5	—
BJ4 44 47	4	5,5	—
BJ4 44 60	5,5	7,5	—
BJ4 44 78	7,5	10	—

Series BJ4 44

Hydraulic performance

Total head H in metres

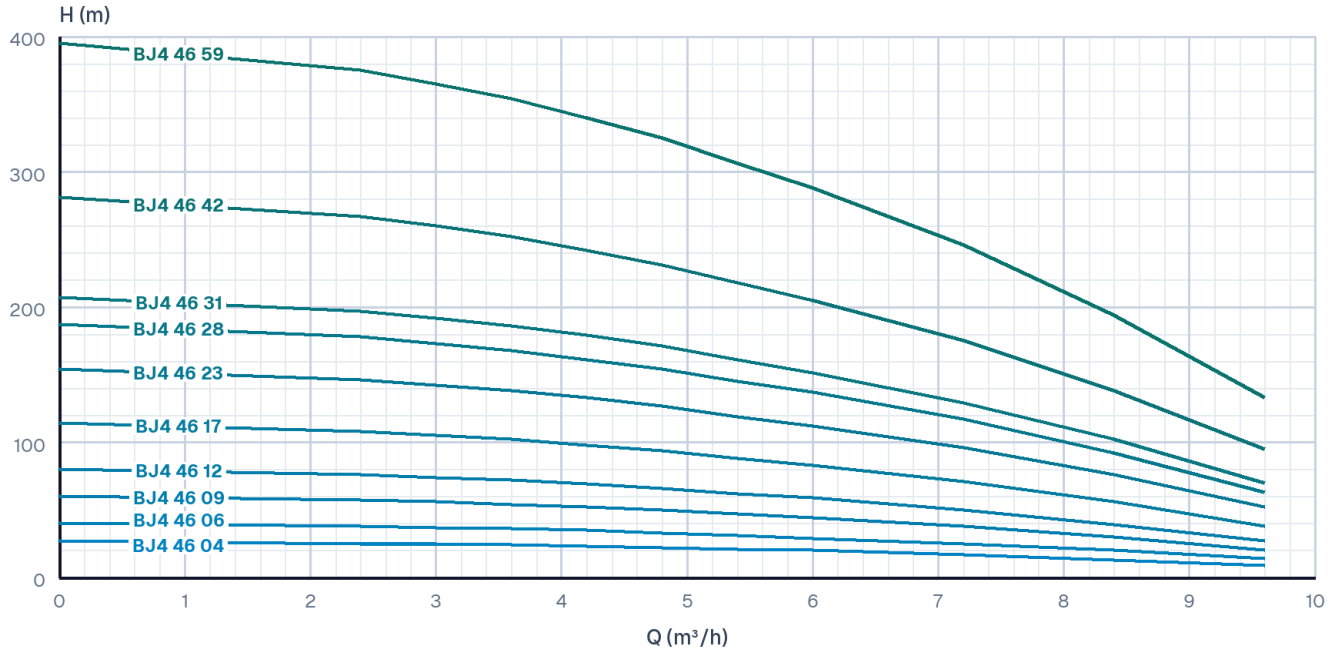
Q · Flow (m³/h)

Model	0	1,2	1,8	2,4	3	3,6	4,2	4,8	5,4	6
BJ4 44 05	33	32	31	29	27	25	23	19	16	12
BJ4 44 07	46	44	43	41	38	36	32	27	22	17
BJ4 44 09	60	57	55	53	49	46	41	35	28	21
BJ4 44 14	93	89	86	83	77	71	64	54	44	33
BJ4 44 18	119	114	110	106	99	91	82	70	56	42
BJ4 44 26	172	165	159	153	143	132	119	101	81	61
BJ4 44 35	232	222	214	206	192	178	160	136	109	83
BJ4 44 43	284	273	263	254	236	218	196	166	135	101
BJ4 44 47	311	298	287	277	258	239	215	182	147	111
BJ4 44 60	397	381	367	354	329	305	274	232	188	142
BJ4 44 78	516	495	477	460	428	396	356	302	244	184

Select the duty point at the intersection of Q and H.

Series BJ4 46

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 46 04	0,55	0,75	—
BJ4 46 06	0,75	1	—
BJ4 46 09	1,1	1,5	—
BJ4 46 12	1,5	2	—
BJ4 46 17	2,2	3	—

Model	kW	HP	Amp (1~/3~)
BJ4 46 23	3	4	—
BJ4 46 28	3,7	5	—
BJ4 46 31	4	5,5	—
BJ4 46 42	5,5	7,5	—
BJ4 46 59	7,5	10	—

Series BJ4 46

Hydraulic performance

Total head H in metres

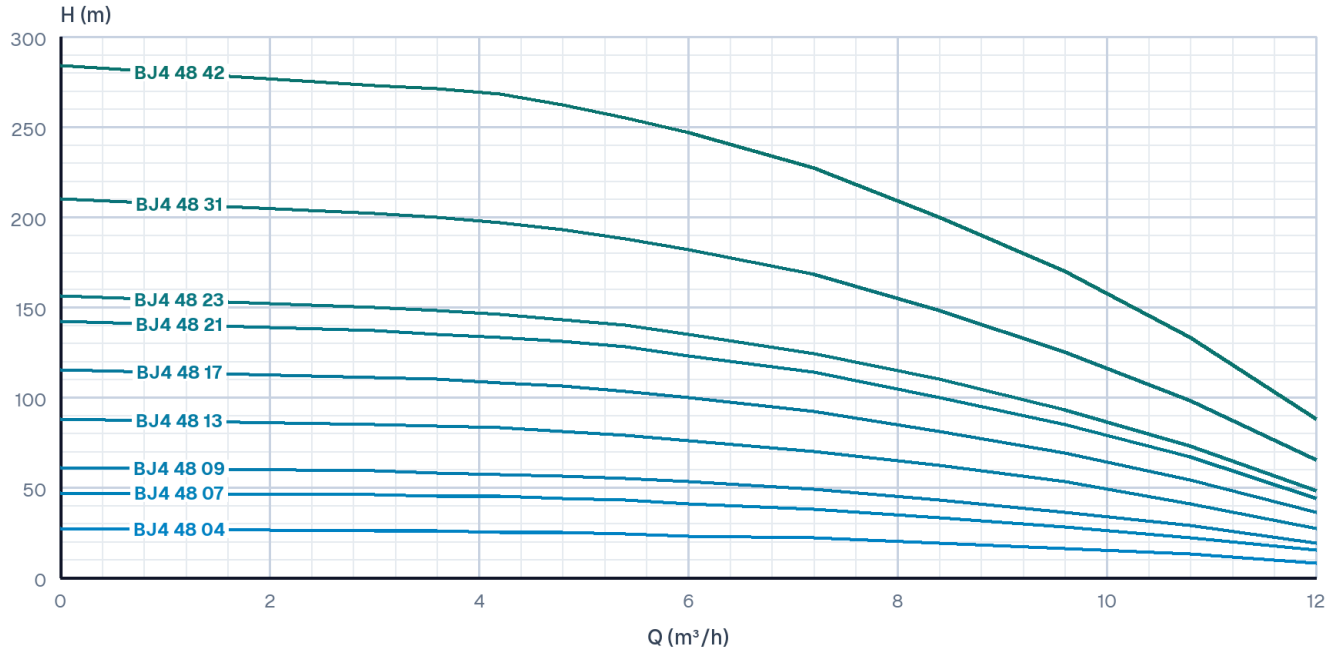
Q · Flow (m³/h)

Model	0	2,4	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6
BJ4 46 04	27	25	25	24	23	22	21	20	17	13	9
BJ4 46 06	40	38	37	36	35	33	31	29	25	20	14
BJ4 46 09	60	57	56	54	52	50	47	44	38	30	20
BJ4 46 12	80	76	74	72	69	66	62	59	50	39	27
BJ4 46 17	114	108	105	102	98	94	88	83	71	56	38
BJ4 46 23	154	146	142	138	133	127	119	112	96	76	52
BJ4 46 28	187	178	173	168	161	154	145	137	117	92	63
BJ4 46 31	207	197	192	186	179	171	161	151	129	102	70
BJ4 46 42	281	267	260	252	242	231	218	205	175	138	95
BJ4 46 59	395	375	365	354	340	325	306	288	246	194	133

Select the duty point at the intersection of Q and H.

Series BJ4 48

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 48 04	0,75	1	—
BJ4 48 07	1,1	1,5	—
BJ4 48 09	1,5	2	—
BJ4 48 13	2,2	3	—
BJ4 48 17	3	4	—

Model	kW	HP	Amp (1~/3~)
BJ4 48 21	3,7	5	—
BJ4 48 23	4	5,5	—
BJ4 48 31	5,5	7,5	—
BJ4 48 42	7,5	10	—

Series BJ4 48

Hydraulic performance

Total head H in metres

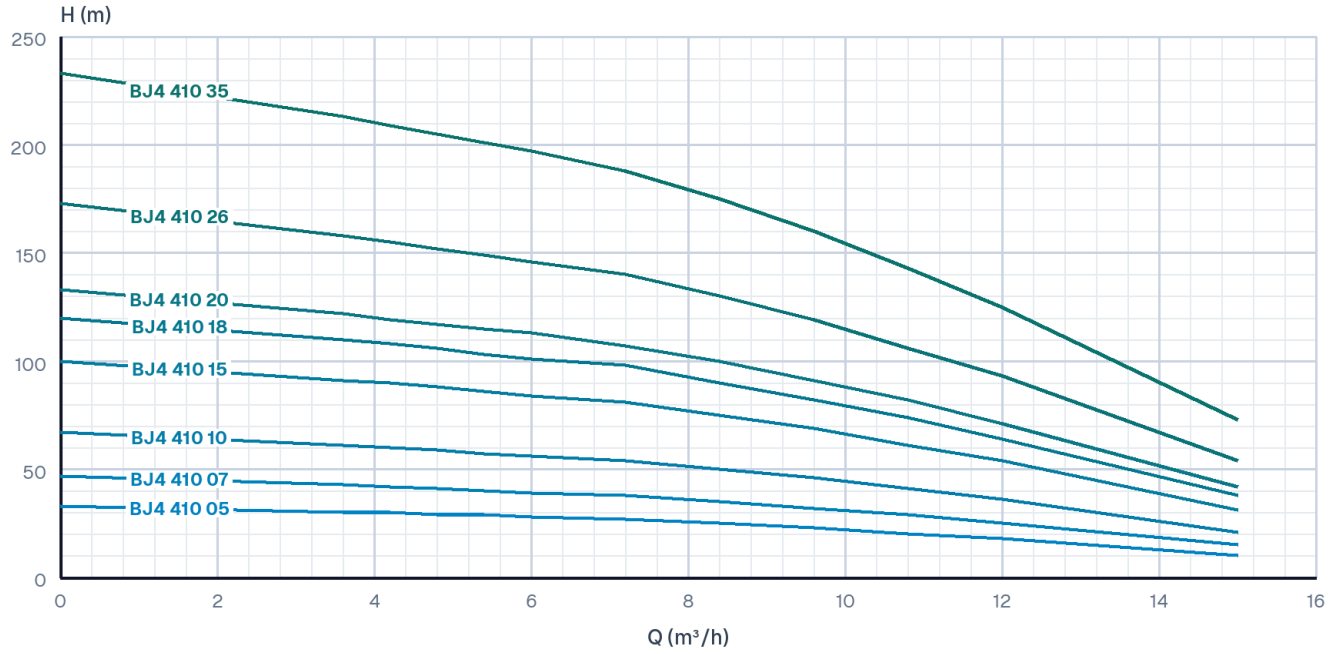
Q · Flow (m³/h)

Model	0	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12
BJ4 48 04	27	26	26	25	25	24	23	22	19	16	13	8
BJ4 48 07	47	46	45	45	44	43	41	38	33	28	22	15
BJ4 48 09	61	59	58	57	56	55	53	49	43	36	29	19
BJ4 48 13	88	85	84	83	81	79	76	70	62	53	41	27
BJ4 48 17	115	111	110	108	106	103	100	92	81	69	54	36
BJ4 48 21	142	137	135	133	131	128	123	114	100	85	67	44
BJ4 48 23	156	150	148	146	143	140	135	124	110	93	73	48
BJ4 48 31	210	202	200	197	193	188	182	168	148	125	98	65
BJ4 48 42	284	273	271	268	262	255	247	227	200	170	133	88

Select the duty point at the intersection of Q and H.

Series BJ4 410

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 410 05	1,1	1,5	—
BJ4 410 07	1,5	2	—
BJ4 410 10	2,2	3	—
BJ4 410 15	3	4	—

Model	kW	HP	Amp (1~/3~)
BJ4 410 18	3,7	5	—
BJ4 410 20	4	5,5	—
BJ4 410 26	5,5	7,5	—
BJ4 410 35	7,5	10	—

Series BJ4 410

Hydraulic performance

Total head H in metres

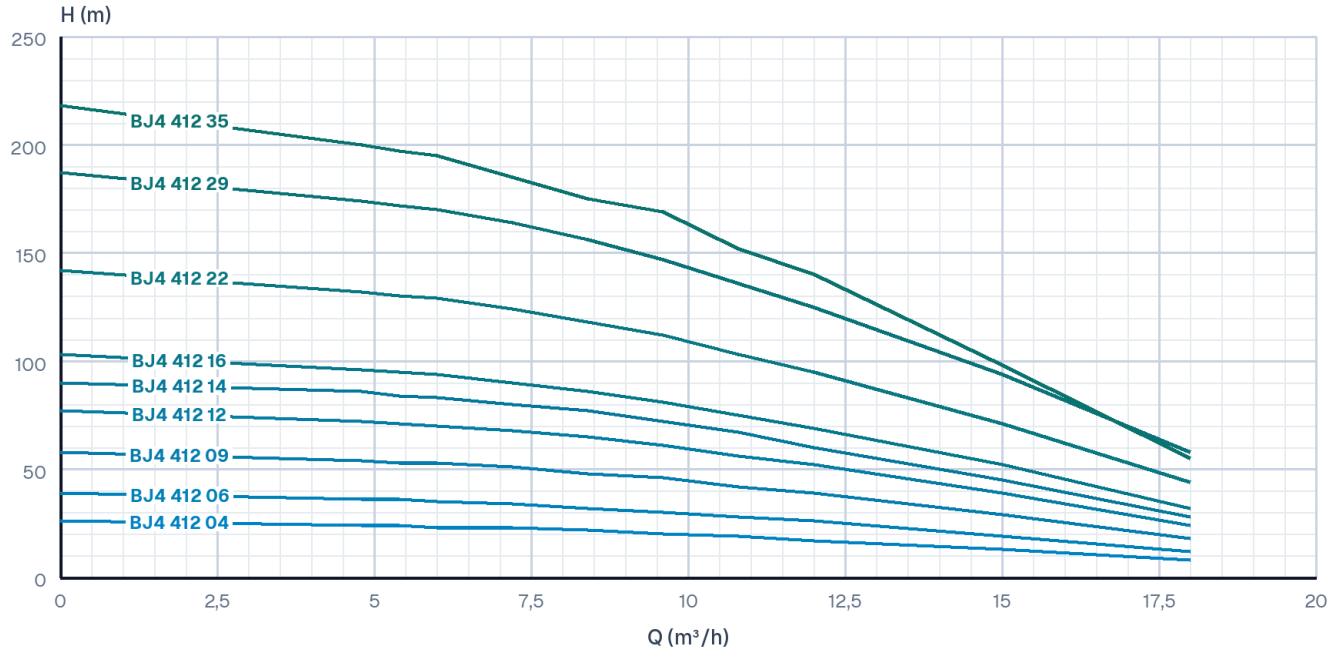
Q · Flow (m³/h)

Model	0	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12	15
BJ4 410 05	33	30	30	29	29	28	27	25	23	20	18	10
BJ4 410 07	47	43	42	41	40	39	38	35	32	29	25	15
BJ4 410 10	67	61	60	59	57	56	54	50	46	41	36	21
BJ4 410 15	100	91	90	88	86	84	81	75	69	61	54	31
BJ4 410 18	120	110	108	106	103	101	98	90	82	74	64	38
BJ4 410 20	133	122	119	117	115	113	107	100	91	82	71	42
BJ4 410 26	173	158	155	152	149	146	140	130	119	106	93	54
BJ4 410 35	233	213	209	205	201	197	188	175	160	143	125	73

Select the duty point at the intersection of Q and H.

Series BJ4 412

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 412 04	1,1	1,5	—
BJ4 412 06	1,5	2	—
BJ4 412 09	2,2	3	—
BJ4 412 12	3	4	—
BJ4 412 14	3,7	5	—

Model	kW	HP	Amp (1~/3~)
BJ4 412 16	4	5,5	—
BJ4 412 22	5,5	7,5	—
BJ4 412 29	7,5	10	—
BJ4 412 35	9,3	12,5	—

Series BJ4 412

Hydraulic performance

Total head H in metres

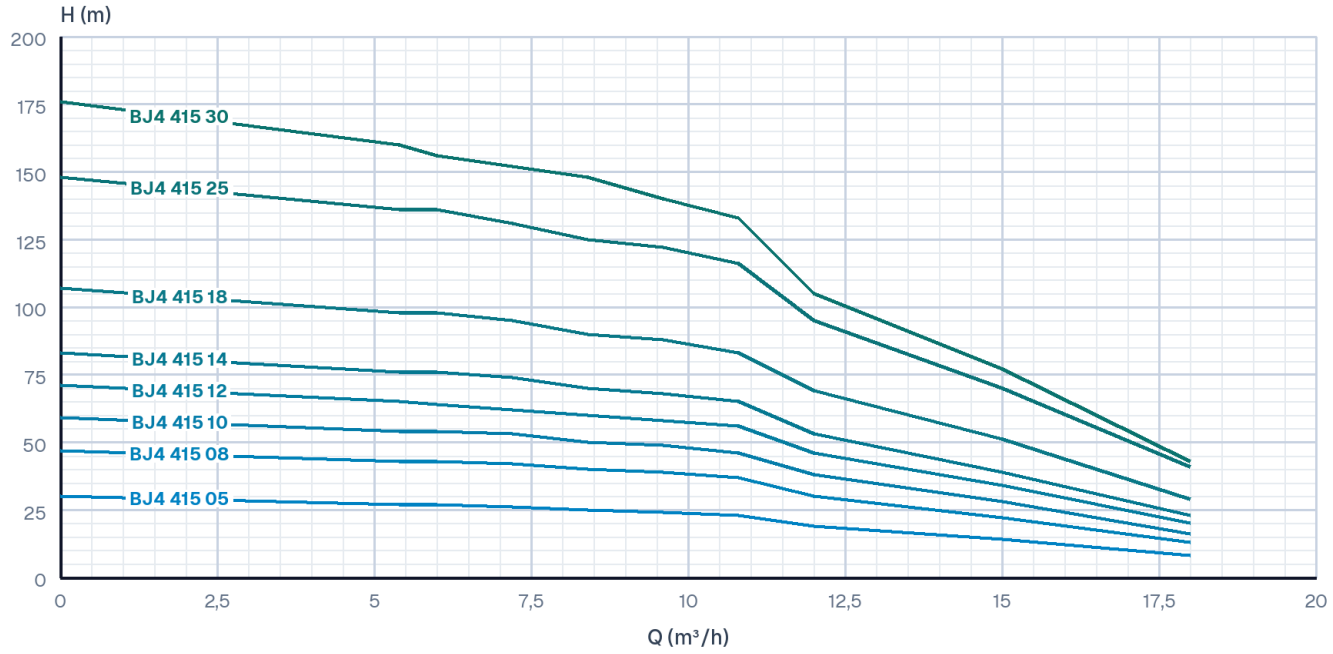
Q · Flow (m³/h)

Model	0	4,8	5,4	6	7,2	8,4	9,6	10,8	12	15	18
BJ4 412 04	26	24	24	23	23	22	20	19	17	13	8
BJ4 412 06	39	36	36	35	34	32	30	28	26	19	12
BJ4 412 09	58	54	53	53	51	48	46	42	39	29	18
BJ4 412 12	77	72	71	70	68	65	61	56	52	39	24
BJ4 412 14	90	86	84	83	80	77	72	67	60	45	28
BJ4 412 16	103	96	95	94	90	86	81	75	69	52	32
BJ4 412 22	142	132	130	129	124	118	112	103	95	71	44
BJ4 412 29	187	174	172	170	164	156	147	136	125	94	58
BJ4 412 35	218	200	197	195	185	175	169	152	140	98	55

Select the duty point at the intersection of Q and H.

Series BJ4 415

Performance curves



Electrical data

Model	kW	HP	Amp (1~/3~)
BJ4 415 05	1,5	2	—
BJ4 415 08	2,2	3	—
BJ4 415 10	3	4	—
BJ4 415 12	3,7	5	—

Model	kW	HP	Amp (1~/3~)
BJ4 415 14	4	5,5	—
BJ4 415 18	5,5	7,5	—
BJ4 415 25	7,5	10	—
BJ4 415 30	9,3	12,5	—

Series BJ4 415

Hydraulic performance

Total head H in metres

Q · Flow (m³/h)

Model	0	5,4	6	7,2	8,4	9,6	10,8	12	15	18
BJ4 415 05	30	27	27	26	25	24	23	19	14	8
BJ4 415 08	47	43	43	42	40	39	37	30	22	13
BJ4 415 10	59	54	54	53	50	49	46	38	28	16
BJ4 415 12	71	65	64	62	60	58	56	46	34	20
BJ4 415 14	83	76	76	74	70	68	65	53	39	23
BJ4 415 18	107	98	98	95	90	88	83	69	51	29
BJ4 415 25	148	136	136	131	125	122	116	95	70	41
BJ4 415 30	176	160	156	152	148	140	133	105	77	43

Select the duty point at the intersection of Q and H.

Dimensions and models · 1/3

Dimensions and models

Series 41

Model	kW	BJ (kg)	FM (kg)	FT (kg)
41 08	0.25	3.2	10.8	—
41 13	0.37	4.2	12.4	11.1
41 18	0.55	5.4	14.8	13.3
41 23	0.75	6.3	16.9	15.2
41 35	1.1	9	21	19.4
41 45	1.5	11.9	25.2	23.5
41 65	2.2	16.2	33.9	31.5

Series 41.5

Model	kW	BJ (kg)	FM (kg)	FT (kg)
41.5 07	0.25	3.2	10.8	—
41.5 09	0.37	3.6	11.8	11
41.5 15	0.55	4.3	13.7	12.2
41.5 19	0.75	5.6	16.2	14.5
41.5 29	1.1	7.6	19.6	18
41.5 38	1.5	9.7	22.8	21.1
41.5 58	2.2	14.5	32.2	29.9
41.5 74	3	17.7	—	35.1

Series 42

Model	kW	BJ (kg)	FM (kg)	FT (kg)
42 07	0.37	3.9	11.4	10.6
42 11	0.55	3.9	13.3	11.8
42 14	0.75	4.2	14.8	13.3
42 21	1.1	6.2	18.2	16.6
42 27	1.5	7.1	20.2	18.5
42 39	2.2	10	27.5	22.8
42 50	3	13	—	30.4
42 70	4	17.9	—	38.1

Series 43

Model	kW	BJ (kg)	FM (kg)	FT (kg)
43 06	0.37	3.2	11.4	10.6
43 09	0.55	3.8	13.2	11.7
43 12	0.75	4.5	15.1	13.4
43 18	1.1	6	18	16.4
43 24	1.5	8.5	21.6	19.9
43 35	2.2	10	27.5	22.8
43 47	3	12.8	—	30.2
43 60	4	16.8	—	37.2
43 78	5.5	21	—	48

BJ = Pump (body); FM = Single-phase (pump + motor); FT = Three-phase (pump + motor)

Dimensions and models · 2/3

Dimensions and models

Series 44

Model	kW	BJ (kg)	FM (kg)	FT (kg)
44 05	0.37	3	11.2	10.4
44 07	0.55	3.4	12.8	11.3
44 09	0.75	3.8	14.4	12.7
44 14	1.1	4.9	16.9	15.3
44 18	1.5	6	19.1	17.4
44 26	2.2	7.7	25.2	20.5
44 35	3	10	—	27.2
44 47	4	13	—	33.4
44 60	5.5	16	—	43
44 78	7.5	20.2	—	51.2

Series 46

Model	kW	BJ (kg)	FM (kg)	FT (kg)
46 04	0.55	2.9	12.3	10.8
46 06	0.75	3.5	14.1	12.4
46 09	1.1	4.5	16.5	14.9
46 12	1.5	5.5	18.6	16.9
46 17	2.2	6.8	24.3	19.6
46 23	3	8.7	—	25.9
46 31	4	11.2	—	31.6
46 42	5.5	14.3	—	41.3
46 59	7.5	20.1	—	51.1

Series 48

Model	kW	BJ (kg)	FM (kg)	FT (kg)
48 04	0.75	3	13.6	11.9
48 07	1.1	3.6	15.6	14
48 09	1.5	4.3	17.4	15.7
48 13	2.2	5.7	23.2	18.5
48 17	3	6.8	—	22
48 23	4	8.5	—	28.7
48 31	5.5	11	—	38
48 42	7.5	14.2	—	45.2

Series 410

Model	kW	BJ (kg)	FM (kg)	FT (kg)
410 05	1.1	4.1	16.1	14.5
410 07	1.5	5	18.1	16.4
410 10	2.2	6.5	24	19.3
410 15	3	9	—	24.2
410 20	4	11.7	—	32.1
410 26	5.5	14	—	41
410 35	7.5	18	—	49

BJ = Pump (body); FM = Single-phase (pump + motor); FT = Three-phase (pump + motor)

Dimensions and models · 3/3

Dimensions and models

Series 412

Model	kW	BJ (kg)	FM (kg)	FT (kg)
412 04	1.1	3.7	15.7	14.1
412 06	1.5	4.5	17.6	15.9
412 09	2.2	6.1	23.6	18.9
412 12	3	7.4	—	22.6
412 16	4	9.4	—	29.8
412 22	5.5	12.4	—	39.4
412 29	7.5	15.5	—	46.5

Series 415

Model	kW	BJ (kg)	FM (kg)	FT (kg)
415 05	1.5	4	17.1	15.4
415 08	2.2	5.3	22.8	18.1
415 10	3	6.5	—	21.7
415 14	4	8.5	—	28.7
415 18	5.5	10.8	—	37.8
415 25	7.5	14.2	—	45.2

BJ = Pump (body); FM = Single-phase (pump + motor); FT = Three-phase (pump + motor)