



LE QUOC REFRIGERATION ENGINEERING COMPANY LIMITED
486/20 National Road 13, Hiep Binh Ward, Ho Chi Minh City, Vietnam

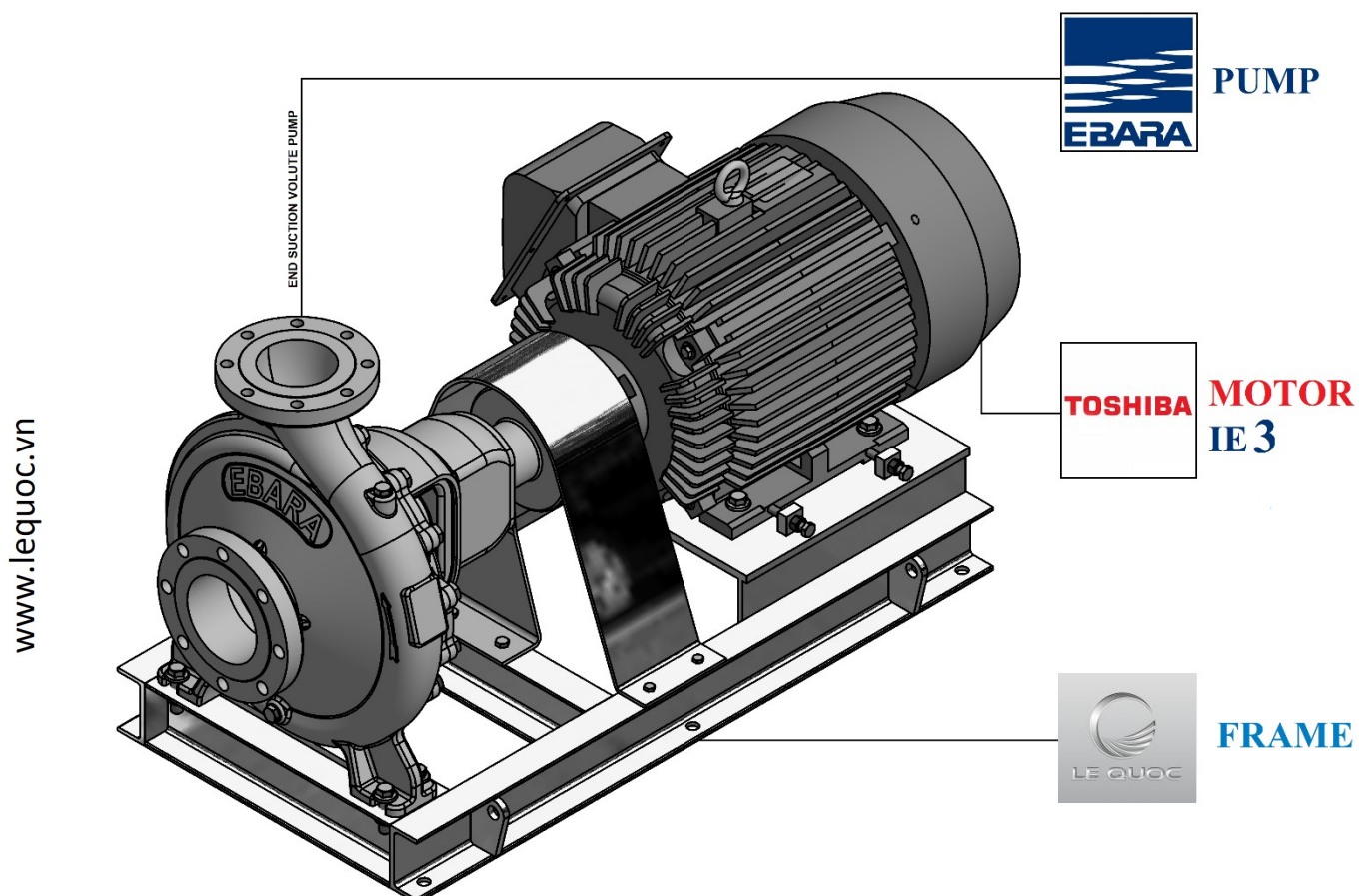
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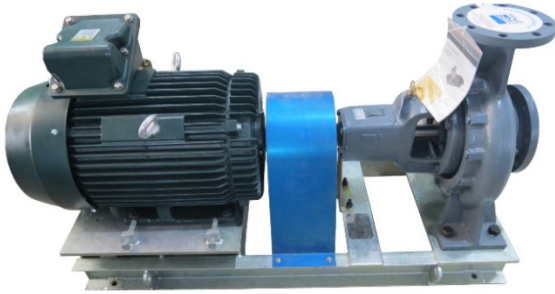
LQP High performance water pump combination



LQP Tổ Hợp Máy Bơm Nước Hiệu Suất Cao

LQP High Performance Water Pump Combination

Ứng dụng Application

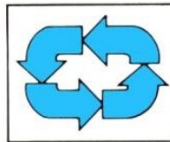


- Hệ thống điều hòa không khí hoặc trao đổi nhiệt.
- Vận chuyển nước nóng và lạnh.
- Hệ thống cấp nước cho các tòa nhà.
- Hệ thống cấp nước công nghiệp.
- Hệ thống cấp nước chữa cháy.
- Bơm tưới tiêu, công trình thủy lợi. Xử lý nước thải.
- Air-condition cold or hot water circulation.
- Hot and cold water circulation
- Water-supplying system of apartment building.
- Industrial water supply.
- Fire-fighting water system
- Farm water irrigation,



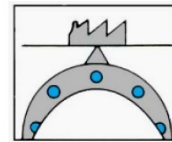
Water Supply

- Boosting pump System
- High-rise building



Water Circulation

- Circulating of water in Heating and cooling



Industrial Use

- Liquid transfer



Đặt Tính

- Dễ dàng tháo lắp và bảo trì, BPO (Tháo rút kéo) cho phép việc tháo rút chi tiết đầu bơm “như: Vòng bi, trục và cánh bơm” một cách dễ dàng mà không cần tháo mở đường ống.
- Thân bơm, gối đỡ được đúc liền mảnh chắc chắn nhằm chống lại sự rung động khi vận hành.
- Thiết kế chống quá tải để ổn định hiệu suất khi vận hành.
- Phạm vi ứng dụng rộng rãi với lưu lượng lên tới 20 m³/phút ~ 1320 m³/giờ.
- Áp suất làm việc cao lên tới 16bar ~ 160 mét cột áp.
- Công suất : từ 0.37kW đến 335kW.

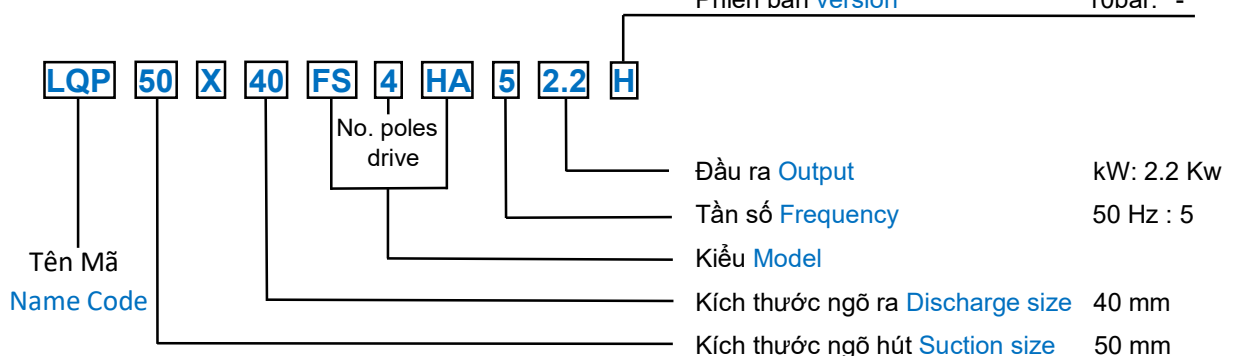
Features

- Easy removal and maintenance, BPO (Back Pull Out) system allows all rotating element to be removed without disconnecting suction and discharge pipe work.
- Top centreline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads.
- Non-overload design to ensure stable performance for all applications
- Wide range application with flow capacity up to 22 m³/min ~ 1320 m³/h.
- Higher working pressure up to 16 bar ~ 160 mH₂O.
- Capacity: from 0.37 kW to 335kW.

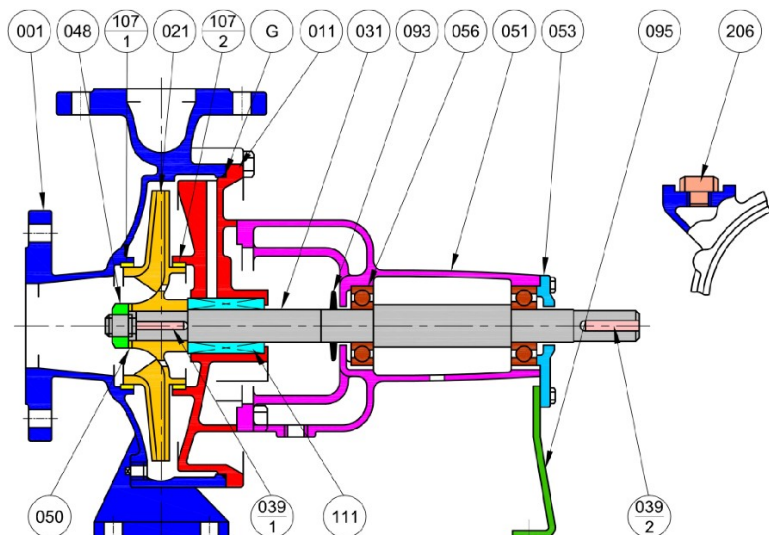
SPECIFICATIONS

DESCRIPTION		Standard		Optional	
		2 poles model	4 poles model	2 poles model	4 poles model
Liquid	Name	Clean water			
	Temperature	0 to 80°C (32 to 176°F)			
Max. Working Pressure		10 bar (10.2 kgf/cm ²) for standard flange JIS 10K RF 16 bar (16.3 kgf/cm ²) for standard flange JIS 16K RF		16 bar (16.3 kgf/cm ²)	
Synchronous Speed		3000 min ⁻¹	1500 min ⁻¹		
Installation		Indoor		Outdoor	
Construction	Impeller	Enclosed			
	Shaft seal	Mechanical seal		Gland Packing	
	Sealing	Self flushing		External flushing	
	Bearing	Sealed ball bearing		Oil bath (some models only)	
Flange	Suction & Discharge	Suction < Ø 150mm, except 100X65 FSKA : JIS 10K RF		16 bar : JIS 16K RF ; DIN PN-16	
		100X65 FSKA : JIS 16K RF		DIN PN-16	
		Suction = Ø 150mm, except below models : JIS 10K RF		16 bar : JIS 16K RF ; DIN PN-16	
		150X100 FSKA; 150X100 FSNA : JIS 16K RF		DIN PN-16	
		Suction = Ø 200mm, except below models : JIS 10K RF		16 bar : JIS 16K RF ; DIN PN-16	
		200X150 FSLA; 200X150 FSNA : JIS 16K RF		DIN PN-16	
		Suction = Ø 250mm : JIS 16K RF		DIN PN-16	
Material	Casing	Cast Iron		Ductile Cast Iron (FCD)	
	Impeller	BronzeCasting (CAC406/BC6)		Cast Iron; Ductile Cast Iron (FCD)	
	Shaft	403 Stainless steel		304; 316 Stainless steel	
	seal	Mechanical Seal: Ceramic/Carbon/NBR		Gland Packing : Teflon (PTFE) impregnated Mechanical seal : SiC/SiC	
Accessories	Bare shaft			Priming funnel; valve; Companion Flange	
	With motor	Common base, Coupling guard		Priming funnel; valve; Companion Flange	

Trình Tự Ký Hiệu Type Description

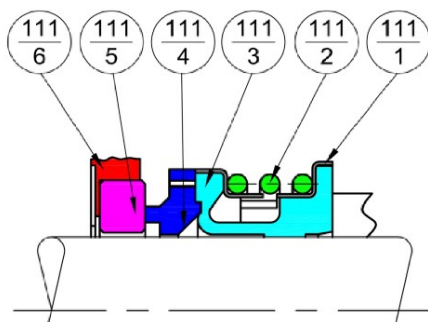


SECTIONAL VIEW (General)



No.	Part Name	Material	Qty
001	Casing	Cast iron	1
011	Casing cover		
021	Impeller	Bronze	
031	Shaft	Stainless steel	
039-1	Impeller key		
039-2	Coupling key		
048	Impeller nut	Brass	
050	Impeller nut washer		
051	Bearing housing	Cast iron	
053	Bearing cover		
056	Ball bearing	-	2
093	Deflector	Rubber	1
095	Bearing support	Steel	
107-1	Casing ring	Bronze	
107-2	Casing ring		
111	Mechanical seal	-	
206	Plug	Steel	
G	o-ring	Rubber	

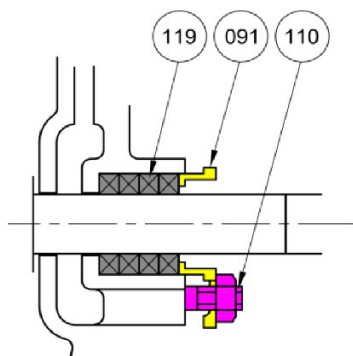
Mechanical Seal Type (Standard)



Mechanical Seal Detail			
No.	Part Name	Material	Qty
111-1	Spring Holder	Stainless steel	1
111-2	Coil Spring		
111-3	Bellows	NBR	
111-4	Seal Ring	Carbon	
111-5	Matting Ring	Ceramic	
111-6	Cup Gasket	NBR	

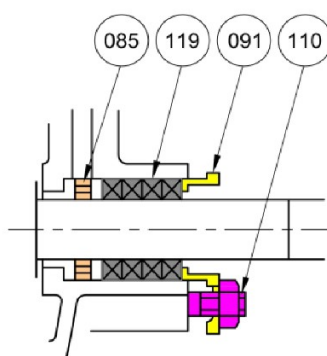
Gland Packing Type (Optional)

Without Lantern Ring



No.	Part Name	Material	Qty
091	Gland	Bronze	1
110	Gland Bolt	Brass	2
119	Gland Packing	Non-Asbestos	4 or 5

With Lantern Ring



No.	Part Name	Material	Qty
085	Lantern ring	Bronze	1
091	Gland		
110	Gland Bolt	Brass	2
119	Gland Packing	Non-Asbestos	4 or 5

Pump Model:

50x40 FSHA;
 65x50 FSHA, 65x50 FSJA;
 80x65 FSGA, 80x65 FSHA;
 100x80 FSGA;
 125x100 FSLA;
 150X100 FSKA, 150x100 FSNA;
 150X125 FSKA, 150x125 FSLA;
 200x150 FSJA, FSLA, FSNA;
 250x200 FSLA, 250x200 FSNA.

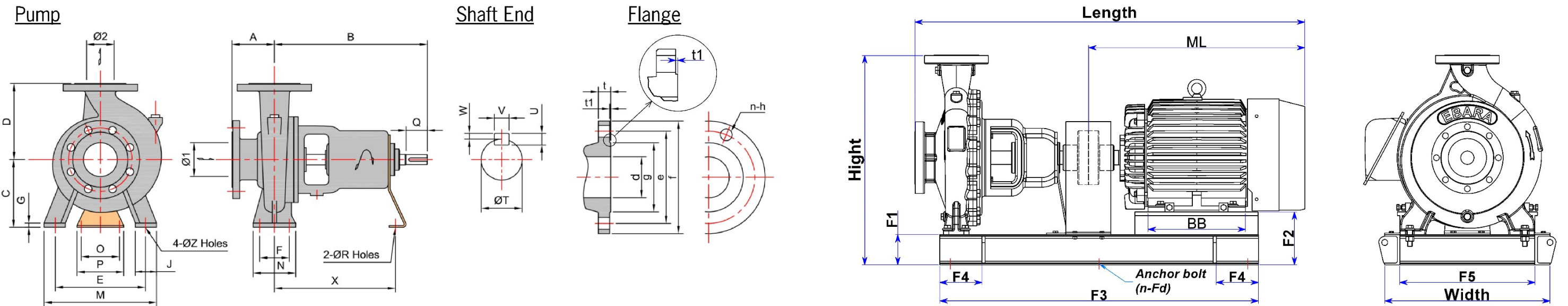
Pump Model:

80x65 FSJA, FSKA;
 100x65 FSKA;
 100x80 FSHA, FSJA, FSGCA, FSHCA;
 125x100 FSJCA, FSKA;
 150x125 FSHA, FSJA;
 200x150 FSHA, FSKA;

KÍCH THƯỚC – Bơm

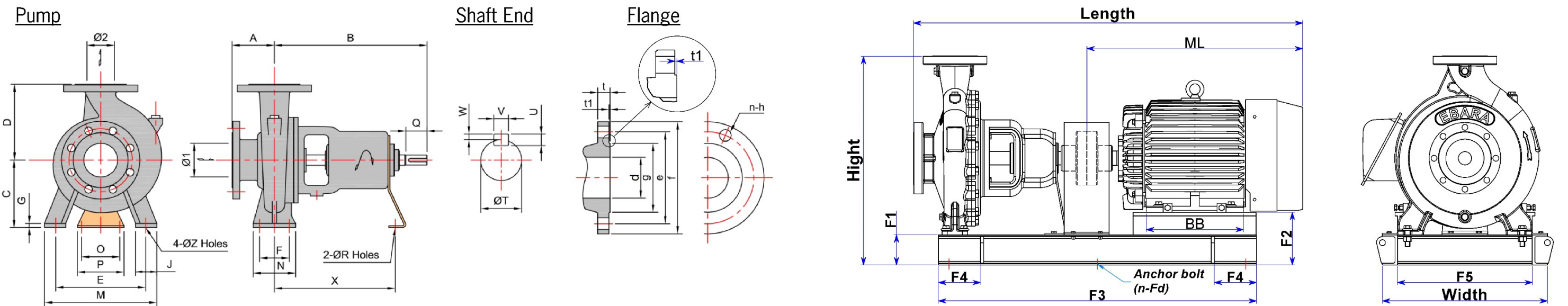
DIMENSION – Pump Pump (10 BAR Model)

4 POLES - 50Hz – 3 PHASE (1500min⁻¹)



Code Model	Motor (IE3)				Weight Kg	Size		Flange								Pump																		Frame						Total			Weight kg			
	kW	Frame	ML	BB		Ø1	Ø2	Standard	d = Ø2	f	e	g	t1	t	n-h	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V	F1	F2	F3	F4	F5	n-Fd	Hight	Length		Width		
LQP 50x40 FS4HA	0.75	80M	303	135	20	50	40	JIS 10K RF	40	140	105	81	2	20	4-19	80	360	160	180	190	70	12	50	240	100	110	150	17	285	15	24	50	7	8	80	160	660	150	250	6-10	420	745	330	80		
LQP 65x50 FS4HA	0.75	80M	303	135	20	65	50	JIS 10K RF	50	155	120	96	2	20	4-19	100	360	160	180	190	70	12	50	265	100	110	150	17	285	15	24	50	7	8	80	160	660	150	290	6-10	420	770	370	87		
LQP 65x50 FS4JA	1.5	90L	362	165	21	65	50	JIS 10K RF	50	155	120	96	2	20	4-19	100	360	180	225	250	95	14	65	320	125	110	150	17	285	15	24	50	7	8	80	170	725	170	340	6-12	485	825	420	100		
	2.2	100L	370	180	30																														160	770	170	834			112					
LQP 80x65 FS4GA	0.75	80M	303	135	20	80	65	JIS 10K RF	65	175	140	116	2	22	4-19	100	360	160	180	212	70	12	50	265	100	110	150	17	285	15	24	50	7	8	80	160	660	170	290	6-10	420	770	370	87		
LQP 80x65 FS4HA	1.5	90L	362	165	21	80	65	JIS 10K RF	65	175	140	116	2	22	4-19	100	360	160	200	212	70	12	50	265	100	110	150	17	285	15	24	50	7	8	80	150	725	170	290	6-12	440	825	370	92		
LQP 80x65 FS4JA	2.2	100L	370	180	30	80	65	JIS 10K RF	65	175	140	116	2	22	4-19	100	360	180	225	250	95	14	65	320	125	110	150	17	285	15	32	80	8	10	80	160	770	170	340	6-12	485	835	420	120		
	4.0	112M	385	190	39																														148	770	850				130					
LQP 80x65 FS4KA	5.5	132S	450	205	62	80	65	JIS 10K RF	65	175	140	116	2	22	4-19	125	470	225	280	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	80	173	960	200	440	6-12	585	1050	520	230		
	7.5	132S	450	205	70																														193	240					6-16		605	1213	540	240
	11	160M	613	265	102																														100	165										
LQP 100x80 FS4GA	1.5	90L	362	165	21	100	80	JIS 10K RF	80	185	150	126	2	24	8-19	100	360	160	200	212	95	14	65	280	125	110	150	17	285	15	24	50	7	8	80	150	725	170	300	6-12	440	825	380	100		
	2.2	100L	370	180	30																														140	770	835				109					
LQP 100x80 FS4HA	2.2	100L	370	180	30	100	80	JIS 10K RF	80	185	150	126	2	24	8-19	100	360	180	225	250	95	15	65	320	160	110	150	17	285	15	32	80	8	10	80	160	770	170	340	6-12	485	835	420	125		
	4.0	112M	385	190	39																														148	790	850				135					
LQP 100x80 FS4JA	4.0	112M	385	190	39	100	80	JIS 10K RF	80	185	150	126	2	24	8-19	100	360	200	250	280	120	15	80	360	160	110	150	17	285	19	32	80	8	10	80	168	770	170	380	6-12	530	850	460	151		
	5.5	132S	450	205	62																														148	840	200	915			177					
LQP 100x80 FS4GCA	2.2	100L	370	180	30	100	80	JIS 10K RF	80	185	150	126	2	24	8-19	125	360	180	225	250	95	14	65	320	125	110	150	17	285	15	32	80	8	10	80	160	770	170	340	6-12	485	860	420	124		
	4.0	112M	385	190	39																														148	875					137					
LQP 100x80 FS4HCA	5.5	132S	450	205	62	100	80	JIS 10K RF	80	185	150	126	2	24	8-19	125	360	180	250	280	95	14	65	345	125	110	150	17	285	15	32	80	8	10	80	128	810	200	370	6-12	510	940	450	179		
	7.5	132S	450	205	70																														100	148					530		193			
LQP 125x100 FS4JCA	5.5	132S	450	205	62	125	100	JIS 10K RF	100	210	175	151	2	24	8-19	140	360	225	280	315	120	16	80	400	160	110	150	17	285	19	38	80	8	10	80	173	840	200	440	6-12	585	955	520	233		
	7.5	132S	450	205	70																														193	240					6-16		605	1118	540	255
	11	160M	613	265	102																														100	165										
LQP 125x100 FS4KA	15	160L	613	310	119	125	100	JIS 10K RF	100	210	175	151	2	24	8-19	140	470	250	315	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	120	210	1120	250	440	6-16	665	1228	560	331		
	18.5	180M	755	315	206																														190	1370					393					
LQP 125x100 FS4LA	22	180L	755	350	212	125	100	JIS 10K RF	100	210	175	151	2	24	8-19	140	530	280	355	400	150	20	100	500	200	110	150	17	370	24	42	110	8	12	140	240	1230	250	550	6-20	775	1430	690	459		
	30	200L	853	380	294																														220	1330	1528				532					
LQP 150x125 FS4HA	7.5	132S	450	205	70	150	125	JIS 10K RF	125	250	210	182	2	24	8-23	140	470	250	315	315	120	15	80	400	160	110	150	17	370	19	32	80	8	10	100	218	960	200	440	6-16	665	1065	540	261		
	11	160M	613	265	102																														190	1070	1228				286					
	15	160L	613	310	119																														120	210	1120				250	685		1228	560	321

KÍCH THƯỚC – Bơm DIMENSION – Pump (10 BAR Model) 4 POLES - 50Hz – 3 PHASE (1500min⁻¹)



Code Model	Motor (IE3)				Weight Kg	Size		Flange							Pump																	Frame						Total			Weight kg																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	kW	Frame	ML	BB		Ø1	Ø2	Standard	d = Ø2	f	e	g	t1	t	n-h	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V	F1	F2	F3	F4	F5	n-Fd		Hight	Length	Width																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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