

**EBARA**

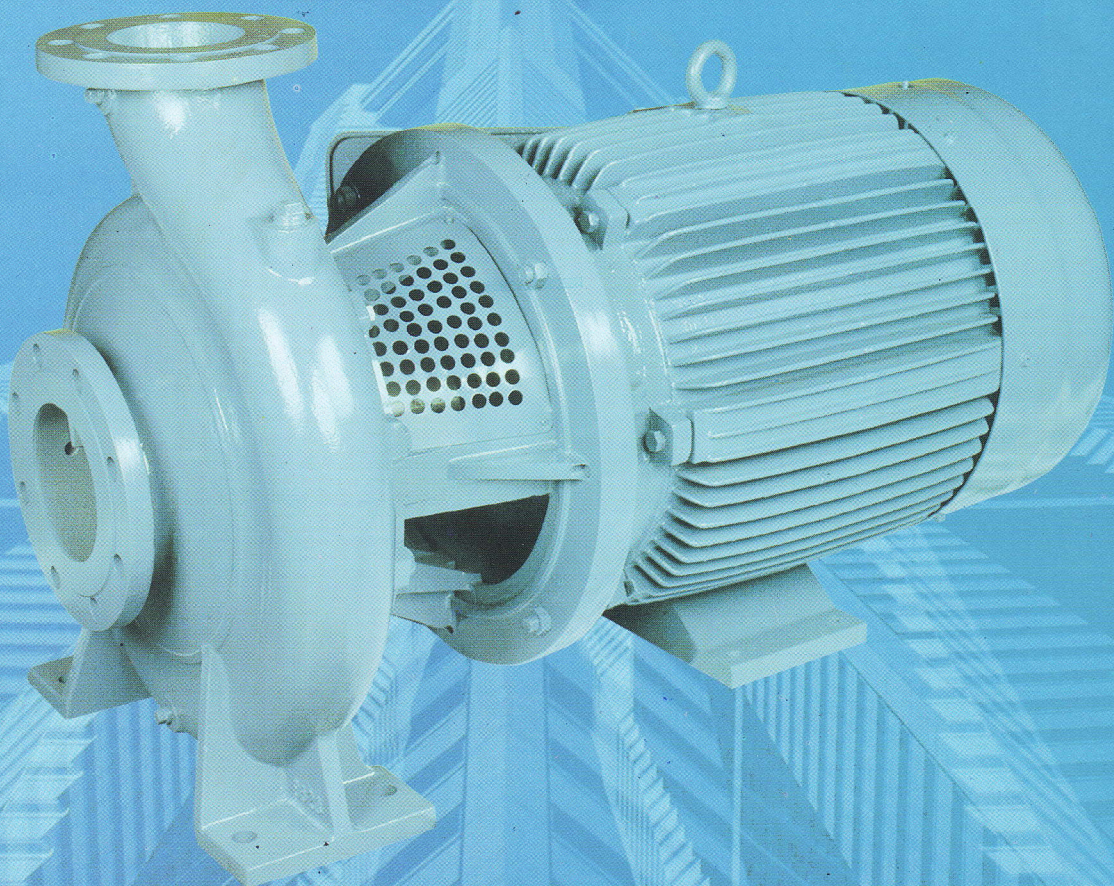
Quality System  
ISO 9001 : 2000  
Lic.no. QEC22090  
Quality  
Endorsed  
Company

FSD8001-5-R1

# MONOBLOCK END SUCTION PUMP

Model **FSDA**

**50Hz**



# MONOBLOCK END SUCTION PUMP

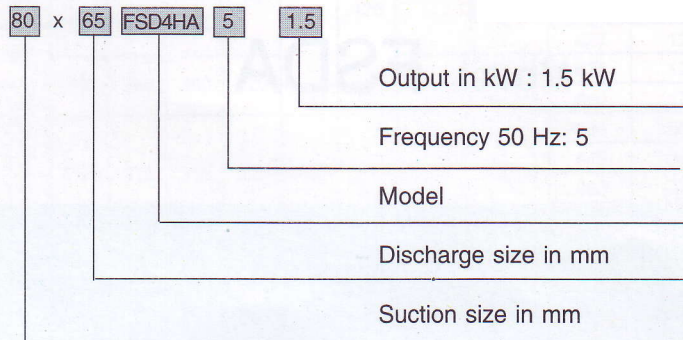
## FEATURES

- Motor closed couple, alignment free construction.
- Easy maintenance BPO (Back Pull Out) feature allows all rotating element to be removed without disconnecting the suction and discharge pipework.
- Top centerline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads.
- Higher operating efficiency over a wider range of capacities, lowers operational cost.
- Very compact design for ease of installation and permits minimum maintenance.

## APPLICATIONS

- Water supply.
- Hot and cold water circulation.
- For cooling tower.
- Fire-fighting application.
- Irrigation.
- Industrial use.
- Drainage.
- Sprinkling.
- Air-conditioning.
- For swimming pool
- Brine.
- Oils.

## MODEL CODE

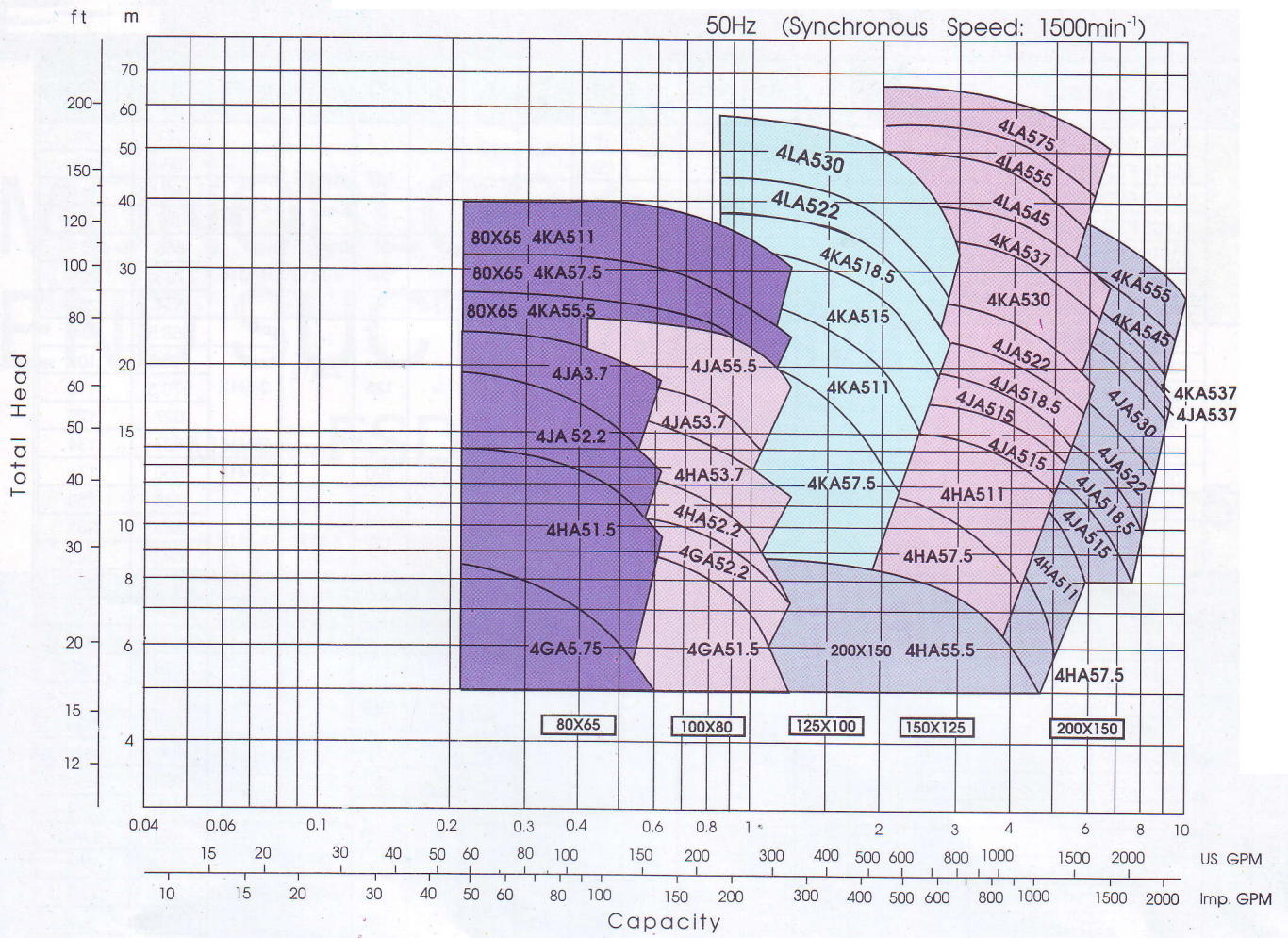


## SPECIFICATION

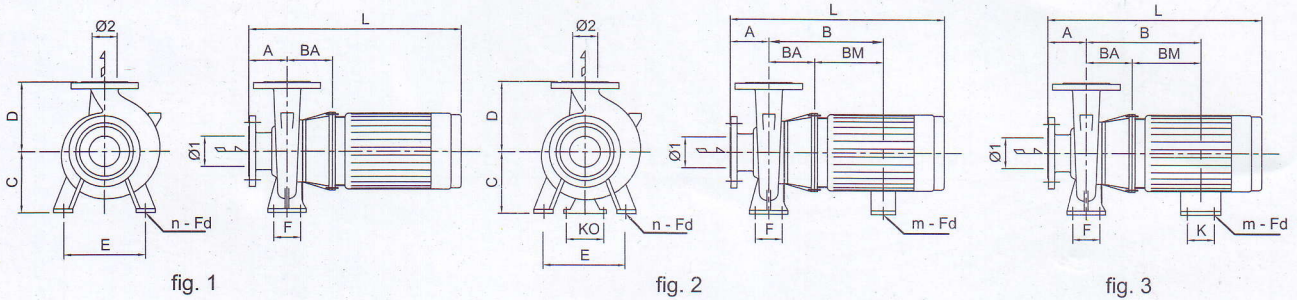
Description		Standard
Model		FSDA
No. of Pole		4
Liquid	Type of liquid	Clean Water
Handled	Temperature	0°C - 100°C (32-212°F)
Max. Positive Suction Pressure (Kgf/cm <sup>2</sup> ) for M. seal		All except FSLA : 8.2 - (Shutoff pressure) FSLA : 10.2 -(Shutoff pressure)
Max. Working Pressure		10.2 Kgf/cm <sup>2</sup> (10 bar)
Available Suction Lift		Suction <= 125 : 6m 125x100 : 4m
Synchronous speed		1450 min <sup>-1</sup>
Location		Indoor, Optional : Outdoor
Construction	Shaft seal	Mechanical Seal
	Pump Shaft	Stab Shaft
Material	Casing	Cast Iron
	Bracket	Cast Iron
	Impeller	Bronze
	Shaft	316 Stainless Steel
	M. Seal	Ceramic vs carbon
Flange	Suction	JIS 10 KRF
	Discharge	JIS 10 KRF
<b>Motor</b>		
Type		IEC Standard Flange Type
No. of Pole		4
Synchronous speed		1450 min <sup>-1</sup>
Insulation Class		F
Protection		IP 54. Optional : IP 55
Voltage / Phase / Hz		380 V / 3 phase / 50 Hz
Material	Frame	Cast Iron

NOTE : For optional is available upon request

# PERFORMANCE



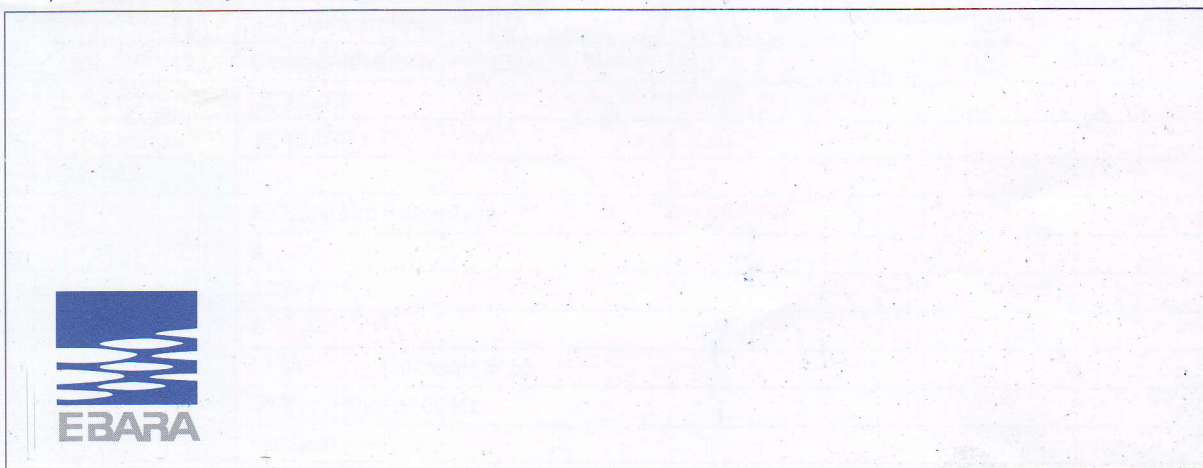
# DIMENSION



unit : mm

Size		MODEL	Output kW	Fig. No.	A	BA	BM	C	D	E	F	K	KO	n - Fd	m - Fd	L	Weight (Mass) kg		
ø 1	ø 2																		
80	65	80x65 FSD4GA5.75	0.75	1	100	135	-	160	180	212	70		125	4-M12		477	78		
		80x65 FSD4HA51.5	1.5						200							556.5	95		
		80x65 FSD4JA52.2	2.2	2		156	133	180	225	250	95			190	4-M16	4-M16	570.5	114	
		80x65 FSD4JA53.7	3.7				180										627	125	
		80x65 FSD4KA55.5	5.5	3		125	186	159	225	280	315	120	100	150	190	4-M16	4-M16	685	225
		80x65 FSD4KA57.5	7.5					178										723	239
80x65 FSD4KA511	11	211	213		834			280											
100	80	100x80 FSD4GA51.5	1.5	1	100	135	-	160	200	212	95		125	4-M12		556.5	94		
		100x80 FSD4GA52.2	2.2						133	549.5						102			
		100x80 FSD4HA52.2	2.2	2		156	180	225	250	95			190	4-M12	2-M12	570.5	115		
		100x80 FSD4HA53.7	3.7													180	627	126	
		100x80 FSD4JA53.7	3.7	3		186	159	200	250	280	120	100	190	4-M16	2-M16	627	134		
		100x80 FSD4JA55.5	5.5													186	159	660	171
100x80 FSD4LA55.5	5.5	186	178		738											258			
125	100	125x100 FSD4KA57.5	7.5	3	140	186	178	250	315	315	120	150	190	4-M16	4-M16	849	303		
		125x100 FSD4KA511	11													211	235	893	345
		125x100 FSD4KA515	15													226	241.5	913	369
		125x100 FSD4KA518.5	18.5													226	241.5	913	369
		125x100 FSD4LA522	22													251	260.5	991	473
		125x100 FSD4LA530	30													251	285.5	1051	557
150	125	150x125 FSD4HA57.5	7.5	3	140	226	178	250	315	315	120	150	190	4-M16	4-M16	778	250.5		
		150x125 FSD4HA511	11				213									864	282		
		150x125 FSD4HA515	15				235									908	330		
		150x125 FSD4JA515	15				241.5									908	337.5		
		150x125 FSD4JA518.5	18.5				260.5									928	359.5		
		150x125 FSD4JA522	22				260.5									966	394		
		150x125 FSD4KA530	30				260									285.5	1060	559.5	
		150x125 FSD4KA537	37				292									280	1111	594	
		150x125 FSD4LA545	45				295									305	1136	661	
		150x125 FSD4LA555	55				325									315	1177.5	822	
		150x125 FSD4LA575	75				344									315	1177	876	
		200	150				200x150 FSD4HA55.5									5.5	3	160	186
200x150 FSD4HA57.5	7.5			178	758	288													
200x150 FSD4HA511	11			226	213	884	329												
200x150 FSD4JA515	15			235	280	962	422												
200x150 FSD4JA518.5	18.5			241.5	375	982	463												
200x150 FSD4JA522	22			260.5	400	1020	493												
200x150 FSD4JA530	30			285.5	450	1080	577												
200x150 FSD4JA537	37			295	292	1131	607												
200x150 FSD4KA537	37			336	305	1172	645.5												
200x150 FSD4KA545	45			336	315	1197	693												
200x150 FSD4KA555	55			325	315	1238.5	816												

All specifications subject to change without prior notice.





**EBARA**

FSD613CT-R0E

# EBARA END SUCTION VOLUTE PUMP

MODEL FSDA

60 Hz

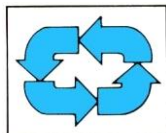


# APPLICATION



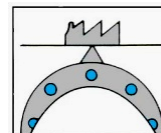
## Water Supply

- Boosting pump System
- High-rise building



## Water Circulation

- Circulating of water in Heating and cooling



## Industrial Use

- Liquid transfer

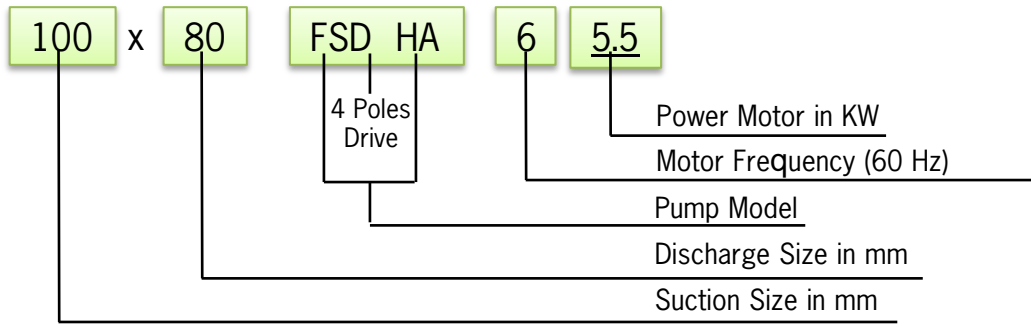
# FEATURES

1. Easy removal and maintenance, BPO (Back Pull Out) system allows all rotating elements can be removed without disconnecting suction and discharge pipe work.
2. Top centreline discharge, foot support under casing for maximum resistance due to misalignment and distortions from pipe loads.
3. Non-overload design to ensure stable performance for all applications.
4. Wider range application with flow capacity up to 12 m<sup>3</sup>/min.
5. Higher working pressure up to 16 bar.

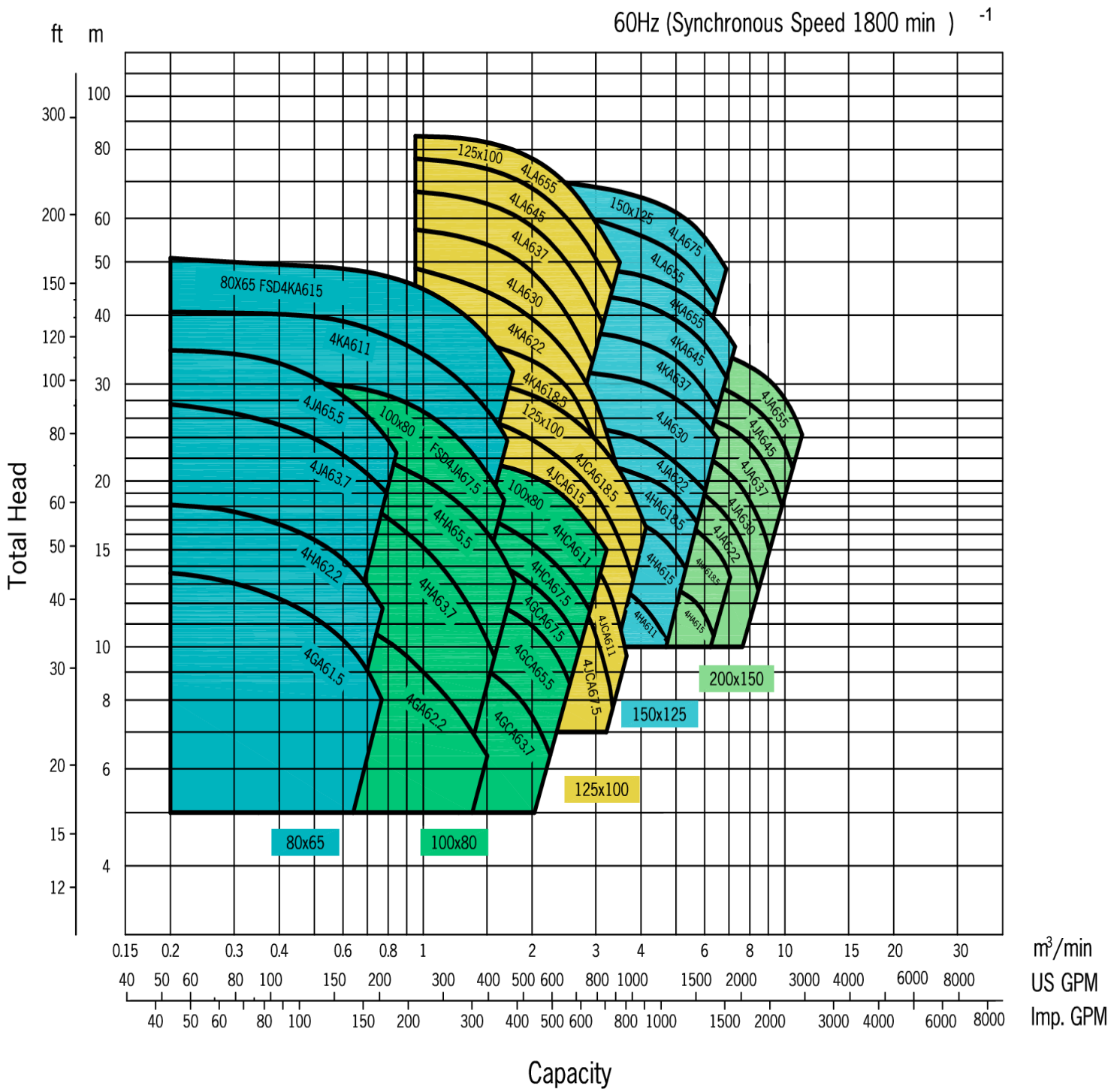
# SPECIFICATION

Description		Standard	Option
Liquid handled	Type of Liquid	Fresh Water	
	Temperature	0 - 80 °C (32 - 176°F)	
		10 bar	16 bar
Synchronous speed		1800 min <sup>-1</sup>	
Location		Indoor	Outdoor
Covering Range	Suction Dia.	80 to 200 mm	
	Flow rate	0.2 to 12 m <sup>3</sup> /min	
	Power	1.5 to 75 kW	
Construction	Pump Type	End Suction Volute Pump	
	Casing split	Back Pull Out	
	Impeller	Enclosed	
	Shaft seal	Mechanical Seal	
	Shaft	Stub Shaft	
	Sealing	Self flushing	
Material	Casing	Cast Iron	Ductile cast iron
	Impeller	Bronze (CAC406)	Cast Iron
	Shaft	316 Stainless steel	
	Mech. Seal	Ceramic/Carbon	SiC/Carbon; SiC/SiC
Flanges	Suction & Discharge	JIS 10K RF	JIS 16 KRF; ANSI 250
Motor	Type	IEC Standard, Flange Mounted type (B5)	NEMA Standard, Flange Mounted type (B5)
	No. of pole	4	
	Synch. Speed	1800 min <sup>-1</sup>	
	Insulation class	F	
	Protection	IP 55	IP55W
	Volt/ Phase/ Hz	380V-660V/ 3 Ph. / 60 Hz	

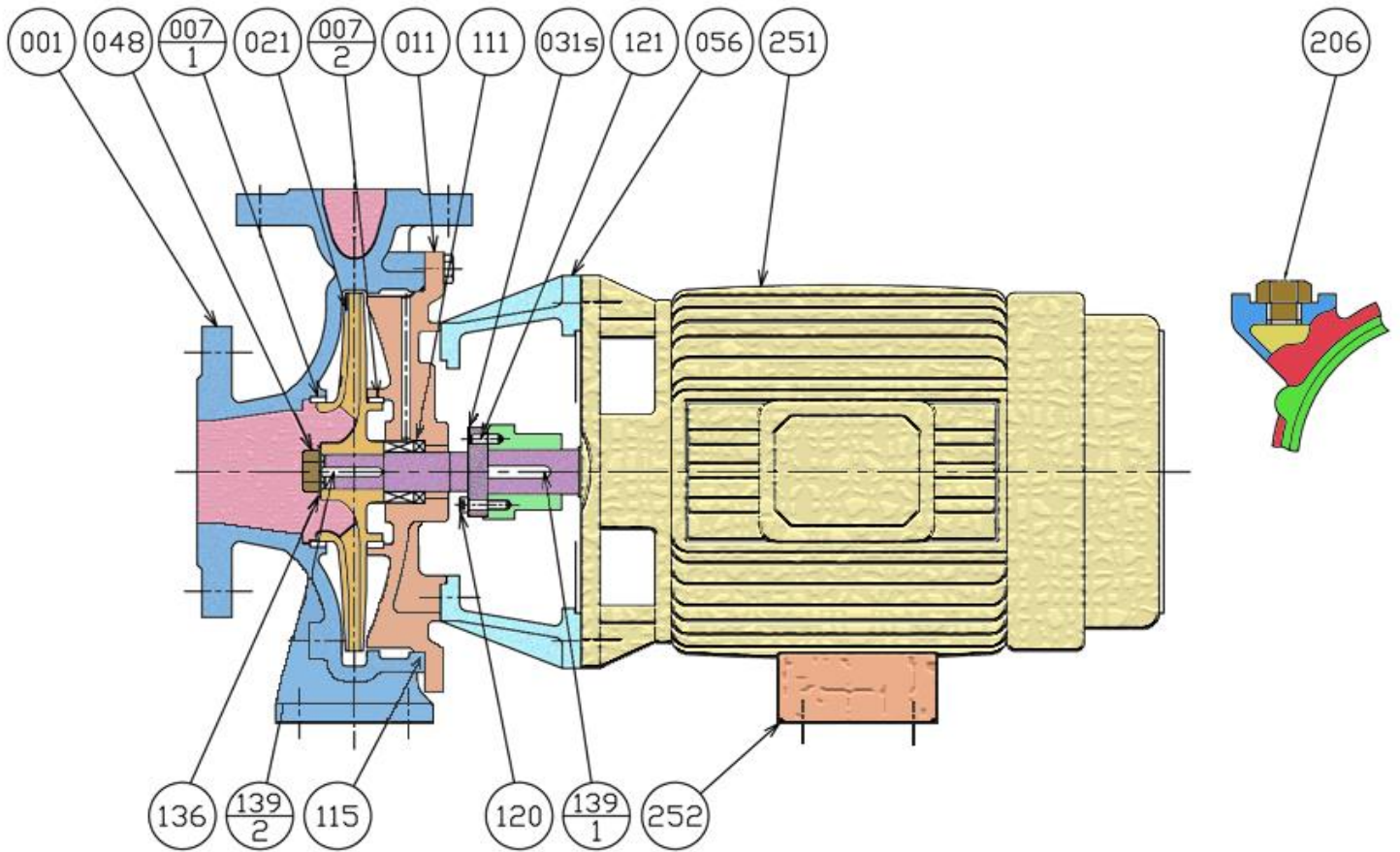
# MODEL CODE



# PERFORMANCE CHART

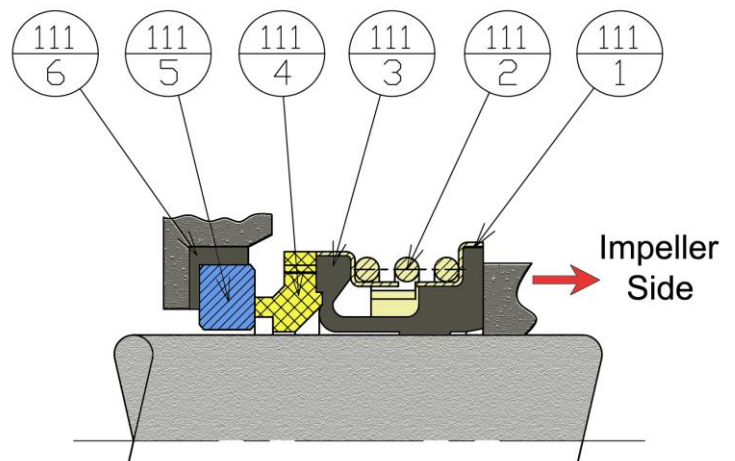


SECTIONAL VIEW (General)



• Mechanical Seal

252	Motor support	FC200	1
251	Electric Motor	-	1
206	Priming Plug	-	1
136	Impeller Nut Washer	Brass	1
121	Pin	-	1
120	Bolt	-	1
115	-O $\ddagger$ Ring	NBR	1
111	Mechanical Seal	-	1
107-2	Liner Ring	CAC406	1
107-1	Liner Ring	CAC406	1
056	Bracket	FC200	1
048	Impeller Nut	BRASS	1
039-2	Key	SUS 420 J1	1
039-1	Key	S50C	1
031s	Stub Shaft	SUS 316	1
021	Impeller	CAC406	1
011	Casing Cover	FC200	1
001	Casing	FC200	1
<b>Part No.</b>	<b>Part Name</b>	<b>Material</b>	<b>Qty</b>



111-6	Cup Gasket	NBR	1
111-5	Mating Ring	Ceramic	1
111-4	Seal Ring	Carbon	1
111-3	Bellows	NBR	1
111-2	Coil Spring	Stainless Steel	1
111-1	Spring Holder		1
<b>Part No.</b>	<b>Part Name</b>	<b>Material</b>	<b>Qty</b>



## Dimension - Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
80	150	185	126	22	2	8	19
100	175	210	151	24	2	8	19
125	210	250	182	24	2	8	23

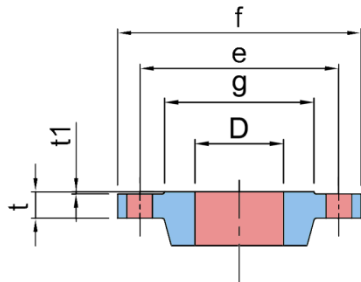
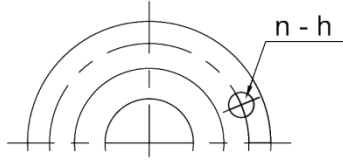


Fig. 1

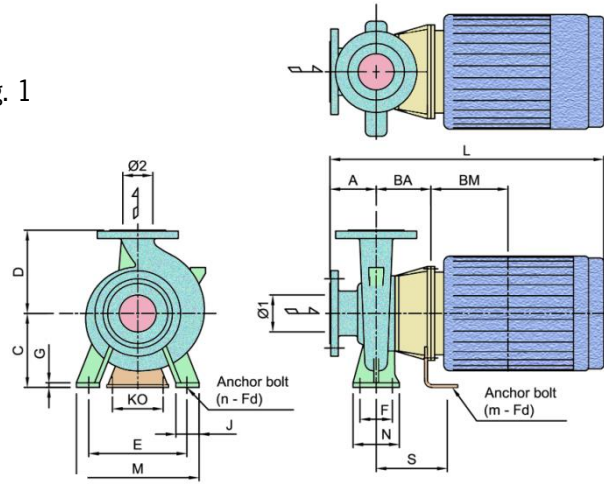
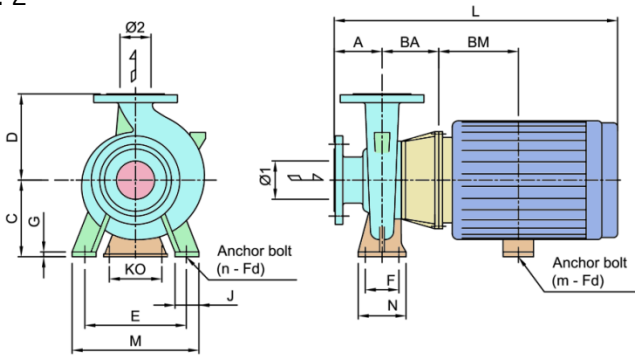


Fig. 2



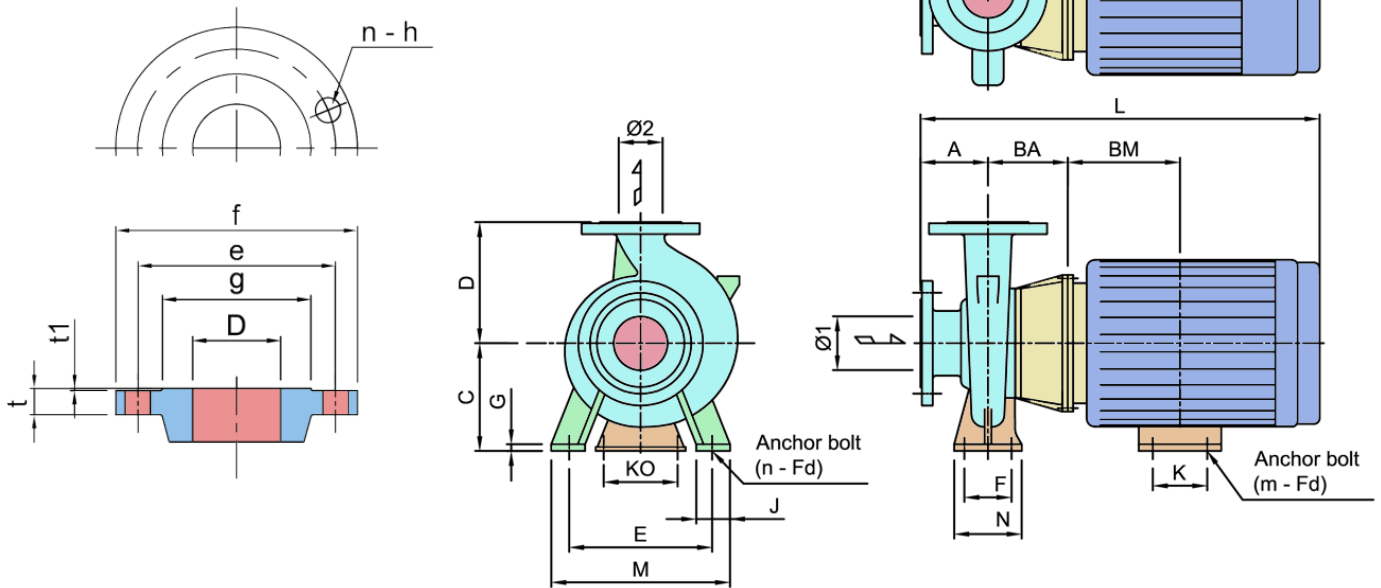
## Dimension - Pump

Model	Motor	Size		Fig. No.	Pump											Motor		Total	
	Kw	1	2		A	BA	BM	C	D	E	F	K	KO	n-Fd	m-Fd	Frame	wt kg	L	wt kg
80x65 FSDGA	1.5	80	65	1	100	135	118.5	160	180	212	70	-	125	4-M12	-	90L	25	557	63.2
80x65 FSDHA	2.2	80	65	2	100	135	133	160	200	212	70	-	125	4-M12	2-M12	100L	34	550	82.7
80x65 FSDJA	3.7	80	65	2	100	156	140	180	225	250	95	-	125	4-M12	2-M12	112M	46	627	106
	186					159	132S									66	660	127	
80x65 FSDKA	11	80	65	3	125	211	213	225	280	315	120	150	190	4-M16	4-M16	160M	123	834	230
	15					235	160L									140	878	247	
100x80 FSDGA	2.2	100	80	2	100	165	133	160	200	212	95	-	125	4-M12	2-M12	100L	34	580	81.4
100x80 FSDHA	3.7	100	80	2	100	156	140	180	225	250	95	-	125	4-M12	2-M12	112M	46	627	108
	5.5					186	159									132S	68	660	131
100x80 FSDJA	7.5	100	80	3	100	186	178	200	250	280	120	100	190	4-M16	4-M16	132M	80	698	151
100x80 FSDGCA	3.7	100	80	2	125	156	140	180	225	250	95	-	125	2-M12	2-M12	112M	46	652	108
	5.5					186	159									132S	68	685	131
	7.5			3	186	178	100	190	4-M16	4-M16	132M	80	723	143					
100x80 FSDHCA	7.5	100	80	3	125	186	178	180	250	280	95	150	190	4-M16	4-M16	132M	80	723	146
	11					226	213									160M	123	849	195
125x100 FSDJCA	7.5	125	100	3	140	186	178	225	280	315	120	150	190	4-M16	4-M16	132M	80	738	189
	11					213	160M									123	864	238	
	15					226	235									160L	151	908	266
	18.5					241.5	180MC									180	928	295	
125x100 FSDKA	18.5	125	100	3	140	226	241.5	250	315	315	120	150	190	4-M16	4-M16	180MC	180	928	307
	22					260.5	180LC									213	966	340	
125x100 FSDLA	30	125	100	3	140	260	285.5	280	355	400	150	250	300	4-M20	4-M20	200L	280	1060	451
	37					292	225SC									342	1111	498	
	45					304.5	225MC									371	1136	527	
	55					323.5	250SC									495	1178	651	

## Dimension - Flange (JIS 10K RF)

D mm	f mm	e mm	g mm	t1 mm	t mm	n mm	h mm
150	280	240	212	2	26	8	23
200	330	290	262	2	26	8	23

Fig. 3



## Dimension - Pump

Model	Motor		Size		Fig. No.	Pump										Motor		Total										
	Kw		1	2		A	BA	BM	C	D	E	F	K	KO	n-Fd	m-Fd	Frame	wt kg	L	wt kg								
150x125 FSDHA	11	150	125	3	140	226	213	250	315	315	120	150	190	4-M16	4-M16	160M	123	864	247									
	15						235									160L	140	908	264									
	18.5						241.5									180M	180	928	304									
150x125 FSDJA	22	150	125	3	140	226	260.5	250	355	315	120	250	300	4-M16	4-M16	180LC	213	966	345									
	30						285.5									200LC	288	800	420									
150x125 FSDKA	37	150	125	3	140	295	292	280	355	400	150	250	300	4-M20	4-M20	225SC	342	1111	500									
	45						304.5									225MC	371	1136	529									
	55						323.5									250SC	495	1178	653									
150x125 FSDLA	55	150	125	3	140	295	323.5	315	400	400	150	300	350	4-M20	4-M20	250SC	495	1178	688									
	75						342.5									250MC	570	1216	763									
200x150 FSDHA	15	200	150	3	160	226	235	280	355	400	150	200	250	4-M20	4-M20	160L	140	928	281									
	18.5						242									180M	180	948	321									
200x150 FSDJA	22	200	150	3	160	160	235	261	280	375	400	150	200	250	4-M20	4-M20	180L	213	995	391								
	30						260	286									200L	288	1080	474								
	37						295	292									280	375	400	150	250	300	4-M20	4-M20	225SC	342	1131	513
	45							305																	225MC	371	1156	542
	55							324																	250SC	495	1198	666



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