



EBARA

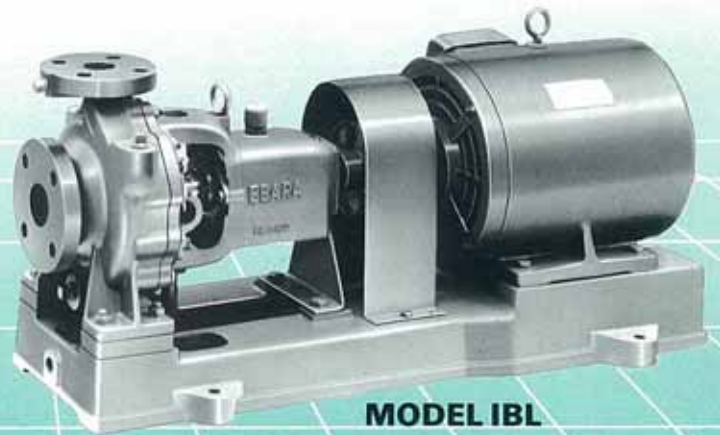
CF1106UC

EBARA END SUCTION VOLUTE PUMPS

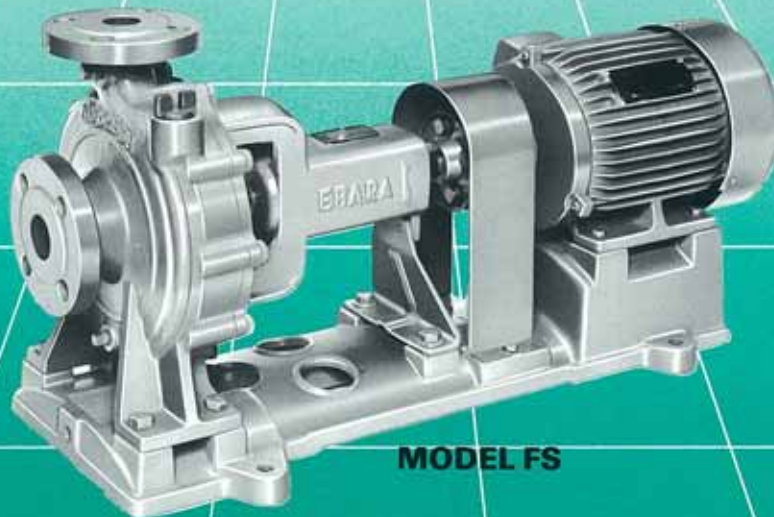
MODEL FS · IBL · FSD



MODEL FSD

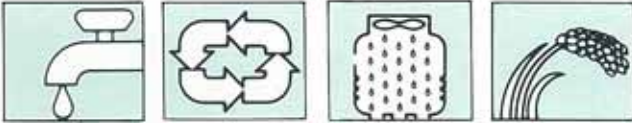


MODEL IBL



MODEL FS

APPLICATIONS



Water supply

Hot, cold water circulation

Cooling tower

Irrigation

FEATURES

1. Ease of maintenance. BPO (Back Pull Out) system permits assembly and overhaul of the impeller, shaft and bearings without removal of suction/discharge piping.
2. Top centerline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads.
3. Higher operating efficiency over a wider range of capacities, lowers operational cost.

GENERAL SELECTION

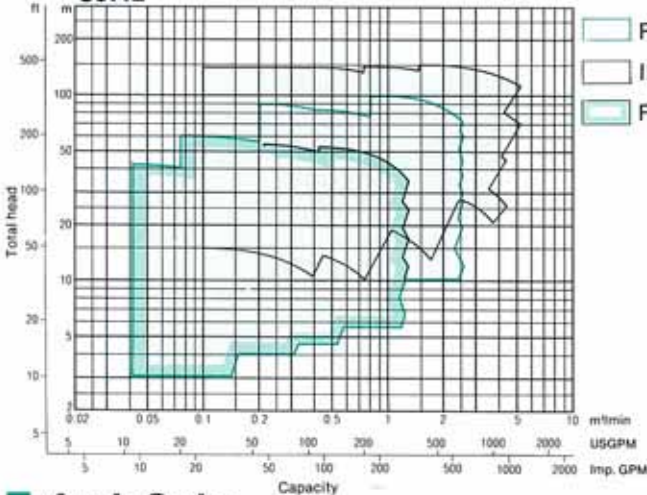
	FS	IBL	FSD
Construction	Motor directly coupled	Motor directly coupled	Motor close coupled
Working pressure (kgf/cm ²)	10	14	10
Max. suction pressure (kgf/cm ²)	10 - Shut off head 10	14 - Shut off head 10	10 - Shut off head 10
Construction Shaft seal	Packing Mechanical seal (option)	Packing Mechanical seal (option)	Mechanical seal
Shaft sleeve	No	Yes	No
Bearing	Sealed ball	Ball (oil bath)	Sealed ball

1 kgf/cm² = 0.0980665MPa

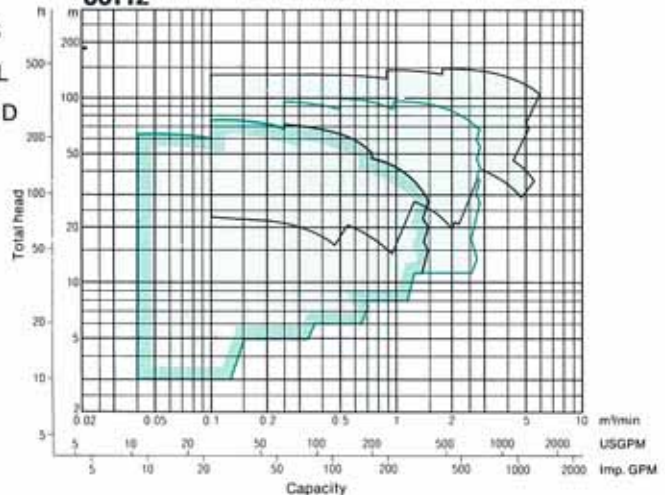
GENERAL SELECTION CHARTS

2 pole Series

50Hz

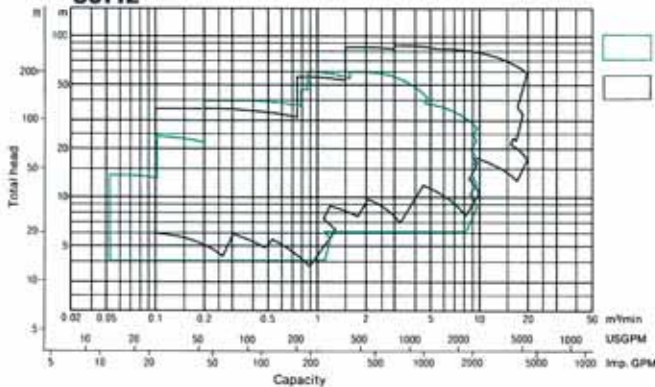


60Hz

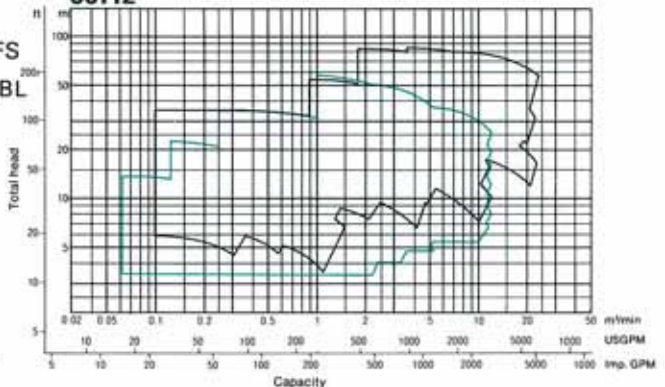


4 pole Series

50Hz



60Hz



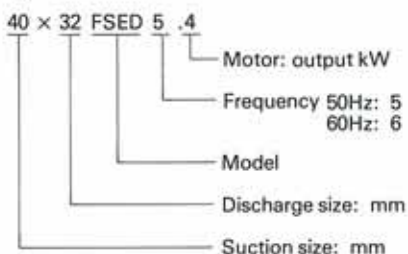
SELECTION – MODEL FSD (Motor Close Coupled)

Specifications

	Standard	Optional
Liquid	Fresh water	
Temperature	0 ~ 80°C (32 ~ 176°F)	81 ~ 100°C (177 ~ 212°F)
Max. suction pressure (kgf/cm ²)	10.2 – Shut off head 10	
Re. NPSH	Below 4 m	
Synchronous speed	3000 min ⁻¹ /50 Hz 3600 min ⁻¹ /60 Hz	
Installation	Indoors	Outdoors
Materials Casing Impeller	Cast iron Cast iron but 32 × 32FSD ...304 stainless steel	Bronze
Shaft	403 stainless steel but 32 × 32FSD	
Others	...304 stainless steel	
Flange	JIS 10kgf/cm ² GR.F.	
Construction Impeller type Stuffing box Bearing	Enclosed Mechanical seal Sealed ball	
Accessories	Bed 1 Priming funnel & valve 1 Companion flange with bolts.....1set Anchor bolts.....1set (excepting below 50 × 40φ)	



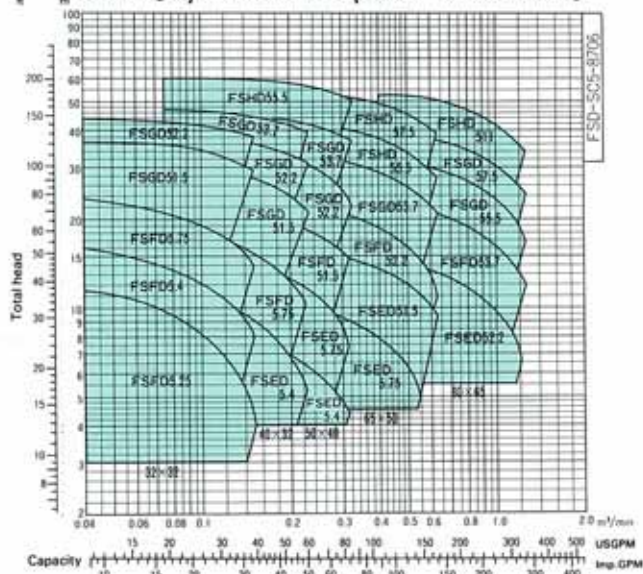
Symbols



Selection Charts

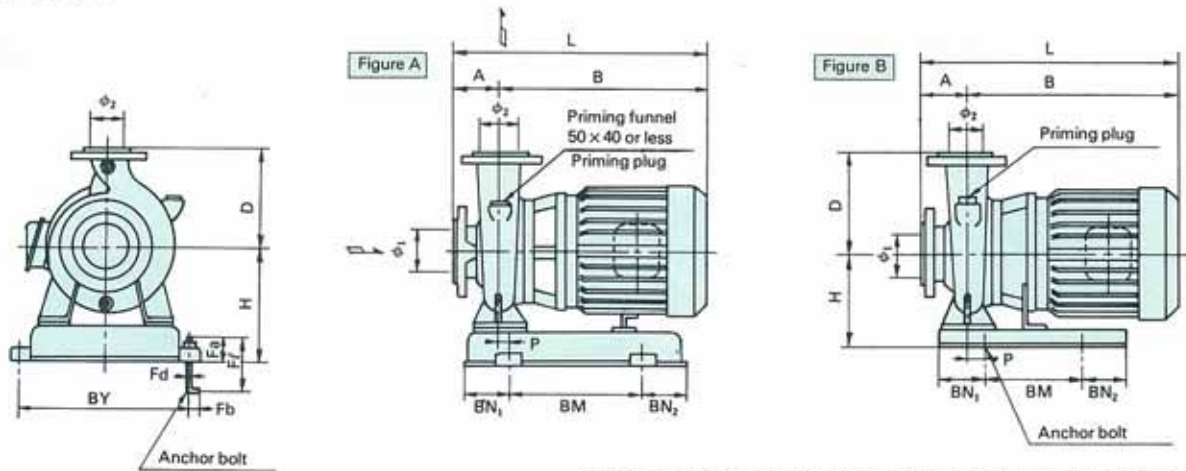
Model FSD

50Hz [Synchronous speed: 3000 min⁻¹]



DIMENSIONS

Model FSD



* Suction and discharge flange dimensions are the same as those of model FS.

50Hz

Unit: mm

Size		Model	Output kW	Figure	Pump and motor								Anchor bolt				Weight (Mass) kg		
ϕ_1	ϕ_2				A	B	H	D	L	P	BM	BN ₁	BN ₂	BY	Fd	F _r		F _a	F _b
32	32	32 x 32 FSFD5.25	0.25	B	65	264	132	140	329	22	130	60	60	230	M10	125	20	40	20
		32 x 32 FSFD5.4	0.4	B	65	264	132	140	329	22	130	60	60	230	M10	125	20	40	21
		32 x 32 FSFD5.75	0.75	B	65	284.5	132	140	349.5	22	130	60	60	230	M10	125	20	40	24
		32 x 32 FSGD51.5	1.5	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	34
		32 x 32 FSGD52.2	2.2	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	36
		40 x 32 FSED5.4	0.4	B	65	306	120	125	371	22	130	60	60	230	M10	125	20	40	25
40	32	40 x 32 FSFD5.75	0.75	B	65	340.5	132	140	405.5	22	130	60	60	230	M10	125	20	40	26
		40 x 32 FSGD51.5	1.5	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	33
		40 x 32 FSGD52.2	2.2	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	36
		40 x 32 FSGD53.7	3.7	B	80	426	167	160	506	0	270	65	45	290	M10	125	40	40	59
		50 x 40 FSED5.4	0.4	B	65	306	132	140	371	22	130	60	60	230	M10	125	20	40	24
		50 x 40 FSED5.75	0.75	B	65	340.5	132	140	405.5	22	130	60	60	230	M10	125	20	40	26
50	40	50 x 40 FSFD51.5	1.5	B	80	393	132	140	473	0	130	60	60	230	M10	125	20	40	34
		50 x 40 FSGD52.2	2.2	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	37
		50 x 40 FSGD53.7	3.7	A	80	426	167	160	506	5	270	65	45	290	M10	125	40	40	58
		50 x 40 FSHD55.5	5.5	A	80	488	195	180	588	5	270	65	45	290	M10	125	40	40	76
		50 x 40 FSHD57.5	7.5	A	100	488	195	180	588	5	270	65	45	350	M10	125	40	40	90
		65 x 50 FSED5.75	0.75	B	80	353.5	132	140	433.5	0	130	60	60	230	M10	125	20	40	27
65	50	65 x 50 FSED51.5	1.5	B	80	393	132	140	473	0	130	60	60	230	M10	125	20	40	32
		65 x 50 FSGD52.2	2.2	B	80	393	132	140	473	0	130	60	60	290	M10	125	20	40	38
		65 x 50 FSGD53.7	3.7	A	80	426	167	160	506	5	270	65	45	290	M10	125	40	40	59
		65 x 50 FSHD55.5	5.5	A	100	488	195	180	588	5	270	65	45	350	M10	125	40	40	86
		65 x 50 FSHD57.5	7.5	A	100	488	195	180	588	5	270	65	45	350	M10	125	40	40	90
		80 x 65 FSED52.2	2.2	B	100	393	152	160	493	0	130	60	60	290	M10	125	20	40	37
80	65	80 x 65 FSFD53.7	3.7	A	100	443	167	160	543	5	270	65	45	290	M10	125	40	40	63
		80 x 65 FSGD55.5	5.5	A	100	488	195	180	588	5	270	65	45	350	M10	125	40	40	85
		80 x 65 FSGD57.5	7.5	A	100	488	195	180	588	5	270	65	45	350	M10	125	40	40	89
		80 x 65 FSHD511	11	A	100	629	225	200	729	5	270	65	45	350	M12	160	55	50	130

60Hz

Unit: mm

Size		Model	Output kW	Figure	Pump and motor								Anchor bolt				Weight (Mass) kg		
ϕ_1	ϕ_2				A	B	H	D	L	P	BM	BN ₁	BN ₂	BY	Fd	F _r		F _a	F _b
32	32	32 x 32 FSFD6.25	0.25	B	65	264	132	140	329	22	130	60	60	230	M10	125	20	40	20
		32 x 32 FSFD6.4	0.4	B	65	264	132	140	329	22	130	60	60	230	M10	125	20	40	21
		32 x 32 FSFD6.75	0.75	B	65	234.5	132	140	349.5	22	130	60	60	230	M10	125	20	40	24
		32 x 32 FSFD61.5	1.5	B	65	326	132	140	391	22	130	60	60	230	M10	125	20	40	30
		32 x 32 FSGD62.2	2.2	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	36
		32 x 32 FSGD63.7	3.7	A	80	426	167	160	506	5	270	65	45	290	M10	125	40	40	60
40	32	40 x 32 FSFD6.4	0.4	B	65	306	120	125	371	22	130	60	60	230	M10	125	20	40	24
		40 x 32 FSED6.75	0.75	B	65	340.5	120	125	405.5	22	130	60	60	230	M10	125	20	40	26
		40 x 32 FSFD61.5	1.5	B	65	361	132	140	426	22	130	60	60	230	M10	125	20	40	31
		40 x 32 FSGD62.2	2.2	B	80	393	152	160	473	0	130	60	60	290	M10	125	20	40	36
		40 x 32 FSGD63.7	3.7	A	80	426	167	160	506	5	270	65	45	290	M10	125	40	40	59
		40 x 32 FSGD65.5	5.5	A	80	483	195	160	563	5	270	65	45	290	M10	125	40	40	78
50	40	50 x 40 FSED6.75	0.75	B	65	340.5	132	140	405.5	22	130	60	60	230	M10	125	20	40	26
		50 x 40 FSED61.5	1.5	B	65	361	132	140	426	22	130	60	60	230	M10	125	20	40	31
		50 x 40 FSFD62.2	2.2	B	80	393	132	140	473	0	130	60	60	230	M10	125	20	40	36
		50 x 40 FSGD63.7	3.7	A	80	426	167	160	506	5	270	65	45	290	M10	125	40	40	58
		50 x 40 FSHD65.5	5.5	A	80	483	195	160	563	5	270	65	45	290	M10	125	40	40	79
		50 x 40 FSHD67.5	7.5	A	80	488	195	180	568	5	270	65	45	290	M10	125	40	40	88
65	50	65 x 50 FSED61.5	1.5	B	80	393	132	140	473	0	130	60	60	230	M10	125	20	40	32
		65 x 50 FSGD62.2	2.2	B	80	393	132	140	473	0	130	60	60	230	M10	125	20	40	34
		65 x 50 FSFD63.7	3.7	A	80	426	175	140	506	5	270	65	45	290	M10	125	40	40	59
		65 x 50 FSGD65.5	5.5	A	80	483	195	160	563	5	270	65	45	290	M10	125	40	40	79
		65 x 50 FSHD67.5	7.5	A	100	488	195	180	588	5	270	65	45	350	M10	125	40	40	90
		65 x 50 FSHD611	11	A	100	629	225	180	729	5	270	65	45	350	M12	160	55	50	126
80	65	80 x 65 FSFD63.7	3.7	A	100	426	167	160	526	5	270	65	45	290	M10	125	40	40	58
		80 x 65 FSFD65.5	5.5	A	100	488	195	160	588	5	270	65	45	290	M10	125	40	40	83
		80 x 65 FSFD67.5	7.5	A	100	488	195	160	588	5	270	65	45	290	M10	125	40	40	87
		80 x 65 FSGD611	11	A	100	629	225	180	729	5	270	65	45	350	M12	160	55	50	124

Note: 1. Motor specifications; Three phase induction motor, totally enclosed fan cooled.