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CORO – TUFF

Seal-less magnetic drive pump

— Inlet/outlet one-piece design —

Newly upgraded self-circulating cooling structure



CORO-TUFF 30RM-100RM



Non-contact structure

Precisely setting the position of the passive magnet and the active magnet. Even in idling, bearing will not contact with the rear thrust ring. Inhibits the friction heat and ensures the lubrication.



Compact and strong

Light shape and internal parts standardization, easy maintenance. Pump body with reinforcing ribs, strength and excellent pressure resistance.



Innovative design, no leakage

Front cover newly designed, union type connection is convenient, no leakage. One-piece design impeller, high efficiently and quietly.

Model and code

Coro-Tuff- 25 25 3 C V R U 5 Coro-Tuff- 100 RM C V R 3 5

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ① ⑩ ⑪ ⑤ ⑥ ⑦ ④ ⑨

- ② In-Outlet: 25- 1"
- ③ Power: 25- 250W, 18-180W
- ④ Phase: 1-Single-phase, 3-Three-phase
- ⑤ Pump body material:
C-CFRPP, K- PVDF, E-ETFE
- ⑥ Rubber material:
V-VITON, E-EPDM, N-NBR
- ⑦ Bearing material: A-995 Ceramic,
C-Carbon, S-SIC, R-PTFE

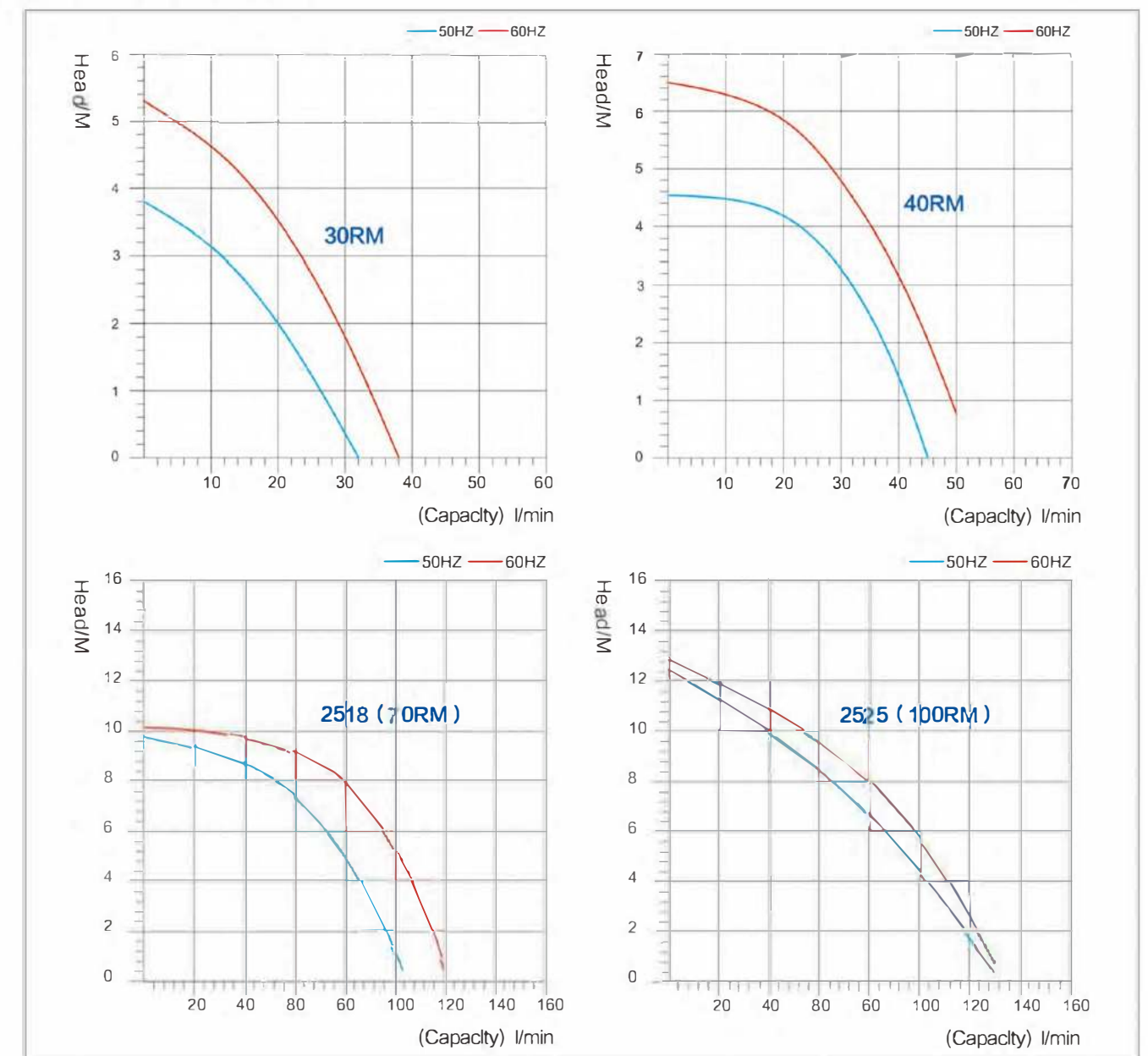
- ⑧ Piping form: U-Union, M-Thread,
H-Intubation
- ⑨ Frequency: 5-50HZ, 6-60HZ,
- ⑩ Power: 100-250W, 70-180W,
40-65W, 30-45W
- ⑪ Access mode: RU-Union, RM-Thread,
R-Intubation

Performance data

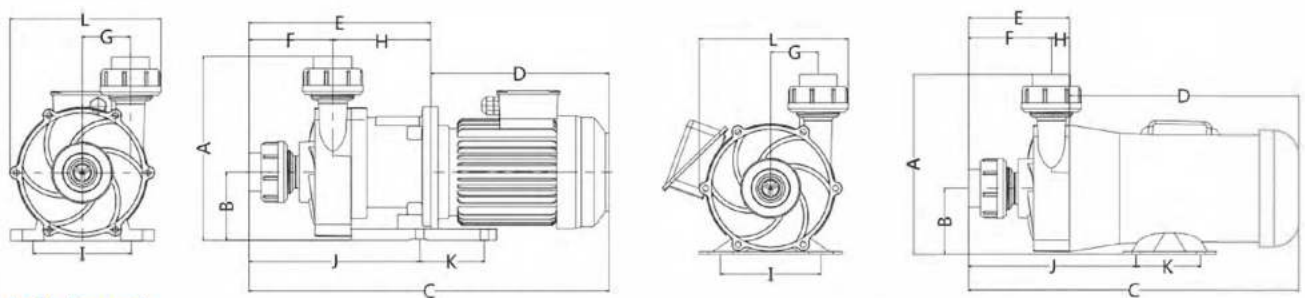
Parameter	In/outlet (inch)	Phase	Power (W)	50Hz		60Hz		Weight (KG)	Temp (Celsius)
				Max.F	Max.H	Max.F	Max.H		
CT-2518	1"/1"	1φ/3φ	180	105	12.4	120	10.2	8.5	GFRPP: 0-75 CFRPP: 0-80 PVDF: 0-90 ETFE+CF: 0-100
CT-2525	1"/1"	1φ/3φ	250	130	12.4	130	12.8	10	
CT-30RM	3/4"/3/4"	1φ	45	32	3.8	38	5.4	4.5	
CT-40RM	3/4"/3/4"	1φ	65	45	4.6	52	6.5	4.5	
CT-70RM	1"/1"	1φ/3φ	180	105	9.8	120	10.2	8	
CT-100RM	1"/1"	1φ/3φ	250	130	12.4	130	12.8	9.5	

Note: Measure with water of 20°C. F means Flow(L/min), H means Head(m)

Performance curve



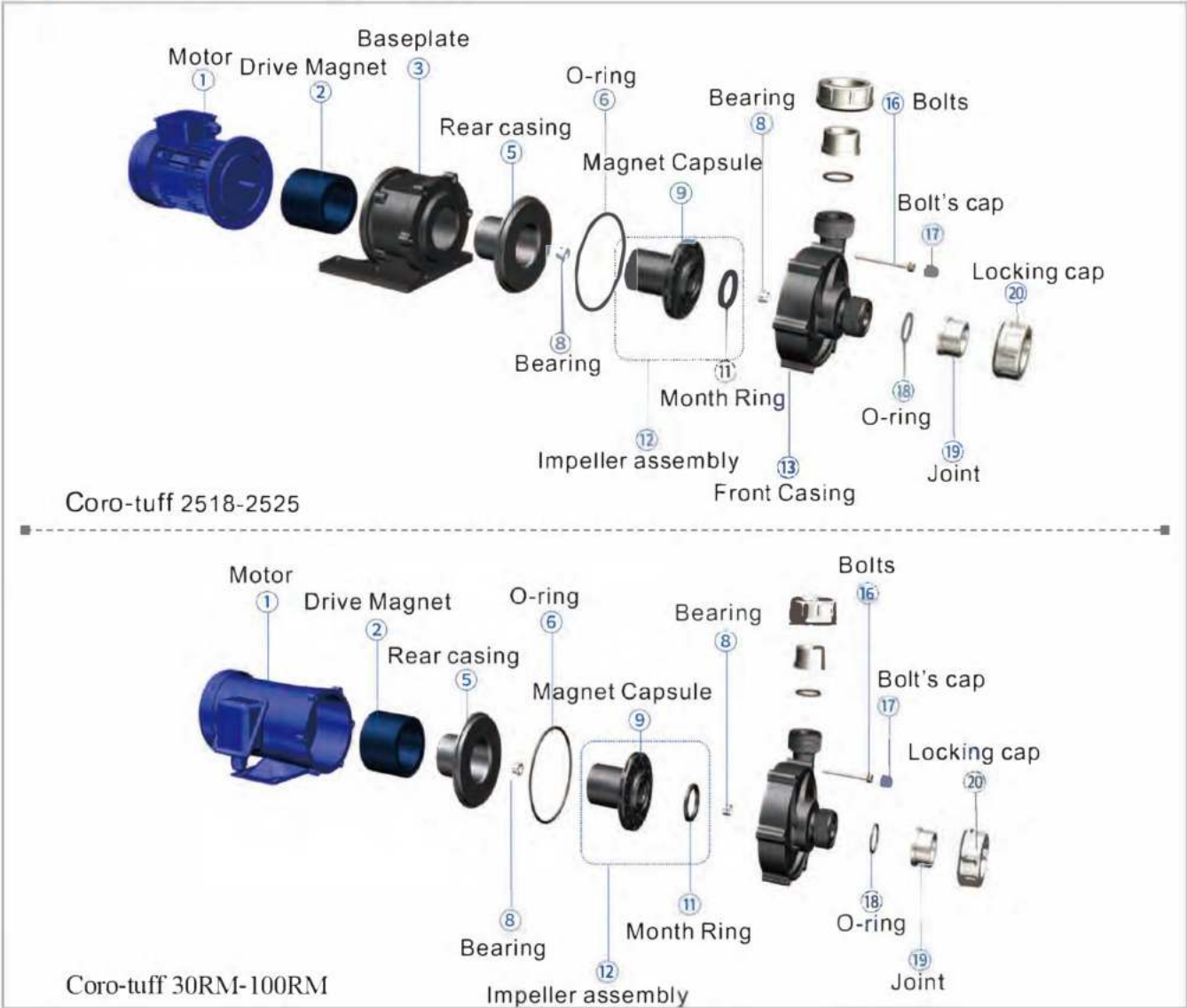
Installation size



Unit (mm)

Model	A	B	C	D	E	F	G	H	I	J	K	L
CT - 2518	202	74	400	203	197	94	52	103	105	185	70	160
CT - 2525	202	74	400	203	197	94	52	103	105	185	70	160
CT - 30RM	130	57	275	205	70	52	31	17	100	170	40	104
CT - 40RM	130	57	275	205	70	52	31	17	100	170	40	104
CT - 70RM	202	74	372	259	113	94	52	19	110	190	70	160
CT - 100RM	202	74	372	259	113	94	52	19	110	190	70	160

Exploded view



CORO-TUFF 1/2HP-5HP



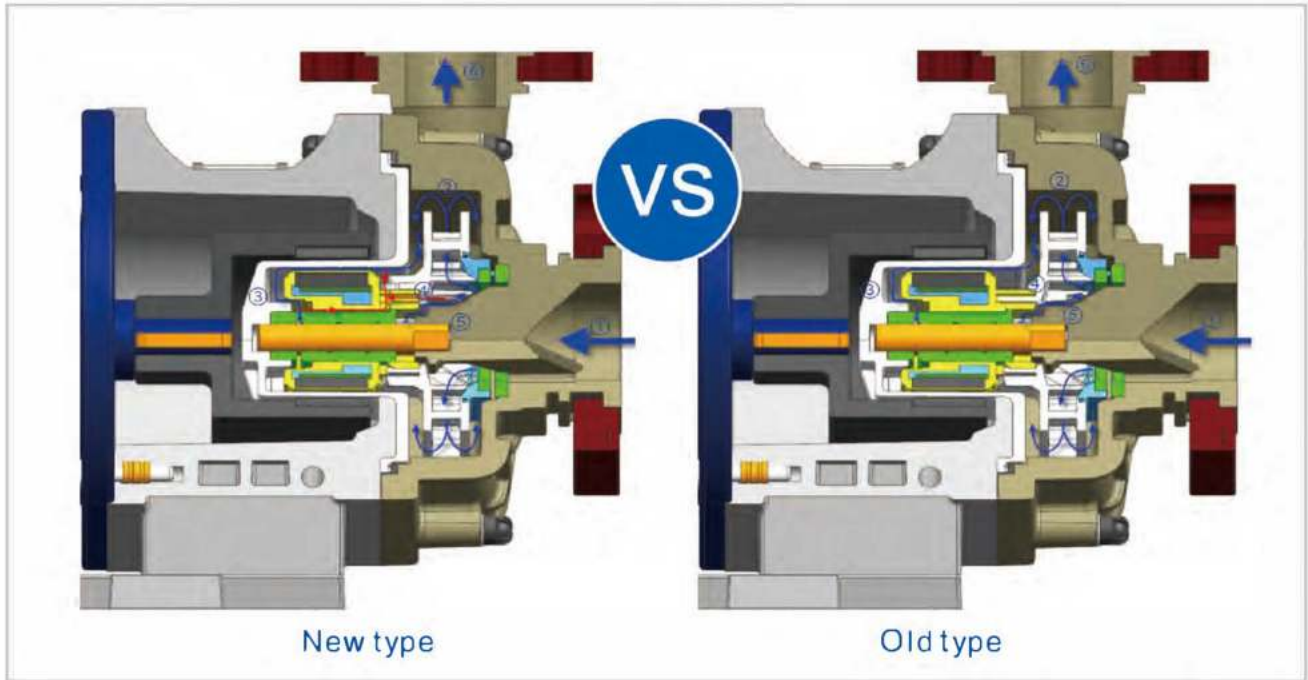
Non-contact structure
Precisely setting the position of the passive magnet and the active magnet. Even in idling, bearing will not contact with the rear thrust ring. Inhibits the friction heat and ensures the lubrication.

Strong structure and high efficiency
Pump body with reinforcing ribs, strength and durable. One-piece design impeller high efficiency, quietly and reliability.

Innovative design, no leakage
Front cover with one-piece design inlet and outlet flange, no leakage. The traditional flange adopt thread or hot melt seal, may leak under high temperature and high pressure application.

Upgrade the self-circulation cooling structure
Except Impeller and magnet capsule with heat dissipation hole, Shaft sleeve and magnet capsule also with heat dissipation hole which can make the liquid around the pump shaft and bearing circulate under the action of centrifugal force and impeller. Dissipate the heat by friction, avoid deformation and melting.

Comparison between new and old design



Model and code

CORO-TUFF -

5

4

3

C

V

A

C

F

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⑩

① Type

② Inlet(inch) : 6-2.5(65),
5- 2(50) , 4-1.5(40)

③ Outlet(inch) : 6-2.5(65),
5-2(50) , 4-1.5(40)

④ Power: 0-1/2HP,1-1HP , 2- 2HP,
3-3HP, 5-5HP

⑤ Pumpbodymaterial : C-CFRPP,
E-ETFE , P-GFRPP, K-PVDF

⑥ Rubber material : E-E PDM,
V-VITON , F-FKM

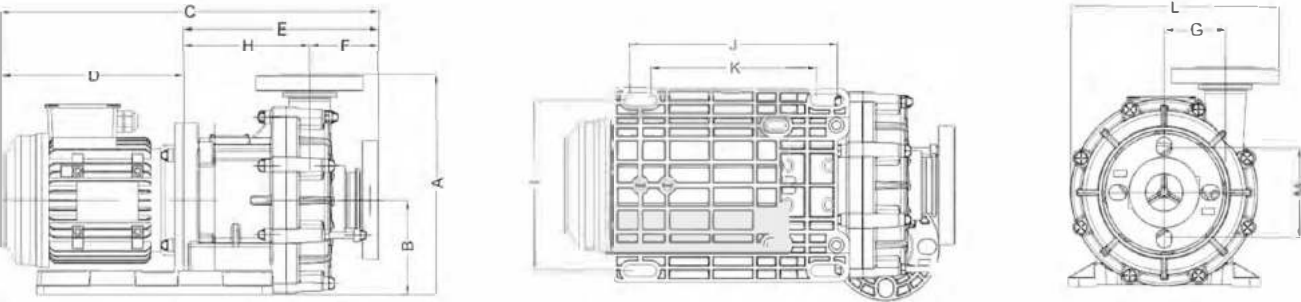
⑦ Axis material : A-995Ceramic , S- SIC

⑧ Bearingmaterial : A-995 Ceramic,
C-Carbon ,S-SIC , R-PTFE

⑨ Pipingform : F-Flange , M-thread

⑩ Frequency : 5- 50HZ , 6-60HZ

Installation size



Unit (mm)

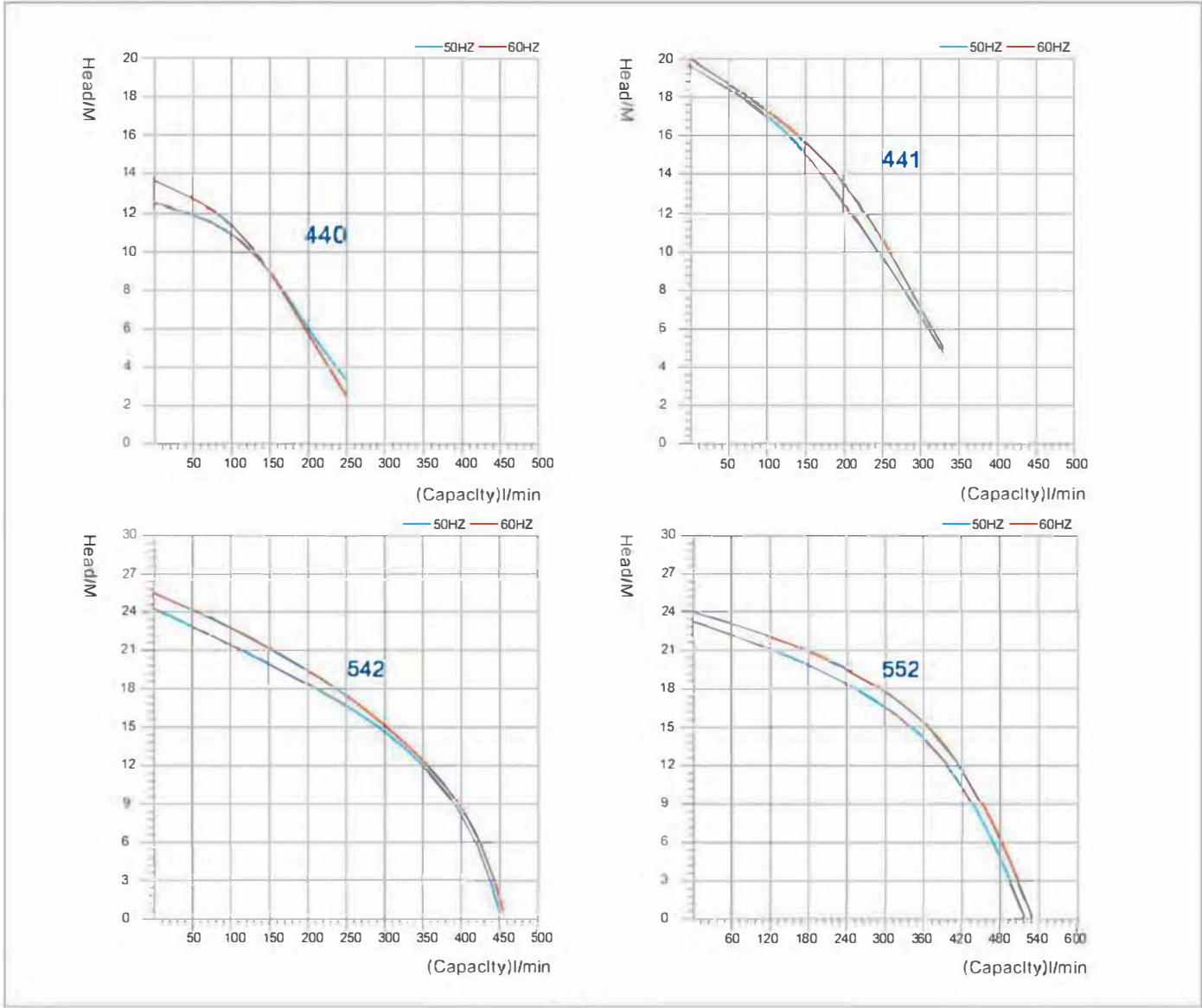
Model	A	B	C	D	E	F	G	H	I	J	K	L	M
CT-440	226	95	448	219	230	87.5	54.5	142.5	163	173	127	221	103
CT-441	258	114	493.5	236	257.5	105.5	71.5	152	163	173	127	248	103
CT-542	285	120	530	275	255	85	80	170	221	269	215	260	115.5
CT-552	285	120	530	275	255	85	80	170	221	269	215	260	115.5
CT-543	285	120	530	275	255	85	80	170	221	269	215	260	115.5
CT-553	285	120	530	275	255	85	80	170	221	269	215	260	115.5
CT-653	304	127	534	275	259	89	80	170	221	269	215	275	138
CT-663	304	127	551	275	276	103	80	173	221	269	215	295	138
CT-545	285	120	530	325	265	85	80	180	221	269	215	275	115.5
CT-555	285	120	530	325	265	85	80	180	221	269	215	275	115.5
CT-655	330	161	590	325	265	89	80	176	221	269	215	275	138
CT-665	337	161	613	325	288	103	80	185	221	269	215	295	138

Performance data

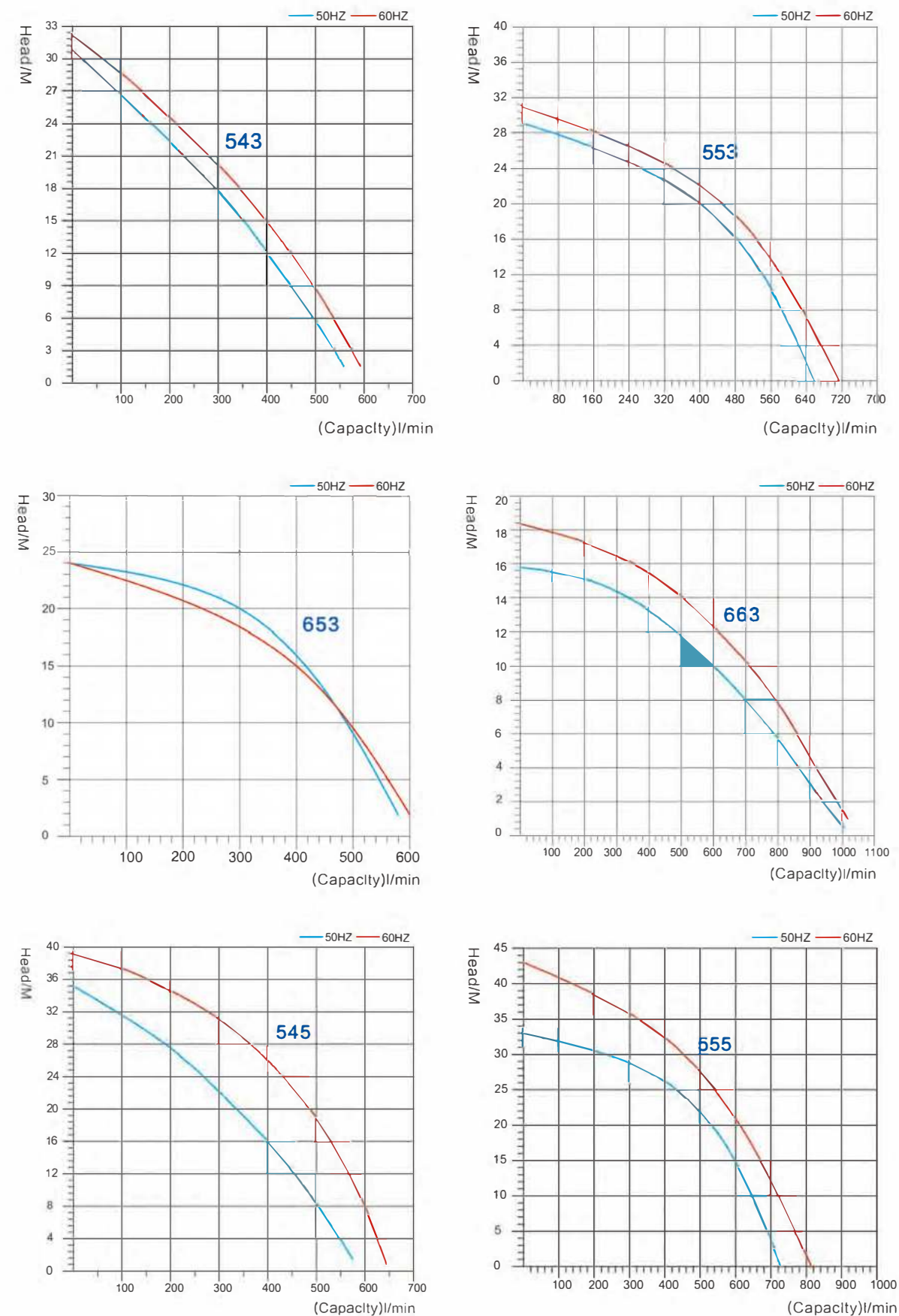
Parameter	In/ outlet	Phase	Power		50Hz		60Hz		Weight (KG)	Temp (Celsius)
			(kW)	(HP)	Max F	Max H	Max F	Max H		
CT-440	1.5"/1.5"	3φ	0.37	1/2	245	12.5	250	13.5	16	GFRPP:0~75 CFRPP:0~80 PVDF:0~90 ETFE+CF:0~100
CT-441	1.5"/1.5"	3φ	0.75	1	325	19.5	330	20	21	
CT- 542	2"/1.5"	3φ	1.5	2	450	24.5	460	25.5	30	
CT - 552	2"/1.2"	3φ	1.5	2	510	23	520	24	30	
CT- 543	2"/1.5"	3φ	2.2	3	560	31	590	32	31	
CT-553	2"/1.2"	3φ	2.2	3	660	29	710	31	31	
CT-653	2. 5"/1.2"	3φ	2.2	3	580	24	600	24	31	
CT-663	2.5"/2.5"	3φ	2.2	3	1000	15.5	1030	18.5	31	
CT-545	2"/1.5"	3φ	3.7	5	580	35	650	39	45	
CT -555	2"/1.2"	3φ	3.7	5	733	33	815	43	45	
CT-655	2.5"/1.2"	3φ	3.7	5	950	27.5	1050	29.5	45	
CT-665	2.5"/2.5"	3φ	3.7	5	1210	22.5	1240	24	45	

Note: Measure with water of 20°C. F means Flow(L/min), H means Head(m)

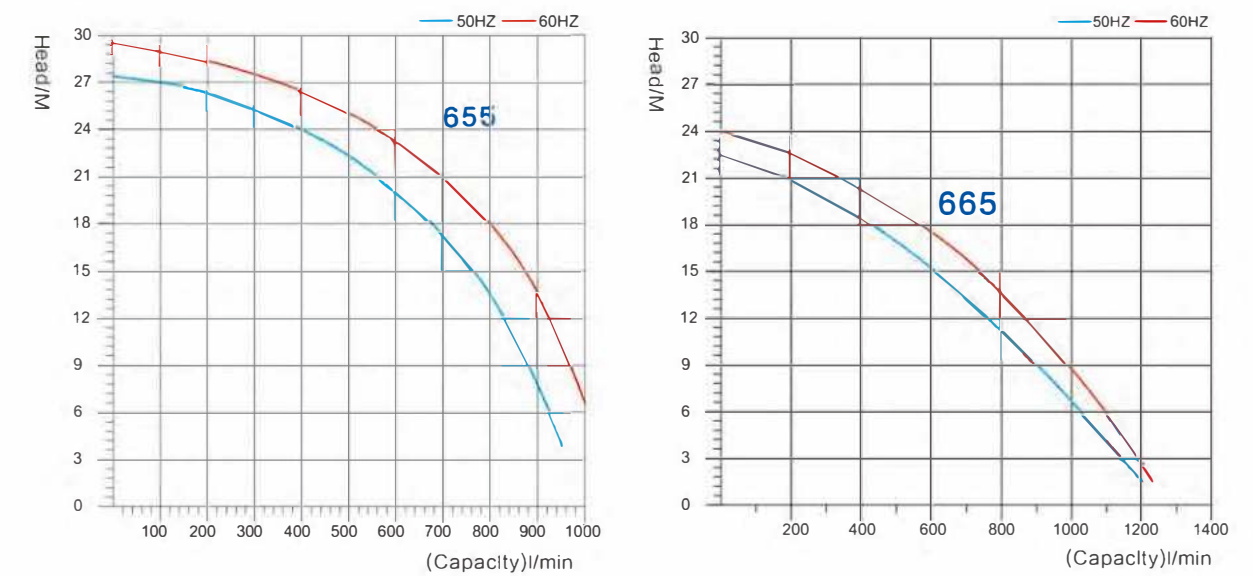
Performance curve



Performance curve



Performance curve



Exploded view

CORO-TUFF 1/2HP- 5HP



- | | | | |
|------------------|----------------|---------------|----------------------|
| 1.Motor | 2.Drive Magnet | 3.Bracket | 4.Baseplate |
| 5.Rear casing | 6.O-ring | 7.Shaft | 8.Bearing |
| 9.Magnet Capsule | 10.Impeller | 11.Month Ring | 12.Impeller assembly |
| 13.Front Casing | 14.Flange | 16.Bolts | 17.Bolt's cap |

CORO – TUFF

Self-priming magnetic drive pump
Super self-priming, lift 4 meters in 2 minutes



Product Overview

Wide application Range

Coro-Tuff adopt modular design with standard motor, easy to transport high specific gravity liquid.

Excellent corrosion resistance

Pump body and baseplate use excellent corrosion resistance material, even under harsh chemical environment, also can use for long time.

Abnormal operation resistance

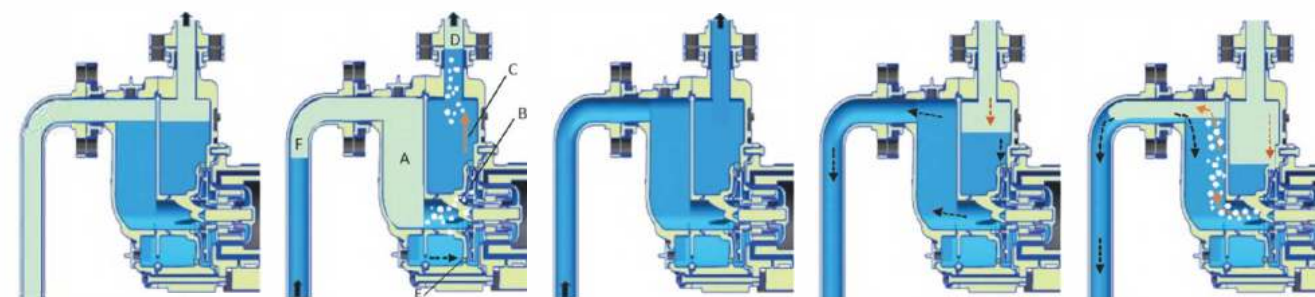
Heat dissipation structure design. Even under abnormal operating condition, also can effectively diffuse the heat.

Fast self-imbibition

No backflow valve. Air-liquid separation internal structure design to minimize the loss of self-priming, can achieve rapid self-priming. Its excellent self-priming performance can reach 4 meters in 2 minutes.

Principle of self-priming

1 static state 2 self-priming 3 in operation 4 Liquid counter 5 siphon state



1. Fill the pump with liquid.
2. Air and liquid are sucked through chamber A, then mix together by impeller stirring, from Chamber B to Chamber C, then air-liquid separation, the air exhaust out through D, the liquid through hole E back to Chamber B. process is repeated until all air exhaust out.
3. After the air all exhaust out, the operation as ordinary centrifugal pump.
4. Pump stop working, liquid counter.
5. Unique siphon structure design. Even the pump stops operating under the condition of no check valve, there is still enough liquid left in the pump chamber for the next self-suction.

Model and code

CORO-TUFF									
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
① Type ② Inlet (inch) : 5- 2(50) , 4-1.5(40) , 2-1(25) , 1- 3/4(20) ③ Outlet (inch) : 5-2(50) , 4-1.5(40) , 2-1(25) , 1- 3/4(20) ④ Power : 18-180W , 25- 250W , 0-1/2HP , 1-1HP , 2-2HP , 3-3HP , 5-5HP ⑤ Pump body material : C-CFRPP , P-GFRPP , K-PVDF , E-CFETFE					⑥ Rubber material : E-EPDM, V-VITON ⑦ Shaft material : A-995Ceramic , S- SIC ⑧ Bearing material : A-995Ceramic , C-Carbon , S- SIC , R-PTFE ⑨ Piping form : F-Flange , M-Thread , R-Intubation ⑩ Frequency: 5-50HZ , 6-60HZ				

Performance data

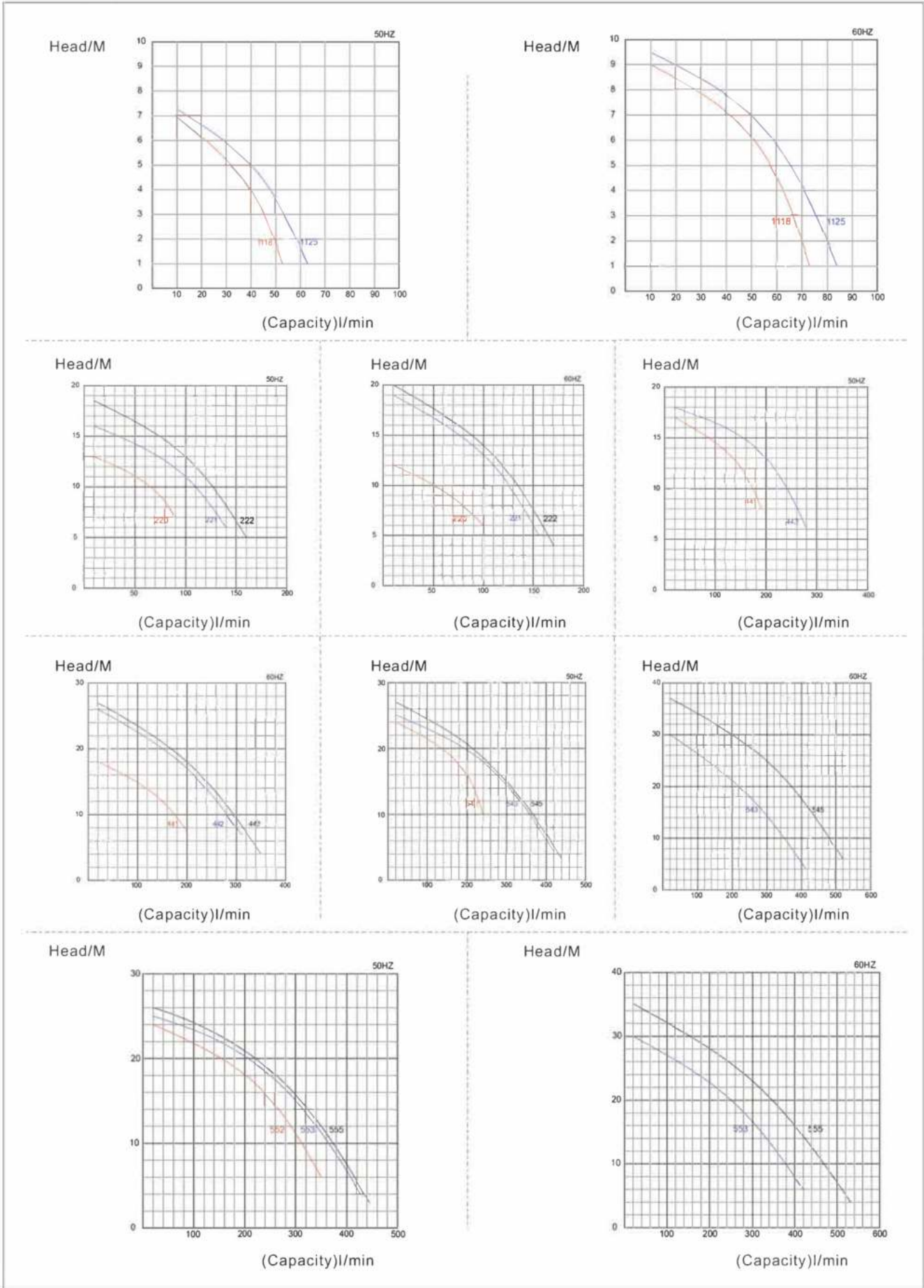
Parameter	Inlet	outlet	Power	Min.F	Max.H- Max.F		Std.Date		Press	Weight
					50Hz	60Hz	50Hz	60Hz		
CT - 1118	20A	20A	0.18	5	7.0-55	9.0-75	5-30	7-40	0.22	11
CT-1125			0.25		7.5-65	9.5-85	5-40	7-50		11
CT-220	25A	25A	0.37	10	13.5-90	12.5-100	8.5-80	8-80	0.28	18
CT-221			0.75		16.0-140	19.0- 155	11-100	12-110		24
CT-222			1.5		18.5-160	20.0-170	13-100	13-110		30
CT-441	40A	40A	0.75	10	17.0- 190	19.0-200	12-150	11-150	0.33	32
CT-442			1.5		18.0-280	26.0-310	14- 180	17-200		36
CT-443			2.2		-	27.0-350	-	18-200		39
CT-542	50A	40A	1.5	20	24.0-240	-	16-200	-	0.43	45
CT-543			2.2		25.0-420	30.0-415	18-240	18-250		48
CT-545			3.7		27.0-440	37.0-520	18-250	25-300		62
CT-552	50A	50A	1.5	20	24.0-350	-	17-220	-	0.43	45
CT-553			2.2		25.0-430	30.0-420	18-250	20-250		48
CT-555			3.7		26.0-445	35.0-530	19-250	23-300		62

F means flow(l/min), H means head(m), Press unit bar, Weight unit KG.

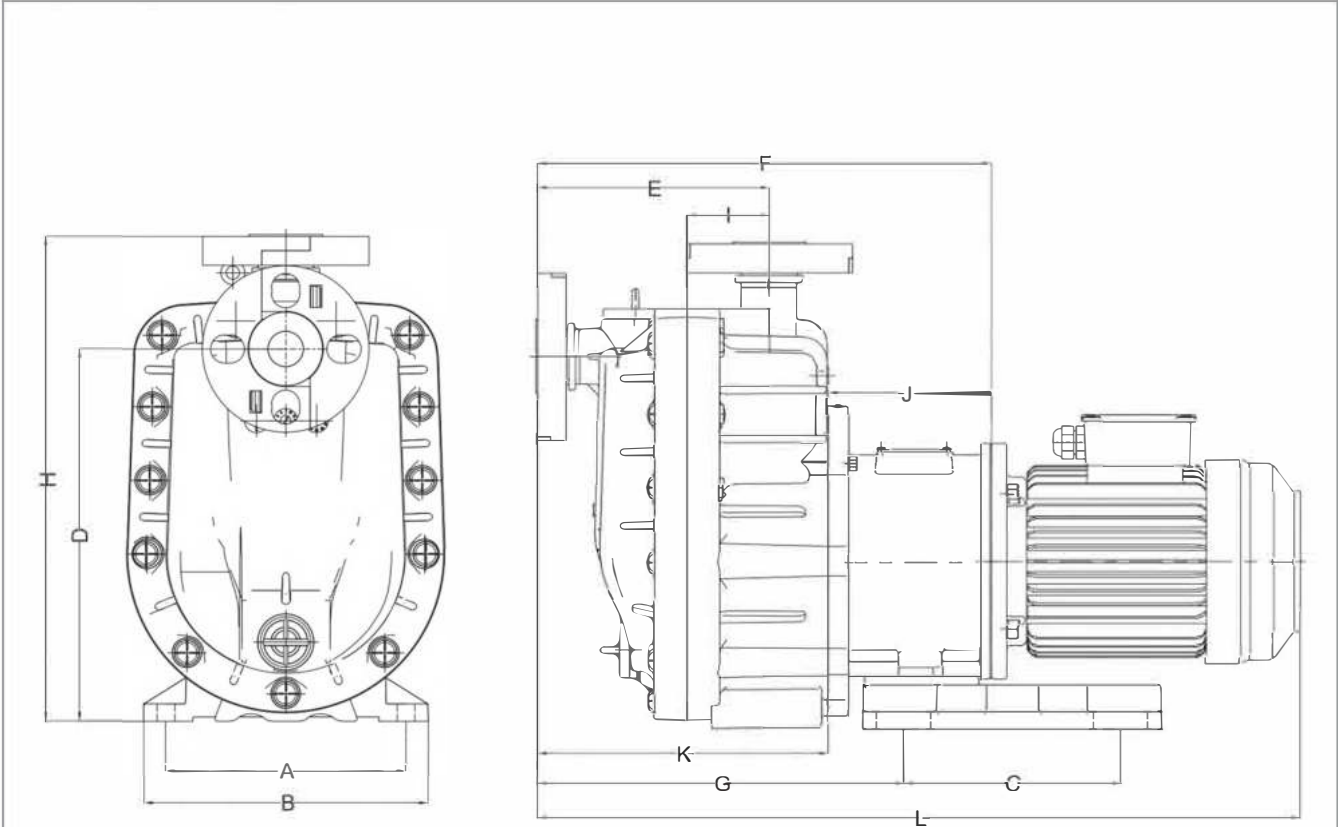
Note:

1. The data measured with water of 20°C. The suction ability relation with liquid temperature. Temperature up will cause suction ability down.
2. The weight contain motor
3. Long time working is prohibit under close outlet valve, minimum flow rate is needed.

Performance curve



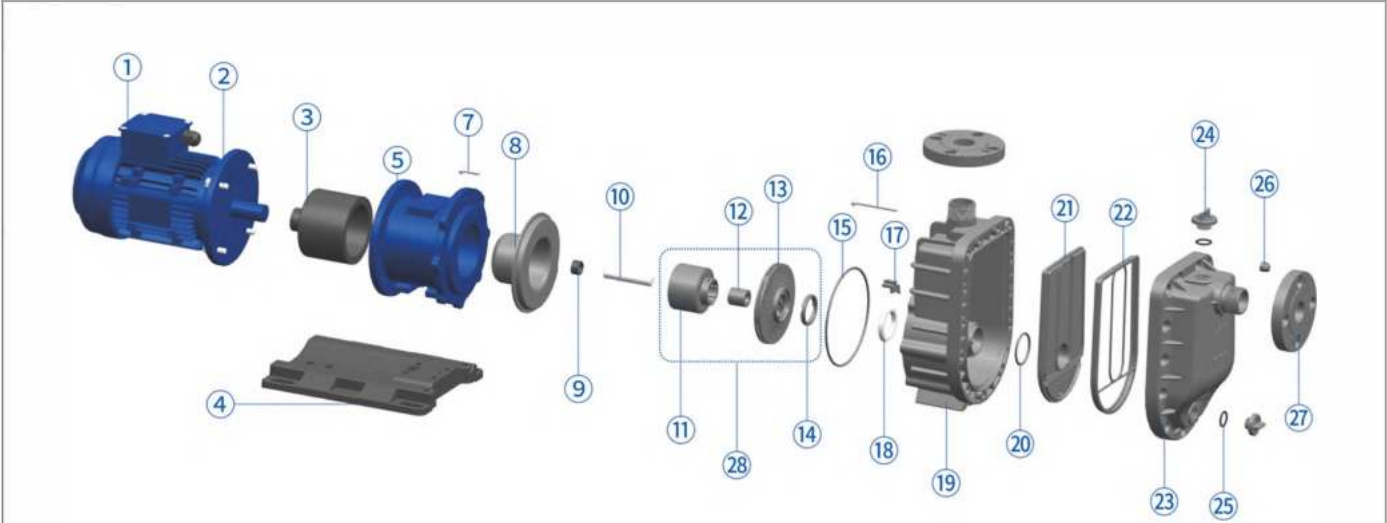
Installation size



Unit (mm)

Model	A	B	C	D	E	F	G	H	I	J	K	L
CT-1118	105	150	70	184	123	239	229	269	31	86	153	428
CT-1125	105	150	70	184	123	239	229	269	31	86	153	430
CT-220	163	193	149	253	159	316	250	331	56	111	199	520
CT-221	163	193	149	253	159	323	250	331	56	118	199	560
CT-222	221	250	245	253	159	337	250	331	56	132	199	610
CT-441	163	193	149	270	189	373	288	363	68	118	248	610
CT-442	221	250	245	270	189	387	288	363	68	132	248	660
CT-443	221	250	245	270	189	387	288	363	68	132	248	662
CT-542	221	250	245	290	205	400	321	391	68	133	267	673
CT-543	221	250	245	290	205	400	321	391	68	133	267	675
CT-545	221	250	245	300	205	411	321	401	68	144	267	766
CT-552	221	250	245	290	205	400	321	391	76	133	267	673
CT-553	221	250	245	290	205	400	321	391	76	133	267	675
CT-555	221	250	245	300	205	411	321	401	76	144	267	766

Exploded view



1. Motor

5. Bracket

10. Shaft

14. Month Ring

18. Front thrust ring

22. Plate gasket

26. Bolts cap
2. Bolts

7. Bolts

11. Magnet capsule

15. O-ring

19. Rear shell

23. Front cover

27. Flange
3. Drive magnet

8. Rear casing

12. Bearing

16. Bolts

20. O-ring

24. Plug

28. Impeller assembly
4. Baseplate

9. Rear thrust ring

13. Impeller

17. Locking plate

21. Plate

25. O-ring

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