

6" 3~ ENCAPSULATED PERMANENT MAGNET MOTOR

BENEFITS & FEATURES

- Double-flange NEMA mounting design
 - Stainless steel splined shaft
 - StatorShield™ - Franklin encapsulation system
 - Factory filled with Franklin's non-toxic water soluble fill solution
 - High capacity Kingsbury type liquid lubricated thrust bearing for 100 % maintenance free operation
 - Field replaceable lead using Franklin's exclusive Water Bloc technology
 - Pressure-equalizing diaphragm, spring pre-loaded
 - SandFighter™ sealing system with SIC mechanical seal and sand slinger
 - High efficiency electrical design for low operation costs
 - All motors manufactured in ISO 9001 certified plants and 100% tested
 - Drinking water approvals
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- Ratings: 4 - 45 kW
 - Thrust load: 15.5 kN: 4 - 22 kW, 27.5 kN: 26 - 45 kW
 - Nominal ambient temperature: 30 °C
4 - 22 kW: with 0.16 m/s cooling flow; > 22 kW: with 0.5 m/s cooling flow
 - Protection IP68 and insulation class F
 - Frequency of starts: 20 starts/hour (with min. 3 minutes resting time), equally distributed
 - Vertical and horizontal operation, shaft upwards
 - Rotation counter clock wise facing shaft end (Rotation reversible)
 - All motors with factory installed leads
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- Materials 316SS and WW (with powder coated brackets)
 - Retrofittable PT100
 - High-thrust design 45 kN
 - Special lead length up to 50 m
 - 60 Hz electrical designs



3~ DOL MODEL NUMBERS 380 V / 100 HZ

P _N [kW]	U _N [V]	Thrust F [N]	Digit 1 - 6	Digit 7 - 10		
				Water Well	304SS	Standard 316SS
				Single pack with pre-installed lead*	Single pack with pre-installed lead*	Single pack with pre-installed lead*
4 - 11	380	15.500	236 080	9561	1461	1561
13 - 22	380	15.500	236 084	9561	1461	1561
26 - 45	380	27.500	236 086	9561	1461	1561

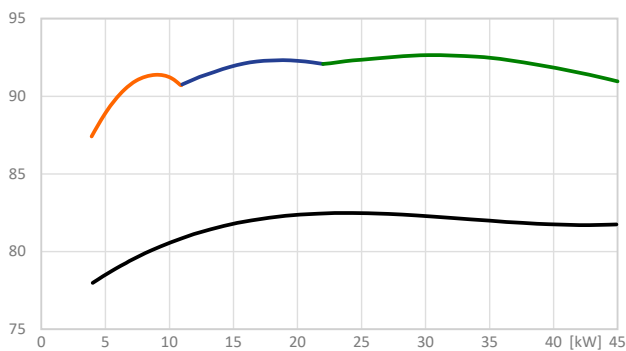
* with 4 m motor short lead

3~ PERFORMANCE DATA 380V / 100 HZ

Motor MDL	P_N [kW]	Thrust F [N]	U_N [V]	n [min ⁻¹]	I_N [A]	I_A / I_N	η [%]	$\cos \varphi$ [%]	T_N [Nm]	T_A / T_N
236 080	4	15500	380	3000	9,2	1	87,1	0,95	12,7	1
	5,5				11	1	89,8	0,95	17,5	1
	7,5				14,1	1	90,9	0,95	23,9	1
	9,3	15500	380	3000	17,2	1	91,2	0,95	29,6	1
	11				20,5	1	90,9	0,95	35	1
236 084	13	15500	380	3000	25,3	1	91,4	0,95	41,4	1
	15				28,3	1	91,8	0,95	47,7	1
	18,5	15500	380	3000	34,1	1	92,1	0,95	58,9	1
	22	15500	380	3000	40,7	1	92	0,95	70	1
236 086	26	27500	380	3000	51,2	1	92,3	0,95	82,8	1
	30				57,8	1	92,5	0,95	95,5	1
	37	27500	380	3000	71,3	1	92,1	0,95	117,8	1
	45				90	1	90,8	0,95	143,2	1

Performance data are based on measurements with Franklin Electric original equipment!

EFFICIENCY CURVE AT 3000 RPM



WINDING RESISTANCE 380 V / 100 HZ

P_N [kW]	U_N [V]	Stator Ref.	U - V (Ohm)*	Rotor Ref.
4 - 11	380	327 245	0,86	178 130 921
13 - 22	380	327 250	0,33	178 130 923
26 - 45	380	327 257	0,19	178 130 925

* with lead

ELECTRICAL CONNECTION AND MOTOR LEADS 3~ DOL

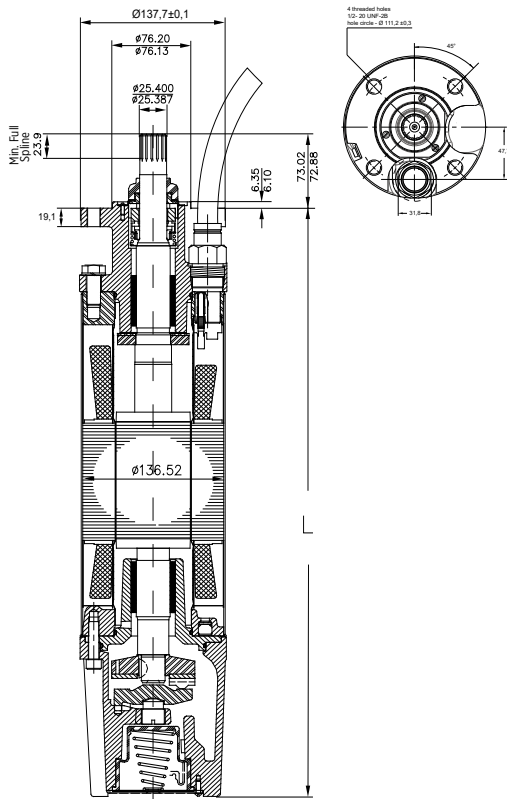
3~ PM motors DOL	Motor lead*						
	4 - 22 kW						
	\emptyset [mm ²]	C [mm]	B [mm]	H [mm]	L [m]	Brass	316SS
	4G4	32	19	7	4	310 125 004	310 125 504
26 - 45 kW							
\emptyset [mm ²]	C [mm]	B [mm]	B1 [mm]	B1 [mm]	H [mm]	Brass	316SS
3X8.4+1G8.4	32	29.5	19.5	19.5	8.9	310 145 004	310 145 504

*Cables are designed for submerged operation. For air operation, please consult Franklin Electric.

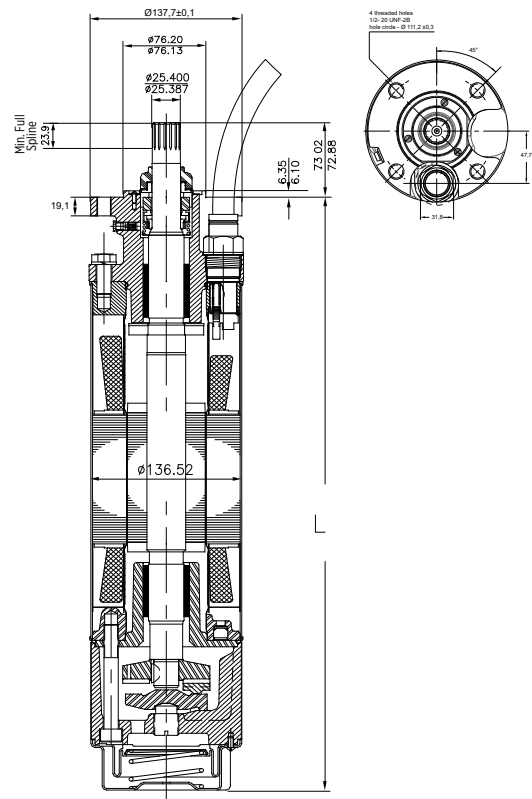
6" 3~ ENCAPSULATED PM MOTOR

MOTOR DIMENSIONS AND MATERIALS

WW



304SS & 316SS



MOTOR DIMENSION

P _N [kW]	U _N [V]	Thrust F [N]	WW	304SS/316SS	M [kg]	Motor with lead in single pack	
			L [mm]	L [mm]		[mm]	[kg]
4 - 11	380	15.500	634.5	625.2	43.0	155 x 212 x 800	45
13 - 22	380	15.500	793.5	784.2	57.4	155 x 212 x 1070	61
26 - 45	380	27.500	1020.5	1011.2	78	155 x 212 x 1070	84

Tolerances according to NEMA MG 1-18.388

MOTOR MATERIAL DESCRIPTION

Part	WW	304SS	316SS
Shell	1.4301	1.4301	1.4571
Upper end bell	Cast iron powder coated	1.4301	1.4408
Thrust housing	Cast iron powder coated	1.4301	1.4408
Mechanical seal	SiC / SiC	SiC / SiC	SiC / SiC
Seal cover	1.4301	1.4301	1.4401
Slinger	EPDM	EPDM	EPDM
Shaft end*	1.4021	1.4021	1.4462
Diaphragm	EPDM	EPDM	EPDM
Lead	EPR	EPR	EPR

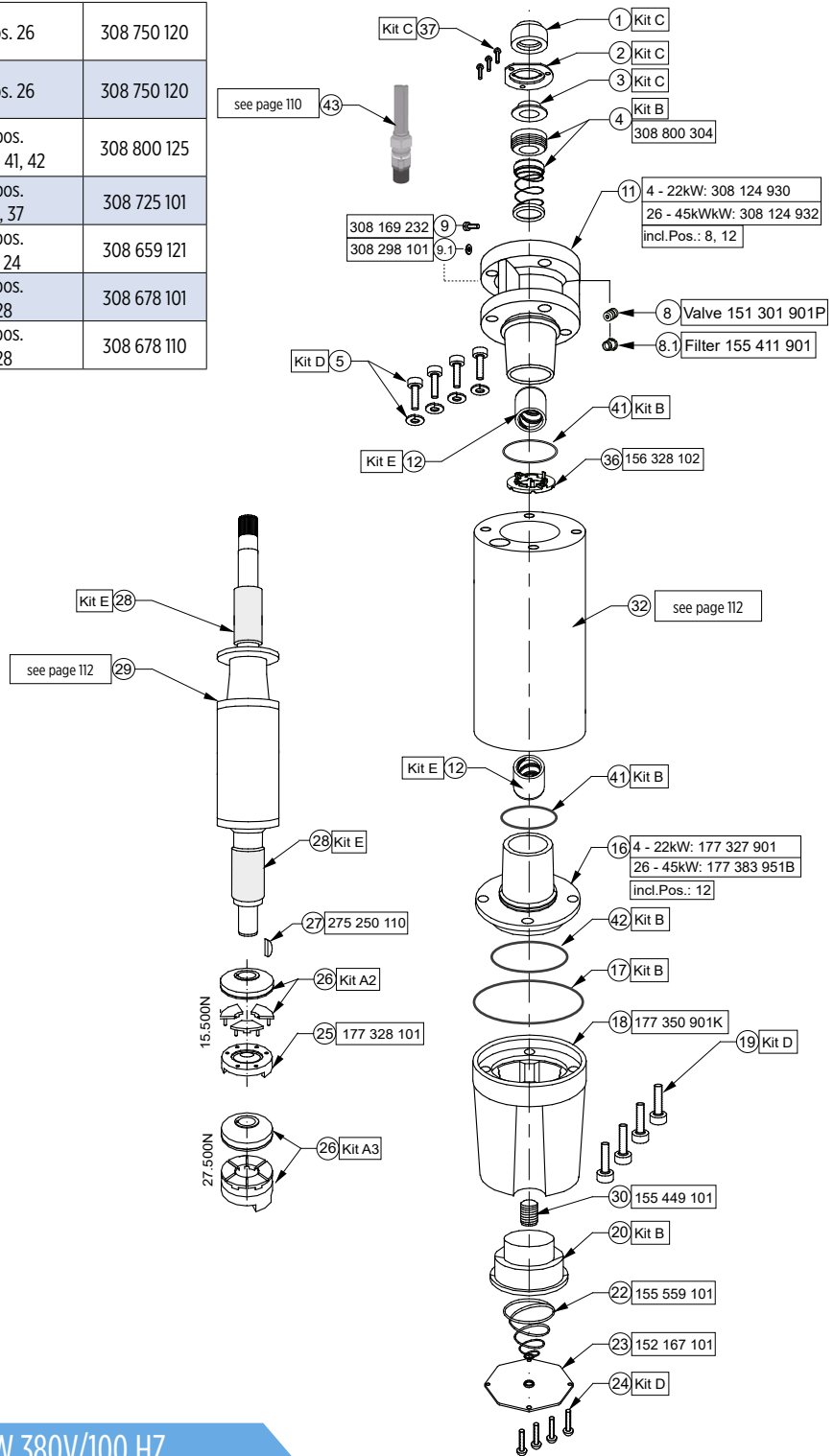
* running change to 1.4462

6" 3~ ENCAPSULATED PM MOTOR SPARE PARTS WATER WELL

MOTOR PARTS DESCRIPTION

Kit A2 15.500N	Thrust Bearing Kit up to 22 kW	incl. pos. 26	308 750 120
Kit A3 27.500N	Thrust Bearing Kit 26 - 45 kW	incl. pos. 26	308 750 120
Kit B1	Seal Kit	incl. pos. 4, 17, 20, 41, 42	308 800 125
Kit C1	Slinger Kit	incl. pos. 1, 2, 3, 37	308 725 101
Kit D1	Screw Kit	incl. pos. 5, 19, 24	308 659 121
Kit E1*	Radial Bearing Kit up to 22 kW	incl. pos. 12, 28	308 678 101
Kit E2*	Radial Bearing Kit 26 - 45 kW	incl. pos. 12, 28	308 678 110

* Radial bearing parts are unfinished



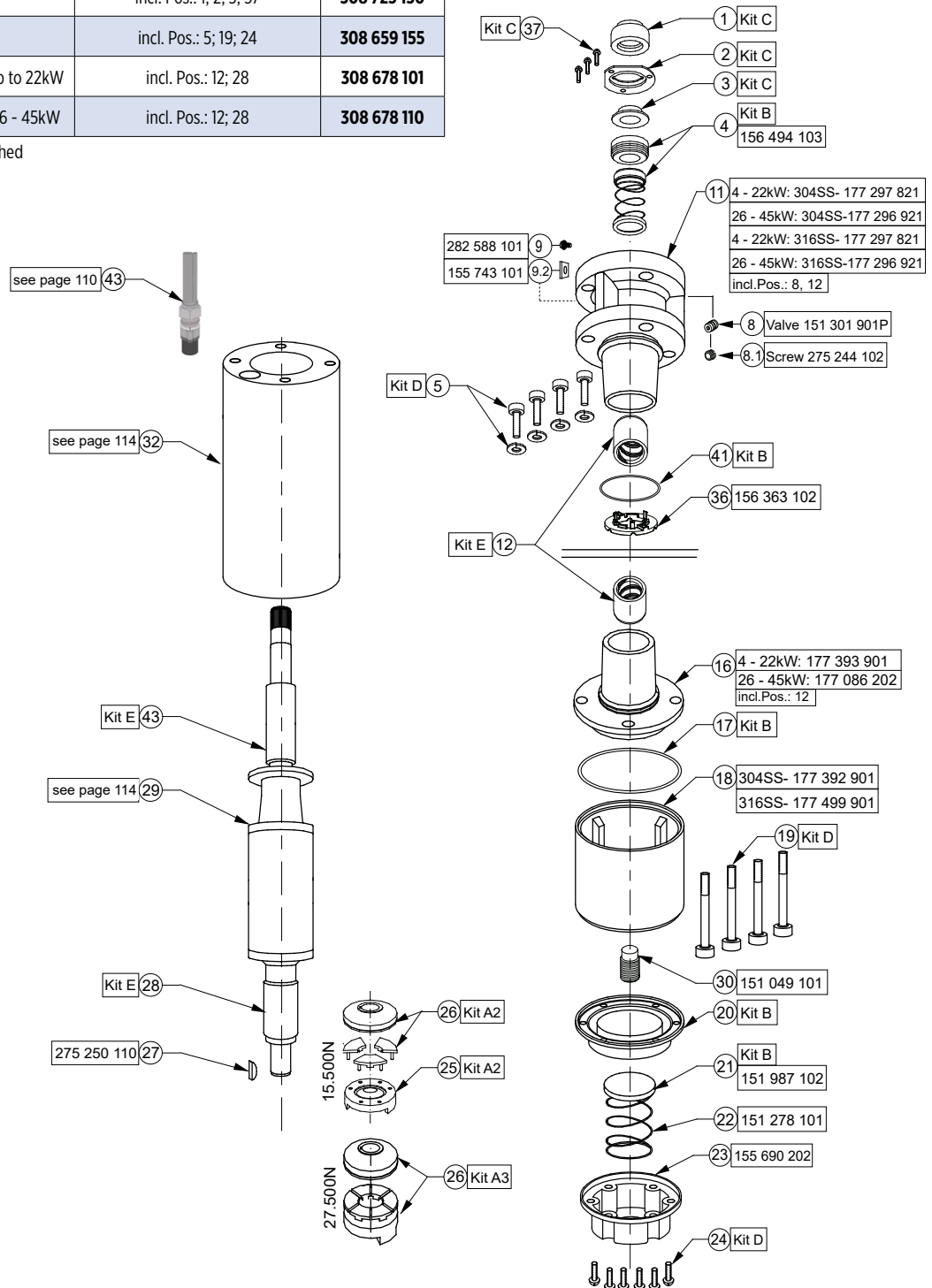
SPARE PARTS STATOR AND ROTOR WW 380V/100 HZ

P_N [kW]	U_N [V]	Thrust F [N]	Motor Model No.	Stator Model No.	Rotor
4 - 11	380	15500	236 080 9561	327 245 963K	178 130 901K
13 - 22	380	15500	236 084 9561	327 250 963K	178 130 903K
26 - 45	380	27500	236 086 9561	327 257 963K	178 130 905K

6" 3~ ENCAPSULATED PM MOTOR SPARE PARTS 304SS / 316SS

Kit A2	Thrust Bearing Kit 15.500N	incl. Pos.: 26	308 750 120
Kit A3	Thrust Bearing Kit 27.500N	incl. Pos.: 26	308 750 200
Kit B3	Seal Kit	incl. Pos.: 4; 17; 20; 21, 41; 44	308 800 250
Kit C3	Slinger Kit	incl. Pos.: 1; 2; 3; 37	308 725 150
Kit D5	Screw Kit	incl. Pos.: 5; 19; 24	308 659 155
Kit E1*	Radial Bearing Kit up to 22kW	incl. Pos.: 12; 28	308 678 101
Kit E2*	Radial Bearing Kit 26 - 45kW	incl. Pos.: 12; 28	308 678 110

* Radial Bearing Parts are unfinished



6" 3~ ENCAPSULATED PM MOTOR SPARE PARTS 304SS / 316SS

SPARE PARTS STATOR AND ROTOR 304SS/316SS - 380V/100 HZ

P _N [kW]	U _N [V]	Thrust F [N]	Motor Model No.	Stator Model No.	Rotor
			304SS		
4 - 11	380	15.500	236 080 1461	327 245 983K	178 130 921K
13 - 22	380	15.500	236 084 1461	327 250 983K	178 130 923K
26 - 45	380	27.500	236 086 1461	327 257 983K	178 130 925K

P _N [kW]	U _N [V]	Thrust F [N]	Motor Model No.	Stator Model No.	Rotor
			316SS		
4 - 11	380	15.500	236 080 1561	327 245 983K	178 130 921K
13 - 22	380	15.500	236 084 1561	327 250 983K	178 130 923K
26 - 45	380	27.500	236 086 1561	327 257 983K	178 130 925K