

12" REWINDABLE MOTOR

FEATURES & BENEFITS

- 12" Double-flange mounting design
- Stainless steel keyed shaft
- VFD operation up to a rated voltage of 460 V (in compliance with the application guidelines in the motor operating instructions and the VFD manufacturer). For VFD operation with higher voltages, please consult Franklin Electric.
- Factory filled with FES Franklin's non-toxic water soluble fill solution
- Hydrodynamic liquid lubricated radial bearings and High capacity Kingsbury type thrust bearing for 100 % maintenance free operation
- Pressure-equalizing diaphragm
- SandFighter™ sealing system with SIC mechanical seal and sand slinger
- Standard motor: WW- Water well design (stator: 304SS / castings: CI powder coated)
- Drinking water approvals

STANDARD SPECIFICATION

- Ratings: 185-400 kW
- Thrust load: 60 kN
- Max. storage temperature: -15 °C - +60 °C
- Nominal ambient temperature: 30 °C (with 0.5 m/s cooling flow)
- Standard voltage:
380 - 415 V (50 Hz), 460 V (60 Hz),
500 V (50 Hz), 1000 V (50 Hz)
- Voltage tolerance U_N : 50 Hz: -10 % / +6 % U_N
[380-415 V = (380 - 10 %) - (415 + 6 %)]
60 Hz: ±10 % U_N
- Standard motor with PE2/PA winding insulation
- protection IP68
- Protection requirements: DIN/EN 61947-4-1
- Frequency of starts: 5 starts/hour (with min. 3 minutes resting time), equally distributed
- DOL-start
- Motor lead length: 6 m
- All motors with factory installed leads
- Vertical and horizontal operation, shaftend heightend
- Rotation counter clock wise facing shaft end (rotation reversible for 3 phase motors)

OPTIONS

- Higher-graded material: 316SS
- Special voltages
- Retrofittable PT 100 temperature sensor
- Special lead lengths
- 80 kN Thrust load version



REWINDABLE
MOTORS

**SAND
FIGHTER**

STAINLESS STEEL
304

STAINLESS STEEL
316



12" REWINDABLE MOTOR

12REW MOTOR - 3-PHASE - MOTOR MODEL NO. | WW | 316SS

P _N [kW]	U _N [V] / [Hz]	Model Numbers Digit 1 – 6		Model Numbers Digit 7 – 10			
		DOL	YΔ	WW**	316SS	High Thrust 80kN	
						WW**	316SS
185	380 - 415 / 50	265 610	265 710	5011	6011	5111	6111
	460 / 60						
	500 / 50	265 620	265 790				
220	1000 / 50	265 510		5011	6011	5111	6111
	380 - 415 / 50	265 611	265 711				
	460 / 60						
250	500 / 50	265 621	265 791	5011	6011	5111	6111
	1000 / 50	265 511					
	380 - 415 / 50	265 612	265 712				
300	460 / 60			5011	6011	5111	6111
	500 / 50	265 622	265 792				
	1000 / 50	265 512					
350	380 - 415 / 50	265 614	265 714	5011	6011	5111	6111
	460 / 60						
	500 / 50	265 624	265 794				
400	1000 / 50	265 514		5011	6011	5111	6111
	380 - 415 / 50		265 716				
	460 / 60						
400	500 / 50	265 626	265 796	5011	6011	5111	6111
	1000 / 50	265 516					
	380 - 415 / 50		265 717				
400	460 / 60			5011	6011	5111	6111
	500 / 50	265 627	265 797				
	1000 / 50	265 517					

VFD operation is only allowed up to 460V supply voltage. For higher voltages, please consult Franklin Electric.

** WW - Water well design (brackets CI powder coated)

YOUTUBE VIDEOS AND TUTORIALS



8"/10"/12" rewindable motors
Franklin Electric



12" REWINDABLE MOTOR

12REW MOTOR - 3-PHASE - MOTOR PERFORMANCE DATA | 50 HZ

P _N [kW]	Thrust F [N]	U _N [V]	n _N [min ⁻¹]	I _N [A]	I _A /I _N [A]	η (Eff.) [%] at % load			cos φ (Pf.) at % load			T _N [Nm]	T _A /T _N [Nm]
						50	75	100	50	75	100		
185	60000	380	2940	368	4.7	88	88	87	0.82	0.87	0.88	602	0.81
		400	2945	351	5.3	87	88	87	0.79	0.85	0.86	600	0.9
		415	2950	344	5.76	87	88	88	0.76	0.84	0.84	599	0.97
		500	2940	286	5.3	87	88	87	0.79	0.85	0.87	600	0.9
		1000	2945	141	5.3	87	88	87	0.79	0.85	0.86	600	0.9
220	60000	380	2930	448	4.79	88	88	87	0.83	0.87	0.88	716	0.77
		400	2935	430	5.4	88	89	88	0.8	0.86	0.87	714	0.84
		415	2940	427	5.85	88	89	88	0.77	0.85	0.84	712	0.94
		500	2940	334	5.4	88	89	88	0.8	0.86	0.88	714	0.84
		1000	2945	177	5.4	88	89	88	0.8	0.86	0.87	714	0.84
250	60000	380	2930	507	4.7	87	87	86	0.85	0.88	0.85	815	0.85
		400	2935	481	5.2	88	89	88	0.8	0.85	0.8	812	0.95
		415	2940	471	5.6	88	89	88	0.76	0.83	0.76	812	1.02
		500	2935	385	5.2	88	89	88	0.8	0.85	0.88	812	0.95
		1000	2930	193	5.2	88	89	88	0.8	0.85	0.85	812	0.95
300	60000	380	2940	586	4.9	88	89	87	0.87	0.9	0.88	974	0.83
		400	2945	551	5.6	88	89	88	0.85	0.89	0.88	971	0.94
		415	2950	532	6	88	89	88	0.83	0.88	0.89	970	1.03
		500	2945	435	5.6	88	89	88	0.85	0.89	0.88	971	0.94
		1000	2945	217	5.6	88	89	88	0.85	0.89	0.88	971	0.94
350	60000	380	2920	720	4.7	88	88	86	0.85	0.88	0.87	1140	0.8
		400	2930	676	5.2	88	88	87	0.82	0.87	0.88	1137	0.9
		415	2935	652	5.4	87	88	87	0.79	0.86	0.87	1135	0.95
		500	2930	541	5.2	88	88	87	0.82	0.87	0.87	1137	0.9
		1000	2930	270	5.2	88	88	87	0.82	0.87	0.87	1137	0.9
400	60000	380	2920	795	4.2	90	90	89	0.85	0.88	0.87	1306	0.73
		400	2930	750	4.8	90	90	90	0.82	0.87	0.87	1301	0.84
		415	2940	719	5.2	89	90	90	0.8	0.85	0.87	1299	0.92
		500	2930	600	4.8	90	90	90	0.82	0.87	0.87	1301	0.84
		1000	2935	289	4.8	90	90	90	0.82	0.87	0.87	1301	0.84

REWINDABLE
MOTORS

12REW MOTOR - 3-PHASE - MOTOR PERFORMANCE DATA | 60 HZ

P _N [kW]	P _{MAX} [kW]	Thrust F [N]	n _N [min ⁻¹]	I _{max} [A]	I _A /I _N [A]	η (Eff.) [%] at % load			cos φ (Pf.) at % load			T _N [Nm]	T _A /T _N [Nm]
						50	75	100	50	75	100		
185	212	60 000	460	3540	339	0	0	0	0	0	0	0.87	0
220	252	60 000	460	3530	425	5.44	90	91	91	0.81	0.84	0.86	776
250	287	60 000	460	3530	462	5.44	90	91	91	0.81	0.84	0.84	776
300	345	60 000	460	3530	533	5.85	90	91	91	0.85	0.89	0.89	928
350	402	60 000	460	3530	647	5.13	89	90	90	0.83	0.87	0.88	1085
400	460	60 000	460	3520	745	4.79	89	90	90	0.84	0.87	0.87	1243

12" REWINDABLE MOTOR

12REW MOTOR - 3-PHASE - WINDING RESISTANCE DATA | 380 – 415 V | PE2/PA

Insulation Standard Windings 380–415 V | 50 Hz

P _N [kW]	Mod.-No. Winding- kits	Turns per coil	Wire diameter [mm]	Type of Isolation	Group connection	Total Wire length [m]	Resistance coil [Ω]	Resistance YΔ (U1-U2) [Ω]	Resistance Dol (U1-V1) [Ω]
185	327 013 999	6+6+6+6	2,6 / 3,9 (2GrII)	PE2/PA	Parallel Delta	794	0,1061		
220	326 639 999	5+6+5+6	2,7 / 4,1 (2GrII)	PE2/PA	Parallel Delta	770	0,0235		
250	326 639 999	5+6+5+6	2,7 / 4,1 (2GrII)	PE2/PA	Parallel Delta	770	0,0235		
300	326 640 999	4+5+4+5	3,0 / 4,5 (2GrII)	PE2/PA	Parallel Delta	720	0,0178		
350	326 696 999	4+4+4+5	3,0 / 4,5 (2GrII)	PE2/PA	Parallel Delta	706	0,0175		
400	326 641 999	4+4+4+4	3,4 / 5,0 (2GrII)	PE2/PA	Parallel Delta	700	0,0133		

Insulation Standard Windings 500 V | 50 Hz

P _N [kW]	Mod.-No. Winding- kits	Turns per coil	Wire diameter [mm]	Type of Isolation	Group connection	Total Wire length [m]	Resistance coil [Ω]	Resistance YΔ (U1-U2) [Ω]	Resistance Dol (U1-V1) [Ω]
185	326 *** 999								
220	326 701 999	7+7+7+7	2,5 / 3,8 (2GrII)	PE2/PA	Parallel Delta	889	0,0244		
250	326 702 999	6+7+7+7	2,5 / 3,8 (2GrII)	PE2/PA	Parallel Delta	924	0,0331		
300	326 703 999	5+6+5+6	2,7 / 4,1 (2GrII)	PE2/PA	Parallel Delta	861	0,0265		
350	326 697 999	5+5+5+6	2,7 / 4,1 (2GrII)	PE2/PA	Parallel Delta	856	0,0263		
400	326 704 999	5+5+5+5	3,0 / 4,5 (2GrII)	PE2/PA	Parallel Delta	848	0,0221		

Insulation Standard Windings 1000 V | 50 Hz

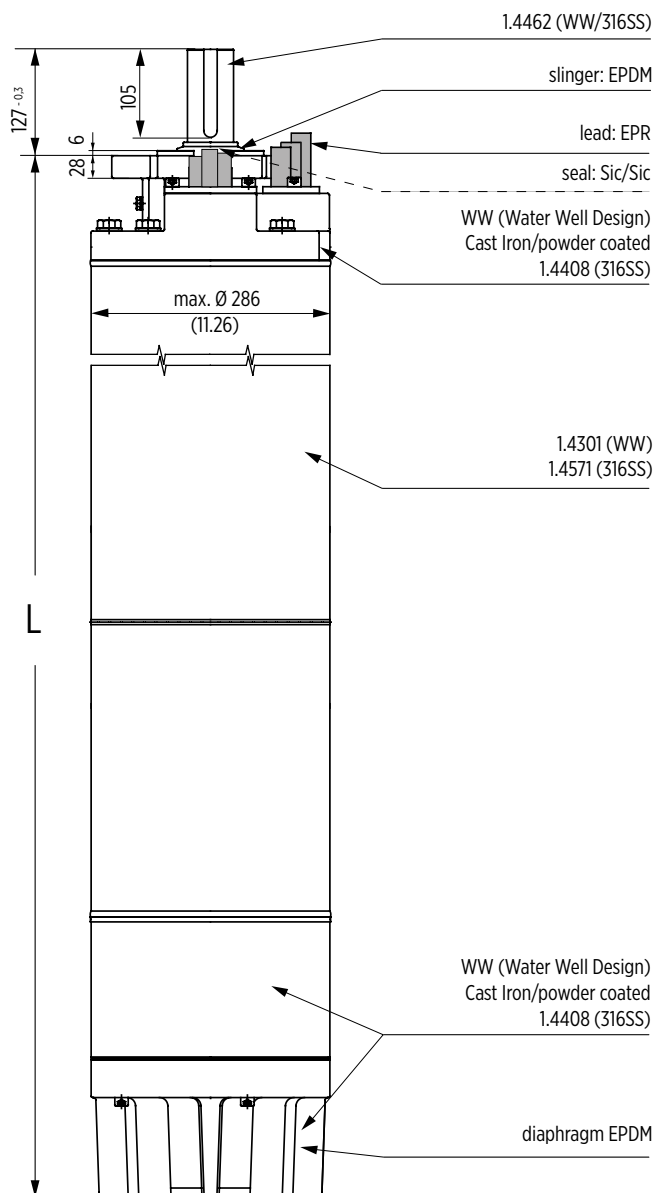
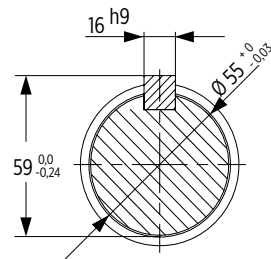
P _N [kW]	Mod.-No. Winding- kits	Turns per coil	Wire diameter [mm]	Type of Isolation	Group connection	Total Wire length [m]	Resistance coil [Ω]	Resistance YΔ (U1-U2) [Ω]	Resistance Dol (U1-V1) [Ω]
185	327 016 999	15+15+15+15	2,3 / 3,5	PE2/PA	Parallel Delta	1138	0,7836		0,221
220	326 928 999	14+14+14+14	2,5 / 3,8	PE2/PA	Parallel Delta	902	0,5251		0,177
250	326 699 999	13+14+13+14	2,5 / 3,8	PE2/PA	Parallel Delta	888	0,1290		0,165
300	326 700 999	11+11+11+11	2,7 / 4,1	PE2/PA	Parallel Delta	825	0,1024		0,135
350	326 698 999	10+11+10+11	2,7 / 4,1	PE2/PA	Parallel Delta	820	0,1017		0,136
400	326 674 999	10+10+10+10	3,0 / 4,5	PE2/PA	Parallel Delta	812	0,0815		0,106

Insulation resistance (20 °C / 500 VDC)

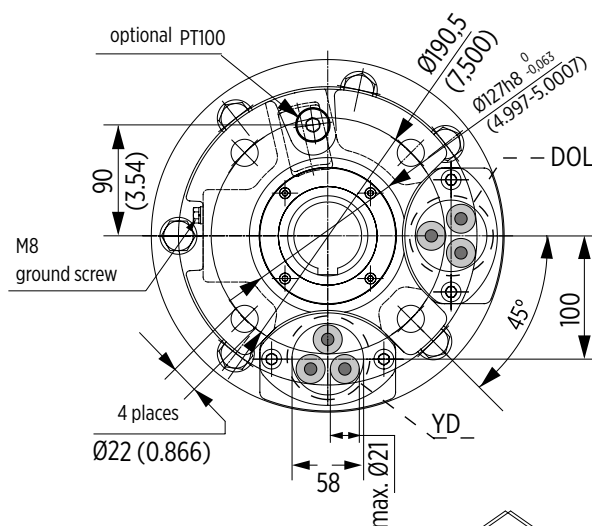
new motor without drop cable	400 >	MΩ
used motor without drop cable	20 >	MΩ
new motor with drop cable	4 >	MΩ
used motor with drop cable	1	MΩ

12" REWINDABLE MOTOR

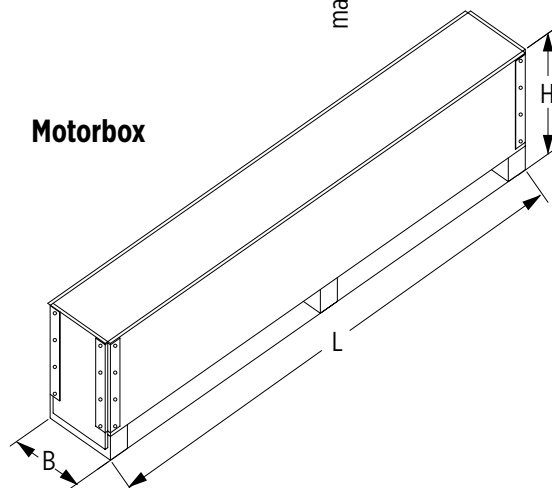
12REW MOTOR - 3-PHASE - DIMENSIONS AND WEIGHTS | WW | 316SS



Oberes Lagerschild



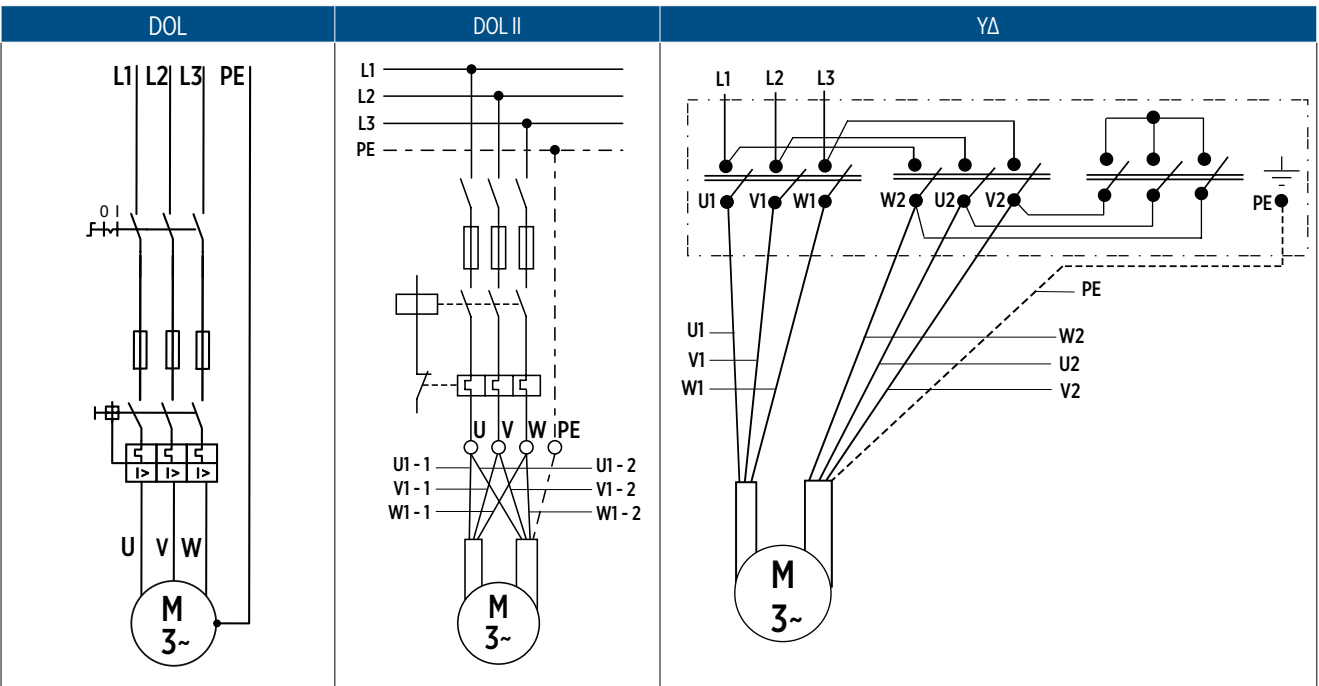
Motorbox



P _N [kW]	Motor Lengths	Weights		Motor Shipping Size [mm]		
	L [mm]	Motor [kg]	incl. Pack [kg]	B	H	L
185	1893	663	743	396	572	2296
220	1893	663	743			
250	1893	663	743			
300	2043	726	806	396	572	2596
350	2143	769	849			
400	2193	794	874			

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12REW MOTOR - 3-PHASE - CONNECTIONS



U = black (BK) | W = brown (BN) | V = grey (GY) | PE = yellow/green (YE/GN)

12REW MOTOR - 3-PHASE - MOTOR LEADS | DOL | YΔ

Lead	Ø [mm²]	D [mm]	Lengths [m]	Motor [kW]			Lead Kit (3 Single Leads)	lead seal kit
				380-415V 50Hz 460V 60Hz	500V 50Hz	1000V 50Hz		
	1X70	20.7	6	185 - 300 DOL 300 - 400 YΔ*	185 - 400 DOL	-	DOL 1 YΔ 2	308 711 100
	1X35	15.3	6	185 - 250 YΔ*	185 - 400 YΔ	185-400 DOL	DOL 1 YΔ 2	308 661 120

*For YΔ motors, please order two lead (sealing) kits

12REW MOTOR - 3-PHASE - GROUND LEADS | WW | 316SS

Ground lead* (optional)	Ø [mm²]	D Ø [mm]	Lengths [m]	qty.	model no.
	1G25	13,0	8	1	308 053 080
	1G35	15.3	6	1	308 056 060
	1G70	20.3	6	1	308 057 060

*suitable for WW and 316SS motors

12REW MOTOR - 3-PHASE - LEAD OPENING SEAL KIT | DOL | YΔ

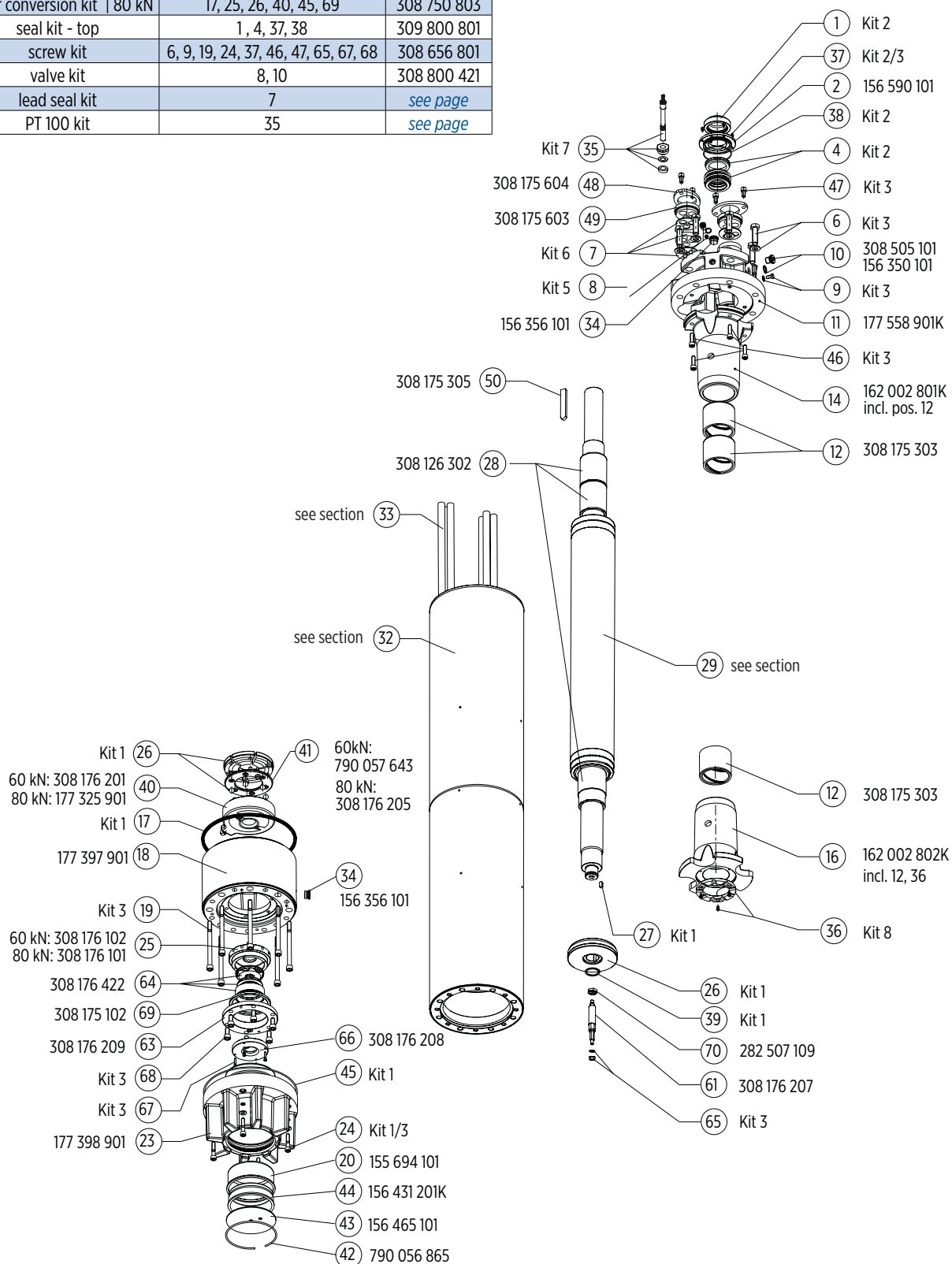
kW	model no.
250 - 400 kW	308 661 122

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

12" REWINDABLE MOTOR

12REW MOTOR - 3-PHASE - MOTOR SPARE PARTS - KITS | WW

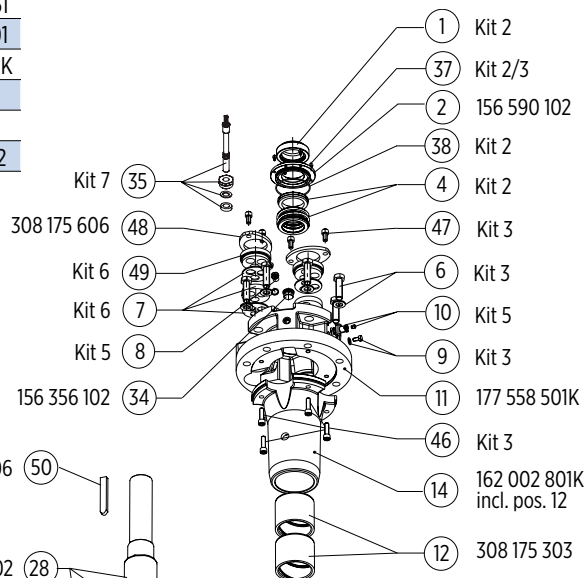
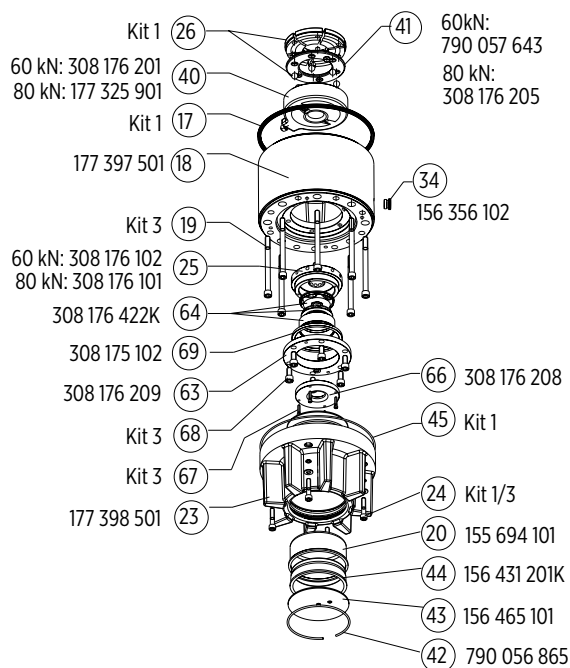
Kit	Kit description	included positions	order no
Kit 1	Thrust bearing kit 60 kN	17, 24, 26, 27, 39, 45	308 750 801
	Thrust bearing kit 80 kN	17, 26, 27, 39, 45	308 750 802
	Motor conversion kit 80 kN	17, 25, 26, 40, 45, 69	308 750 803
Kit 2	seal kit - top	1, 4, 37, 38	309 800 801
Kit 3	screw kit	6, 9, 19, 24, 37, 46, 47, 65, 67, 68	308 656 801
Kit 5	valve kit	8, 10	308 800 421
Kit 6	lead seal kit	7	see page
Kit 7	PT 100 kit	35	see page



12" REWINDABLE MOTOR

12REW MOTOR - 3-PHASE - MOTOR SPARE PARTS - KITS | 316SS

Kit	Kit description	included positions	order no
Kit 1	Thrust bearing kit 60 kN	17, 24, 26, 27, 39, 45	308 750 801
	Thrust bearing kit 80 kN	17, 26, 27, 39, 45	308 750 802
	Motor conversion kit 80 kN	17, 25, 26, 40, 45, 69	308 750 803
Kit 2	seal kit - top	1, 4, 37, 38	308 800 851
Kit 3	screw kit	6, 9, 19, 24, 37, 46, 47, 65, 67, 68	308 656 801
Kit 5	valve kit	8, 10	165 729 802K
Kit 6	lead seal kit	7	cf. section
Kit 7	PT 100 kit	35	cf. section
Kit 8	Up-thrust bearing kit	36	308 751 702



12" REWINDABLE MOTOR

12REW MOTOR - 3-PHASE - STATOR AND ROTOR | WW | 316SS

P _N [kW]	U _N / f [V] / [Hz]	stator (incl. winding and 6 m motor lead)				Rotor
		DOL		YΔ		
		PPC	PE2/PA	PPC	PE2/PA	
185	380 - 415/50 460/60		327 013 902K		326 013 952K	176 381 501K
220	380 - 415/50 460/60		326 639 902K		326 639 952K	176 381 501K
250	380 - 415/50 460/60		326 639 902K		326 639 952K	176 381 501K
300	380 - 415/50 460/60		326 640 902K		326 640 952K	176 381 502K
350	380 - 415/50 460/60				326 696 952K	176 381 504K
400	380 - 415/50 460/60				326 641 952K	176 381 503K