

10" REWINDABLE PERMANENT MAGNET MOTOR

Rewindable motors with best class winding wires

WATER WELL
WW
CI PC / 304SS

STAINLESS STEEL
316

STAINLESS STEEL
904L

**SAND
FIGHTER**

BENEFITS & FEATURES

- Motors for operation with Variable frequency drive (VFD)
- 10" double flange mounting design
- Factory filled with Franklin's FES93 motor fill solution
- High capacity Kingsbury type liquid lubricated 60 kN thrust bearing and radial bearings for 100 % maintenance free operation
- Pressure-equalizing diaphragm, spring pre-loaded
- Stainless Steel keyed shaft
- Sand Fighter™ sealing system with SiC/SiC mechanical seal and sand slinger
- High efficiency electrical design for low operation costs
- Drinking water approvals

STANDARD SPECIFICATION

- Motorleistung:
 - 150 kW - 200 kW - 250 kW (100 Hz - 3000 rpm)
 - 173 kW - 230 kW - 290 kW (120 Hz - 3600 rpm)
- Max. storage temperature -15°C to +60°C
- Standard motor with PE2/PA winding insulation
- Nominal ambient temperature: 30 °C with 0.5 m/s cooling flow
- System Supply Voltage: 400 V (100 Hz) / 460 V (120 Hz)
- Voltage Tolerance: $\pm 10 \% U_N$
- Protection IP68
- Standard Motor: WW- Water well Design (Stator 304SS / Castings - CI Powder coated)
- Motor protection: DIN 61947-4-1
- DOL- start
- Frequency of starts: 10 starts/ hour (with min. 3 minutes resting time), equally distributed
- Motor lead length: 6 m
- Motors installation orientation: Vertical / horizontal (shaft end heightened) - 250 kW motors may not be installed horizontally (if required please contact Franklin Electric)
- Rotation counter clock wise facing shaft end (rotation reversible)
- All motors with factory installed leads

OPTIONS

- Higher-graded materials: 316SS and 904L
- Special voltages
- Retrofittable PT 100 temperature sensor



3~ DOL MODEL NUMBERS 400 V / 100 HZ**

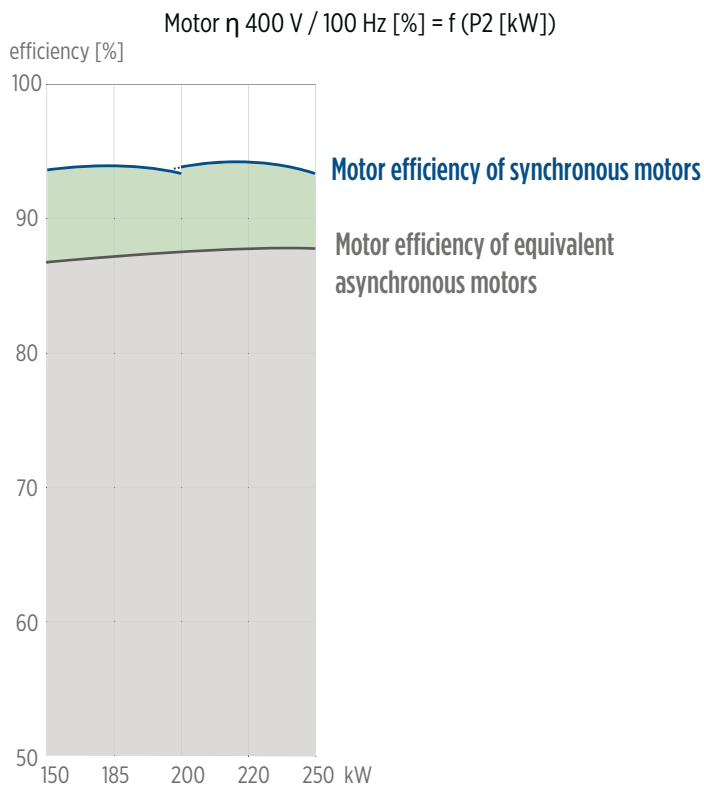
P _N [kW]	U _N [V]	400V / 100 Hz WW * Motor model number	400V / 100 Hz 316SS Motor model number	400V / 100 Hz 904L Motor model number
150	400	264 025 5311	264 025 6311	264 025 7311
200	400	264 028 5311	264 028 6311	264 028 7311
250	400	264 029 5311	264 029 6311	264 029 7311

* WW motor - brackets Cast Iron Powder coated

** PM motors are to be operated by Variable frequency drive (VFD)

10" REWINDABLE PERMANENT MAGNET MOTOR

EFFICIENCY CURVE AT 3000 RPM



MOTOR PERFORMANCE DATA 400 V / 100 HZ

motor model no.	P _N [kW]	Thrust F [kN]	η_N [min ⁻¹]	I _N [A]	I _A /I _N [*] [A]	η [%]	cos phi	T _N [Nm]	T _A /T _N [*] [Nm]
264 025 xxxx	110	60	3000	199,5	1	93,0	0,93	353	1
	130	60	3000	236,1	1	93,0	0,93	415	1
	150	60	3000	274,0	1	93,0	0,93	478	1
264 028 xxxx	150	60	3000	284	1	94,3	0,95	478	1
	185	60	3000	354	1	94,1	0,96	589	1
	200	60	3000	389	1	93,8	0,96	637	1
264 029 xxxx	200	60	3000	377	1	94,5	0,95	637	1
	220	60	3000	423	1	94,3	0,96	701	1
	250	60	3000	497	1	93,8	0,96	796	1

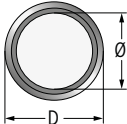
MOTOR PERFORMANCE DATA 460 V / 120 HZ

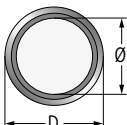
motor model no.	P _N [kW]	P _{max.} [kW]	Thrust F [kN]	η_N [min ⁻¹]	I _{MAX} [A]	I _A /I _{MAX} [*] [A]	η [%]	cos phi	T _N [Nm]	T _A /T _N [*] [Nm]
264 025 xxxx	110	127	60	3600	199,5	1	93,0	0,93	353	1
	130	150	60	3600	236,1	1	93,0	0,93	415	1
	150	173	60	3600	274,0	1	93,0	0,93	478	1
264 028 xxxx	150	173	60	3600	284	1	94,3	0,95	478	1
	185	213	60	3600	354	1	94,1	0,96	589	1
	200	230	60	3600	389	1	93,6	0,96	637	1
264 029 xxxx	200	230	60	3600	377	1	94,5	0,95	637	1
	220	253	60	3600	423	1	94,3	0,96	701	1
	250	287	60	3600	497	1	93,6	0,96	796	1

Performance data are based on measurements with Franklin Electric original equipment.
 *Since this is an integrated system (motor plus electronics) these figures relate to VFD input.

10" REWINDABLE PERMANENT MAGNET MOTOR

MOTOR LEADS 10" REWINDABLE PERMANENT MAGNET MOTORS*

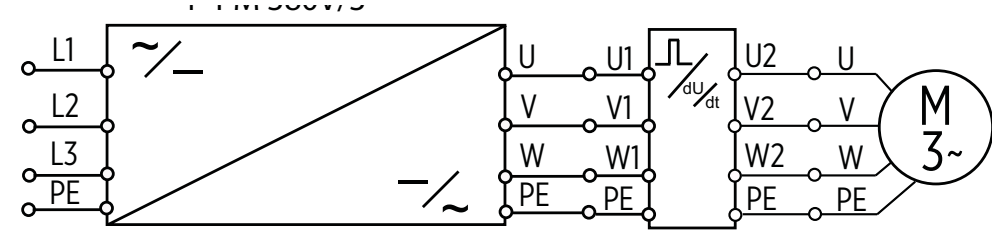
lead	P _N [kW]	U _N [V]	∅ [mm²]	D [mm]	lengths [m]	qty.	lead set model no. (3 single wire lead)	lead seal kit model no.
	all ratings	400	3 x 1X70	20.7	6	1	308 711 100	308 660 740

ground lead (optional)	∅ [mm²]	D [mm]	lengths [m]	qty.	lead model no.
	1G35	15.3	6	1	308 056 060

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

Lead opening seal kit		qty.	model no.
10" Rew	WW / 316SS	1	308 660 715
	904L	1	308 660 730

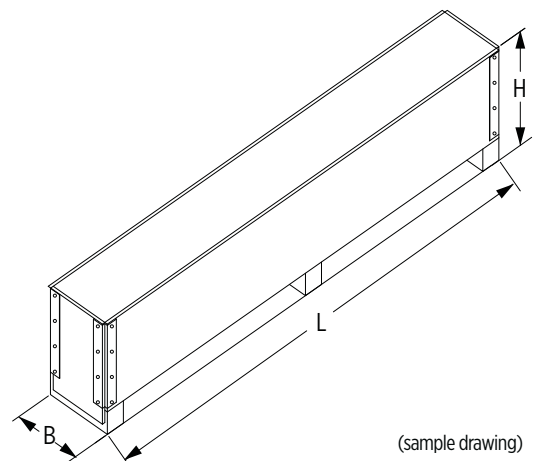
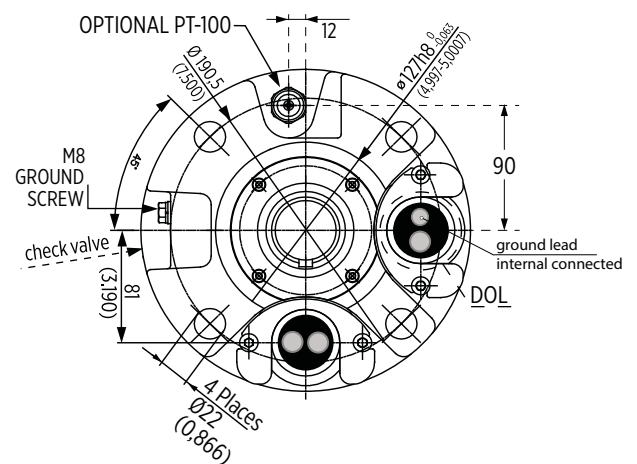
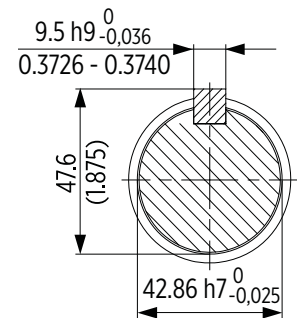
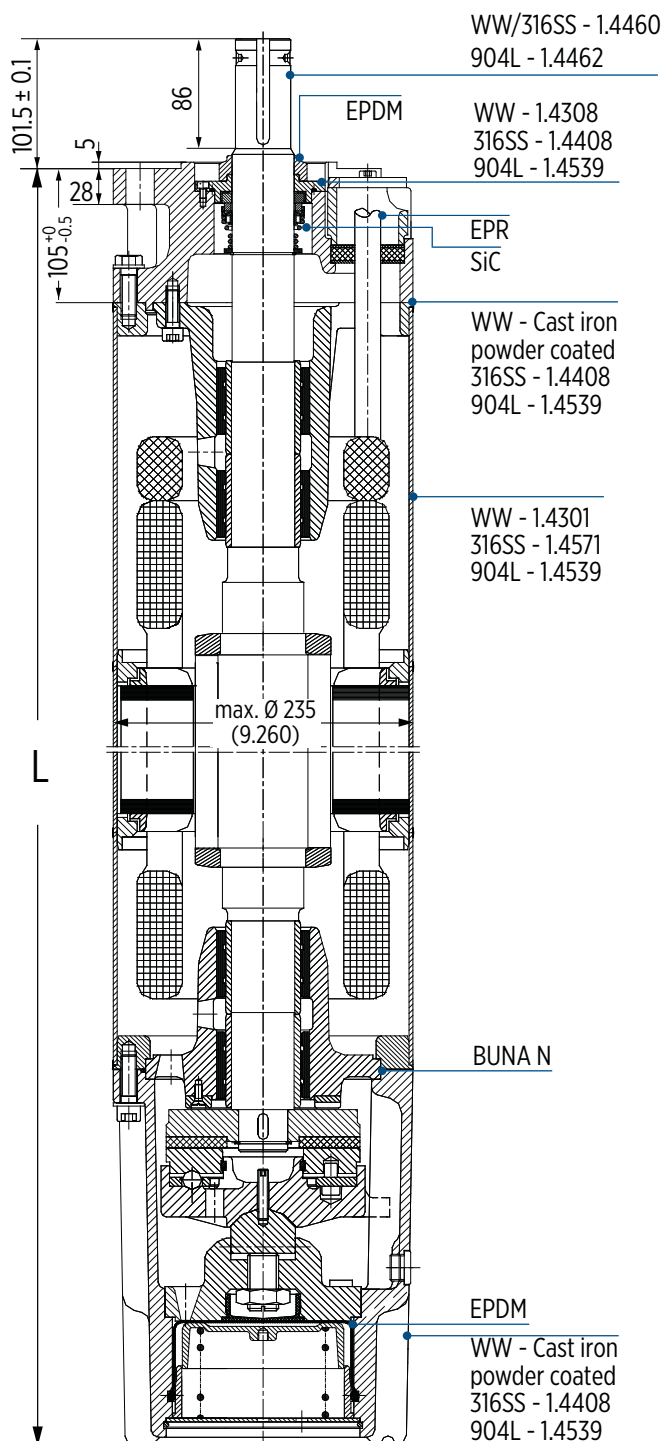
ELECTRICAL CONNECTION DOL



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

10" REWINDABLE PERMANENT MAGNET MOTOR

10" REWINDABLE PM MOTORS DIMENSION AND MATERIALS

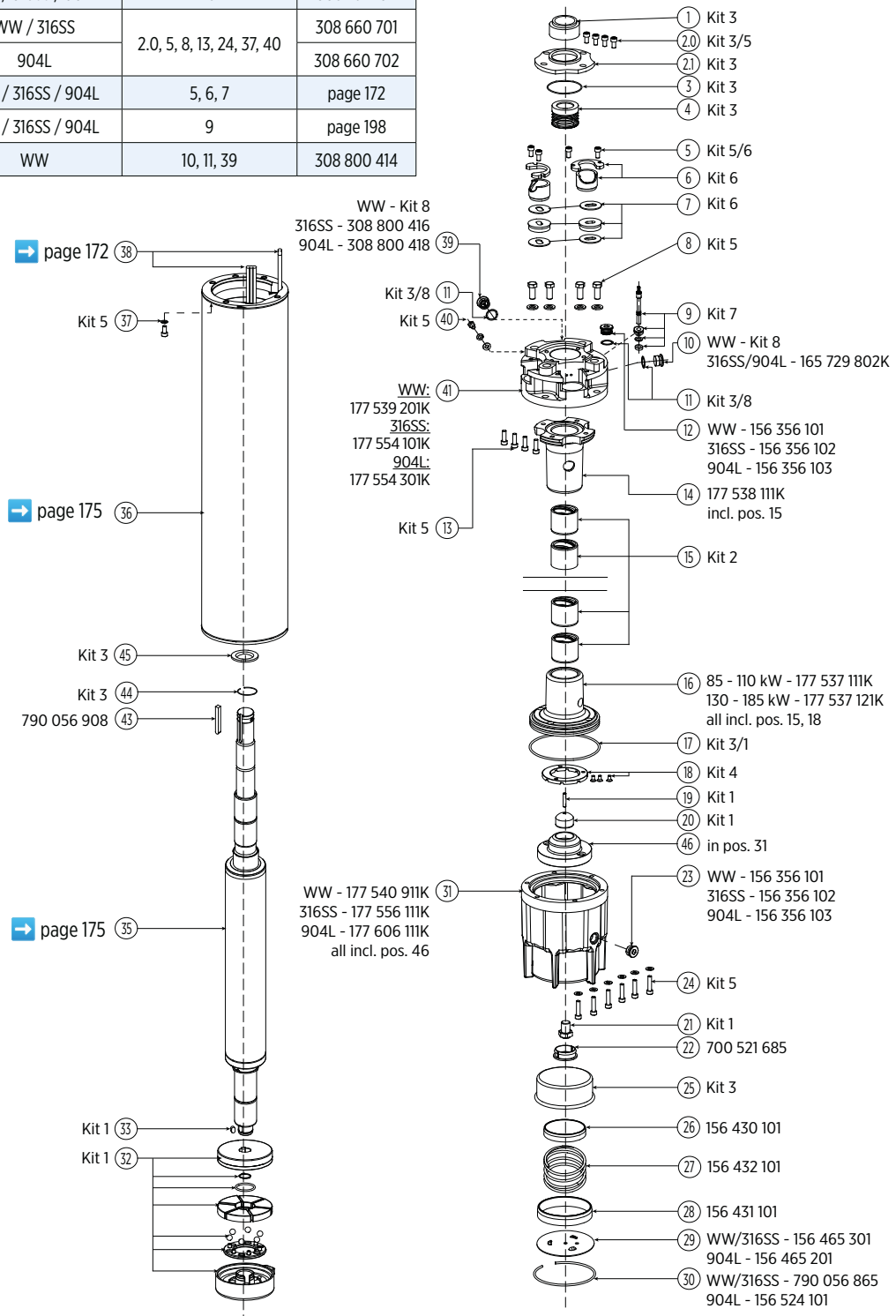


P _N [kW]	Motor lenghts L [mm]	Motor weights [kg]	Motor weights incl. box [kg]	Motor shipping size [mm]		
				B	H	L
150	1549	311	361	341	514	2246
200	1659	331	381			
250	1769	350	400			

10" REWINDABLE PERMANENT MAGNET MOTOR

10" REWINDABLE PERMANENT MAGNET MOTORS SPARE PARTS

Kit	Kit description	materials	including positions	order no
1	Thrust bearing kit	WW / 316SS / 904L	17, 19, 20, 21, 32, 33	308 750 701
2	Radial bearing kit	WW / 316SS / 904L	15	308 751 703
3	seal kit	WW / 316SS	1-4, 11, 17, 25	308 800 703
		904L		308 800 704
4	Up-thrust bearing kit	WW / 316SS / 904L	18	308 751 702
5	Screw kit	WW / 316SS	2.0, 5, 8, 13, 24, 37, 40	308 660 701
		904L		308 660 702
6	Lead seal kit	WW / 316SS / 904L	5, 6, 7	page 172
7	PT100 kit	WW / 316SS / 904L	9	page 198
8	Valve Kit	WW	10, 11, 39	308 800 414



10" REWINDABLE PERMANENT MAGNET MOTOR

MODEL NUMBERS 400 V STATOR AND ROTOR - WW/316SS

P _N [kW]	U _N [V]	Stator (incl. winding and 6m motor lead)	Rotor
150	400	327 *** **	100000*****K
200	400	327 640 931	10000005599K
250	400	327 641 931	10000005857K

WINDING DATA 400 V

P _N [kW]	U _N [V]	Model No. Winding kit	Turns per coil	Wire diameter [mm]	Type of Isolation	Groups connection	Total wire length [m]	Resistance coil [Ω]	Resistance DoI (U1-V1) [Ω]
150	400	327 6** **			PE2/PA	Parallel Star			
200	400	327 640 999	7 - 7	2,4 / 3,7 / 3,9	PE2/PA	Parallel Star	780	0,0305	0,0305
250	400	327 641 999	6 - 6	3,0 / 4,5 / 4,8	PE2/PA	Parallel Star	560	0,0265	0,0265

INSULATION RESISTANCE (20 °C / 500 V DC)

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

MOTOR REPAIR INSTRUCTION

- Pictured repair instructions WW / 316SS / 904L (model no. 10000006792)