



Franklin Electric

January 2019

Submersible motors 6"

6" Encapsulated submersible motors



PUMPALIA - CATALOGUE & PRICE LIST 2019

Franklin Electric 6" encapsulated submersible motors, built in ISO 9001 certified facilities, are built for dependable operation in 6" diameter or larger water wells. Water lubricated thrust and radial bearings enable a maintenance free operation. A special diaphragm ensures pressure compensation inside the motor. The motor is filled with a special FES91 fluid, providing frost protection down to -15°C storage temperature.

The Sand fighter® SIC seal system is standard.

Standard motor design specifications

Hermetically sealed stator. Anti-track, self-healing stator resin prevents motor burn out.

37 and 45kW up to 50°C ambient temperature

Removable "Water bloc" lead connector. Length: 4mts

Cable material according to drinking water regulations (VDE / ACS / KTW approved)

Sand fighter® Motor with SIC-Mechanical seal and sand slinger

High efficiency electrical design (low operation cost, cool running winding).

Max. storage temperature -15°C + 60°C

45kN Thrust capacity (Standard in 37kW and 45kW motors)

No-wear, water lubricated radial and thrust bearings for 100% maintenance free operation.

Non-contaminating FES 91 filling liquid.

Removable power cable connector: It ensures perfect sealing in the most critical conditions and it aids maintenance operations. More specifically, the connector prevents oil from rising in the conductors up to the joint, thus enabling immersion at greater depths. The power cable complies with all major standards on the use in drinking water (KTW, ACS, VDE, WRAS).



Range: from 4kW up to 45kW.

Flange: 6" Nema

Protection: IP68 – Insulation class F

Rated ambient temperature: 30°C

100% tested: All motors are tested at the end of the line. An extremely effective seal check is also carried out on all motors.

Motor protection: Select thermal overloads according to DIN 61947-4-1

Required cooling flow: 0.16m/s

Max. starts/hr: 20

Installation: Vertical / Horizontal

Voltage tolerance 50Hz: +/- 10%

Rated ambient Temp: 4-30kW up to 30°C /
37-45kW up to 50°C



Options**Special** voltages on request**YΔ** – Start (Pos. of cables 90°)**45kN High Thrust Version** (standard in 37kW and 45kW motors)**Motors complete in A304 and A316 Stainless Steel****PT100** temperature sensor (Sold separately)**Special Lead** lengths up to 50m**Built-in** PTC temperature sensor**Built-in** Submonitor transmitter (Standard in 37kW and 45kW motors)**PERFORMANCE DATA ENCAPSULATED SUBMERSIBLE MOTORS 3x400V 50Hz**

CODE	STD	MODEL	P ₂		In (A)	Ia (A)	PF (Cos φ)	TENSION (V)	AXIAL THRUST (N)	MOTOR CABLE	
			Kw	HP						Type	Length (m)
3507630021	CAST IRON	2366109061 6" ENC. MOTOR (SAND FIGHTER)	4	5,5	9,3	43	0,82	3x400	15500	4G4mm ²	4
3507630022		2366119061 6" ENC. MOTOR (SAND FIGHTER)	5,5	7,5	12,5	64	0,82	3x400	15500	4G4mm ²	4
3507630023		2366129061 6" ENC. MOTOR (SAND FIGHTER)	7,5	10	16	83	0,86	3x400	15500	4G4mm ²	4
3507630024		2360019061 6" ENC. MOTOR (SAND FIGHTER)	9,3	12,5	20,7	112	0,80	3x400	15500	4G4mm ²	4
3507630025		2366139061 6" ENC. MOTOR (SAND FIGHTER)	11	15	23,3	129	0,85	3x400	15500	4G4mm ²	4
3507630026		2366149061 6" ENC. MOTOR (SAND FIGHTER)	15	20	31,3	169	0,85	3x400	15500	4G4mm ²	4
3507630027		2366159061 6" ENC. MOTOR (SAND FIGHTER)	18,5	25	38,5	231	0,85	3x400	15500	4G4mm ²	4
3507630028		2366169061 6" ENC. MOTOR (SAND FIGHTER)	22	30	45,3	268	0,86	3x400	15500	4G4mm ²	4
3507630029		2366179061 6" ENC. MOTOR (SAND FIGHTER)	30	40	63,5	393	0,84	3x400	27500	4G8,4mm ²	4
3507630030		2766186161 6" ENC. MOTOR (SAND FIGHTER)	37	50	77,9	411	0,85	3x400	45000	4G8,4mm ²	4
3507630031		2766196161 6" ENC. MOTOR (SAND FIGHTER)	45	60	93,9	509	0,84	3x400	45000	4G8,4mm ²	4

PERFORMANCE DATA ENCAPSULATED SUBMERSIBLE MOTORS 3x230/400V 50Hz

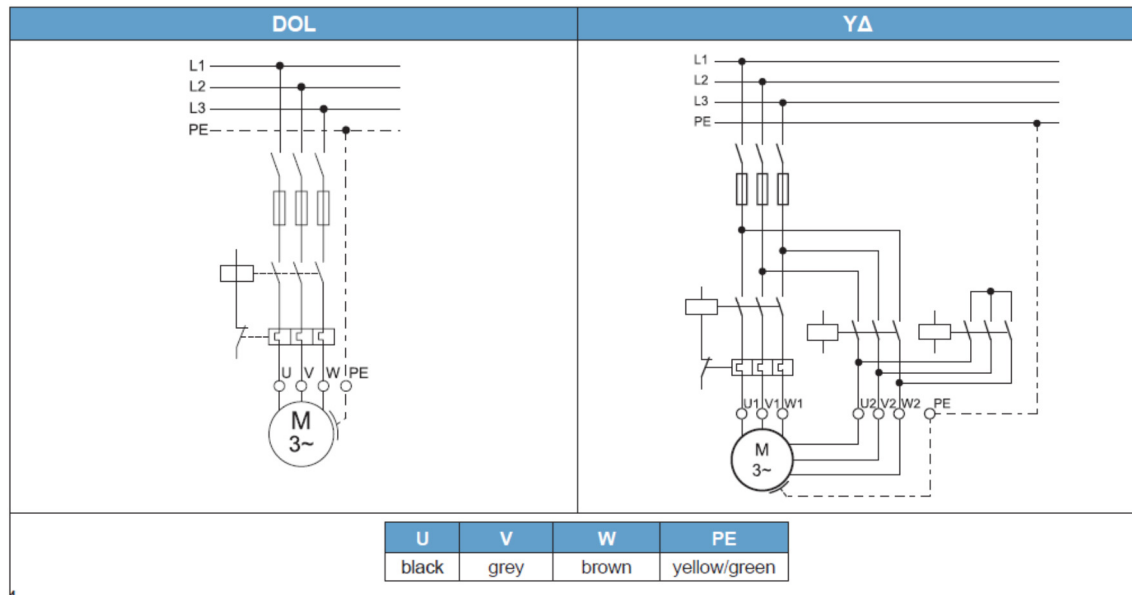
CODE	STD	MODEL	P ₂		In (A)	Ia (A)	PF (Cos φ)	TENSION (V)	AXIAL THRUST (N)	MOTOR CABLE	
			Kw	HP						Type	Length (m)
3507630067	CAST IRON	2366709061 6" ENC. MOTOR (SAND FIGHTER)	4	5,5	16,1/9,3	75/43	0,82	3x230/400	15500	2x4G4mm ²	4
3507630068		2366719061 6" ENC. MOTOR (SAND FIGHTER)	5,5	7,5	21,7/12,5	106/64	0,82	3x230/400	15500	2x4G4mm ²	4
3507630069		2366729061 6" ENC. MOTOR (SAND FIGHTER)	7,5	10	27,7/16	144/83	0,86	3x230/400	15500	2x4G4mm ²	4
3507630070		2360059061 6" ENC. MOTOR (SAND FIGHTER)	9,3	12,5	36/20,7	189/112	0,80	3x230/400	15500	2x4G4mm ²	4
3507630071		2366739061 6" ENC. MOTOR (SAND FIGHTER)	11	15	40,4/23,3	224/129	0,85	3x230/400	15500	2x4G4mm ²	4
3507630072		2366749061 6" ENC. MOTOR (SAND FIGHTER)	15	20	54,2/31,3	289/169	0,85	3x230/400	15500	2x4G4mm ²	4
3507630073		2366759061 6" ENC. MOTOR (SAND FIGHTER)	18,5	25	66,7/38,5	392/231	0,85	3x230/400	15500	2x4G4mm ²	4
3507630074		2366769061 6" ENC. MOTOR (SAND FIGHTER)	22	30	78,5/45,3	455/268	0,86	3x230/400	15500	2x4G4mm ²	4
3507630075		2366779061 6" ENC. MOTOR (SAND FIGHTER)	30	40	107/63,5	670/393	0,84	3x230/400	27500	2x4G8,4mm ²	4
3507630076		2366786061 6" ENC. MOTOR (SAND FIGHTER)	37	50	77,9	411	0,85	3x230/400	45000	2x4G8,4mm ²	4
3507630080		2766796061 6" ENC. MOTOR (SAND FIGHTER)	45	60	93,9	509	0,84	3x230/400	45000	2x4G8,4mm ²	4

PERFORMANCE DATA ENCAPSULATED SUBMERSIBLE MOTORS 3x400/690V 50Hz

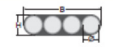
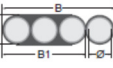
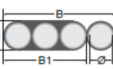
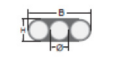
CODE	STD	MODEL	P ₂		In (A)	Ia (A)	PF (Cos φ)	TENSION (V)	AXIAL THRUST (N)	MOTOR CABLE	
			Kw	HP						Type	Length (m)
3507630044	CAST IRON	2367109061 6" ENC. MOTOR (SAND FIGHTER)	4	5,5	9,3	43	0,82	3x400/690	15500	2x4G4mm ²	4
3507630045		2367119061 6" ENC. MOTOR (SAND FIGHTER)	5,5	7,5	12,5	64	0,82	3x400/690	15500	2x4G4mm ²	4
3507630046		2367129061 6" ENC. MOTOR (SAND FIGHTER)	7,5	10	16	83	0,86	3x400/690	15500	2x4G4mm ²	4
3507630047		2360119061 6" ENC. MOTOR (SAND FIGHTER)	9,3	12,5	20,7	112	0,80	3x400/690	15500	2x4G4mm ²	4
3507630048		2367139061 6" ENC. MOTOR (SAND FIGHTER)	11	15	23,3	129	0,85	3x400/690	15500	2x4G4mm ²	4
3507630049		2367149061 6" ENC. MOTOR (SAND FIGHTER)	15	20	31,3	169	0,85	3x400/690	15500	2x4G4mm ²	4
3507630050		2367159061 6" ENC. MOTOR (SAND FIGHTER)	18,5	25	38,5	231	0,85	3x400/690	15500	2x4G4mm ²	4
3507630051		2367169061 6" ENC. MOTOR (SAND FIGHTER)	22	30	45,3	268	0,86	3x400/690	15500	2x4G4mm ²	4
3507630052		2367179061 6" ENC. MOTOR (SAND FIGHTER)	30	40	63,5	393	0,84	3x400/690	27500	2x4G4mm ²	4
3507630053		2767186161 6" ENC. MOTOR (SAND FIGHTER)	37	50	77,9	411	0,85	3x400/690	45000	2x4G8,4mm ²	4
3507630054		2767196161 6" ENC. MOTOR (SAND FIGHTER)	45	60	93,9	509	0,84	3x400/690	45000	2x4G8,4mm ²	4



ELECTRICAL CONNECTION



VDE / ACS / KTW APPROVED LEADS A304 / A316

DOL	Ø mm ²	Lenght [m]	St.#	Motor			B [mm] (± 0,3)	B1 [mm] (±0,3)	H [mm] (± 0,3)
				220V	380 - 415V	500V			
	4G4	4	1	4-11kW	4-22 kW	4-30 kW	19,0	-	7,0
	3X8,4+1G8,4	4	1	15-22 kW	30-45 kW		29,5	19,5	8,9
YΔ	Ø mm ²	Lenght [m]	St.#	Motor			B [mm] (± 0,3)	B1 [mm] (±0,3)	H [mm] (± 0,3)
				220V	380 - 415V	500V			
	4G4 (L=4m)	4	2	4-22kW	4-30 kW		19,0	-	7,0
		4	1	30-37kW	37-45 kW		29,5	19,5	8,9
	3X8,4		1				19,6	-	8,9

6" MOTOR DESIGN from 4 to 30 kW

CAST IRON



A304



A316



MATERIAL DIN / AISI			
PART	CAST IRON	A304	A316
Shell	1,4301	1,4301	1,4571
Upper end bell	Cast iron powder coated	1,4301	1,4408
Lower end bell	Cast iron	Cast iron	Cast iron
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	NBR	NBR	NBR
Shaft end	1,4305	1,4305	1,4462
Diaphragm	NBR	NBR	NBR
Lead	EPR	EPR	EPR

6" MOTOR DESIGN from 37 to 45 kW

CAST IRON



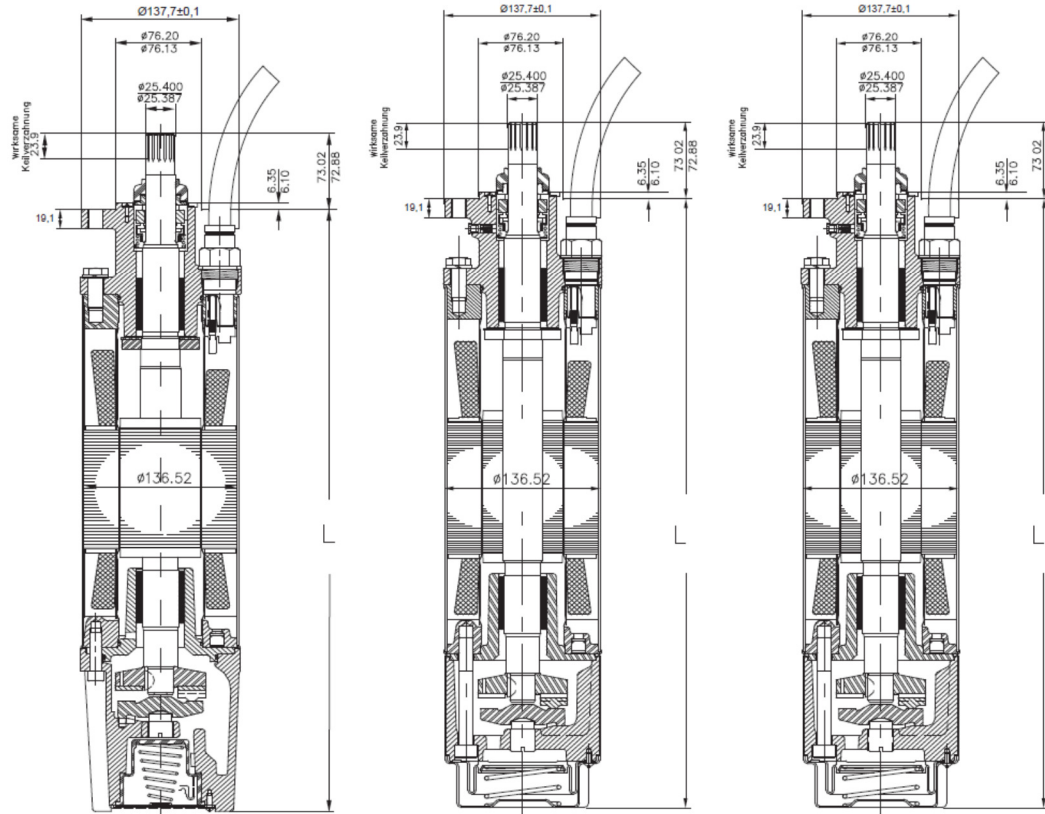
A316



MATERIAL DIN / AISI from 37kW to 45kW		
PART	CAST IRON	A316
Shell	1,4301	1,4571
Upper end bell	Cast iron powder coated	1,4408
Lower end bell	Cast iron	Cast iron
Thrust housing	Cast iron powder coated	1,4408
Mechanical seal	SIC / SIC	SIC / SIC
Seal cover	1,4301	1,4401
Slinger	FPM	FPM
Shaft end	1,4305	1,4542
Diaphragm	FPM	FPM
Lead	EPR	EPR
Jam Nut (Lead)	Brass	1,4401
Lead bushing	Rubber	Rubber

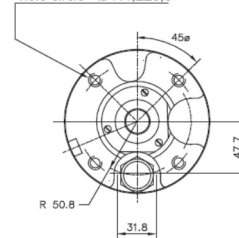
** Technical changes without notice **

6" MOTOR sizes from 4 to 30 kW



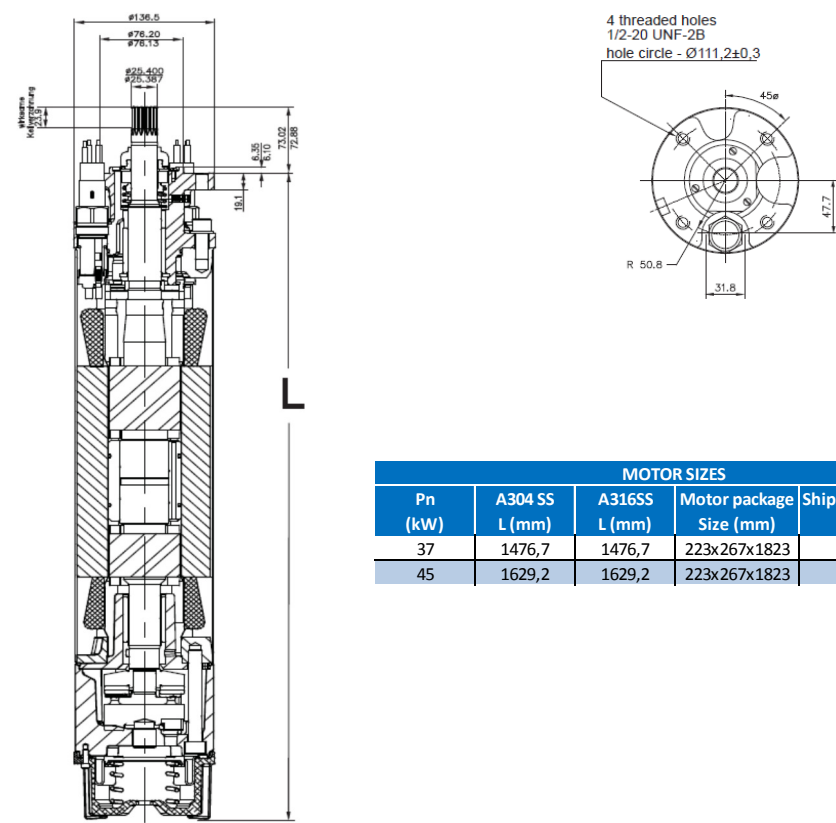
Pn (kW)	MOTOR SIZES					
	Cast Iron L (mm)	A304 SS L (mm)	A316SS L (mm)	Motor package Size (mm)	Shipping Weight (Kg)	
4	581,2	570,7	570,7	155x212x800	41,3	40,3
5,5	614,4	604,0	604,0	155x212x800	44,9	43,9
7,5	646,2	635,8	635,8	155x212x800	49,0	48,0
9,3	678,7	668,3	668,3	155x212x1070	51,3	50,3
11	711,2	700,8	700,8	155x212x1070	54,7	53,7
15	776,2	765,8	765,8	155x212x1070	60,5	59,5
18,5	841,5	831,1	831,1	155x212x1070	67,1	66,1
22	906,5	896,1	896,1	155x212x1070	73,1	72,1
30	1036,6	1026,2	1026,2	155x212x1200	87,7	87,7

4 threaded holes
1/2-20 UNF-2B
hole circle - Ø111.2±0.3



** Technical changes without notice **

6" MOTOR sizes from 37 to 45 kW



MOTOR SIZES				
Pn (kW)	A304 SS L (mm)	A316SS L (mm)	Motor package Size (mm)	Shipping Weight (Kg) DOL
37	1476,7	1476,7	223x267x1823	140,0
45	1629,2	1629,2	223x267x1823	156,0

** Technical changes without notice **