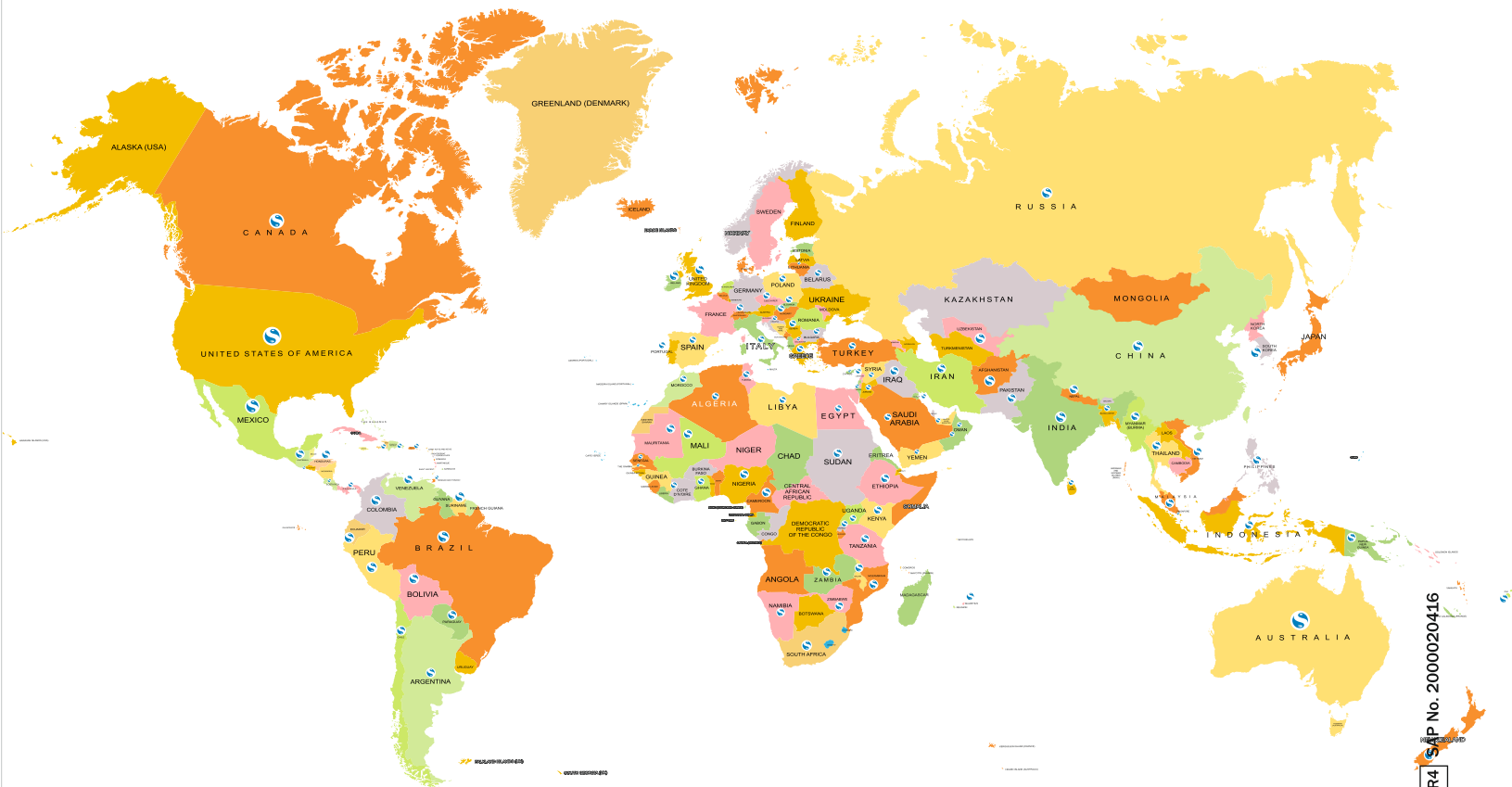


**SUBMERSIBLE MOTORS**  
**8 INCH PREMIUM MOTOR**  
PRODUCT INFORMATION & SERVICE MANUAL



**SHAKTI**

**THE POWER OF INNOVATION, EFFICIENCY & TECHNOLOGY.**



Oct./2023-24/L1/000 VC-000000 SAP No. 2000020416

**SHAKTI PUMPS (INDIA) LIMITED**

Plot No. 401, 402, & 413, Industrial Area, Sector - 3, Pithampur, Dist. Dhar - 454774 (M.P.) India  
Fax: +91-7292 410645, E-mail: info@shaktipumps.com, Visit us at : www.shaktipumps.com

CONTENT

GENERAL DATA.....	01
PRODUCT ADVANTAGES.....	01
TECHNICAL SPECIFICATION.....	01
MOTOR MOC DIAGRAM.....	01
8 “ ENCAPSULATED MOC (30KW TO 75 KW).....	02
MOTOR PERFORMANCE DATA NG PREMIUM.....	02
ENCAPSULATED MOTORS – MODEL NUMBERS 50/60 HZ.....	02
MOTOR PERFORMANCE DATA NG PREMIUM.....	03
8" ENCAPSULATED MOTORS- PERFORMANCE DATA 50HZ.....	03
MOTOR PERFORMANCE DATA NG PREMIUM.....	03
8” ENCAPSULATED MOTORS PERFORMANCE DATA 60 HZ.....	03
8 INCH NG PREMIUM MOTOR LEAD.....	04
EXPLODED VIEW NG PREMIUM.....	04
MOTOR SECTIONAL VIEW NG PREMIUM.....	05
PART LIST NG PREMIUM.....	06
STATOR AND ROTOR SPARE PARTS NUMBERS.....	07
REPLACEMENT ROTOR ASSEMBLY.....	07
REPLACEMENT STATOR ASSEMBLY.....	07
MOTOR OUTLINE DIAGRAM.....	07

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

8" ENCAPSULATED NG PREMIUM

GENERAL DATA

These 200 mm encapsulated motors, manufactured in ISO 9001:2015 & ISO 14001:2015 certified facilities.

Applications

The motor is built for dependable operation in 200 mm 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 a special, providing frost protection down to -15 °C storage temperature.

PRODUCT ADVANTAGES

- Hermetically sealed stator, anti track, self healing stator resin prevents motor burn out.
- Motor with SIC Mechanical seal and sand slinger.
- Water lubricated radial and thrust bearing.
- Removable "water shield" lead connector.
- Cable material according to drinking water regulations.
- Max storage temperature -15 °C to +60 °C
- High efficiency electrical design for low cost operation.
- All motor pre-filled and 100% tested.
- Non contaminating, water-filled design.

TECHNICAL SPECIFICATION

- Power range: 30-75 kW
- Flange: 200 mm NEMA flange
- Protection Ip68
- Starts per hour: 10
- Installation: vertical/horizontal\*
- Standard Voltage: 380-415V/50 Hz, 460/60 Hz
- Insulation: Class F
- Rated ambient temperature: 30 °C
- Cooling flow: Min 0.2 m/sec.

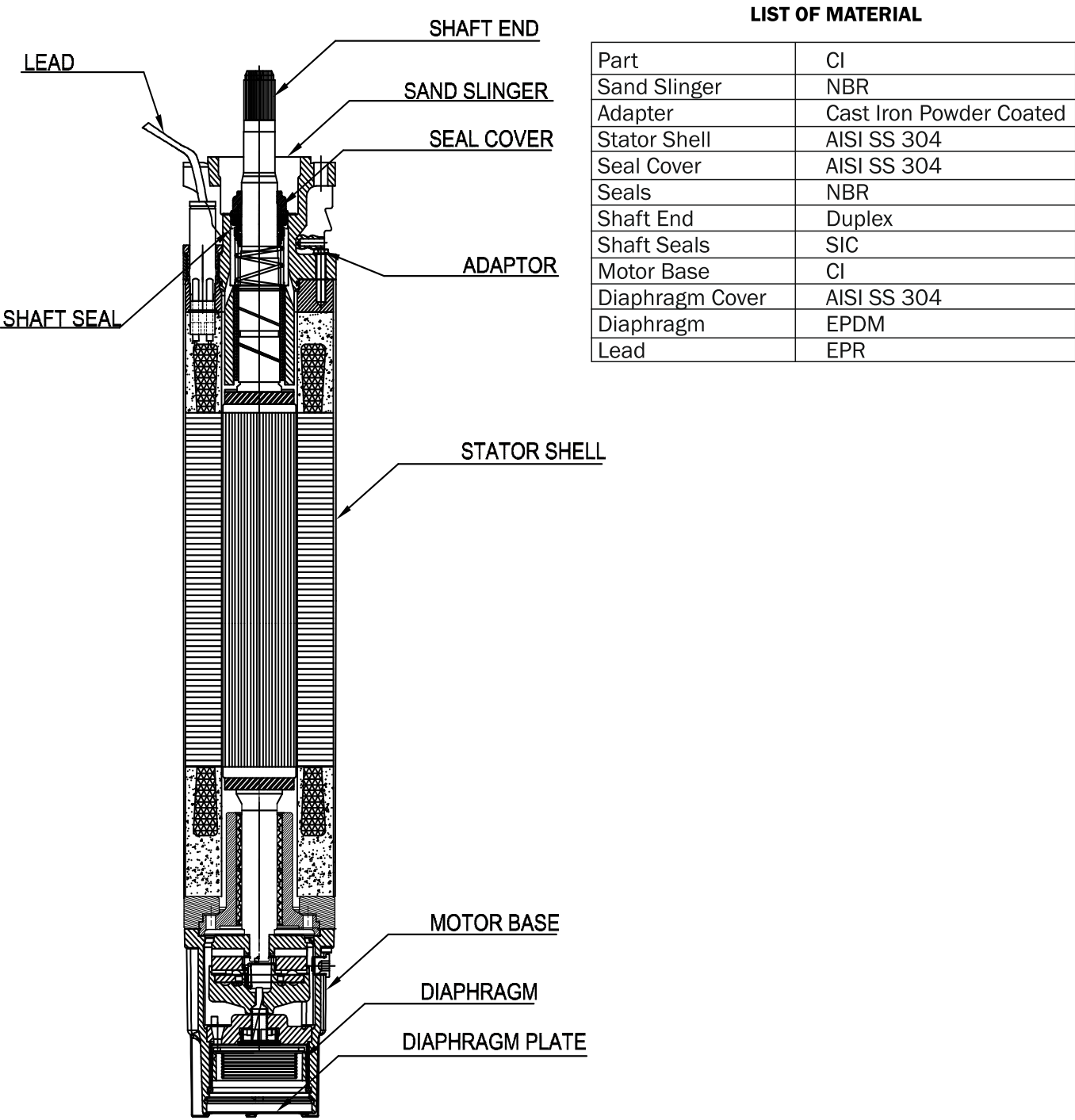
\* For horizontal Installation angle please contact to Shakti sales & service team

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

MOTOR MOC DIAGRAM

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

8" Encapsulated MOC (30 kW To 75 kW)



SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

MODEL NUMBERS

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

Encapsulated Motors - Model Numbers 50 / 60Hz

[HP]	[KW]	[V/Hz]	CONNECTION SINGLE CABLE
			SS
40	30	380/400/415 50 Hz	9000010160
		460 60 Hz	
50	37	380/400/415 50 Hz	9000010161
		460 60 Hz	
60	45	380/400/415 50 Hz	9000010162
		460 60 Hz	
75	55	380/400/415 50 Hz	9000010163
		460 60 Hz	
100	75	380/400/415 50 Hz	9000010164
		460 60 Hz	

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

MOTOR PERFORMANCE DATA

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

8” Encapsulated Motors Performance Data 50 Hz

8" ENCAPSULATED MOTORS- PERFORMANCE DATA 50Hz

MATERIAL CODE	P <sub>N</sub>	Thrust	U <sub>N</sub>	η <sub>N</sub>	I <sub>N</sub>	I <sub>A</sub>	EFFICIENCY[ %]			POWER FACTOR [%]			T <sub>N</sub>	T <sub>A</sub>
	[kW]	F[N]	[V]	[min <sup>-1</sup> ]	[A]	[A]	50	75	100	50	75	100	[Nm]	[Nm]
9000010160	30	45000	380	2855	62.3	405	82	84	84	0.88	0.88	0.88	100	250
			400	2868	61.3	411	81	83	84	0.84	0.86	0.86	100	260
			415	2877	61.4	424	80	83	84	0.82	0.83	0.83	100	268
9000010161	37	45000	380	2873	74.1	496	82	84	85	0.86	0.88	0.89	123	283
			400	2888	73.1	504	81	84	85	0.86	0.86	0.86	122	305
			415	2893	72.4	521	81	84	85	0.84	0.85	0.85	122	323
9000010162	45	45000	380	2863	87.8	606	84	86	86	0.89	0.90	0.90	150	375
			400	2877	86.0	619	83	85	86	0.89	0.89	0.89	149	402
			415	2879	85.8	644	83	85	86	0.86	0.86	0.86	149	432
9000010163	55	45000	380	2920	115	851	80	83	85	0.86	0.86	0.85	180	450
			400	2932	116	882	79	82	84	0.82	0.82	0.82	179	483
			415	2936	120.0	924	78	82	84	0.77	0.77	0.77	179	510
9000010164	75	45000	380	2900	149.0	1118	83	86	86	0.89	0.89	0.89	247	642
			400	2904	146	1124	82	85	86	0.86	0.87	0.87	247	692
			415	2920	145	1146	82	84	86	0.85	0.85	0.85	245	735

8” Encapsulated Motors Performance Data 60 Hz

8" ENCAPSULATED MOTORS- PERFORMANCE DATA 60Hz

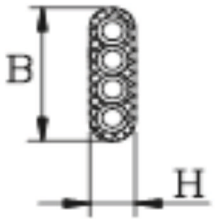
MATERIAL CODE	P <sub>N</sub>	P <sub>max</sub>	Thrust	U <sub>N</sub>	N <sub>max</sub>	I <sub>max</sub>	I <sub>max</sub>	EFFICIENCY[ %] at 100% load			POWER FACTOR [%] at 100% load			T <sub>N</sub>	T <sub>A</sub>
	[kW]	[kW]	F[N]	[V]	[min <sup>-1</sup> ]	[A]	[A]	50	75	100	50	75	100	[Nm]	[Nm]
9000010160	30	34.5	45000	460	3480	62.7	470	79	82	83	0.84	0.84	0.84	95	237
9000010161	37	42.6	45000	460	3490	74.2	594	84	86	87	0.83	0.82	0.83	116	291
9000010162	45	51.8	45000	460	3472	88	748	82	85	87	0.86	0.86	0.86	142	356
9000010163	55	63.3	45000	460	3520	114	855	76	80	83	0.79	0.80	0.80	172	429
9000010164	75	86.3	45000	460	3500	149	1177	81	84	85	0.86	0.86	0.86	235	588

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

MOTOR LEAD

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

8" Encapsulated Motors - Motor Lead

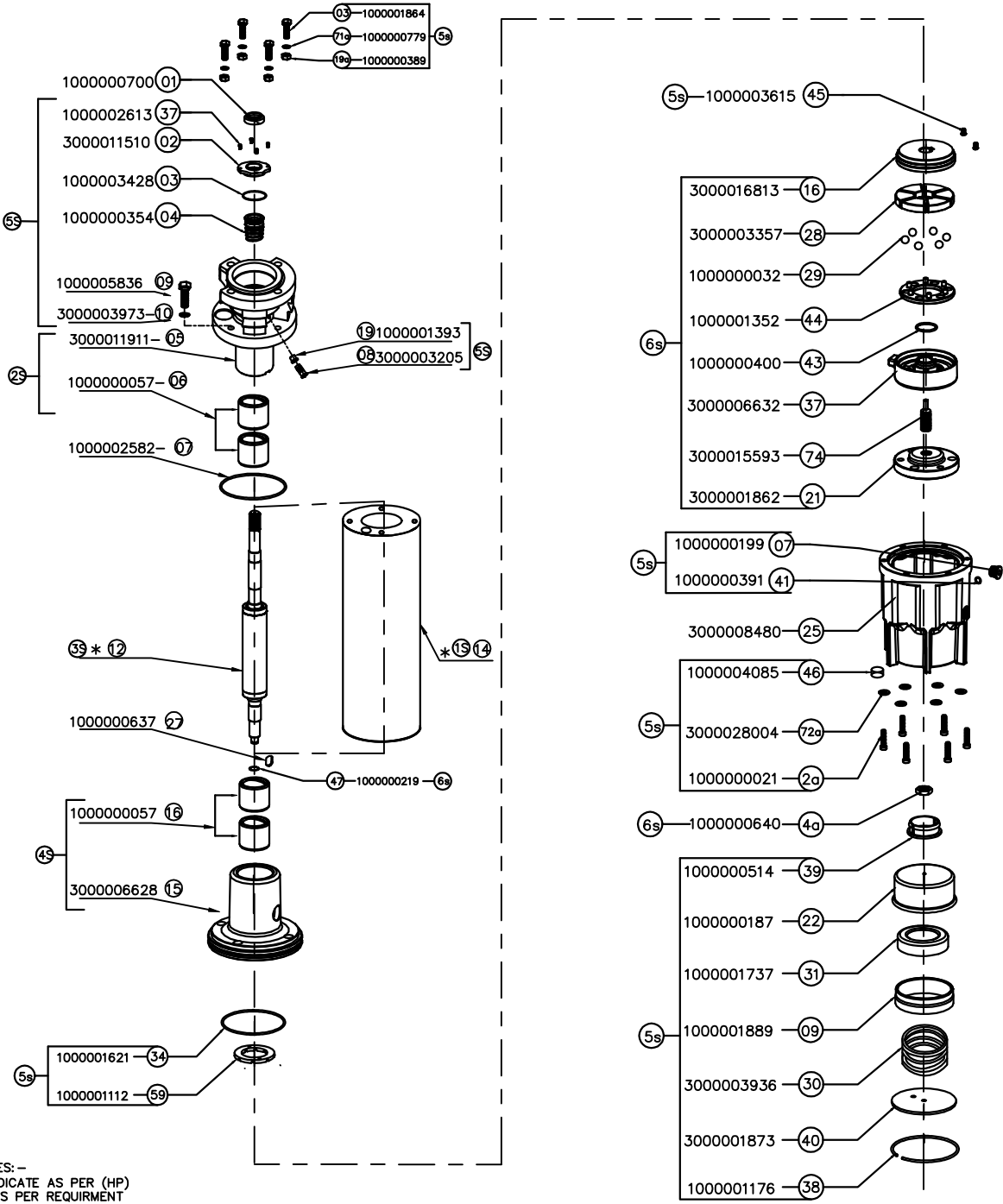
LEAD	[kW]	[HP]	Ø[mm²]	WXH[mm]	L[m]	QTY.
	30	40	1x4x10	30x10	6	1
	37	50	1x4x10	30x10		
	45	60	1x4x10	30x10		
	55	75	1x4x25	38x12		
	75	100	1x4x25	37.5x16		

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

MOTOR EXPLODED VIEW

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

Exploded View (30kW - 75kW)



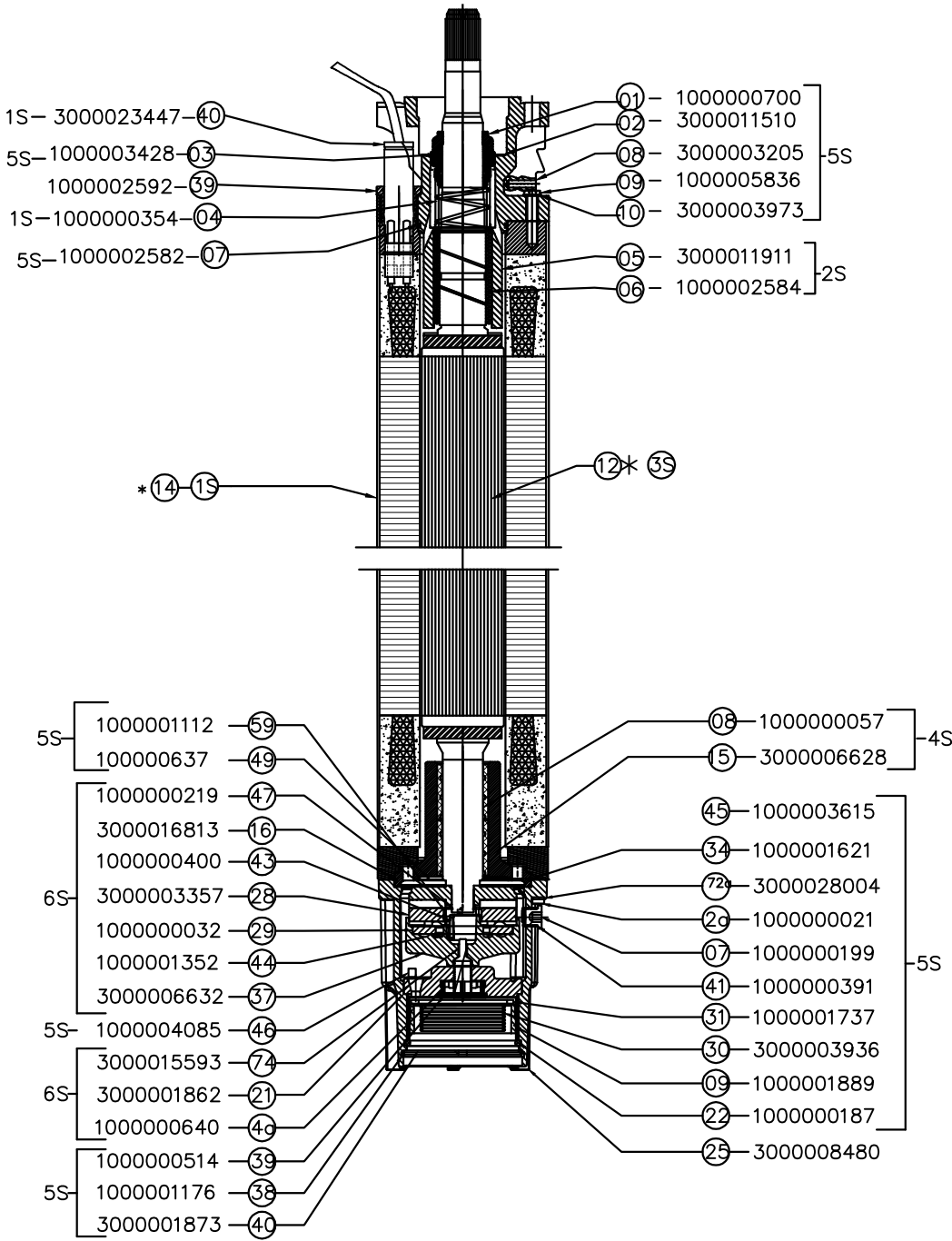


SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

SECTIONAL VIEW

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

Sectional View (30kW - 75kW)



NOTE:- \* INDICATES AS PER (HP)

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

PART LIST

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

Part List

GROUP	POS	MATERIAL CODE	PART DESCRIPTION	QTY	MATERIAL
5S	01	1000000700	SAND SLINGER	1	NBR
	02	3000011510	DUST COVER	1	CI FG -260
	03	1000003428	O-RING (Ø64.5X2.5)	1	NBR
	04	1000000354	MECHANICAL SEAL	1	N/A
	37	1000002613	ALLEN BOLT M8X10	3	SS AISI-304
	09	1000005836	HEX BOLT M12x55	4	SS AISI-304
	10	3000003973	PLANE WASHER M12	4	SS AISI-304
	19	1000001393	FILTER ASSY	2	PP
	08	3000003205	PRESSURE RELIEF VALVE ASSY	2	NA
2S	05	3000011911	END BELL UPPER (PRE-200)	1	CI FG 260
	06	1000000057	BUSH CARBON	2	METAL IMPREGATED CARBON
5S	07	1000002582	O-RING	1	EPDM
3S	12	*	ROTOR SUB ASSLY	1	N/A
5S	49	1000000637	S.S. KEY(8X7X14)	1	SS AISI 304
6S	47	1000000219	EXT.CIRCLIP	1	SS AISI-304
5S	45	1000003615	COUNTER SHANK SCREW	2	SS AISI-304
1S	27	**	CABLE	1	RUBBER
	14	*3000018998	STATOR SUB ASSLY	1	N/A
4S	08	1000000057	BUSH CARBON	2	RESIN IMPREGNATED CARBON
	15	3000006628	BRG BODY LOWER	1	CI FG-260
5S	34	1000001621	O-RING	1	NBR
	59	1000001112	UPTHRUST BEARING	1	PPS
6S	16	3000016813	REVOLVING PLATE ASSLY	1	N/A
	28	3000003357	THRUST BER SEGMENT	6	SS AISI-420
	29	1000000032	BALL 15	6	SS AISI-304
	44	1000001352	THRUST BALL RETAINER	1	LTB-2
	43	1000000400	O-RING	1	NBR
	37	3000006632	BRG SEG .CARRIER	1	CI FG-260
	74	3000015593	GRUB SCREW	1	SS AISI-304
	21	3000001862	THRUST SUPPORT	1	CI FG-260
	25	3000008480	MOTOR BASE	1	CI FG-260
5S	7	1000000199	DRAIN PLUG	1	BRASS
	41	1000000391	O-RING 10X2.1MM	1	NBR
5S	46	1000004085	MAGNET	1	MAGNET
	72-a	3000028004	SS WASHER (8X12X1)	6	SS AISI-304
	2a	1000000021	ALLEN BOLT M8X40	6	SS AISI-304
6S	4a	1000000640	SS LOCK NUT	1	SS AISI-420
5S	39	1000000514	PROTECTION PLUG	1	PP/PLASTIC
	22	1000000187	DIAPHRAM	1	EPDM
	31	1000001737	SPRING BASE CUP	1	ABS
	9	1000001889	SUPPORTING RING	1	PP/PLASTIC
	30	3000003936	SPRING DIAPHRAM	1	SS AISI-304
	40	3000001873	COVER PLATE	1	SS AISI-304
	38	1000001176	WIRE CIRCLIP	1	SS AISI-304

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

STATOR AND ROTOR SPARE PARTS NUMBERS

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

Replacement Rotor Assembly

POS	P <sub>N</sub>	P <sub>N</sub>	MODEL NO
	[HP]	[kW]	
12.01	40	30	3000023444
12.02	50	37	3000023450
12.03	60	45	3000023451
12.04	75	55	3000023452
12.05	100	75	3000023453

Replacement Stator Assembly

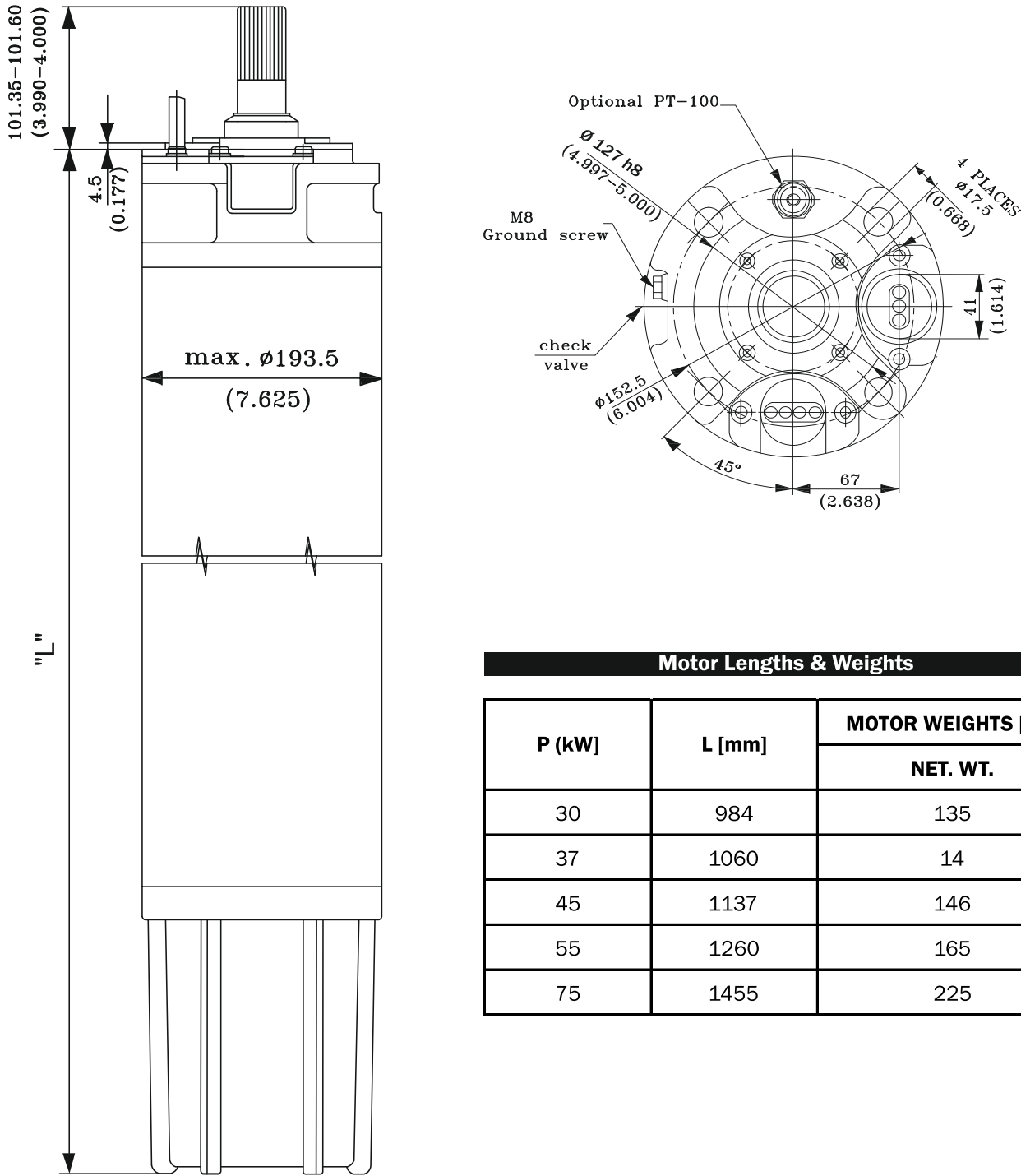
POS	P <sub>N</sub> [HP]	P <sub>N</sub> [kW]	MODEL NO
14.01	40	30	3000023443
14.02	50	37	3000023454
14.03	60	45	3000023456
14.04	75	55	3000023457
14.05	100	75	3000023458

SHAKTI 8" ENCAPSULATED NG PREMIUM MOTOR

STATOR AND ROTOR SPARE PARTS NUMBERS

SUBMERSIBLE MOTORS			
Material	CI FG 260	Rating	30 kW-75 kW / 40HP-100 HP
Type	Encapsulated	Thrust Rating	45000 N

Outline drawings



Motor Lengths & Weights

P (kW)	L [mm]	MOTOR WEIGHTS [KG]
		NET. WT.
30	984	135
37	1060	14
45	1137	146
55	1260	165
75	1455	225