

# KLEEdrive

## TSSN series

KLEEdrive TSSN motors in stainless steel AISI 316L for food processing, pharmaceutical industries and other applications requiring extreme cleaning and frequent washing.

Find more information at [www.klee.dk](http://www.klee.dk) regarding our selection of Hygienic Motors in stainless steel and other KLEEdrive AC motors.

# KLEEdrive TSSN motors

The motors in stainless steel can withstand operating conditions which normally damage other types of motors. Unlike the standard motors the TSSN range does not have cooling wings. The surface is completely corrosion-resistant and without paint. The marking is engraved in the outer back cover to reduce areas where bacteria can form.

## Design

When processing machinery is being washed down motors and mechanical parts are often exposed to high pressure water jets, high temperatures and aggressive detergents.

The entire design of the motor is made to withstand the above and the motor can be used in food and

pharmaceutical production processes where it is essential to ensure maximum hygiene.

The above elements guarantee excellent corrosion resistance, reliability and maximum hygiene.

## Data

- 0.12 to 1.5 kW - 4 poles
- Size IEC 63 to 90 in B5 and B14
- 3x230/400V/50Hz
- Protection grade IP69K
- Insulation class F/IC410/SERVICE S1
- Stainless steel 316L
- Efficiency class IE3

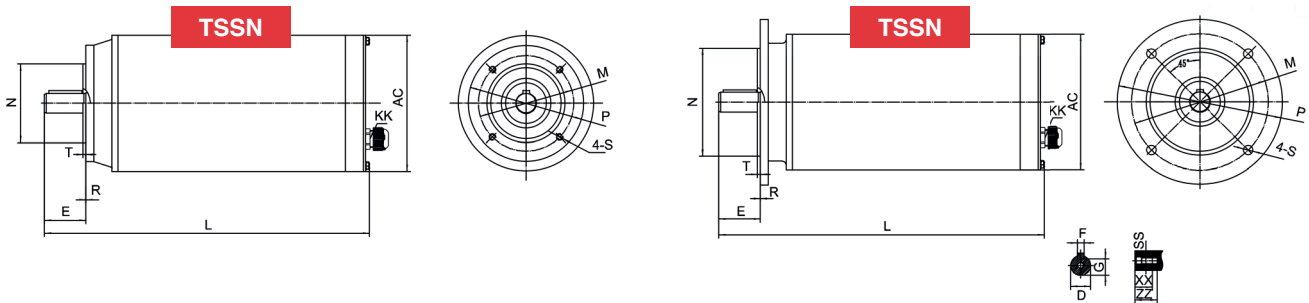


### Characteristics

- All external components made of stainless steel AISI 316L
- Motor shaft in stainless steel AISI 420 with magnetic properties
- Screws in AISI 316L
- No paint in order to avoid eventual paint cracks
- All surfaces are smooth and clean
- Tubular casing without welding, back connection box

- Stator and rotor coated with antioxidant paint
- Sealing ring and O-Rings in Viton(R) guarantee a degree of protection IP69K
- The motors have IP69K certification according to DIN 40050/IEC60529 which means they can withstand high pressure washing and steam cleaning up to 80-100 bar with water temperature of 80°C

- With completely closed non-ventilated (IC410) and completely smooth surface
- The motors are suitable for inverter operation with constant torque.



### Installation Dimensions

Frame	Shaft							B5					B14					General						
	D	E	F	G	SS	XX	ZZ	N	M	P	S	T	R	N	M	P	S	T	R	Bearing DE	Bearing NDE	KK	AC	L
63A/63B	Ø11	23	4	8.5	M4	10	14	Ø95	Ø115	Ø140	Ø10	3	0	Ø60	Ø75	Ø90	M5	2.5	0	6202	6202	M16x1.5	Ø134	229/244
71A/71B	Ø14	30	5	11	M5	12	17	Ø110	Ø130	Ø160	Ø10	3.5	0	Ø70	Ø85	Ø105	M6	2.5	0	6202	6202	M20x1.5	Ø134	266/286
80A/80B	Ø19	40	6	15.5	M6	16	21	Ø130	Ø165	Ø200	Ø12	3.5	0	Ø80	Ø100	Ø120	M6	3	0	6205	6203	M20x1.5	Ø164	280/305
90S/90L	Ø24	50	8	20	M8	19	25	Ø130	Ø165	Ø200	Ø12	3.5	0	Ø95	Ø115	Ø140	M8	3	0	6205	6203	M20x1.5	Ø164	345/390

### Technical Data (50Hz)

Model	Power [kW]	Current [A] 400V	Speed [rpm]	Eff. 100%	Eff. 75%	Eff. 50%	Power factor c <sub>ps</sub>	T <sub>st</sub> /T <sub>n</sub> (Times)	T <sub>max</sub> /T <sub>n</sub> (Times)	T <sub>min</sub> /T <sub>n</sub> (Times)	I <sub>st</sub> /I <sub>n</sub> (Times)	T <sub>n</sub> n.m	Moment of inertia (kg*m <sup>2</sup> )
TSSN63A-4	0.12	0.37	1430	72.0	70.0	66.0	0.65	2.8	3.0	2.5	6.5	0.80	0.00110
TSSN63B-4	0.18	0.52	1430	75.0	73.5	70.0	0.67	2.8	3.0	2.5	6.5	1.20	0.00150
TSSN71A-4	0.25	0.68	1430	77.0	76.0	73.0	0.69	2.8	3.0	2.5	6.5	1.67	0.00180
TSSN71B-4	0.37	0.94	1430	79.0	78.5	75.5	0.71	2.8	3.0	2.5	6.5	2.47	0.00230
TSSN80A-4	0.55	1.36	1450	81.0	80.5	79.0	0.72	3.3	3.6	3.0	8	3.62	0.00410
TSSN80B-4	0.75	1.77	1450	82.5	82.0	80.0	0.74	3.3	3.6	3.0	8	4.94	0.00530
TSSN90S-4	1.1	2.48	1450	84.1	84.1	82.5	0.76	3.3	3.6	3.0	8	7.24	0.00750
TSSN90L-4	1.5	3.25	1450	85.3	85.3	84.0	0.78	3.3	3.6	3.0	8.5	9.88	0.01000



See more at [www.klee.dk](http://www.klee.dk)

**Brd. Klee A/S**

Gadagervej 11  
2620 Albertslund  
Tel 43 86 83 33  
Fax 43 86 83 88  
[klee@klee.dk](mailto:klee@klee.dk)  
[www.klee.dk](http://www.klee.dk)