



PERIPHERAL CIRCULATORY PUMPS **TEP/ TSP - SERIES** **50Hz**





# I N D E X

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## G E N E R A L D A T A

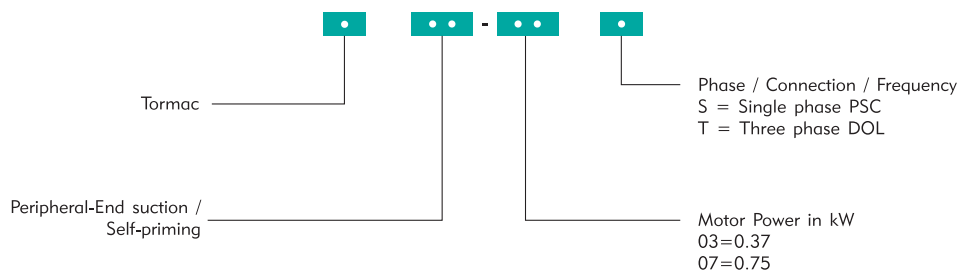
### PERIPHERAL CIRCULATORY PUMPS > TEP/TSP - SERIES

#### Liquids Pumped

Non-aggressive, Non explosive, Pure, Cold, Fresh water without abrasive particles having the following characteristics.

l) pH	6.5 to 8.5
h) Turbidity	50 ppm silica scale (max.)
g) Viscosity	$1.75 \times 10^6 \text{ m}^2/\text{sec}$ (max.)
f) Hardness (Drinking Water)	300 (max.)
e) Specific gravity	1.004 (max.)
d) Allowable solids	3000 ppm (max.)
b) Chlorine ion density	500 ppm (max.)
a) Temperature	91.4° F (max.)

#### Model Designation > PERIPHERAL CIRCULATORY PUMPS



## PERIPHERAL CIRCULATORY PUMPS > TEP/TSP - SERIES

These pump are manufactured using state-of-art machinery in a production environment accredited with ISO 9001 certification.

The impeccable and ergonomic design of pump and motor portions are coupled with quality materials of construction not only to ensure its trouble free operation and longevity but also enable optimum performance in hydraulic efficiency.

### Technical data

1 Phase : 220 / 240V, 50Hz, 2900 rpm (PSC)
3 Phase : 380 / 415V, 50Hz, 2900 rpm (DOL)
All 1 Phase models are fitted with Thermal Overload Protector (TOP)
'F' Class Insulation with IP 54 Protection S1 Continuous Duty

### Performance & Specifications

Maximum Operating Pressure	5 bar
Maximum Liquid Temperature	+50°C
Maximum Ambient Temperature	+40°C
TEP series are end suction and radial delivery	
TSP Series are radial suction and delivery	

### Applications

Domestic water supply

Lawn sprinklers

Automobile washing

Pressure Boosting in various fields

Watering gardens

### Structural Characteristics

Cast iron Pump Casing

Aluminium Motor Frame

Brass Impeller

Brass Volute Insert

Stainless Steel Shaft

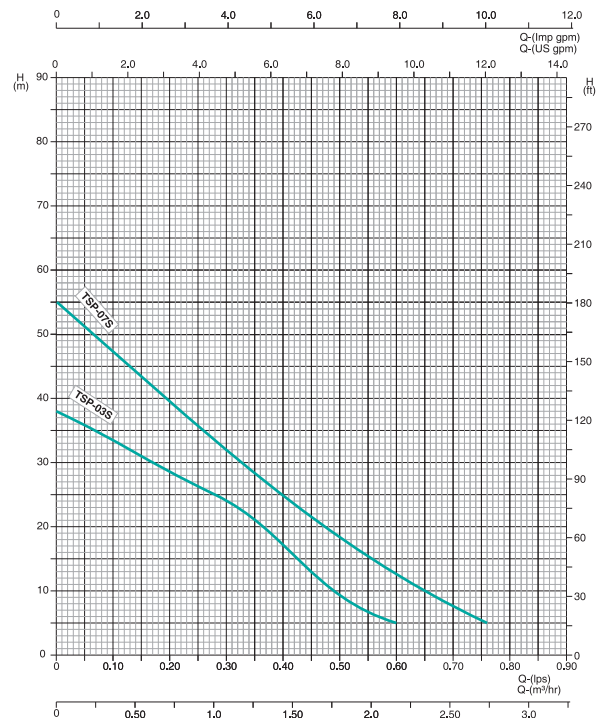
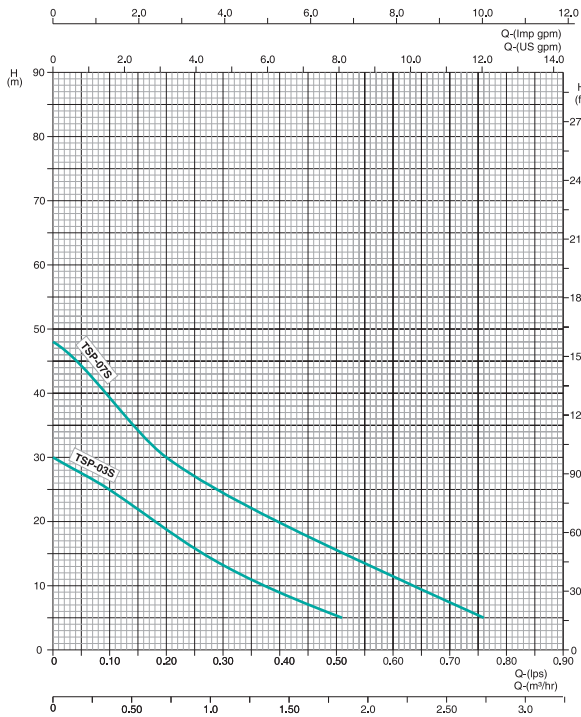
Carbon / Ceramic Mechanical seal

Double Sealed Precision Ball Bearing

## TEP/TSP - SERIES > Performance Data

Pump Model	Motor Power		Type	Nominal Pump Size in Inches Inlet x Outlet	Suction Lift in m	Total Head in Metres										
	kW	HP				5	10	15	20	25	30	35	40	45	50	55
						Discharge in lps										
TEP-03S	0.37	0.5	END SUCTION	1 x 1	8	0.51	0.38	0.26	0.18	0.10	0					
TEP-07S	0.75	1.0	END SUCTION	1 x 1	8	0.76	0.62	0.50	0.41	0.30	0.20	0.15	0.10	0.05	0 (48m)	
TSP-03S	0.37	0.5	SELF PRIMING	1 x 1	8	0.60	0.49	0.43	0.37	0.28	0.17	0.07	0 (38m)			
TSP-07S	0.75	1.0	SELF PRIMING	1 x 1	8	0.76	0.64	0.56	0.48	0.40	0.33	0.25	0.19	0.13	0.07	0

## TEP/TSP - SERIES > Performance Curve

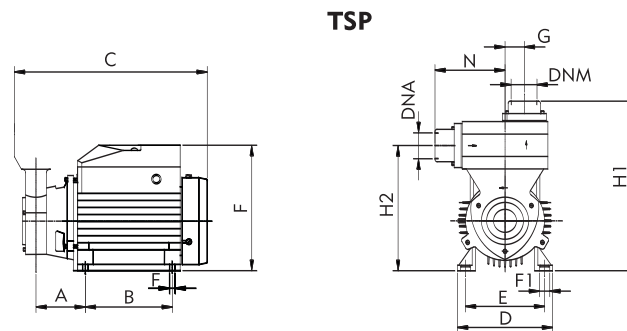
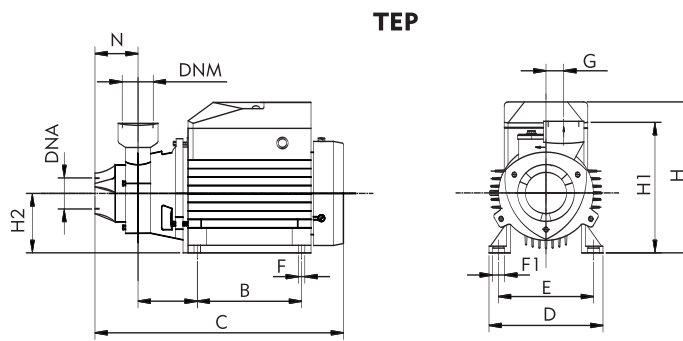


The above given performance curves are common for both single phase & three phase, the alphabetical letter of the model identification 'S' denotes single phase & will be replaced with 'T' in case of three phase pumps.



## TEP/TSP - SERIES Nett Weight & Dimensions

Pump Model	Motor Power		Dimensions in (mm)														Approx. Nett weight in kg
	kW	HP	A	B	C	D	E	F	F1	G	H	H1	H2	N	DNA	DNM	
TEP-03S	0.37	0.5	68.5	80	259	121	100	7.7	10.5	22	158	138	62	47	1"	1"	5.60
TEP-07S	0.75	1.0	85	99.5	310	136	112	8.0	8.0	26	198	161	71	58	1"	1"	6.60
TSP-03S	0.37	0.5	64	80	244	121	100	7.7	10.5	31	158	225	160	120	1"	1"	8.00
TSP-07S	0.75	1.0	87	99.5	297	136	112	8.0	8.0	38	198	237	153	144	1"	1"	9.25



Note : The company reserves the right to modify the technical specifications and the illustrations without notice.



## GENERAL DATA

### CONVERSION CHART

#### Flow Rate

Litre per second l/s	Litre per minute l/min	Cubic meter per hour m <sup>3</sup> /h	Cubic foot per hour ft <sup>3</sup> /h	Cubic foot per minute ft <sup>3</sup> /m	Imp.Gallon per minute Imp. gal/min	US Gallon per minute Us gal./min	Barrel per day
1	60	3.6	127.133	2.1189	13.2	15.85	543.439
0.017	1	0.06	2.1189	0.0353	0.22	0.264	9.057
0.278	16.667	1	35.3147	0.5886	3.666	4.403	150.955
0.008	0.472	0.0283	1	0.0167	0.104	0.125	4.275
0.472	28.317	1.6990	60	1	6.229	7.480	256.475
0.076	4.526	0.2728	9.6326	0.105	1	1.201	41.175
0.063	3.785	0.2271	8.0209	0.1337	0.833	1	34.286
0.002	0.110	0.0066	0.2339	0.0039	0.024	0.029	1

#### Liquid

Cubic meter m <sup>3</sup>	litre l	Millilitre ml	Imp. gallon Imp. Gal	US gallon US Gal	Cubic foot ft <sup>3</sup>
1	1000	1 X 10 <sup>6</sup>	220	264.2	35.3147
0.001	1	1000	0.22	0.2642	0.0353
1 X 10 <sup>-6</sup>	0.001	1	2.2 X 10 <sup>-4</sup>	2.642 X 10 <sup>-4</sup>	3.53 X 10 <sup>-5</sup>
0.00455	4.546	4546	1	1.201	0.1605
0.00378	3.785	3785	0.8327	1	0.1337
0.0283	27.317	28.317	6.2288	7.4805	1

#### Liquid Head and Pressure

Newton per square meter N/m <sup>2</sup> (Pa)	kilo pascal kPa	bar bar	kilogram force per square centimeter Kgf/cm <sup>2</sup>	pound force per square inch psl	Foot for water ft H <sub>2</sub> O	meter of water m H <sub>2</sub> O	millimeter of mercury mm Hg	Inch of mercury in Hg
1	0.001	1 X 10 <sup>-5</sup>	1.02 X 10 <sup>-5</sup>	1.45 x 10 <sup>-4</sup>	3.35 x 10 <sup>-4</sup>	1.02 x 10 <sup>-4</sup>	0.0075	2.95 x 10 <sup>-4</sup>
1000	1	0.01	0.0102	0.145	0.335	0.102	7	0.295
1 X 10 <sup>5</sup>	100	1	1.02	14.5	33.52	10.02	750.1	29.53
98,067	98.07	0.981	1	14.22	32.52	10	735.6	28.96
6895	6.895	0.069	0.0703	1	2.31	0.703	51.72	0.036
2984	2.984	0.03	0.0305	0.433	1	0.305	22.42	0.882
9789	9.789	0.098	0.1	1.42	3.28	1	73.42	0.891
133.3	0.133	0.0013	0.0014	0.019	0.045	0.014	1	0.039
3386	3.386	0.0338	0.0345	0.491	1.133	0.0345	25.4	1

# GENERAL DATA

## CONVERSION CHART

### Length

Millimeter mm	Centimeter cm	Meter m	Inch in	Feet ft	Yard yd
1	0.1	0.001	0.0394	0.0033	0.0011
10	1	0.01	0.3937	0.0328	0.0109
1000	100	1	39.3701	3.2808	1.0936
25.4	2.54	0.0254	1	0.0833	0.0278
304.8	30.48	0.3048	12	1	0.3333
914.4	91.44	0.9144	36	3	1

1 Kilometer = 1000 metres = 0.62137 miles 1 mile = 1609.37 metres = 1.60934 kilometres

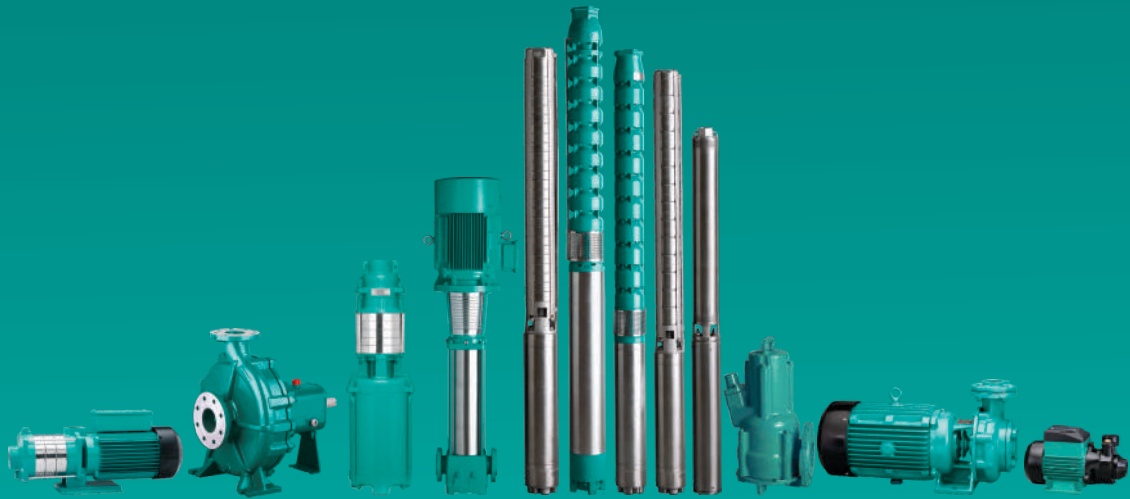
### Mass

Kilogram kg	Pound lb	Hundred weight (cwt)	tonne t	ton long tn	short ton sh tn
1	2.205	0.0197	0.001	$9.84 \times 10^{-4}$	0.0011
0.454	1	0.0089	$4.54 \times 10^{-4}$	$4.46 \times 10^{-4}$	$5.0 \times 10^{-4}$
50.802	112	1	0.0508	0.05	0.056
1000	2204.6	19.684	1	0.9842	1.1023
1016	2240	20	1.0161	1	1.102
907.2	2000	17.857	0.9072	0.8929	1

### Temperature

From	TO	Use formula
Temperature Celsius, tc	Temperature Kelvin, tk	$K = tc + 273.15$
Temperature Fahrenheit, tf	Temperature Kelvin, tk	$K = (tf + 459.67 / 1.8)$
Temperature Celsius, tc	Temperature Fahrenheit, tf	$F = 1.8 tc + 32$
Temperature Fahrenheit, tf	Temperature Celsius, tc	$C = (tf - 32) / 1.8$
Temperature Kelvin, tk	Temperature Celsius, tc	$C = tk - 273.15$
Temperature Kelvin, tk	Temperature Fahrenheit, tf	$F = 1.8tk - 459.67$





## T H E P O W E R B E H I N D T H E F O R C E

Naargo Industries Private Limited, one of the leading manufacturers of latest state of art, large range of pumps and motors, is managed by veterans who are in the pump industry for almost half a century. The products are employed in various applications like irrigation, domestic, civil construction, de-watering etc; The Company has a strong distribution network in India for sales & service and a strong global presence.

Quality is the key factor in Naargo's products. The expansive infrastructure and environment accredited with ISO 9001 quality certification, latest engineering softwares, high-tech machinery, futuristic pumping technology and high caliber workforce facilitate the production of flawless and efficient products on par with international standards under the brand name of "Tormac". The well equipped R & D wing stays alive to the changing global trends and comes out with viable solutions for innovative product development and upgradation.

The Products currently available include Stainless Steel Submersible Pumps, 4" Thermoplastic Submersible Pumps, 6" & 8" Cast Iron Submersible Pumps, Submersible Motors and Controls, Centrifugal Pumps, Inline Booster Pumps, Jet Self-priming Pumps and Peripheral Pumps.

The power, performance and endurance of the products backed by the uncompromising teamwork and value systems will certainly propel the company's growth towards new horizons in the pump industry.

IC-IBF-G/77E4

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**Tormac**  
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