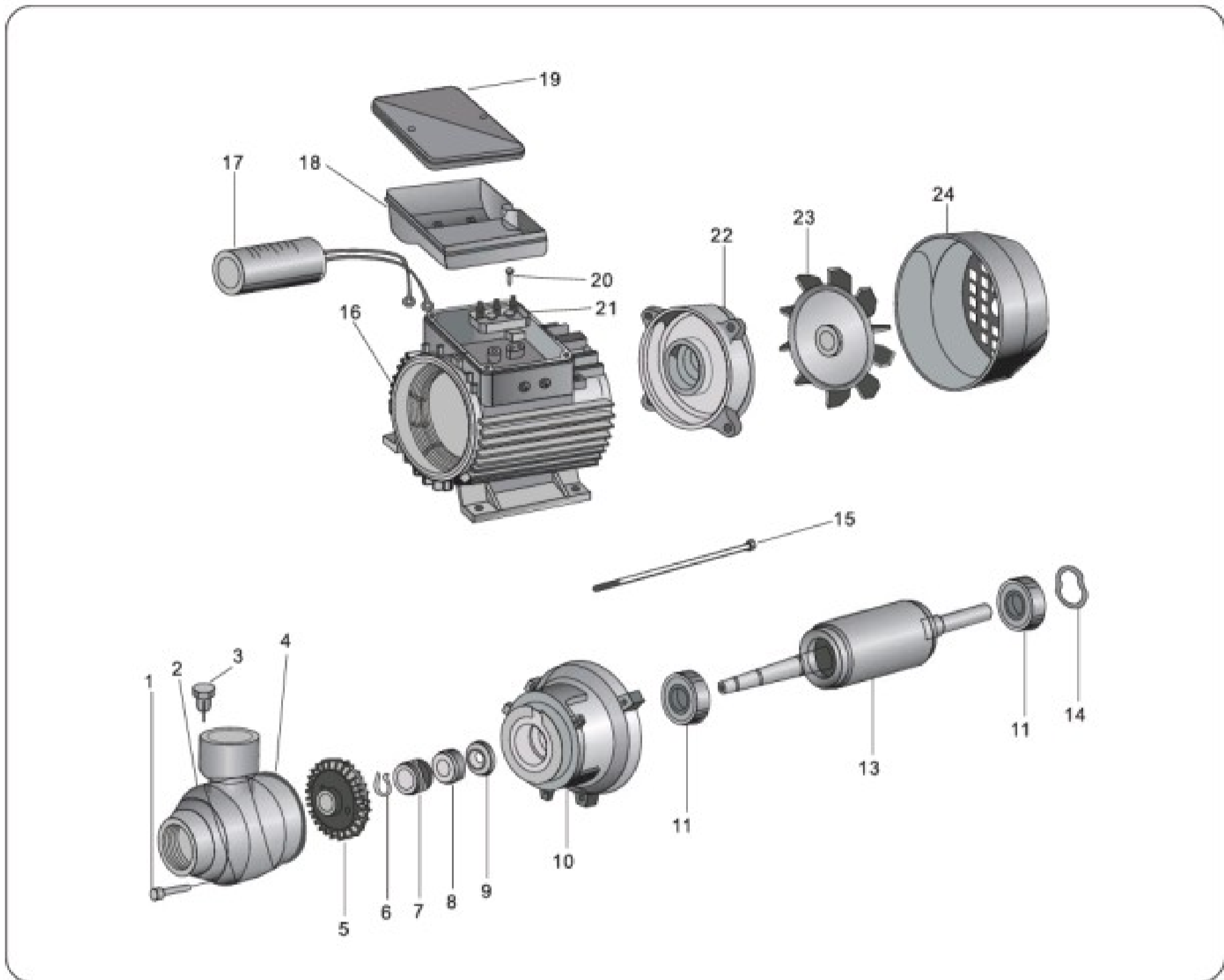


PERIPHERAL(VORTEX) PUMPS



Motor Spare Part List/drawing



N.	Description	N.	Description	N.	Description
1	Screw	11	Bearing	21	Terminal board
2	Casing	12	Key	22	Rear end shield
3	Charge plug	13	Rotor shaft	23	Fan
4	Gland OR	14	Split ring	24	Fan cover
5	Impeller	15	Tie-rod		
6	Snap ring	16	Casing with wound stator		
7	Mechanical seal	17	Capacitor		
8	Mechanical seal	18	Terminal box		
9	Drops guard	19	Terminal cover		
10	Pump support	20	Screw		

IEC MOTOR

GOST MOTOR

NEMA MOTOR

PUMP

GENERATING

D.C. MOTOR

TPM

End Suction Peripheral Pumps

Performance Range

Flow rate up to 60l/min (3.6 m³/h)
Dynamic head up to 80 m

Operating Limits

Suction lift up to 8m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TPM** series consists of PERIPHERAL PUMPS, so called because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped. The particular shape of the blades rapidly transfers radial recirculation motion to the fluid on entry to the pump, between the impeller blades and the double channel, machined on each side of the pump body. Since each of the numerous blades helps transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves. The relatively simple construction technology embodied in the **TPM** series nevertheless requires particularly accurate mechanical machining during manufacture to prevent a drop in performance.

SHANGHAI TOP MOTOR CO.,LTD. Has been in the peripheral pump market since 1988 and has developed an unequalled experience in optimizing design. This, together with great efforts in achieving fully automated production processes, makes **TOP** one of the leading world industries in its field.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components. **RELIABLE, ECONOMICAL AND SIMPLE TO USE, THEY ARE SUITABLE FOR DOMESTIC APPLICATIONS AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS AND FOR BOOSTING INSUFFICIENT MAINS WATER PRESSURE.**

These pumps should be installed in a covered area, protected against the weather.

Performance

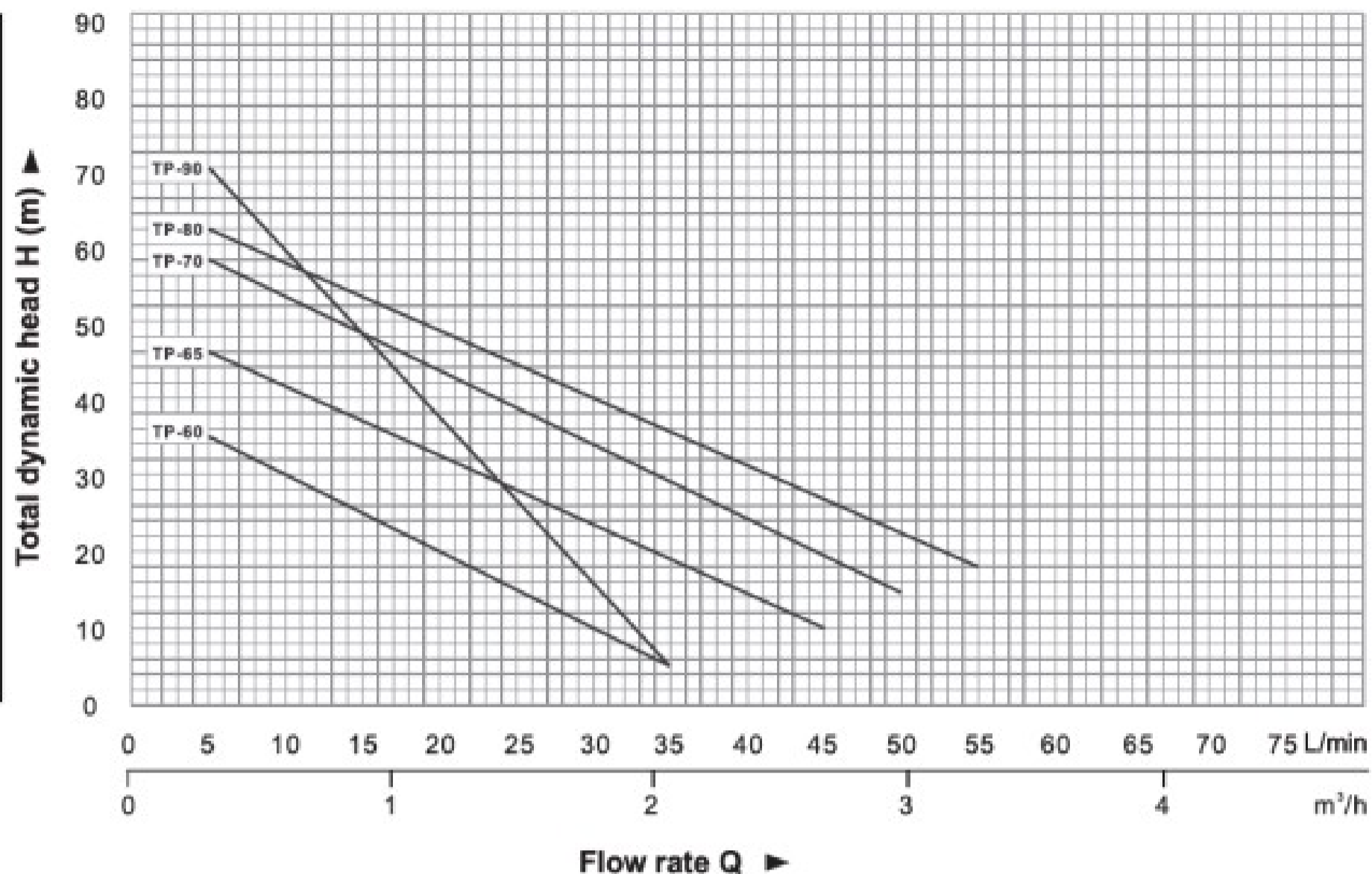
The wide range of pumps in the **TPM** series satisfies the most various operating requirements with features such as:

- high head with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped

Structural Characteristics

- Cast iron **PUMP BODY**
- Aluminum **MOTOR BRACKET**
- BRASS IMPELLER**, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, closed and externally ventilated, with (IM B3) structural shape, suitable for continuous duty. **INSULATION** class F (B up to 0.75kW).
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

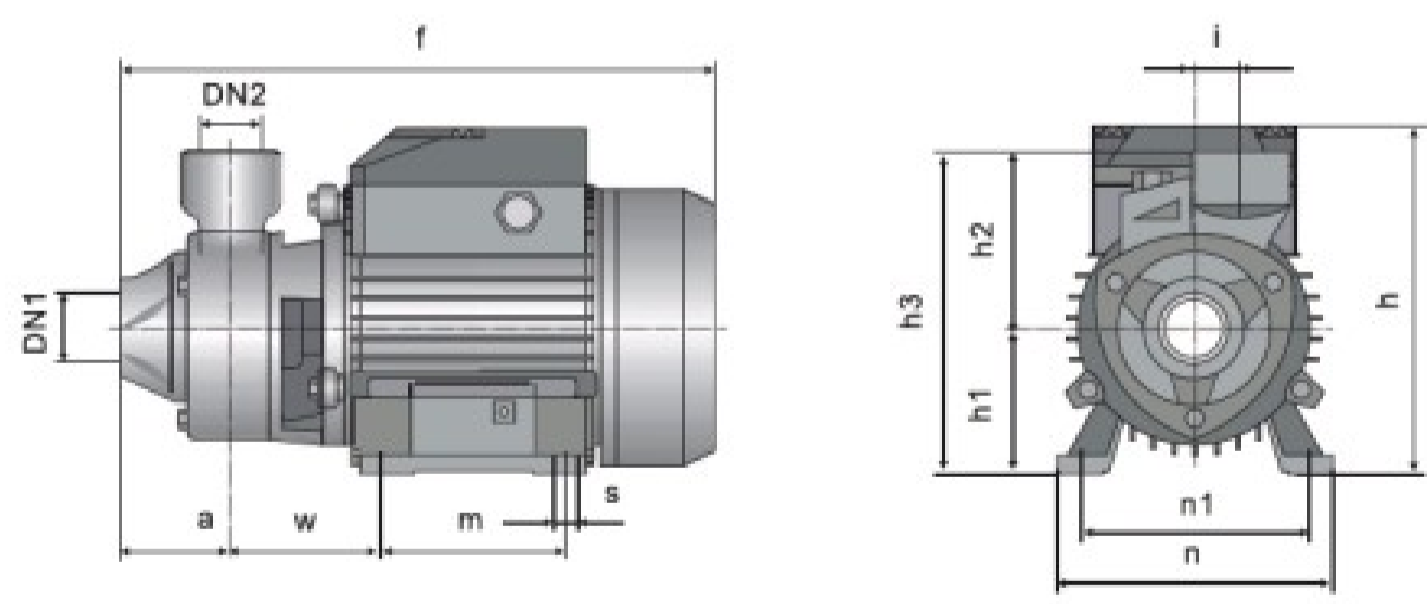
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.7	3.0	3.3
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	45	50	55
TPm-60	TP-60	0.37	0.50	H(m)	36	35	30	25	20	15	10	5			
TPm-65	TP-65	0.50	0.70		50	48	41.5	37	32.5	28	23.5	19	10		
TPm-70	TP-70	0.60	0.85		60	58	53	48.5	43.5	39	34	29	20	15	
TPm-80	TP-80	0.75	1		66	62	57.5	53	49	44.5	40	35.5	27	21.5	18
TPm-90	TP-90	0.75	1		80	70	58	50	37.5	27	16	5			

H=TOTAL DYNAMIC HEAD IN METERS. Q=FLOW RATE



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPm-60	TP-60	1"	1"	42	251	152	63	75	138	20	80	120	100	63	7
TPm-65	TP-65	1"	1"	48	265	152	63	80	143	20	80	120	100	63	7
-	-	1"	1"	48	265	152	63	80	143	20	80	120	100	63	7
TPm-70	TP-70	1"	1"	55	291	179	71	85	158	20	90	134	112	68	7
TPm-80	TP-80	1"	1"	55	291	179	71	85	156	20	90	134	112	68	7
TPm-90	TP-90	3/4"	3/4"	58	294	179	71	95	166	20	90	134	112	68	7

TPQ

Side Suction Peripheral Pumps

Performance Range

Flow rate up to 60 l/min (3.6 m³/h)
Dynamic head up to 70 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TPQ** series consists of PERIPHERAL PUMPS, so called because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped. The particular shape of the blades rapidly transfers radial recirculation motion to the fluid on entry to the pump, between the impeller blades and the double channel, machined on each side of the pump body. Since each of the numerous blades helps transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves. The relatively simple construction technology embodied in the **TPQ** series nevertheless requires particularly accurate mechanical machining during manufacture to prevent a drop in performance.

SHANGHAI TOP MOTOR CO.,LTD. has been in the peripheral pump market since 1988 and has developed an unequalled experience in optimizing design. This, together with great efforts in achieving fully automated production processes, makes **TOP** one of the leading world industries in its field.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids that are not chemically aggressive to the pump components.

RELIABLE, ECONOMICAL AND SIMPLE TO USE, THEY SUITABLE FOR DOMESTIC APPLICATIONS AND, IN PARTICULAR, THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, FOR BOOSTING INSUFFICIENT MAINS WATER PRESSURE AND FOR SANITARY APPLICATIONS. THE HYDRAULIC PERFORMANCE OF THESE STURDY AND COMPACT PUMPS ALSO MAKES THEM IDEALLY SUITED FOR INDUSTRIAL APPLICATIONS, SINCE THEY CAN BE INSTALLED IN CONDITIONS PROHIBITIVE FOR OTHER PUMP TYPES.

These pumps should be installed in a covered area, protected against the weather.

Performance

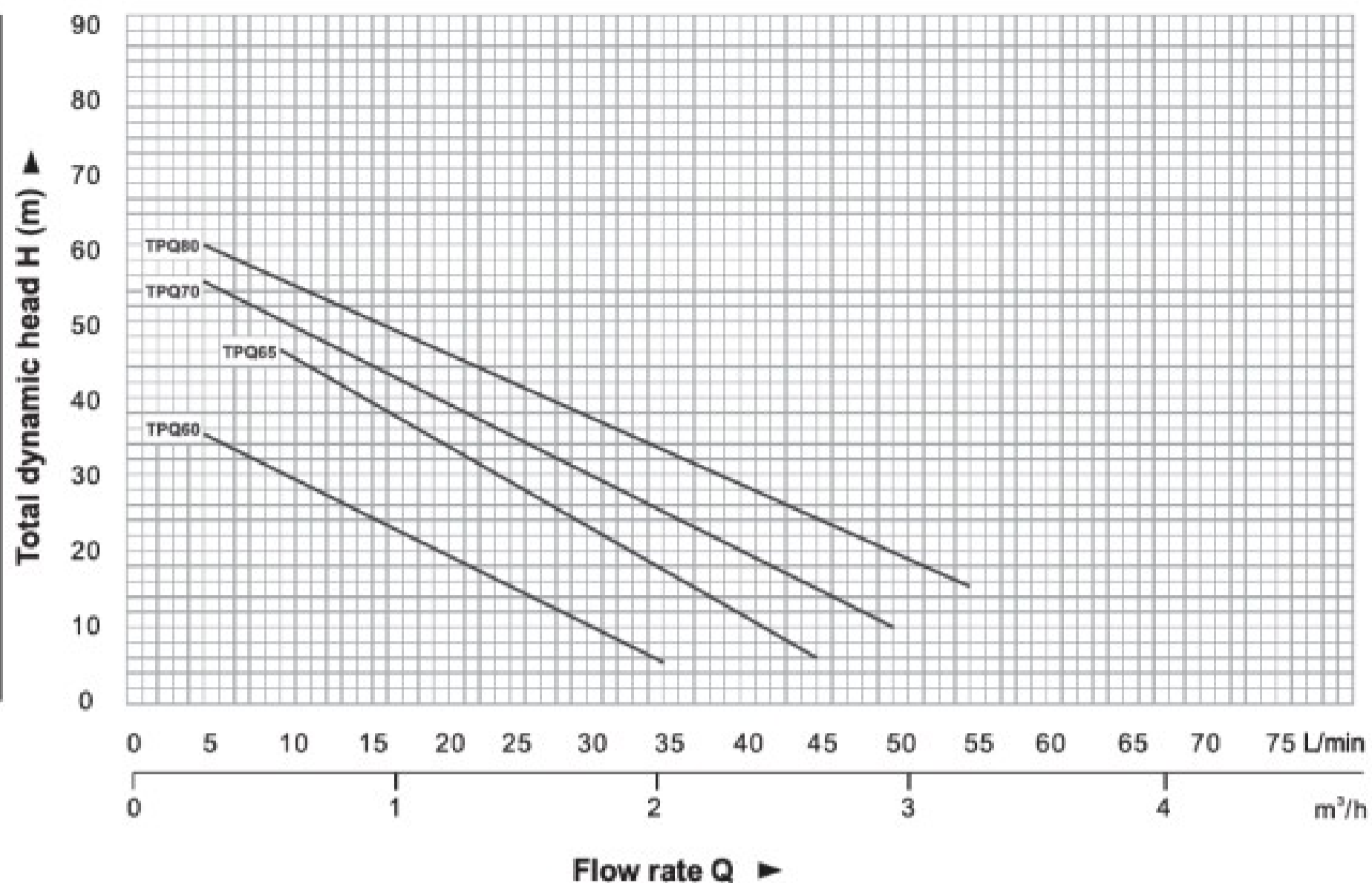
The wide range of pumps in the **TPQ** series satisfies the most various operating requirements with features such as:

- High head with respect to power requirements;
- Stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- High tolerance of the presence of entrained air in the liquid being pumped.

Structural Characteristics

- Cast iron **PUMP BODY**
- Aluminum **MOTOR BRACKET**
- BRASS IMPELLER**, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running, close and externally ventilated, with (B3) structural shape, suitable for continuous duty. **INSULATION** class F (B up to 0.75kW).
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

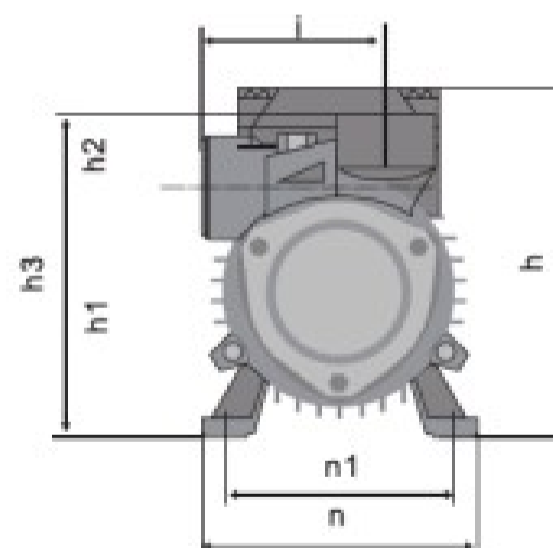
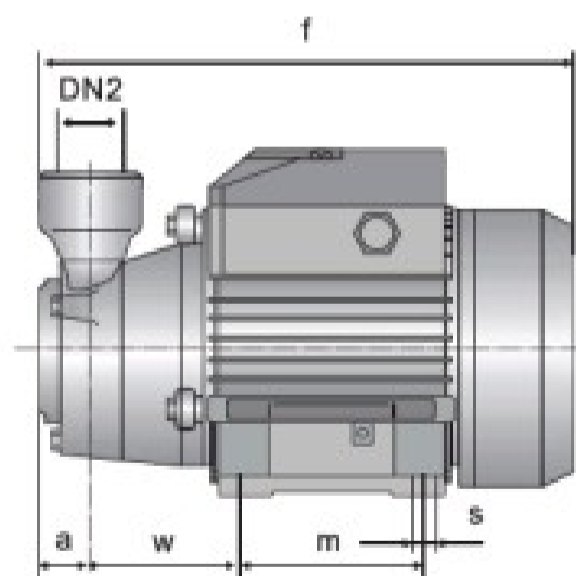
WARRANTY: 1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	45	50	55	
TPQm-60	TPQ-60	0.37	0.50	H(m)	36	35	30	25	20	15	10	5				
TPQm-65	TPQ-65	0.50	0.70		50	—	46	40	34.5	28.5	23	17	5			
TPQm-70	TPQ-70	0.60	0.85		60	55	50	45	40	35	30	25	15	10		
TPQm-80	TPQ-80	0.75	1		66	60	55.5	51	46.5	42	37.5	33	24	19.5	15	

H=TOTAL DYNAMIC HEAD IN METERS. Q=FLOW RATE



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPQm-60	TPQ-60	1"	1"	22	223	152	108	30	138	78	80	120	100	55	7
TPQm-60	—	1"	1"	22	234	152	113	30	143	78	80	120	100	57	7
—	TPQ-65	1"	1"	22	227	152	113	30	143	78	80	120	100	57	7
TPQm-70	TPQ-70	1"	1"	22	253	179	121	30	151	83	80	134	112	62	7
TPQm-80	TPQ-80	1"	1"	22	253	179	121	30	151	83	80	134	112	62	7

TPS

Self-priming Peripheral Pumps

Performance Range

Flow rate up to 50l/min (3 m³/h)
Dynamic head up to 70 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TPS** series consists of SELF-PRIMING PERIPHERAL PUMPS:

so called because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped and self-priming because the particular design of the pump body ensures the elimination of any air in the suction piping. The recirculation of the pumped fluid induced by the particular shape of the pump body permits the self-priming effect, extracting and completely expelling any air in the suction piping. Since each of the numerous blades help transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components.

RELIABLE, COMPACT, ECONOMICAL AND SIMPLE TO USE ,THEY ARE PARTICULARLY SUITABLE FOR DOMESTIC AND INDUSTRIAL APPLICATIONS SUCH AS WATER SUPPLY FOR RECIRCULATION IN AIR CONDITIONERS AND REFRIGERATORS, INDUSTRIAL WATER USES IN GENERAL, AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, LIFTING WATER FROM TANKS OR WELLS DOWN TO 9m DEPTH.

The pump is supplied with check valve on the suction side so that no foot valve is required.

These pumps should be installed in a covered area, protected against the weather.

Performance

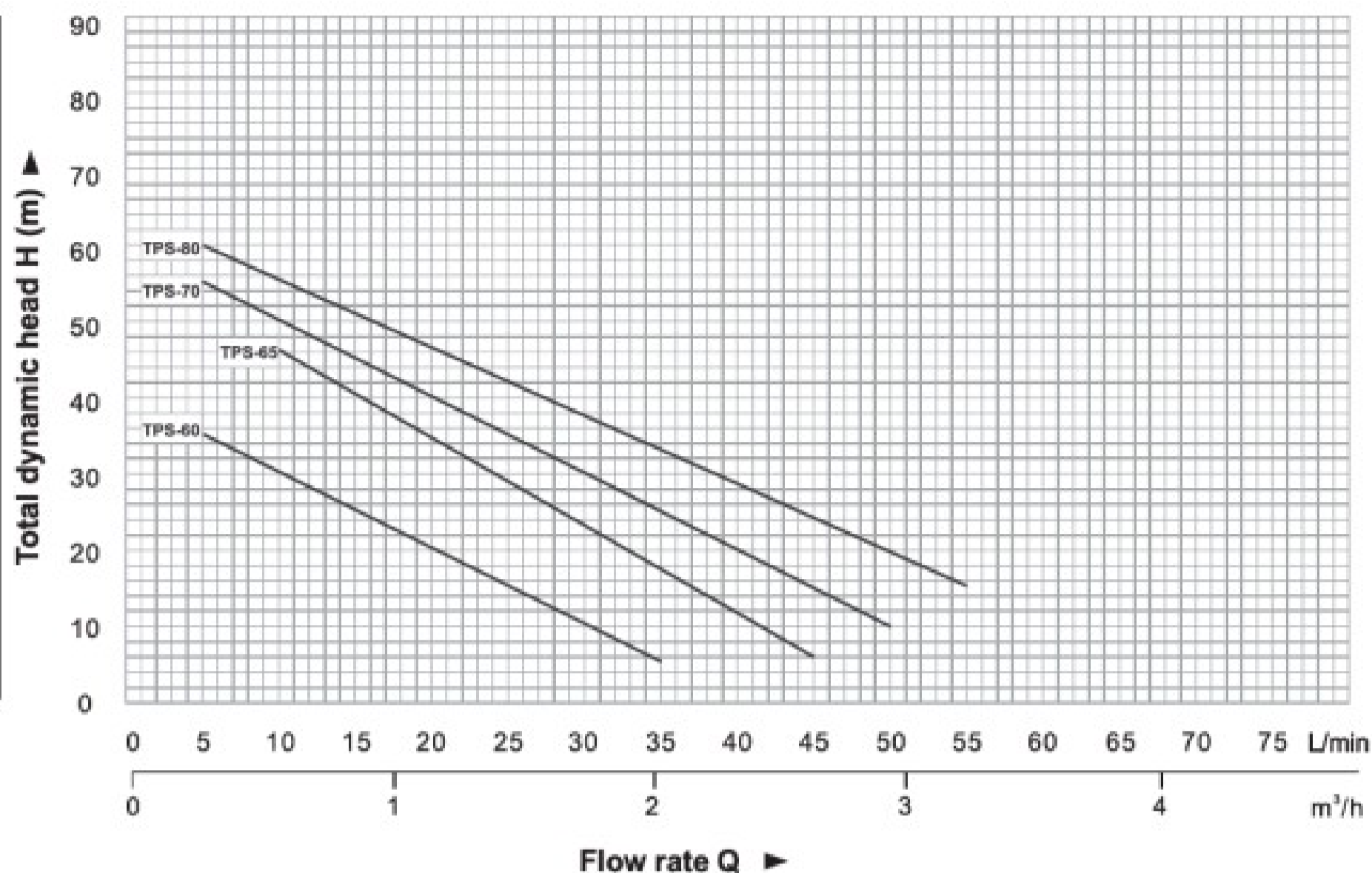
The range of pumps in the **TPS** series satisfies the most operating requirements with features such as:

- high heads with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped;

Structural Characteristics

- Cast iron **PUMP BODY**
- CHECK VALVE**, built into the suction opening
- Aluminium **MOTOR BRACKET**
- BRASS IMPELLER, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running closed and externally ventilated, with (IM B3) structural shape, suitable for continuous duty. INSULATION class B. The thermal cutout relay (motor protector) is incorporated in single phase motors. Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

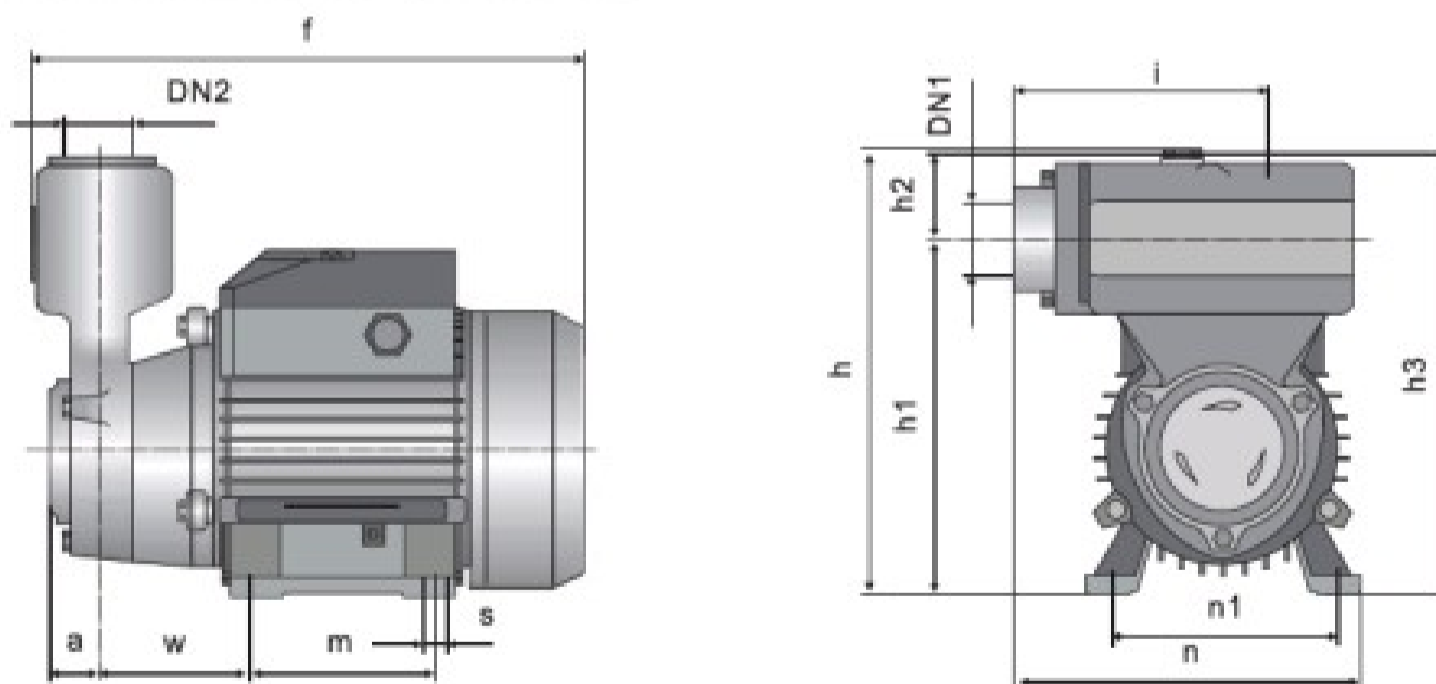
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.7	3.0	3.3	
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	45	50	55	
TPSm-60	TPS-60	0.37	0.50	H(m)	36	35	30	25	20	15	10	5				
TPSm-65	TPS-65	0.50	0.70		50	-	48	40	34.5	28.5	23	17	5			
TPSm-70	TPS-70	0.60	0.85		60	55	50	45	40	35	30	25	15	10		
TPSm-80	TPS-80	0.75	1		66	60	55.5	51	46.5	42	37.5	33	24	19.5	15	

H=TOTAL DYNAMIC HEAD IN METERS. Q=FLOW RATE



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	h3	i	m	n	n1	w	s
TPSm-60	TPS-60	1"	1"	29	230	192	156	34	190	110	80	150	100	55	7
TPSm-60	-	1"	1"	29	238	192	156	34	190	110	80	150	100	55	7
-	TPS-65	1"	1"	29	230	192	156	34	190	110	80	150	100	55	7
TPSm-70	TPS-70	1"	1"	29	260	200	164	34	198	110	90	160	112	62	7
TPSm-80	TPS-80	1"	1"	29	260	200	164	34	198	110	90	160	112	62	7

TGP

End Suction Peripheral Pumps

Performance Range

Flow rate up to 45l/min (2.8 m³/h)
Dynamic head up to 45 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **TGP** series consists of SELF-PRIMING PERIPHERAL PUMPS: peripheral because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped and self-priming because the particular design of the pump body ensures the elimination of any air in the suction piping. The recirculation of the pumped fluid induced by the particular shape of the pump body permits the self-priming effect, extracting and completely expelling any air in the suction piping. Since each of the numerous blades help transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components.

RELIABLE, COMPACT, ECONOMICAL AND SIMPLE TO USE ,THEY ARE PARTICULARLY SUITABLE FOR DOMESTIC AND INDUSTRIAL APPLICATIONS SUCH AS WATER SUPPLY FOR RECIRCULATION IN AIR CONDITIONERS AND REFRIGERATORS, INDUSTRIAL WATER USES IN GENERAL, AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, LIFTING WATER FROM TANKS OR WELLS DOWN TO 9m DEPTH.

The pump is supplied with check valve on the suction side so that no foot valve is required.
These pumps should be installed in a covered area, protected against the weather.

Performance

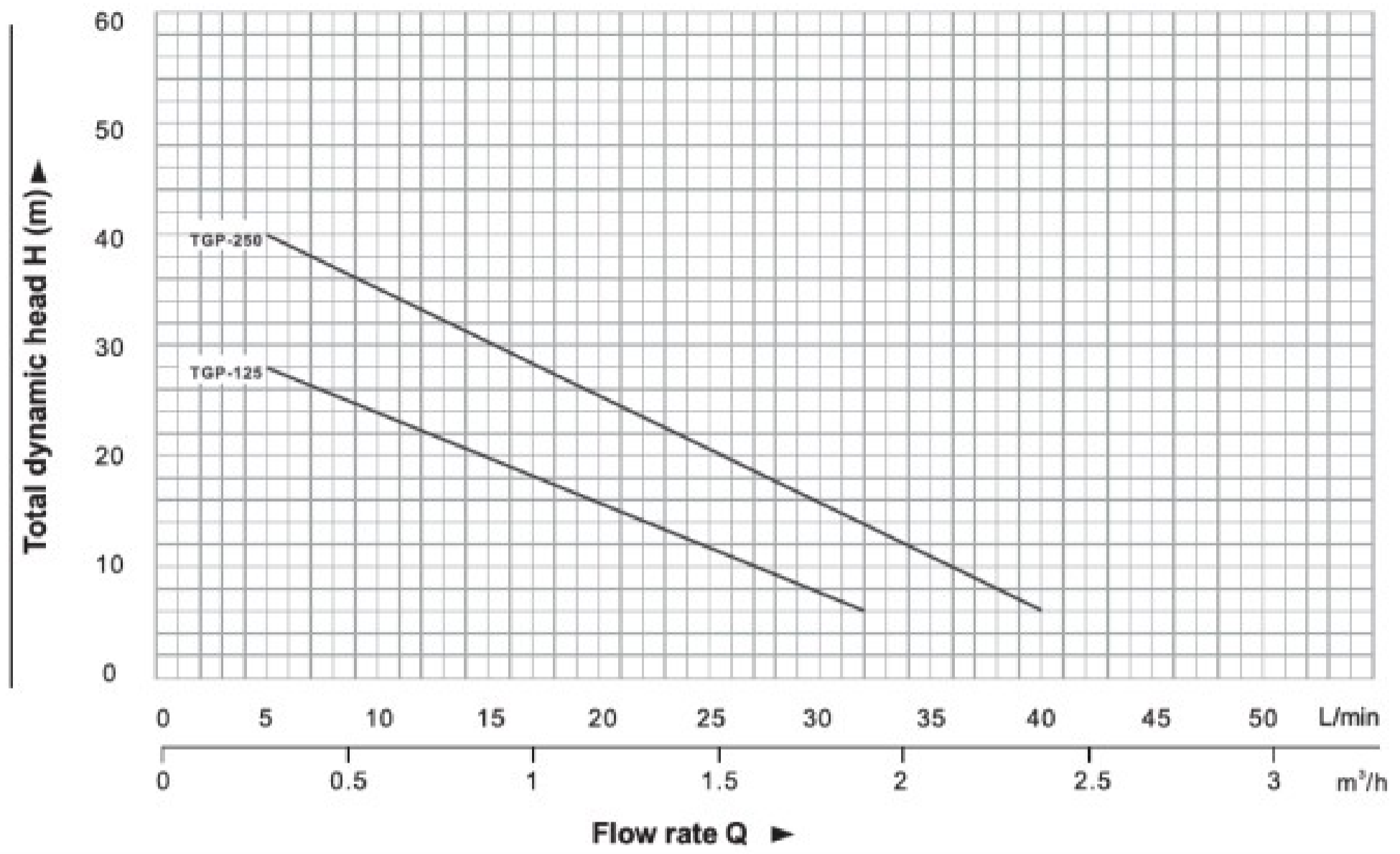
The range of pumps in the **TGP** series satisfies the most operating requirements with features such as:

- high heads with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped;

Structural Characteristics

- Cast iron **PUMP BODY**
- CHECK VALVE**, built into the suction opening
- Aluminium **MOTOR BRACKET**
- BRASS IMPELLER, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running closed and externally ventilated, with (IM B3) structural shape, suitable for continuous duty. INSULATION class B.
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

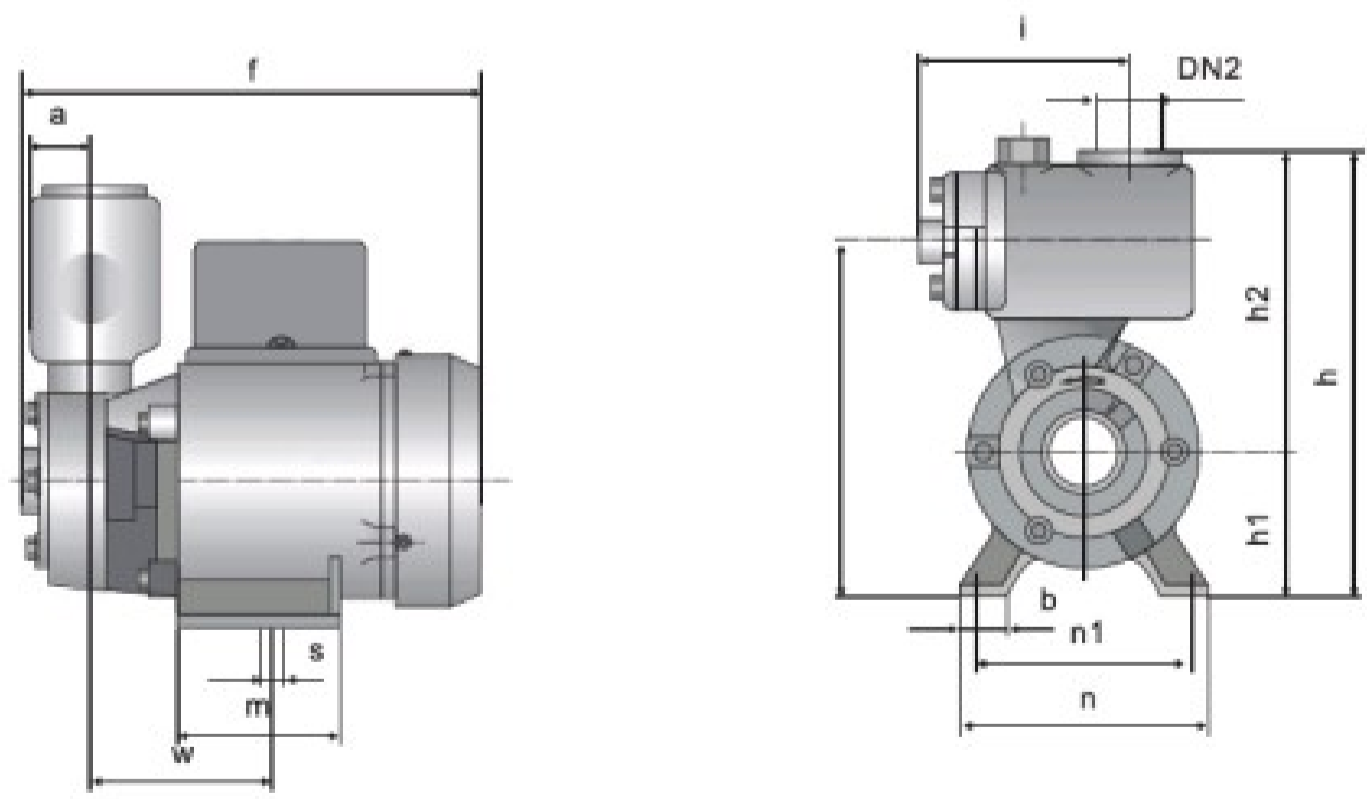
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	1.92	2.1	2.4
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	32	35	40
TGPm-125	TGP-125	0.30	0.50	H(m)	30	28	24	20	18	11.5	7.5	6		
TGPm-250	TGP-250	0.50	0.70		45	40	35	30.5	25.5	20.5	16	14	11	6

H=TOTAL DYNAMIC HEAD IN METERS. Q=FLOW RATE



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	i	m	n	n1	w	b	s
TGPm-125	TGP-125	1"	1"	23	260	240	63	173	156	120	120	100	80	22	7
TGPm-250	TGP-250	1"	1"	23	285	240	63	173	156	120	120	100	80	22	7

PS

End Suction Peripheral Pumps

Performance Range

Flow rate up to 40l/min (2.4 m³/h)
Dynamic head up to 28 m

Operating Limits

Suction lift up to 9 m
Fluid temperature up to +60°C
Maximum ambient temperature +40°C



Working Principle

The **PS** series consists of SELF-PRIMING PERIPHERAL PUMPS: peripheral because the peripheral edge of the impeller contains numerous radial blades, designed to yield energy to the fluid being pumped and self-priming because the particular design of the pump body ensures the elimination of any air in the suction piping. The recirculation of the pumped fluid induced by the particular shape of the pump body permits the self-priming effect, extracting and completely expelling any air in the suction piping. Since each of the numerous blades help transfer energy, the fluid pressure increases progressively as it passes from the suction opening to the delivery opening, ensuring an even, non-pulsing flow and high pressures with particularly steep curves.

Pump Installation And Applications

These pumps are suitable for handling clean water not containing abrasive particles and fluids which are not chemically aggressive to the pump components.

RELIABLE, COMPACT, ECONOMICAL AND SIMPLE TO USE ,THEY ARE PARTICULARLY SUITABLE FOR DOMESTIC AND INDUSTRIAL APPLICATIONS SUCH AS WATER SUPPLY FOR RECIRCULATION IN AIR CONDITIONERS AND REFRIGERATORS, INDUSTRIAL WATER USES IN GENERAL, AND THE AUTOMATIC DISTRIBUTION OF WATER FROM SURGE TANKS, WATERING GARDENS, LIFTING WATER FROM TANKS OR WELLS DOWN TO 9m DEPTH.

The pump is supplied with check valve on the suction side so that no foot valve is required.

These pumps should be installed in a covered area, protected against the weather.

Performance

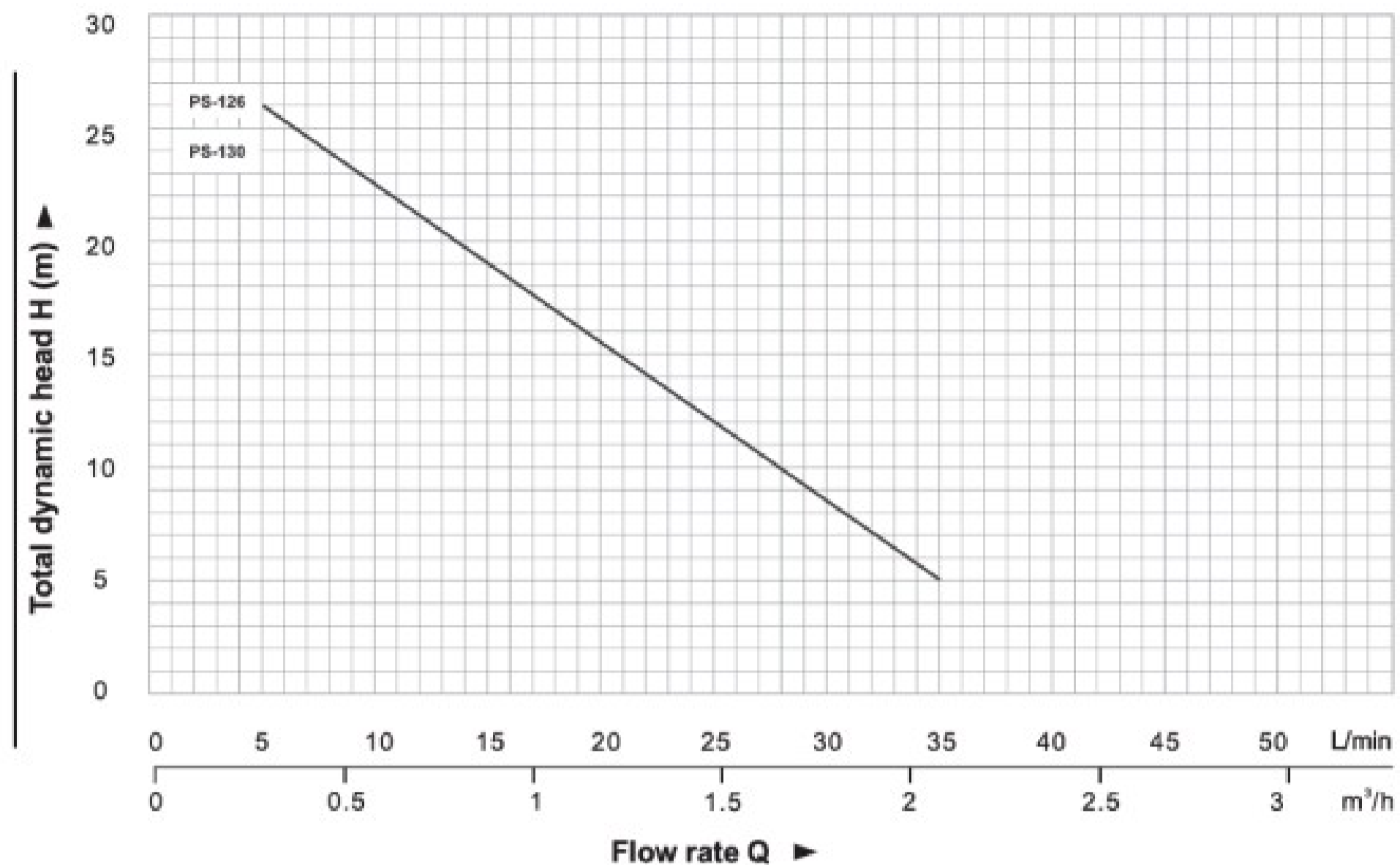
The range of pumps in the **PS** series satisfies the most operating requirements with features such as:

- high heads with respect to power requirements;
- stable operating curves, with small variations in delivery rates with respect to large variations in the pressure demand;
- high tolerance of the presence of entrained air in the liquid being pumped;

Structural Characteristics

- Cast iron **PUMP BODY**
- CHECK VALVE**, built into the suction opening
- Aluminium **MOTOR BRACKET**
- BRASS IMPELLER**, with radial peripheral blades, floating on the shaft.
- Ceramic and graphite **MECHANICAL SEAL**.
- MOTOR**: the pumps are coupled directly to an asynchronous, high efficiency **TOP** induction motor of suitable size, which is quiet running closed and externally ventilated, with (IM B3) structural shape, suitable for continuous duty, INSULATION class B.
The thermal cutout relay (motor protector) is incorporated in single phase motors.
Three phase motors require an adequate external motor protector, with connections according to current standards.
- PROTECTION IP44**
- CONSTRUCTION AND SAFETY STANDARDS** in compliance with IEC.

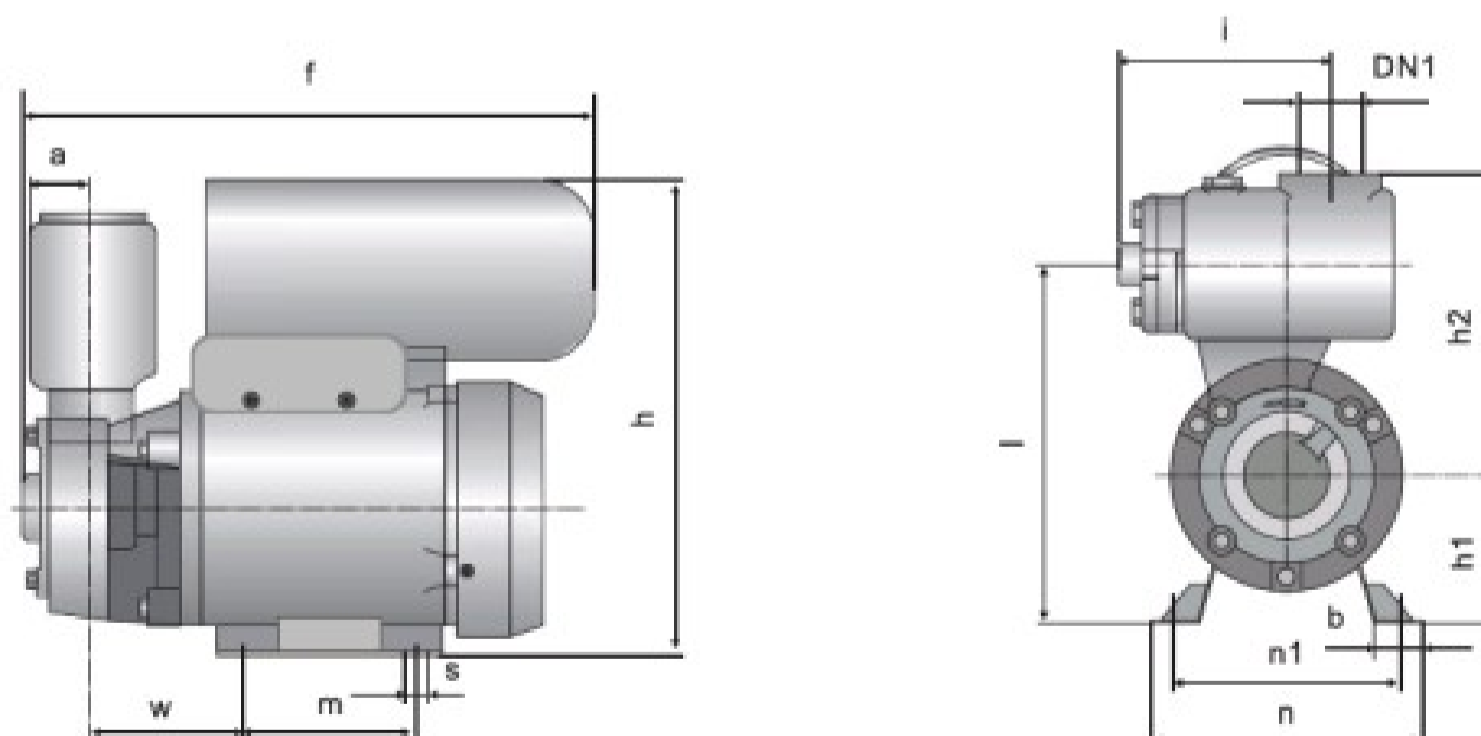
WARRANTY:1 YEAR (according to our general sales conditions)



Performance Data At N=2900 L/min

Pump Model		Power		Q(m³/h)	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
Single phase	Three phase	KW	HP	Q(L/min)	0	5	10	15	20	25	30	35	40
Psm-126	PS-126	0.25	0.33	H(m)	28	26	22.5	19	15.5	12	8.5	5	
Psm-130	PS-130	0.25	0.33		28	26	22.5	19	15.5	12	8.5	5	

H=TOTAL DYNAMIC HEAD IN METERS. Q=FLOW RATE



Pump Model		DN1	DN2	Dimensions (mm)											
Single phase	Three phase			a	f	h	h1	h2	i	n	n1	M	w	b	s
Psm-126	PS-126	1"	1"	23	286	190	63	127	156	120	100	80	76	22	7
Psm-130	PS-130	1"	1"	23	316	220	63	127	156	120	100	80	76	22	7