PKm 60®

Peripheral impeller pump

Clean water

Domestic use

※ **The PKm 60® a cornerstone since 1974, an integral part of our future.**



※ **50 years of success since 1974**
※ **Produced over 23 million units**
※ **Made from premium materials and components**
※ **Our most economical and versatile product**
※ **Noise level reduced by20 %**
※ **Exclusively produced with renewable energy sources**

PERFORMANCE RANGE

- Flow rate up to **40 l/min** (2.4 m³/h)
- Head up to **40 m**

INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Reliable, easy to operate, and cost-effective. It is ideal for domestic applications, specifically for gardens and orchards, in combination with small autoclave tanks.

ELECTRIC MOTOR

Three-phase pumps feature **IE3**-class electric motors, while single-phase models use **IE2** motors. All are designed with class F insulation and IPX4 protection.

APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+50 °C**
- Maximum working pressure **6 bar**

PATENTS - TRADE MARKS - MODELS

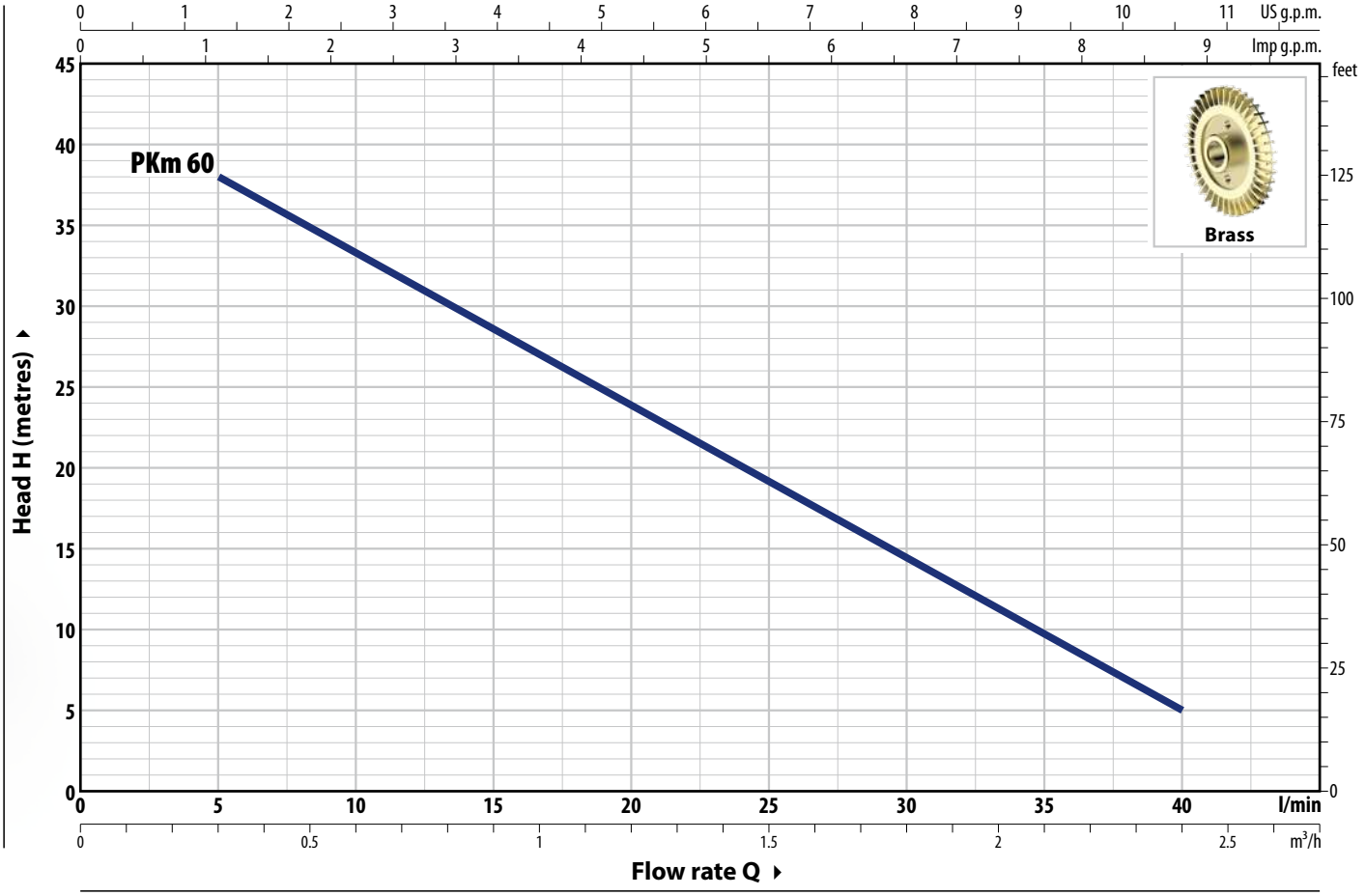
- Motor bracket: Patent No. IT1243605
- Pump body: Patent No. 0000275946
- Registered community model No. 018625876
- International registered model No. DM/220613
- PKm 60® Registered Trade mark No. 009875394

AVAILABLE UPON REQUEST

※ Different voltage requirements 60 Hz frequency

CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



TYPE		POWER (P2)				Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
PKm 60	**PK 60**	0.30	0.40	**IE2**	**IE3**	**H**	metres	40	38	33.5	29	24	19.5	15	10	5

Q = Flow rate **H** = Total manometric head **HS** = Suction height

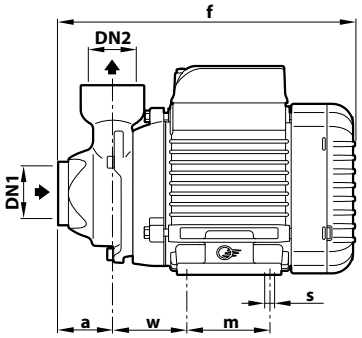
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

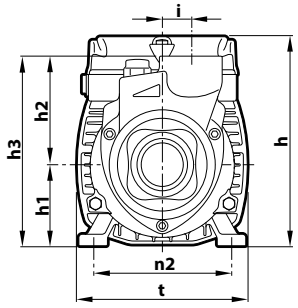
ABSORPTION

TYPE	VOLTAGE
Single-phase	**230 V**
PKm 60®	2.3 A

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PK 60®	2.0 A	1.15 A

DIMENSIONS AND WEIGHT





TYPE		PORTS		DIMENSIONS mm												kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	f	h	h1	h2	h3	i	m	t	n2	w	s	1~	3~
PKm 60®	**PK 60®**	**1"**	**1"**	38	208	145	56	75	131	20	55	118	94-100	53	7	5.0	5.0

PALLET CAPACITY
240

PK Peripheral impeller pumps

Clean water

Domestic use

※ **New version featuring a 20% reduction in noise levels.**



PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **100 m**

INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Reliable, easy to operate, and cost-effective. They are ideal for domestic applications, specifically for gardens and orchards, in combination with small autoclave tanks.

APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure:
  - **6 bar** for PK 65
  - **7 bar** for PK 80
  - **10 bar** for PK 90, PK 100, PK 200, PK 300

AVAILABLE UPON REQUEST

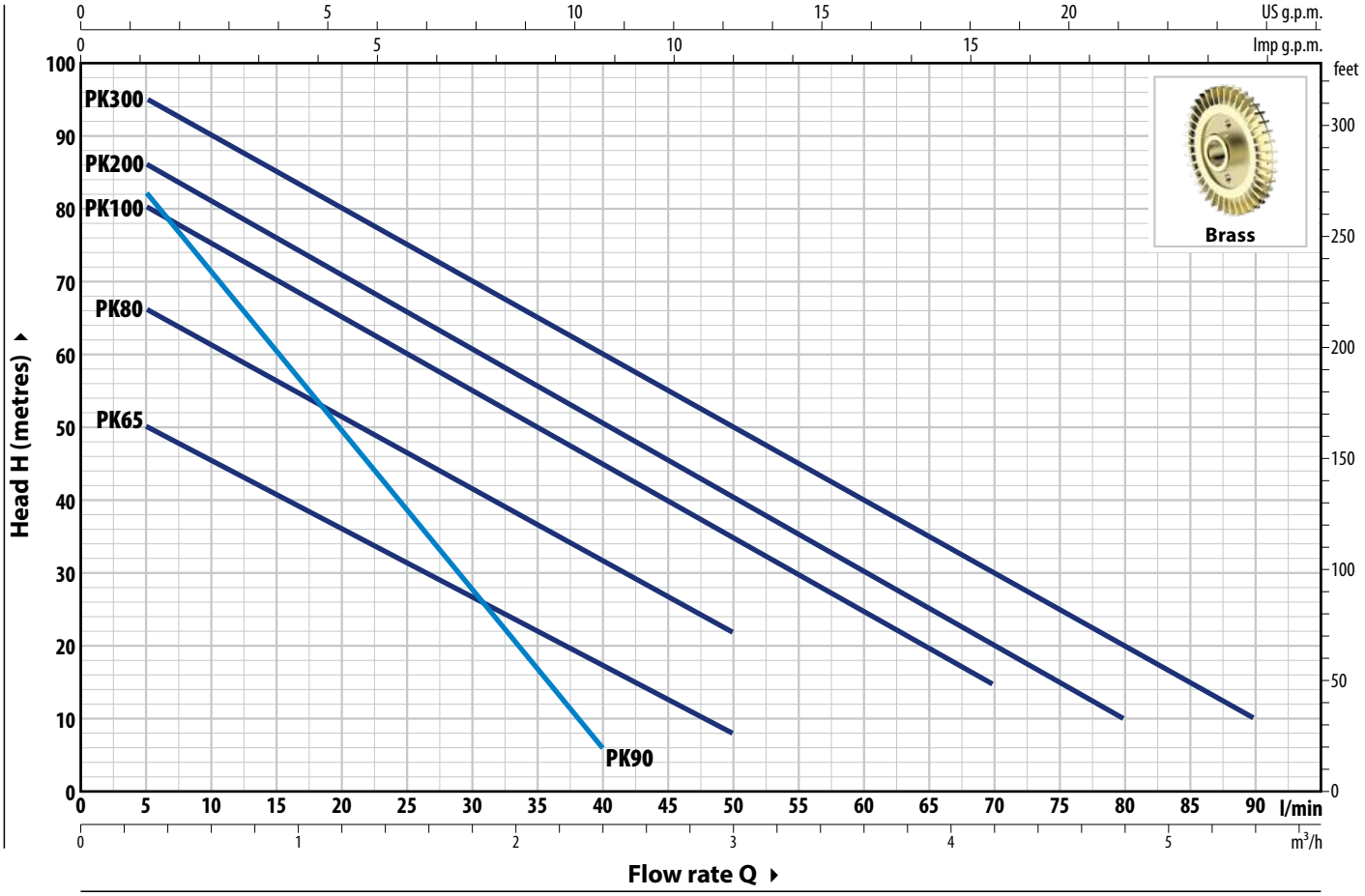
※ Mechanical seal options available
※ Protection rating IP X5 for PK 80-90-100-200-300
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Pump body: Patent No. 0000275946 (PK65)

CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



TYPE		POWER (P2)				Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.6	4.2	4.8	5.4
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**50**	**60**	**70**	**80**	**90**
PKm 65	**PK 65**	0.55	0.75					55	50	45.5	40.5	36	31	27	22	17	8				
PKm 80	**PK 80**	0.75	1					70	66	61	56	51	46	41	36.5	31	22				
PKm 90	**PK 90**	0.75	1					90	82	71	60	49	38	27	17	5					
PKm 100	**PK 100**	1.1	1.5	**IE2**	**IE3**	**H** metres		85	80	75	70	65	60	55	50	45	35	24.5	15		
PKm 200	**PK 200**	1.5	2					90	86	81	76	71	65.5	60	55	50	40	30	20	10	
PKm 300	**PK 300**	2.2	3					100	95	90	85	80	75	70	65	60	50	40	30	20	10

Q = Flow rate **H** = Total manometric head **HS** = Suction height

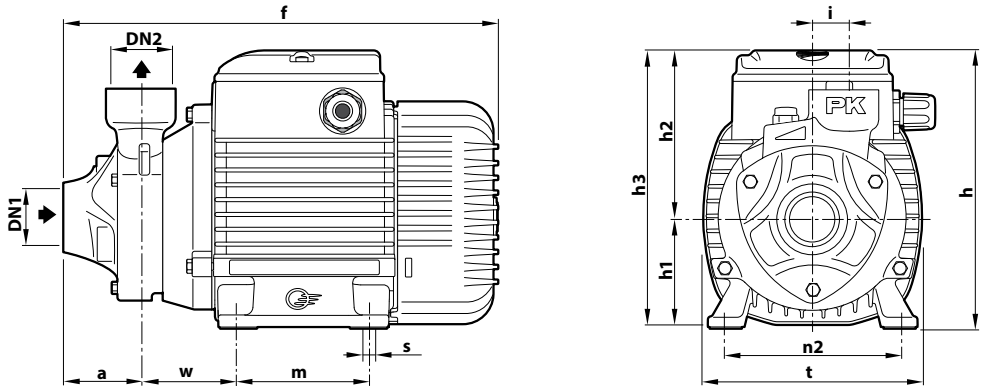
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

ABSORPTION

TYPE	VOLTAGE
Single-phase	**230 V**
PKm 65	3.7 A
PKm 80	5.2 A
PKm 90	5.6 A
PKm 100	9.0 A
PKm 200	11.5 A
PKm 300	12.0 A

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PK 65	2.9 A	1.7 A
PK 80	3.8 A	2.2 A
PK 90	4.0 A	2.3 A
PK 100	6.2 A	3.6 A
PK 200	8.3 A	4.8 A
PK 300	9.0 A	5.2 A

DIMENSIONS AND WEIGHT



TYPE		PORTS		DIMENSIONS mm												kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	f	h	h1	h2	h3	i	m	t	n2	w	s	1~	3~
PKm 65	**PK 65**	**1"**	**1"**	38	237	153	63	75	138	20	80	120	100	53	7	6.9	6.3
PKm 80	**PK 80**			55	285	179 *	71	85	156		90	140	112	62		10.3	10.3
PKm 90	**PK 90**	**¾"**	**¾"**	46	278			84	155	19						10.3	10.3
PKm 100	**PK 100**	**1"**	**1"**	62	356	212	80	88	168	19	100	152	125	95	9	15.1	15.1
PKm 200	**PK 200**															16.3	16.3
PKm 300	**PK 300**				376											18.9	18.8

(*) h=199 mm for single-phase 110 V versions

PALLET CAPACITY

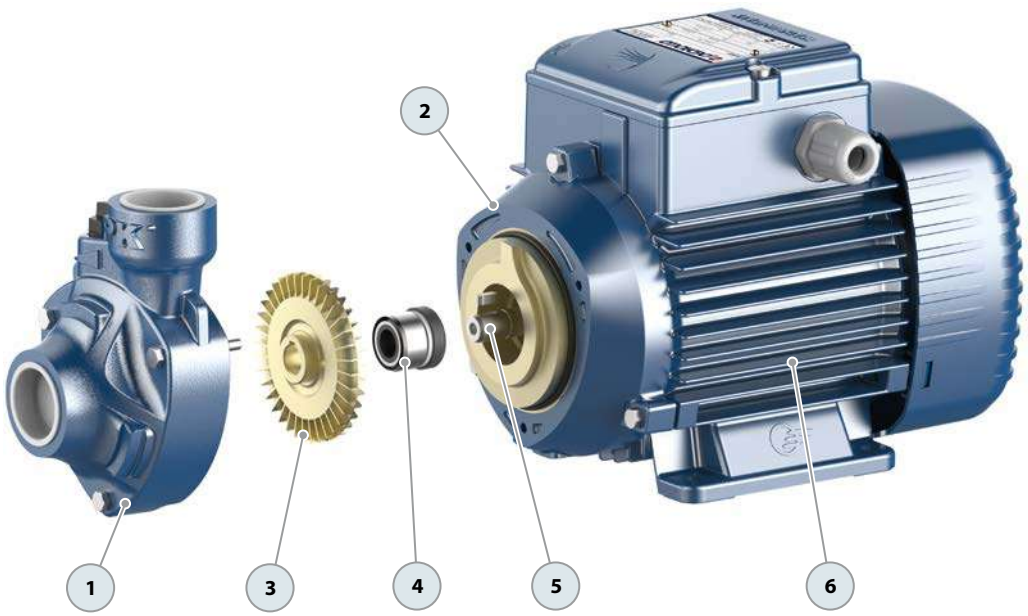
TYPE		NO. OF PUMPS
Single-ph.	**Three-ph.**	
PKm 65	**PK 65**	189
PKm 80	**PK 80**	119
PKm 90	**PK 90**	102
PKm 100	**PK 100**	72
PKm 200	**PK 200**	72
PKm 300	**PK 300**	72

CONSTRUCTION FEATURES

1	**Pump body**	Cast iron with ISO 228/1 threaded ports
2	**Motor bracket**	Aluminum with brass cover and front scraping anti-locking function (patented)
3	**Impeller**	Brass, radial peripheral vane type
4	**Mechanical seal**	

Pump	Seal	Shaft	Materials
PK 60-65-80	**AR-12**	Ø 12 mm	Ceramic / Graphite / NBR
PK 90	**ST1-12**	Ø 12 mm	Silicon carbide / Graphite / NBR
PK 100-200-300	**FN-14**	Ø 14 mm	Graphite / Ceramic / NBR

5	**Motor shaft**	Stainless steel **AISI 431** (EN 10088-3 - 1.4104 for PK 60, PK 65)
6	**Electric motor**	**PKm**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection. **PK**: three-phase 230/400 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



Peripheral impeller pump

Clean water

Domestic use

※ New version featuring a 20% reduction in noise levels.



PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **100 m**

INSTALLATION AND USE

Peripheral pump with radial suction.

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Its compact design and efficient hydraulic performance make it ideal for **domestic applications**.

APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C**
  (+50 °C for PQ 60 and PQ61)
- Maximum working pressure:
  – **6 bar** for PQ 60, PQ 61, PQ 65
  – **7 bar** for PQ 80
  – **10 bar** for PQ 90, PQ 100, PQ 200, PQ 300

AVAILABLE UPON REQUEST

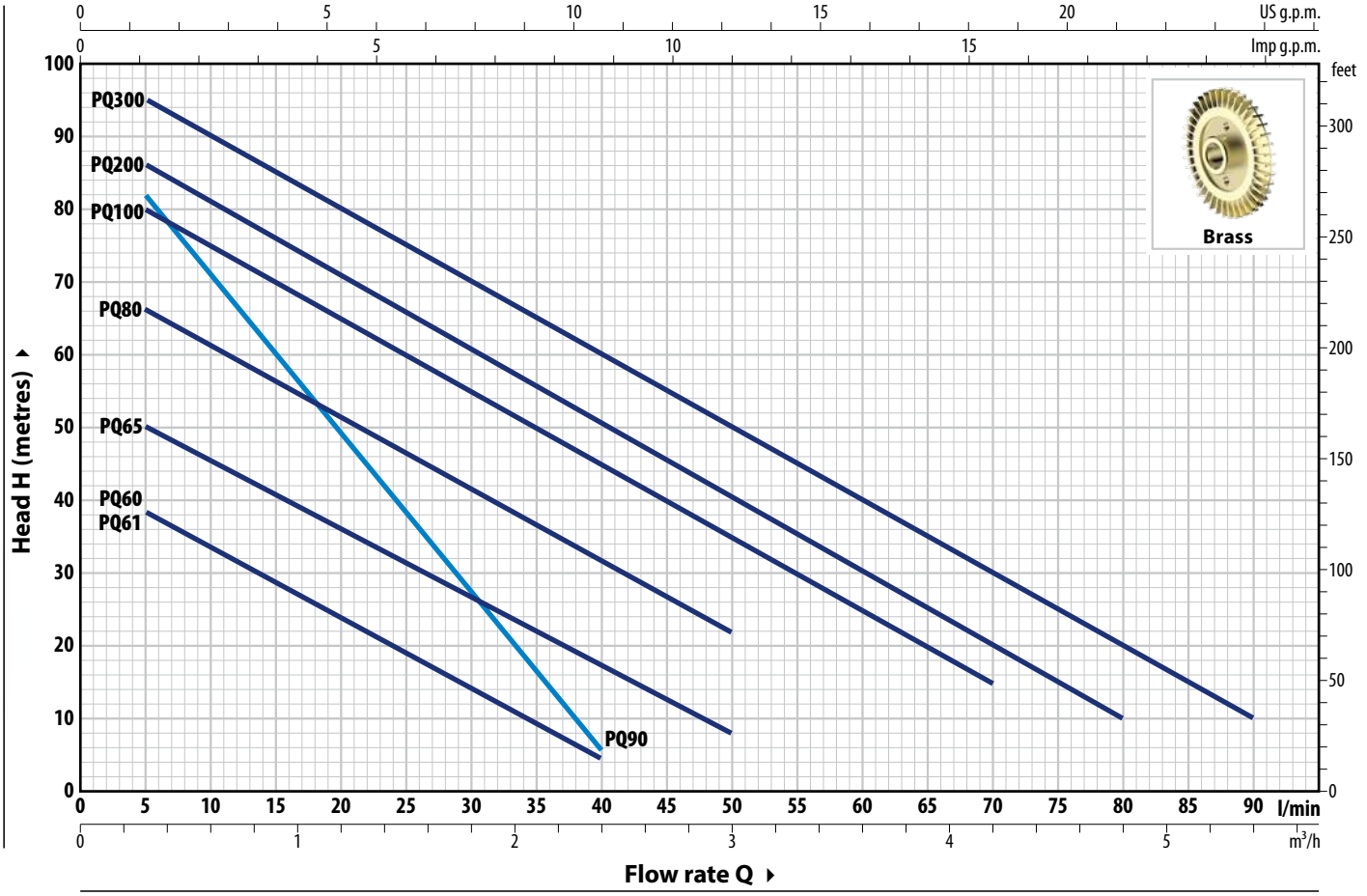
※ Pumps for industrial use
※ Mechanical seal options available
※ Protection rating IP X5 for PQ 80-90-100-200-300
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Registered community model No. 002146548
- PQm 60® Registered trademark No. 0001520591

CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



TYPE		POWER (P2)				Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.6	4.2	4.8	5.4
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**50**	**60**	**70**	**80**	**90**
PQm 60	**PQ 60**	0.30	0.40					40	38	33.5	29	24	19.5	15	10	5					
PQm 61	**PQ 61**	0.30	0.40					40	38	33.5	29	24	19.5	15	10	5					
PQm 65	**PQ 65**	0.55	0.75					55	50	45.5	40.5	36	31	27	22	17	8				
PQm 80	**PQ 80**	0.75	1					70	66	61	56	51	46	41	36.5	31	22				
PQm 90	**PQ 90**	0.75	1	**IE2**	**IE3**	**H** metres		90	82	71	60	49	38	27	17	5					
PQm 100	**PQ 100**	1.1	1.5					85	80	75	70	65	60	55	50	45	35	25	15		
PQm 200	**PQ 200**	1.5	2					90	86	81	76	71	65.5	60	55	50	40	30	20	10	
PQm 300	**PQ 300**	2.2	3					100	95	90	85	80	75	70	65	60	50	40	30	20	10

Q = Flow rate **H** = Total manometric head **HS** = Suction height

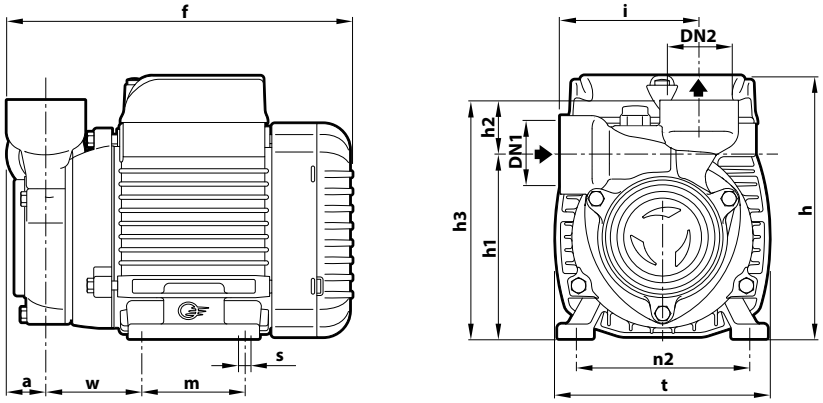
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

ABSORPTION

TYPE	VOLTAGE
Single-phase	**230 V**
PQm 60	2.3 A
PQm 61	2.3 A
PQm 65	3.7 A
PQm 80	5.2 A
PQm 90	5.6 A
PQm 100	9.0 A
PQm 200	12.0 A
PQm 300	13.0 A

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PQ 60	2.0 A	1.15 A
PQ 61	2.0 A	1.15 A
PQ 65	2.9 A	1.7 A
PQ 80	3.8 A	2.2 A
PQ 90	4.2 A	2.4 A
PQ 100	6.2 A	3.6 A
PQ 200	8.3 A	4.8 A
PQ 300	9.0 A	5.2 A

DIMENSIONS AND WEIGHT



TYPE		PORTS		DIMENSIONS mm												kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	f	h	h1	h2	h3	i	m	t	n2	w	s	1~	3~
PQm 60	**PQ 60**	**1"**	**1"**	22	192	145	101	30	131	76	55	118	94-100	53	7	4.9	4.9
PQm 61	**PQ 61**	**½"**	**½"**					32.5	133.5							4.9	4.9
PQm 65	**PQ 65**	**1"**	**1"**	22	220	152	113	30	143	78	80	120	100			6.8	6.2
PQm 80	**PQ 80**				256	152(*)	121		151	83	90	142	112	62.5		9.9	9.9
PQm 90	**PQ 90**	**¾"**	**¾"**				126	27	153	84						10.1	10.1
PQm 100	**PQ 100**	**1"**	**1"**	29	322.5	211	140	28	168	88	100	164	125	95	9	14.3	14.3
PQm 200	**PQ 200**															15.4	15.4
PQm 300	**PQ 300**				342.5											18.2	18.2

(*) h=199 mm for single-phase 110 V versions

PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-ph.	**Three-ph.**	
PQm 60	**PQ 60**	256
PQm 61	**PQ 61**	256
PQm 65	**PQ 65**	210
PQm 80	**PQ 80**	102
PQm 90	**PQ 90**	102
PQm 100	**PQ 100**	72
PQm 200	**PQ 200**	72
PQm 300	**PQ 300**	72

CONSTRUCTION FEATURES

1 Pump body

Cast iron with ISO 228/1 threaded ports
For PQ 61: cast iron with anti-locking treatment with ISO 228/1 threaded ports

2 Motor bracket

Aluminum with brass cover and front scraping anti-locking function (patented)

3 Impeller

Brass, radial peripheral vane type

4 Mechanical seal

Pump	Seal	Shaft	Materials
PQ 60-61-65-80	**AR-12**	Ø 12 mm	Ceramic / Graphite / NBR
PQ 90	**ST1-12**	Ø 12 mm	Silicon carbide / Graphite / NBR
PQ 100-200-300	**FN-14**	Ø 14 mm	Graphite / Ceramic / NBR

5 Motor shaft

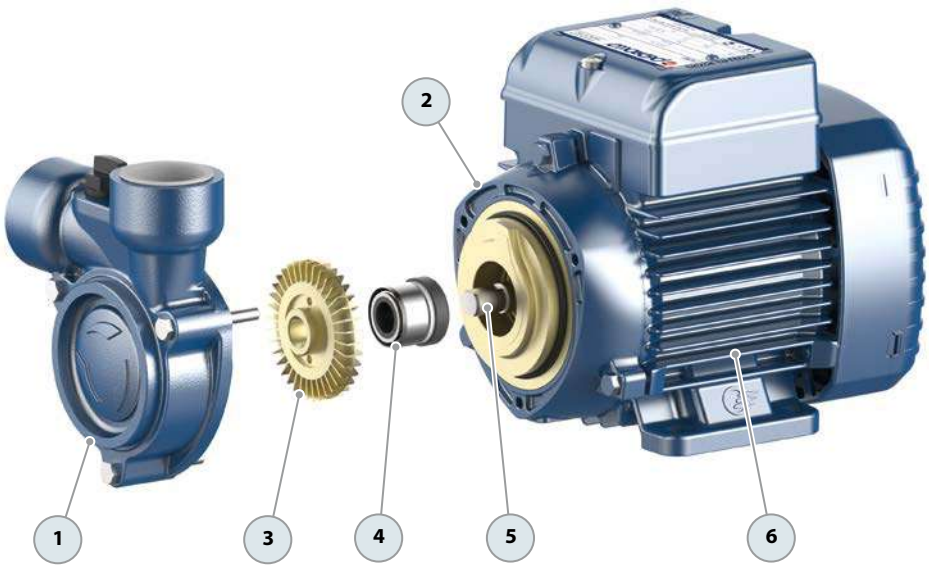
Stainless steel **AISI 431** (EN 10088-3 - 1.4104 for PQ 60, PQ 61, PQ 65)

6 Electric motor

PQm: single-phase 230 V - 50 Hz with winding integrated thermal motor protection.
PQ: three-phase 230/400 V - 50 Hz

※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1)
class **IE2** for single-phase models
class **IE3** for three-phase models

– Continuous running duty **S1**
– Insulation: class F
– Protection rating: IP X4



PKS Self-priming pumps with peripheral impeller

Clean water

Domestic use

※ **New version featuring an anti-lock braking system.**
※ **Noise levels reduced by 20%.**



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m³/h)
- Head up to **70 m**

INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

Compact, reliable, and cost-effective, they are ideal for domestic applications when paired with small autoclave tanks, and for irrigating gardens and orchards. They are also effective in drawing water from tanks and pumping liquids that contain air or gas. The pumps come equipped with a non-return check valve for suction.

APPLICATION LIMITS

- Manometric suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C** (**+50 °C** for PKS 60)
- Maximum working pressure:
  – **6 bar** for PKS 60, PKS 65
  – **7 bar** for PKS 80

AVAILABLE UPON REQUEST

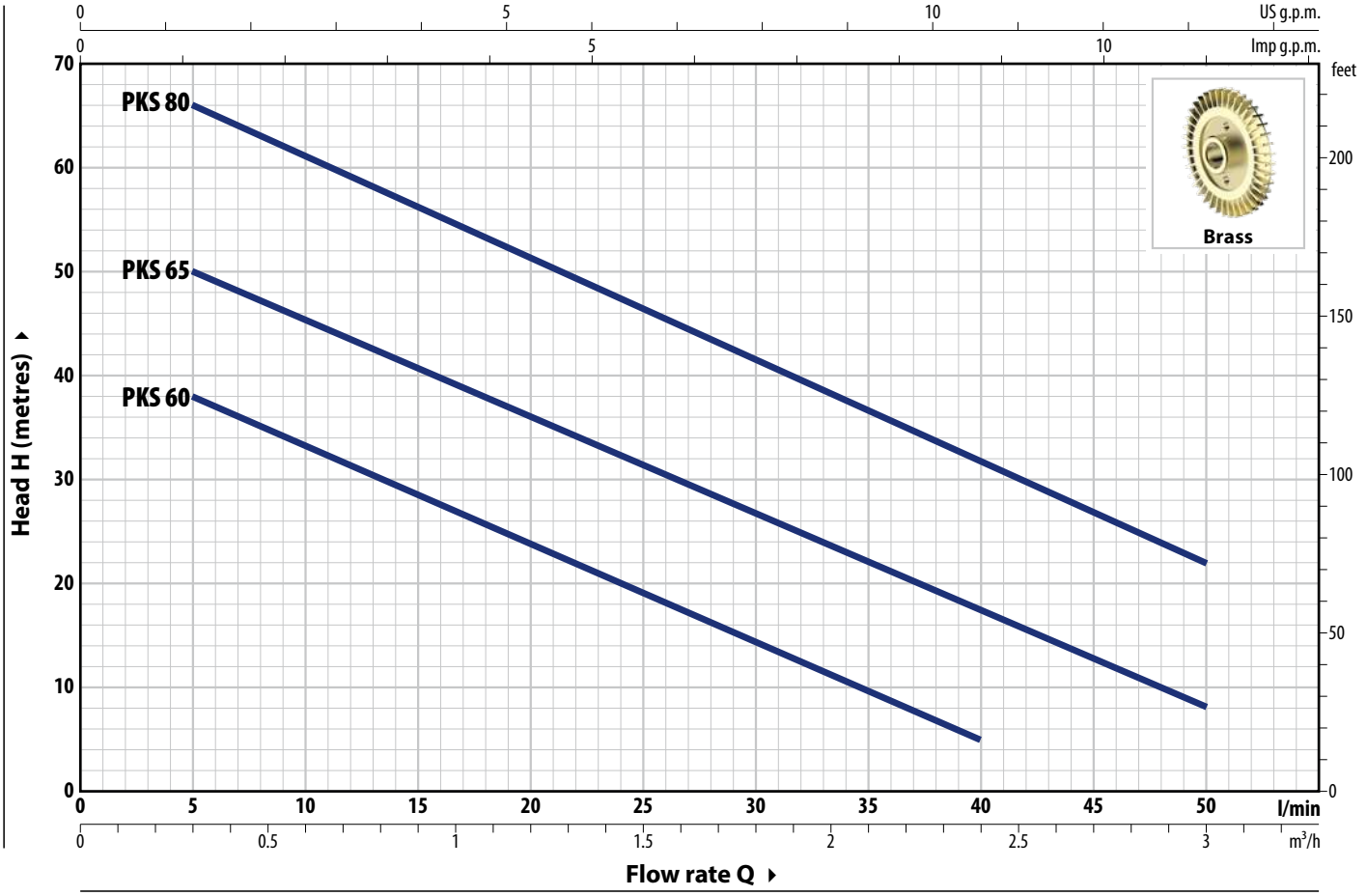
※ Mechanical seal options available
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605

CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz

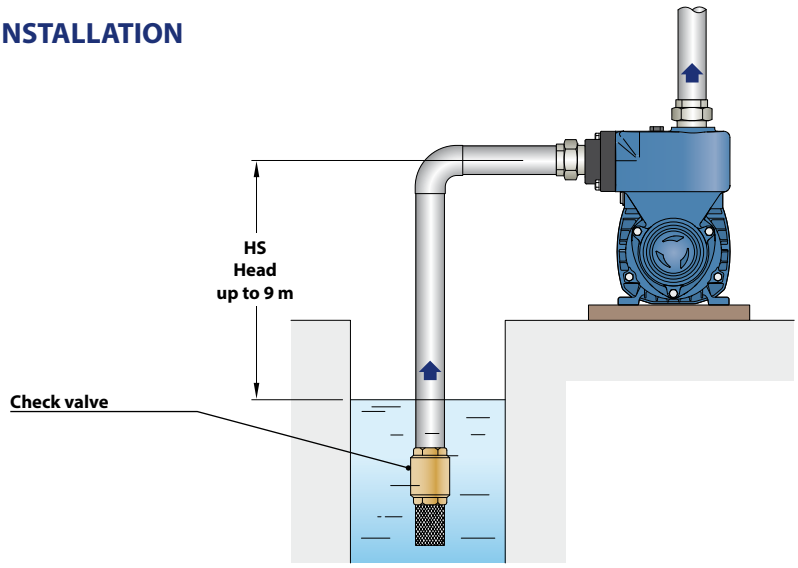


TYPE		POWER (P2)				Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
PKSm 60	**PKS 60**	0.30	0.40					40	38	33.5	29	24	19.5	15	10	5		
PKSm 65	**PKS 65**	0.55	0.75	**IE2**	**IE3**	**H**	metres	55	50	45.5	40.5	36	31	27	22	17	12.5	8
PKSm 80	**PKS 80**	0.75	1					70	66	61	56	51	46	41	36.5	31	27	22

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

EXAMPLE OF INSTALLATION

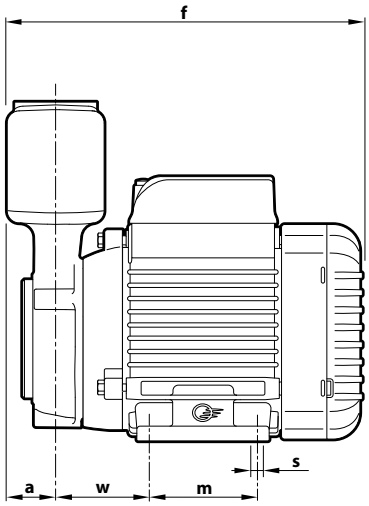


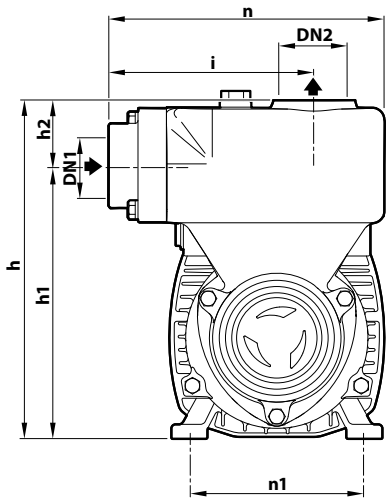
ABSORPTION

TYPE	VOLTAGE
Single-phase	**230 V**
PKSm 60	2.3 A
PKSm 65	3.7 A
PKSm 80	5.2 A

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PKS 60	2.0 A	1.15 A
PKS 65	2.9 A	1.7 A
PKS 80	3.8 A	2.2 A

DIMENSIONS AND WEIGHT





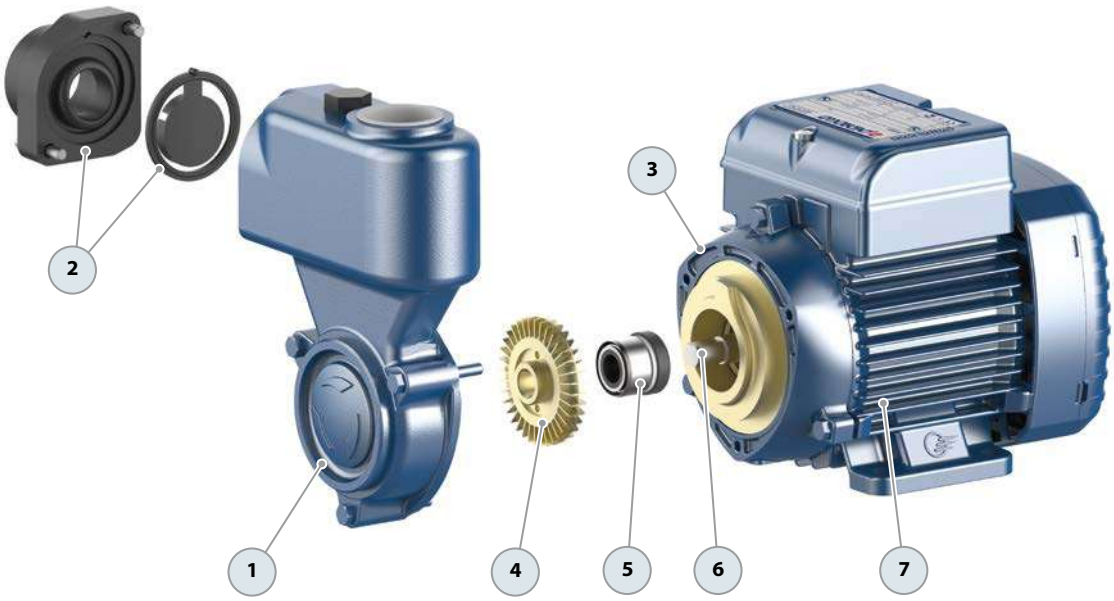
TYPE		PORTS		DIMENSIONS mm											kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	f	h	h1	h2	i	m	n	n1	w	s	1~	3~
PKSm 60	**PKS 60**	**1"**	**1"**	28	196	183	149	34	110	55	148	93-100	53	7	5.6	5.6
PKSm 65	**PKS 65**				227	190	156			80		100			7.6	6.9
PKSm 80	**PKS 80**				263	198	164			90	160	112	62		10.6	10.6

PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-ph.	**Three-ph.**	
PKSm 60	**PKS 60**	224
PKSm 65	**PKS 65**	168
PKSm 80	**PKS 80**	96

CONSTRUCTION FEATURES

1	**Pump body**	Cast iron with ISO 228/1 threaded ports
2	**Check valve**	Built-in check valve in the inlet port
3	**Motor bracket**	Aluminum with brass cover and front scraping anti-locking function (patented)
4	**Impeller**	Brass, radial peripheral vane type
5	**Mechanical seal**	Seal: **AR-12** — Shaft: Ø 12 mm — Materials: Ceramic / Graphite / NBR
6	**Motor shaft**	Stainless steel **AISI 431** (EN 10088-3 - 1.4104 for PKS 60, PKS 65)
7	**Electric motor**	**PKSm**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection. **PKS**: three-phase 230/400 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



Clean water Agricultural use



INSTALLATION AND USE

Designed for pumping diesel/naphtha and clean water free from abrasive particles and non-corrosive liquids that do not harm the pump's components.

Their specific operating mechanism makes them an excellent solution when a compact self-priming pump is required or when the flow of the liquid is irregular or mixed with air.

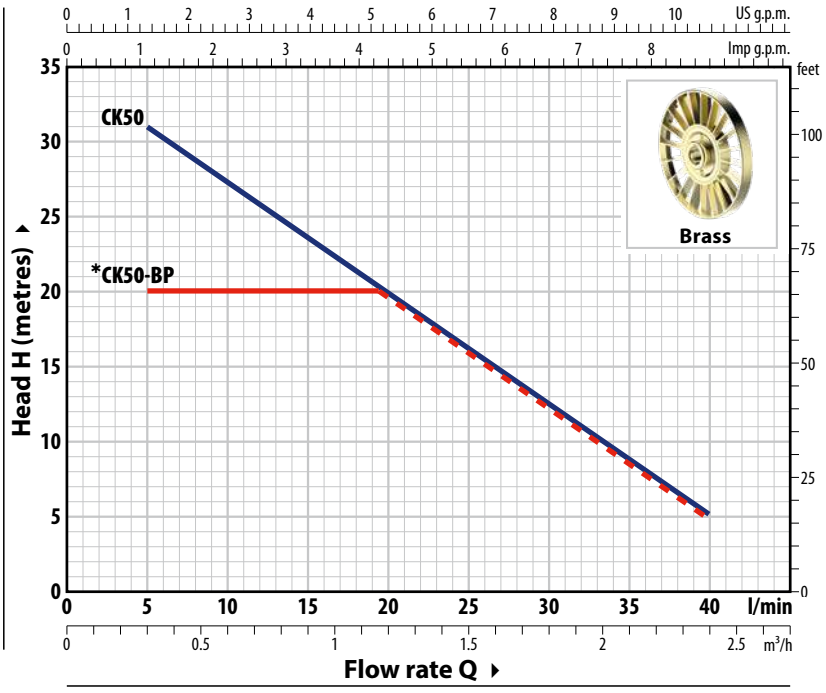
APPLICATION LIMITS

- Suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+90 °C**
- Temperature for diesel/naphta up to **+55 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

AVAILABLE UPON REQUEST

※ Mechanical seal options available

CURVES AND PERFORMANCE DATA – HS=0 m 50 Hz



(*) CK 50-BP = performance curve with by-pass

ABSORPTION

TYPE	VOLTAGE
Single-ph.	**230 V**
CKm 50	3.0 A
CKm 50-BP	2.7 A

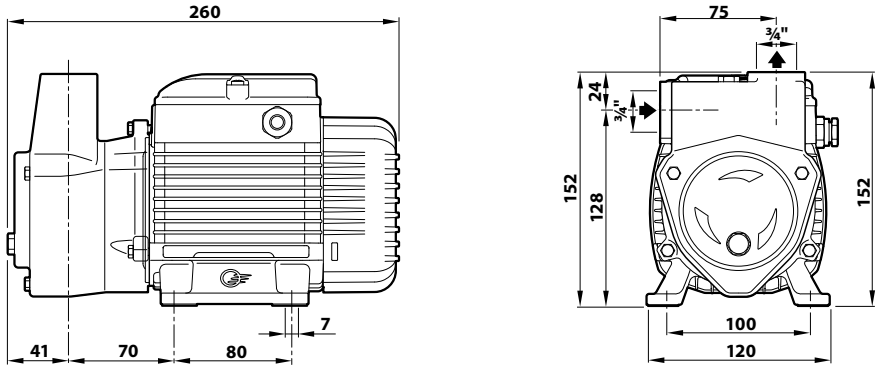
TYPE	VOLTAGE	
Three-ph.	**230 V - Δ**	**400 V - Y**
CK 50	2.1 A	1.2 A
CK 50-BP	1.7 A	1.0 A

TYPE		POWER (P2)				Q									
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
							l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
CKm 50	**CK 50**	0.37	0.50	**IE2**	**IE3**	**H**	metres	35	31	27	24	20	16	13	9	5
CKm 50-BP	**CK 50-BP**	0.25	0.33					20	20	20	20	20	16	13	9	5

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

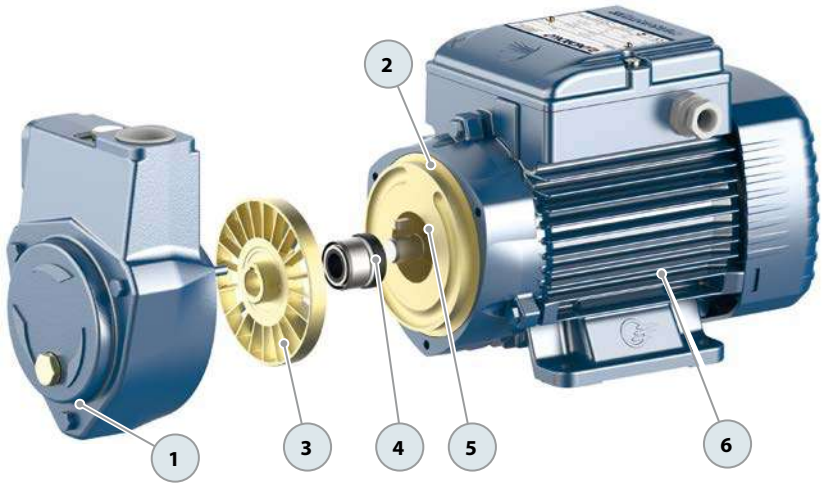
DIMENSIONS (mm)



TYPE		PORTS		WEIGHT (kg)		PALLET CAPACITY
Single-phase	**Three-phase**	**DN1**	**DN2**	1~	3~	
CKm 50	**CK 50**	**¾"**	**¾"**	7.3	7.3	160

CONSTRUCTION FEATURES

1	**Pump body**	Cast iron with ISO 228/1 threaded ports
2	**Motor bracket**	Aluminium with brass cover with front anti-locking shim function (patented)
3	**Impeller**	Brass with open radial vanes
4	**Mechanical seal**	Type: **AR-12V** — Materials: Ceramic / Graphite / Viton
5	**Shaft**	Stainless steel **AISI 431**
6	**Electric motor**	**CKm**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection. **CK**: three-phase 230/400 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



CKR Self-priming liquid ring electric pumps

Clean water | Domestic use | Industrial use | Agricultural use



※ With double anti-lock front scraping

INSTALLATION AND USE

Designed for pumping diesel/naphtha and clean water free from abrasive particles and non-corrosive liquids that do not harm the pump's components.

Their specific operating mechanism makes them an excellent solution when a compact self-priming pump is required or when the flow of the liquid is irregular or mixed with air.

APPLICATION LIMITS

- Suction head up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Maximum working pressure **6 bar**

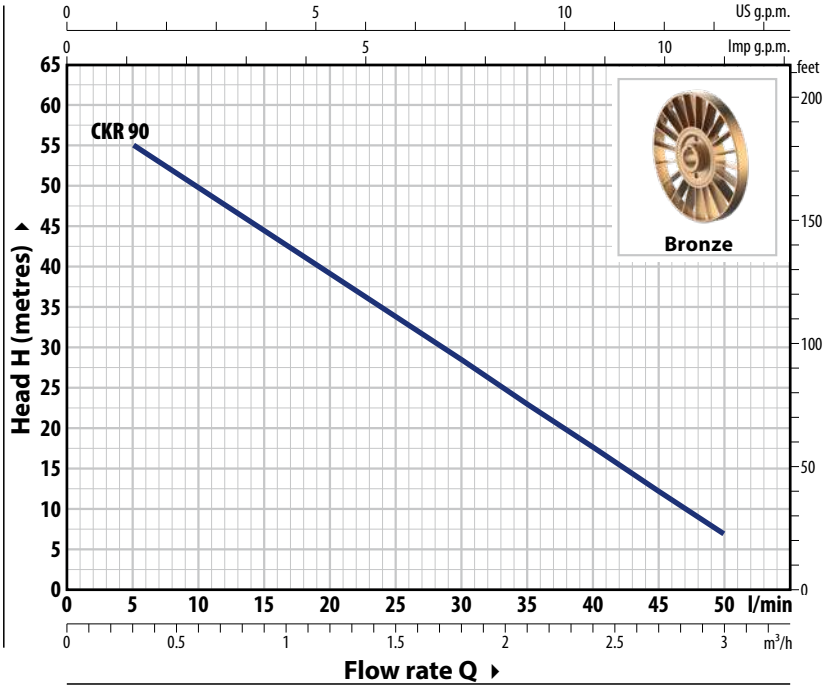
AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Specific voltages
※ Protection rating: IP 55

PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605

CURVES AND PERFORMANCE DATA – HS=0 m 50 Hz



ABSORPTION

TYPE	VOLTAGE
Single-ph.	**230 V**
CKRm 90	5.7 A

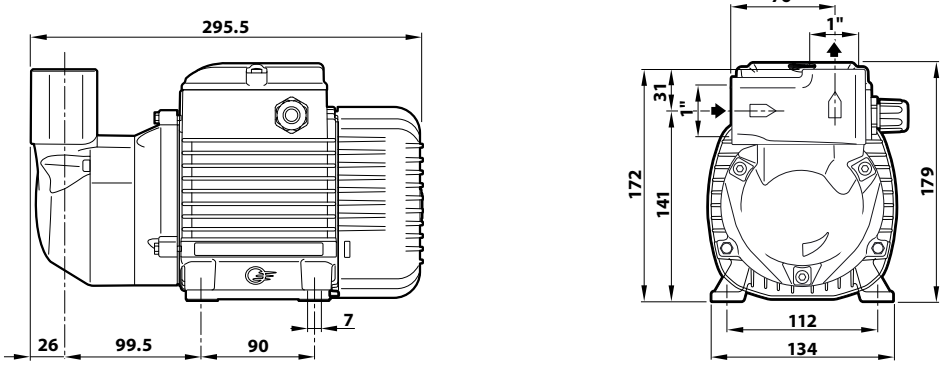
TYPE	VOLTAGE	
Three-ph.	**230 V - Δ**	**400 V - Y**
CKR 90	4.0 A	2.3 A

TYPE		POWER (P2)				Q											
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
							l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
CKRm 90	**CKR 90**	0.75	1	**IE2**	**IE3**	**H**	metres	60	55	49.7	44.3	39	33.7	28.3	23	17.7	12.3	7

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

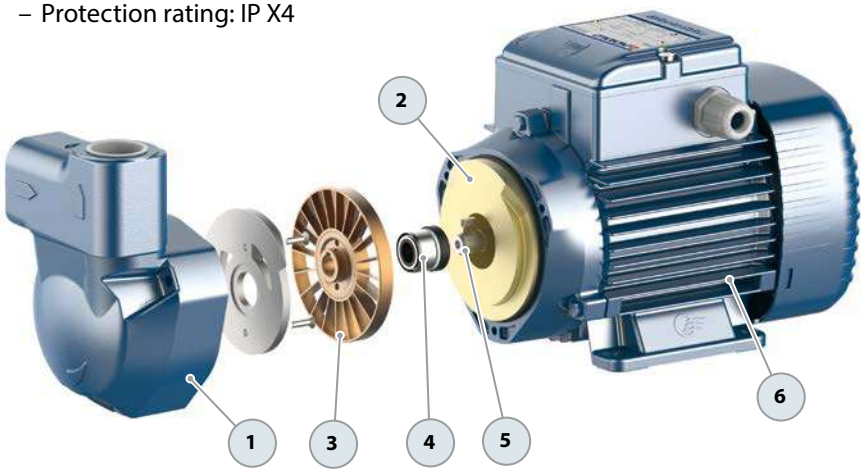
DIMENSIONS (mm)



TYPE		PORTS		WEIGHT (kg)		PALLET CAPACITY
Single-phase	**Three-phase**	**DN1**	**DN2**	1~	3~	
CKRm 90	**CKR 90**	**1"**	**1"**	12.0	12.0	119

CONSTRUCTION FEATURES

1	**Pump body**	Cast iron, with **stainless-steel** front shaving surface to prevent the impeller from locking due to oxidation. The pump body is equipped with ISO 228/1 threaded ports
2	**Motor bracket**	Aluminium with brass cover with front anti-locking shim function (patented)
3	**Impeller**	Bronze, star-type with open radial vanes
4	**Mechanical seal**	Type: **AR-12V** — Materials: Ceramic / Graphite / Viton
5	**Shaft**	Stainless steel **AISI 431**
6	**Electric motor**	**CKRm**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection **CKR**: three-phase 230/400 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



PQ-Bs Peripheral pumps with brass pump body

Clean water

Industrial use

※ **Electric pumps for industrial use**



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m³/h)
- Head up to **95 m**

INSTALLATION AND USE

Designed for pumping diesel/naphtha and **clean water** free from abrasive particles and non-corrosive liquids that do not harm the pump's components.

Their hydraulic characteristics, compactness, and small size make them ideal for industrial applications such as chillers, air conditioners, coolers, and boiler feed systems.

PUMP BODY

The **pump body** is made of **CW617N brass**, which guarantees protection against rust and oxidation.

APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure **10 bar**

AVAILABLE UPON REQUEST

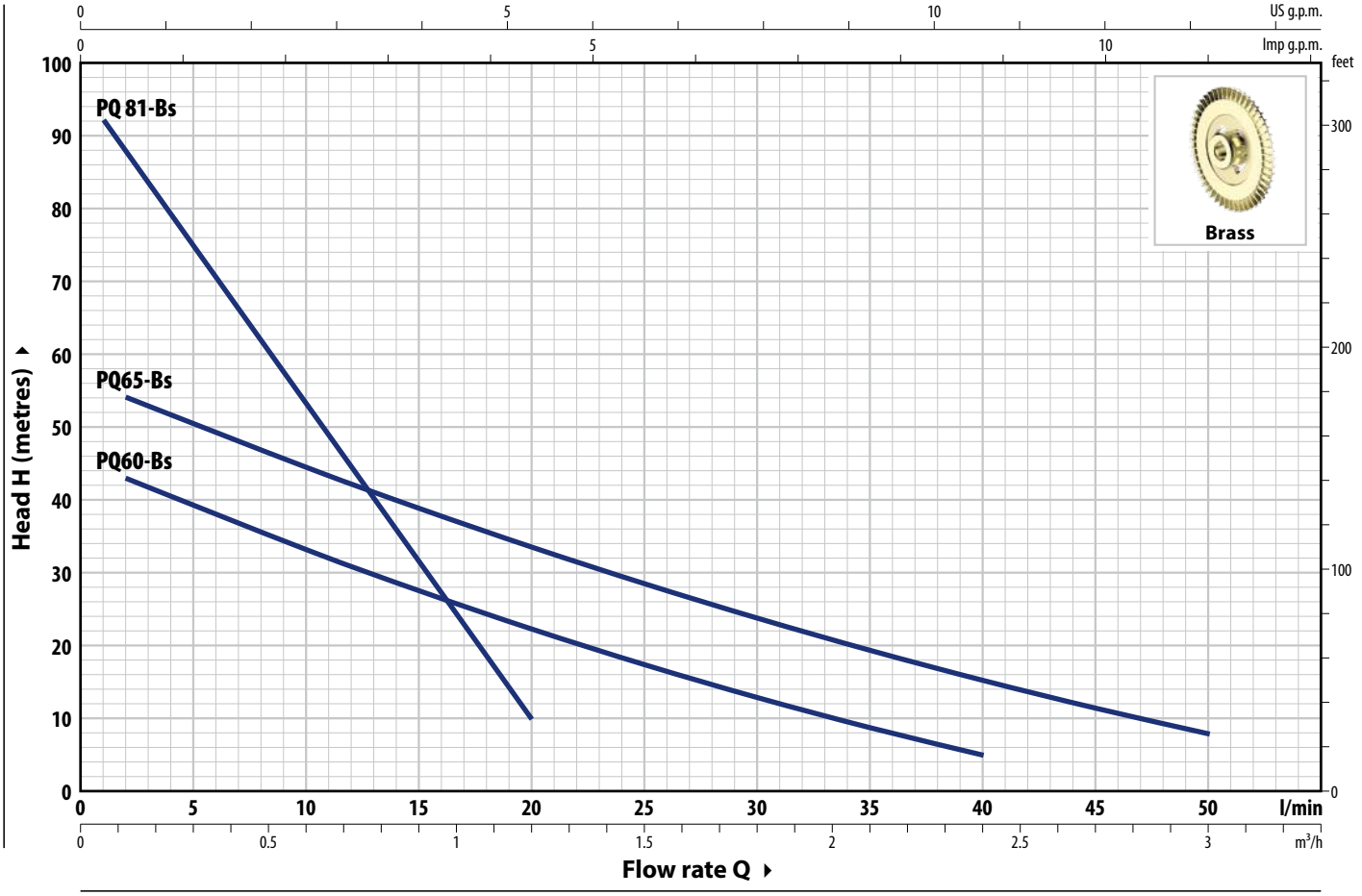
※ Mechanical seal options available
※ Protection rating IP 55 (only for PQ81-Bs and PQ65-Bs)
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Community Model No. 009068877-0001

CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



TYPE		POWER (P2)				Q	m³/h	0	0.06	0.12	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		l/min	**0**	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
PQm 60-Bs	**PQ 60-Bs**	0.30	0.40					45.5	–	43	39	33	27.5	22.3	17.4	12.9	8.8	5		
※ **PQm 65-Bs**	**PQ 65-Bs**	0.55	0.75	**IE2**	**IE3**	**H**	metres	56.5	–	54	50	44.5	39	33.5	28.5	23.8	19.4	15.3	11.5	8
PQm 81-Bs	**PQ 81-Bs**	0.55	0.75					95	92	87.5	75	53	31.5	10						

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

ABSORPTION

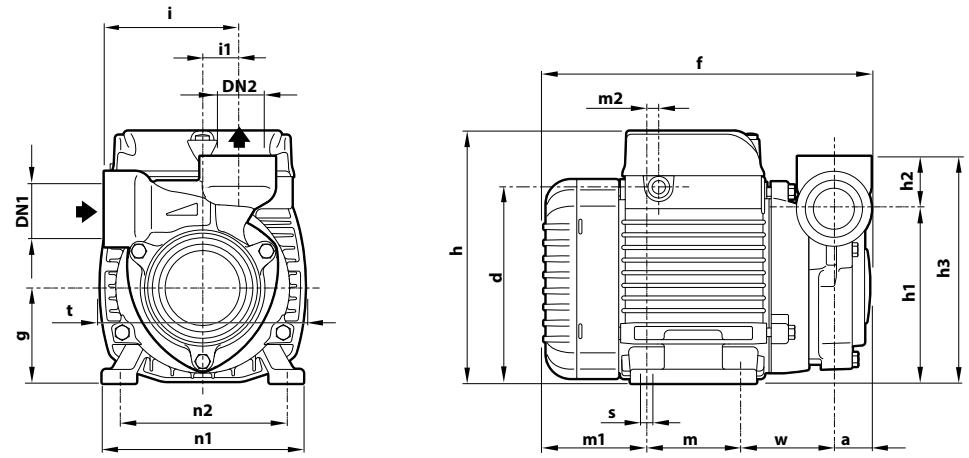
TYPE	VOLTAGE
Single-phase	**230 V**
PQm 60-Bs	2.3 A
PQm 65-Bs	3.7 A
PQm 81-Bs	3.5 A

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PQ 60-Bs	2.0 A	1.15 A
PQ 65-Bs	2.9 A	1.7 A
PQ 81-Bs	2.4 A	1.4 A

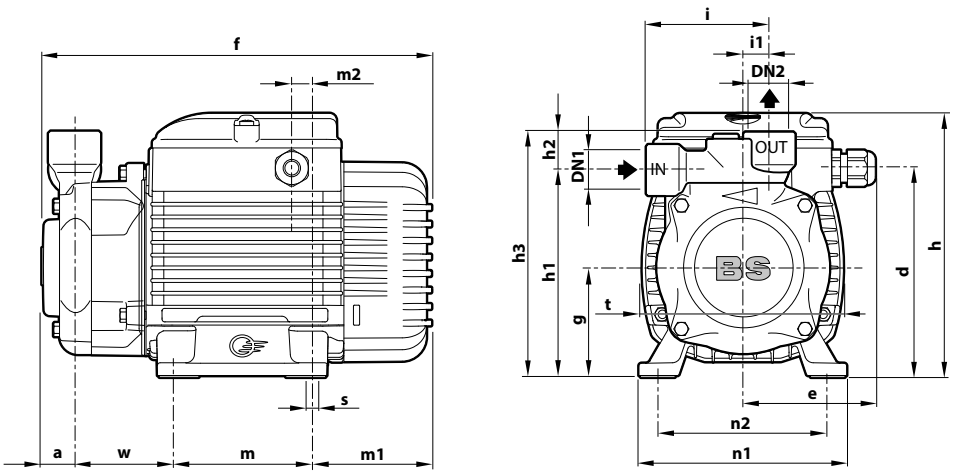
※ **Start of production 06.2024** ※

DIMENSIONS AND WEIGHT

PQ 60-Bs



PQ 65-Bs – PQ 81-Bs



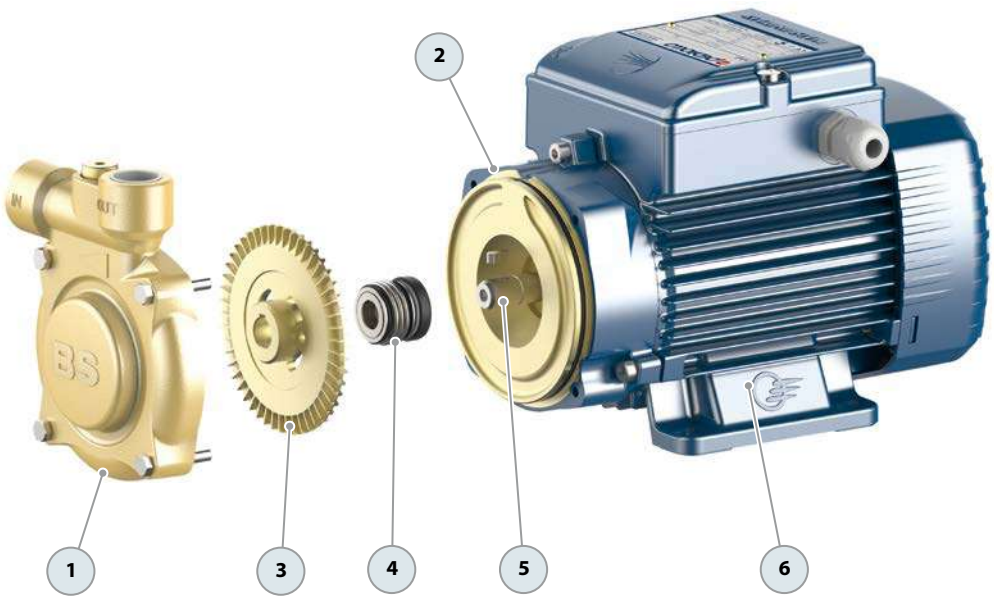
TYPE		PORTS		DIMENSIONS mm																			kg	
Single-ph.	**Three-ph.**	DN1	DN2	a	d	e	f	g	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PQm 60-Bs	**PQ 60-Bs**	¾"	¾"	21.5	112	–	192	56	145.5	101	30	131	76	20	55	62	8	116	100	118	53.5	7	5.0	5.0
PQm 65-Bs	**PQ 65-Bs**			24	119.5	76.5	226	63	153	108		138			80	69	8.5	120		117			7.0	6.4
PQm 81-Bs	**PQ 81-Bs**	½"	½"	18			223			119	22	141	71	15							55		6.9	6.9

PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-ph.	**Three-ph.**	
PQm 60-Bs	**PQ 60-Bs**	238
PQm 65-Bs	**PQ 65-Bs**	216
PQm 81-Bs	**PQ 81-Bs**	160

CONSTRUCTION FEATURES

1	**Pump body**	Brass with ISO 228/1 threaded ports
2	**Motor bracket**	Aluminium with brass cover with anti-lock front shim function (patented)
3	**Impeller**	Brass, radial peripheral vane type
4	**Mechanical seal**	Type: **ST1-12** — Materials: Silicon carbide / Graphite / NBR
5	**Motor shaft**	Stainless steel **AISI 431**
6	**Electric motor**	**PQm-Bs**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection **PQ-Bs**: three-phase 230/40 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models, class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



PQ 81-PPS

Peripheral pump with PPS pump body

Clean water

Industrial use



※ **Pump for industrial use**

INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
Its hydraulic characteristics and compactness make it suitable for **industrial applications**.

PUMP BODY

The material used for the **pump body** is a **PPS-based** technopolymer reinforced with glass fibre, which gives it excellent mechanical properties.

APPLICATION LIMITS

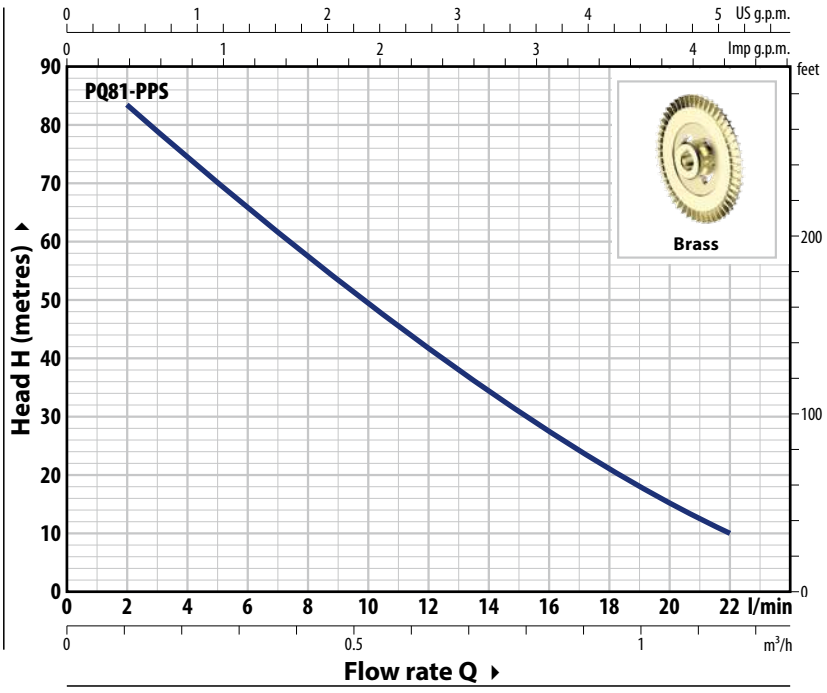
- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Maximum working pressure **10 bar**

AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ IP 55 protection rating
※ Different voltage requirements 60 Hz frequency

CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



ABSORPTION

TYPE	VOLTAGE
Single-phase	**230 V**
PQm 81-PPS	3.5 A

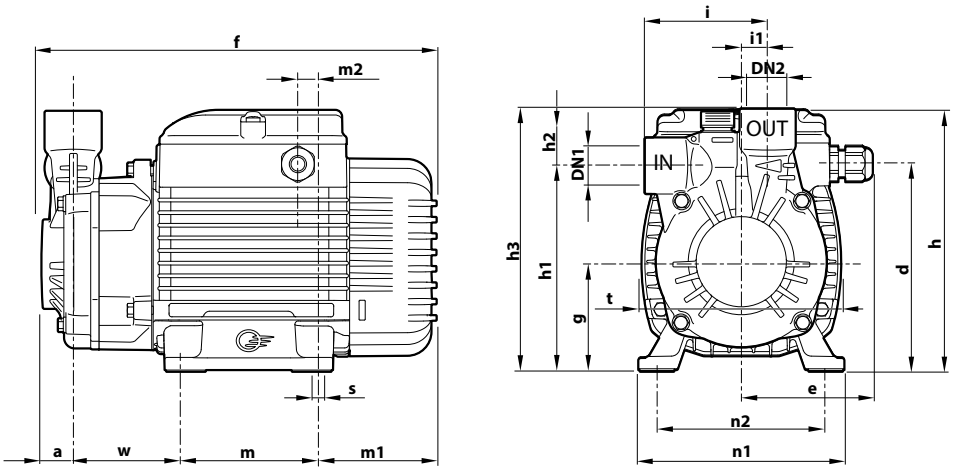
TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PQ 81-PPS	2.4 A	1.4 A

TYPE		POWER (P2)				Q												
Single-ph.	**Three-ph.**	**kW**	**HP**	**1~**	**3~**		m³/h	0	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96	1.08	1.2	1.32
							l/min	**0**	**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**22**
PQm 81-PPS	**PQ 81-PPS**	0.55	0.75	**IE2**	**IE3**	**H**	metres	90	83.5	74.5	66.5	57.5	49	41	35	28	22	15	10

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

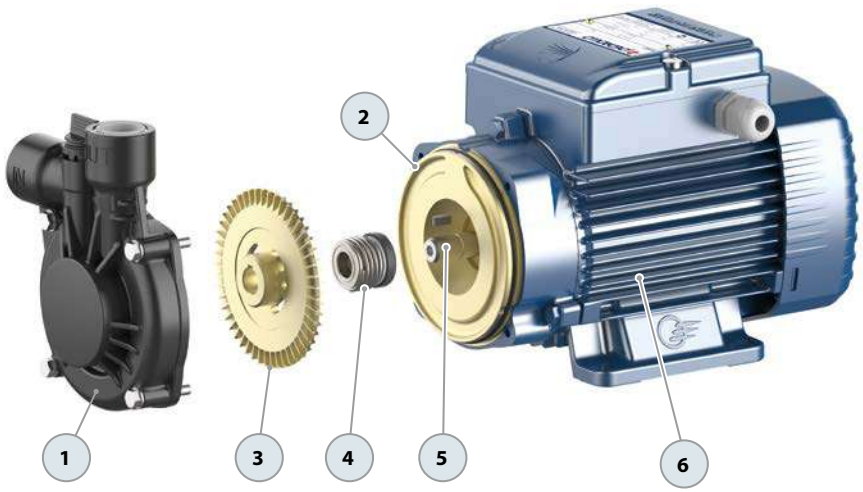
DIMENSIONS (mm)



TYPE		PORTS		DIMENSIONS mm																		kg	
Single-phase	**Three-phase**	DN1	DN2	a	d	e	f	g	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PQm 81-PPS	**PQ 81-PPS**	**½"**	**½"**	18.5	119.5	76.5	223	63	163	119	33	152	71	15	80	69	8.5	120	100	117	61	7	6.5	6.5

CONSTRUCTION FEATURES

1	**Pump body**	**PPS**, with ISO 228/1 threaded brass inserted in ports
2	**Motor bracket**	Aluminium with brass cover with front anti-locking shim function
3	**Impeller**	Brass
4	**Mechanical seal**	Type: **ST1-12** — Materials: Silicon carbide / Graphite / NBR
5	**Shaft**	Stainless steel **AISI 431**
6	**Electric motor**	**PQm-PPS**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection. **PQ-PPS**: three-phase 230/40 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



PQA Peripheral impeller pumps with a PPS pump body

Clean water **Industrial use**



INSTALLATION AND USE

The **PQA** electric pumps are designed to transfer clean water free from abrasive particles and non-corrosive liquids that do not harm the pump's components. Made from PPS with a brass impeller front cover, ensuring protection against rust and oxidation, they are suited for various industrial applications, such as cooling, air conditioning, and ironing systems.

APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C** (**+50 °C** for PQA 60)
- Maximum working pressure **10 bar**

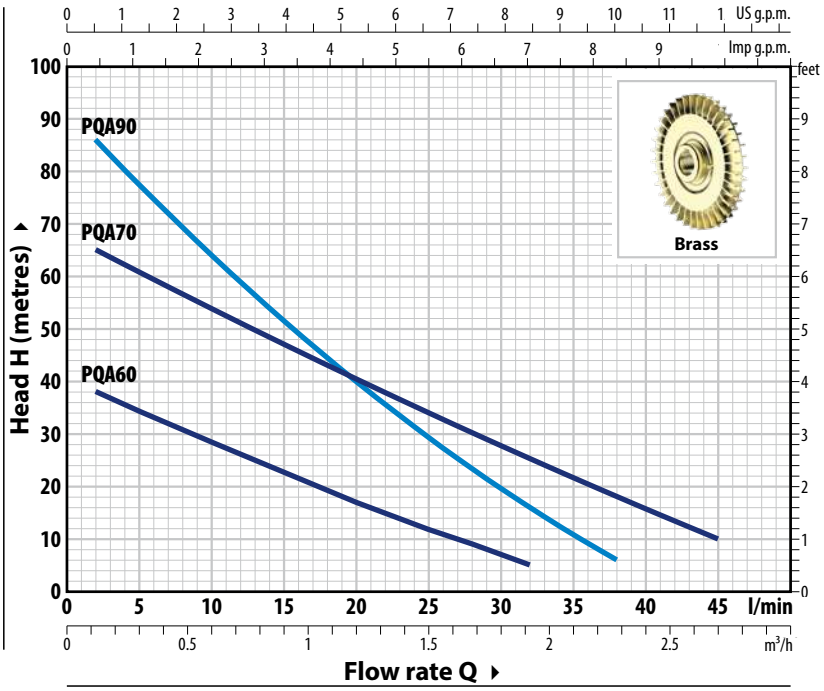
AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Shaft in AISI 316 stainless steel - EN 10088-3 - 1.4401
※ Protection rating IP X5 for PQA 70-90
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Motor bracket: Patent No. IT1243605
- Shaft: Patent No. 0000275945 (PQA 50)

CURVES AND PERFORMANCE DATA – HS=0 m 50 Hz



ABSORPTION

TYPE	VOLTAGE
Single-ph.	**230 V**
PQAm 60	2.3 A
PQAm 70	6.2 A
PQAm 90	5.6 A

TYPE	VOLTAGE	
Three-ph.	**230 V - Δ**	**400 V - ⅄**
PQA 60	2.0 A	1.15 A
PQA 70	4.2 A	2.4 A
PQA 90	4.2 A	2.4 A

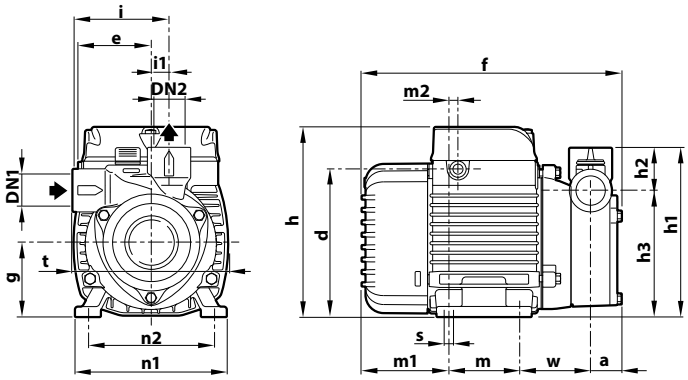
TYPE		POWER (P2)				Q	m³/h	0	0.12	0.3	0.6	0.9	1.2	1.5	1.68	1.8	1.92	2.28	2.46	2.7
Single-phase	**Three-phase**	**kW**	**HP**	**1~**	**3~**		l/min	0	**2**	**5**	**10**	**15**	**20**	**25**	**28**	**30**	**32**	**38**	**41**	**45**
PQAm 60	**PQA 60**	0.30	0.40					40.5	38	34	28	22.5	17	11.8	8.8	6.9	5			
PQAm 70	**PQA 70**	0.55	0.75	**IE2**	**IE3**	**H**	metres	68	65	61	54	47	40.5	34	30	27.5	25.3	18.1	14.6	10
PQAm 90	**PQA 90**	0.75	1					92	86	78	64	51.5	40	29.5	23.4	19.6	16	6		

Q = Flow rate **H** = Total manometric head **HS** = Suction height

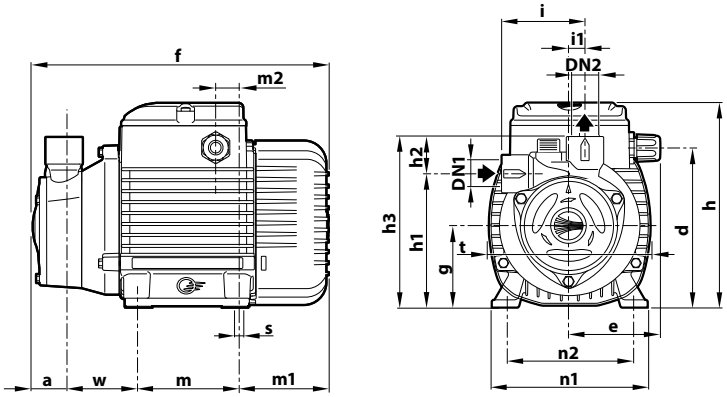
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

DIMENSIONS AND WEIGHT

PQA 60



PQA 70, PQA 90



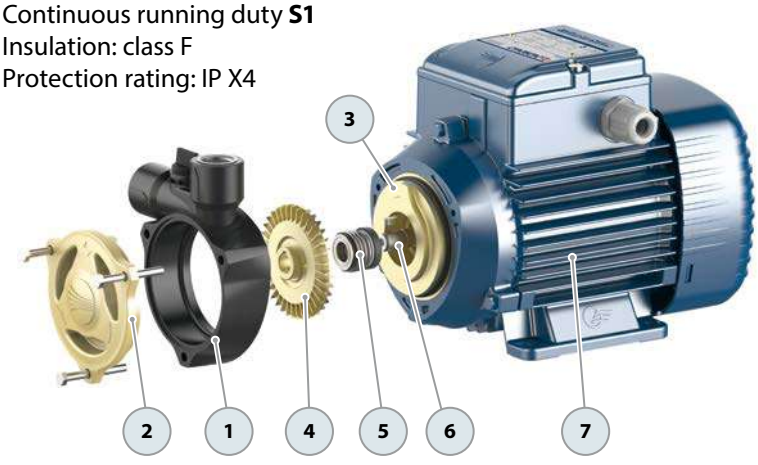
TYPE		PORTS		DIMENSIONS mm																		kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	d	e	f	g	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PQAm 60	**PQA 60**			23	112	55.5	196	56	145	96	33	129			55	65	8	116	97	117	53		4.6	4.6
PQAm 70	**PQA 70**	**½"**	**½"**	28	139	79	261	71	179	116.5	32.5	149	72.5	13.5	90	80.5	22	134	112	142	62.5	7	9.6	9.6
PQAm 90	**PQA 90**			26.5			260			121	35	156	76	16							62		9.7	9.7

PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-ph.	**Three-ph.**	
PQAm 60	**PQA 60**	238
PQAm 70	**PQA 70**	102
PQAm 90	**PQA 90**	102

CONSTRUCTION FEATURES

1	**Pump body**	**PPS**, with ISO 228/1 threaded metal inserted in ports
2	**Cover**	Brass
3	**Motor bracket**	Aluminium with brass cover with front anti-locking shim function (patented)
4	**Impeller**	Brass, radial peripheral vane type
5	**Mechanical seal**	Type: **ST1-12** — Materials: Silicon carbide / Graphite / NBR
6	**Motor shaft**	Stainless steel **AISI 431**
7	**Electric motor**	**PQAm**: single-phase 230 V - 50 Hz with winding integrated thermal motor protection. **PQA**: three-phase 230/400 V - 50 Hz ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models class **IE3** for three-phase models – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X4



PV Peripheral pumps with brass pump body

Clean water

Industrial use



PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m³/h)
- Head up to **105 m**

INSTALLATION AND USE

Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.

The construction features of these compact brass pumps ensure protection against rust and oxidation and are suited for various industrial applications, such as **cooling and air conditioning**.

ELECTRIC MOTOR

Equipped with cutting-edge electric motors, the three-phase pumps are designed to work with inverters, offering stable and noiseless performance.

They feature efficiency class **IE3** for three-phase motors and **IE2** for single-phase motors, bolstered by class F insulation and IPX4 protection.

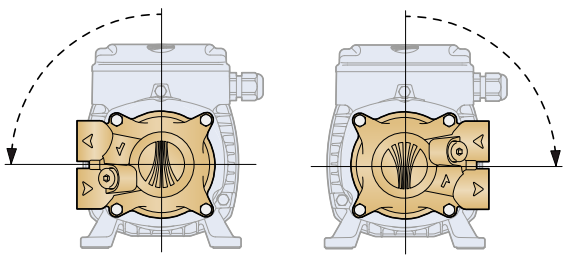
APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+50 °C**
- Maximum working pressure **10 bar**

AVAILABLE UPON REQUEST

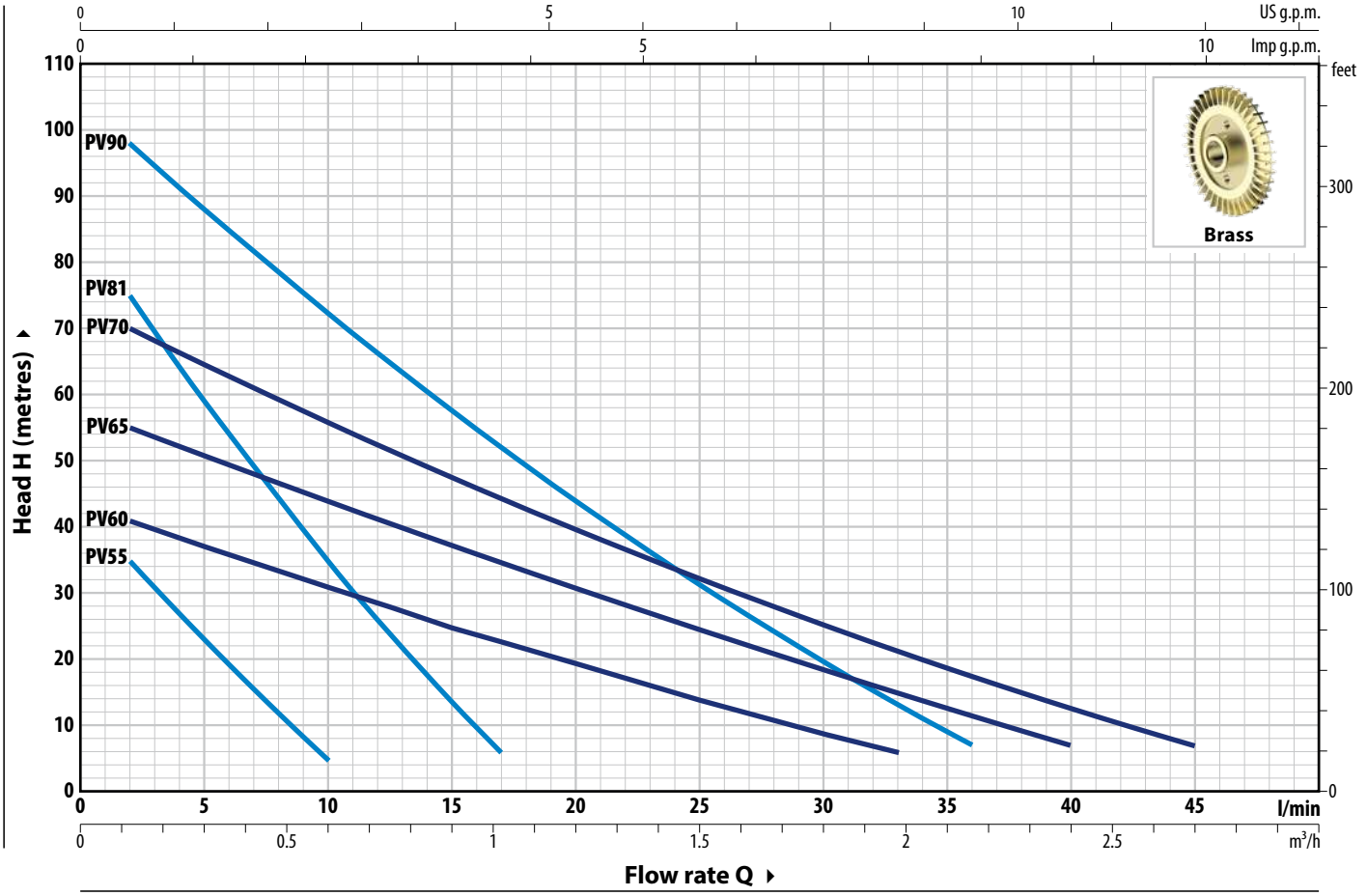
※ Mechanical seal options available
※ Protection rating IP X5 for PV70-90
※ Different voltage requirements 60 Hz frequency

※ **The pump body can be rotated**



CURVES AND PERFORMANCE DATA – HS=0 m

50 Hz



TYPE		POWER (P2)				Q	m³/h	0	0.12	0.18	0.24	0.3	0.36	0.42	0.48	0.54	0.6	0.66	0.72
Single-ph.	Three-ph.	kW	HP	1~	3~		l/min	**0**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
PVm 55	**PV 55**	0.18	0.25	IE2	IE3	**H** metres	**50 Hz**	43	35	31	27	23.2	19.4	15.7	12	8.5	5		
							60 Hz	56	46	41	36.5	32	27.5	23.4	19.4	15.5	11.9	8.3	5

※ The PVm55 and PV55 pump is designed to operate at 50 and 60 Hz

TYPE		POWER (P2)				Q	m³/h	0	0.12	0.3	0.6	0.9	1.02	1.2	1.5	1.8	1.98	2.16	2.4	2.7
Single-ph.	Three-ph.	kW	HP	1~	3~		l/min	**0**	**2**	**5**	**10**	**15**	**17**	**20**	**25**	**30**	**33**	**36**	**40**	**45**
PVm 60	**PV 60**	0.37	0.50					44	41	37	31	25	22.7	19.4	14	8.9	6			
PVm 81	**PV 81**	0.37	0.50					86	75	59	35	13.7	6							
PVm 65	**PV 65**	0.55	0.75	IE2	IE3	**H**	metres	58	55	51	44	37	34.5	31	24.5	18.5	14.9	11.5	7	
PVm 70	**PV 70**	0.75	1					74	70	64.5	56	47.5	44.5	39.5	32	25.3	21.3	17.5	12.7	7
PVm 90	**PV 90**	0.75	1					105	98	88	72.5	57.5	52	44	31	19.6	13.1	7		

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

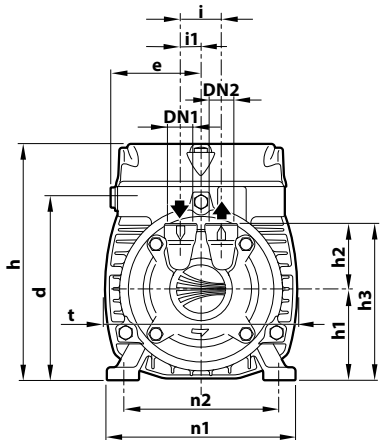
ABSORPTION

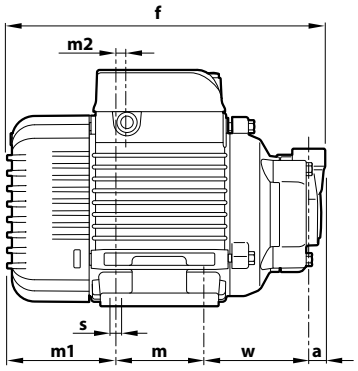
TYPE	VOLTAGE
Single-phase	**230 V**
PVm 55 (50 Hz)	1.6 A
PVm 55 (60 Hz)	2.0 A
PVm 60	2.8 A
PVm 81	3.0 A
PVm 65	4.4 A
PVm 70	6.3 A
PVm 90	6.3 A

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PV 55 (50 Hz)	1.5 A	0.9 A
PV 55 (60 Hz)	1.2 A	0.7 A
PV 60	2.1 A	1.2 A
PV 81	2.1 A	1.2 A
PV 65	2.6 A	1.5 A
PV 70	4.2 A	2.4 A
PV 90	4.2 A	2.4 A

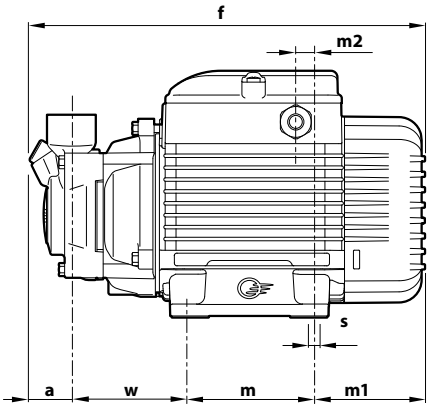
DIMENSIONS AND WEIGHT

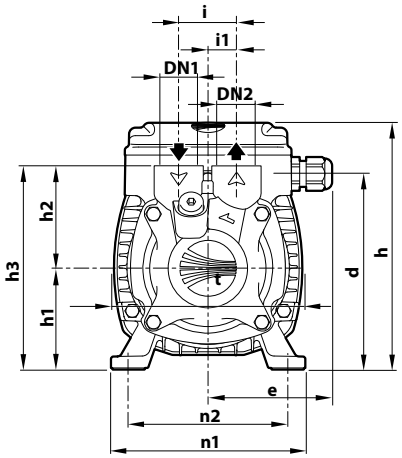
PV 55





PV 60-81-65-70-90



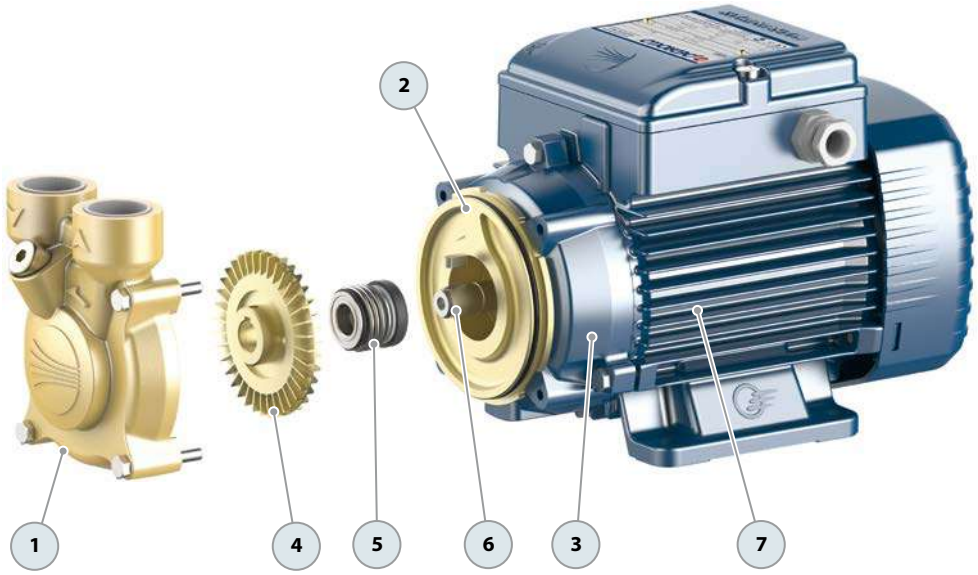


TYPE		PORTS		DIMENSIONS mm																	kg	
Single-ph.	**Three-ph.**	**DN1**	**DN2**	a	d	e	f	h	h1	h2	h3	i	i1	m	m1	m2	n1	n2	t	w	s	1~	3~
PVm 55	**PV 55**	**¼"**	**¼"**	10.5	112	55.5	194	145	56	40	96	25	12.5	55	65.5	8	116	94/100	116	63	7	4.4	4.3
PVm 60	**PV 60**	**½"**	**½"**	26	120.5	76	243.5	152	63	62	125	35	17.5	80	69.5	11.5	120	98/102	116	68		5.5	5.4
PVm 81	**PV 81**			26.5			241			65	128									65		6.9	6.9
PVm 65	**PV 65**	**¾"**	**¾"**	27			243.5			66	129	45	22.5							67	7	6.7	6.7
PVm 70	**PV 70**			26.5	139	79	276	180	71	66	137	45		90	80.5	22	134	110/114	141	79		10.2	9.7
PVm 90	**PV 90**			28			275													76.5		10.0	9.4

(*) h=196 mm for single-phase 110 V versions

CONSTRUCTION FEATURES

1	**Pump body**	Brass, equipped with ISO 228/1 threaded ports
2	**Seal cover**	Brass
3	**Motor bracket**	Aluminum
4	**Impeller**	Brass, radial peripheral vane type
5	**Mechanical seal**	Type: **ST1-12** / Shaft: Ø 12 mm / Materials: Silicon carbide / Graphite / NBR
6	**Motor shaft**	Stainless steel **AISI 431**
7	**Electric motor**	**PVm**: single-phase 230 V - 50 Hz (50/60 Hz for PVm55) with winding integrated thermal motor protection. **PV**: three-phase 230/400 V - 50 Hz (50/60 Hz for PV55). ※ Pumps are equipped with high-efficiency motors (IEC 60034-30-1) class **IE2** for single-phase models, class **IE3** for three-phase models Continuous running duty **S1**



PQ 3000 Peripheral impeller pumps

Clean water **Industrial use**



INSTALLATION AND USE

- Designed to transfer clean water free from abrasive particles and liquids that will not damage the pump's components.
- Its hydraulic characteristics make it suitable for **industrial applications**.
- **PQ3000** pump's body is available in cast iron (cost-effective) or micro-cast stainless steel.

APPLICATION LIMITS

- Manometric suction head up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+50 °C**
- Maximum working pressure **18 bar**

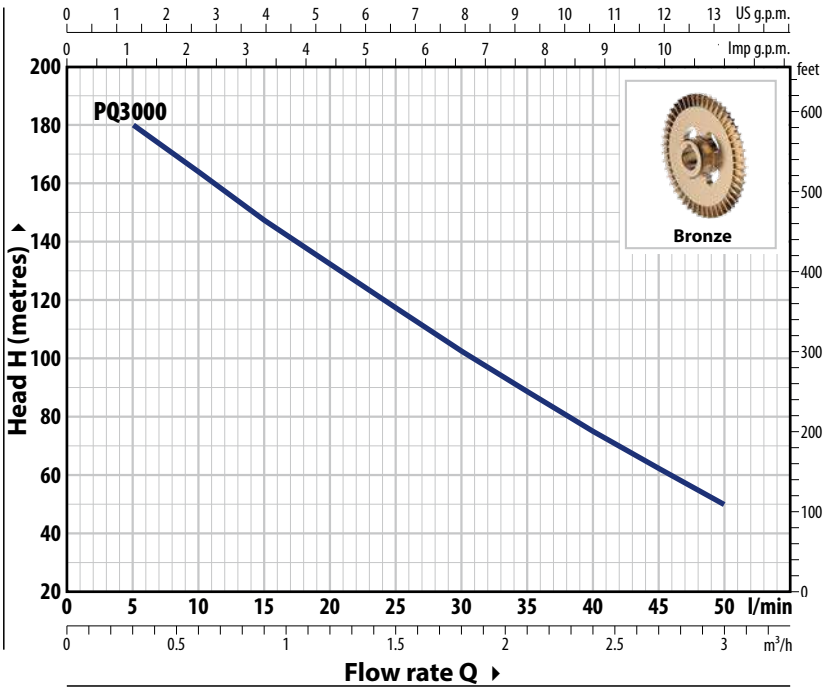
AVAILABLE UPON REQUEST

※ Mechanical seal options available
※ Shaft in stainless steel AISI 316 EN 10088-3 - 1.4401
※ Different voltage requirements 60 Hz frequency

PATENTS - TRADE MARKS - MODELS

- Registered community model
  No. 002714469 for PQ 3000-MF

CURVES AND PERFORMANCE DATA – HS=0 m 50 Hz



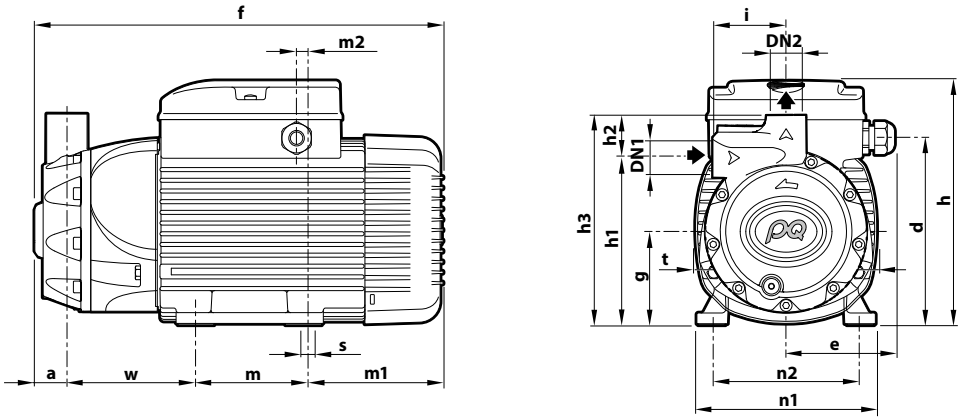
ABSORPTION

TYPE	VOLTAGE	
Three-phase	**230 V - Δ**	**400 V - Y**
PQ 3000	12.9 A	7.5 A
PQ 3000-MF	12.9 A	7.5 A

TYPE	POWER (P2)			Q										
Three-phase	**kW**	**HP**	**3~**		m³/h	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3
					l/min	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
PQ 3000	2.2	3	**IE3**	**H**	metres	180	164	148	132	117	103	89	75.5	62.5	50
PQ 3000-MF	2.2	3				180	164	148	132	117	103	89	75.5	62.5	50

Q = Flow rate **H** = Total manometric head **HS** = Suction height

Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.



TYPE	PORTS		DIMENSIONS mm																		kg	PALLET CAPACITY
Three-phase	**DN1**	**DN2**	a	d	e	f	g	h	h1	h2	h3	i	m	m1	m2	n1	n2	t	w	s	3~	
PQ 3000	¾"	¾"	37	157.5	92	356	80	211	142	36	178	62	100	114	11	151	125	155	105	9	19.9	72
PQ 3000-MF			28			347															19.1	72

CONSTRUCTION FEATURES

1	**Pump body**	※ PQ 3000: **cast iron** with anti-blocking treatment with ISO 228/1 threaded ports ※ PQ 3000-MF: **stainless steel AISI 316** with ISO 228/1 threaded ports
2	**Cover seal**	Stainless steel **AISI 316**
3	**Motor bracket**	Aluminum
4	**Impeller**	**Bronze**, radial peripheral vane type
5	**Mechanical seal**	Type: **FN-18 NU** — Materials: Graphite/ Ceramic/ NBR
6	**Motor shaft**	Stainless steel **AISI 431**
7	**Electric motor**	Three-phase 230/400 V - 50 Hz ※ The pumps are equipped with motors (IEC 60034-30-1) in class **IE3** – Continuous running duty **S1** – Insulation: class F – Protection rating: IP X5

