Chemical centrifugal pumps

Lutz-Jesco GmbH

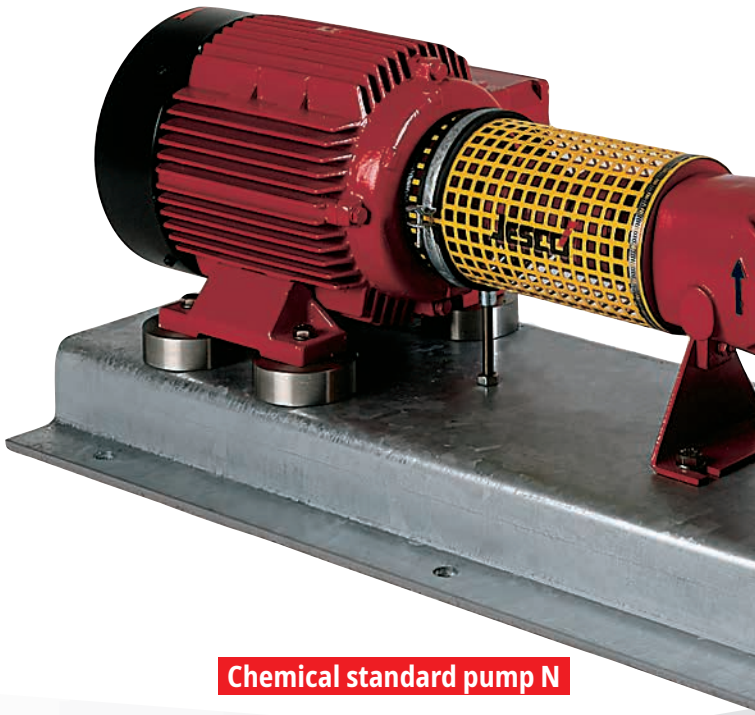
safety is our concern

Content

Chemical centrifugal pumps 3
Chemical motor block pump MB..... 6
Chemical motor block pump BN 11
Chemical standard pump N..... 23

Magnetically coupled centrifugal pumps 4
Magnetically coupled chemical centrifugal pump TMB 35
Magnetically coupled chemical centrifugal pump AM .. 40
Magnetically coupled chemical centrifugal pump TMR G2 44
Magnetically coupled chemical centrifugal pump TMR G3 50

Service 56



Chemical standard pump N

Chemical centrifugal pumps for industrial use

Tradition creates innovation

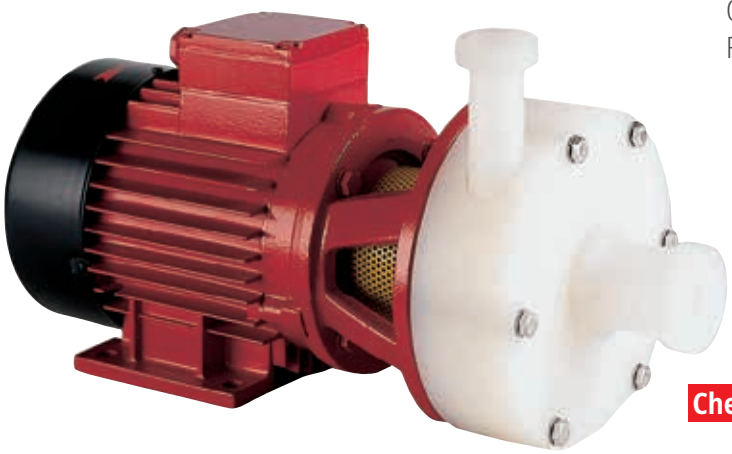
Many decades of experience are incorporated in the centrifugal pumps from Lutz-Jesco. Special coatings and highly resistant materials guarantee maximum reliability and longevity, even with the most aggressive media. Our range of products includes motor block pumps and standard pumps for almost every conceivable scope of application.

The chemical centrifugal pumps from Lutz-Jesco have been specially developed for use in industrial applications and are therefore particularly robust and durable. This also applies to especially aggressive media and extremely challenging applications.

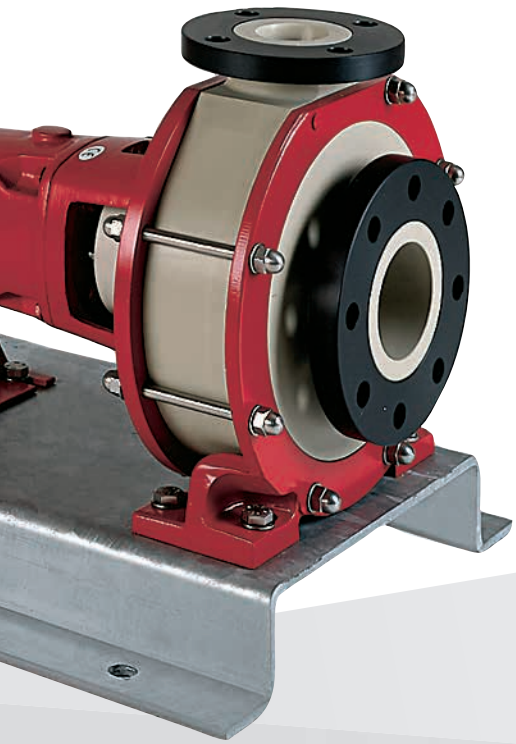
The horizontal, normal-priming **chemical motor block pumps MB** have been especially designed for low-viscosity, acidic and alkaline solutions with a low solid content. The pump head of the single-stage devices is made of high-quality plastics with a hydraulically efficient spiral housing. The maximum delivery rate is 19 m^3/h.

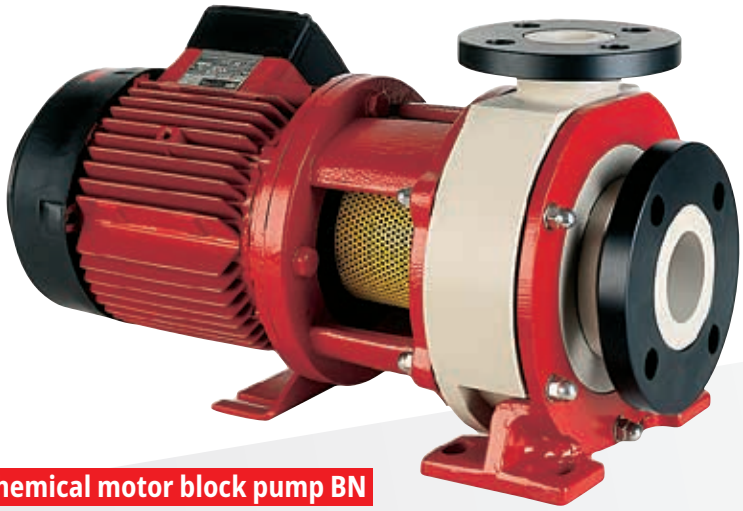
Chemical motor block pumps BN are single-stage, normal-priming pumps with a horizontal design. They are supplied complete with a motor for quick and easy installation in the piping system. Suitable for delivery rates up to 120 m^3/h.

Chemical standard pumps N are single-stage, normal-priming centrifugal pumps with a spiral housing. Thanks to the modular system, the bearing frame can be removed without the need to dismantle the pipe line connection and the motor. Quiet and vibration-free operation thanks to a robust design. For delivery capacities up to 120 m^3/h.



Chemical motor block pump MB





Chemical motor block pump BN

Magnetically coupled centrifugal pumps for the highest demands

Clear advantages

Chemical centrifugal pumps with a magnetic coupling work without a mechanical shaft seal. Power is transmitted from the drive motor to the impeller in a contact-free manner via permanent magnets.

With no seal and environmentally safe

With non-contact magnetic power transmission, no shaft seals are necessary and thus a hermetically sealed pump housing is possible, which prevents leaks.

Appropriate bearing systems

Bearings made of carbon, ceramic, silicon carbide and PTFE allow individual adaptation to difficult operating conditions, such as dry running or, media containing solids or highly aggressive media.

Operating safety and a high degree of efficiency

The use of powerful permanent magnets guarantees high transmission forces even at high temperatures. Optimally matched bearing material pairings minimise friction losses.

Dosing media

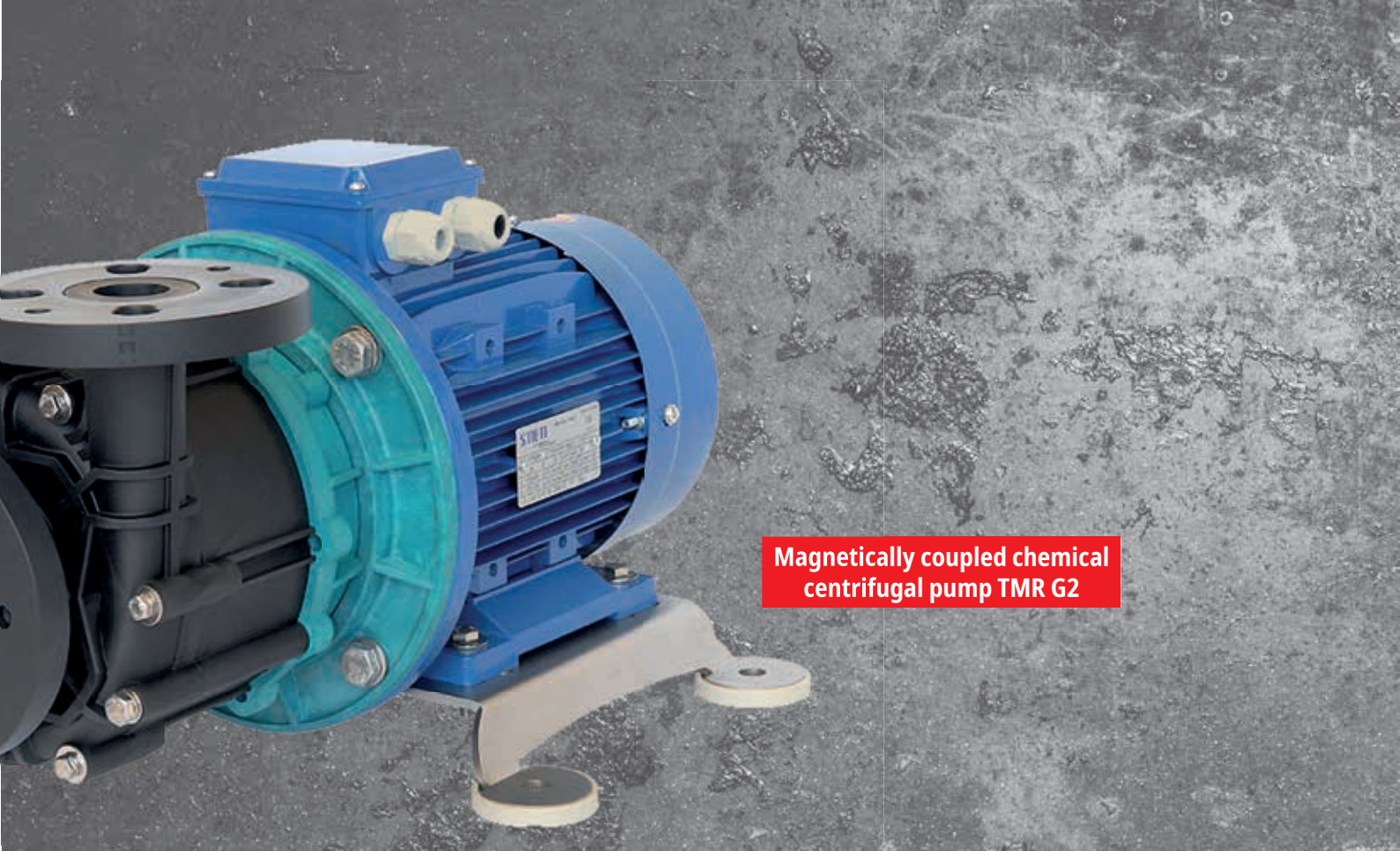
Chemical centrifugal pumps with a magnetic coupling are ideal for conveying acids; alkalis; acid and alkali mixtures; solvents; alkaline degreasing baths; galvanic baths; photographic chemicals; radioactive, sterile, valuable and highly corrosive liquids; and many other low-viscosity media.

Areas of application

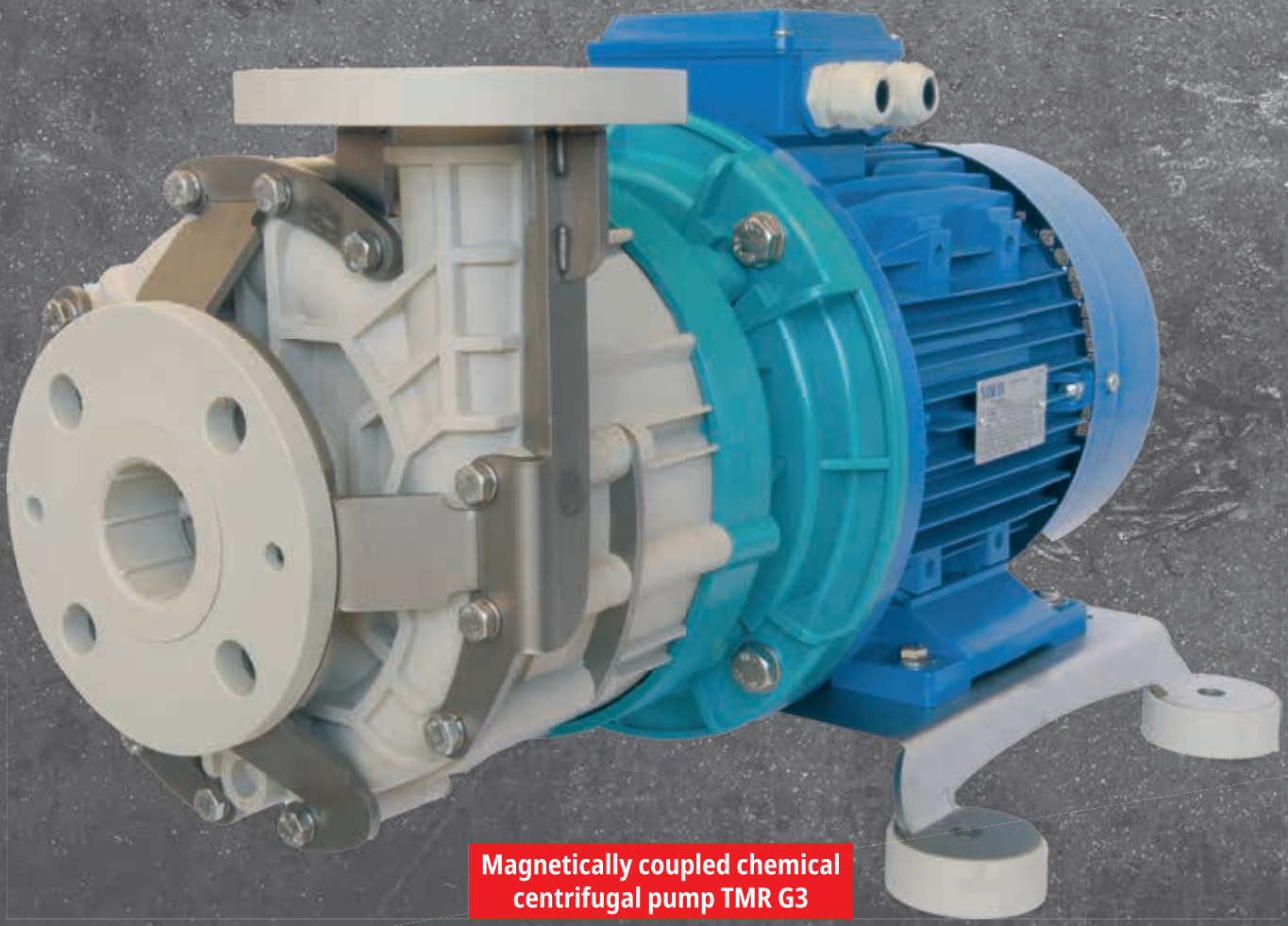
Chemical centrifugal pumps with a magnetic coupling can be deployed for the following applications without difficulty: Electroplating and surface treatment systems, etching and cleaning systems, water treatment and waste water technology, printed circuit board production, the chemical industry in general, electroplating and acid plant engineering, the photographic industry, solar power systems.

Magnetically coupled chemical centrifugal pump TMB

Magnetically coupled chemical centrifugal pump AM



Magnetically coupled chemical centrifugal pump TMR G2



Magnetically coupled chemical centrifugal pump TMR G3

Chemical motor block pump MB

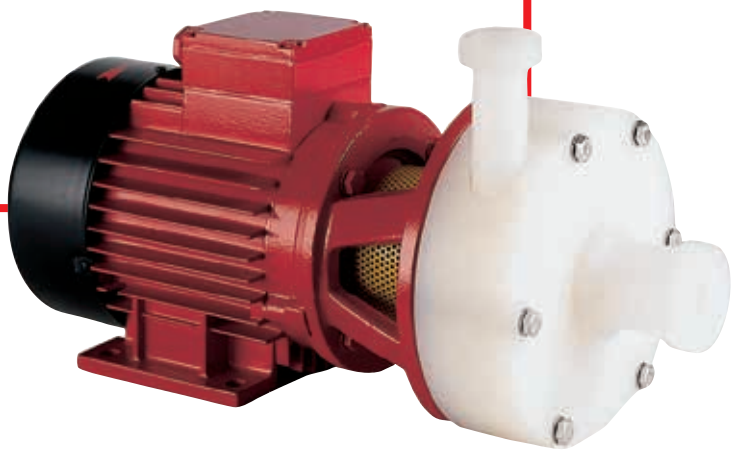
General

- Single-stage, normal-priming horizontal pump
- Pump head from high-quality thick-walled plastic
- Pipe line connection suction and pressure side with exterior thread
- Open impeller
- Corrosion-resistant
- Wetted-end parts made of highly resistant material
- Stainless steel pump shaft with shaft protection sleeve
- Mechanical seal systems depending on medium
- Vibration-free operation
- Special designs on request

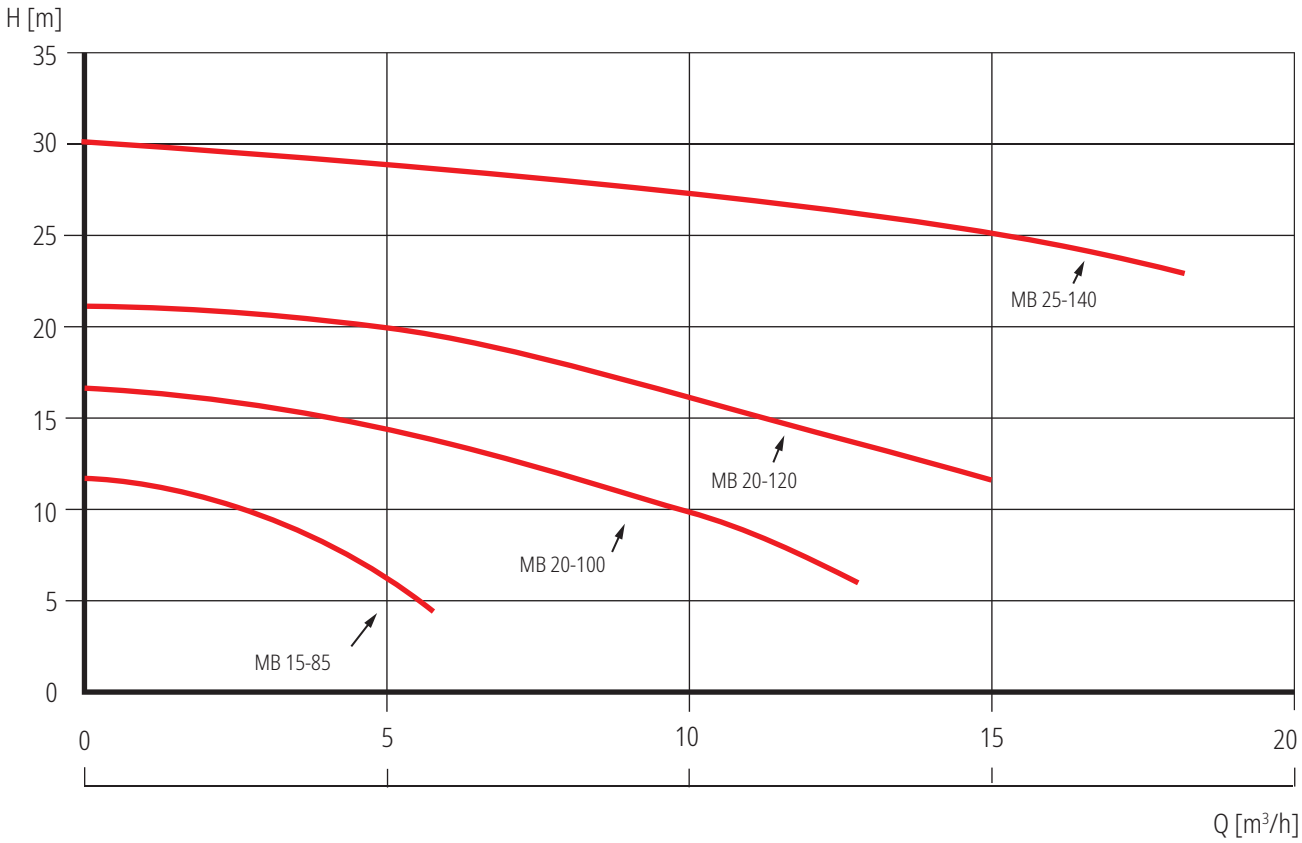
Technical data			
Model			Block construction
Materials			PP, PVDF
Max. delivery rate Q		m^3/h	19
Max. delivery head H		m	30
Motor output with speed 2900 min-1		kW	0.37 – 2.2
Ambient temperature		°C	5 – 40
Max. permissible media temperature depending on the medium	PP	°C	80
	PVDF	°C	120

Possible seal designs

- **B2i:** Single-acting, internal mechanical seal, independent direction of rotation
- **B2Q:** Single-acting, internal mechanical seal, independent direction of rotation with quenching chamber for supply of external liquid
- **B2D:** Double acting with chenching chamber for dual active barrier and buffer fluid systems



Characteristic curves

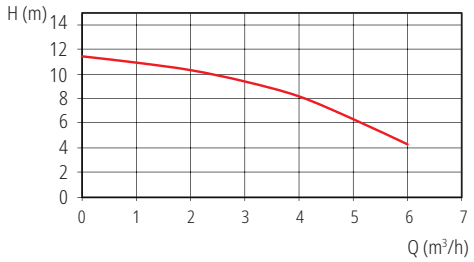


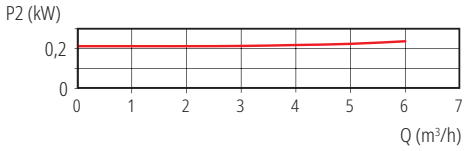
Individual characteristic curves

MB 15-85

Motor: 0.37 kW

Speed: 2900 min^{-1}

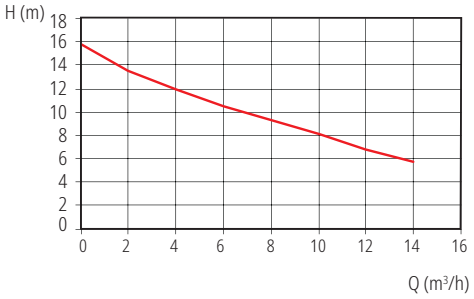


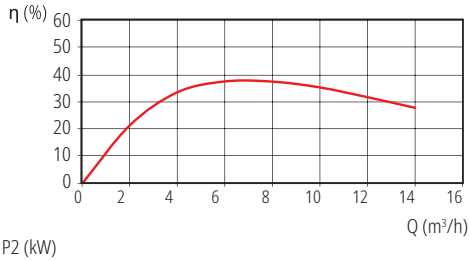


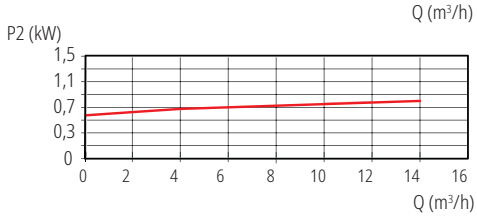
MB 20-100

Motor: 1.1 kW

Speed: 2900 min^{-1}



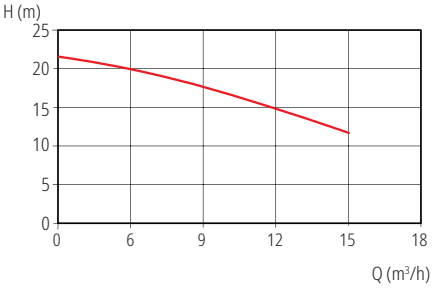


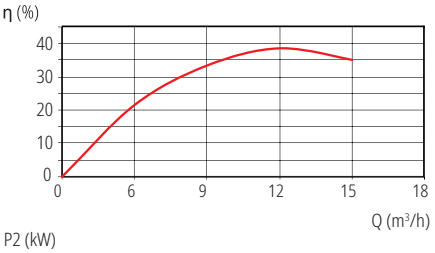


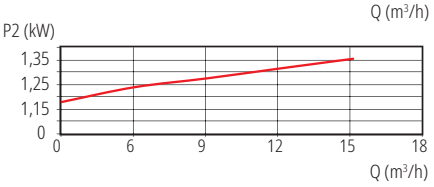
MB 20-120

Motor: 1.5 kW

Speed: 2900 min^{-1}



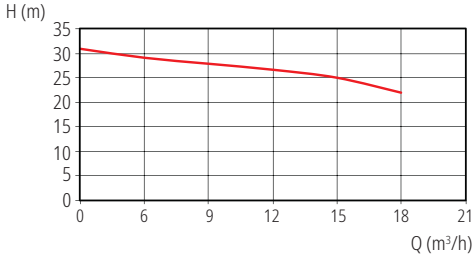


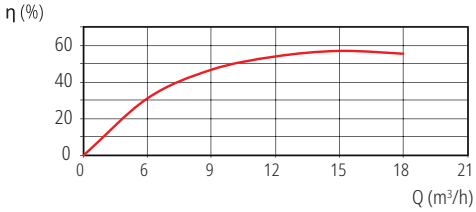


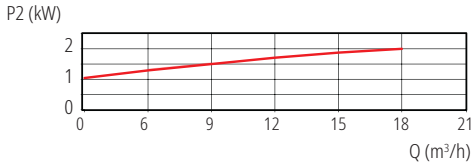
MB 25-140

Motor: 2.2 kW

Speed: 2900 min^{-1}

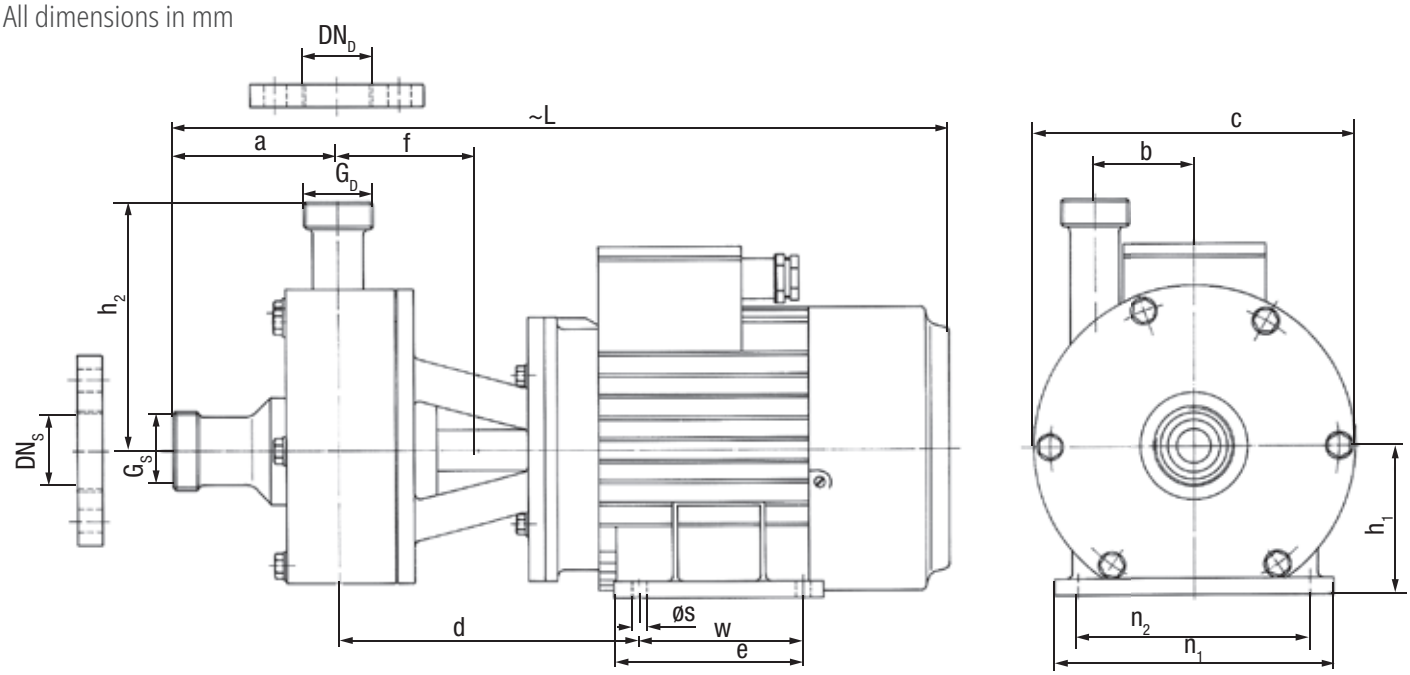






Dimensions

All dimensions in mm



Pump type	MB 15-85	MB 20-100	MB 20-120	MB 25-140
G_D thread outlet	G1 male	G1 1/4 male	G1 1/4 male	G1 1/2 male
G_S thread entry	G1 1/4 male	G1 1/2 male	G1 1/2 male	G2 male
DN_D flange outlet	15	20	20	25
DN_S flange entry	20	25	25	32
a	75	100	100	100
h_1	71	80	90	90
h_2	100	150	150	150
w	90	100	100	125
e	106	126	127	145
øs	7	10	10	10
b	40	60	60	60
n_1	132	150	167	167
n_2	112	125	140	140
c	125	195	195	195
d	137	174	180	180
~ L	373	452	476	486
f sealing chamber	60	87	87	87
f quenching chamber	60	83.5	83.5	83.5

Chemical motor block pump BN

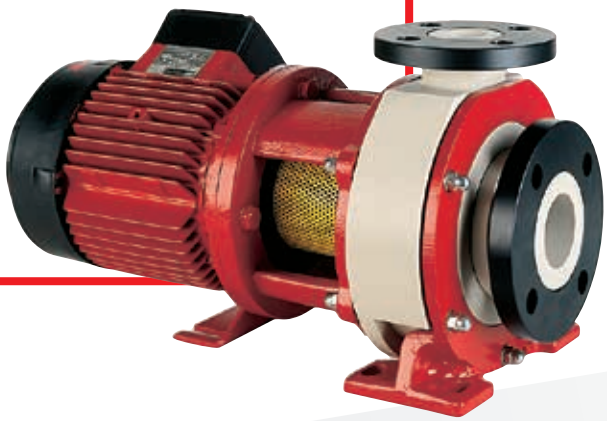
General

- Single-stage, normal-priming horizontal pump
- Piping connections according to DIN EN 22858/ISO 2858
- Corrosion-resistant
- Wetted-end parts made of highly resistant material
- Stainless steel pump shaft with shaft protection sleeve
- Mechanical seal systems depending on medium
- Perfectly dimensioned shafts and bearings
- Space-saving installation
- Vibration-free operation
- Special designs on request

Technical data			
Model			Block construction
Materials			PP, PVDF
Max. delivery rate Q		m^3/h	120
Max. delivery head H		m	60
Motor power at	Speed 1450 min^{-1}	kW	1.1 – 4
	Speed 2900 min^{-1}	kW	1.5 – 11
Ambient temperature		°C	5 – 40
Max. permissible media temperature depending on the medium	PP	°C	80
	PVDF	°C	120

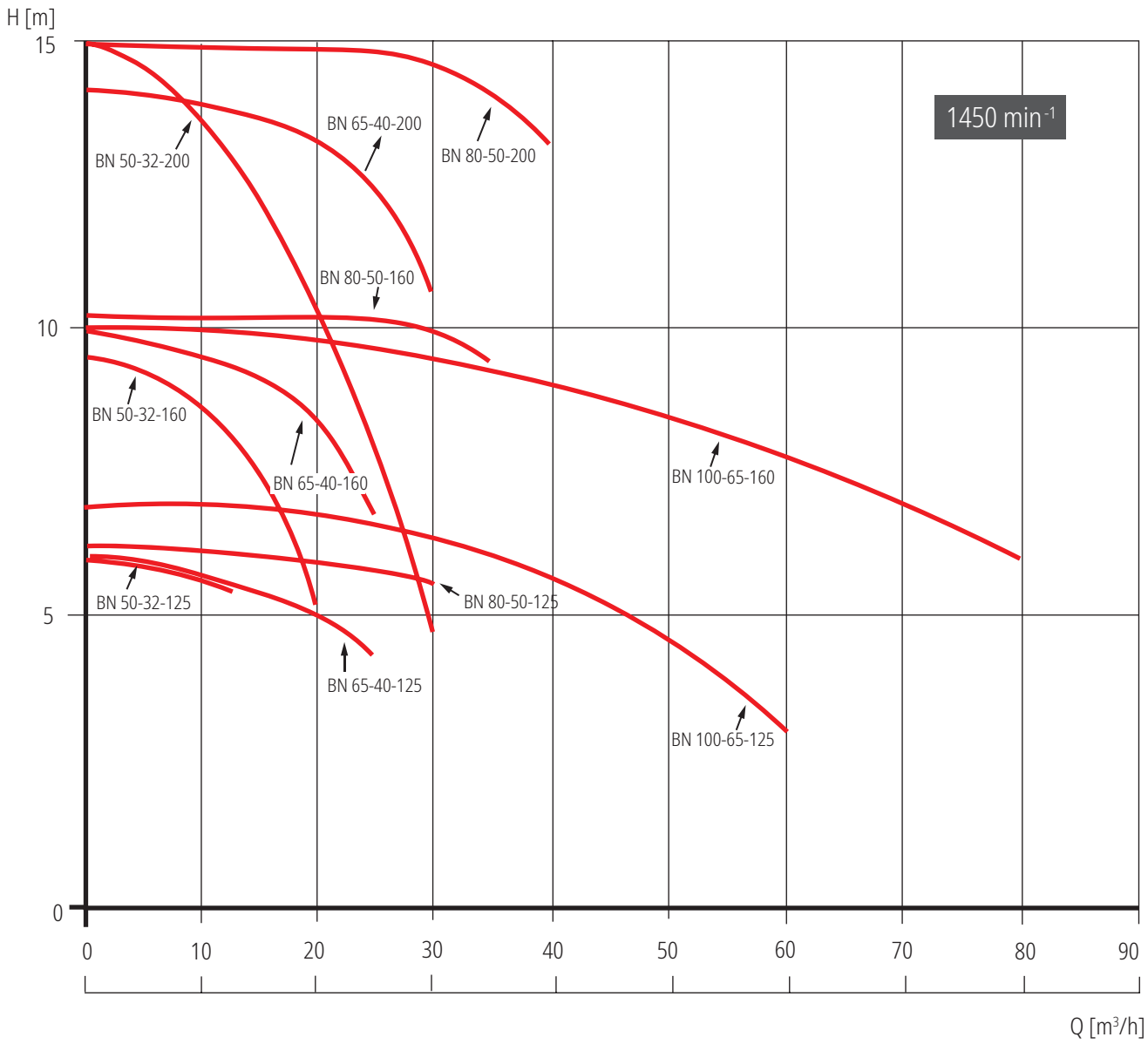
Possible seal designs

- **B2i:** Single-acting, internal mechanical seal, independent direction of rotation
- **B2Q:** Single-acting, internal mechanical seal, independent direction of rotation with quenching chamber for supply of external liquid
- **B2D:** Double acting with chenching chamber for dual active barrier and buffer fluid systems

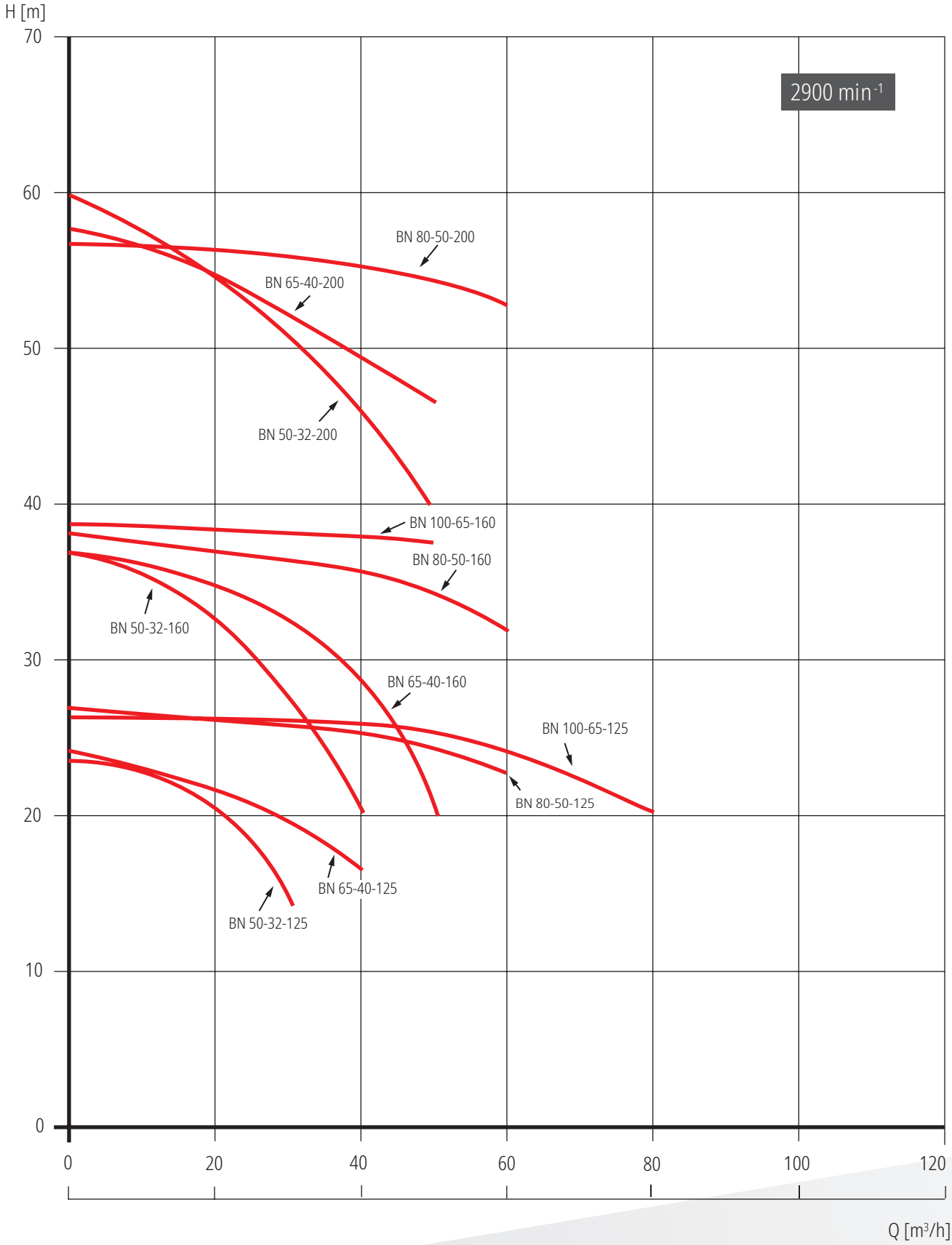


Characteristic curves

Horizontal, normal priming chemical motor block pump BN 1450 min^{-1}



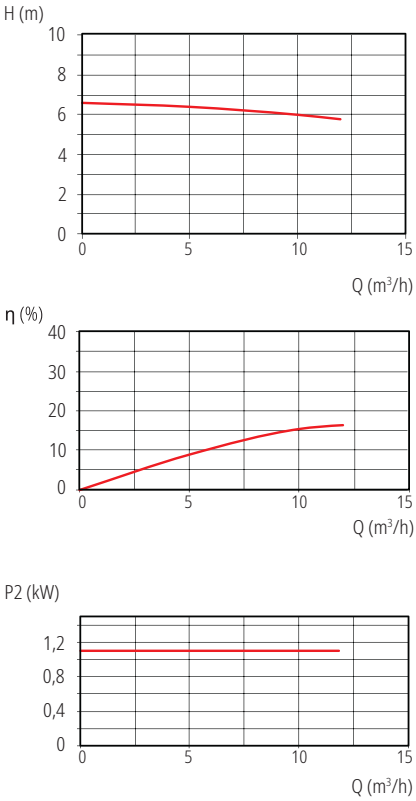
Horizontal, normal priming chemical motor block pump BN 2900 min^{-1}



Individual characteristic curves 1450 min^{-1}

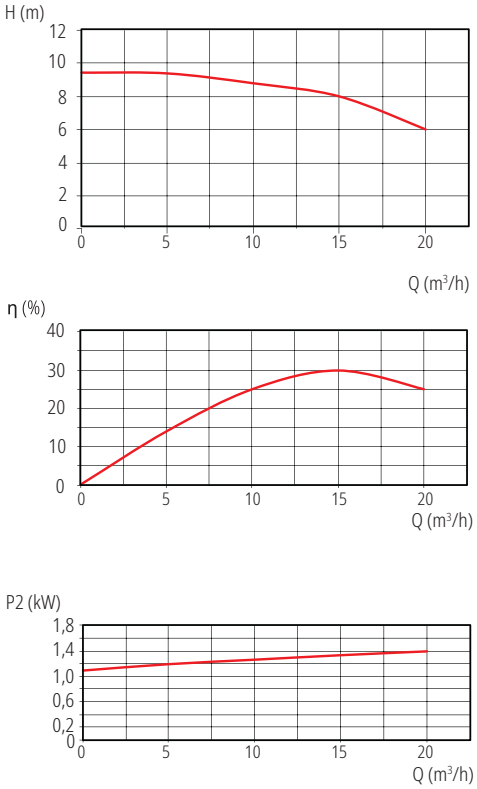
BN 50 - 32 - 125, 140 mm

Motor: 1.1 kW
Speed: 1450 min^{-1}



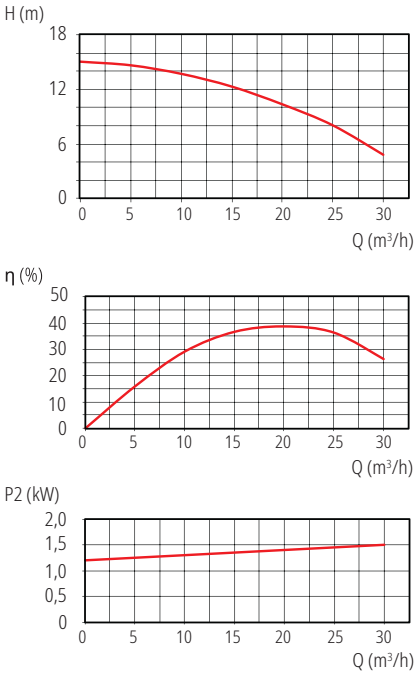
BN 50 - 32 - 160, 172 mm

Motor: 1.5 kW
Speed: 1450 min^{-1}



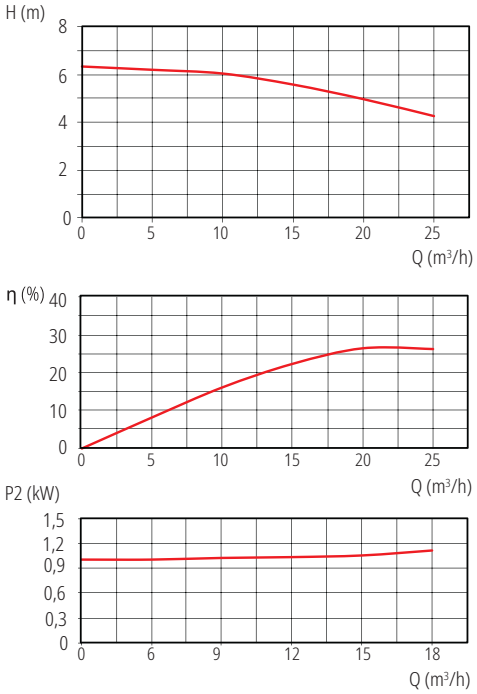
BN 50 - 32 - 200, 210 mm

Motor: 1.5 kW
Speed: 1450 min^{-1}



BN 65 - 40 - 125, 140 mm

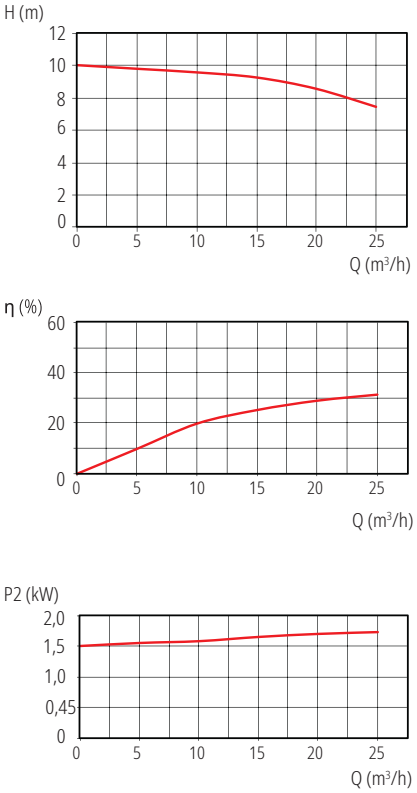
Motor: 1.5 kW
Speed: 1450 min^{-1}



BN 65 - 40 - 160, 172 mm

Motor: 2.2 kW

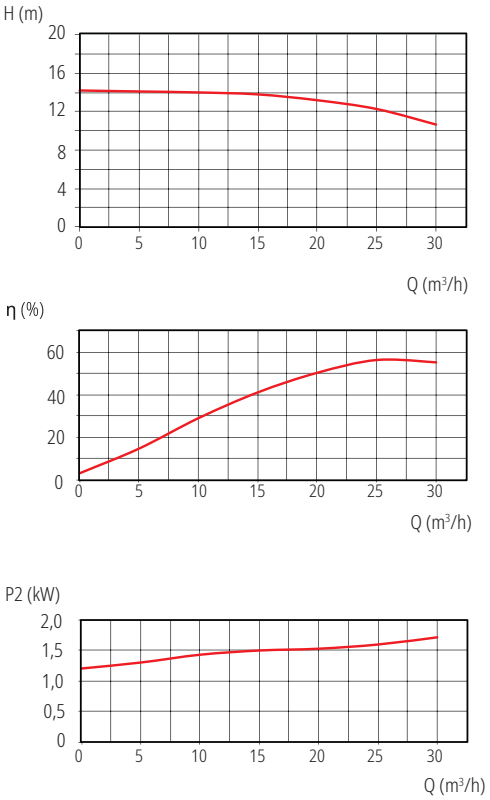
Speed: 1450 min^{-1}



BN 65 - 40 - 200, 210 mm

Motor: 2.2 kW

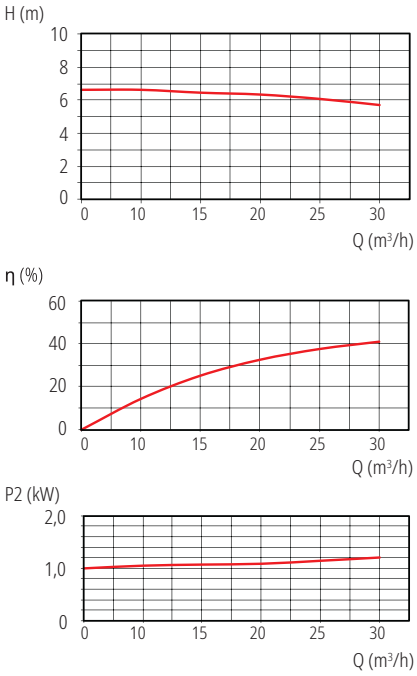
Speed: 1450 min^{-1}



BN 80 - 50 - 125, 145 mm

Motor: 1.5 kW

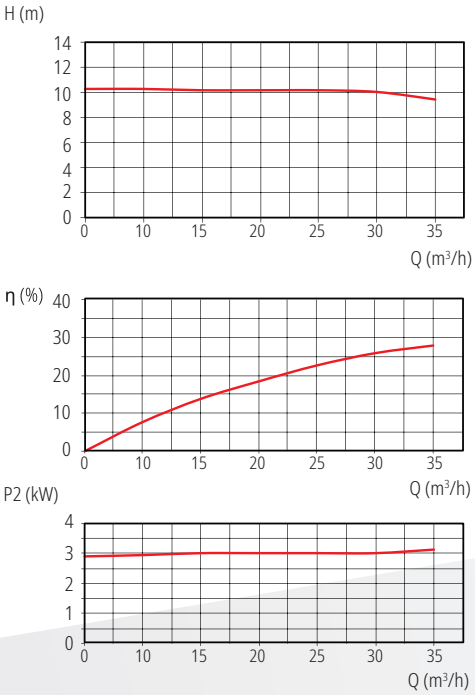
Speed: 1450 min^{-1}



BN 80 - 50 - 160, 172 mm

Motor: 4 kW

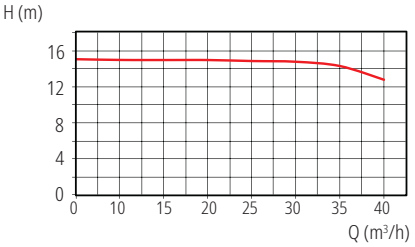
Speed: 1450 min^{-1}

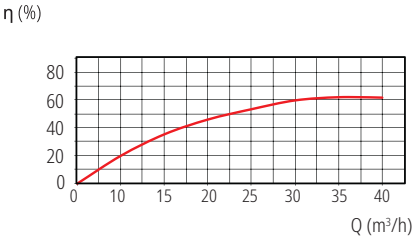


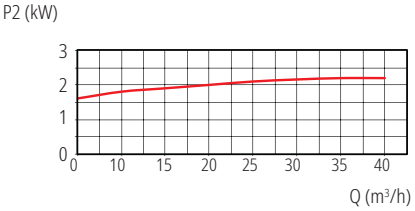
Individual characteristic curves 1450 min^{-1}

BN 80 - 50 - 200, 210 mm

Motor: 3 kW
Speed: 1450 min^{-1}

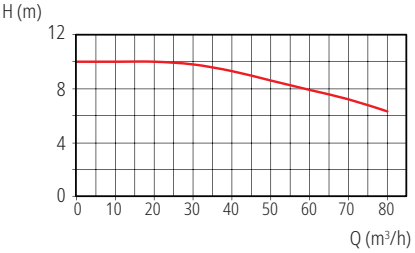


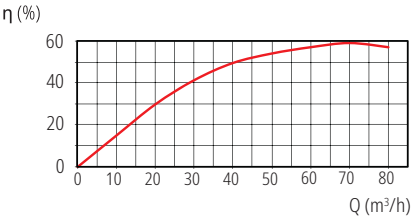


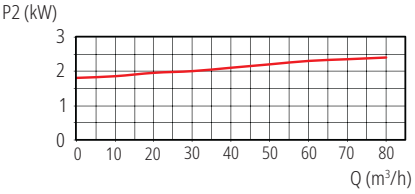


BN 100 - 65 - 160, 172 mm

Motor: 3 kW
Speed: 1450 min^{-1}

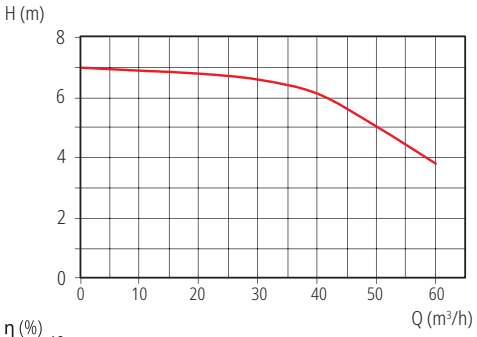


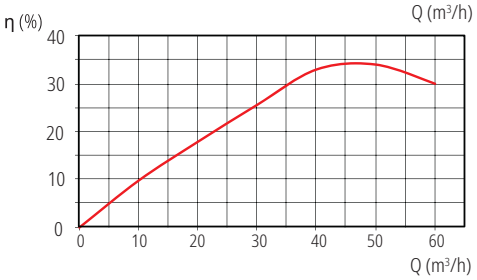


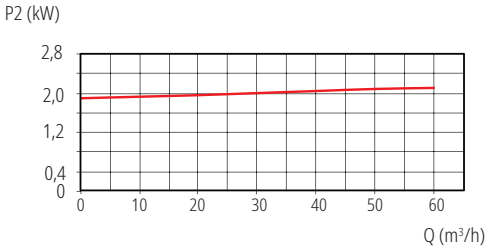


BN 100 - 65 - 125 mm, 145 mm

Motor: 3 kW
Speed: 1450 min^{-1}



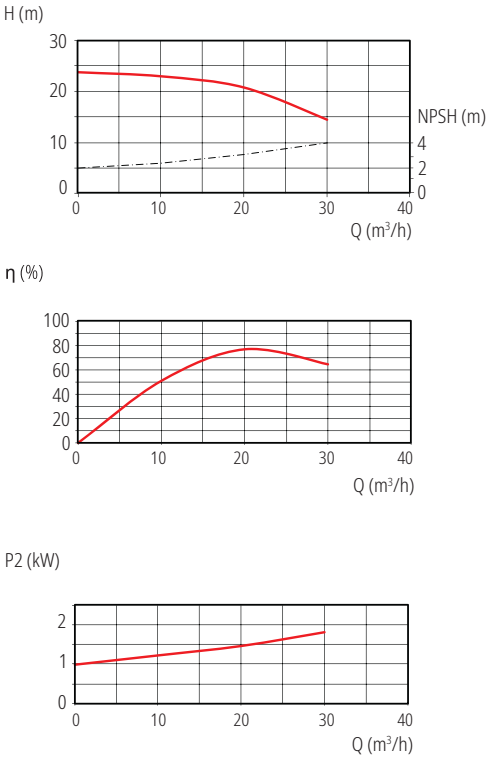




Individual characteristic curves 2900 min^{-1}

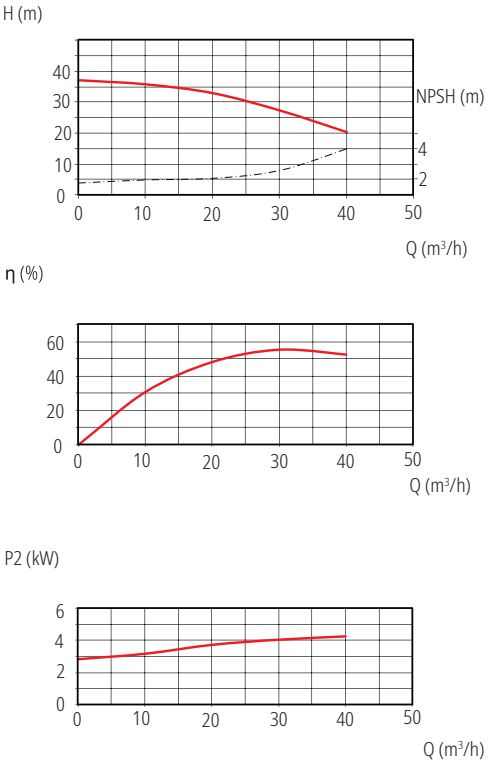
BN 50 - 32 - 125, 140 mm

Motor: 2.2 kW
Speed: 2900 min^{-1}



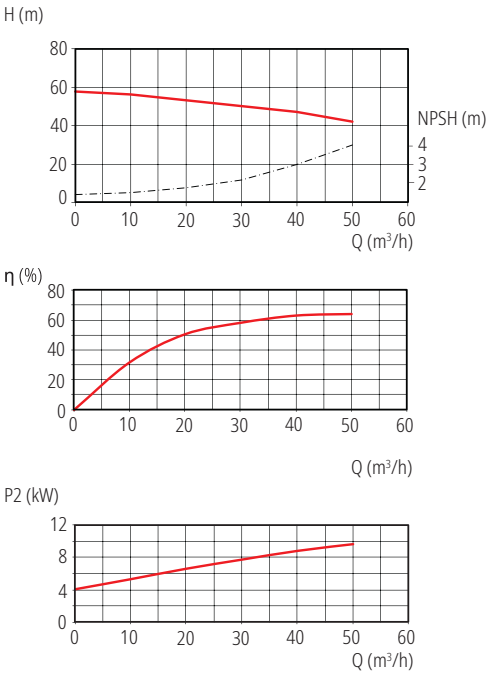
BN 50 - 32 - 160, 172 mm

Motor: 5.5 kW
Speed: 2900 min^{-1}



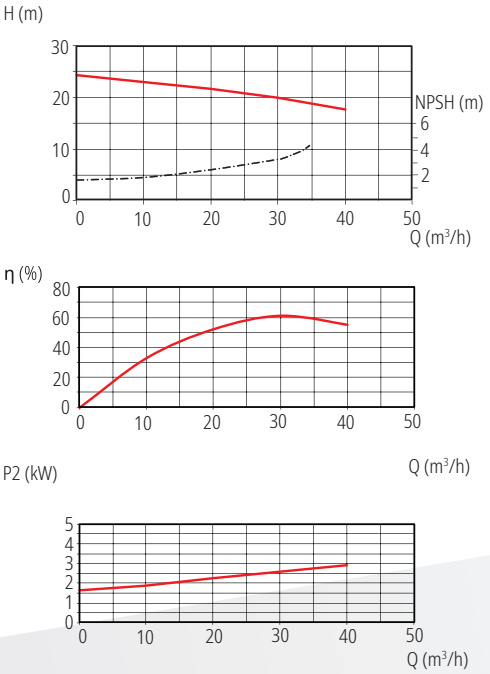
BN 50 - 32 - 200, 210 mm

Motor: 11 kW
Speed: 2900 min^{-1}



BN 65 - 40 - 125, 140 mm

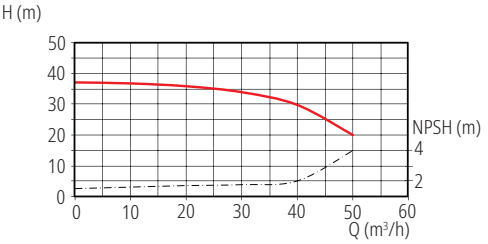
Motor: 3 kW
Speed: 2900 min^{-1}

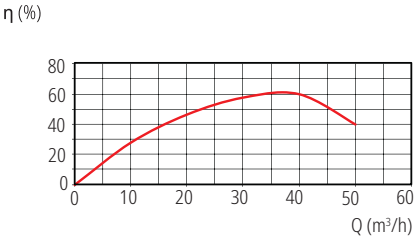


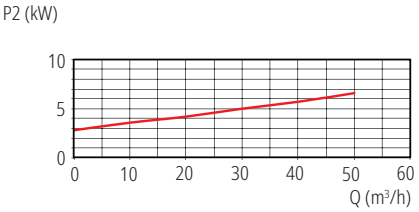
Individual characteristic curves 2900 min^{-1}

BN 65 - 40 - 160, 172 mm

Motor: 7.5 kW
Speed: 2900 min^{-1}

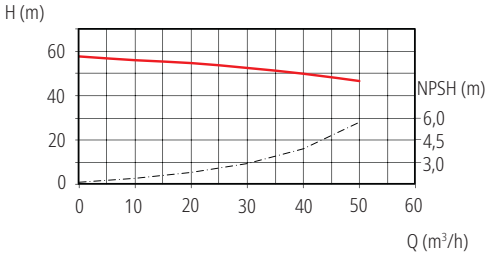


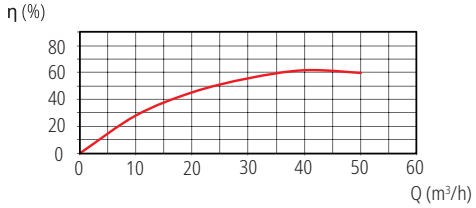


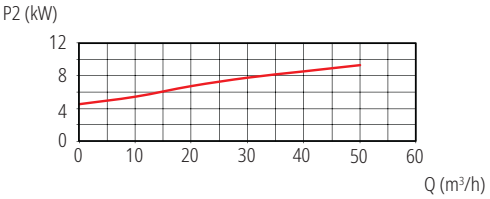


BN 65 - 40 - 200, 210 mm

Motor: 11 kW
Speed: 2900 min^{-1}

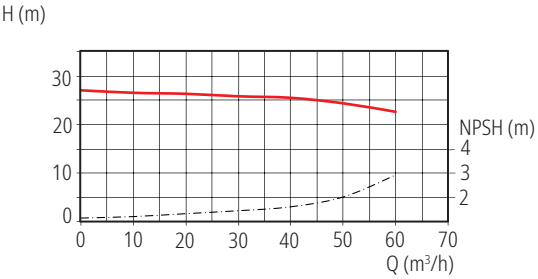


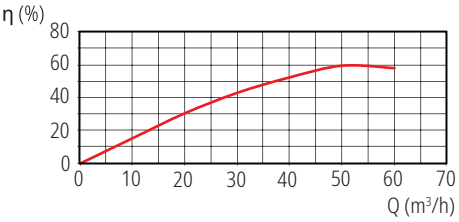


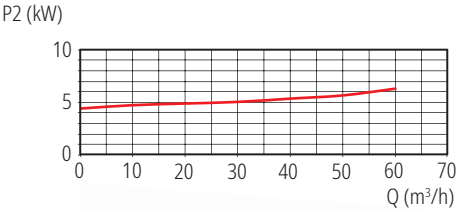


BN 80 - 50 - 125, 145 mm

Motor: 7.5 kW
Speed: 2900 min^{-1}

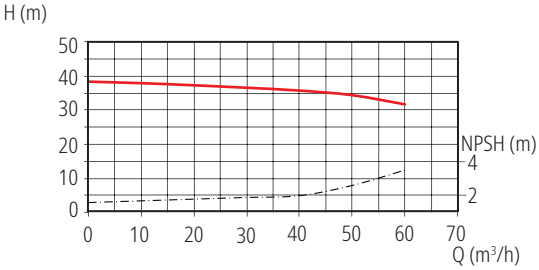


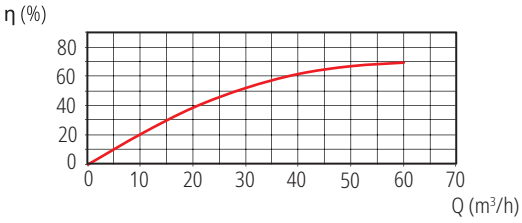


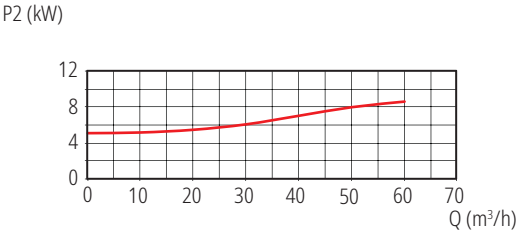


BN 80 - 50 - 160, 172 mm

Motor: 11 kW
Speed: 2900 min^{-1}



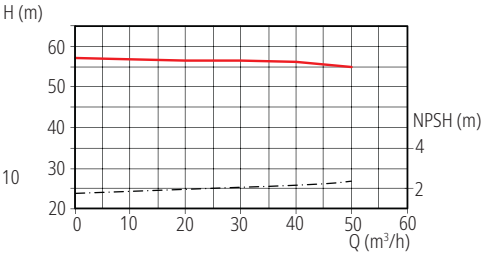


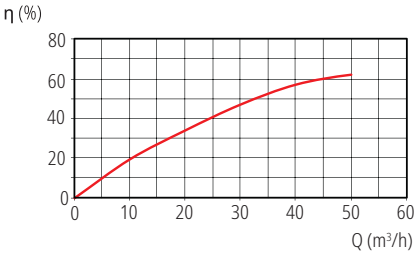


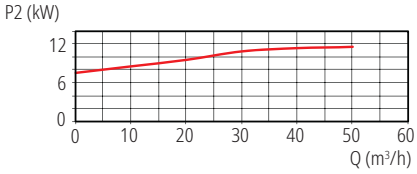
BN 80 - 50 - 200, 210 mm

Motor: 11 kW

Speed: 2900 min^{-1}



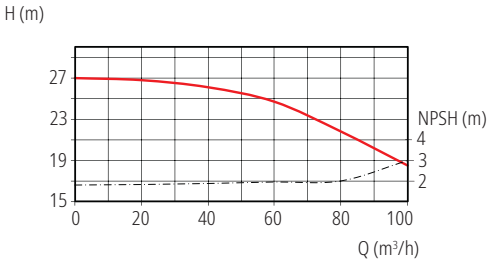


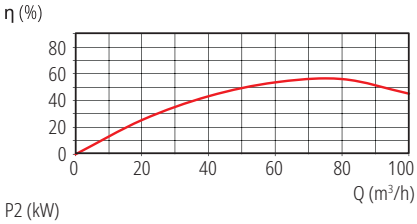


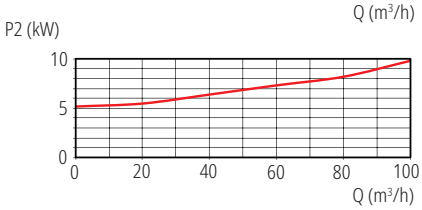
BN 100 - 65 - 125, 145 mm

Motor: 11 kW

Speed: 2900 min^{-1}



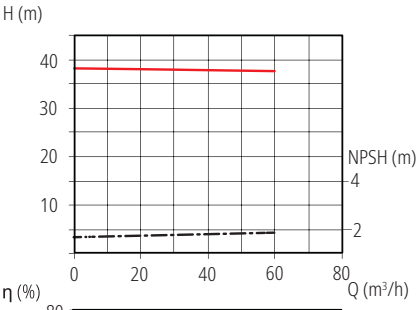


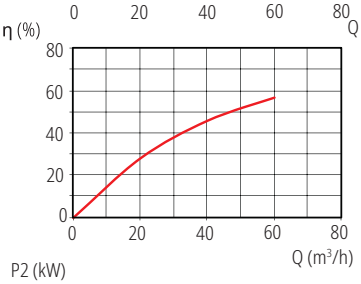


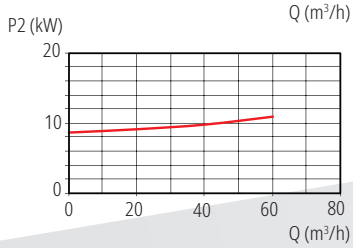
BN 100 - 65 - 160, ***172 mm***

Motor: 11 kW

Speed: 2900 min^{-1}



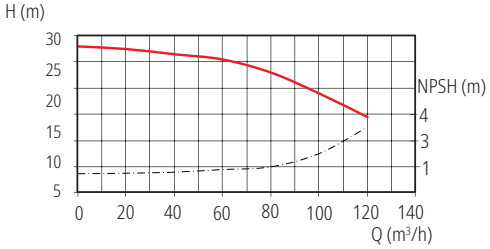


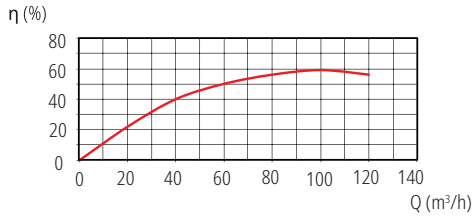


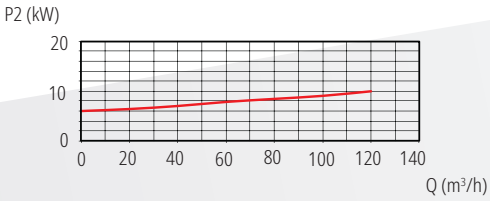
BN 100 - 65 - 160, ***150 mm***

Motor: 11 kW

Speed: 2900 min^{-1}

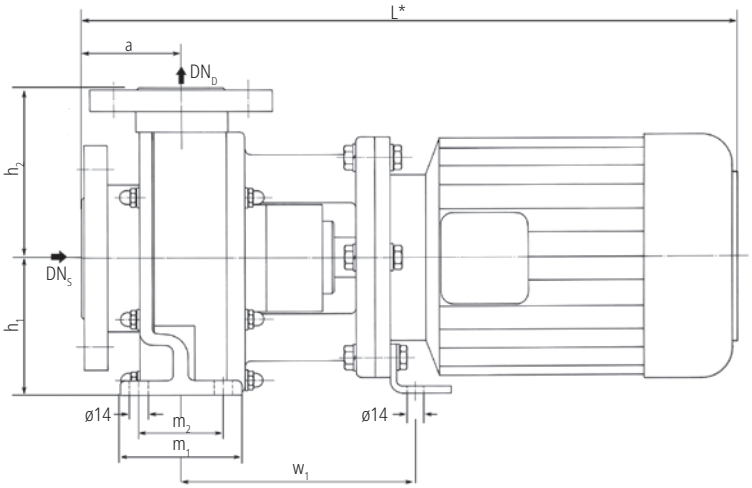


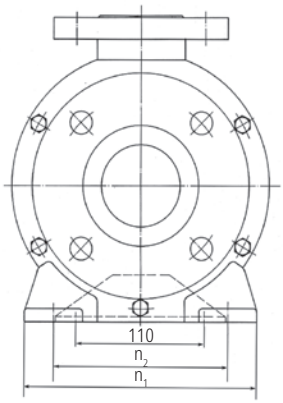




Dimensions

All dimensions in mm





Flanges according to DIN 2501			
DN	k	d_2	z
32	100	18	4
40	110	18	4
50	125	18	4
65	145	18	4
80	160	18	8
100	180	18	8

Pump type	50-32-125	50-32-160	50-32-200	65-40-125	65-40-160	65-40-200
DN_D flange outlet	32	32	32	40	40	40
DN_S flange entry	50	50	50	65	65	65
a	80	80	80	80	80	100
h_1	112	132	160	112	132	160
h_2	140	160	180	140	160	180
m_1	100	100	100	100	100	100
m_2	70	70	70	70	70	70
n_1	190	240	240	210	240	265
n_2	140	190	190	160	190	212
w_1	190	220	220	190	220	220
L* 1450/2900	550/560	560/640	560/640	510/560	560/640	560/660

*) at max. motor power 1450 min^{-1} / 2900 min^{-1}

Flange connection dimensions according to DIN 2501, part 1 for PN10

Pump type	80-50-125	80-50-160	80-50-200	100-65-125	100-65-160
DN_D flange outlet	50	50	50	65	65
DN_S flange entry	80	80	80	100	100
a	100	100	100	100	100
h_1	132	160	160	160	160
h_2	160	180	200	180	200
m_1	100	100	100	125	125
m_2	70	70	70	95	95
n_1	240	265	265	280	280
n_2	190	212	212	212	220
w_1	220	220	220	220	220
L* 1450/2900	560/660	580/660	610/660	680/710	680/710

*) at max. motor power 1450 min^{-1} / 2900 min^{-1}

Flange connection dimensions according to DIN 2501, part 1 for PN10

Spülwa

Chemical standard pump N

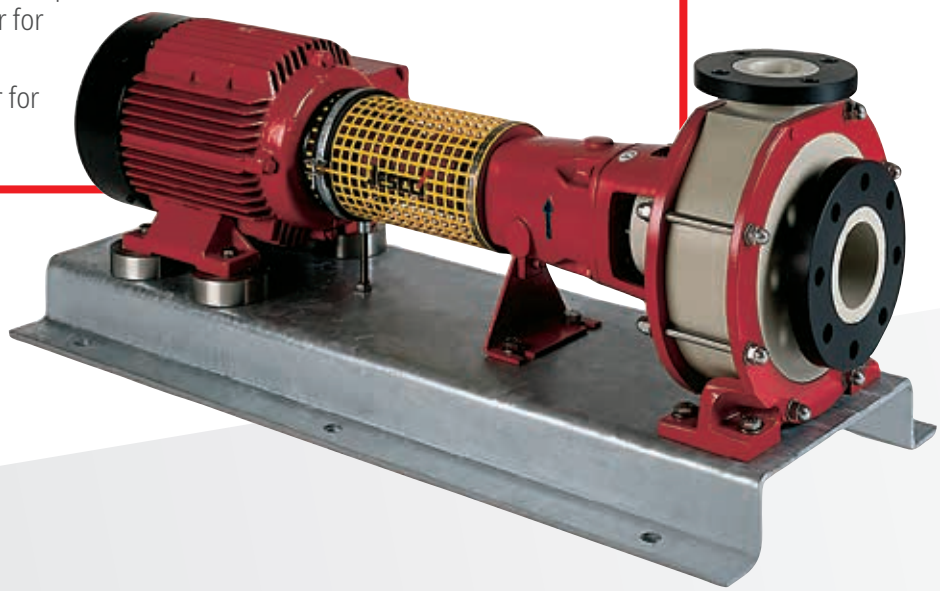
General

- Single-stage, normal-priming centrifugal pump
- Piping connections according to DIN EN 22858/ISO 2858
- Fast and easy removal of the bearing support
- Corrosion-resistant
- Wetted-end parts made of highly resistant material
- Stainless steel pump shaft with shaft protection sleeve
- Mechanical seal systems depending on medium
- Perfectly dimensioned shafts and bearings
- Lifetime lubrication of bearings in bearing support
- Vibration-free operation
- Special designs on request

Technical data			
Model			Modular design
Materials			PP, PVDF
Max. delivery rate Q		m^3/h	120
Max. delivery head H		m	58
Motor power at	Speed 1450 min^{-1}	kW	1.1 – 7.5
	Speed 2900 min^{-1}	kW	1.5 – 37
Ambient temperature		°C	5 – 40
Max. permissible media temperature depending on the medium	PP	°C	80
	PVDF	°C	120

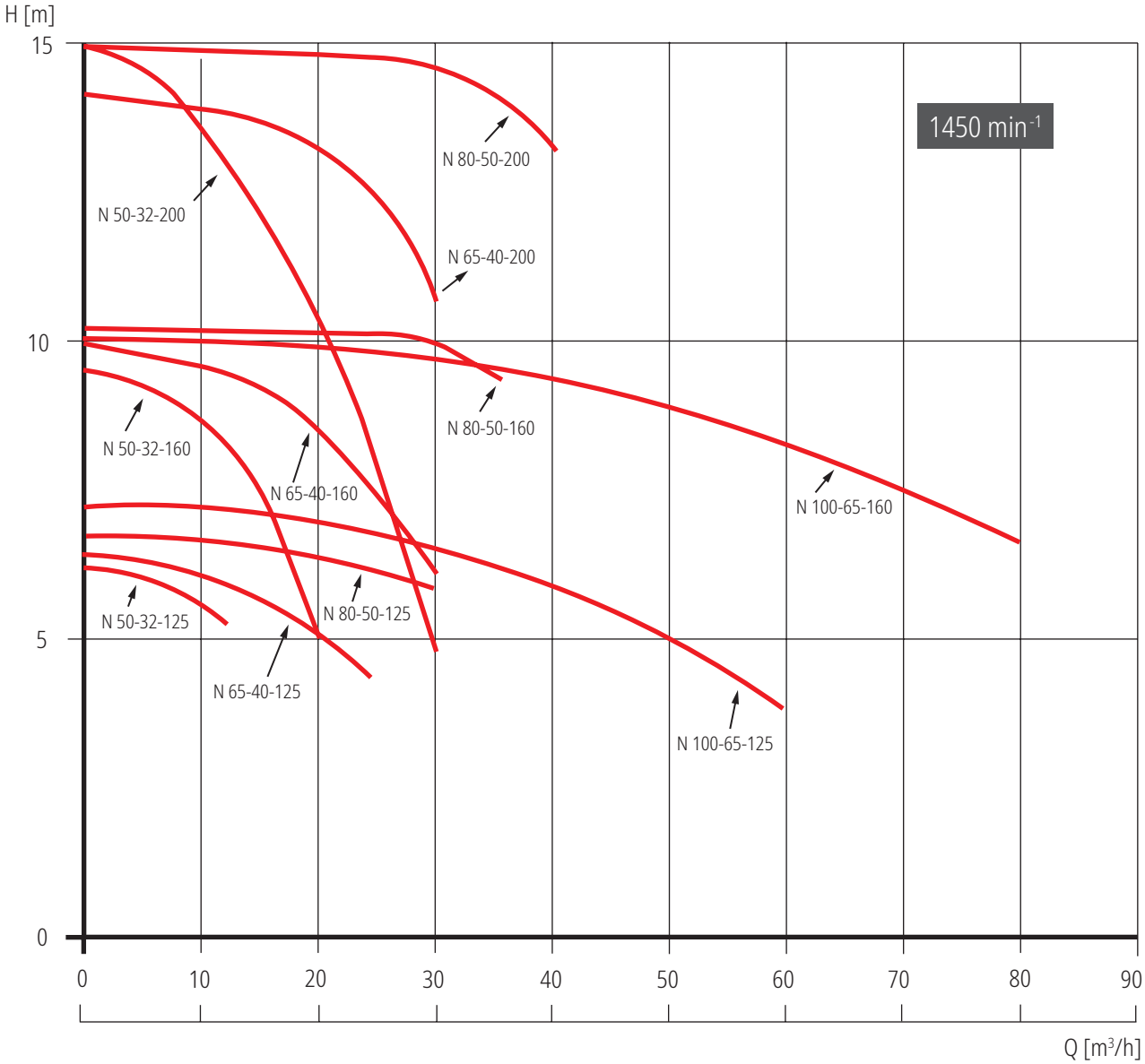
Possible seal designs

- **B2i:** Single-acting, internal mechanical seal, independent direction of rotation
- **B2Q:** Single-acting, internal mechanical seal, independent direction of rotation with quenching chamber for supply of external liquid
- **B2D:** Double acting with chenching chamber for dual active barrier and buffer fluid systems

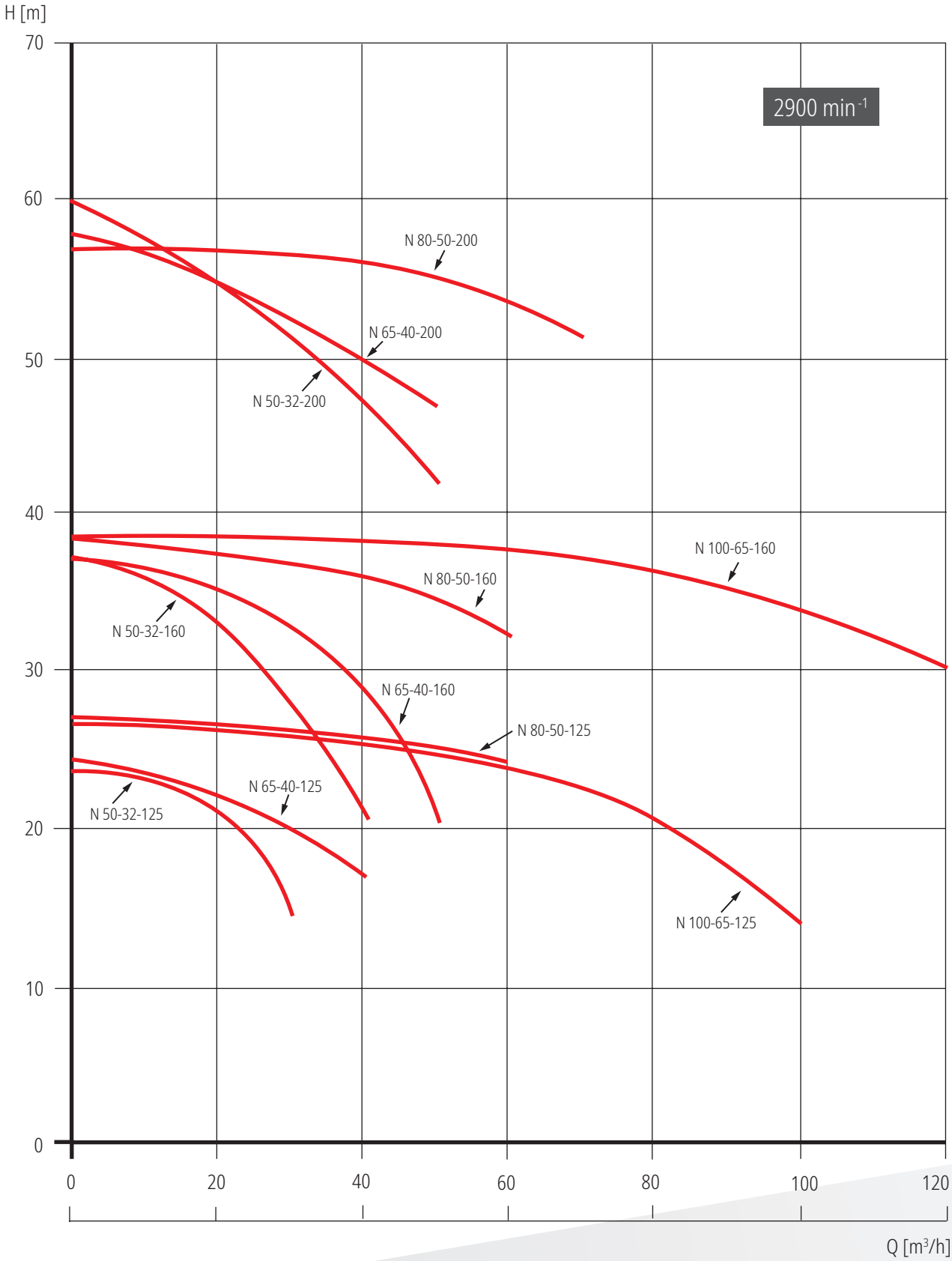


Characteristic curves

Horizontal, normal drawing chemical standard pump N 1450 min^{-1}



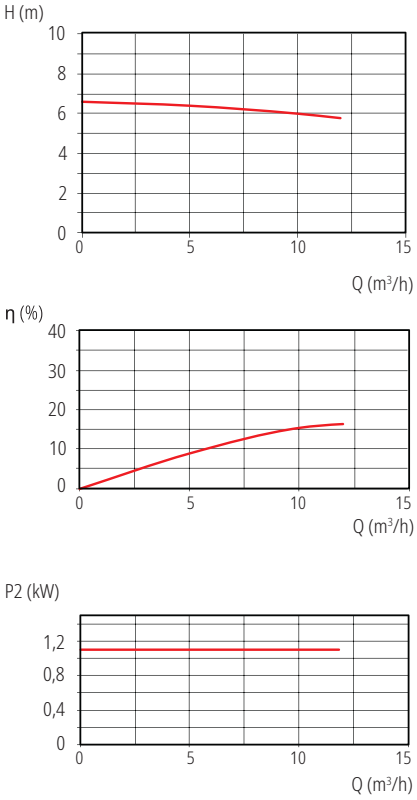
Horizontal, normal drawing chemical standard pump N 2900 min^{-1}



Individual characteristic curves 1450 min^{-1}

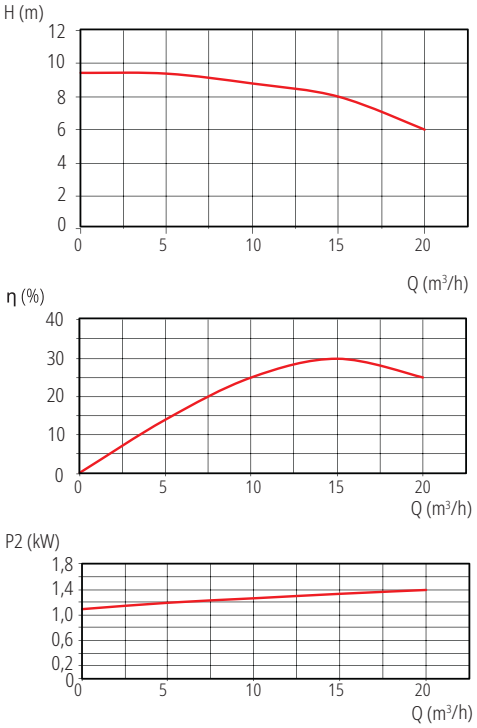
N 50 - 32 - 125, 140 mm

Motor: 1.1 kW
Speed: 1450 min^{-1}



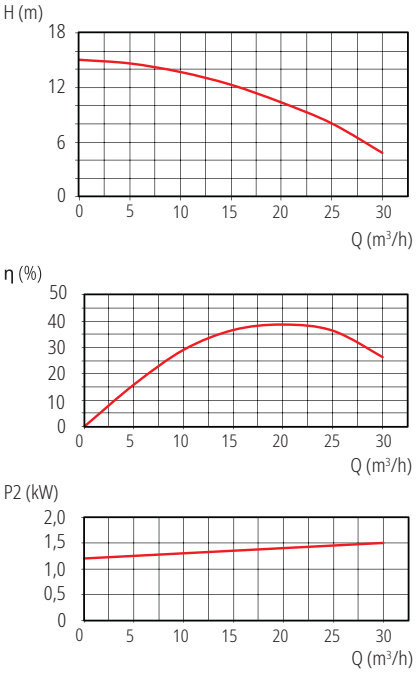
N 50 - 32 - 160, 172 mm

Motor: 1.5 kW
Speed: 1450 min^{-1}



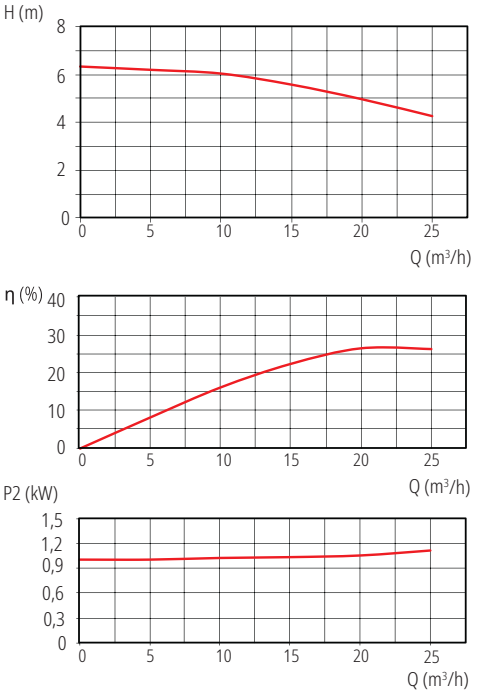
N 50 - 32 - 200, 210 mm

Motor: 1.5 kW
Speed: 1450 min^{-1}



N 65 - 40 - 125, 140 mm

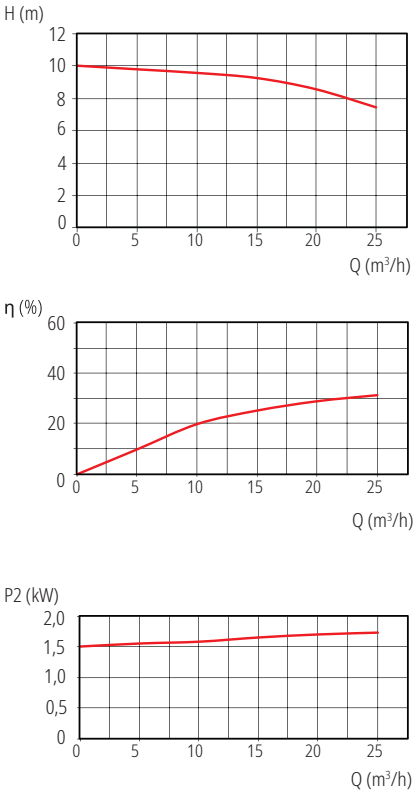
Motor: 1.5 kW
Speed: 1450 min^{-1}



N 65 - 40 - 160, 172 mm

Motor: 2.2 kW

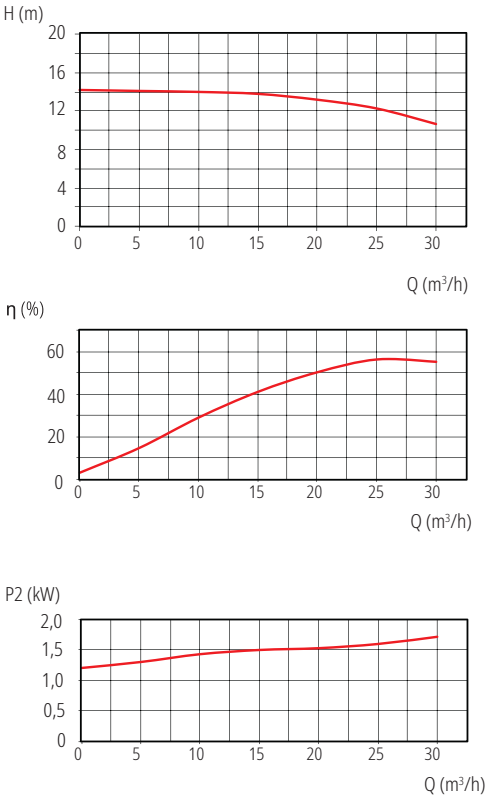
Speed: 1450 min^{-1}



N 65 - 40 - 200, 210 mm

Motor: 2.2 kW

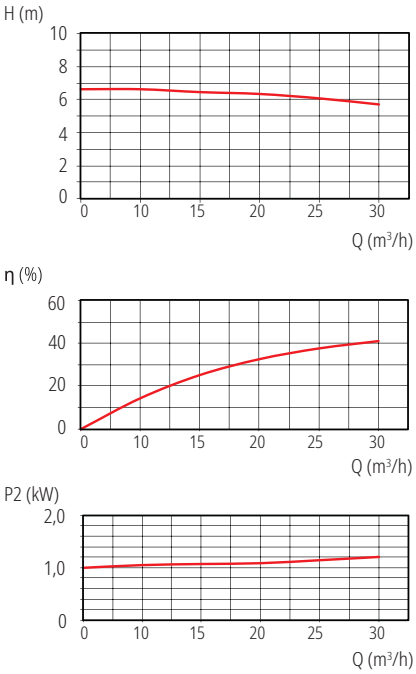
Speed: 1450 min^{-1}



N 80 - 50 - 125, 145 mm

Motor: 1.5 kW

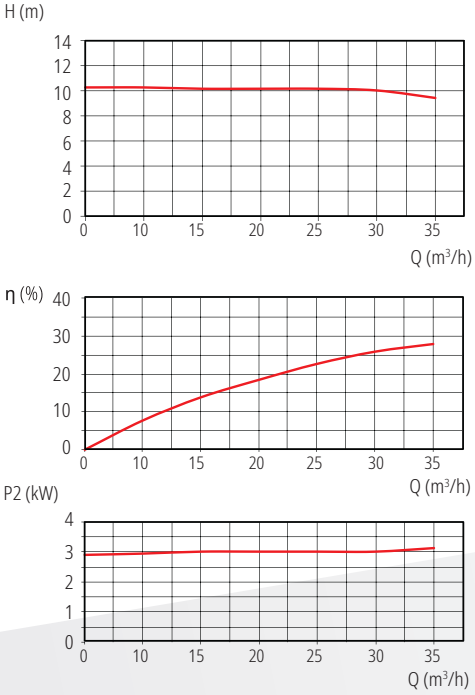
Speed: 1450 min^{-1}



N 80 - 50 - 160, 172 mm

Motor: 4 kW

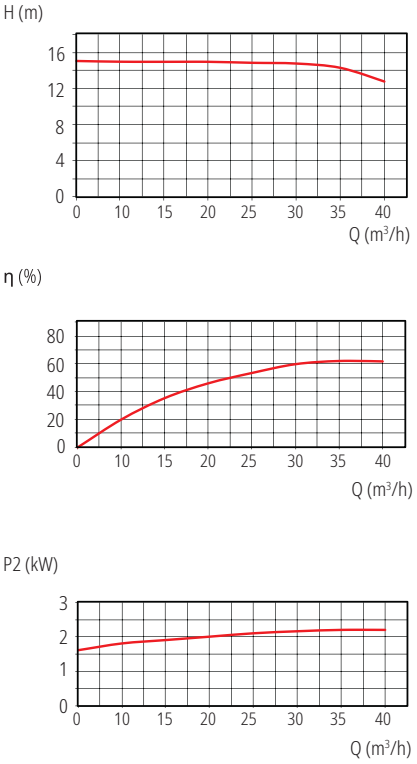
Speed: 1450 min^{-1}



Individual characteristic curves 1450 min^{-1}

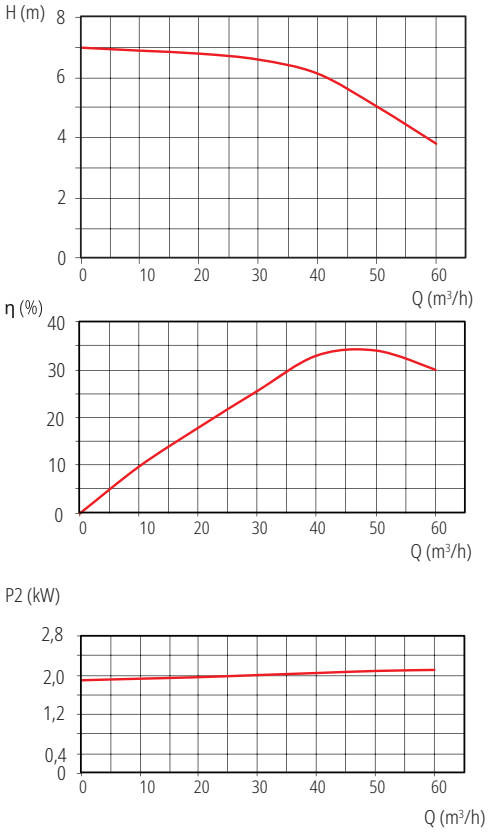
N 80 - 50 - 200, 210 mm

Motor: 3 kW
Speed: 1450 min^{-1}



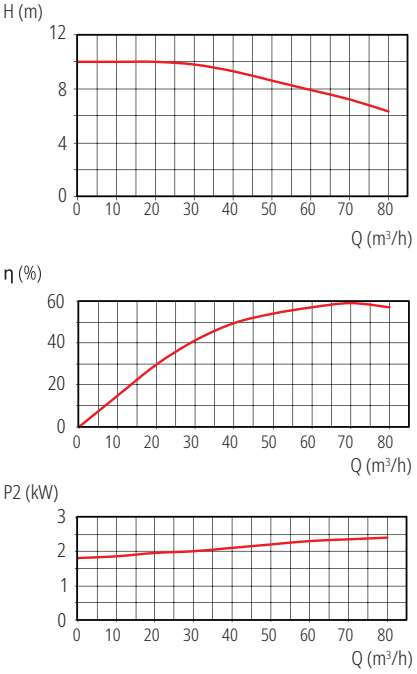
N 100 - 65 - 125, 145 mm

Motor: 3 kW
Speed: 1450 min^{-1}



N 100 - 65 - 160, 172 mm

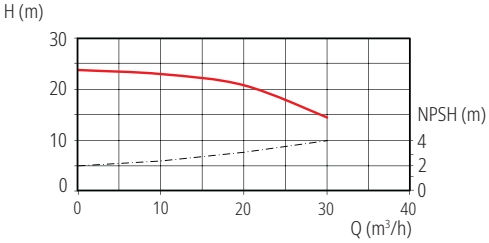
Motor: 3 kW
Speed: 1450 min^{-1}

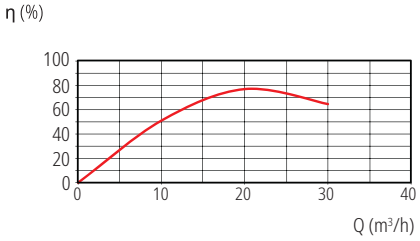


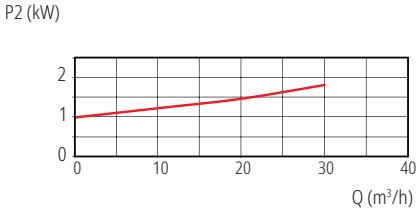
Individual characteristic curves 2900 min^{-1}

N 50 - 32 - 125, 140 mm

Motor: 2.2 kW
Speed: 2900 min^{-1}

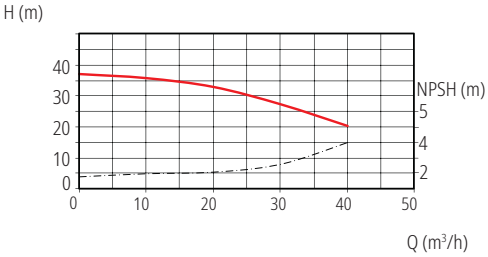


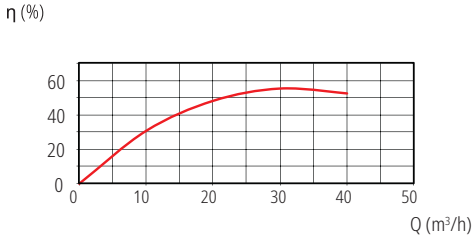


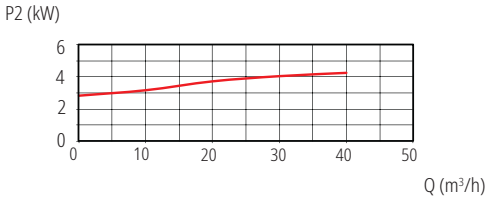


N 50 - 32 - 160, 172 mm

Motor: 5.5 kW
Speed: 2900 min^{-1}

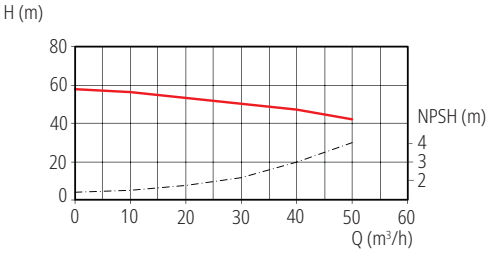


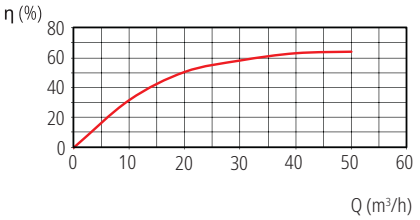


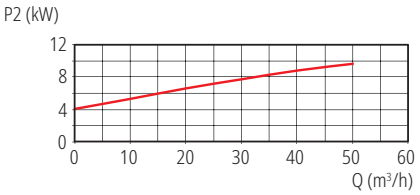


N 50 - 32 - 200, 210 mm

Motor: 11 kW
Speed: 2900 min^{-1}

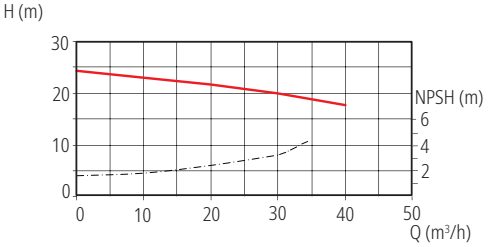


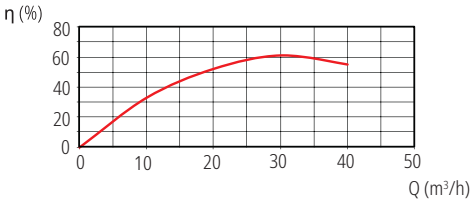


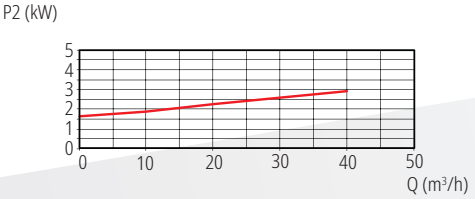


N 65 - 40 - 125, 140 mm

Motor: 3 kW
Speed: 2900 min^{-1}



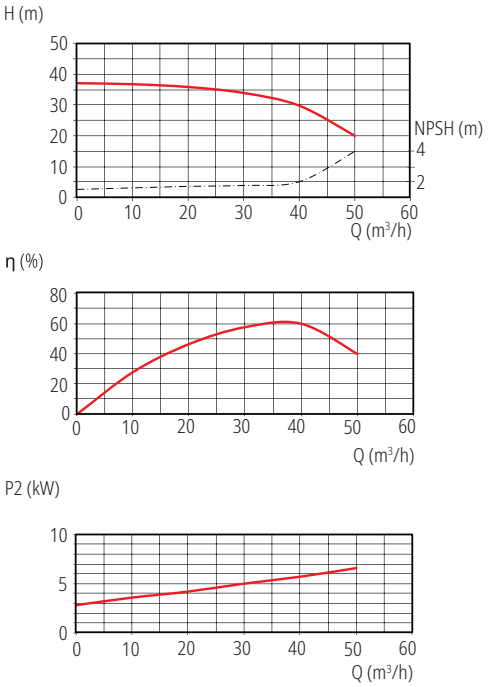




Individual characteristic curves 2900 min^{-1}

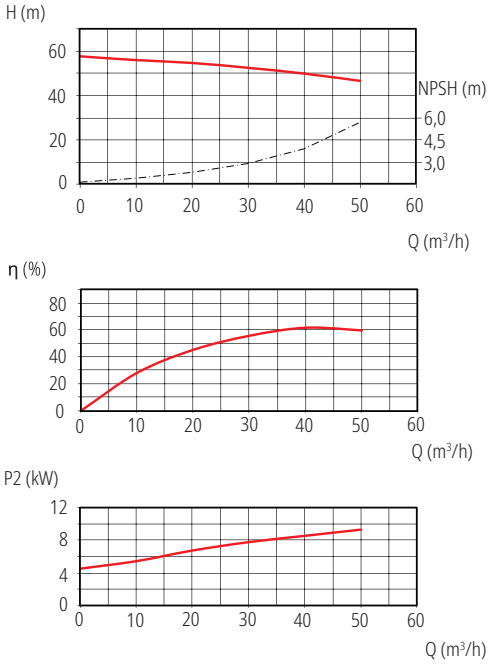
N 65 - 40 - 160, 172 mm

Motor: 7.5 kW
Speed: 2900 min^{-1}



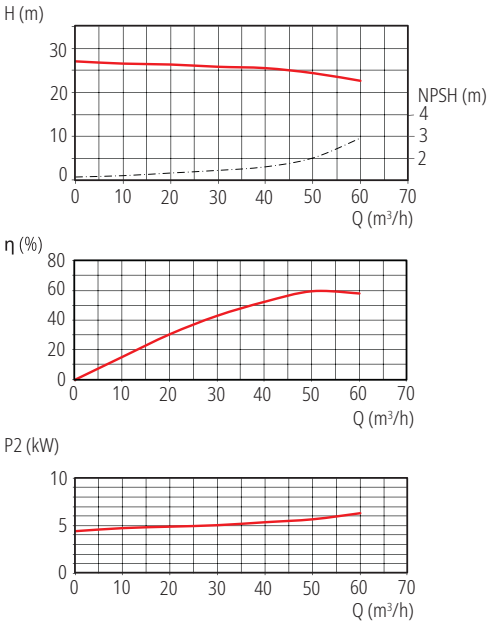
N 65 - 40 - 200, 210 mm

Motor: 11 kW
Speed: 2900 min^{-1}



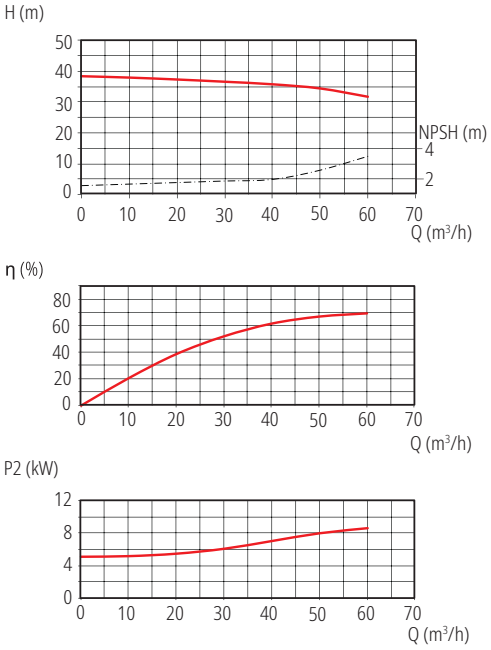
N 80 - 50 - 125, 145 mm

Motor: 7.5 kW
Speed: 2900 min^{-1}



N 80 - 50 - 160, 172 mm

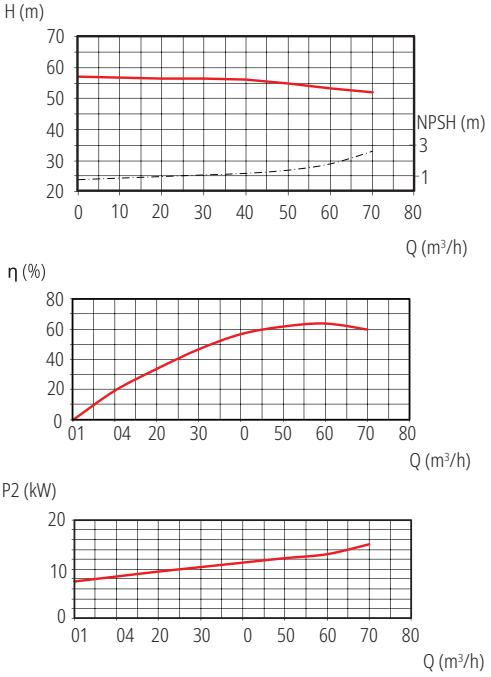
Motor: 11 kW
Speed: 2900 min^{-1}



N 80 - 50 - 200, 210 mm

Motor: 15 kW

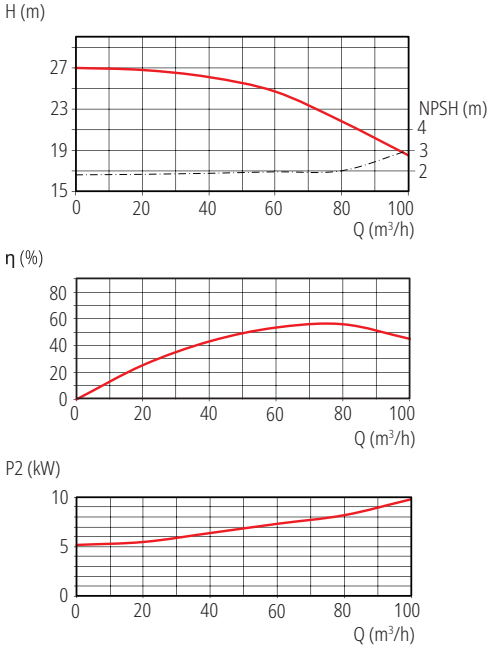
Speed: 2900 min^{-1}



N 100 - 65 - 125, 145 mm

Motor: 11 kW

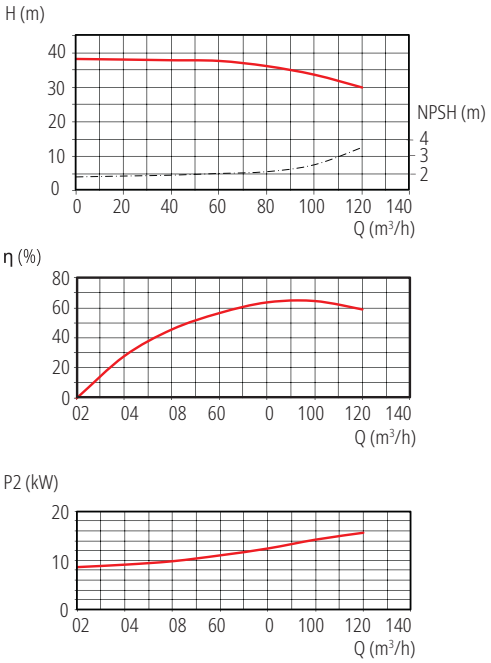
Speed: 2900 min^{-1}



N 100 - 65 - 160, 172 mm

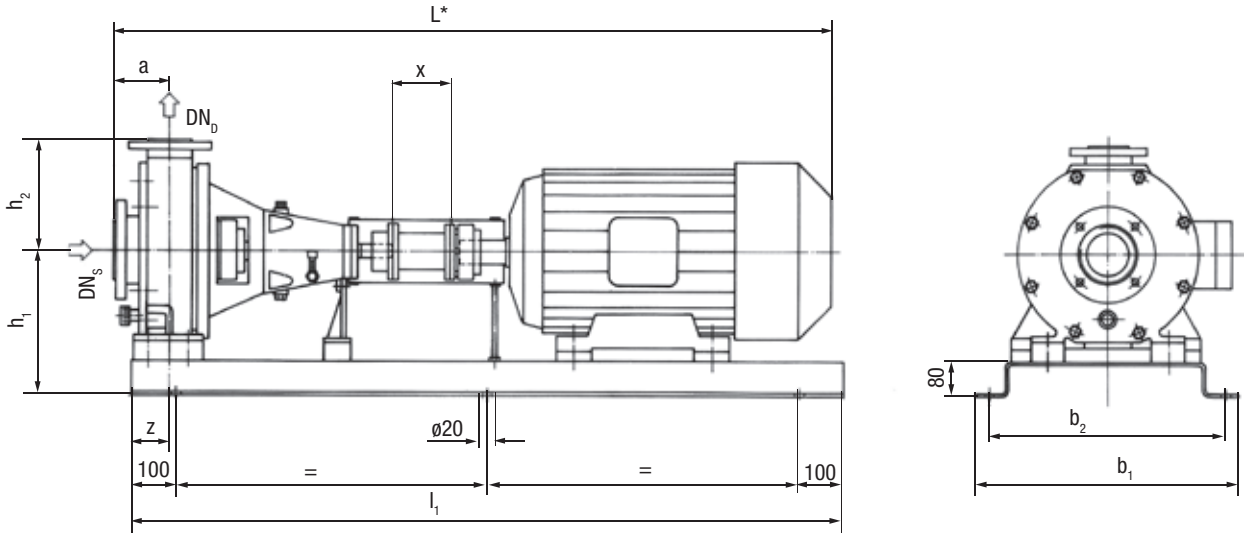
Motor: 15 kW

Speed: 2900 min^{-1}



Dimensions

All dimensions in mm



Pump type	50-32-125	50-32-160	50-32-200	65-40-125	65-40-160	65-40-200
DN_D flange outlet	32	32	32	40	40	40
DN_S flange entry	50	50	50	65	65	65
a	80	80	80	80	80	100
z	75	75	75	75	75	75
l_1* 1450/2900	1000/1000	1000/1200	1000/1200	1000/1000	1000/1200	1000/1200
h_1	192	212	240	192	212	240
h_2	140	160	180	140	160	180
b_1	430	430	430	430	430	510
b_2	370	370	370	370	370	370
X	100	100	100	100	100	100
L* 1450/2900	885/946	946/1148	946/1192	946/946	946/1148	946/1192

*) at max. motor power 1450 min^{-1} / 2900 min^{-1}

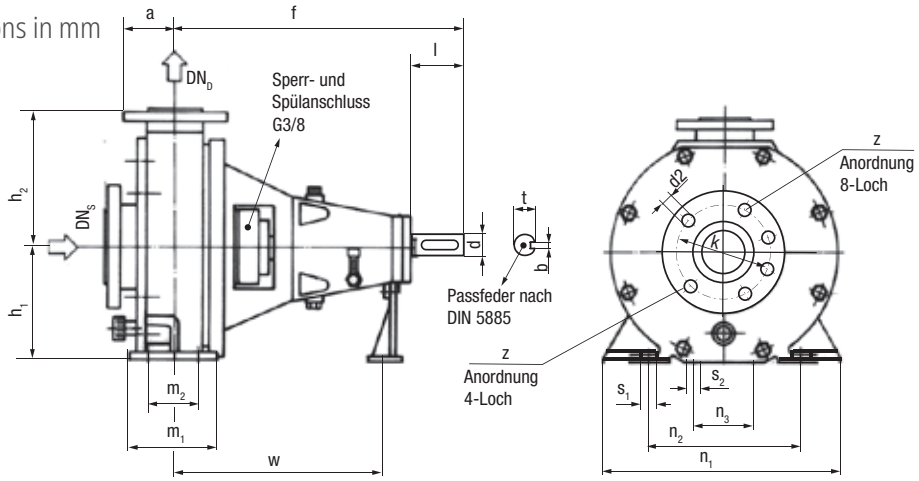
Flange connection dimensions according to DIN 2501, part 1 for PN10

Pump type	80-50-125	80-50-160	80-50-200	100-65-125	100-65-160
DN_D flange outlet	50	50	50	65	65
DN_S flange entry	80	80	80	100	100
a	100	100	100	100	100
z	75	75	75	87.5	87.5
l_1* 1450/2900	1000/1200	1000/1200	1000/1400	1000/1200	1000/1400
h_1	212	240	240	240	240
h_2	160	180	200	180	200
b_1	430	430	430	510	510
b_2	370	370	370	370	450
X	75	75	75	87.5	87.5
L* 1450/2900	946/1148	1028/1192	1028/1485	1028/1148	1028/1485

*) at max. motor power 1450 min^{-1} / 2900 min^{-1}

Flange connection dimensions according to DIN 2501, part 1 for PN10

All dimensions in mm



Flanges according to DIN 2501			
DN	k	d_2	z
32	100	18	4
40	110	18	4
50	125	18	4
65	145	18	4
80	160	18	8
100	180	18	8

Pump type		50-32-125	50-32-160	50-32-200	65-40-125	65-40-160	65-40-200
Flange connection dimensions according to DIN 2501, part 1 for PN10	DN_D outlet	32	32	32	40	40	40
	DN_S entry	50	50	50	65	65	65
Pump dimensions	a	80	80	80	80	80	100
	f	385	385	385	385	385	385
	h_1	112	132	160	112	132	160
	h_2	140	160	180	140	160	180
Shaft end DIN 748	d	24	24	24	24	24	24
	l	50	50	50	50	50	50
	t	27	27	27	27	27	27
	b	8	8	8	8	8	8
Foot dimensions	m_1	100	100	100	100	100	100
	m_2	70	70	70	70	70	70
	n_1	190	240	240	210	240	265
	n_2	140	190	190	160	190	212
	n_3	110	110	110	110	110	110
Foot dimensions for screws	s_1	M12	M12	M12	M12	M12	M12
	s_2	M12	M12	M12	M12	M12	M12
Foot dimensions	w	285	285	285	285	285	285

Pump type		80-50-125	80-50-160	80-50-200	100-65-125	100-65-160
Flange connection dimensions according to DIN 2501, part 1 for PN10	DN_D outlet	50	50	50	65	65
	DN_S entry	80	80	80	100	100
Pump dimensions	a	100	100	100	100	100
	f	385	385	385	385	500
	h_1	132	160	160	160	160
	h_2	160	180	200	180	200
Shaft end DIN 748	d	24	24	24	24	32
	l	50	50	50	50	80
	t	27	27	27	27	35
	b	8	8	8	8	10
Foot dimensions	m_1	100	100	100	125	125
	m_2	70	70	70	95	95
	n_1	240	265	265	280	280
	n_2	190	212	212	212	212
	n_3	110	110	110	110	110
Foot dimensions for screws	s_1	M12	M12	M12	M12	M12
	s_2	M12	M12	M12	M12	M12
Foot dimensions	w	285	285	285	285	370

Magnetically coupled chemical centrifugal pump TMB

General

- Small dimensions
- Corrosion-resistant, suitable for hypochlorite solutions, bromine and chromium compounds
- Ideal for mobile use

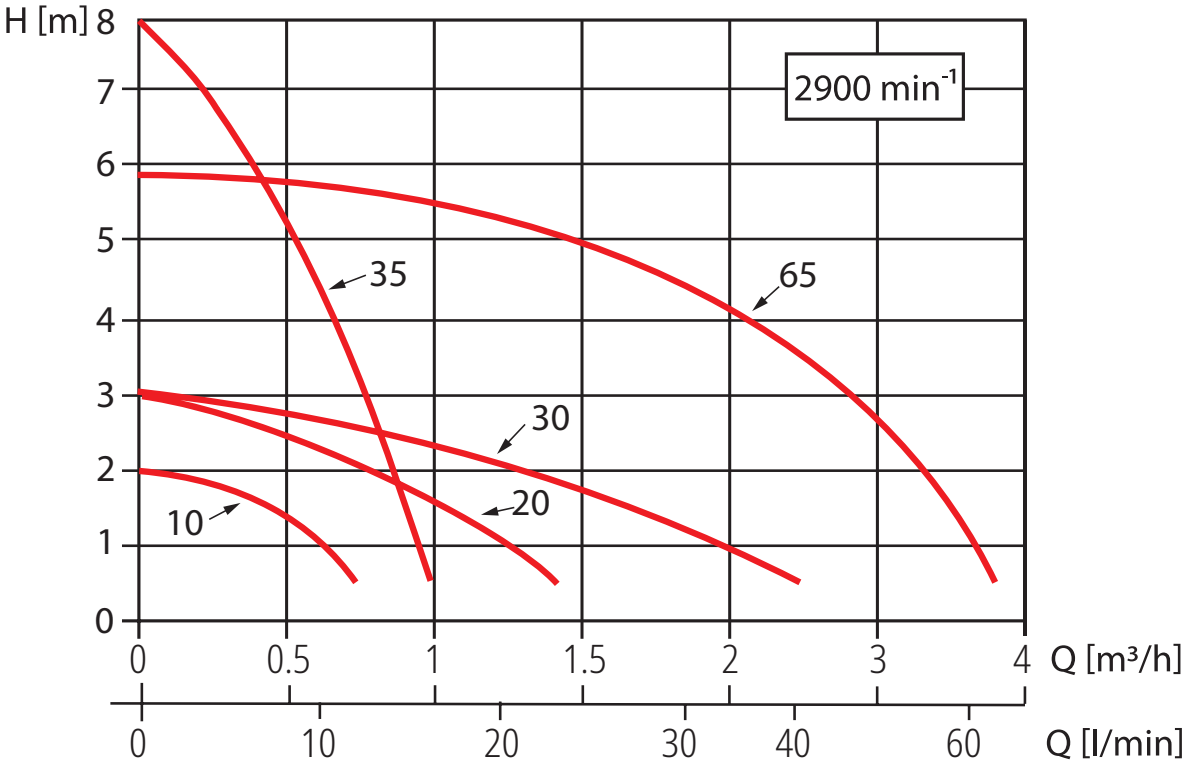
Technical data			
Model			Block construction
Materials			PP (GF), ECTFE (CF)
Max. delivery rate Q		m^3/h	3.9
Max. delivery head H		m	8
Max. density		kg/dm^3	1.1
Motor rating IEC		W	25 – 97
Ambient temperature		°C	0 – 40
Max. permissible media temperature depending on the medium	PP	°C	60
	ECTFE	°C	100

Bearing system

N Corrosion-resistant
Suitable for hypochlorite solutions, bromine and chromium compounds through the use of PTFE plain bearings

Characteristic curves

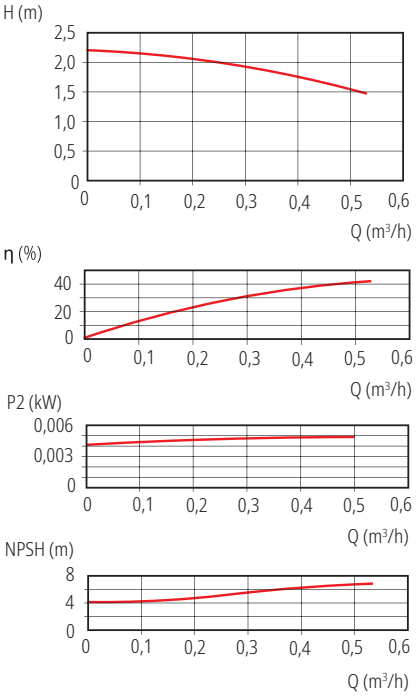
Magnetically coupled chemical centrifugal pump TMB



TMB 10

Frequency: 50 Hz

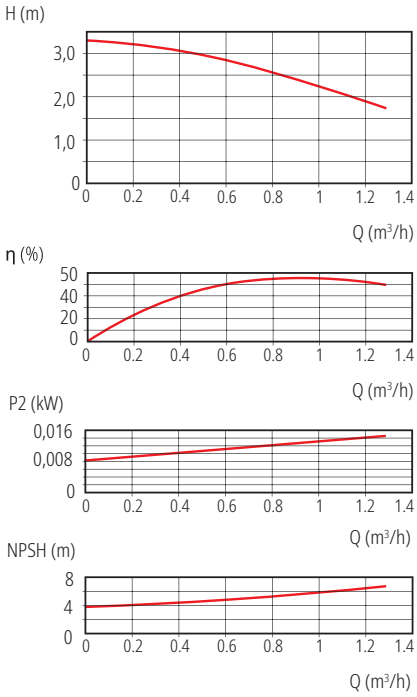
Speed: 2900 min^{-1}



TMB 20

Frequency: 50 Hz

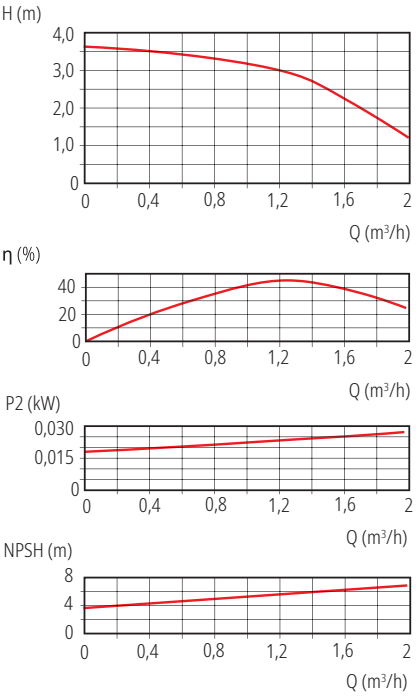
Speed: 2900 min^{-1}



Individual characteristic curves

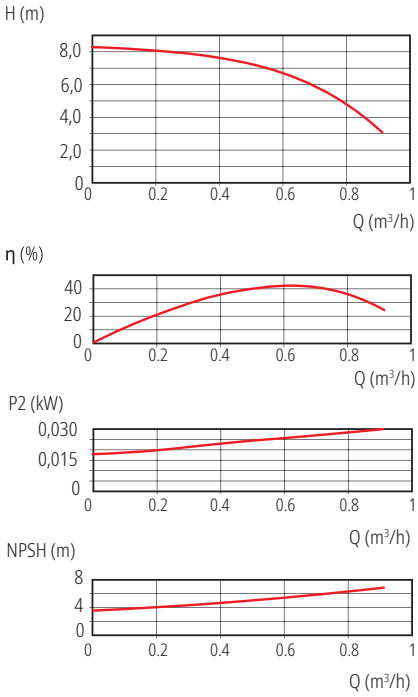
TMB 30

Frequency: 50 Hz
Speed: 2900 min^{-1}



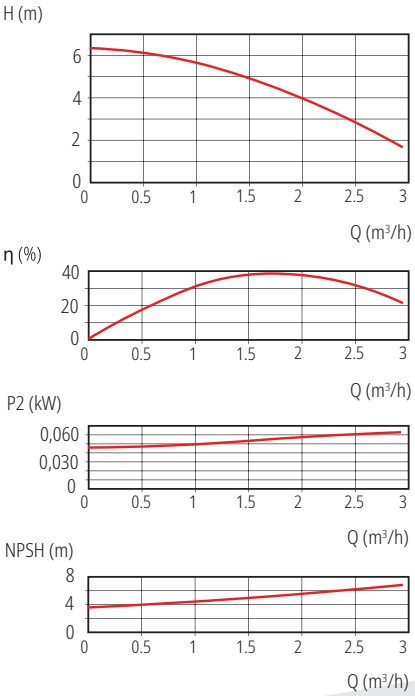
TMB 35

Frequency: 50 Hz
Speed: 2900 min^{-1}



TMB 65

Frequency: 50 Hz
Speed: 2900 min^{-1}



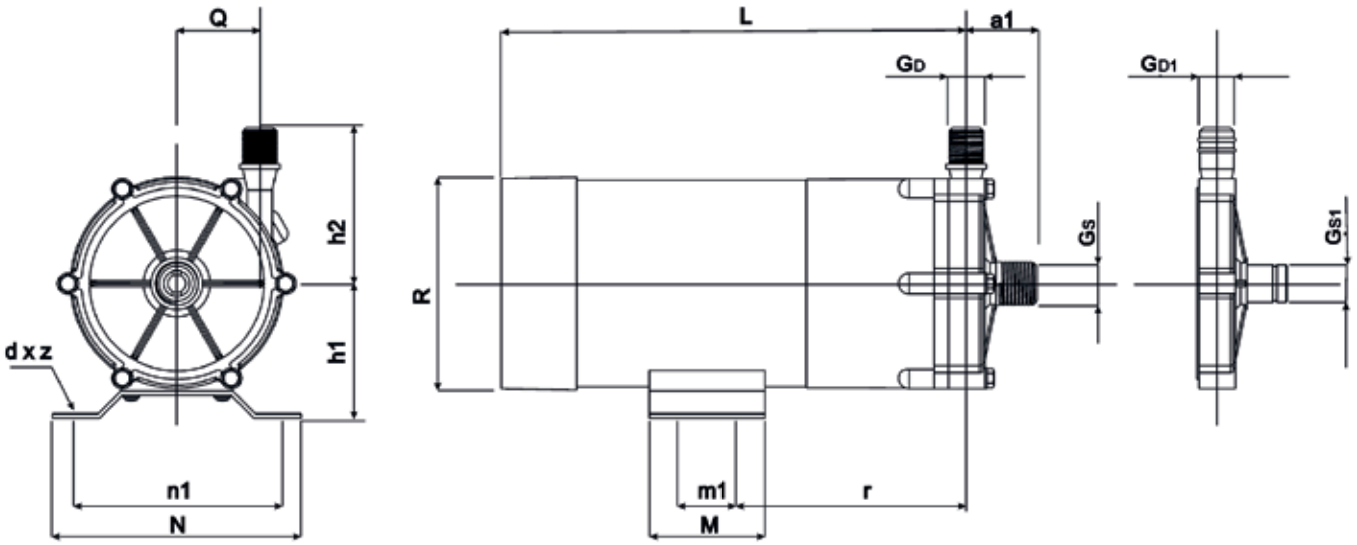
Technical data

Type		TMB 10	TMB 20, 30, 35, 65	TMB 35
Version		WR	WR	GF
Pump housing		Polypropylene (fibre glass reinforced)	Polypropylene (fibre glass reinforced)	ECTFE (carbon fibre reinforced)
Rear casing				
Impeller				
Operating temperature	°C	0 to +60	0 to +60	0 to +100
Ambient temperature	°C	0 to +40	0 to +40	0 to +40
Bearing system		N_1	N_1	N_1
Bearings		-	PTFE	PTFE
Shaft		Ceramic	Ceramic	Ceramic
Thrust ring		PTFE	Ceramic	Ceramic
Seal		FPM or EPDM	FPM or EPDM	FPM or EPDM
Screws		Stainless steel	Stainless steel	Stainless steel

		TMB 10	TMB 20	TMB 30	TMB 35	TMB 65
G_D thread outlet		-	G3/4 male	G3/4 male	G3/8 male	G1 male
G_S thread entry		-	G3/4 male	G3/4 male	G1/2 male	G1 male
G_D hose nozzle outlet	mm	14	-	-	-	-
G_S hose nozzle entry	mm	14	-	-	-	-
Motor rating (IEC) 50/60 Hz	W	25/29	29/39	57/73	57/73	97/134
Motor		1~, 220 – 240 V/50 – 60 Hz				

Dimensions

All dimensions in mm



Pump type	TMB 10	TMB 20	TMB 30	TMB 35	TMB 65
G_D thread outlet	-	G3/4 male	G3/4 male	G3/8 male	G1 male
G_S thread entry	-	G3/4 male	G3/4 male	G1/2 male	G1 male
GD_1 hose nozzle outlet	14	-	-	-	-
GS_1 hose nozzle entry	14	-	-	-	-
a_1	31	37	48	34	62
h_1	45	55	60	60	67
h_2	47	74	75	75	84
L	100	181	206	206	222
m_1	16	30	40	40	40
M	30	50	64	64	68
n_1	78	70	100	100	120
N	90	92	120	120	144
Q	17	30	32	40	45
r	46.5	75	94	94	115
R	70	90	90	90	115
d x z	Ø 5x4	Ø 6x4	Ø 8x4	Ø 8x4	Ø 8x4

Magnetically coupled chemical centrifugal pump AM

General

- Single-stage, normal-priming magnetically coupled horizontal pump
- Small dimensions
- pipe line connections suction and pressure side with thread (DIN flange on request)
- Media-dependent bearing system
- Special designs on request

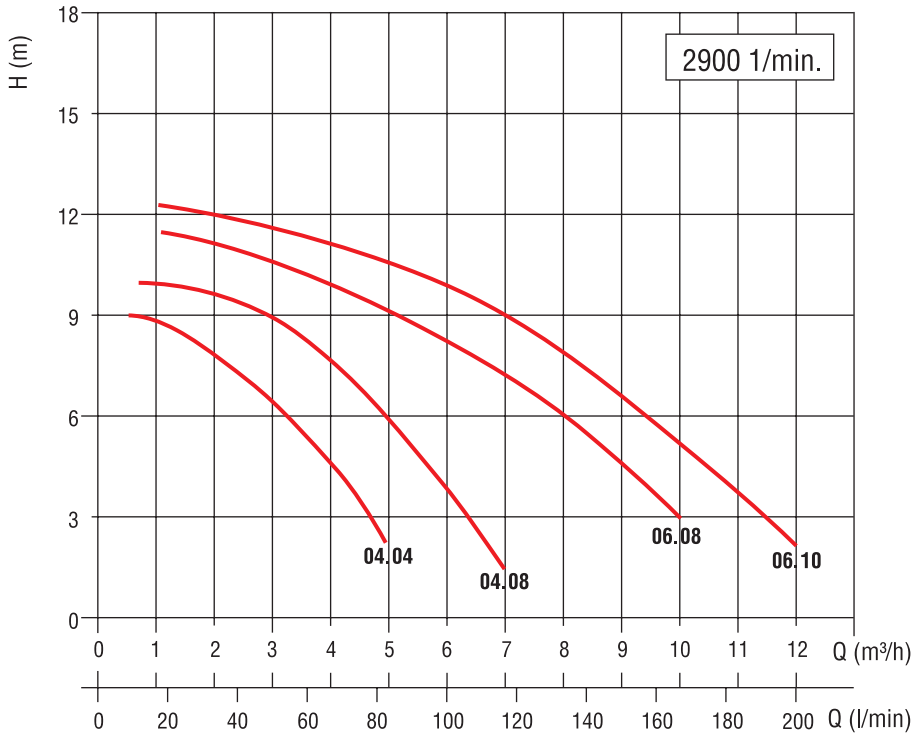
Technical data			
Model			Block construction
Materials			PP (GF), ECTFE (CF)
Max. delivery rate Q		m^3/h	12
Max. delivery head H		m	12
Max. density		kg/dm^3	1.8
Motor output with speed 2900 min^{-1}		kW	0.18 – 1.1
Ambient temperature		°C	0 – 40
Max. permissible media temperature depending on the medium	PP	°C	80
	ECTFE	°C	100

Possible bearing systems

- **R** Only conditionally suitable for dry running
  Conditionally suitable for dry running through use of HD-carbon plain bearings.
- **N** Corrosion-resistant
  Suitable for hypochlorite solutions, bromine and chromium compounds through the use of PTFE plain bearings.
- **X** Suitable for solids
  Suitable for solids through the use of silicon carbide plain bearings.

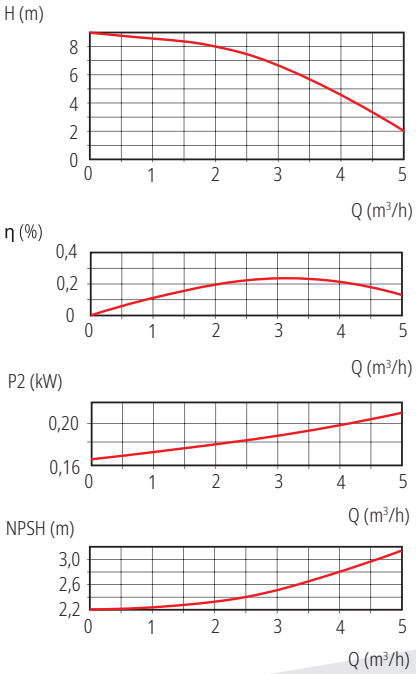
Characteristic curves

Magnetically coupled chemical centrifugal pump AM

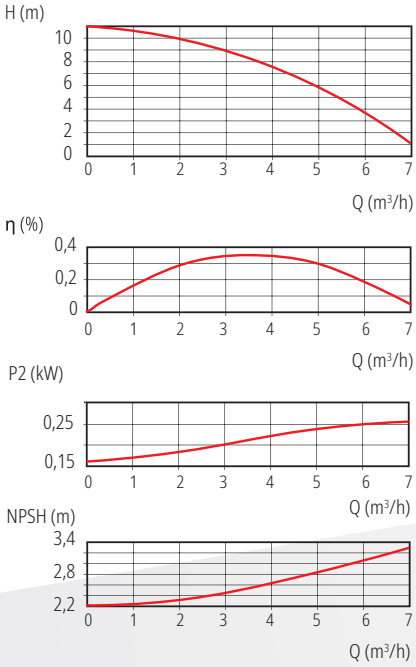


Individual characteristic curves

AM 04.04
Frequency: 50 Hz
Speed: 2900 min^{-1}



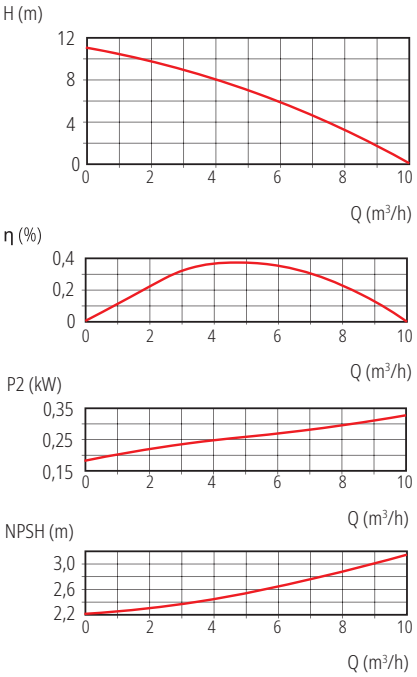
AM 04.08
Frequency: 50 Hz
Speed: 2900 min^{-1}



Individual characteristic curves

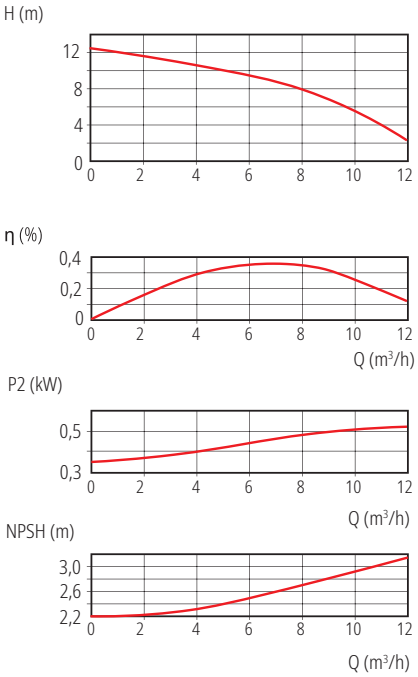
AM 06.08

Frequency: 50 Hz
Speed: 2900 min^{-1}



AM 06.10

Frequency: 50 Hz
Speed: 2900 min^{-1}



Technical data

Version		WR			GF			GX (on request)	
Equipment category 2 (in accordance with ATEX)		No			No			Yes	
Pump housing		Polypropylene (fibre glass reinforced)			ECTFE (carbon fibre reinforced)			ECTFE (carbon fibre reinforced)	
Rear casing									
Impeller									
Operating temperature	°C	-5 to +80			-20 to +100			-20 to +100	
Ambient temperature	°C	0 to +40			-20 to +40			-20 to +40	
Bearing system		R_1	X_1	N_1	R_2	X_2	N_2	R_2	N_2
Bearings		HD carbon	SiC	PTFE	HD carbon	SiC	PTFE	HD carbon	PTFE
Shaft		Ceramic			SiC			SiC	
Thrust ring		Ceramic			SiC			SiC	
Seal[1]		FPM or EPDM			FPM or EPDM			FPM or EPDM	
Screws		Stainless steel			Stainless steel			Stainless steel	

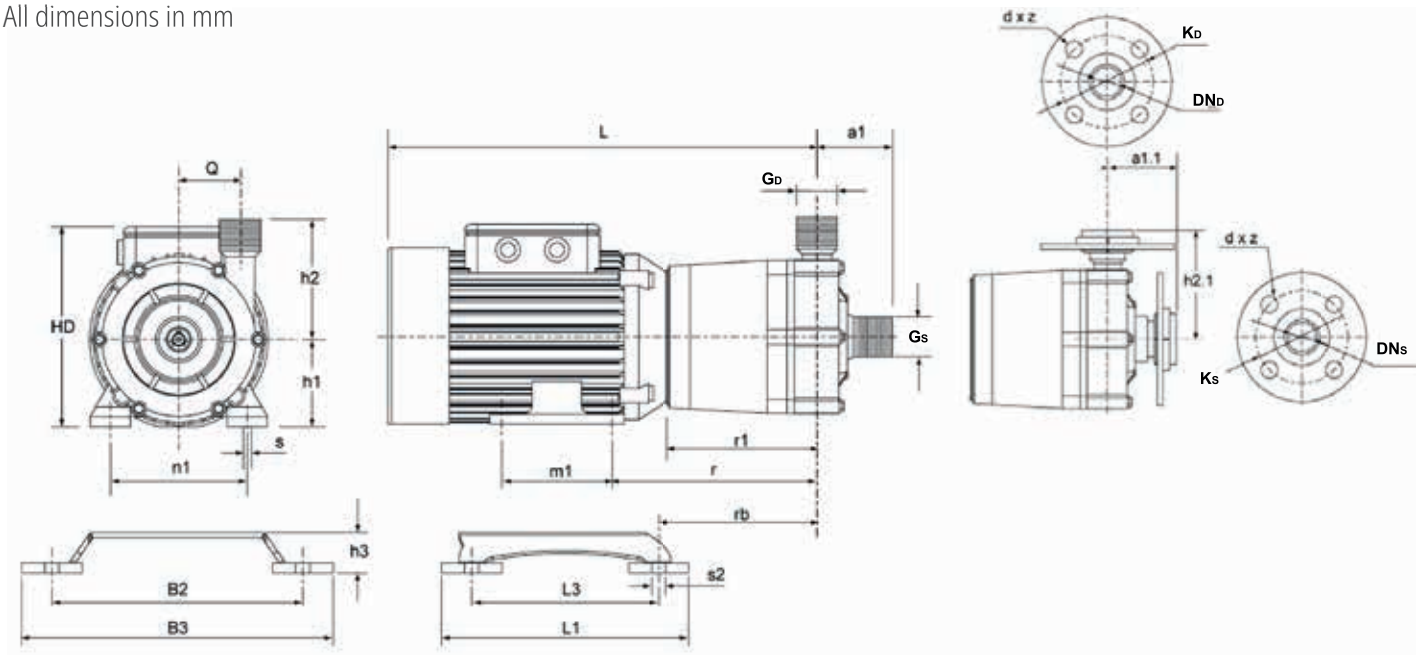
[1]FFKM on request

Pump type		04.04			04.08			06.08			06.10		
Motor version		N	P	S	N	P	S	N	P	S	N	P	S
G_D thread outlet		G3/4 male			G1 male			G1 1/4 male			G1 1/4 male		
G_S thread entry		G3/4 female			G1 male			G1 1/4 male			G1 1/4 male		
Inflow and outflow flange	DN	-			25			32			32		
Max. density	kg/dm³	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8
Motor rating (IEC) 50 Hz	kW	0.18	0.25	0.37	0.25	0.37	0.55	0.37	0.55	0.75	0.55	0.75	1.1
Motor		3~, 400 V/50 Hz, IP55 (1~, 230 V/50 Hz)[2]											

[2]1~, 230 V/50 Hz on request

Dimensions

All dimensions in mm



Pump type	04.04			04.08			06.08			06.10		
Motor version	N	P	S	N	P	S	N	P	S	N	P	S
G_D thread outlet	G3/4 male			G1 male			G1 1/4 male			G1 1/4 male		
G_S thread entry	G3/4 female			G1 male			G1 1/4 male			G1 1/4 male		
DN_D flange outlet	-			25			32			32		
DN_S flange entry	-			25			32			32		
K_D (ISO)	-			85			100			100		
K_S (ISO)	-			86			100			100		
K_D (ANSI)	-			79			89			89		
K_S (ANSI)	-			79			89			89		
d x z (ISO)	-			Ø14x4			Ø14x4			Ø14x4		
d x z (ANSI)	-			Ø16x4			Ø16x4			Ø16x4		
a_1	62			62			62			62		
$a_{1.1}$	-			70			70			70		
Q	47			49			53			53		
h_2	100			100			100			100		
$h_{2.1}$	-			108			108			108		
L*	330	330	348	330	348	348	348	348	388	348	388	388
h_1	63	63	71	63	71	71	71	71	80	71	80	80
HD*	160	160	177	160	177	177	177	177	190	177	190	190
m_1	80	80	90	80	90	90	90	90	100	90	100	100
n_1	100	100	112	100	112	112	112	112	125	112	125	125
r_1	123			123			123	123	133	123	133	133
r	163	163	163	163	168	168	168	168	183	168	183	183
rb	135			135			135	135	145	135	145	145
s	Ø7			Ø7			Ø7	Ø7	Ø10	Ø7	Ø10	Ø10
B_2	-	-	248	-	248	248	248			248		
B_3	-	-	308	-	308	308	308			308		
L_1	-	-	245	-	245	245	245			245		
L_3	-	-	185	-	185	185	185			185		
h_3	-	-	40	-	40	40	40			40		
S_2	-	-	14	-	14	14	14			14		

* The dimensions may vary with motors of different brands.

Magnetically coupled chemical centrifugal pump TMR G2

General

- Single-stage, normal-priming magnetically coupled horizontal pump
- Media-dependent bearing system
- Motor and pump mechanically separated
- pipe line connections suction and pressure side with external thread (DIN flange on request)
- Special designs on request

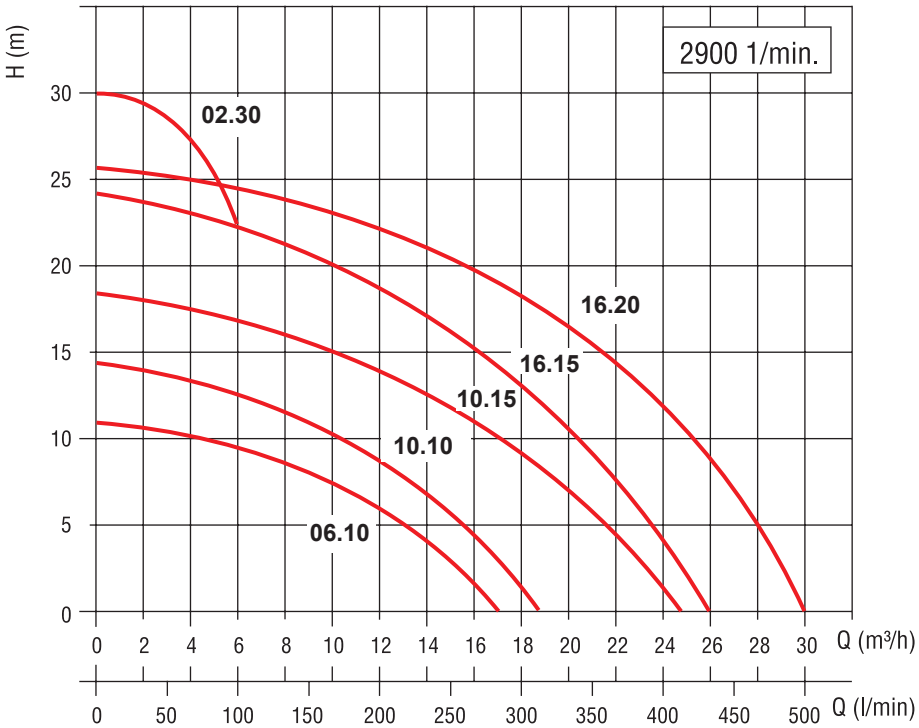
Technical data			
Model			Block construction
Materials			PP (GF), ECTFE (CF)
Max. delivery rate Q		m^3/h	30
Max. delivery head H		m	30
Max. density		kg/dm^3	1.8
Motor output with speed 2900 min^{-1}		kW	0.55 – 3.0
Ambient temperature		°C	0 – 40
Max. permissible media temperature depending on the medium	PP	°C	80
	ECTFE	°C	100

Possible bearing systems

- **R** Suitable for dry running
  Suitable for dry running through use of HD-carbon plain bearings.
- **N** Corrosion-resistant
  Suitable for hypochlorite solutions, bromine and chromium compounds through the use of PTFE plain bearings.
- **X** Suitable for solids
  Suitable for solids through the use of silicon carbide plain bearings.

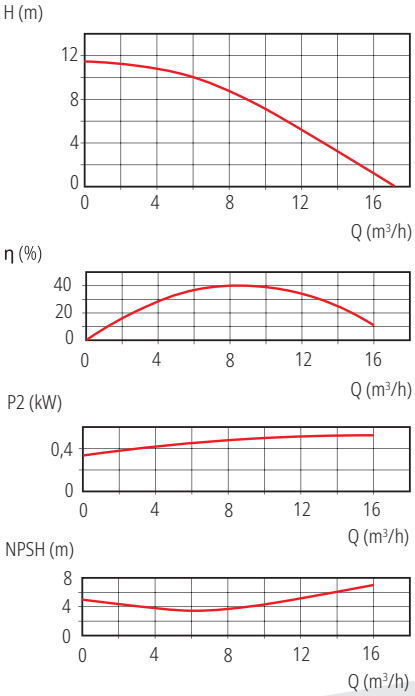
Characteristic curves

Magnetically coupled chemical centrifugal pump TMR

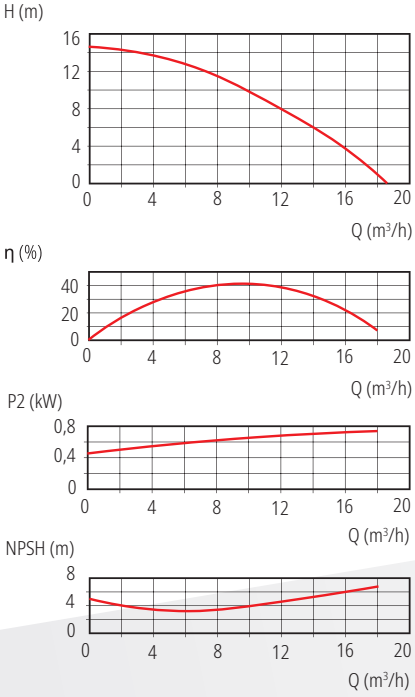


Individual characteristic curves

TMR 06.10
Frequency: 50 Hz
Speed: 2900 min^{-1}



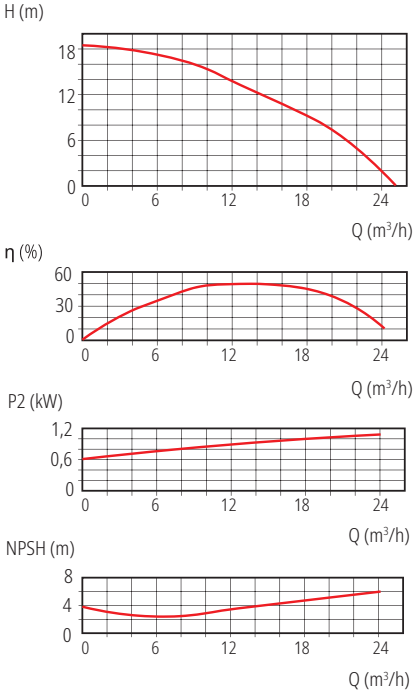
TMR 10.10
Frequency: 50 Hz
Speed: 2900 min^{-1}



Individual characteristic curves

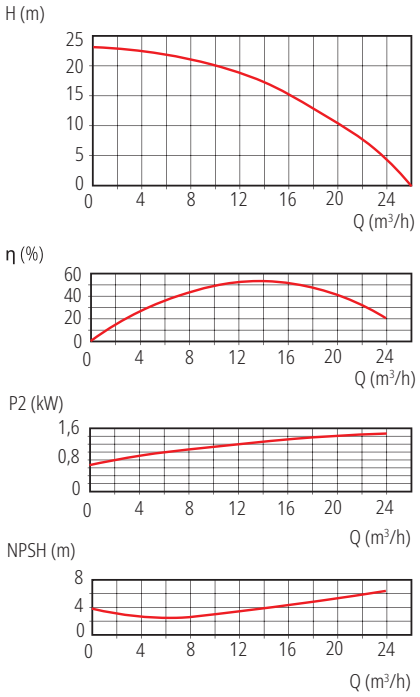
TMR 10.15

Frequency: 50 Hz
Speed: 2900 min^{-1}



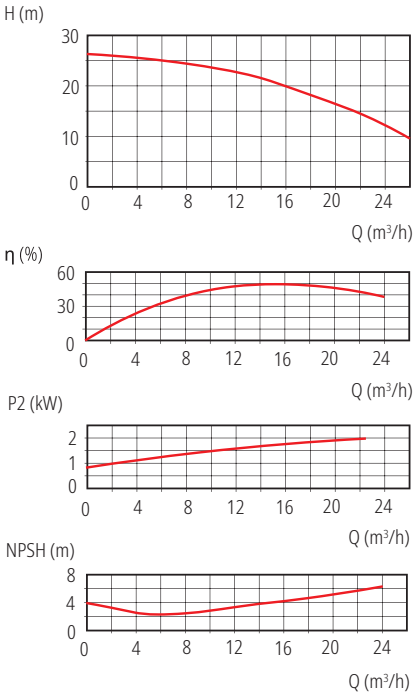
TMR 16.15

Frequency: 50 Hz
Speed: 2900 min^{-1}



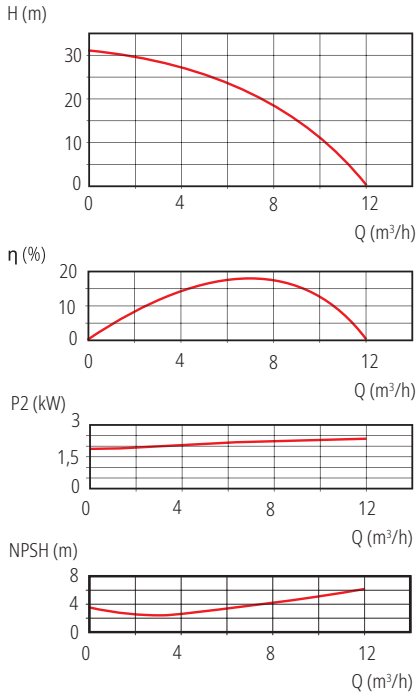
TMR 16.20

Frequency: 50 Hz
Speed: 2900 min^{-1}



TMR 02.30

Frequency: 50 Hz
Speed: 2900 min^{-1}



Technical data

Version		WR			GF			GX (on request)	
Equipment category 2 (in accordance with ATEX)		No			No			Yes	
Pump housing		Polypropylene (fibre glass reinforced)			ECTFE (carbon fibre reinforced)			ECTFE (carbon fibre reinforced)	
Rear casing									
Impeller									
Operating temperature	°C	-5 to +80			-20 to +100			-20 to +100	
Ambient temperature	°C	0 to +40			-20 to +40			-20 to +40	
Bearing system		R_1	X_1	N_1	R_2	X_2	N_2	R_2	N_2
Bearings		HD carbon	SiC	PTFE	HD carbon	SiC	PTFE	HD carbon	PTFE
Shaft		Ceramic			SiC			SiC	
Thrust ring		Ceramic			SiC			SiC	
Seal[1]		FPM or EPDM			FPM or EPDM			FPM or EPDM	
Screws		Stainless steel			Stainless steel			Stainless steel	

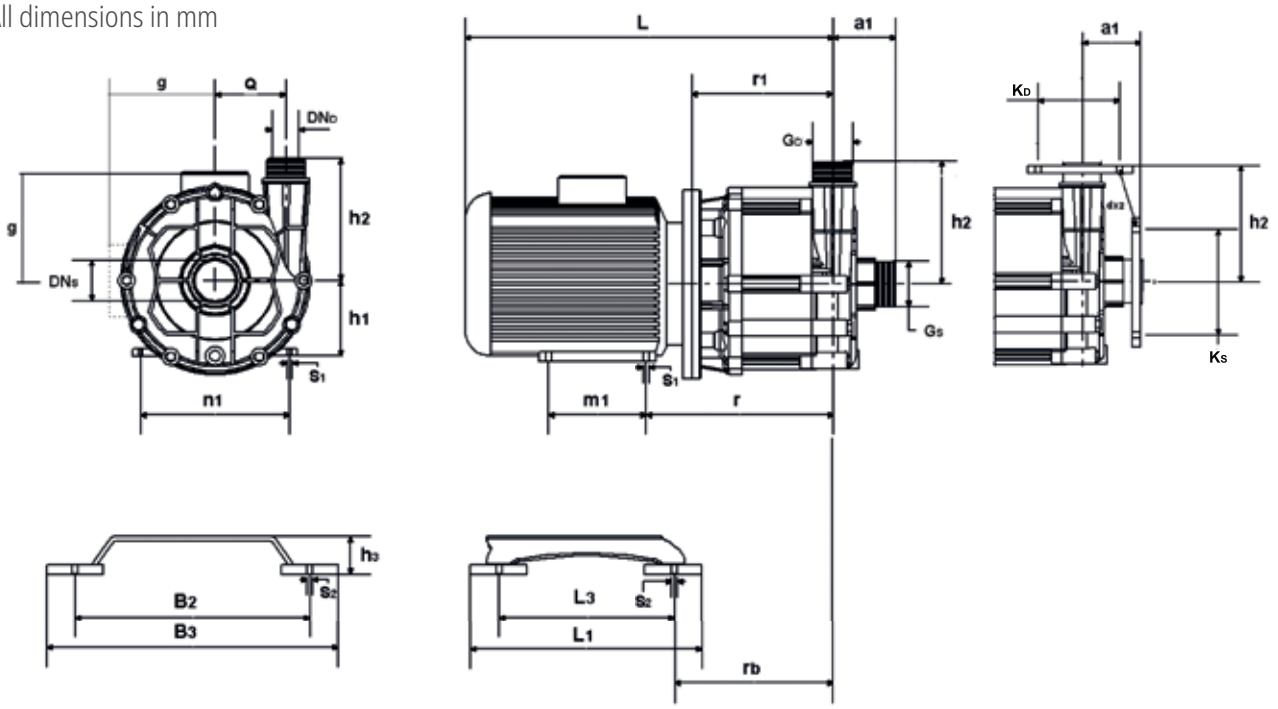
[1]FFKM on request

Technical data		06.10			10:10			10:15			16:15			16:20			2:30		
Motor version		N	P	S	N	P	S	N	P	S	N	P	S	N	P	S	N	P	S
G_D thread outlet		G1 1/4 male			G1 1/4 male			G1 1/4 male			G1 1/4 male			G1 1/4 male			G1 1/4 male		
G_S thread entry		G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male		
DN_D flange outlet	DN	32 (40[2])			32 (40[2])			32 (40[2])			32 (40[2])			32 (40[2])			32 (40[2])		
DN_S flange entry	DN	40			40			40			40			40			40		
Max. density	kg/dm³	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.1	1.35	1.8	1.05	1.35	1.8
Motor rating (IEC) 50 Hz	kW	0.55	0.75	1.1	0.75	1.1	1.5	1.1	1.5	2.2	1.5	2.2	3	2.2	3	-	2.2	3	-
Motor		3~, 400 V/50 Hz, IP55[3]																	

[2]on request
[3]1~, 230 V/50 Hz < 3 kW on request

Dimensions

All dimensions in mm



Pump type	06.10			10:10			10:15			16:15			16:20		02.30	
Motor size	71	80 A	80B	80 A	80B	90S	80B	90S	90L	90S	90L	100L	90L	100L	90L	100L
G_D thread outlet	G1 1/4 male			G1 1/4 male			G1 1/4 male			G1 1/4 male			G1 1/4 male		G1 1/4 male	
G_S thread entry	G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male		G1 1/2 male	
DN_D flange outlet	32			32			32			32			32		32	
DN_S flange entry	40			40			40			40			40		40	
K_D (ISO)	100			100			100			100			100		100	
K_S (ISO)	110			110			110			110			110		110	
K_D (ANSI)	89			89			89			89			89		89	
K_S (ANSI)	98			98			98			98			98		98	
d x z (ISO)	ø18 x 4			ø18 x 4			ø18 x 4			ø18 x 4			ø18 x 4		ø18 x 4	
d x z (ANSI)	ø16 x 4			ø16 x 4			ø16 x 4			ø16 x 4			ø16 x 4		ø16 x 4	
a_1	67			67			67			67			67		67	
L	356	385	385	385	385	405	385	405	430	405	430	478	430	478	430	478
Q	75			75			75			75			75		75	
h_1	71	80	80	80	80	90	80	90	90	90	90	100	90	100	90	100
h_2	130			130			130			130			130		130	
r	194	199	199	199	199	205	199	205	205	205	205	227	205	227	205	227
r_1	149			149			149			149	149	164	149	164	149	164
rb	161			161			161			161	161	176	161	176	161	176
m_1	90	100	100	100			100	100	125	100	125	140	125	140	125	140
n_1	112	125	125	125	125	140	125	140	140	140	140	160	140	160	140	160
s_1	7	8	8	8			8			8	8	10	8	10	8	10
g	106	110	110	110	110	142	110	142	142	142	142	155	142	155	142	155
L_3	185			185			185			185	185	205	185	205	185	205
B_2	248			248			248			248	248	305	248	305	248	305
S_2	14			14			14			14			14		14	
L_1	245			245			245			245	245	265	245	265	245	265
B_3	308			308			308			308	308	365	308	365	308	365
h_3	40			40			40			40			40		40	

Magnetically coupled chemical centrifugal pump TMR G3

General

- Single-stage, normal-priming magnetically coupled horizontal pump
- Media-dependent bearing system
- Motor and pump mechanically separated
- Due to magnetic axial thrust compensation the bearing system "R" is suitable for dry running
- pipe line connections suction and pressure side with external thread (DIN flange on request)
- Special designs on request

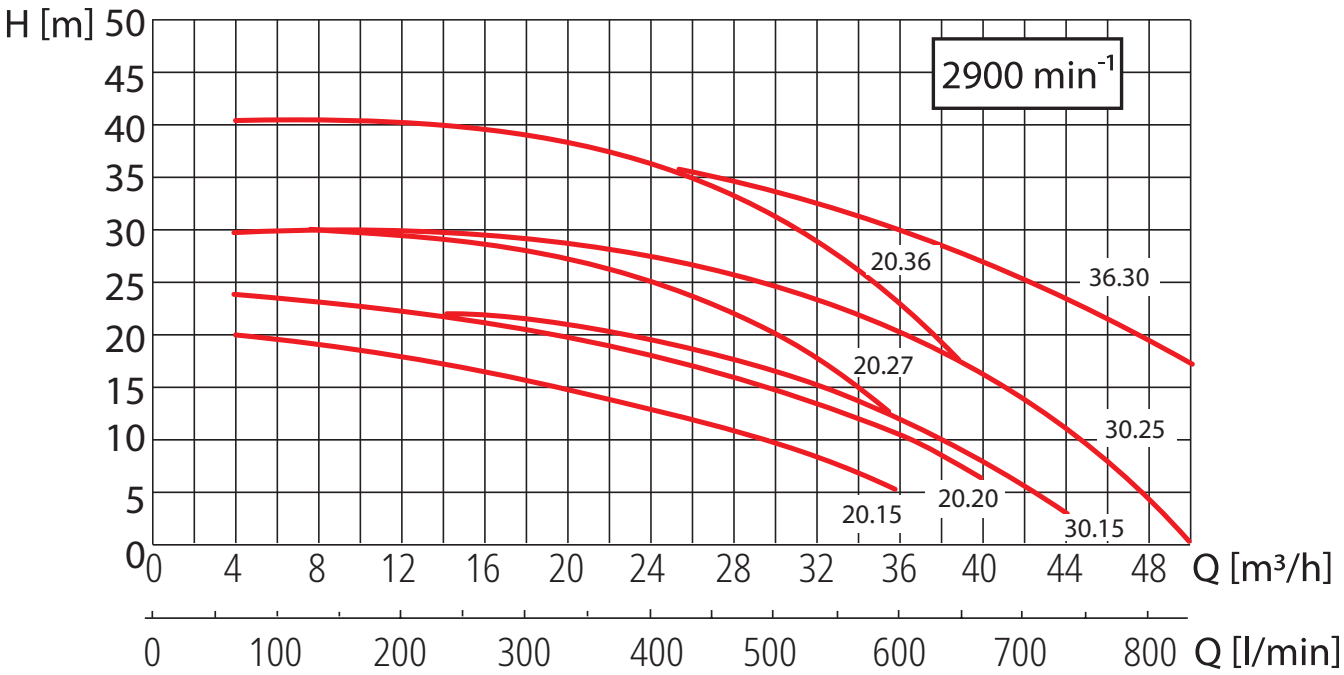
Technical data			
Model			Block construction
Materials			PP (GF), ECTFE (CF)
Max. delivery rate Q		m^3/h	48
Max. delivery head H		m	40
Max. density		kg/dm^3	1.8
Motor output with speed 2900 min^{-1}		kW	2.2 – 11
Ambient temperature		°C	0 – 40
Max. permissible media temperature depending on the medium	PP	°C	80
	ECTFE	°C	100

Possible bearing systems

- **R** Suitable for dry running
  Suitable for dry running through use of HD-carbon plain bearings.
- **N** Corrosion-resistant
  Suitable for hypochlorite solutions, bromine and chromium compounds through the use of PTFE plain bearings.
- **X** Suitable for solids
  Suitable for solids through the use of silicon carbide plain bearings.

Characteristic curves

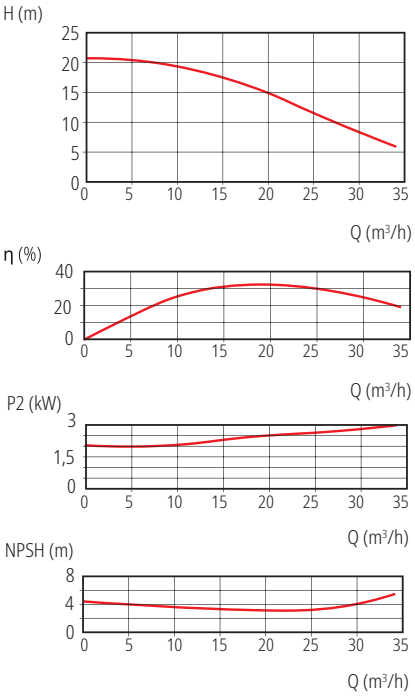
Magnetically coupled chemical centrifugal pump TMR



Individual characteristic curves

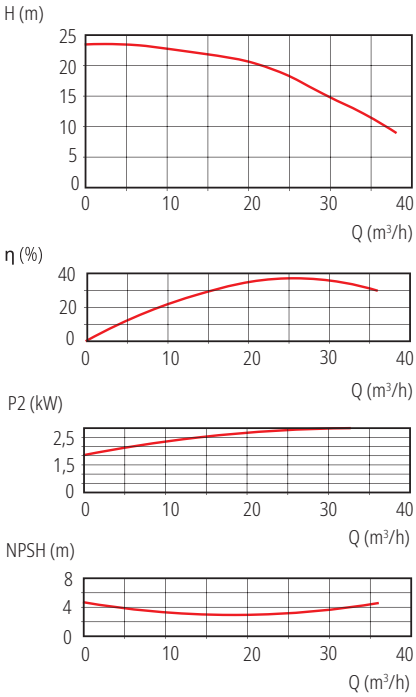
TMR 20.15

Frequency: 50 Hz
Speed: 2900 min^{-1}



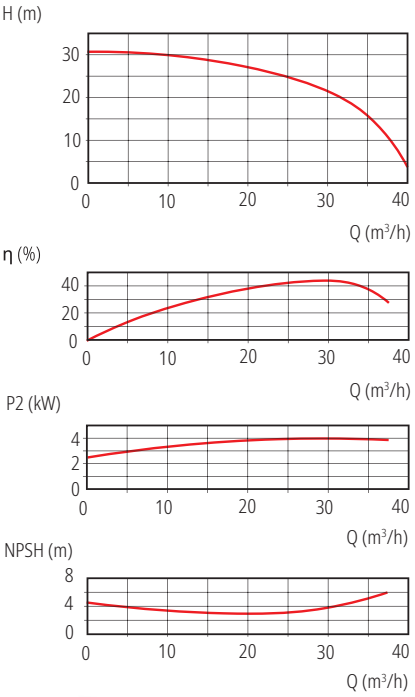
TMR 20.20

Frequency: 50 Hz
Speed: 2900 min^{-1}



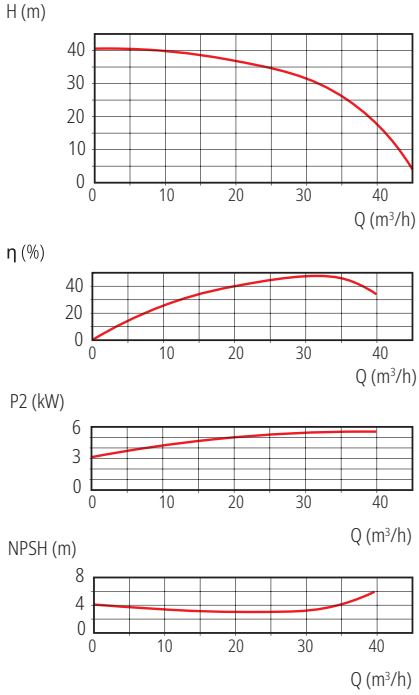
TMR 20.27

Frequency: 50 Hz
Speed: 2900 min^{-1}



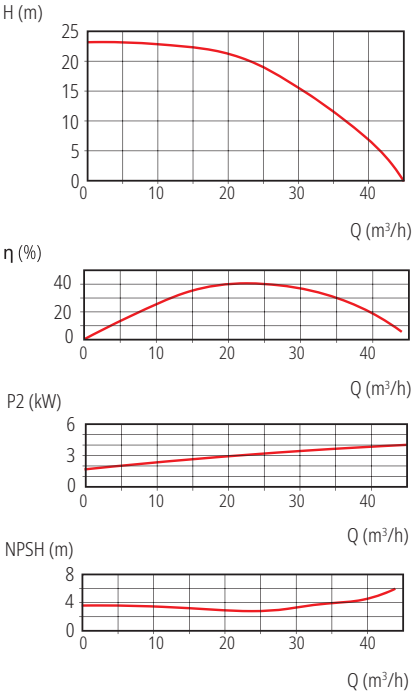
TMR 20.36

Frequency: 50 Hz
Speed: 2900 min^{-1}



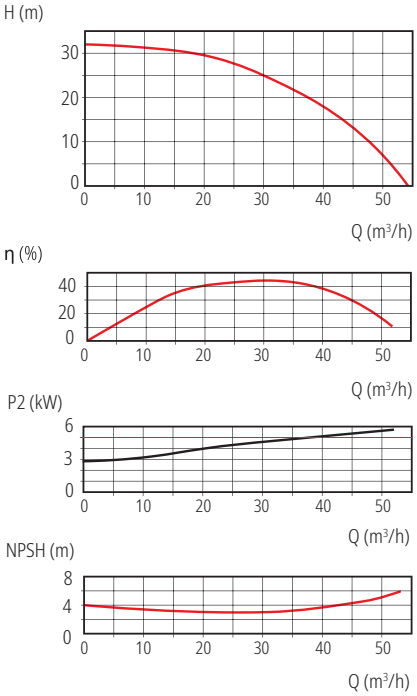
TMR 30.15

Frequency: 50 Hz
Speed: 2900 min^{-1}



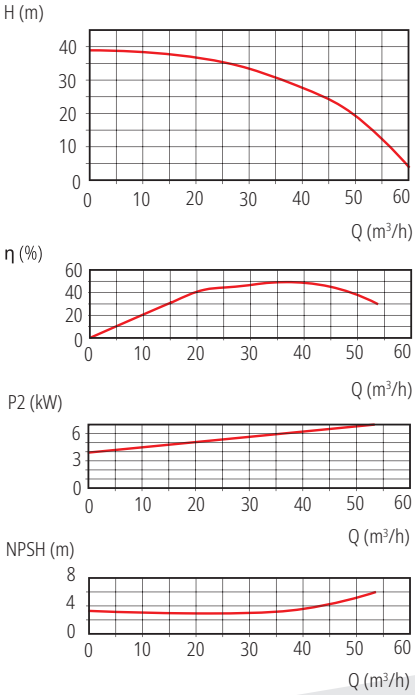
TMR 30.25

Frequency: 50 Hz
Speed: 2900 min^{-1}



TMR 36.30

Frequency: 50 Hz
Speed: 2900 min^{-1}



Technical data

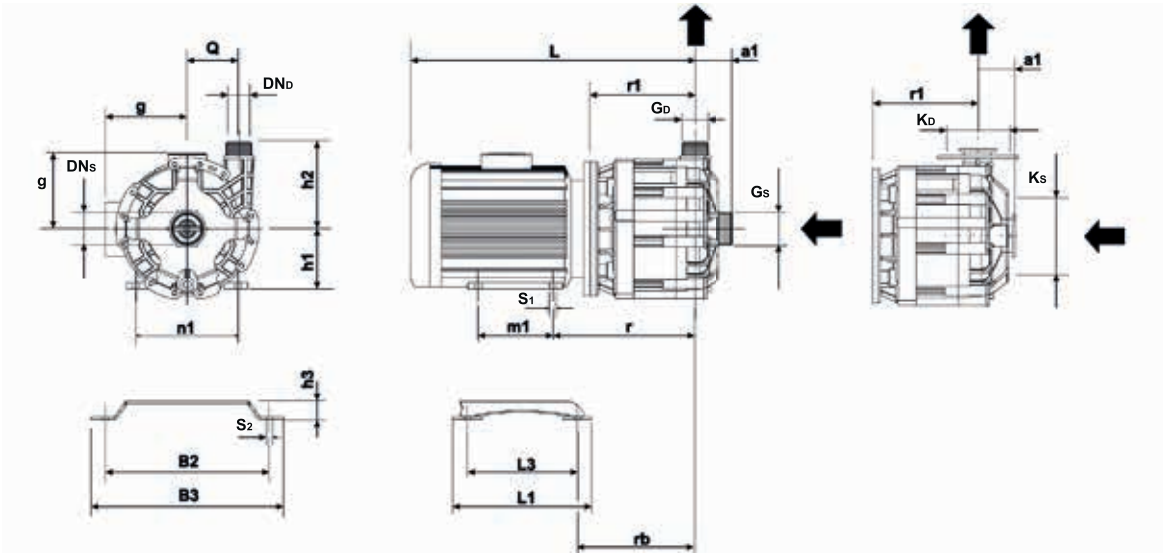
Version		WR			GF			GX (on request)	
Equipment category 2 (in accordance with ATEX)		No			No			Yes	
Pump housing		Polypropylene (fibre glass reinforced)			ECTFE (carbon fibre reinforced)			ECTFE (carbon fibre reinforced)	
Rear casing									
Impeller									
Operating temperature	°C	-5 to +80			-20 to +100			-20 to +100	
Ambient temperature	°C	0 to +40			-20 to +40			-20 to +40	
Bearing system		R_1	X_1	N_1	R_2	X_2	N_2	R_2	N_2
Bearings		HD carbon	SiC	PTFE	HD carbon	SiC	PTFE	HD carbon	PTFE
Shaft		Ceramic			SiC			SiC	
Thrust ring		Ceramic			SiC			SiC	
Seal[1]		FPM or EPDM			FPM or EPDM			FPM or EPDM	
Screws		Stainless steel			Stainless steel			Stainless steel	

[1]FFKM on request

Pump type		20:15			20:20			20:27			20:36			30.15			30.25			36.30		
Motor version		N	P	S	N	P	S	N	P	S	N	P	S	N	P	S	N	P	S	N	P	S
G_D thread outlet	BSP	G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male		
G_S thread entry	BSP	G2 male			G2 male			G2 male			G2 male			G2 male			G2 male			G2 male		
DN_D flange outlet	DN	40			40			40			40			40			40			40		
DN_S flange entry	DN	50			50			50			50			50			50			50		
Max. density	kg/dm³	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8	1.05	1.35	1.8
Motor rating (IEC) 50 Hz	kW	2.2	3	4	3	4	5.5	4	5.5	7.5	5.5	7.5	11	4	5.5	7.5	5.5	7.5	11	7.5	11	-
Motor		3 phases 400 V / 50 Hz, IP 55																				

Dimensions

All dimensions in mm

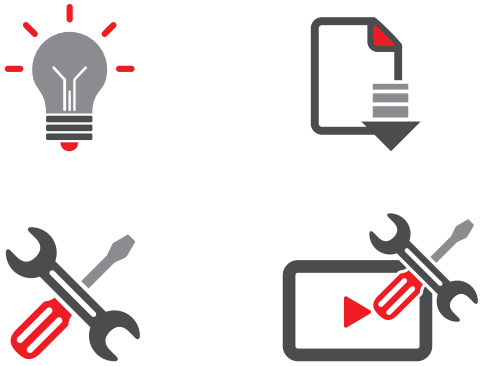


Pump type	20:15			20:20			20:27			20:36		30.15			30.25		36.30
Motor size	90L	100L	112M	100L	112M	132SA	112M	132SA	132SB	132SA	132SB	112M	132SA	132SB	132SA	132SB	132SB
G_D thread	G1 1/2 male			G1 1/2 male			G1 1/2 male			G1 1/2 male		G1 1/2 male			G1 1/2 male		G1 1/2 male
outlet	G2 male			G2 male			G2 male			G2 male		G2 male			G2 male		G2 male
G_S thread	40			40			40			40		40			40		40
entry	50			50			50			50		50			50		50
DN_D flange	110			110			110			110		110			110		110
outlet	125			125			125			125		125			125		125
DN_S flange	98			98			98			98		98			98		98
entry	121			121			121			121		121			121		121
K_D (ISO)	ø 18 x 4			ø 18 x 4			ø 18 x 4			ø 18 x 4		ø 18 x 4			ø 18 x 4		ø 18 x 4
K_S (ISO)	ø 16-19 x 4			ø 16-19 x 4			ø 16-19 x 4			ø 16-19 x 4		ø 16-19 x 4			ø 16-19 x 4		ø 16-19 x 4
K_D (ANSI)	98			98			98			98		98			98		98
K_S (ANSI)	121			121			121			121		121			121		121
d x z (ISO)	ø 18 x 4			ø 18 x 4			ø 18 x 4			ø 18 x 4		ø 18 x 4			ø 18 x 4		ø 18 x 4
d x z (ANSI)	ø 16-19 x 4			ø 16-19 x 4			ø 16-19 x 4			ø 16-19 x 4		ø 16-19 x 4			ø 16-19 x 4		ø 16-19 x 4
a_1	70			70			70			70		70			70		70
L	469	512	521	512	521	578	521	578	578	578		521	578	578	578		578
Q	96			96			96			96		96			96		96
h_1	90	100	112	100	112	132	112	132	132	132		112	132	132	132		132
h_2	160			160			160			160		160			160		160
r	244	261	268	261	268	307	268	307	307	307		268	307	307	307		307
r_1	188	198	198	198	198	218	198	218	218	218		198	218	218	218		218
rb	200	210	217	210	217	235	217	235	235	235		217	235	235	235		235
m_1	125	140	140	140			140			140		140			140		140
n_1	140	160	190	160	190	216	190	216	216	216		190	216	216	216		216
s_1	8	10	10	10			10			10		10			10		10
g	142	155	168	155	168	181	168	181	181	181		168	181	181	181		181
L_3	185	205	205	205	205	263	205	263	263	263		205	263	263	263		263
B_2	248	305	305	305	305	359	305	359	359	359		305	359	359	359		359
S_2	14			14			14			14		14			14		14
L_1	245	265	265	265	265	333	265	333	333	333		265	333	333	333		333
B_3	308	365	365	365	365	429	365	429	429	429		365	429	429	429		429
h_3	55			55			55			55		55			55		55

Service

Lutz-Jesco is available to you as a reliable partner with a worldwide network of competent representatives for all service questions relating to our products.

Customer-oriented action extends from advice to sales and after-sales service. To ensure that you are on the safe side, we offer you not only high-quality products but also comprehensive services.



Technical Support l Commissioning l Maintenance l Servicing l Repairs in the factory l Material Service l Customer Training courses

Do you have questions about our services? Our experts will be happy to advise you:

service@lutz-jesco.com | Telefon +49 5130 5802-30

Order no. P0009EN | State of the art 10.2024 | Subject to technical changes

Follow us:

Lutz-Jesco GmbH
Am Bostelberge 19 | DE-30900 Wedemark | Telephone +49 5130 5802-0 | info@lutz-jesco.com | www.lutz-jesco.com