

Company name
Person in charge
Phone number
E-mail address

0,1

Centrifugal pump: IR65-200B

NORMALIZED CENTRIFUGAL ELECTRIC PUMPS

3000 1/min

IR65-200B

DESCRIPTION

Close-coupled electric pump with axial suction and pump body with normalized dimensions according to EN733

USES

Suitable for recirculation, heating and heat recovery system, water supply facilities, pressurisation groups

CONSTRUCTIVE CHARACTERISTICS

Back pull out design: the motor group and the rotating part of the pump, can be removed without having to remove the pump body from the piping of the plant

Hydraulics: pump body with dimensions and performances according to EN733 standard (for the sizes covered), dynamically balanced closed impeller and balancing holes for balancing the axial thrust. All stainless steel shaft

IMPELLER

Impeller material: Cast iron EN-GJL-250

Impeller diameter: 190 mm

Shaft material: Stainless steel AISI 431 (1.4057)

The impeller diameter suggested by the selection software is indicative only and not binding.

SEALS

Seal type: Mech. seal EN 12756

Seals materials: BQ1EGG

FLANGES

TYPE: UNI EN 1092-1/2/UNI EN 1092-2

- Outlet: DN 65

- Suction: DN 80

Flanges PN: PN16

PUMP OPTIONS

Design pressure: PN16

Coating: Painting cycles C3 Durability medium (Standard)

Drinking water certified version: No (Standard)

MOTOR

Type: SAER MT2 - IE3 - 160-2P-25, made in Italy

Nominal power: 18.5 kW

Voltage / Frequency / N. phases: 400 V / 50 Hz / 3~

Poles: 2

Motor efficiency: 93.1 %

Efficiency class according to IEC 60034-30: IE3

Insulation class: F

Protection: IP 55

Motor suitable for use with VFD for supply voltage up to 500V, for voltage above 500V please contact SAER

MOTOR OPTIONS

Motor protection: Without (Standard)

Additional motor protection: Without (Standard)

Additional motor options #1: Without (Standard)

Additional motor options #2: Without (Standard)

Additional motor options #3: Without (Standard)

COATING

Two-component epoxy coating suitable for contact with drinking water.

Coating: Painting cycles C3 Durability medium (Standard)

REQUESTED DATAQ=80 m³/h

H=45 m

CHARACTERISTIC DATA AT 3000 1/minQ=79.87 m³/h - Q_{max}=140 m³/h

H=44.85 m

Power requested at the duty point P₂=13.5 kWMax power requested along the curve P_{2max}=18.31 kW

Temperature of the pumped liquid: from -15°C up to +120°C

Maximum working pressure (maximum pressure allowable considering the sum of the maximum pressure in suction and of the head at shut off):

PN10 (on request PN16)

Max environment temperature: 40°C (for higher temperature, please, verify).

INSTALLATION AND OPERATION CHARACTERISTICS

The pumps series IR and IR4P can be positioned with horizontal axis, inclined or vertical as well but always with motor upward (vertical installation with motor upward allowed up to frame size 160 included).

Contact SAER technical assistance for further information). The working features of this technical data sheet, the catalog and the plate are intended for continuous service and clean water (specific weight = 1000 kg/m³,kinematic viscosity = 1 mm²/s, temperature = 20°C)**ACCESSORIES ON REQUEST**

Kit counterflanges

PERFORMANCE TOLERANCES

Company name
Person in charge
Phone number
E-mail address

Pumps: UNI EN ISO 9906: 2012- Grade 3B, other levels on request.
Motors: IEC 60034-1

Company name	Receiver	From
Person in charge		
Phone number		
E-mail address		

Summary

Pump

IR65-200B			
Required flow	m³/h 80	Inlet/Outlet	UNI EN 1092 Standard
Required head	m 45	Flange standard	UNI EN 1092-1/2/UNI EN 1092-2
Flow	m³/h 79.9	Pressure rating	PN10/16
Head	m 44.9	Nominal pipe size	DN80/DN65
Impeller size	ø 190		

Materials

IR-5			
Shaft	Stainless steel AISI 431 (1.4057)		Standard
Impeller	Cast iron EN-GJL-250		Standard
Pump body	Ductile Cast iron EN-GJS-500		
Seal disc	Ductile Cast iron EN-GJS-500		
Gasket	Aramid fiber		Standard

Mechanical seal
BQ1EGG

Additional pump options

Design pressure	PN16
Coating	Painting cycles C3 Durability medium (Standard)
Drinking water certified version	No (Standard)

Motor

Frame size	160
Rated power	kW 18.5
Frequency	Hz 50
Electric voltage	V 400 V Standard
Efficiency Class IEC 60034-30	IE3

Additional motor options

Motor protection	Without (Standard)
Additional motor protection	Without (Standard)
Additional motor options #1	Without (Standard)
Additional motor options #2	Without (Standard)
Additional motor options #3	Without (Standard)

Notes:

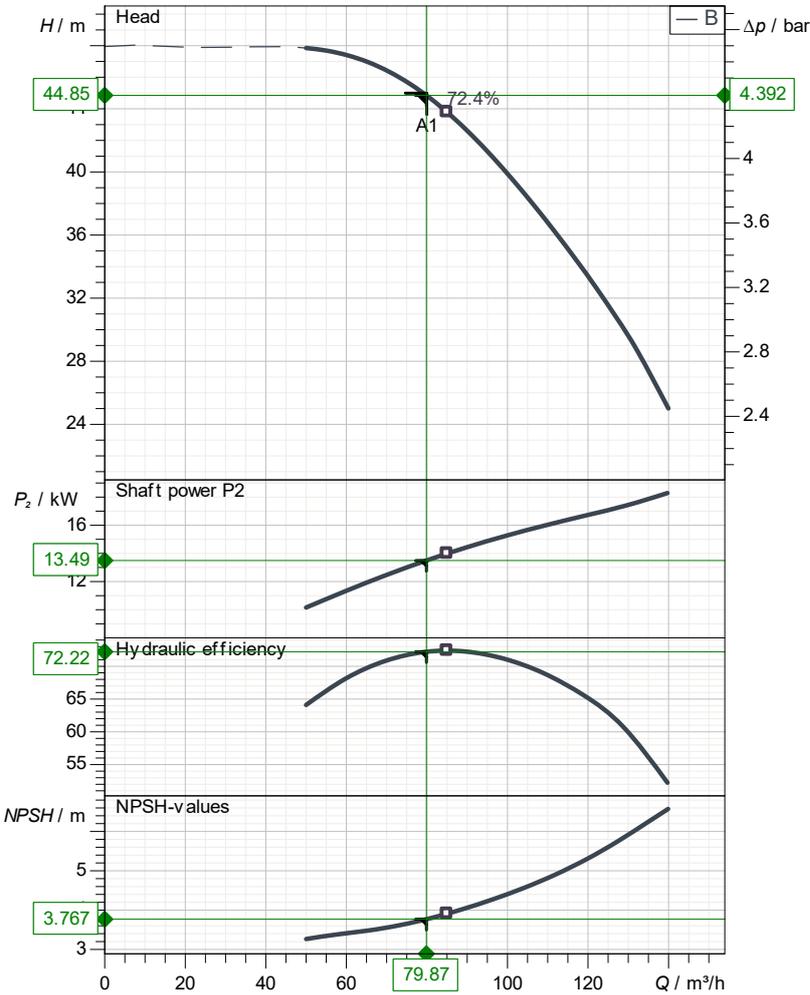
MAIN_PROJECT_TITLE	Business process ID	Dept.	ISSUE_DATE 2026-02-16	LAST_MODI_DATE 2026-02-16	Revision no
--------------------	---------------------	-------	--------------------------	------------------------------	-------------

Company name
Person in charge
Phone number
E-mail address

Receiver

From

Operating data specification



UNI EN ISO 9906:2012 grade 3B

Nominal flow	m³/h	80
Nominal head	m	45
Static head	m	0
NPSH - value of plant	m	
Inlet pressure	bar	0
Fluid	Water	
Operating temperature t A	°C	95
Density at t A	kg/m³	998.2
Kin. viscosity at t A	mm²/s	1.001

Pump

Pump name	IR65-200B		
Size	80/65/200	Weight	145
Design			0,1
Speed	1/min 3000	No of stages	1
Impeller type			
	Nominal		m³/h 79.9
Flow	Max-		m³/h 140
	Min-		m³/h 50
	Nominal		m 44.9
Head	Max-		m 47.9
	Min-		m 25
Head H(Q=0)			m 47.9
NPSH 3%			m 3.77
Max working pressure			bar 4.7
Shaft power			kW 13.5
Efficiency			% 72.2
Max absorbed power			kW 18.286

Materials

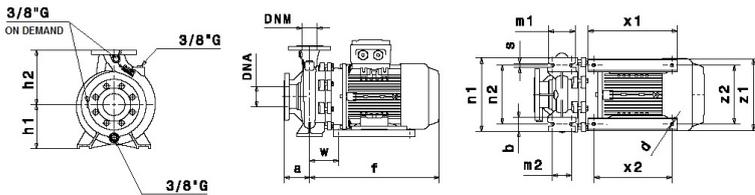
Shaft	Stainless steel AISI 431 (1.4057)
Impeller	Cast iron EN-GJL-250
Pump body	Ductile Cast iron EN-GJS-500
Seal disc	Ductile Cast iron EN-GJS-500
Gasket	Aramid fiber
Mech. seal EN 12756	
Seal face	Carbon impregnated with resin
Seat	Silicon carbide
Rubber elements	Rubber EPDM
Spring and metal bellows	Stainless steel AISI 316 (1.4401)

Motor

Manufacturer / Type	SAER 160-2P-25		
Frame size	160		
Rated power	kW 18.5		
Rated current	A 33 A		
Service factor current	SF 1	-	
Speed	1/min 2959		
Electric voltage	V 400 V	Hz 50	3~
Efficiency 4/4	93.1%		
Starting mode	Unknown		
Degree of protection	IP 55		
Insulation class	F		

Dimensions

a	100	m2	95	z1	319	C	122	C	138
b	65	n1	320	z2	254	D	185	D	200
d	14	n2	250			DN	65	DN	80
f	644	s	14			K	145	K	160
h1	180	w	152			n°	4 x 18 m	n°	8 x 18 mm
h2	225	x1	410						
m1	125	x2	370						



Remarks:

MAIN_PROJECT_TITLE	Business process ID	Dept.	ISSUE_DATE 2026-02-16	LAST_MODI_DATE 2026-02-16	Revision no
--------------------	---------------------	-------	--------------------------	------------------------------	-------------

Company name
Person in charge
Phone number
E-mail address

Receiver

From

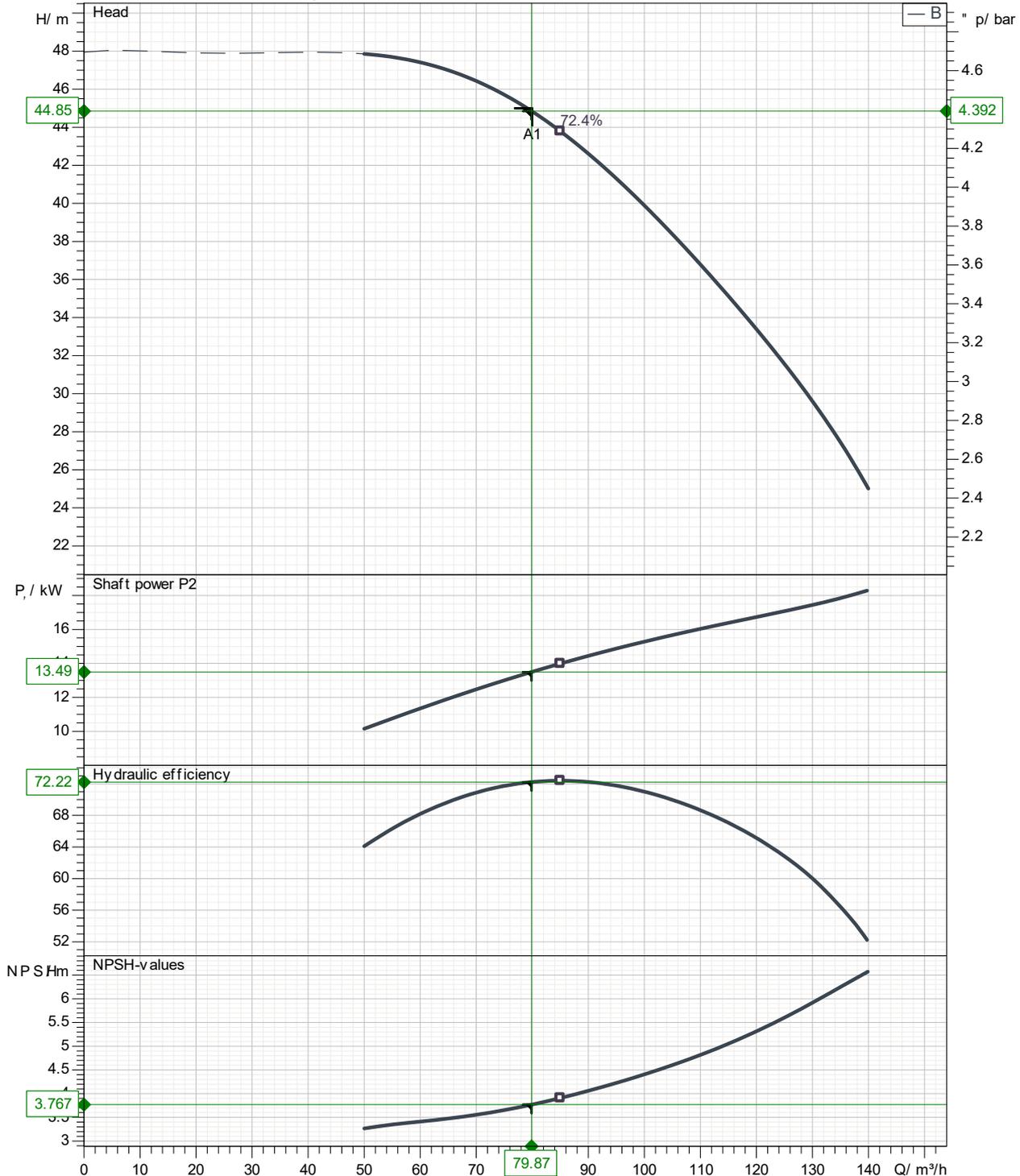
Operating data specification

Operating area	Flow		Head		Impeller type			
Operating data specification	80	m³/h	45	m	Impeller construction			
Pump data	79.9	m³/h	44.9	m	Sense of rotation			
	Flow		Head		Shaft power P2			
	Min.	Max	h Max	H(Q=0)	h Max	P2(Q=0)	Max	h Max
	m³/h	m³/h	m³/h	m	m	kW	kW	kW
	50	140	85	47.9	43.8	10.2	18.3	14

Impeller construction: Closed
Sense of rotation: Clockwise from the drive end
Outlet width: DN65
Speed: 1/min 3000
Frequency: Hz 50 Hz

Performance data based to: Water; 20°C; 998.2kg/m³; 1.001mm²/s

UNI EN ISO 9906:2012 grade 3B



Pump dimensions

Connections

Suction side	Discharge port
DN80	DN65
PN10/16	PN10/16

Dimensions in mm	
a	100
b	65
d	14
f	644
h1	180
h2	225
m1	125
m2	95
n1	320
n2	250
s	14
w	152
x1	410
x2	370
z1	319
z2	254

Dimensional warning, weight and picture are not binding. Saer reserves the right to make changes without prior notice.

MAIN_PROJECT_TITLE	Business process ID	Dept.	ISSUE_DATE 2026-02-16	LAST_MODI_DATE 2026-02-16	Revision no
--------------------	---------------------	-------	--------------------------	------------------------------	-------------

Company name Person in charge Phone number E-mail address	Receiver	From
--	-----------------	-------------

Operating data specification

Operating data specification		Data	Unit	
Model		MT2-160LC 18,5KW / 25HP		
Frame		160LC		
Mounting		Close coupled		
Rated power	Pn	18.5	KW	
Rated voltage		400	V	
Rated frequency		50	Hz	
Rated speed	n	2960		
Service factor		1		
Rated current	In	33	A	
Service factor current	Isf	-	A	
Nominal motor torque	Tn	59.703	Nm	
Thermal class / Temperature rise		F / B		
Starting current	Is/In	10.5		
Locked rotor torque	Tl/Tn	2.3		
Max torque	Tm/Tn	5.8		
Efficiency Class IEC 60034-30		IE3 = Premium Efficiency		
Efficiency	η	50%	75%	100%
		93.1	93.5	93.1
Power factor	cos ϕ	0.87		
Sound pressure level LpA - 1 m		75	dBA	
Type of duty		S1		
Cooling		IC411		
Degree of protection		IP 55		
Ambient temperature		40	°C	
Max installation site elevation		1000		
Moment of inertia	J	0.05277	kg m ²	
Bearing design		Radial ball bearing with permanent grease		
Bearing type		DE: 6309-2Z / NDE: 6309-2Z		
Sense of rotation		CW / CCW		
Terminal box position		At top		
Cable entry (Number x hole type)		2 x PG21		
Weight		100	kg	

Power loss/Rated power at different speed-torque operating points

25%-25%	25%-100%	50%-25%	50%-50%	50%-100%	90%-50%	90%-100%	
1.4	7.1	2	3.1	7.4	4.9	9.4	%

MAIN_PROJECT_TITLE	Business process ID	Dept.	ISSUE_DATE 2026-02-16	LAST_MODI_DATE 2026-02-16	Revision no
--------------------	---------------------	-------	---------------------------------	-------------------------------------	-------------