

ETN 080-065-160 GC A 11GC201502B

Operating data

Requested flow rate		Actual flow rate	93.02 m ³ /h
Requested developed head		Actual developed head	30.01 m
Pumped medium	Antifreeze on ethylene glycol base, inhibited, closed system, e.g. Antifrogen N or similar products	Efficiency	78.3 %
	Concentration 50%	MEI (Minimum Efficiency Index)	≥ 0.70
	Not containing chemical and mechanical substances which affect the materials	Power absorbed	10.41 kW
Ambient air temperature	20.0 °C	Pump speed of rotation	2969 rpm
Fluid temperature	41.5 °C	NPSH required	4.27 m
Fluid density	1072 kg/m ³	Permissible operating pressure	17.00 bar.a
Fluid viscosity	2.28 mm ² /s	Discharge press.	4.16 bar.a
Suction pressure max.	1.00 bar.a	Min. allow. mass flow for continuous stable operation	17.994 t/h
Mass flow rate	99.717 t/h	Max. allow. mass flow	141.889 t/h
Max. power on curve	11.71 kW	Design	Single system 1 x 100 %
Min. allow. flow for continuous stable operation	16.79 m ³ /h	Performance test	Yes
Shutoff head	33.50 m		

Design

Pump standard	EN 733	Shaft seal code	11
Design	Baseplate mounted, long-coupled	Sealing plan	A Single-acting mechanical seal (A-type casing cover, taper bore)
Orientation	Horizontal	Pumped liquid without silicates	
Suction nominal dia.	DN 80	Seal chamber design	Conical seal chamber (A-type cover)
Suction nominal pressure	PN 16	Contact guard	with
Suction position	axial	Wear ring	Casing wear ring
Suction flange dimension according to standard	EN1092-2	Impeller diameter	160.0 mm
Suction flange drilled according to standard	EN1092-2	Free passage size	12.2 mm
Discharge nominal dia.	DN 65	Direction of rotation from drive	Clockwise
Discharge nominal pressure	PN 16	Silicon free pump assembly	Yes
Discharge position	top (0°/360°)	Bearing bracket construction	Water standard standard
Discharge flange dimension according to standard.	EN1092-2	Bearing bracket size	25
Discharge flange drilled according to standard	EN1092-2	Bearing seal	V ring
Shaft seal	Single acting mechanical seal	Bearing type	Anti-friction bearings
Manufacturer	KSB	Lubrication type	Grease
Type	1	Color	Ultramarine blue (RAL 5002)
Material code	BQ1EGG-WA		KSB-blue

ETN 080-065-160 GC A 11GC201502B

Driver, accessories

Manufacturer	Flender	Motorside drill	Yes
Coupling type	Eupex NH	Driver type	Electric motor
Nominal size	95	Drive standard	IEC
Spacer length	100.0 mm	Drive supplied by	without motor
Coupling guard type	Lightweight, not treadproof (ZN79)	Motor const. type	B3
Guard size	A148	Motor size	160M
Guard material	Galvanised steel ST TZN	Frequency	50 Hz
Baseplate type	U-beam / folded plate	Rated power P2	15.00 kW
Baseplate size	4A	available reserve	44.07 %
Baseplate fixing	Foundation bolts galvanized steel	Number of poles	2

Materials GC

Volute casing (102)	Gray cast iron JL1040/A48CL35B	Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
Casing cover (161)	Gray cast iron JL1040/A48CL35B	Shaft sleeve (523)	CrNiMo steel
Shaft (210)	Tempered steel C45+N	Shaft protecting sleeve (524)	Without
Impeller (230)	Stainless steel 1.4408 / A743 GR CF8M	Stud (902)	Steel 8.8
Bearing bracket (330)	Gray cast iron JL1040/A48CL35B	Screwed plug (903)	Steel ST
Flat gasket (400)	DPAF seal plate asbestos free	Nut (920.01)	8+A2A/ 8+B633 SC1 TP3
Casing wear ring (502.1)	Grey cast iron GG/CAST IRON	Nut (920.95)	CrNiMo steel A4 / AISI 316

Certifications

Hydraulic performance test

Acceptance standard	ISO 9906 class 3B; below 10 kW acc. to paragraph 4.4.2
Quantity meas. points Q-H Certificate	5 Inspection cert. 3.1 to EN 10204
Test participation	Non-witnessed
Quantity, non-witnessed	3
Quantity, witnessed	0

Material certificates: Volute casing (102)

Certificate Test report 2.2 to EN 10204

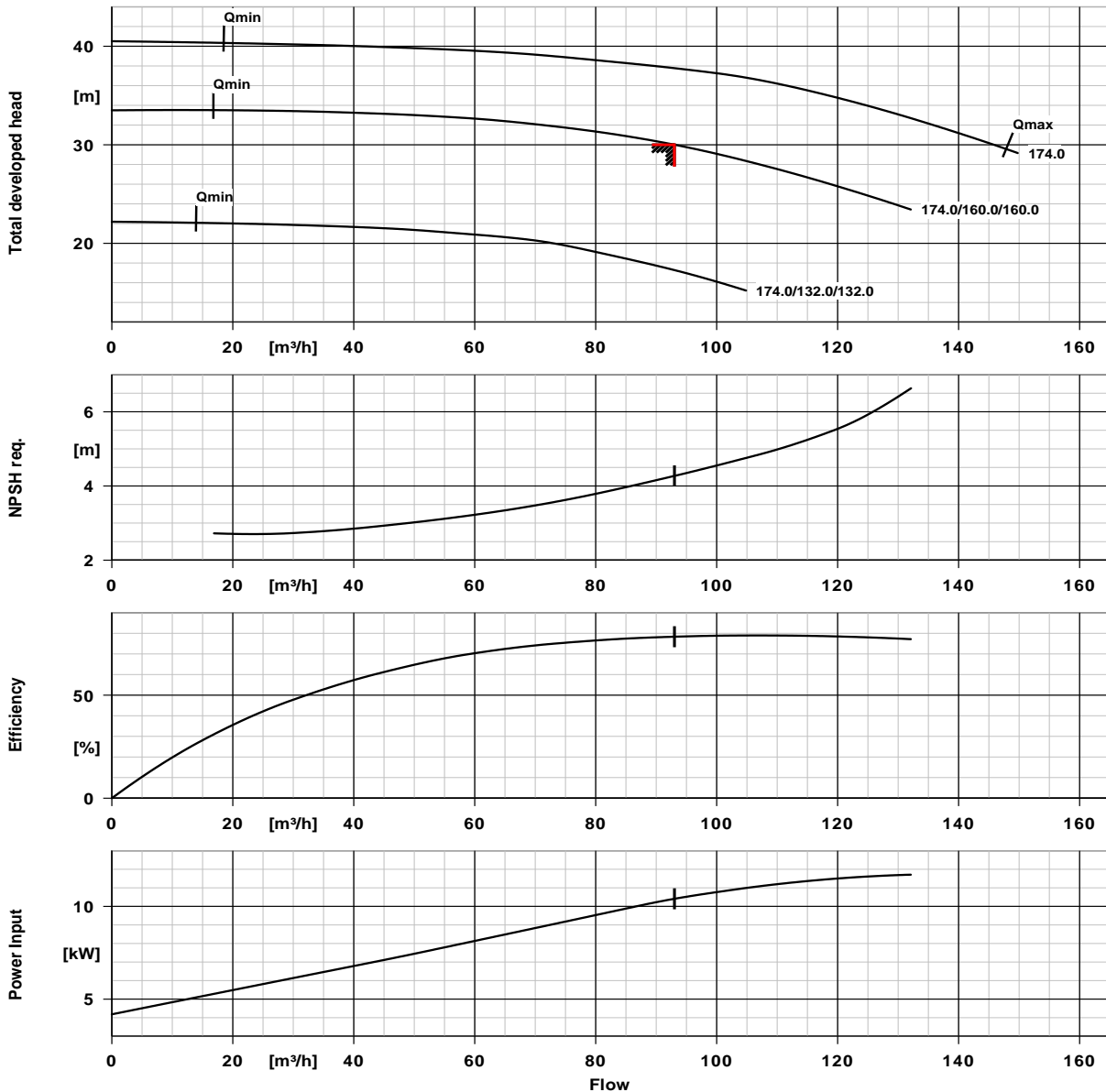
Material certificates: Casing cover (161)

Certificate Test report 2.2 to EN 10204

Material certificates: Impeller (230)

Certificate Test report 2.2 to EN 10204

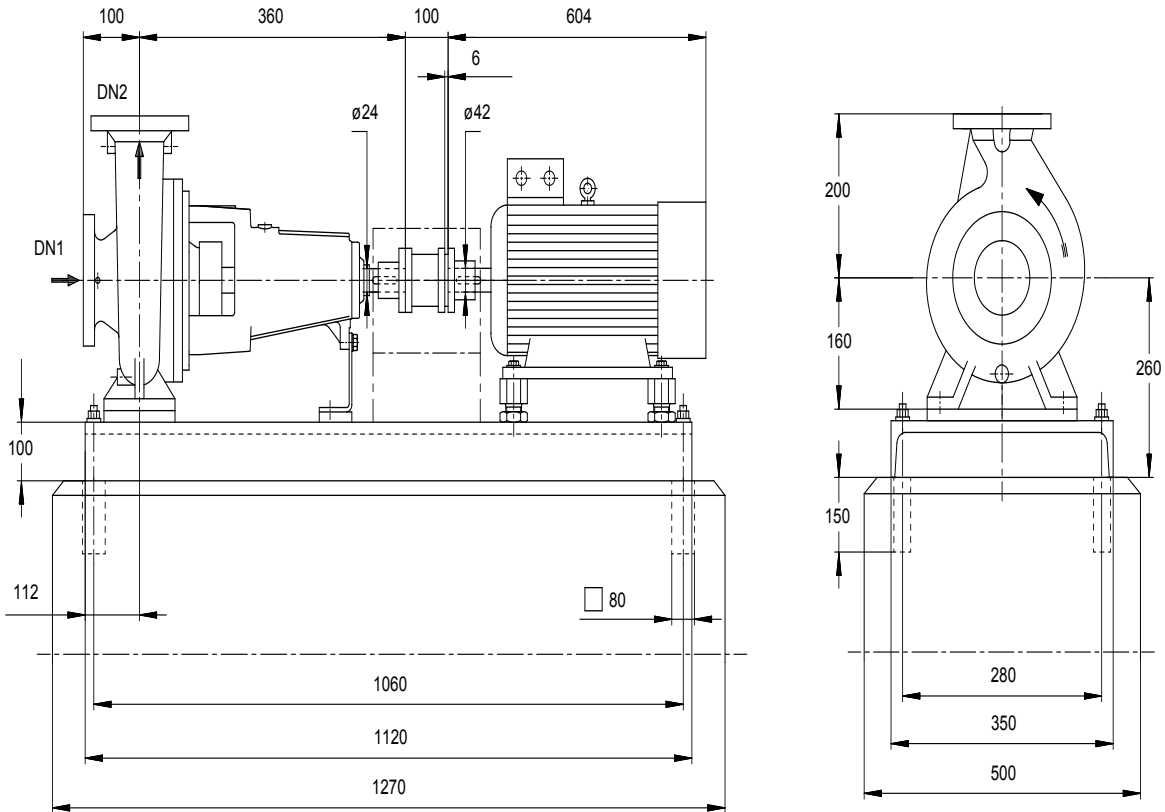
ETN 080-065-160 GC A 11GC201502B



Curve data

Speed of rotation	2969 rpm	Efficiency	78.3 %
Fluid density	1072 kg/m^3	MEI (Minimum Efficiency Index)	≥ 0.70
Viscosity	2.28 mm^2/s	Power absorbed	10.41 kW
Flow rate	93.02 m^3/h	NPSH required	4.27 m
Requested flow rate	93.00 m^3/h	Curve number	K1311.452/36
Total developed head	30.01 m	Effective impeller diameter	160.0 mm
Requested developed head	30.00 m	Acceptance standard	ISO 9906 class 3B; below 10 kW acc. to paragraph 4.4.2

ETN 080-065-160 GC A 11GC201502B



Drawing is not to scale

Dimensions in mm

Motor

Not in scope of supply	
Motor size	160M
Motor power	15.00 kW
Number of poles	2
Speed of rotation	2969 rpm

Connections

Suction nominal size DN1	DN 80 / EN1092-2
Discharge nominal size DN2	DN 65 / EN1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16

Baseplate

Design	U-beam / folded plate
Size	4A
Material	Steel ST
Leakage drain baseplate (8B)	Rp1, Without
Foundation bolts	M16x250

Coupling

Coupling manufacturer	Flender
Coupling type	EupeX NH
Coupling size	95
Spacer	100.0 mm

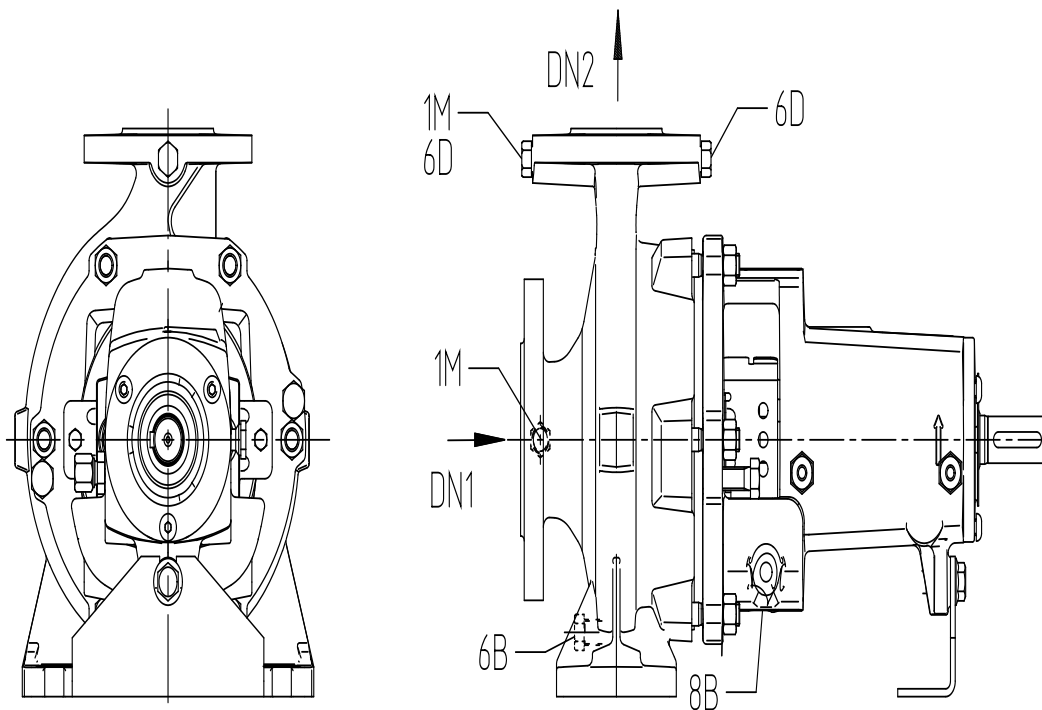
Weight net

Pump	45 kg
Baseplate	70 kg
Coupling	4 kg
Coupling guard	2 kg
Total	121 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

ETN 080-065-160 GC A 11GC201502B



UG1397251_D01_001/02

Connections

Pump casing variant
 6B Pumped liquid drain Rc 3/8
 6D Pumped medium - filling /
 venting
 8B Leakage drain G 1/2
 1M.1 / 6D Pressure gauge or Rc 3/8
 filling/venting connection
 1M.2 Pressure gauge
 connection

XX36
 Drilled and plugged.
 Not executed

Drilled
 Drilled and plugged.

Not executed