

In-line Pump

# Etaline

Fixed Speed / Variable Speed  
50 Hz / 60 Hz

## Type Series Booklet



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Type Series Booklet Etaline

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## Heating / Air-conditioning / Ventilation

### In-line Pumps

# Etaline



**i** The product illustrated as an example may include options incurring a surcharge.

#### Main applications

- Service water supply systems
- Heating systems
- Industrial recirculation systems
- Air-conditioning systems
- Cooling circuits
- Water supply systems<sup>1)</sup>

#### Fluids handled

- Fluids not chemically or mechanically aggressive to the materials

#### Further information on fluids handled

Overview of fluids handled (⇒ Page 12)

#### Operating data

Table 1: Operating properties

Characteristic		Value	
		50 Hz	60 Hz
Flow rate	Q [m <sup>3</sup> /h]	≤ 700	≤ 850
	Q [l/s]	≤ 194	≤ 236
Head	H [m]	≤ 96	≤ 139
Fluid temperature	T [°C]	≥ -30	≥ -30
		≤ +140	≤ +140
Operating pressure	p [bar]	≤ 16	≤ 16

1159.5/07-EN

<sup>1</sup> No drinking water in acc. with UBA (German drinking water regulations to German Environment Agency)

## Design details

### Design

- Close-coupled design / in-line design
- Single-stage
- Horizontal installation / vertical installation
- Rigid connection between pump and motor
- Back pull-out design
- Fixed speed version (without PumpDrive 2 / PumpDrive 2 Eco / PumpDrive R) / variable speed version (with PumpDrive 2 / PumpDrive 2 Eco / PumpDrive R)

### Pump casing

- Radially split volute casing
- In-line design

### Drive (fixed speed version)

#### Standard design:

- KSB/Siemens surface-cooled IEC frame three-phase squirrel-cage motor
- Efficiency class IE2 (size 71/80) / IE3 (from size 90) to IEC 60034-30
- Rated voltage (50 Hz) 230 V / 400 V  $\leq$  2.20 kW
- Rated voltage (50 Hz) 400 V / 690 V  $\geq$  3.00 kW
- Rated voltage (60 Hz) - / 460 V  $\leq$  2.20 kW
- Rated voltage (60 Hz) 460 V / -  $\geq$  3.00 kW
- Type of construction IM V1
- Enclosure IP55
- Duty type: continuous duty S1
- Thermal class F with temperature sensor, 1 PTC thermistor (size 80/90) / 3 PTC thermistors (from size 100)

#### Explosion-proof design:

- KSB surface-cooled IEC three-phase current squirrel-cage motor
- Efficiency class IE2 / IE3 to IEC 60034-30
- Rated voltage (50 Hz) 230 V / 400 V  $\leq$  2.50 kW
- Rated voltage (50 Hz) 400 V / 690 V  $\geq$  3.30 kW
- Rated voltage (60 Hz) - / 460 V  $\leq$  2.50 kW
- Rated voltage (60 Hz) 460 V / -  $\geq$  3.30 kW
- Type of construction IM V1
- Enclosure IP55
- Duty type: continuous duty S1
- II 3G Ex ec IIC T3 Gc
- II 2G Ex eb IIC T3 Gb
- II 2G Ex db (eb) IIB T4 Gb
- II 2G Ex db (eb) IIC T4 Gb

### Drive (variable speed version)

#### KSB SuPremE motor:

- Surface-cooled KSB SuPremE motor, IEC-compatible, magnetless synchronous reluctance motor<sup>2)</sup> (PumpDrive 2 / PumpDrive 2 Eco / PumpDrive R required)
- Efficiency class IE4 / IE5 to IEC TS 60034-30-2:2016
- Mounting points to EN 50347:2001
- Envelope dimensions to DIN VDE 42673-4:2011-07
- Type of construction IM V1
- Enclosure IP55
- Duty type: continuous duty S1
- Thermal class F with temperature sensor, 3 PTC thermistors
- Shaft centreline height 71 to 225 mm
- Rated power 0.55 kW to 45 kW
- Rated speed 1500 rpm or 3000 rpm
- Frequency 50 Hz / 60 Hz (PumpDrive input)
- Voltage 380 V to 480 V (PumpDrive input)

#### KSB SuPremE X1:

- With terminal box for connecting to PumpDrive 2 or PumpDrive R for mounting on walls and in control cabinets

#### KSB SuPremE X2:

- Equipped for being fitted with a motor-mounted PumpDrive 2

#### PumpDrive 2 / PumpDrive 2 Eco:

- Self-cooling frequency inverter of modular design for the continuously variable speed control of asynchronous motors and synchronous reluctance motors by means of analog standard signals, a field bus or the control panel
- Identical design of frequency inverter for motor mounting, wall mounting and cabinet mounting
- Mains voltage 3~ 380 V AC -10 % to 480 V AC +10 %
- Mains frequency 50 Hz to 60 Hz  $\pm$  2 %

#### PumpDrive R:

- Self-cooling frequency inverter of modular design for the continuously variable speed control of asynchronous motors and synchronous reluctance motors, such as KSB SupremE motors or permanent magnet synchronous motors, by means of analog standard signals, a field bus or the control panel
- Identical design of frequency inverter for the mounting types wall mounting and cabinet mounting
- Mains voltage 3~ 380 V AC -10 % to 480 V AC +10 %
- Extended mains voltage range (on request)
- Mains frequency 50 Hz to 60 Hz  $\pm$  2 %
- Extended power range with a nominal power of 110 kW (standard) or 1400 kW (on request)

#### PumpMeter:

- Intelligent pressure transmitter for pumps, with on-site display of measured values and operating data
- For recording the load profile of the pump
- Supplied completely assembled and parameterised for the individual pump

#### KSB Guard

- System for monitoring the pump's condition by means of temperature and vibration sensors
- Measured values and operating data may be retrieved via the KSB Guard app and the web portal at any time.

<sup>2)</sup> Motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets.

#### **Shaft seal**

- Standardised mechanical seal to EN 12756
- Shaft equipped with replaceable shaft protecting sleeve in the shaft seal area

#### **Impeller type**

- Closed radial impeller

#### **Bearings**

- Radial ball bearings in the motor housing
- Grease lubrication

**Designation**
**Table 2:** 1st designation example

Position																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
E	T	L	-	0	3	2	-	0	3	2	-	1	6	0	-	G	G	S	A	V	0	1	D	2	1	1	0	0	2	e	x	B	K	S	B	I	E	3	P	D	2	E	M
See name plate and data sheet																						See data sheet																					

**Table 3:** Designation key

Position	Code	Description	
1-4	Pump type		
	ETL	Etaline	
	ETLZ	Etaline Z (Refer to Etaline to select back pull-out unit)	
5-16	Size [mm], e.g.		
	032	Nominal suction nozzle diameter	
	032	Nominal discharge nozzle diameter	
	160	Nominal impeller diameter	
17	Pump casing material		
	G	Cast iron EN-GJL-250 / A48CL35	
18	Impeller material		
	B	Bronze CC480K-GS / B30 C90700	
	C	Stainless steel 1.4408 / A743CF8M	
	G	Cast iron EN-GJL-250 / A48CL35	
19	Design		
	H	Approved for drinking water to ACS	
	K	Approved for drinking water to KSB standard	
	S	Standard	
	U	Approved for drinking water to UBA	
	W	Approved for drinking water to WRAS	
	X	Non-standard (BT3D, BT3)	
20	Casing cover connections		
	A	Conical seal chamber	
21	Shaft seal type		
	V	Single mechanical seal with vented chamber (A-type cover)	
22-23	Seal code, single mechanical seal		
	01	Q1Q1VGG	1 (ZN1181) $\geq -20 - \leq +110$ [°C]
	06	U3BEGG (shaft units 25, 35)	RMG13G606 $\geq -30 - \leq +140$ [°C]
	07	Q1Q1EGG	1A (ZN1181) $\geq -30 - \leq +140$ [°C]
	09	U3U3VGG	MG13G60 $\geq -20 - \leq +110$ [°C]
	10	Q1Q1X4GG	1 (ZN1181) $\geq -20 - \leq +110$ [°C]
	11	BQ1EGG-WA (WA = drinking water)	1 (ZN1181) $\geq -30 - \leq +110$ [°C]
	22	AQ1EGG (shaft unit 55)	M32N69 $\geq -30 - \leq +140$ [°C]
	66	Q7Q7EGG	MG13G6 $\geq -30 - \leq +120$ [°C]
24	Scope of supply		
	A	Pump only (Fig. 0)	
	D	Pump, motor	
	E	Back pull-out unit	
25	Shaft unit		
	2	Shaft unit 25	
	3	Shaft unit 35	
	5	Shaft unit 55	
26-29	Motor rating $P_N$ [kW]		
	0002	0,25	
	...	...	
	0550	55,00	
30	Number of motor poles		
31-32	Explosion protection		
	ex	With explosion-proof motor	
	--	Without explosion-proof motor	
33	Product generation		

Position	Code	Description
33	B	Etaline / Etaline Z
34-36	Motor manufacturer	
	KSB	KSB / KSB's choice
	SIE	Siemens
	LOH	Loher
	HAL	Halter
37-39	Efficiency class	
40-43	PumpDrive	
	PD2	PumpDrive 2
	PD2E	PumpDrive 2 Eco
	IFS	MyFlow Drive
44	PumpMeter	
	M	PumpMeter

## Materials

Table 4: Symbols key

Symbol	Description
X	Standard
-	Version not available / not feasible

Table 5: Overview of available materials

Part No. (⇒ Page 126)	Designation	Material	Material variant		
			GG	GB	GC
102	Volute casing	Grey cast iron EN-GJL-250 / A 48 Cl. 35B	X	X	X
161	Casing cover, conical	Grey cast iron EN-GJL-250 / A 48 Cl. 35B	X	X	X
210	Shaft	Tempered steel C45+N	X	X	X
		Stainless steel 1.4571 (optional)	X	X	X
230	Impeller	Grey cast iron EN-GJL-250 / A 48 Cl. 35B	X	-	-
		Bronze CC480K-GS / B30 C90700	-	X	-
		Stainless steel 1.4408 / A743 Gr. CF8 M <sup>3)</sup>	-	-	X
341	Drive lantern	Grey cast iron EN-GJL-250 / A 48 Cl. 35B	X	X	X
400	Sealing elements	DPAF, asbestos-free	X	X	X
502.01	Casing wear ring, suction side	Grey cast iron EN-GJL-250 / A 48 Cl. 35B	X	X	X
		Bronze CC495K-GS	-	X	-
		Stainless steel (CrNiMo steel)	X	X	X
502.02	Casing wear ring, discharge side	Grey cast iron EN-GJL-250 / A 48 Cl. 35B	X	X	X
		Bronze CC495K-GS	-	X	-
		Stainless steel (CrNiMo steel)	X	X	X
523	Shaft sleeve	Stainless steel (CrNiMo steel)	X	X	X
902	Studs	Steel 8.8	X	X	X
903	Plug	Steel	X	X	X
920	Nut	8+A2A / 8+B633 SC1 TP3	X	X	X
920.95	Impeller nut	Stainless steel (CrNiMo steel)	X	X	X
		Steel 8	X	X	-

<sup>3)</sup> Size Etaline GC 125-125-250 not available in Europe.

### Coating and preservation

- Coating and preservation to KSB standard

### Product benefits

- Maximum energy efficiency through demand-driven operation in combination with KSB SuPremE IE4/IE5 motor<sup>4)</sup> to IEC TS 60034-30-2:2016
- PumpDrive 2 / PumpDrive 2 Eco perfectly matched to pump and motor by default factory parameter settings
- Motor-mounted variable speed system up to 45 kW saves space
- Pump operation made fully transparent with PumpMeter

### Product information

#### Product information as per Regulation No. 1907/2006 (REACH)

For information as per European chemicals regulation (EC) No. 1907/2006 (REACH) see <https://www.ksb.com/en-global/company/corporate-responsibility/reach>.

#### Product information as per Regulation No. 547/2012 (for water pumps with a maximum shaft power of 150 kW) implementing "Ecodesign" Directive 2009/125/EC

- Minimum efficiency index: see data sheet
- The benchmark for the most efficient water pumps is MEI  $\geq 0.70$ .
- Year of construction: see data sheet
- Manufacturer's name or trade mark, commercial registration number and place of manufacture: see data sheet or order documentation
- Product's type and size identifier: see data sheet
- Hydraulic pump efficiency (%) with trimmed impeller: see data sheet
- Pump performance curves, including efficiency characteristics: see documented characteristic curve
- The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. Trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
- Operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.
- Information relevant for disassembly, recycling or disposal at end of life: see installation/operating manual
- Information on benchmark efficiency or benchmark efficiency graph for MEI = 0.70 (0.40) for the pump based on the model shown in the Figure are available at: <http://www.europump.org/efficiencycharts>

### Acceptance tests and warranty

The following acceptance tests may be performed at a surcharge:

- Materials testing

- Test report 2.2
- **Final inspection**
  - Inspection certificate 3.1 to EN 10204
- **Hydraulic test**
  - The duty point of each pump is guaranteed according to ISO 9906/2B or ISO 9906/3B.
  - NPSH test
- Other inspections/tests on request

### Warranties

- Warranties are given within the scope of the valid delivery conditions.

<sup>4</sup> Motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets.

## Overview of product features / selection tables

## Overview of variants

Other designs on request

Table 6: Symbols key

Symbol	Description
X	Standard
-	Version not available / not feasible

Table 7: Overview of Etaline / Etaline Z variants

Variant	102 / Volute casing	230 / Impeller	Mechanical seal	T	Main applications				
				[°C]	Handling clean or aggressive fluids not chemically and mechanically aggressive to the pump materials	Water supply systems	Cooling circuits	Heating systems	Air-conditioning systems
GG06	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	SU 25, 35: mech. seal U3BEGG SU 55: mech. seal AQ1EGG	≥ -30 - ≤ +140	-	-	-	X	-
GG10	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Mech. seal Q1Q1X4GG	≥ -20 - ≤ +110	-	X	-	-	-
GG11	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Mech. seal BQ1EGG	≥ -30 - ≤ +110	X	X	X <sup>5)</sup>	-	X <sup>5)</sup>
GB06	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Bronze CC480K-DW / B30 C90700	SU 25, 35: mech. seal U3BEGG SU 55: mech. seal AQ1EGG	≥ -30 - ≤ +140	-	-	-	X	-
GB10	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Bronze CC480K-DW / B30 C90700	Mech. seal Q1Q1X4GG	≥ -20 - ≤ +110	-	X	-	-	-
GB11	Grey cast iron EN-GJL-250 / A 48 Cl. 35 B	Bronze CC480K-DW / B30 C90700	Mech. seal BQ1EGG	≥ -30 - ≤ +110	X	X	X <sup>5)</sup>	-	X <sup>5)</sup>

<sup>5</sup> Q1Q1EGG / Q7Q7EGG, fluid handled: water, glycol with inhibitors

**Overview of fluids handled**
**Table 8: Symbols key**

Symbol	Description
X	Standard
-	Version not available / not feasible

**Table 9: Excerpt from the overview of fluids handled with associated material variants**

Fluid handled	T <sup>6)</sup>		Materials			Shaft seal						Notes
	Minimum	Maximum	Casing / impeller			Mechanical seal						
			Grey cast iron / grey cast iron	Grey cast iron / stainless steel	Grey cast iron / tin bronze	U3BEGG (WE 25, 35)	AQ1EGG (WE 55)	Q1Q1EGG	U3U3VGG	Q1Q1X4GG	BQ1EGG	
[°C]	GG	GC	GB	6	22	7	9	10	11	66		
<b>Water</b>												
Service water	-	≤ +110	X	-	-	-	-	-	X	-	-	CrNiMo cast steel can be used.
Fire-fighting water <sup>7)</sup>	-	≤ +60	-	-	X	-	-	-	X	-	-	Contact the manufacturer for supply to VdS guideline.
Heating water <sup>8)</sup>	-	≤ +110	X	-	-	-	-	-	-	X	-	If used as circulating pump to DIN 4752: p max ≤ 10 bar
Heating water	-	≤ +140	X	-	-	X	X	-	-	-	-	
Condensate	-	≤ +110	X	-	-	-	-	-	-	X	-	
Cooling water without antifreeze	-	≤ +60	X	-	-	-	-	-	X	-	-	Open circuit: GB 10 required
Cooling water with antifreeze <sup>9)</sup> , pH ≥ 7.5	≥ -30	≤ +60	X	-	-	-	-	-	-	-	X	Open circuit: GB required
Cooling water with antifreeze <sup>9)</sup> , pH ≥ 7.5	≥ +60	≤ +110	X	-	-	-	-	-	-	-	X	Open circuit: GB required
Slightly contaminated water	-	≤ +60	X	-	-	-	-	-	X	-	-	
Pure water <sup>10)</sup>	-	≤ +60	X	-	-	-	-	-	-	-	X	
Raw water	-	≤ +60	X	-	-	-	-	-	X	-	-	
Swimming pool water (fresh water)	-	≤ +60	X	-	-	-	-	-	X	-	-	Also applies to requirements as per DIN 19643
Swimming pool water <sup>11)</sup> : filtration	-	≤ +40	-	-	X	-	-	-	X	-	-	Variant GB: shaft C45+N, shaft sleeve CrNiMo steel, nut A4/AISI 316, key A2, casing wear ring (suction and discharge side) grey cast iron JL 1040/ CI
Swimming pool water <sup>11)</sup> : water features; without turbulences and/or air content	-	≤ +40	-	-	X	-	-	-	X	-	-	Variant GB: shaft C45+N, shaft sleeve CrNiMo steel, nut A4/ AISI 316, key A2, casing wear ring (suction and discharge side) CC495K-G5
Dam water	-	≤ +60	-	-	X	-	-	-	X	-	-	If solids are contained, contact the manufacturer.
Drinking water <sup>12)</sup>	-	≤ +60	-	-	X	-	-	-	-	X	-	
Partly desalinated water	-	≤ +120	X	-	-	-	-	-	-	X	-	
Fully desalinated water as boiler feed water	-	≤ +110	X	-	-	-	-	-	-	X	-	
<b>Refrigerants, cooling brines</b>												
Cooling brine; inorganic, pH > 7.5, inhibited	≥ -30	≤ +25	X	-	-	-	-	-	-	-	X	
Water with antifreeze, pH ≥ 7.5	≥ -30	≤ +60	X	-	-	-	-	-	-	-	X	
Water with antifreeze, pH ≥ 7.5	≥ +60	≤ +110	X	-	-	-	-	X	-	-	-	
<b>Oils / emulsions</b>												
Drilling emulsion, grinding emulsion	-	≤ +60	X	-	-	-	-	-	X	-	-	
Oil-water emulsion	-	≤ +60	X	-	-	-	-	-	X	-	-	

<sup>6)</sup> T = fluid temperature

<sup>7)</sup> General evaluation criteria for results of water analysis: pH ≥ 7; chlorides content (Cl) ≤ 250 mg/kg. Chlorine (Cl<sub>2</sub>) ≤ 0.6 mg/kg

<sup>8)</sup> Treatment to VdTÜV 1466, additional requirement: O<sub>2</sub> t ≤ 0.02 mg/l

<sup>9)</sup> Antifreeze on ethylene glycol basis with inhibitors, content > 20 % to 50 %

<sup>10)</sup> No pure water, electrical conductivity at 25 °C: ≤ 800 µS/cm, neutral with regard to chemical corrosion

<sup>11)</sup> France: Observe the rules as per ministerial order dated 18 January 2002.

<sup>12)</sup> For France, ACS approval is required.



**Overview of functions for variable speed version**
**Table 10:** Overview of functions

Functions / firmware	PumpDrive 2	PumpDrive 2 Eco
<b>Protective functions</b>		
Thermal motor protection	X	X
Mains voltage monitoring	X	X
Phase failure, motor side	X	X
Short-circuit monitoring, motor side (phase to phase and phase to earth)	X	X
Dynamic overload protection by speed limitation (i <sup>2</sup> t control)	X	X
Resonant frequency suppression	X	X
Broken wire detection (live zero)	X	X
Protection against dry running and hydraulic blockage (sensorless due to learning function)	X	X
Dry running protection (external control signal)	X	X
Operating point estimation and characteristic curve control	X	X
<b>Open-loop control</b>		
Open-loop control mode	X	X
<b>Closed-loop control</b>		
Closed-loop control mode via integrated PID controller	X	X
Pressure control / differential pressure control ( $\Delta p$ const)	X	X
Pressure control / differential pressure control with dynamic pressure compensation ( $\Delta p$ var)	X	X
Flow rate control	X	X
Sensorless differential pressure control ( $\Delta p$ const) in a single-pump configuration	X	X
Sensorless differential pressure control with dynamic pressure compensation ( $\Delta p$ var) in a single-pump configuration	X	X
Sensorless flow rate control	X	X
Level control	X	X
Temperature control	X	X
Alternative setpoint	X	-
<b>Operation and monitoring (display)</b>		
Measured value display (pressure, head, speed, electric power, motor voltage, motor current, torque)	X	X
Fault history	X	X
Operating hours counter	X	X
Fault reporting via relay	X	X
<b>Frequency inverter functions</b>		
Programmable start ramps and stop ramps	X	X
Field-oriented control (vector control), V/f control	X	X
Configurable motor control method (asynchronous motor, KSB SuPremE)	X	X
Automatic motor adaptation (AMA)	X	X
Motor standstill heater	X	X
Manual-0-automatic mode	X	X
External OFF	X	X
External minimum speed	X	X
Sleep mode (stand-by mode)	X	X
Energy savings meter	X	-
<b>Pump functions</b>		
Flow rate estimation	X	X
M12 module with PumpMeter bus connection	X	X
M12 module for dual-pump configuration	X	X
M12 module for multiple pump configuration with up to 6 pumps	X	X
Functional check run	X	X
Deragging	X	X
Integrated dual-pump configuration (1×100 % with redundant pump or 2×50 % without redundant pump)	X	X
Multiple pump configuration with up to 6 pumps	X	X
Waste water function: start-up at maximum speed	X	-
Waste water function: rinsing function	X	-
<b>Operation</b>		

Functions / firmware	PumpDrive 2	PumpDrive 2 Eco
Control panel	X	X <sup>13)</sup>
Commissioning wizard	X	X <sup>14)</sup>
Favourites list	X	-
Service interface	X	X

### Pressure limits and temperature limits

#### Test pressure limits and temperature limits

Table 11: Pressure limits and temperature limits as a function of material variant

Material variant	Fluid temperature <sup>15)16)</sup>	Test pressure <sup>17)</sup>
	[°C]	[bar]
GG, GB, GC	-30 to +140	≤ 21

#### In-service pressure limits and temperature limits

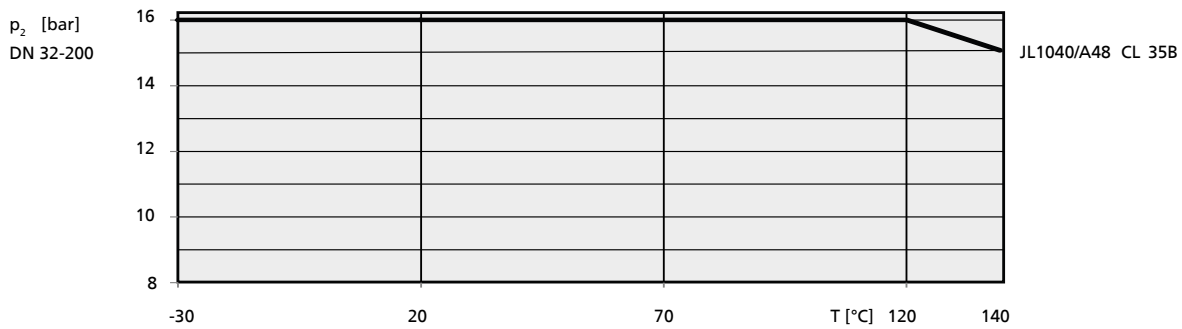


Fig. 1: Operating pressure limits and temperature limits

<sup>13</sup> Some functions can only be parameterised and/or displayed using the KSB ServiceTool (see operating manual).

<sup>14</sup> Only available via KSB ServiceTool or app

<sup>15</sup> For hot water heating systems to DIN 4752, Section 4.5, application limits must be observed.

<sup>16</sup> For fluid temperatures >140 °C use Etanorm SYT.

<sup>17</sup> The casing components are checked for leakage by means of internal pressure tests to AN 1897/75-03D00 with water.

## Technical data

## Pump

Table 12: Technical data of the pump

Size	Shaft unit	Impeller				Speed limit	
		Impeller outlet width	Impeller inlet diameter	Nominal impeller diameter		Minimum	Maximum
				Minimum	Maximum		
		[mm]				[rpm]	
032-032-160	WS_25	5,7	52,7	112	170	500	4400
032-032-200	WS_25	5,6	54,0	165	204	500	3800
040-040-160	WS_25	8,5	60,6	136	174	500	3600
040-040-250	WS_25	7,5	62,6	197	261	500	3600
050-050-160	WS_25	13,0	70,0	120	174	500	4400
050-050-250	WS_25	8,4	74,1	198	260	500	3600
065-065-160	WS_25	16,9	86,9	108	174	500	4400
065-065-250	WS_25	10,5	84,0	196	260	500	3600
080-080-160	WS_25	21,0	92,0	132	174	500	3900
080-080-200	WS_25	17,0	99,7	170	219	500	3600
080-080-250	WS_35	15,1	101,0	190	260	500	3600
100-100-125	WS_25	25,8	99,0	124	141	500	3900
100-100-160	WS_25	31,6	124,0	138	174	500	3600
100-100-200	WS_35	24,5	115,0	178	219	500	3600
100-100-250	WS_35	19,0	115,0	215	269	500	3600
125-125-160	WS_35	37,6	135,0	155	185	500	3600
125-125-200	WS_35	32,5	142,0	179	219	500	3600
125-125-250	WS_35	27,0	145,0	210	269	500	3600
150-150-200	WS_35	40,7	159,0	178	224	500	2000
150-150-250	WS_35	37,0	162,4	218	269	500	1900
200-200-250	WS_35	48,8	191,0	220	269	500	1800
200-200-315	WS_55	39,7	191,5	264	334	500	1800

**Motor (fixed speed version), n = 2900 rpm**
**Table 13:** 50 Hz, technical data of the motor, n = 2900 rpm (fixed speed version)

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~400 V		
n = 2900 rpm		[kW]	[A]		
032-032-160	IE3	1,10	2,14	080M	35,14
032-032-160	IE3	1,50	2,85	090S	38,17
032-032-160	IE3	2,20	3,99	090L	40,97
032-032-160	IE3	3,00	5,89	100L	47,61
032-032-160	IE3	4,00	7,79	112M	51,61
032-032-160	IE3	5,50	10,42	132S	72,02
032-032-160	IE3	7,50	13,79	132S	79,02
032-032-200	IE3	3,00	5,89	100L	56,74
032-032-200	IE3	4,00	7,79	112M	60,74
032-032-200	IE3	5,50	10,42	132S	81,15
032-032-200	IE3	7,50	13,79	132S	88,15
032-032-200	IE3	11,00	20,63	160M	114,36
032-032-200	IE3	15,00	28,42	160M	125,36
040-040-160	IE3	2,20	3,99	090L	41,49
040-040-160	IE3	3,00	5,89	100L	48,13
040-040-160	IE3	4,00	7,79	112M	52,13
040-040-160	IE3	5,50	10,42	132S	72,54
040-040-160	IE3	7,50	13,79	132S	79,54
040-040-160	IE3	11,00	20,63	160M	105,75
040-040-250	IE3	5,50	10,42	132S	87,9
040-040-250	IE3	7,50	13,79	132S	94,9
040-040-250	IE3	11,00	20,63	160M	121,11
040-040-250	IE3	15,00	28,42	160M	132,11
040-040-250	IE3	18,50	33,68	160L	149,11
040-040-250	IE3	22,00	40,53	180M	214,74
040-040-250	IE3	30,00	55,79	200L	284,23
040-040-250	IE3	37,00	68,42	200L	304,23
050-050-160	IE3	2,20	3,99	090L	45,78
050-050-160	IE3	3,00	5,89	100L	52,42
050-050-160	IE3	4,00	7,79	112M	56,42
050-050-160	IE3	5,50	10,42	132S	76,83
050-050-160	IE3	7,50	13,79	132S	83,83
050-050-160	IE3	11,00	20,63	160M	110,04
050-050-160	IE3	15,00	28,42	160M	121,04
050-050-250	IE3	7,50	13,79	132S	97,93
050-050-250	IE3	11,00	20,63	160M	124,14
050-050-250	IE3	15,00	28,42	160M	135,14
050-050-250	IE3	18,50	33,68	160L	152,14
050-050-250	IE3	22,00	40,53	180M	217,77
050-050-250	IE3	30,00	55,79	200L	287,26
050-050-250	IE3	37,00	68,42	200L	307,26
065-065-160	IE3	3,00	5,89	100L	54,67
065-065-160	IE3	4,00	7,79	112M	58,67
065-065-160	IE3	5,50	10,42	132S	79,08
065-065-160	IE3	7,50	13,79	132S	86,08
065-065-160	IE3	11,00	20,63	160M	112,29
065-065-160	IE3	15,00	28,42	160M	123,29
065-065-160	IE3	18,50	33,68	160L	140,29
065-065-160	IE3	22,00	40,53	180M	205,92
065-065-250	IE3	11,00	20,63	160M	128,21
065-065-250	IE3	15,00	28,42	160M	139,21
065-065-250	IE3	18,50	33,68	160L	156,21
065-065-250	IE3	22,00	40,53	180M	221,84
065-065-250	IE3	30,00	55,79	200L	291,33

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~400 V		
n = 2900 rpm		[kW]	[A]		
065-065-250	IE3	37,00	68,42	200L	311,33
080-080-160	IE3	5,50	10,42	132S	85,12
080-080-160	IE3	7,50	13,79	132S	92,12
080-080-160	IE3	11,00	20,63	160M	118,33
080-080-160	IE3	15,00	28,42	160M	129,33
080-080-160	IE3	18,50	33,68	160L	146,33
080-080-160	IE3	22,00	40,53	180M	211,96
080-080-160	IE3	30,00	55,79	200L	281,45
080-080-200	IE3	11,00	20,63	160M	127,11
080-080-200	IE3	15,00	28,42	160M	138,11
080-080-200	IE3	18,50	33,68	160L	155,11
080-080-200	IE3	22,00	40,53	180M	220,74
080-080-200	IE3	30,00	55,79	200L	290,23
080-080-200	IE3	37,00	68,42	200L	310,23
100-100-125	IE3	5,50	10,42	132S	90,06
100-100-125	IE3	7,50	13,79	132S	97,06
100-100-125	IE3	11,00	20,63	160M	123,27
100-100-125	IE3	15,00	28,42	160M	134,27
100-100-160	IE3	11,00	20,63	160M	129,85
100-100-160	IE3	15,00	28,42	160M	140,85
100-100-160	IE3	18,50	33,68	160L	157,85
100-100-160	IE3	22,00	40,53	180M	223,48
100-100-160	IE3	30,00	55,79	200L	292,97
100-100-160	IE3	37,00	68,42	200L	312,97
125-125-160	IE3	18,50	33,68	160L	212,48
125-125-160	IE3	22,00	40,53	180M	278,1
125-125-160	IE3	30,00	55,79	200L	347,39
125-125-160	IE3	37,00	68,42	200L	367,39
125-125-200	IE3	22,00	40,53	180M	275,19
125-125-200	IE3	30,00	55,79	200L	344,48
125-125-200	IE3	37,00	68,42	200L	364,48
125-125-200	IE3	45,00	82,11	225M	430,73

**Motor (fixed speed version), n = 1450 rpm**
**Table 14:** 50 Hz, technical data of the motor, n = 1450 rpm (fixed speed version)

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3-400 V		
n = 1450 rpm		[kW]	[A]		
032-032-160	IE1	0,25	0,77	071M	28,68
032-032-160	IE1	0,37	1,06	071M	29,88
032-032-160	IE1	0,55	1,46	080M	33,24
032-032-160	IE1	0,75	1,66	080M	34,64
032-032-160	IE3	1,10	2,28	090S	37,57
032-032-200	IE1	0,37	1,06	071M	39,01
032-032-200	IE1	0,55	1,46	080M	42,37
032-032-200	IE1	0,75	1,66	080M	43,77
032-032-200	IE3	1,10	2,28	090S	46,7
032-032-200	IE3	1,50	2,99	090L	50
032-032-200	IE3	2,20	4,18	100L	57,74
040-040-160	IE1	0,37	1,06	071M	30,4
040-040-160	IE1	0,55	1,46	080M	33,76
040-040-160	IE1	0,75	1,66	080M	35,16
040-040-160	IE3	1,10	2,28	090S	38,09
040-040-160	IE3	1,50	5,77	090L	41,39
040-040-250	IE1	0,75	1,66	080M	50,52
040-040-250	IE3	1,10	2,28	090S	53,45
040-040-250	IE3	1,50	2,99	090L	56,75
040-040-250	IE3	2,20	4,18	100L	64,49
040-040-250	IE3	3,00	6,21	100L	66,49
040-040-250	IE3	4,00	8,32	112M	71,49
040-040-250	IE3	5,50	11,05	132S	83,9
050-050-160	IE1	0,37	1,06	071M	34,69
050-050-160	IE1	0,55	1,46	080M	38,05
050-050-160	IE1	0,75	1,66	080M	39,45
050-050-160	IE3	1,10	2,28	090S	42,38
050-050-160	IE3	1,50	2,99	090L	45,68
050-050-160	IE3	2,20	4,18	100L	53,42
050-050-250	IE3	1,10	2,28	090S	56,48
050-050-250	IE3	1,50	2,99	090L	59,78
050-050-250	IE3	2,20	4,18	100L	67,52
050-050-250	IE3	3,00	6,21	100L	69,52
050-050-250	IE3	4,00	8,32	112M	74,52
050-050-250	IE3	5,50	11,05	132S	86,93
050-050-250	IE3	7,50	15,05	132M	100,93
065-065-160	IE1	0,37	1,06	071M	36,94
065-065-160	IE1	0,55	1,46	080M	40,3
065-065-160	IE1	0,75	1,66	080M	41,7
065-065-160	IE3	1,10	2,28	090S	44,63
065-065-160	IE3	1,50	2,99	090L	47,93
065-065-160	IE3	2,20	4,18	100L	55,67
065-065-160	IE3	3,00	6,21	100L	57,67
065-065-250	IE3	1,50	2,99	090L	63,85
065-065-250	IE3	2,20	4,18	100L	71,59
065-065-250	IE3	3,00	6,21	100L	73,59
065-065-250	IE3	4,00	8,32	112M	78,59
065-065-250	IE3	5,50	11,05	132S	91
065-065-250	IE3	7,50	15,05	132M	105
065-065-250	IE3	11,00	21,58	160M	131,21
080-080-160	IE1	0,55	1,46	080M	46,34
080-080-160	IE1	0,75	1,66	080M	47,74
080-080-160	IE3	1,10	2,28	090S	50,67
080-080-160	IE3	1,50	2,99	090L	53,97

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~400 V		
n = 1450 rpm		[kW]	[A]		
080-080-160	IE3	2,20	4,18	100L	61,71
080-080-160	IE3	3,00	6,21	100L	63,71
080-080-160	IE3	4,00	8,32	112M	68,71
080-080-200	IE3	1,10	2,28	090S	59,45
080-080-200	IE3	1,50	2,99	090L	62,75
080-080-200	IE3	2,20	4,18	100L	70,49
080-080-200	IE3	3,00	6,21	100L	72,49
080-080-200	IE3	4,00	8,32	112M	77,49
080-080-200	IE3	5,50	11,05	132S	89,9
080-080-200	IE3	7,50	15,05	132M	103,9
080-080-250	IE3	2,20	4,18	100L	90,79
080-080-250	IE3	3,00	6,21	100L	92,79
080-080-250	IE3	4,00	8,32	112M	97,79
080-080-250	IE3	5,50	11,05	132S	109,69
080-080-250	IE3	7,50	15,05	132M	123,69
080-080-250	IE3	11,00	21,58	160M	149,9
080-080-250	IE3	15,00	30,00	160L	165,9
100-100-125	IE1	0,75	1,66	080M	52,68
100-100-125	IE3	1,10	2,28	090S	55,61
100-100-125	IE3	1,50	2,99	090L	58,91
100-100-125	IE3	2,20	4,18	100L	66,65
100-100-160	IE3	1,50	2,99	090L	65,49
100-100-160	IE3	2,20	4,18	100L	73,23
100-100-160	IE3	3,00	6,21	100L	75,23
100-100-160	IE3	4,00	8,32	112M	80,23
100-100-160	IE3	5,50	11,05	132S	92,64
100-100-200	IE3	2,20	4,18	100L	105,64
100-100-200	IE3	3,00	6,21	100L	107,64
100-100-200	IE3	4,00	8,32	112M	112,64
100-100-200	IE3	5,50	11,05	132S	124,54
100-100-200	IE3	7,50	15,05	132M	138,54
100-100-200	IE3	11,00	21,58	160M	164,75
100-100-250	IE3	3,00	6,21	100L	119,56
100-100-250	IE3	4,00	8,32	112M	124,56
100-100-250	IE3	5,50	11,05	132S	136,46
100-100-250	IE3	7,50	15,05	132M	150,46
100-100-250	IE3	11,00	21,58	160M	176,67
100-100-250	IE3	15,00	30,00	160L	192,67
100-100-250	IE3	18,50	37,37	180M	267,29
125-125-160	IE3	2,20	4,18	100L	128,37
125-125-160	IE3	3,00	6,21	100L	130,37
125-125-160	IE3	4,00	8,32	112M	135,37
125-125-160	IE3	5,50	11,05	132S	147,27
125-125-160	IE3	7,50	15,05	132M	161,27
125-125-200	IE3	3,00	6,21	100L	127,46
125-125-200	IE3	4,00	8,32	112M	132,46
125-125-200	IE3	5,50	11,05	132S	144,36
125-125-200	IE3	7,50	15,05	132M	158,36
125-125-200	IE3	11,00	21,58	160M	184,57
125-125-200	IE3	15,00	30,00	160L	200,57
125-125-250	IE3	5,50	11,05	132S	156,47
125-125-250	IE3	7,50	15,05	132M	170,47
125-125-250	IE3	11,00	21,58	160M	196,68
125-125-250	IE3	15,00	30,00	160L	212,68
125-125-250	IE3	18,50	37,37	180M	287,3
125-125-250	IE3	22,00	43,68	180L	302,3
150-150-200	IE3	5,50	11,05	132S	175,85

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~400 V		
n = 1450 rpm		[kW]	[A]		
150-150-200	IE3	7,50	15,05	132M	189,85
150-150-200	IE3	11,00	21,58	160M	216,06
150-150-200	IE3	15,00	30,00	160L	232,06
150-150-200	IE3	18,50	37,37	180M	306,68
150-150-250	IE3	7,50	15,05	132M	204,14
150-150-250	IE3	11,00	21,58	160M	230,35
150-150-250	IE3	15,00	30,00	160L	246,35
150-150-250	IE3	18,50	37,37	180M	320,97
150-150-250	IE3	22,00	43,68	180L	335,97
150-150-250	IE3	30,00	56,84	200L	400,26
150-150-250	IE3	37,00	69,47	225S	466,65
200-200-250	IE3	11,00	21,58	160M	285,87
200-200-250	IE3	15,00	30,00	160L	301,87
200-200-250	IE3	18,50	37,37	180M	376,49
200-200-250	IE3	22,00	43,68	180L	391,49
200-200-250	IE3	30,00	56,84	200L	455,78
200-200-250	IE3	37,00	69,47	225S	522,17
200-200-250	IE3	45,00	84,21	225M	552,17
200-200-315	IE3	30,00	56,84	200L	490,01
200-200-315	IE3	37,00	69,47	225S	556,25
200-200-315	IE3	45,00	84,21	225M	586,25
200-200-315	IE3	55,00	101,05	250M	699,62



**Motor (fixed speed version), n = 3500 rpm**
**Table 15: 50 Hz, technical data of the motor, n = 3500 rpm (fixed speed version)**

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~460 V		
n = 3500 rpm		[kW]	[A]		
032-032-160	IE3	1,27	2,64	080M	35,14
032-032-160	IE3	1,50	3,47	090S	38,17
032-032-160	IE3	2,55	4,84	090L	40,97
032-032-160	IE3	3,00	6,20	100L	47,61
032-032-160	IE3	4,00	8,60	112M	51,61
032-032-160	IE3	6,30	11,00	132S	72,02
032-032-160	IE3	8,60	15,00	132S	79,02
032-032-200	IE3	3,00	6,20	100L	56,74
032-032-200	IE3	4,00	8,60	112M	60,74
032-032-200	IE3	6,30	11,00	132S	81,15
032-032-200	IE3	8,60	15,00	132S	88,15
032-032-200	IE3	11,00	22,80	160M	114,36
032-032-200	IE3	15,00	30,10	160M	125,36
040-040-160	IE3	2,55	4,84	090L	41,49
040-040-160	IE3	3,00	6,20	100L	48,13
040-040-160	IE3	4,00	8,60	112M	52,13
040-040-160	IE3	6,30	11,00	132S	72,54
040-040-160	IE3	8,60	15,00	132S	79,54
040-040-160	IE3	11,00	22,80	160M	105,75
040-040-250	IE3	6,30	11,00	132S	87,9
040-040-250	IE3	8,60	15,00	132S	94,9
040-040-250	IE3	11,00	22,80	160M	121,11
040-040-250	IE3	15,00	30,10	160M	132,11
040-040-250	IE3	21,30	36,80	160L	149,11
040-040-250	IE3	22,00	43,10	180M	214,74
040-040-250	IE3	30,00	59,20	200L	284,23
040-040-250	IE3	37,00	70,10	200L	304,23
050-050-160	IE3	2,55	4,84	090L	45,78
050-050-160	IE3	3,00	6,20	100L	52,42
050-050-160	IE3	4,00	8,60	112M	56,42
050-050-160	IE3	6,30	11,00	132S	76,83
050-050-160	IE3	8,60	15,00	132S	83,83
050-050-160	IE3	11,00	22,80	160M	110,04
050-050-160	IE3	15,00	30,10	160M	121,04
050-050-250	IE3	8,60	15,00	132S	97,93
050-050-250	IE3	11,00	22,80	160M	124,14
050-050-250	IE3	15,00	30,10	160M	135,14
050-050-250	IE3	21,30	36,80	160L	152,14
050-050-250	IE3	22,00	43,10	180M	217,77
050-050-250	IE3	30,00	59,20	200L	287,26
050-050-250	IE3	37,00	70,10	200L	307,26
065-065-160	IE3	3,00	6,20	100L	54,67
065-065-160	IE3	4,00	8,60	112M	58,67
065-065-160	IE3	6,30	11,00	132S	79,08
065-065-160	IE3	8,60	15,00	132S	86,08
065-065-160	IE3	11,00	22,80	160M	112,29
065-065-160	IE3	15,00	30,10	160M	123,29
065-065-160	IE3	21,30	36,80	160L	140,29
065-065-160	IE3	22,00	43,10	180M	205,92
065-065-250	IE3	11,00	22,80	160M	128,21
065-065-250	IE3	15,00	30,10	160M	139,21
065-065-250	IE3	21,30	36,80	160L	156,21
065-065-250	IE3	22,00	43,10	180M	221,84
065-065-250	IE3	30,00	59,20	200L	291,33

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~460 V		
n = 3500 rpm		[kW]	[A]		
065-065-250	IE3	37,00	70,10	200L	311,33
080-080-160	IE3	6,30	11,00	132S	85,12
080-080-160	IE3	8,60	15,00	132S	92,12
080-080-160	IE3	11,00	22,80	160M	118,33
080-080-160	IE3	15,00	30,10	160M	129,33
080-080-160	IE3	21,30	36,80	160L	146,33
080-080-160	IE3	22,00	43,10	180M	211,96
080-080-160	IE3	30,00	59,20	200L	281,45
080-080-200	IE3	11,00	22,80	160M	127,11
080-080-200	IE3	15,00	30,10	160M	138,11
080-080-200	IE3	21,30	36,80	160L	155,11
080-080-200	IE3	22,00	43,10	180M	220,74
080-080-200	IE3	30,00	59,20	200L	290,23
080-080-200	IE3	37,00	70,10	200L	310,23
100-100-125	IE3	6,30	11,00	132S	90,06
100-100-125	IE3	8,60	15,00	132S	97,06
100-100-125	IE3	11,00	22,80	160M	123,27
100-100-125	IE3	15,00	30,10	160M	134,27
100-100-160	IE3	11,00	22,80	160M	129,85
100-100-160	IE3	15,00	30,10	160M	140,85
100-100-160	IE3	21,30	36,80	160L	157,85
100-100-160	IE3	22,00	43,10	180M	223,48
100-100-160	IE3	30,00	59,20	200L	292,97
100-100-160	IE3	37,00	70,10	200L	312,97
125-125-160	IE3	21,30	36,80	160L	212,48
125-125-160	IE3	22,00	43,10	180M	278,1
125-125-160	IE3	30,00	59,20	200L	347,39
125-125-160	IE3	37,00	70,10	200L	367,39
125-125-200	IE3	22,00	43,10	180M	275,19
125-125-200	IE3	30,00	59,20	200L	344,48
125-125-200	IE3	37,00	70,10	200L	364,48
125-125-200	IE3	45,00	85,00	225M	430,73

**Motor (fixed speed version), n = 1750 rpm**
**Table 16:** 50 Hz, technical data of the motor, n = 1750 rpm (fixed speed version)

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~460 V		
n = 1750 rpm		[kW]	[A]		
032-032-160	IE1	0,29	0,77	071M	28,68
032-032-160	IE1	0,43	1,06	071M	29,88
032-032-160	IE1	0,63	1,46	080M	33,24
032-032-160	IE1	0,86	1,93	080M	34,64
032-032-160	IE3	1,27	2,64	090S	37,57
032-032-200	IE1	0,43	1,06	071M	39,01
032-032-200	IE1	0,63	1,46	080M	42,37
032-032-200	IE1	0,86	1,93	080M	43,77
032-032-200	IE3	1,27	2,64	090S	46,7
032-032-200	IE3	1,50	3,47	090L	50
032-032-200	IE3	2,55	4,84	100L	57,74
040-040-160	IE1	0,43	1,06	071M	30,4
040-040-160	IE1	0,63	1,46	080M	33,76
040-040-160	IE1	0,86	1,93	080M	35,16
040-040-160	IE3	1,27	2,64	090S	38,09
040-040-160	IE3	1,50	3,47	090L	41,39
040-040-250	IE1	0,86	1,93	080M	50,52
040-040-250	IE3	1,27	2,64	090S	53,45
040-040-250	IE3	1,50	3,47	090L	56,75
040-040-250	IE3	2,55	4,84	100L	64,49
040-040-250	IE3	3,00	6,20	100L	66,49
040-040-250	IE3	4,00	8,60	112M	71,49
040-040-250	IE3	6,30	11,00	132S	83,9
050-050-160	IE1	0,86	1,93	071M	34,69
050-050-160	IE1	0,63	1,46	080M	38,05
050-050-160	IE1	0,86	1,93	080M	39,45
050-050-160	IE3	1,27	2,64	090S	42,38
050-050-160	IE3	1,50	3,47	090L	45,68
050-050-160	IE3	2,55	4,84	100L	53,42
050-050-250	IE3	1,27	2,64	090S	56,48
050-050-250	IE3	1,50	3,47	090L	59,78
050-050-250	IE3	2,55	4,84	100L	67,52
050-050-250	IE3	3,00	6,20	100L	69,52
050-050-250	IE3	4,00	8,60	112M	74,52
050-050-250	IE3	6,30	11,00	132S	86,93
050-050-250	IE3	8,60	15,00	132M	100,93
065-065-160	IE1	0,43	1,06	071M	36,94
065-065-160	IE1	0,63	1,46	080M	40,3
065-065-160	IE1	0,86	1,93	080M	41,7
065-065-160	IE3	1,27	2,64	090S	44,63
065-065-160	IE3	1,50	3,47	090L	47,93
065-065-160	IE3	2,55	4,84	100L	55,67
065-065-160	IE3	3,00	6,20	100L	57,67
065-065-250	IE3	1,50	3,47	090L	63,85
065-065-250	IE3	2,55	4,84	100L	71,59
065-065-250	IE3	3,00	6,20	100L	73,59
065-065-250	IE3	4,00	8,60	112M	78,59
065-065-250	IE3	6,30	11,00	132S	91
065-065-250	IE3	8,60	15,00	132M	105
065-065-250	IE3	11,00	22,80	160M	131,21
080-080-160	IE1	0,63	1,46	080M	46,34
080-080-160	IE1	0,86	1,93	080M	47,74
080-080-160	IE3	1,27	2,64	090S	50,67
080-080-160	IE3	1,50	3,47	090L	53,97

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3-460 V		
n = 1750 rpm		[kW]	[A]		
080-080-160	IE3	2,55	4,84	100L	61,71
080-080-160	IE3	3,00	6,20	100L	63,71
080-080-160	IE3	4,00	8,60	112M	68,71
080-080-200	IE3	1,27	2,64	090S	59,45
080-080-200	IE3	1,50	3,47	090L	62,75
080-080-200	IE3	2,55	4,84	100L	70,49
080-080-200	IE3	3,00	6,20	100L	72,49
080-080-200	IE3	4,00	8,60	112M	77,49
080-080-200	IE3	6,30	11,00	132S	89,9
080-080-200	IE3	8,60	15,00	132M	103,9
080-080-250	IE3	2,55	4,84	100L	90,79
080-080-250	IE3	3,00	6,20	100L	92,79
080-080-250	IE3	4,00	8,60	112M	97,79
080-080-250	IE3	6,30	11,00	132S	109,69
080-080-250	IE3	8,60	15,00	132M	123,69
080-080-250	IE3	11,00	22,80	160M	149,9
080-080-250	IE3	15,00	30,10	160L	165,9
100-100-125	IE1	0,86	1,93	080M	52,68
100-100-125	IE3	1,27	2,64	090S	55,61
100-100-125	IE3	1,50	3,47	090L	58,91
100-100-125	IE3	2,55	4,84	100L	66,65
100-100-160	IE3	1,50	3,47	090L	65,49
100-100-160	IE3	2,55	4,84	100L	73,23
100-100-160	IE3	3,00	6,20	100L	75,23
100-100-160	IE3	4,00	8,60	112M	80,23
100-100-160	IE3	6,30	11,00	132S	92,64
100-100-200	IE3	2,55	4,84	100L	105,64
100-100-200	IE3	3,00	6,20	100L	107,64
100-100-200	IE3	4,00	8,60	112M	112,64
100-100-200	IE3	6,30	11,00	132S	124,54
100-100-200	IE3	8,60	15,00	132M	138,54
100-100-200	IE3	11,00	22,80	160M	164,75
100-100-250	IE3	3,00	6,20	100L	119,56
100-100-250	IE3	4,00	8,60	112M	124,56
100-100-250	IE3	6,30	11,00	132S	136,46
100-100-250	IE3	8,60	15,00	132M	150,46
100-100-250	IE3	11,00	22,80	160M	176,67
100-100-250	IE3	15,00	30,10	160L	192,67
100-100-250	IE3	21,30	36,80	180M	267,29
125-125-160	IE3	2,55	4,84	100L	128,37
125-125-160	IE3	3,00	6,20	100L	130,37
125-125-160	IE3	4,00	8,60	112M	135,37
125-125-160	IE3	6,30	11,00	132S	147,27
125-125-160	IE3	8,60	15,00	132M	161,27
125-125-200	IE3	3,00	6,20	100L	127,46
125-125-200	IE3	4,00	8,60	112M	132,46
125-125-200	IE3	6,30	11,00	132S	144,36
125-125-200	IE3	8,60	15,00	132M	158,36
125-125-200	IE3	11,00	22,80	160M	184,57
125-125-200	IE3	15,00	30,10	160L	200,57
125-125-250	IE3	6,30	11,00	132S	156,47
125-125-250	IE3	8,60	15,00	132M	170,47
125-125-250	IE3	11,00	22,80	160M	196,68
125-125-250	IE3	15,00	30,10	160L	212,68
125-125-250	IE3	21,30	36,80	180M	287,3
125-125-250	IE3	22,00	43,10	180L	30,23
150-150-200	IE3	6,30	11,00	132S	175,85

Etaline	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~460 V		
n = 1750 rpm		[kW]	[A]		
150-150-200	IE3	8,60	15,00	132M	189,85
150-150-200	IE3	11,00	22,80	160M	216,06
150-150-200	IE3	15,00	30,10	160L	232,06
150-150-200	IE3	21,30	36,80	180M	306,68
150-150-250	IE3	8,60	15,00	132M	204,14
150-150-250	IE3	11,00	22,80	160M	230,35
150-150-250	IE3	15,00	30,10	160L	246,35
150-150-250	IE3	21,30	36,80	180M	320,97
150-150-250	IE3	22,00	43,10	180L	335,97
150-150-250	IE3	30,00	59,20	200L	400,26
150-150-250	IE3	37,00	70,10	225S	466,65
200-200-250	IE3	11,00	22,80	160M	285,87
200-200-250	IE3	15,00	30,10	160L	301,87
200-200-250	IE3	21,30	36,80	180M	376,49
200-200-250	IE3	22,00	43,10	180L	391,49
200-200-250	IE3	30,00	59,20	200L	455,78
200-200-250	IE3	37,00	70,10	225S	522,17
200-200-250	IE3	45,00	85,00	225M	552,17
200-200-315	IE3	30,00	59,20	200L	490,01
200-200-315	IE3	37,00	70,10	225S	556,25
200-200-315	IE3	45,00	85,00	225M	586,25
200-200-315	IE3	55,00	103,60	250M	699,62

**Motor (variable speed version), n = 3000 rpm**
**Table 17: 50 Hz, technical data of the motor, n = 3000 rpm (variable speed version)**

Etaline PumpDrive 2 n = 3000 rpm	Efficiency class	P <sub>N</sub> [kW]	I <sub>N</sub> 3~400 V [A]	Motor	[kg]
032-032-160	IE5	1,10	3,0	080M	42,2
032-032-160	IE5	1,50	4,1	090S	45,3
032-032-160	IE5	2,20	5,6	090L	49,8
032-032-160	IE5	3,00	7,6	100L	57,1
032-032-160	IE5	4,00	9,4	112M	68,1
032-032-160	IE5	5,50	12,5	132S	81,6
032-032-200	IE5	4,00	9,4	112M	77,2
032-032-200	IE5	5,50	12,5	132S	90,8
032-032-200	IE5	7,50	16,7	132S	106,8
032-032-200	IE5	11,00	23,7	160M	126
040-040-160	IE5	3,00	7,6	100L	57,6
040-040-160	IE5	4,00	9,4	112M	68,6
040-040-160	IE5	5,50	12,5	132S	82,1
040-040-160	IE5	7,50	16,7	132S	98,1
040-040-250	IE5	7,50	16,7	132S	113,5
040-040-250	IE5	11,00	23,7	160M	132,7
040-040-250	IE5	15,00	32,0	160M	157,7
040-040-250	IE5	18,50	38,8	160L	176,1
040-040-250	IE4	22,00	50,7	180M	242,7
040-040-250	IE4	30,00	63,5	200L	312,2
050-050-160	IE5	3,00	7,6	100L	61,9
050-050-160	IE5	4,00	9,4	112M	72,9
050-050-160	IE5	5,50	12,5	132S	86,4
050-050-160	IE5	7,50	16,7	132S	102,4
050-050-160	IE5	11,00	23,7	160M	121,6
050-050-250	IE5	11,00	23,7	160M	135,7
050-050-250	IE5	15,00	32,0	160M	160,7
050-050-250	IE5	18,50	38,8	160L	179,1
050-050-250	IE4	22,00	50,7	180M	245,8
050-050-250	IE4	30,00	63,5	200L	315,3
050-050-250	IE4	37,00	77,8	200L	371,9
065-065-160	IE5	3,00	7,6	100L	64,2
065-065-160	IE5	4,00	9,4	112M	75,2
065-065-160	IE5	5,50	12,5	132S	88,7
065-065-160	IE5	7,50	16,7	132S	104,7
065-065-160	IE5	11,00	23,7	160M	123,9
065-065-160	IE5	15,00	32,0	160M	148,9
065-065-160	IE5	18,50	38,8	160L	167,3
065-065-250	IE5	15,00	32,0	160M	164,8
065-065-250	IE5	18,50	38,8	160L	183,2
065-065-250	IE4	22,00	50,7	180M	249,8
065-065-250	IE4	30,00	63,5	200L	319,3
065-065-250	IE4	37,00	77,8	200L	375,9
080-080-160	IE5	5,50	12,5	132S	94,7
080-080-160	IE5	7,50	16,7	132S	110,7
080-080-160	IE5	11,00	23,7	160M	129,9
080-080-160	IE5	15,00	32,0	160M	154,9
080-080-160	IE5	18,50	38,8	160L	173,3
080-080-200	IE5	11,00	23,7	160M	138,7
080-080-200	IE5	15,00	32,0	160M	163,7
080-080-200	IE5	18,50	38,8	160L	182,1
080-080-200	IE4	22,00	50,7	180M	248,7
080-080-200	IE4	30,00	63,5	200L	318,2
080-080-200	IE4	37,00	77,8	200L	374,8

Etaline PumpDrive 2 n = 3000 rpm	Efficiency class	P <sub>N</sub>	I <sub>N</sub>	Motor	[kg]
			3~400 V		
		[kW]	[A]		
100-100-125	IE5	5,50	12,5	132S	99,7
100-100-125	IE5	7,50	16,7	132S	115,7
100-100-125	IE5	11,00	23,7	160M	134,9
100-100-160	IE5	11,00	23,7	160M	141,5
100-100-160	IE5	15,00	32,0	160M	166,5
100-100-160	IE5	18,50	38,8	160L	184,9
100-100-160	IE4	22,00	50,7	180M	251,5
100-100-160	IE4	30,00	63,5	200L	321
125-125-160	IE5	18,50	38,8	160L	239,5
125-125-160	IE4	22,00	50,7	180M	306,1
125-125-160	IE4	30,00	63,5	200L	375,4
125-125-160	IE4	37,00	77,8	200L	432

**Motor (variable speed version), n = 1500 rpm**
**Table 18:** 50 Hz, technical data of the motor, n = 1500 rpm (variable speed version)

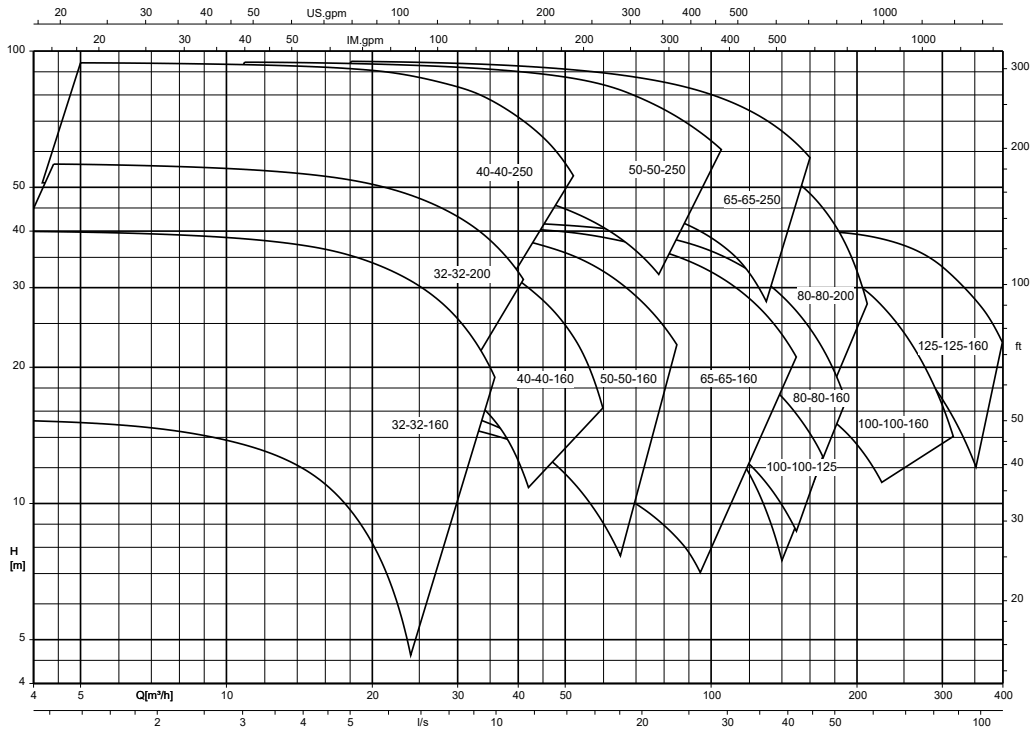
Etaline PumpDrive 2 n = 1500 rpm	Efficiency class	P <sub>N</sub> [kW]	I <sub>N</sub> 3~400 V [A]	Motor	[kg]
032-032-160	IE5	0,55	1,6	080M	41,2
032-032-160	IE5	0,75	2,1	080M	43,2
032-032-200	IE5	0,55	1,6	080M	50,4
032-032-200	IE5	0,75	2,1	080M	52,4
032-032-200	IE5	1,10	3,0	090S	54,4
040-040-160	IE5	0,55	1,6	080M	41,8
040-040-160	IE5	0,75	2,1	080M	43,8
040-040-160	IE5	1,10	3,0	090S	45,8
040-040-250	IE5	1,10	3,0	090S	61,2
040-040-250	IE5	1,50	4,0	090L	64,2
040-040-250	IE5	2,20	5,7	100L	74
040-040-250	IE5	3,00	7,8	100L	79
040-040-250	IE5	4,00	9,6	112M	86
050-050-160	IE5	0,55	1,6	080M	46,1
050-050-160	IE5	0,75	2,1	080M	48,1
050-050-160	IE5	1,10	3,0	090S	50,1
050-050-160	IE5	1,50	4,0	090L	53,1
050-050-250	IE5	1,50	4,0	090L	67,2
050-050-250	IE5	2,20	5,7	100L	77
050-050-250	IE5	3,00	7,8	100L	92
050-050-250	IE5	4,00	9,6	112M	89
050-050-250	IE5	5,50	13,5	132S	115,5
065-065-160	IE5	0,55	1,6	080M	48,3
065-065-160	IE5	0,75	2,1	080M	50,3
065-065-160	IE5	1,10	3,0	090S	52,3
065-065-160	IE5	1,50	4,0	090L	55,3
065-065-160	IE5	2,20	5,7	100L	65,2
065-065-250	IE5	2,20	5,7	100L	81,1
065-065-250	IE5	3,00	7,8	100L	86,1
065-065-250	IE5	4,00	9,6	112M	93,1
065-065-250	IE5	5,50	13,5	132S	119,6
065-065-250	IE5	7,50	17,6	132M	126,6
080-080-160	IE5	0,75	2,1	080M	56,3
080-080-160	IE5	1,10	3,0	090S	58,4
080-080-160	IE5	1,50	4,0	090L	61,4
080-080-160	IE5	2,20	5,7	100L	71,2
080-080-160	IE5	3,00	7,8	100L	76,2
080-080-200	IE5	1,50	4,0	090L	70,2
080-080-200	IE5	2,20	5,7	100L	80
080-080-200	IE5	3,00	7,8	100L	85
080-080-200	IE5	4,00	9,6	112M	92
080-080-200	IE5	5,50	13,5	132S	118,5
080-080-250	IE5	3,00	7,8	100L	105,3
080-080-250	IE5	4,00	9,6	112M	112,3
080-080-250	IE5	5,50	13,5	132S	138,3
080-080-250	IE5	7,50	17,6	132M	145,3
080-080-250	IE5	11,00	24,2	160M	168,5
100-100-125	IE5	0,75	2,1	080M	61,3
100-100-125	IE5	1,10	3,0	090S	63,3
100-100-125	IE5	1,50	4,0	090L	66,3
100-100-160	IE5	1,50	4,0	090L	72,9
100-100-160	IE5	2,20	5,7	100L	82,7
100-100-160	IE5	3,00	7,8	100L	87,7
100-100-160	IE5	4,00	9,6	112M	94,7



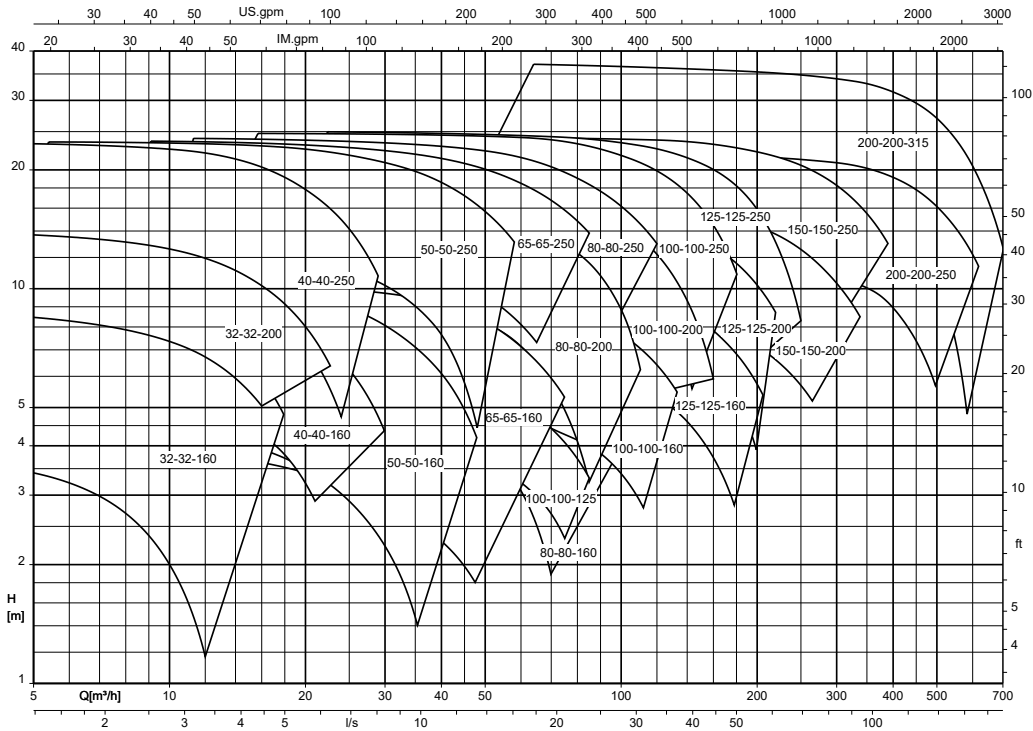
Etaline PumpDrive 2 n = 1500 rpm	Efficiency class	P <sub>N</sub> [kW]	I <sub>N</sub>	Motor	[kg]
			3~400 V [A]		
100-100-200	IE5	3,00	7,8	100L	120,1
100-100-200	IE5	4,00	9,6	112M	127,1
100-100-200	IE5	5,50	13,5	132S	153,1
100-100-200	IE5	7,50	17,6	132M	160,1
100-100-250	IE5	4,00	9,6	112M	139,1
100-100-250	IE5	5,50	13,5	132S	165,1
100-100-250	IE5	7,50	17,6	132M	172,1
100-100-250	IE5	11,00	24,2	160M	195,3
100-100-250	IE5	15,00	33,0	160L	220,3
125-125-160	IE5	3,00	7,8	100L	142,9
125-125-160	IE5	4,00	9,6	112M	149,9
125-125-160	IE5	5,50	13,5	132S	175,9
125-125-200	IE5	4,00	9,6	112M	147
125-125-200	IE5	5,50	13,5	132S	173
125-125-200	IE5	7,50	17,6	132M	180
125-125-200	IE5	11,00	24,2	160M	203,2
125-125-250	IE5	5,50	13,5	132S	185,1
125-125-250	IE5	7,50	17,6	132M	192,1
125-125-250	IE5	11,00	24,2	160M	215,3
125-125-250	IE5	15,00	33,0	160L	240,3
150-150-200	IE5	5,50	13,5	132S	204,5
150-150-200	IE5	7,50	17,6	132M	211,5
150-150-200	IE5	11,00	24,2	160M	234,7
150-150-200	IE5	15,00	33,0	160L	259,7
150-150-250	IE5	11,00	24,2	160M	249
150-150-250	IE5	15,00	33,0	160L	274
150-150-250	IE4	18,50	42,0	180M	343
150-150-250	IE4	22,00	48,5	180L	367
200-200-250	IE5	15,00	33,0	160L	329,5
200-200-250	IE4	18,50	42,0	180M	398,5
200-200-250	IE4	22,00	48,5	180L	422,5
200-200-250	IE4	30,00	65,4	200L	490,8
200-200-250	IE4	37,00	80,9	225S	627,8
200-200-315	IE4	30,00	65,4	200L	525
200-200-315	IE4	37,00	80,9	225S	661,9
200-200-315	IE4	45,00	99,3	225M	712,3

Selection charts

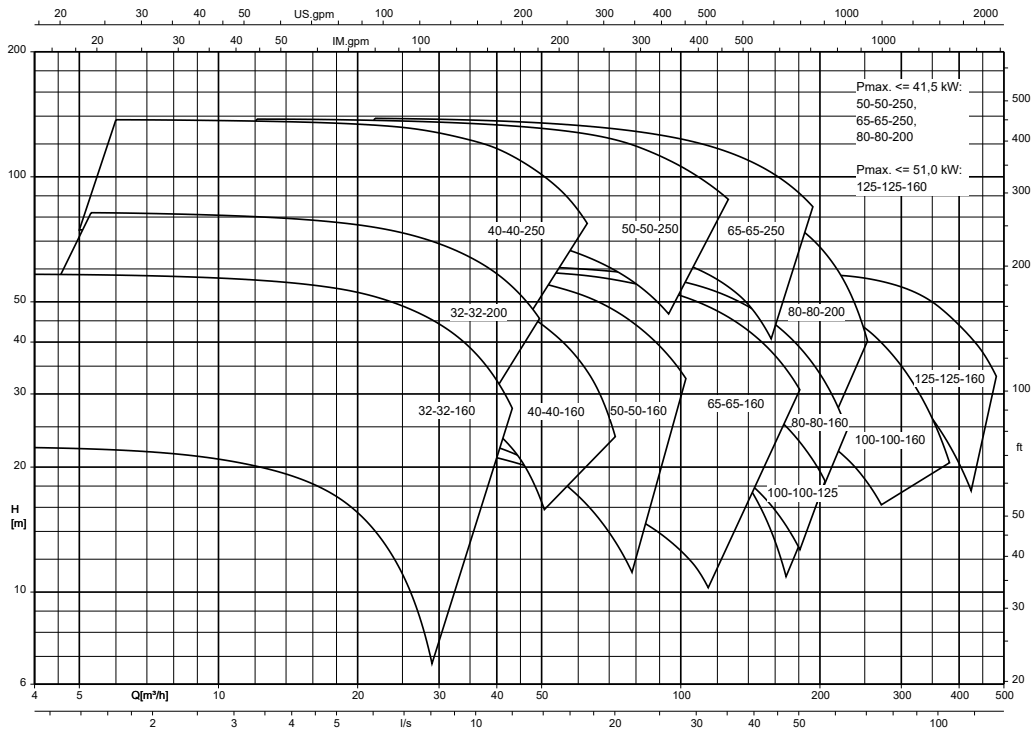
**Etaline (fixed speed version), n = 2900 rpm**



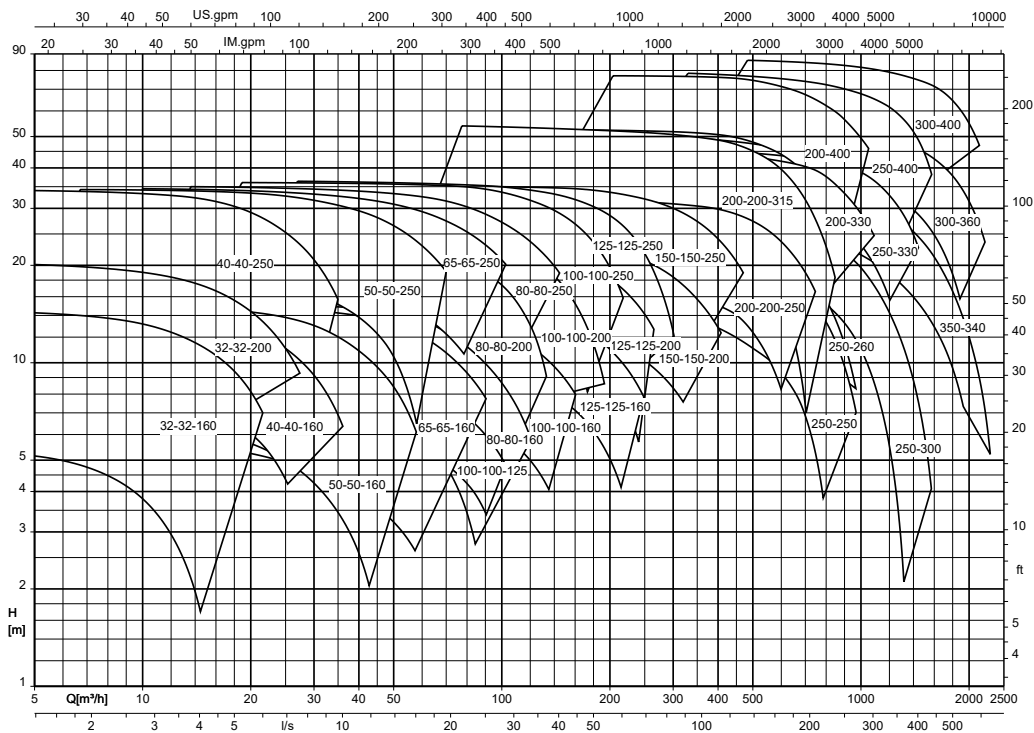
**Etaline (fixed speed version), n = 1450 rpm**



**Etaline (fixed speed version), n = 3500 rpm**



**Etaline / Etaline-R (fixed speed version), n = 1750 rpm**



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## Characteristic curves

### General

#### Test class

Characteristic curves to ISO 9906 Class 3B

#### NPSH values

The NPSH values indicated in the characteristic curves correspond to a head drop of 3 %.

#### NPSH values in part-load conditions

NPSH values for flow rates below  $Q = 0.3 \times Q_{\text{BEP}}$  can only be measured with intense technical efforts. Evidence of NPSH values in the part-load range cannot be provided.

#### Density of the fluid handled

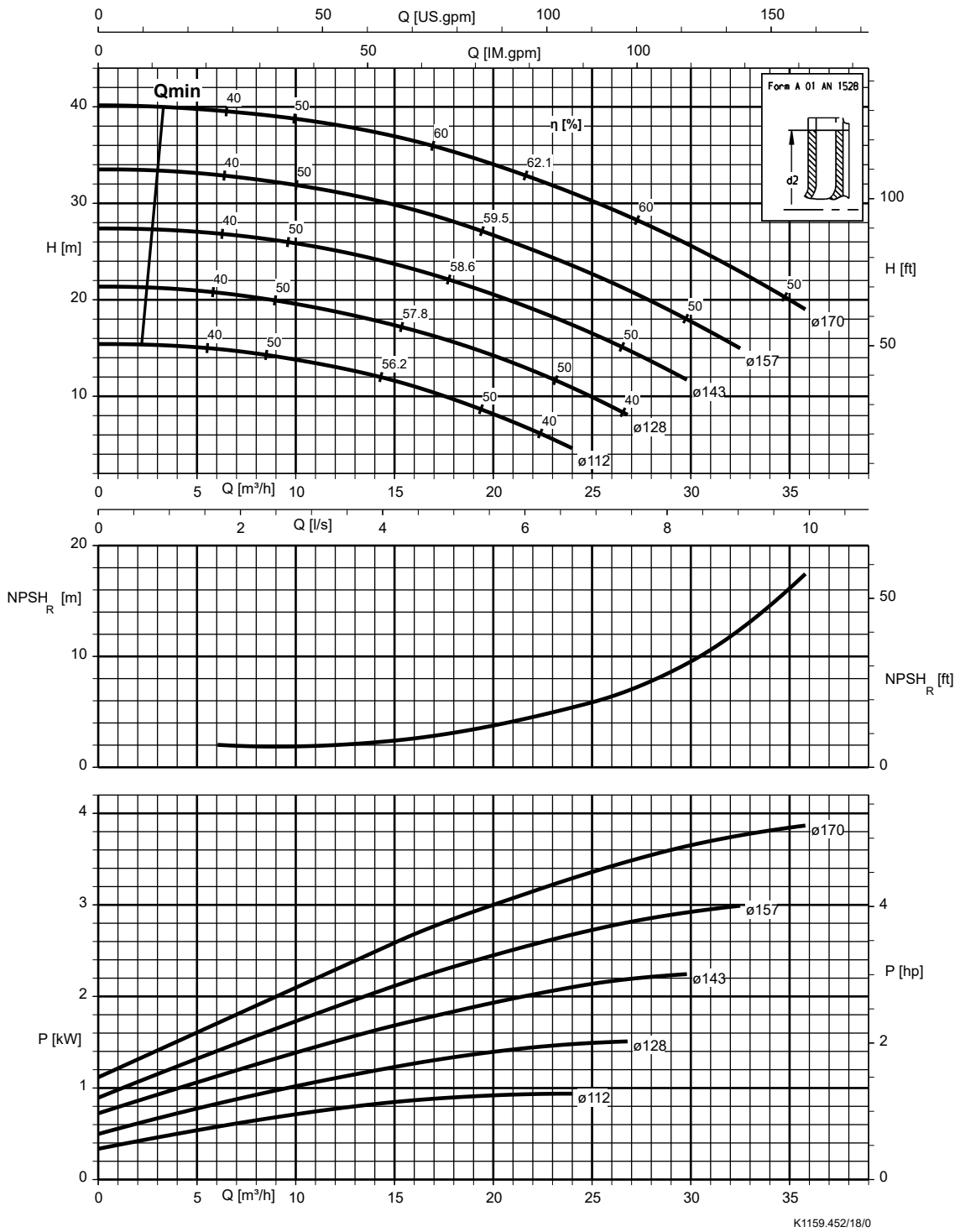
The indicated heads and performance data apply to pumped fluids with a density  $\rho = 1.0 \text{ kg/dm}^3$  and a kinematic viscosity of up to  $20 \text{ mm}^2/\text{s}$  max. If the density  $\neq 1.0$ , the performance data must be multiplied by  $\rho$ . For a viscosity  $> 20 \text{ mm}^2/\text{s}$  the corresponding data for cold water has to be calculated and the impact on the pump's performance has to be determined.

#### Correction factors

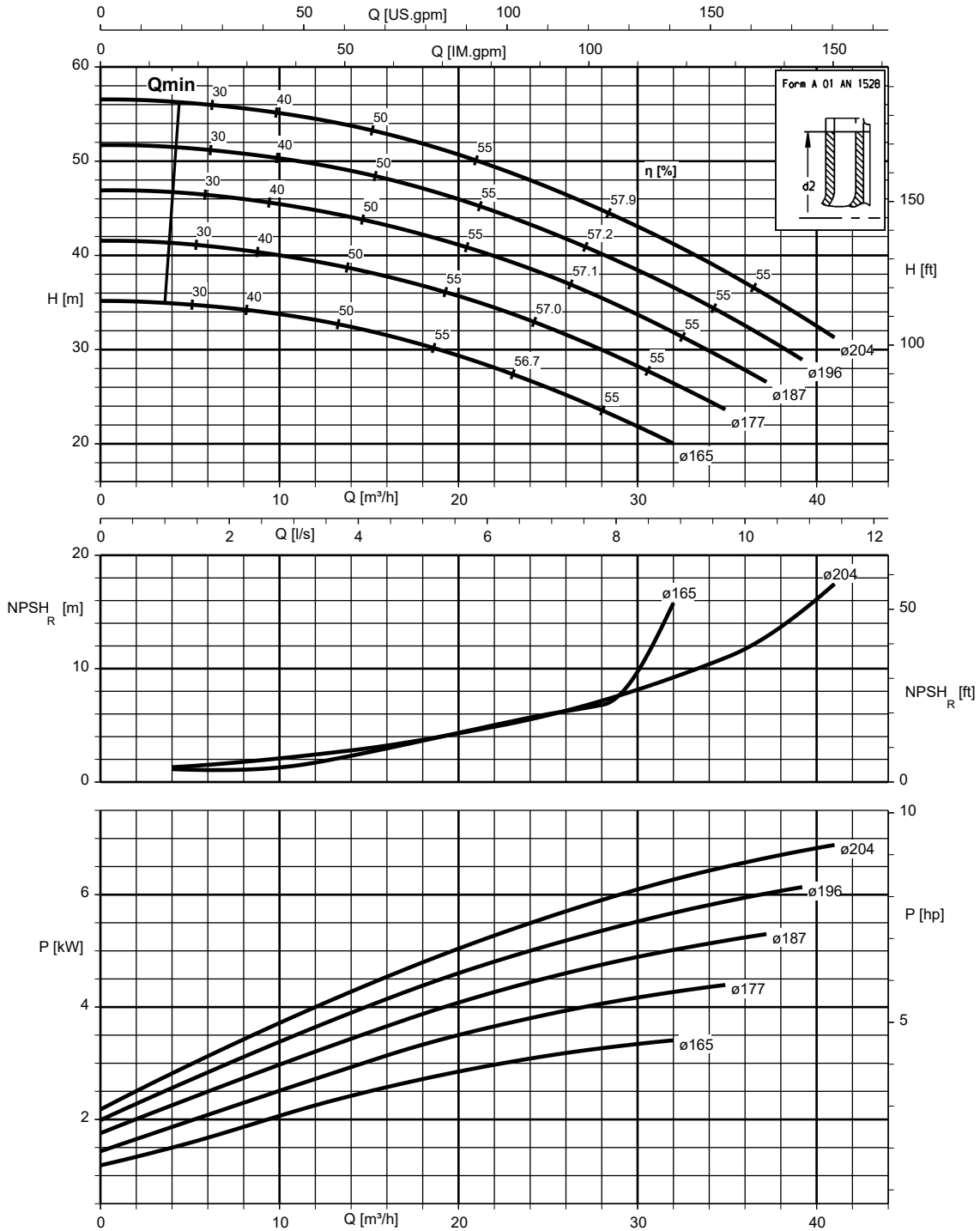
The characteristic curves apply to pumps with cast iron or bronze impellers. When using an impeller made of cast steel materials the efficiency and pump power of the corresponding pump sizes have to be multiplied by the correction factors indicated in the characteristic curves.

Etaline (fixed speed version), n = 2900 rpm

Etaline 032-032-160, n = 2900 rpm

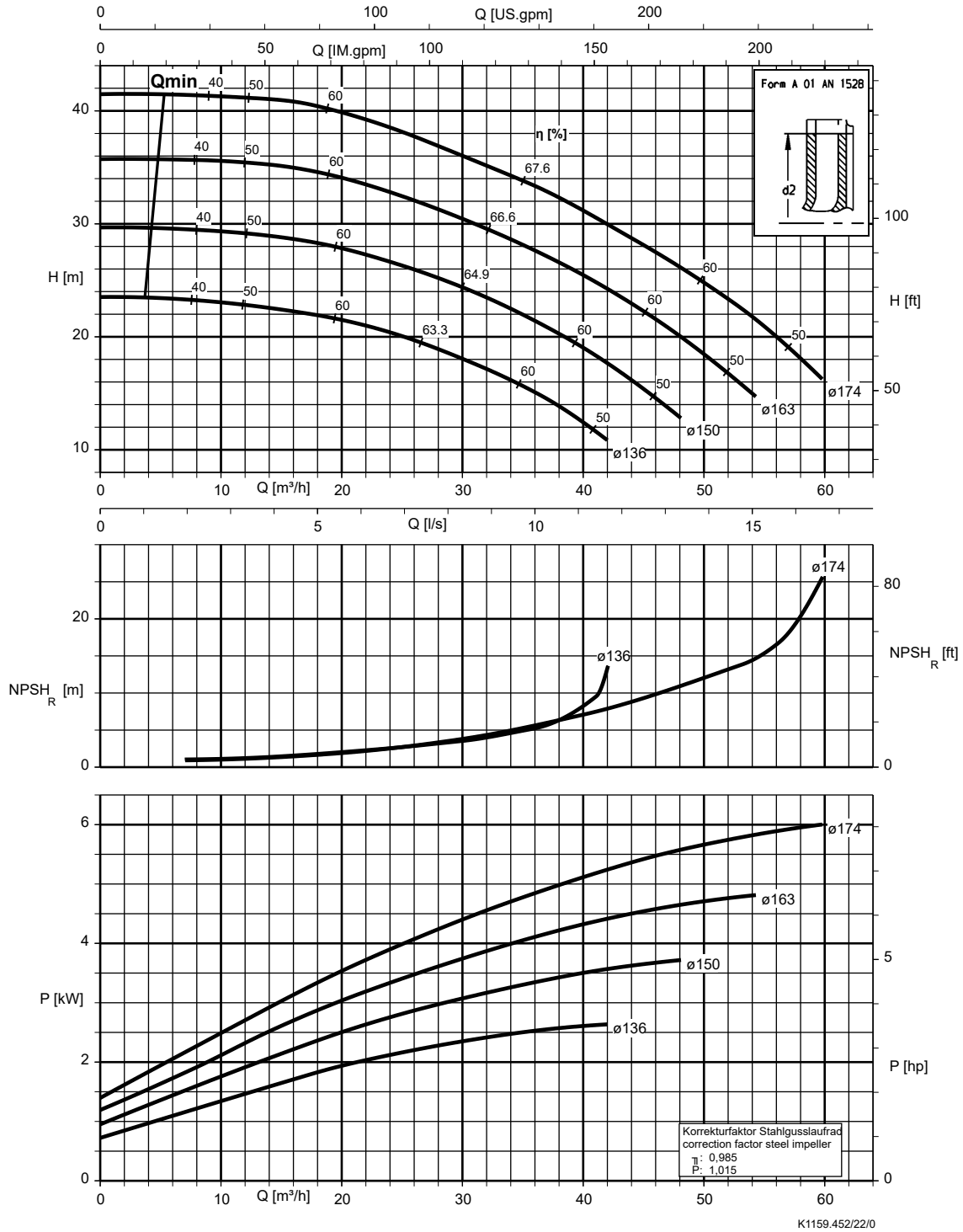


**Etaline 032-032-200, n = 2900 rpm**



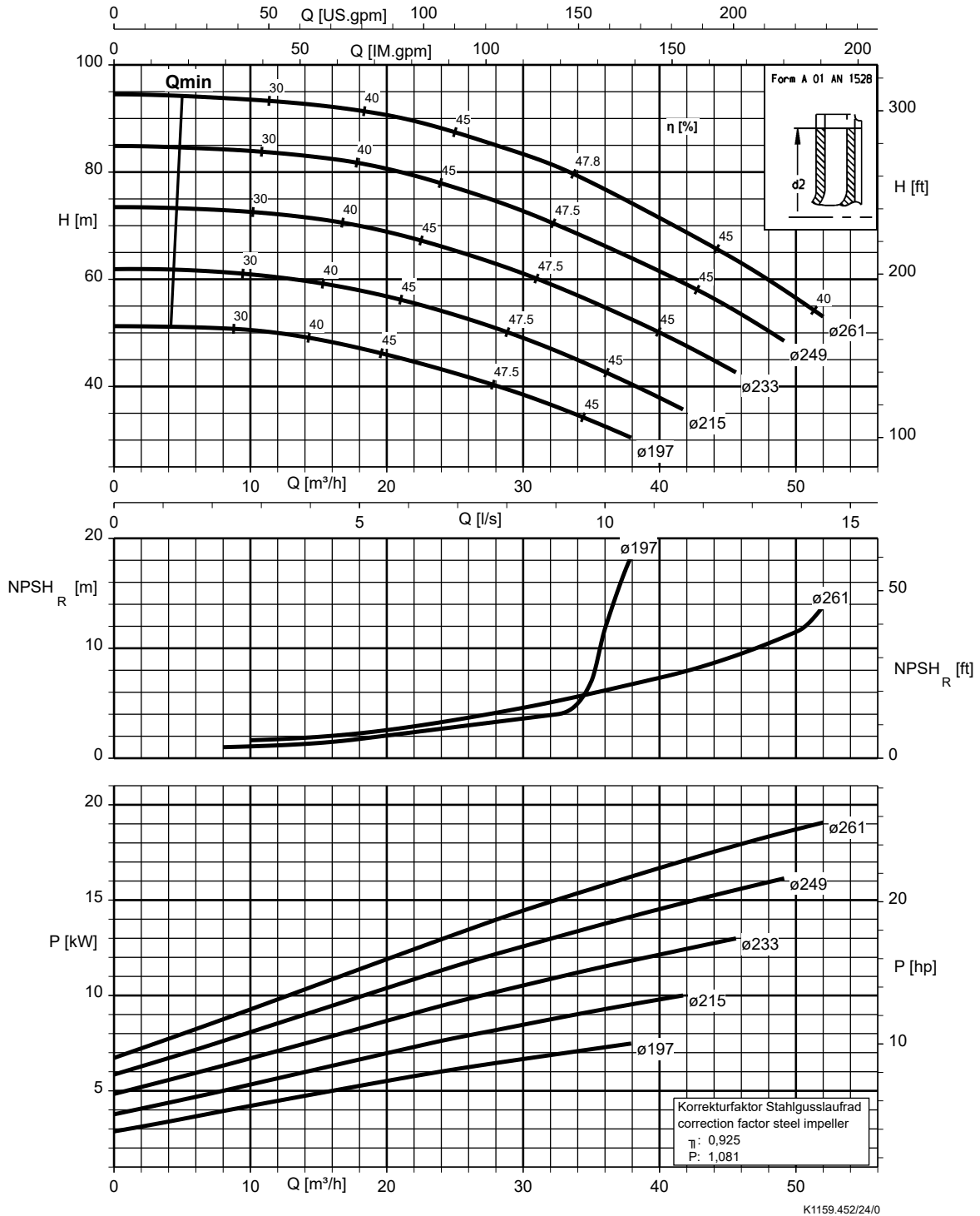
K1159.452/19/0

**Etaline 040-040-160, n = 2900 rpm**



1159.5/07-EN

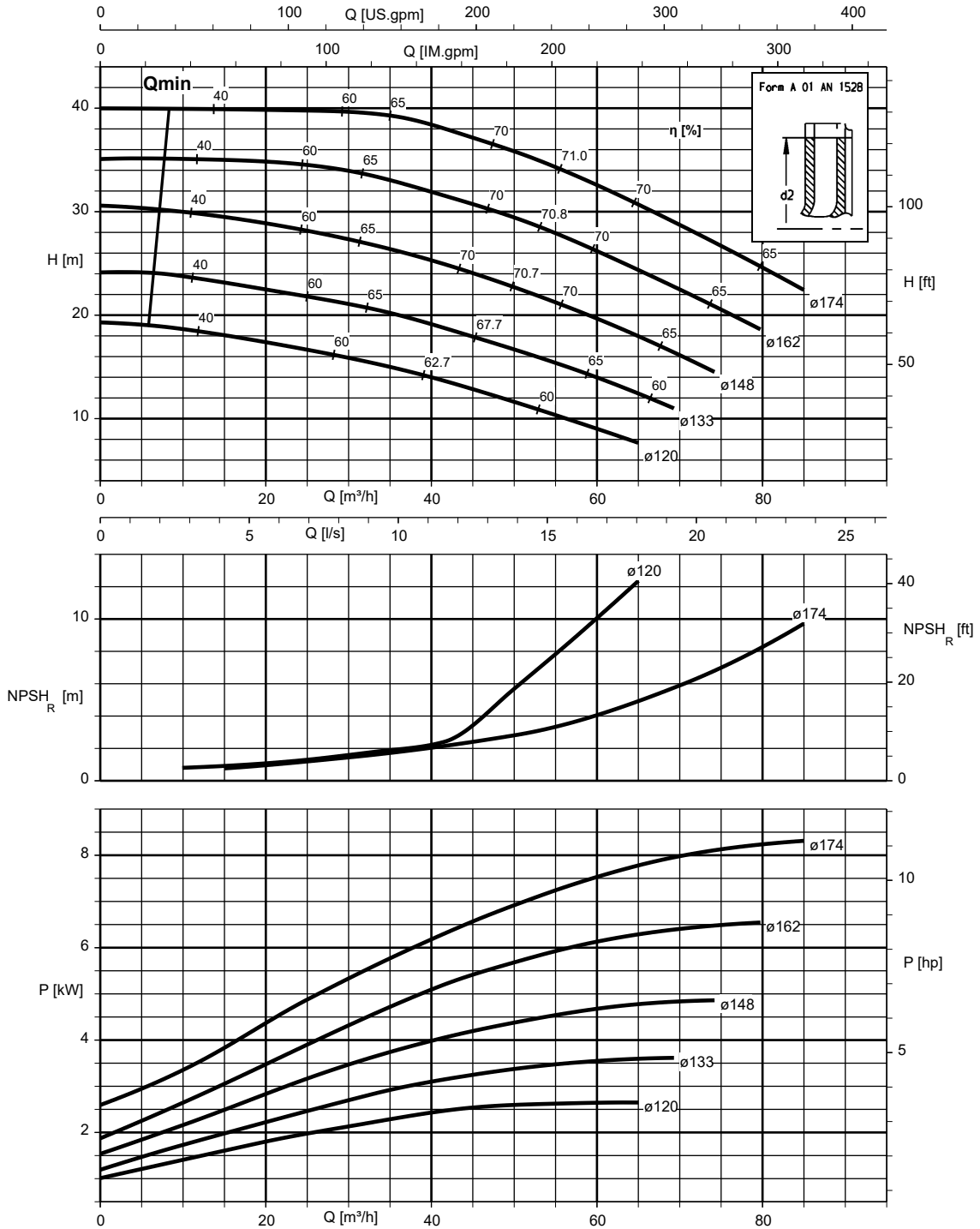
Etaline 040-040-250, n = 2900 rpm



K1159.452/24/0

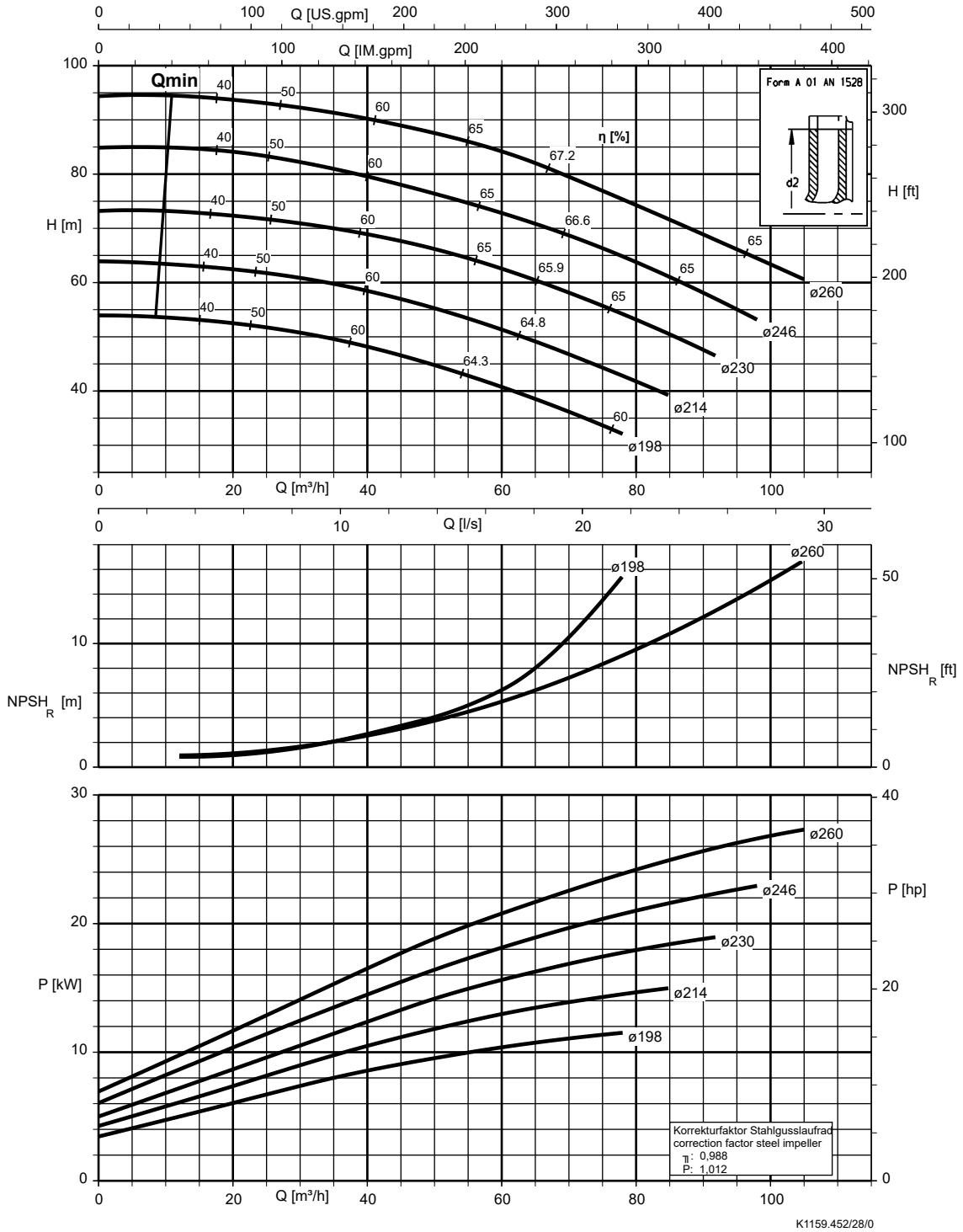


**Etaline 050-050-160, n = 2900 rpm**

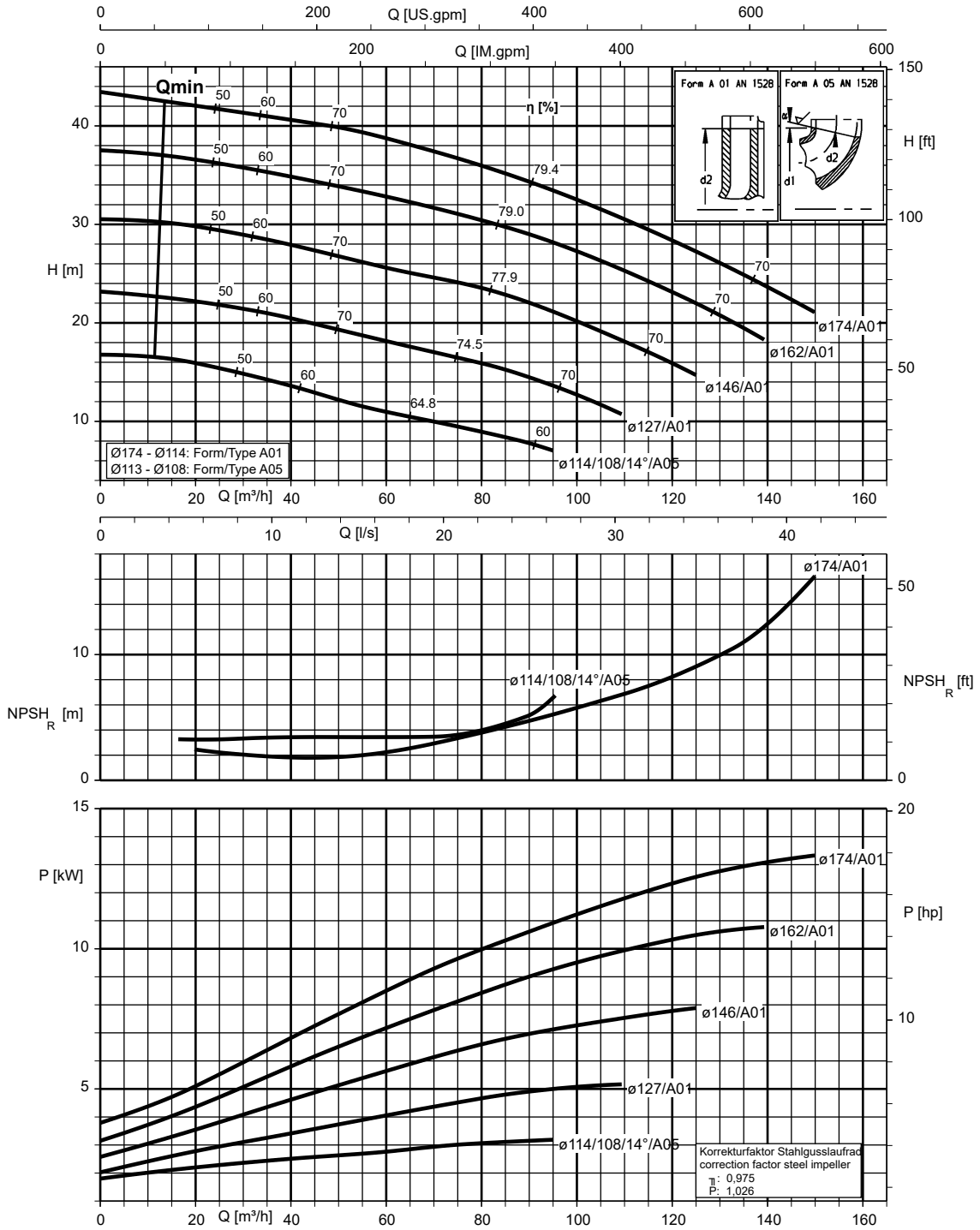


K1159.452/26/0

**Etaline 050-050-250, n = 2900 rpm**

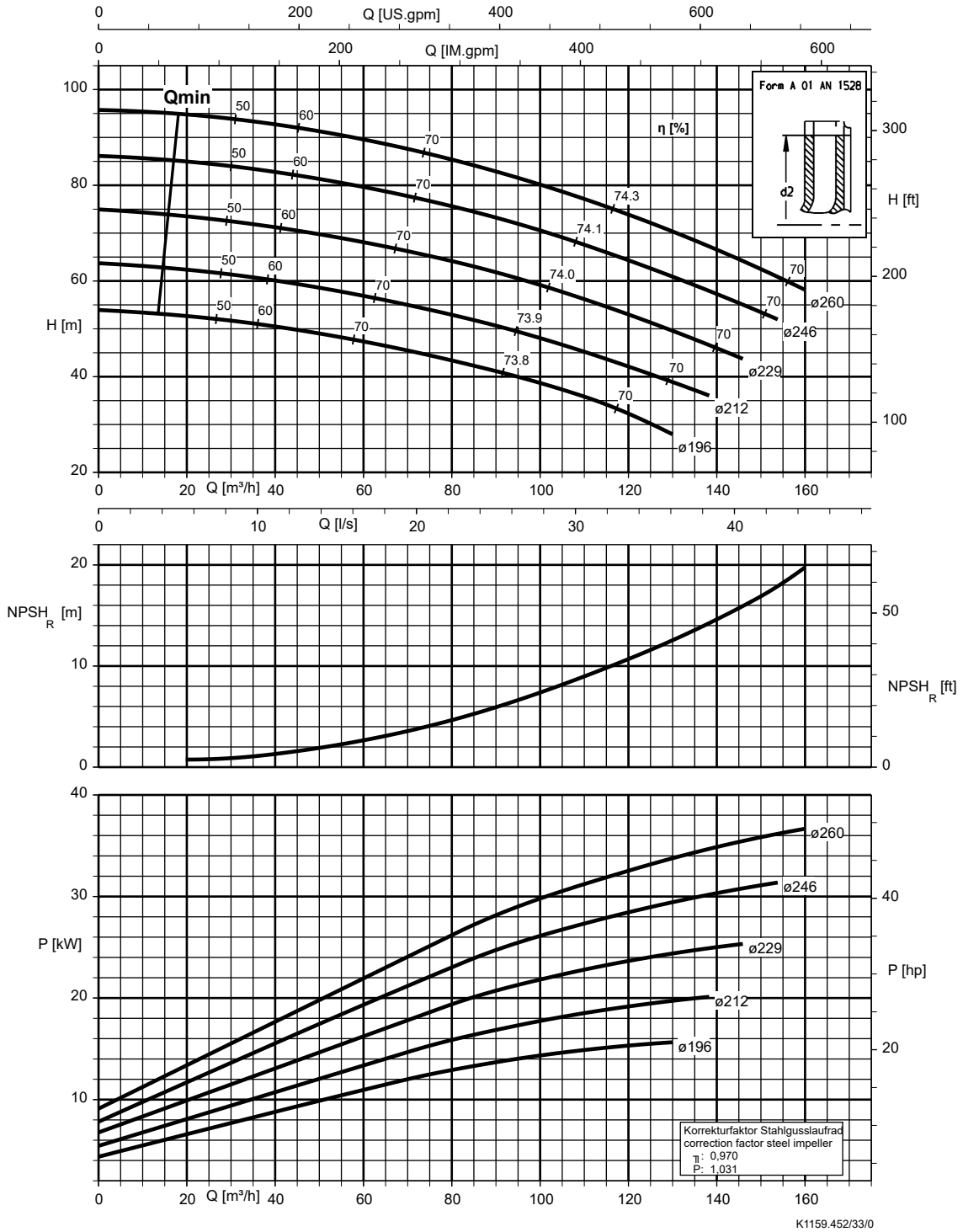


**Etaline 065-065-160, n = 2900 rpm**

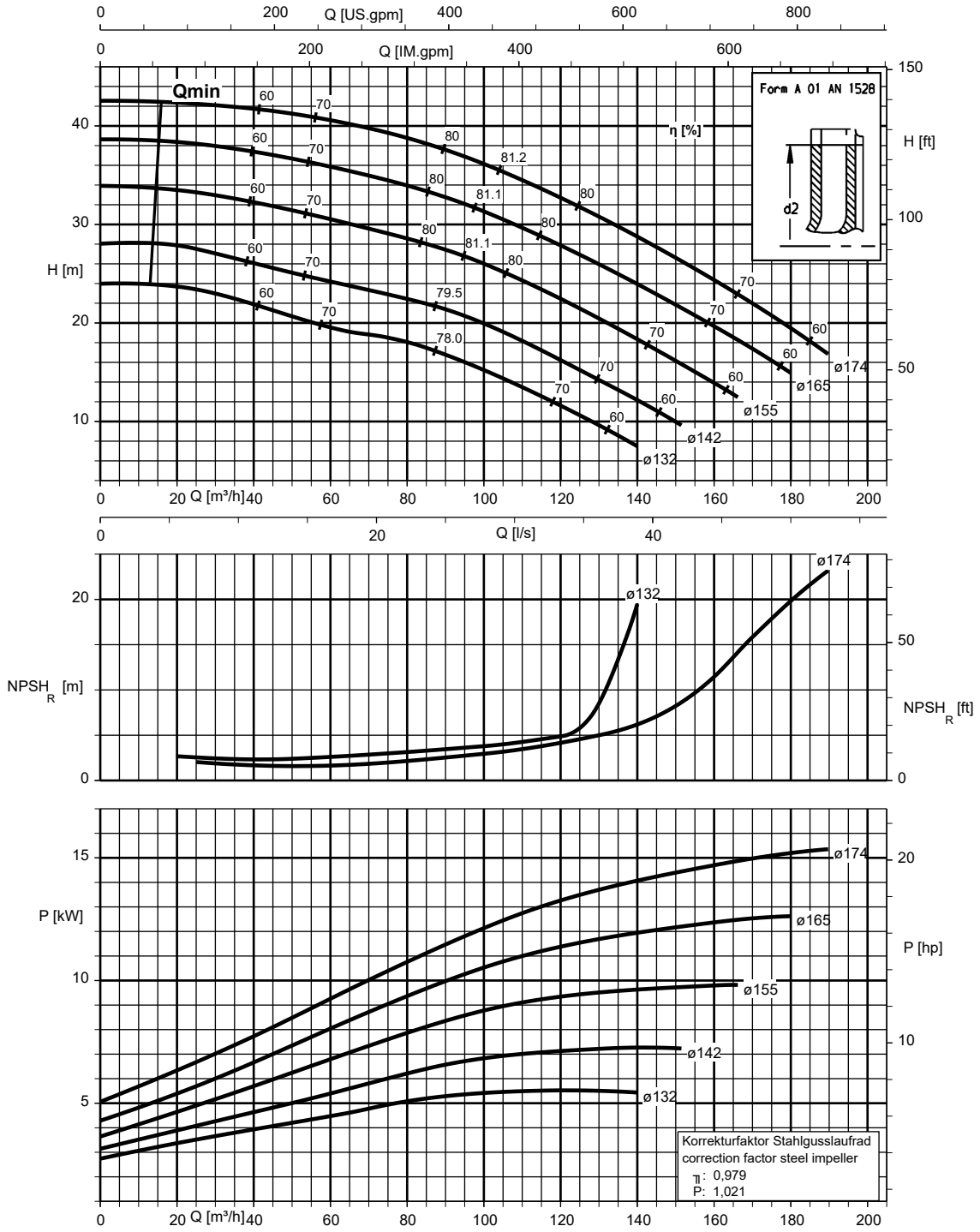


K1159.452/31/0

Etaline 065-065-250, n = 2900 rpm

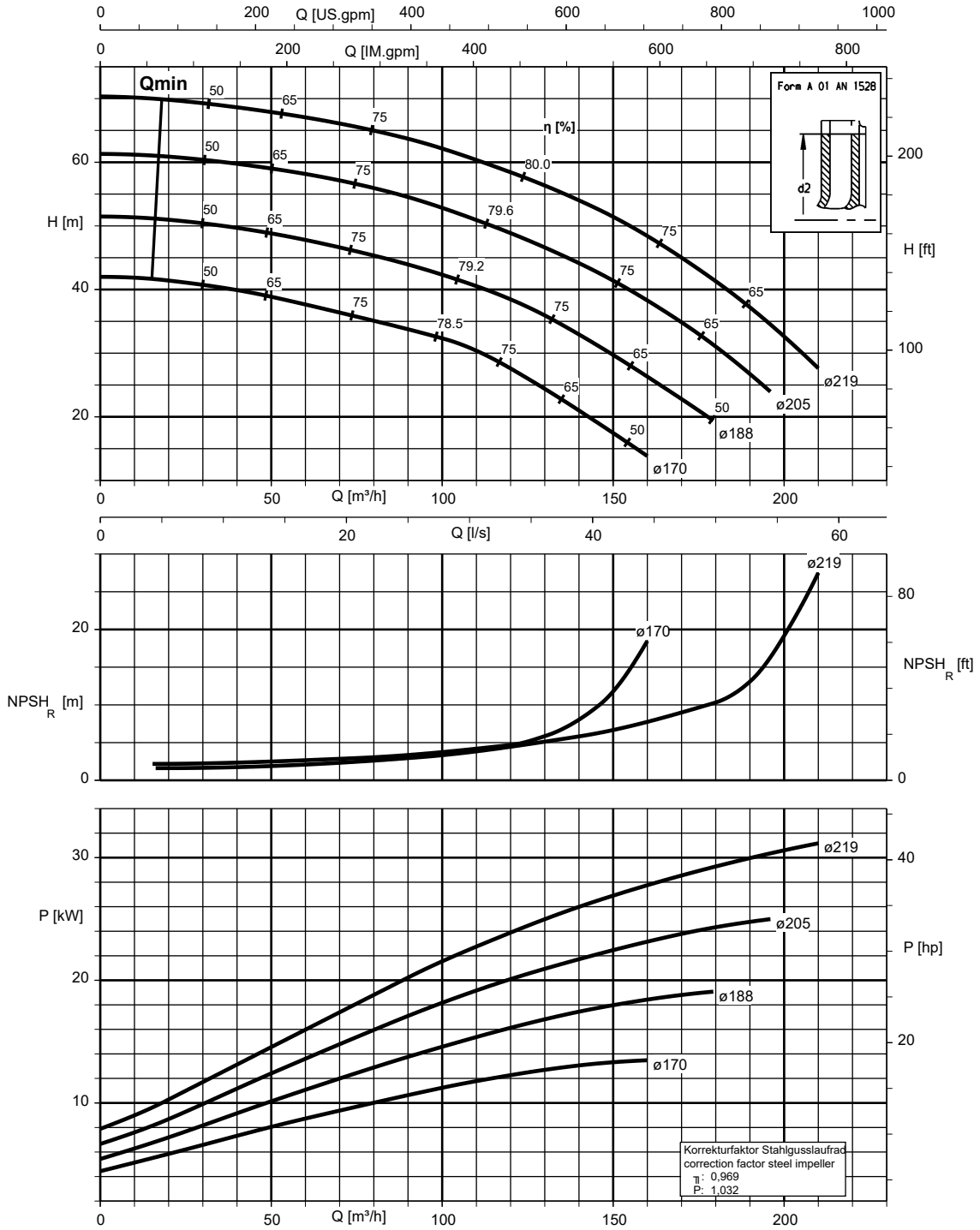


**Etaline 080-080-160, n = 2900 rpm**



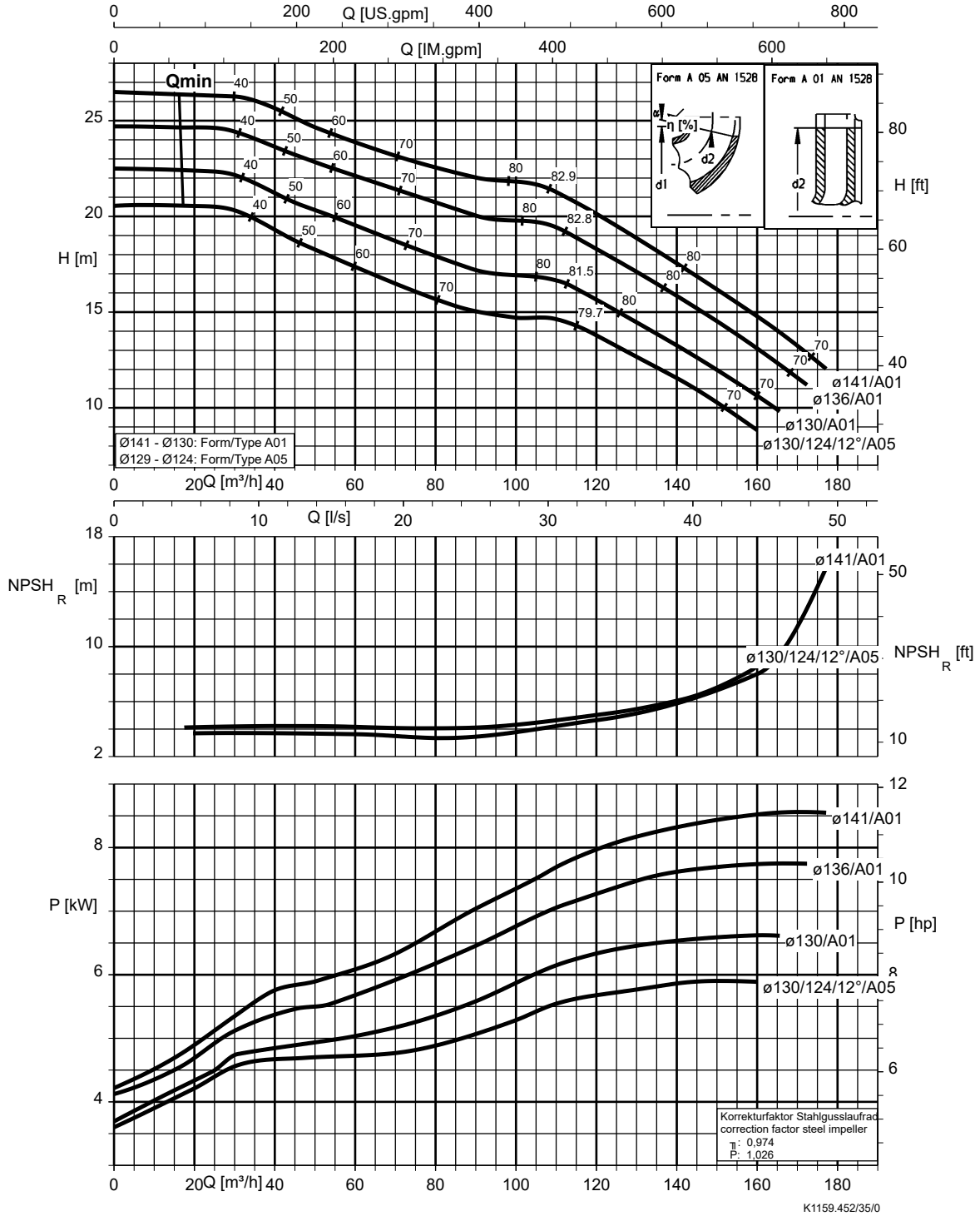
K1159.452/36/0

**Etaline 080-080-200, n = 2900 rpm**

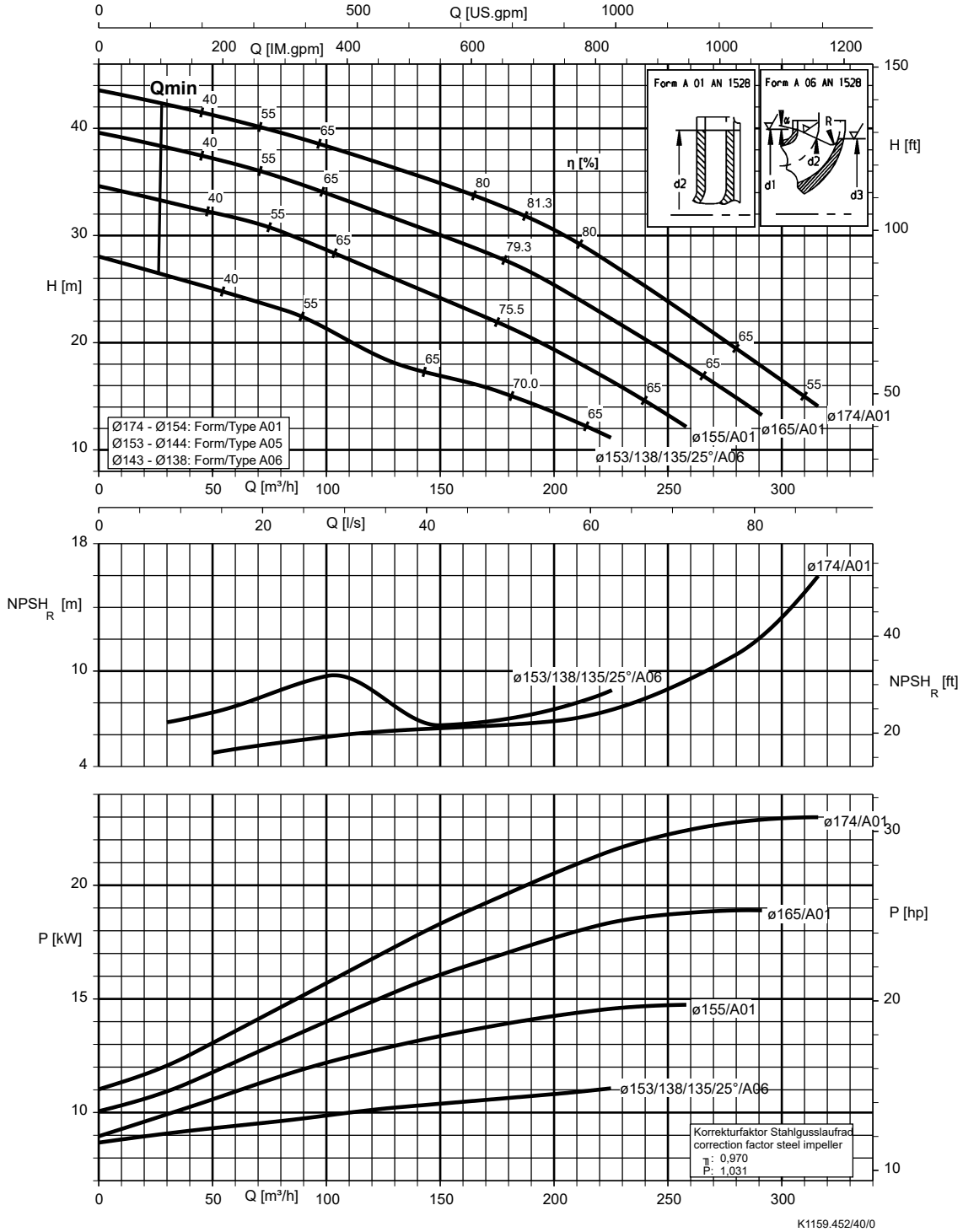


K1159.452/37/0

**Etaline 100-100-125, n = 2900 rpm**

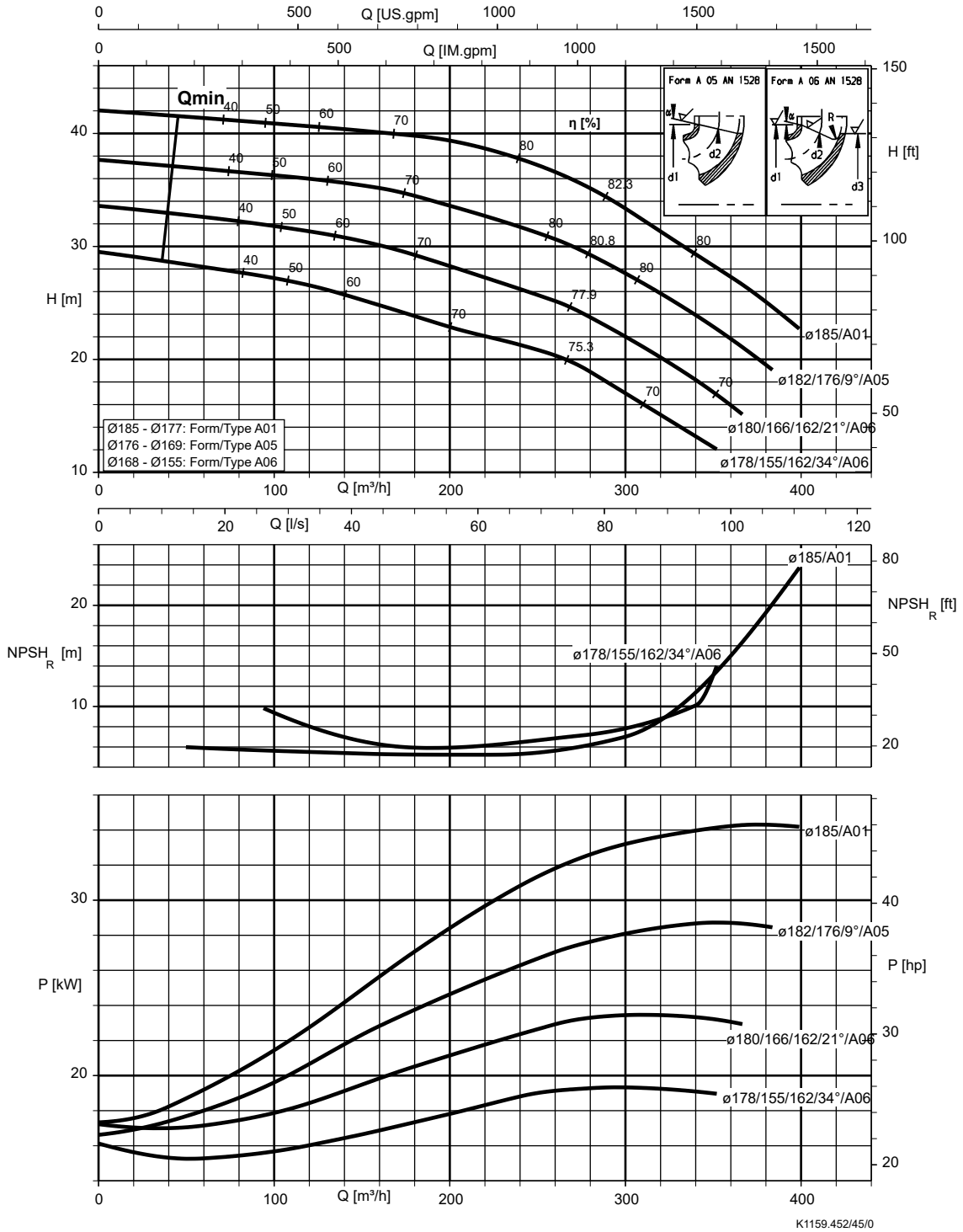


**Etaline 100-100-160, n = 2900 rpm**

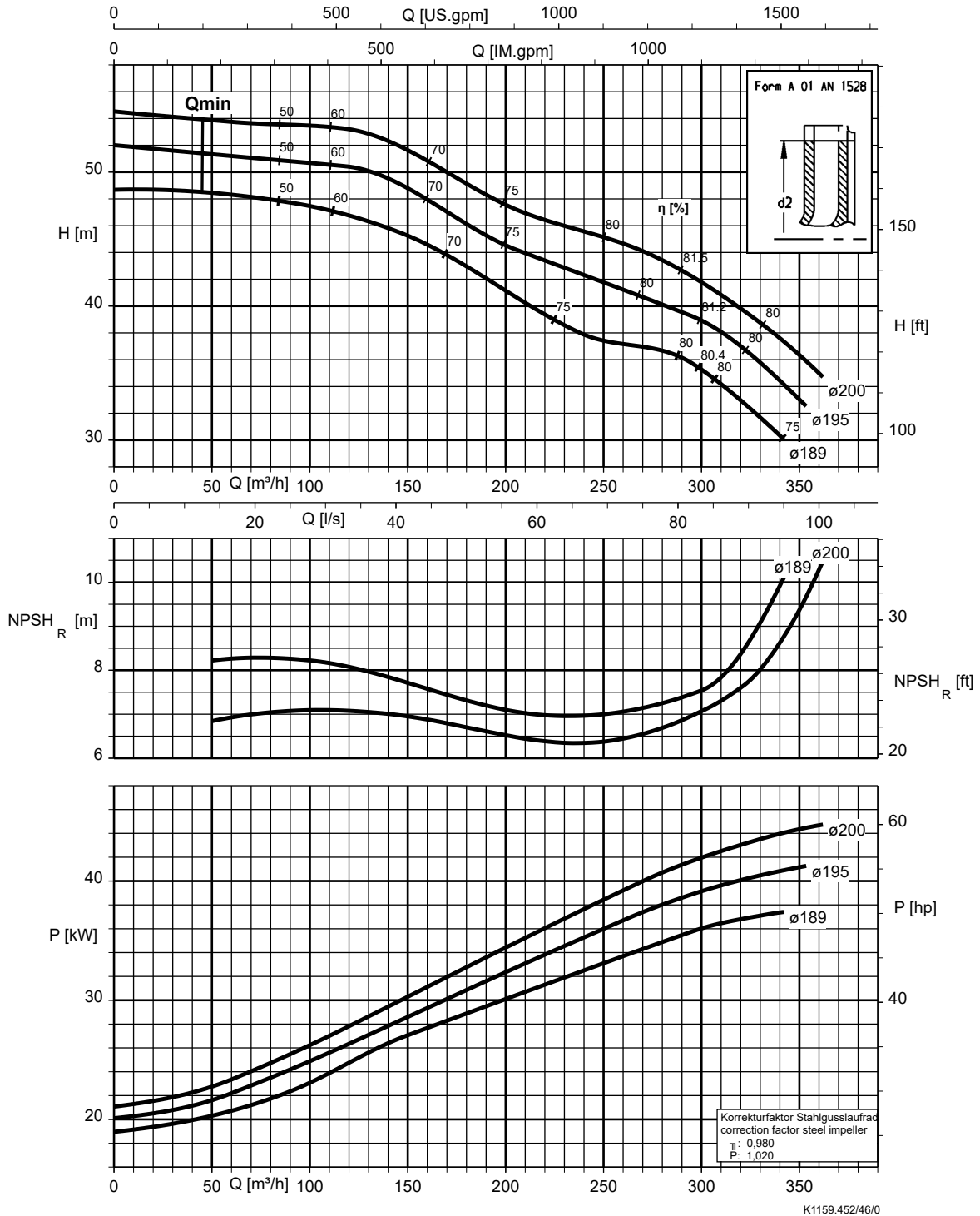




**Etaline 125-125-160, n = 2900 rpm**

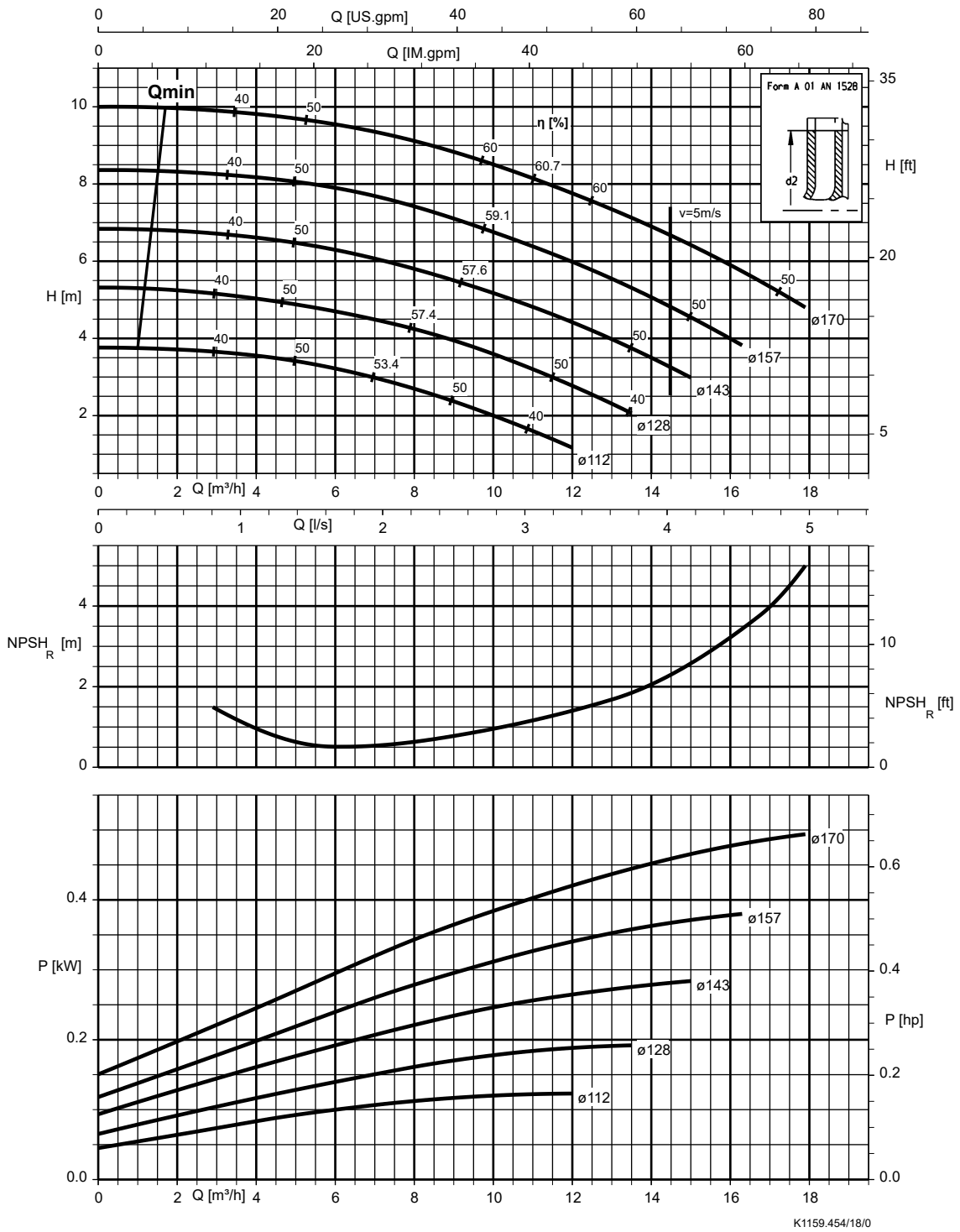


**Etaline 125-125-200, n = 2900 rpm**



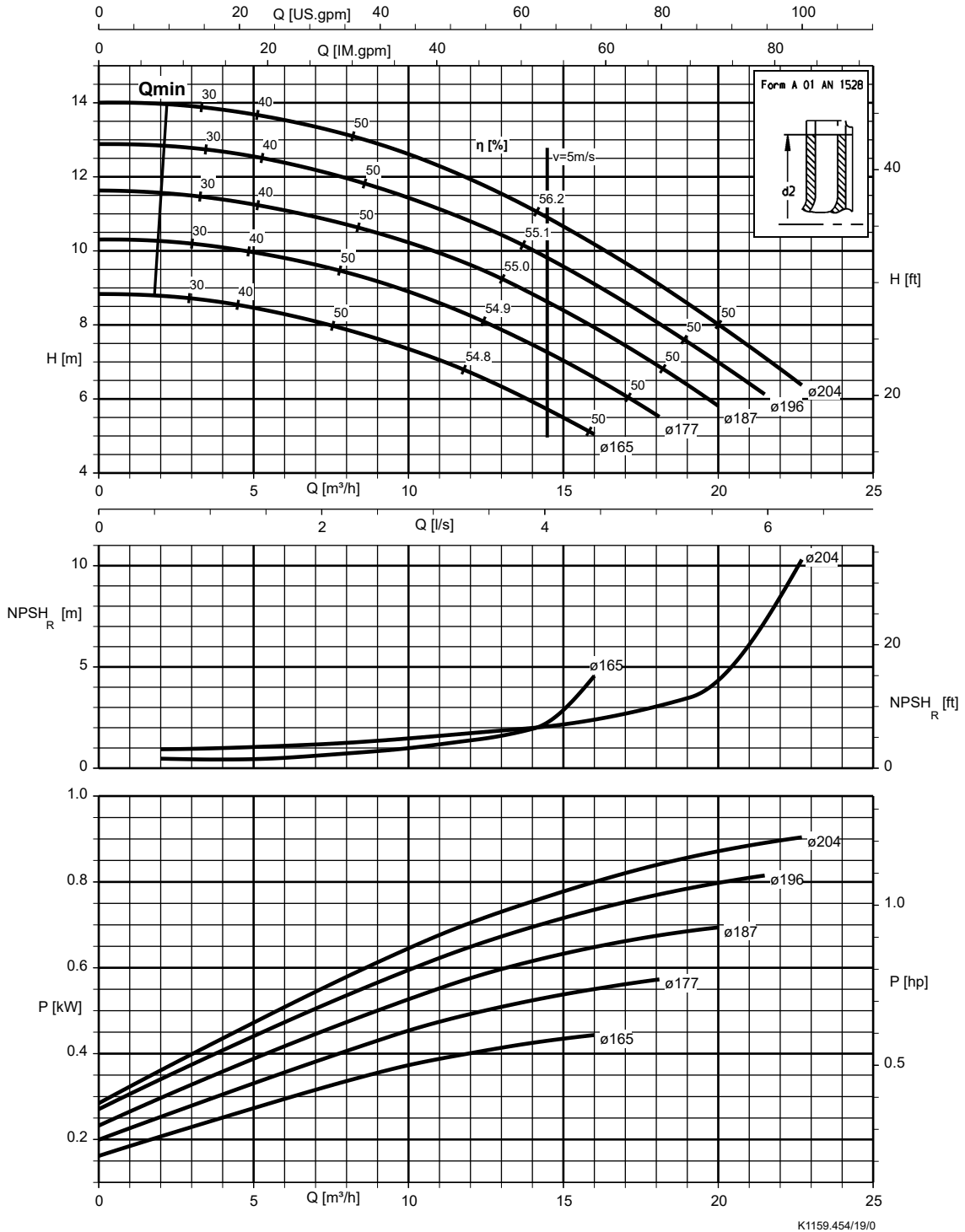
Etaline (fixed speed version), n = 1450 rpm

Etaline 032-032-160, n = 1450 rpm



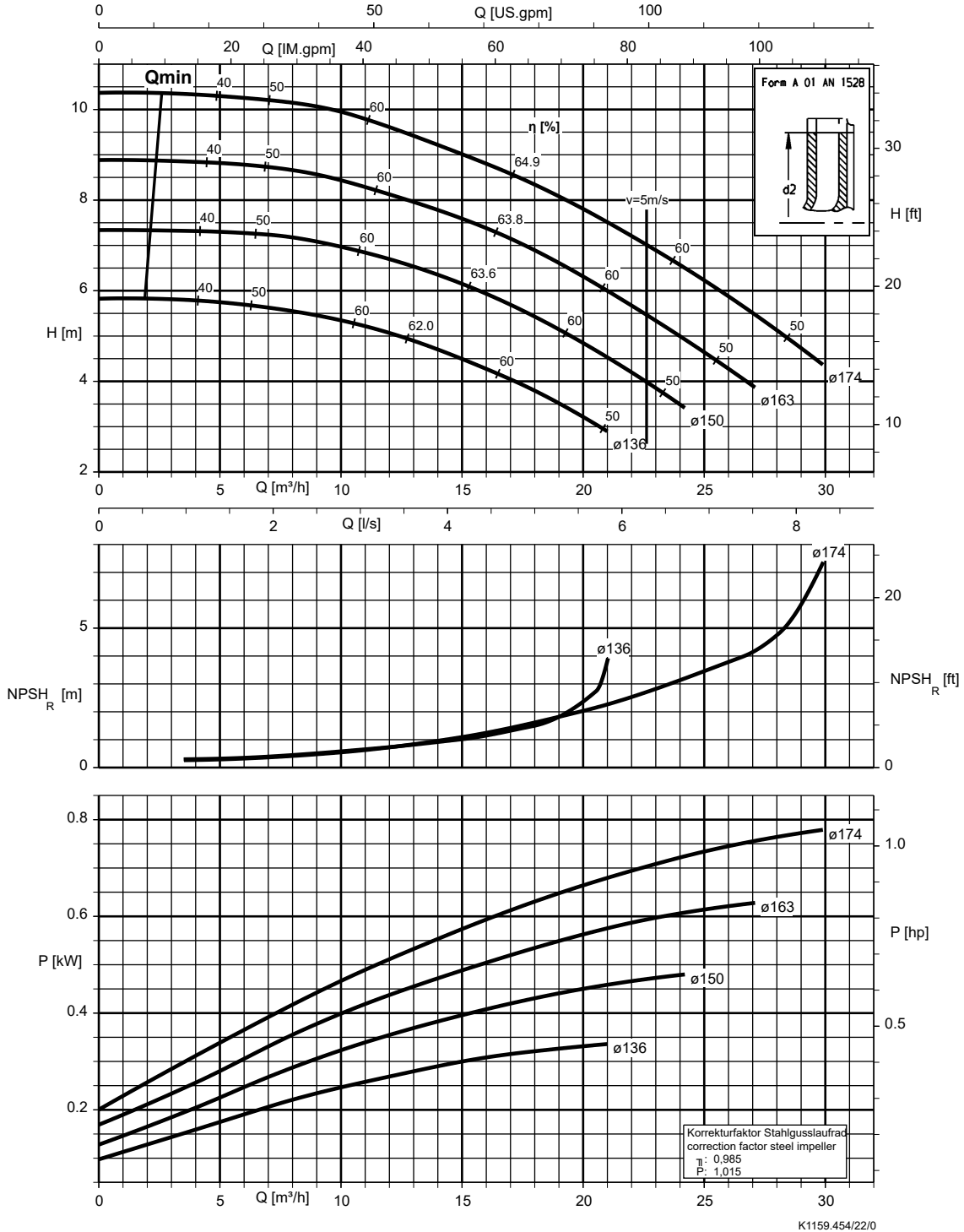
1159.5/07-EN

**Etaline 032-032-200, n = 1450 rpm**



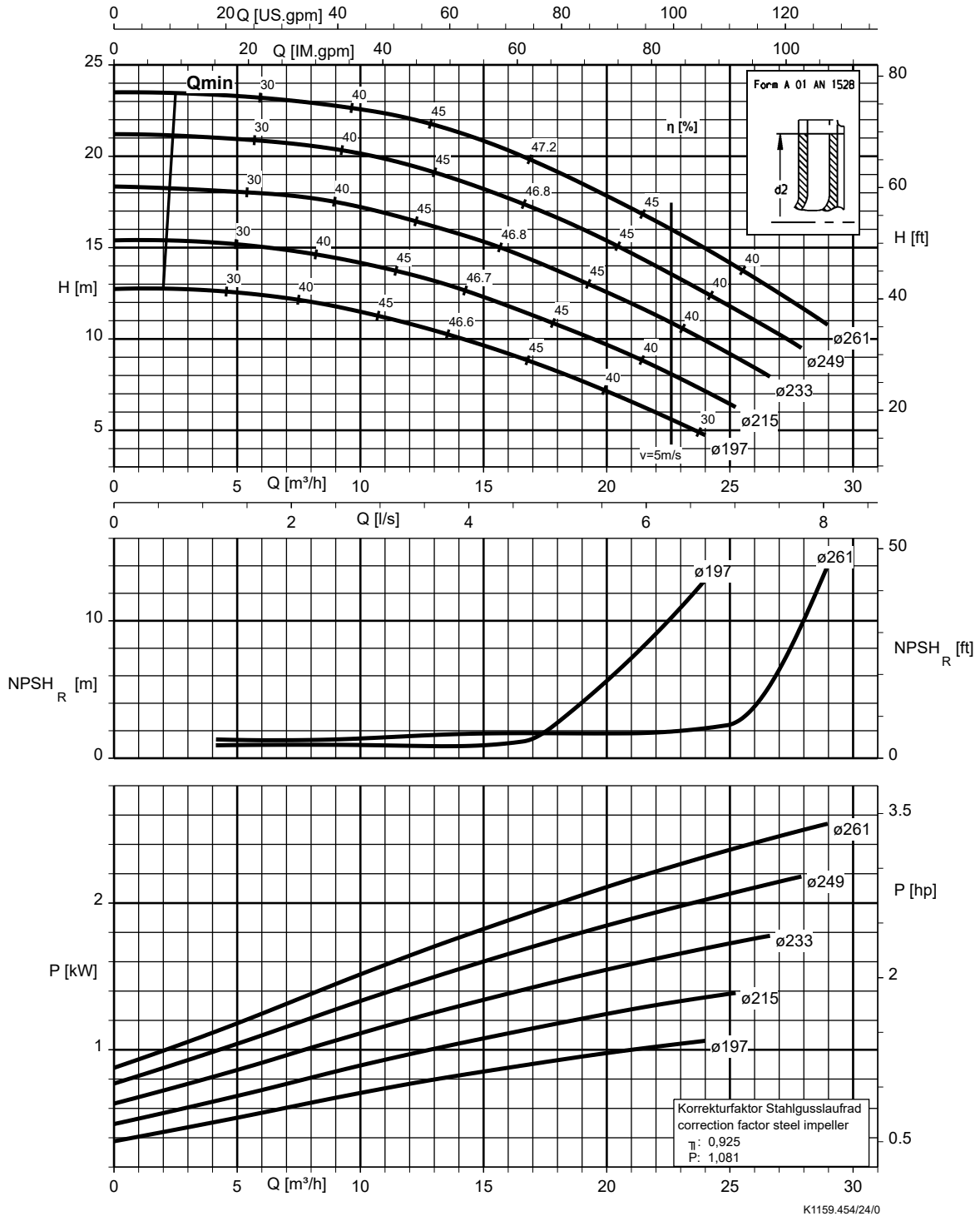
K1159.454/19/0

**Etaline 040-040-160, n = 1450 rpm**

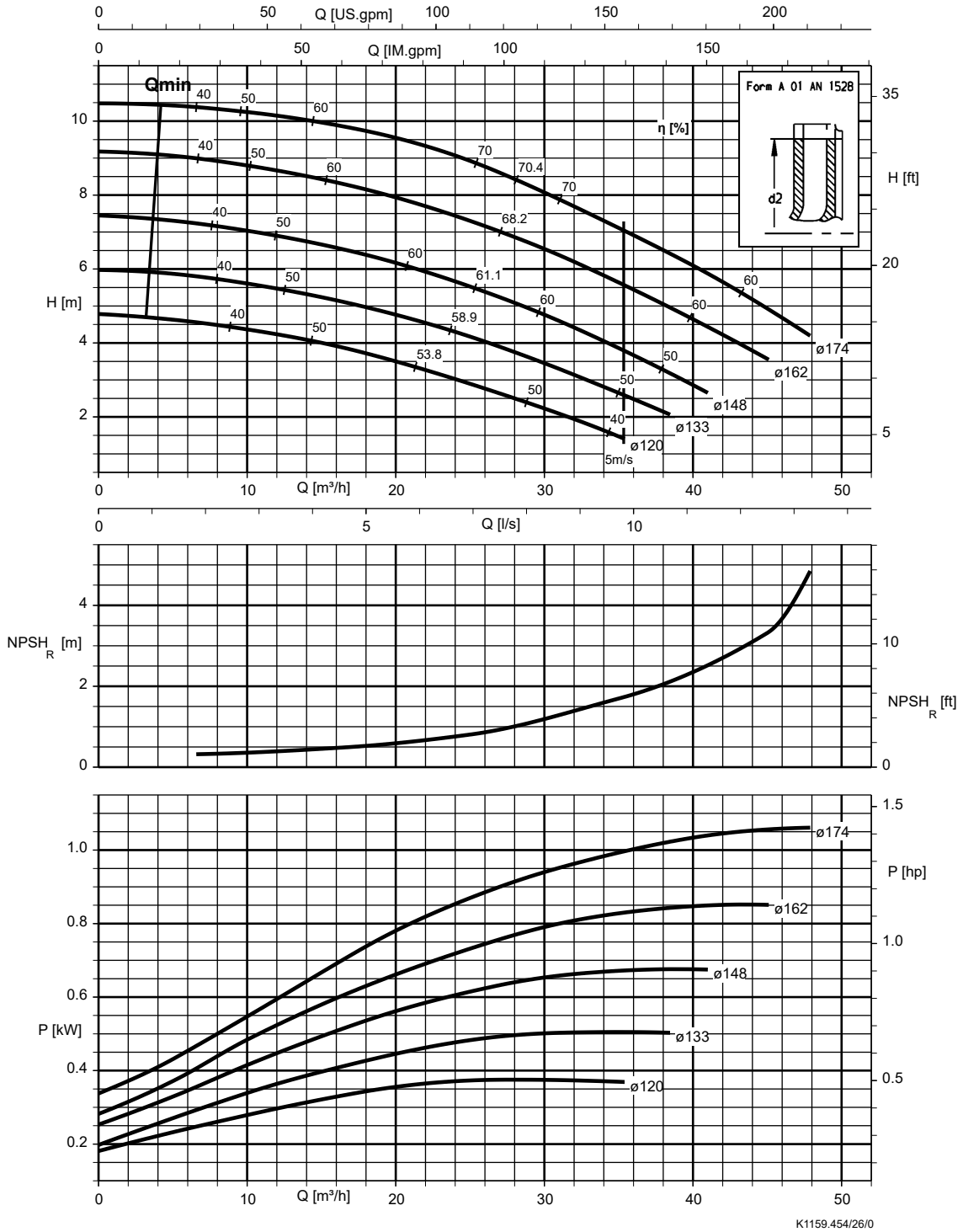


1159.5/07-EN

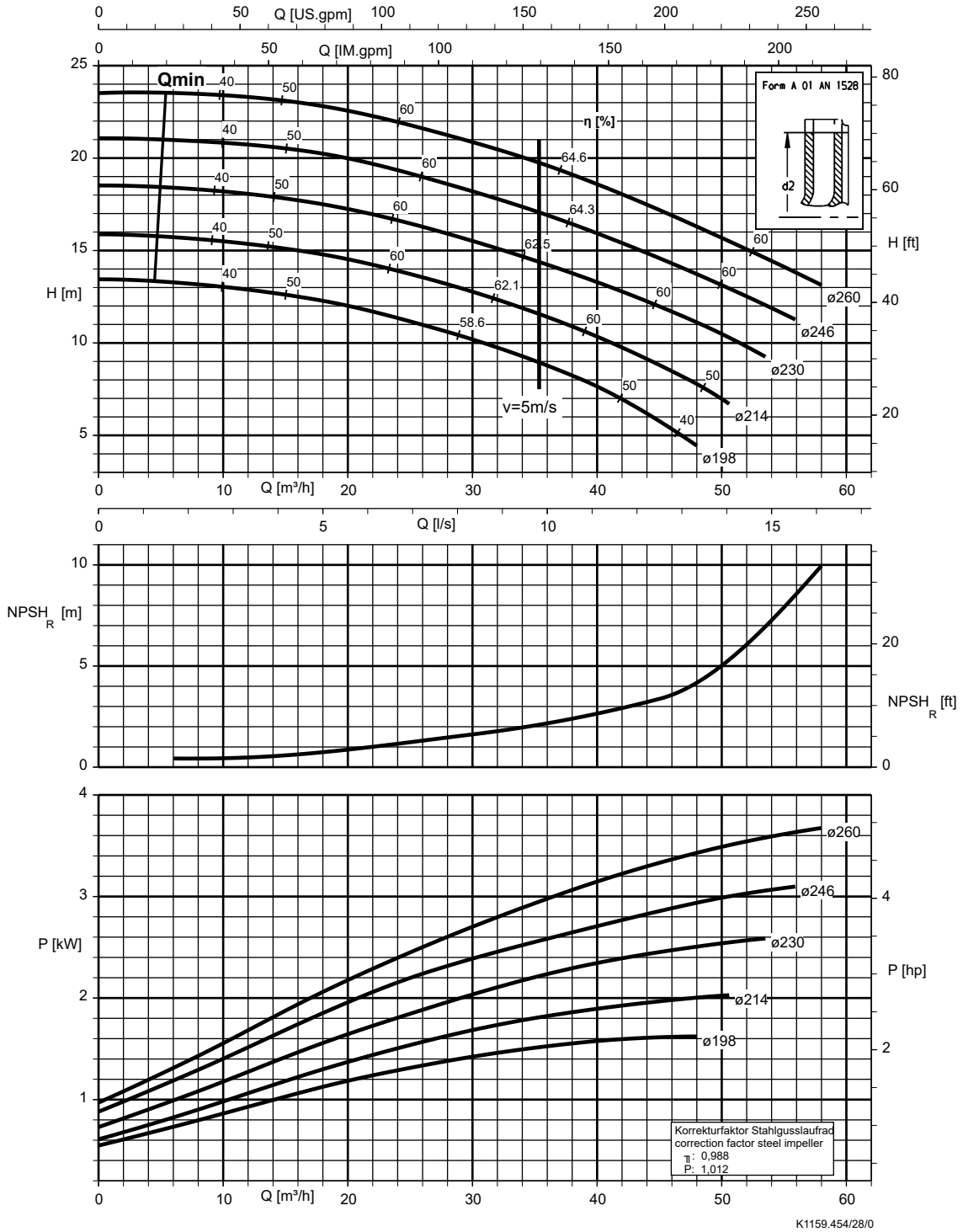
**Etaline 040-040-250, n = 1450 rpm**



**Etaline 050-050-160, n = 1450 rpm**

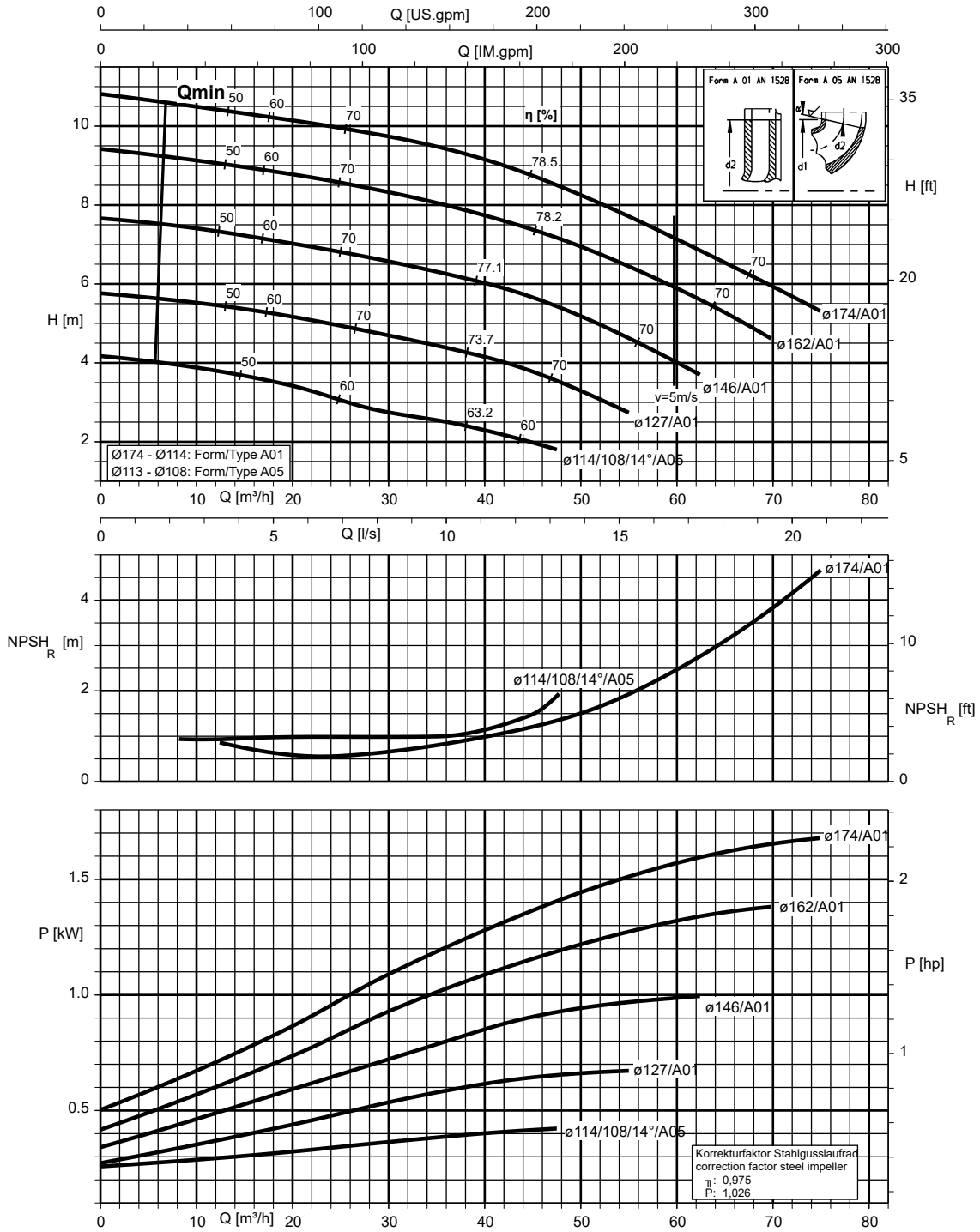


**Etaline 050-050-250, n = 1450 rpm**



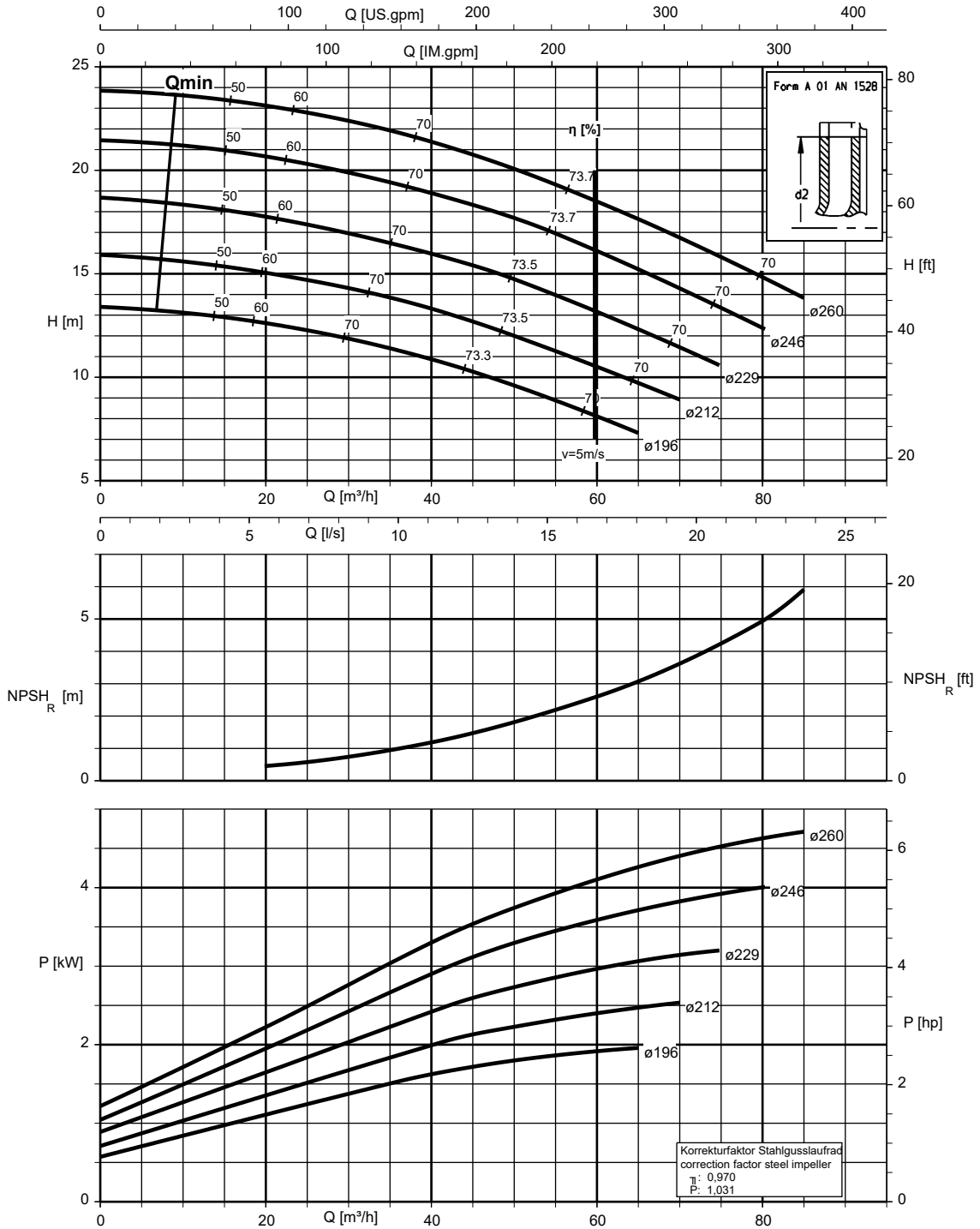


**Etaline 065-065-160, n = 1450 rpm**



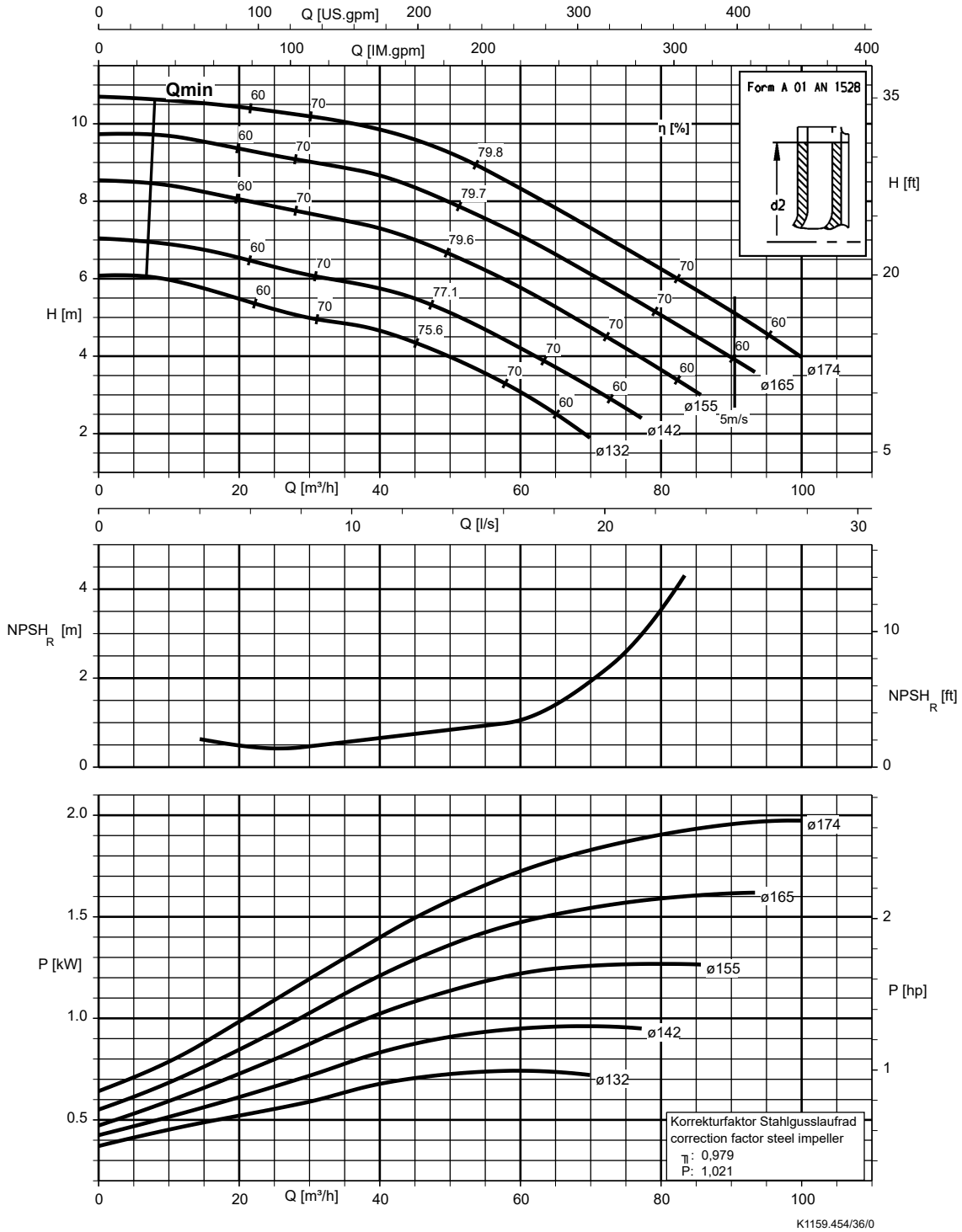
K1159.454/31/0

**Etaline 065-065-250, n = 1450 rpm**

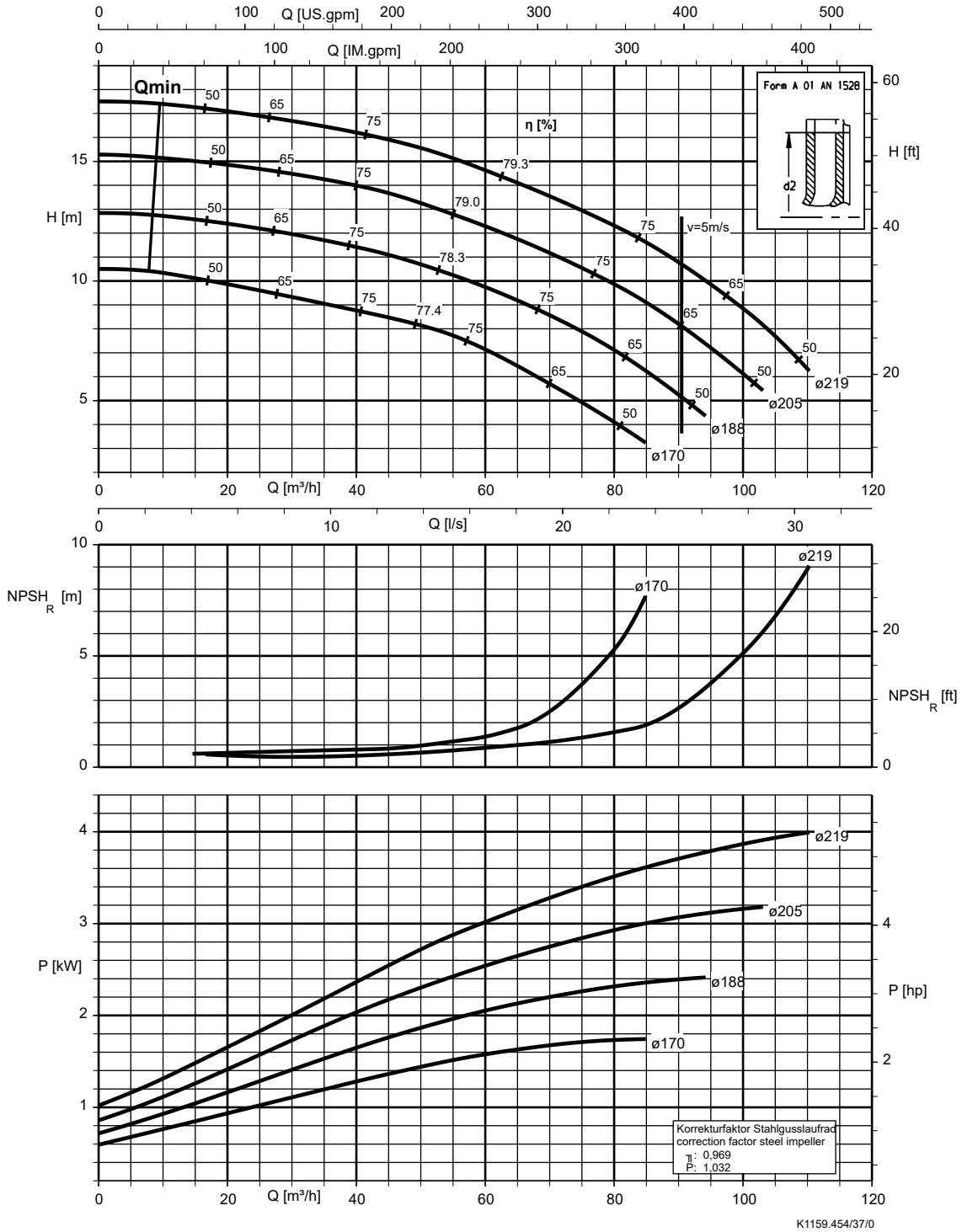


K1159.454/33/0

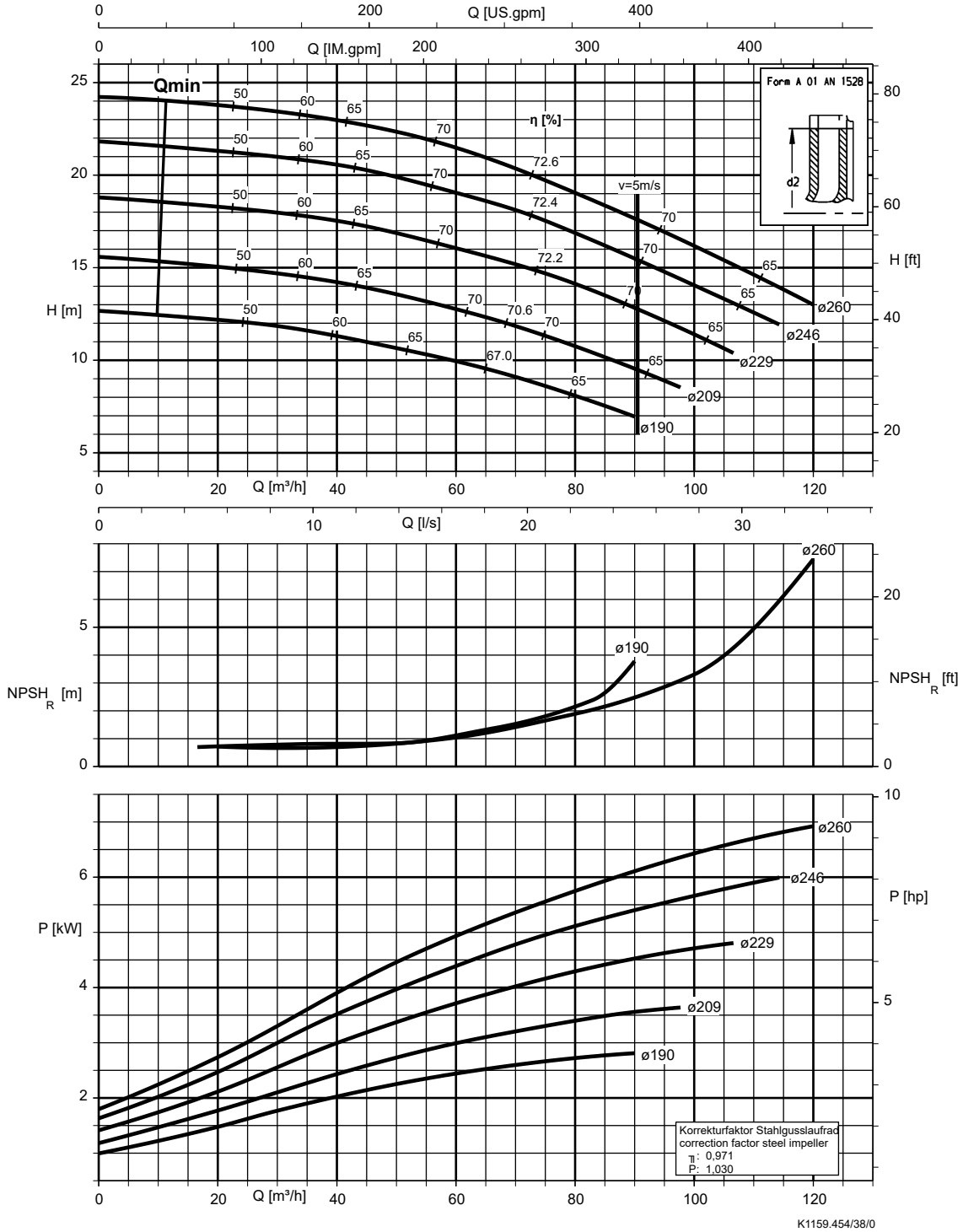
**Etaline 080-080-160, n = 1450 rpm**



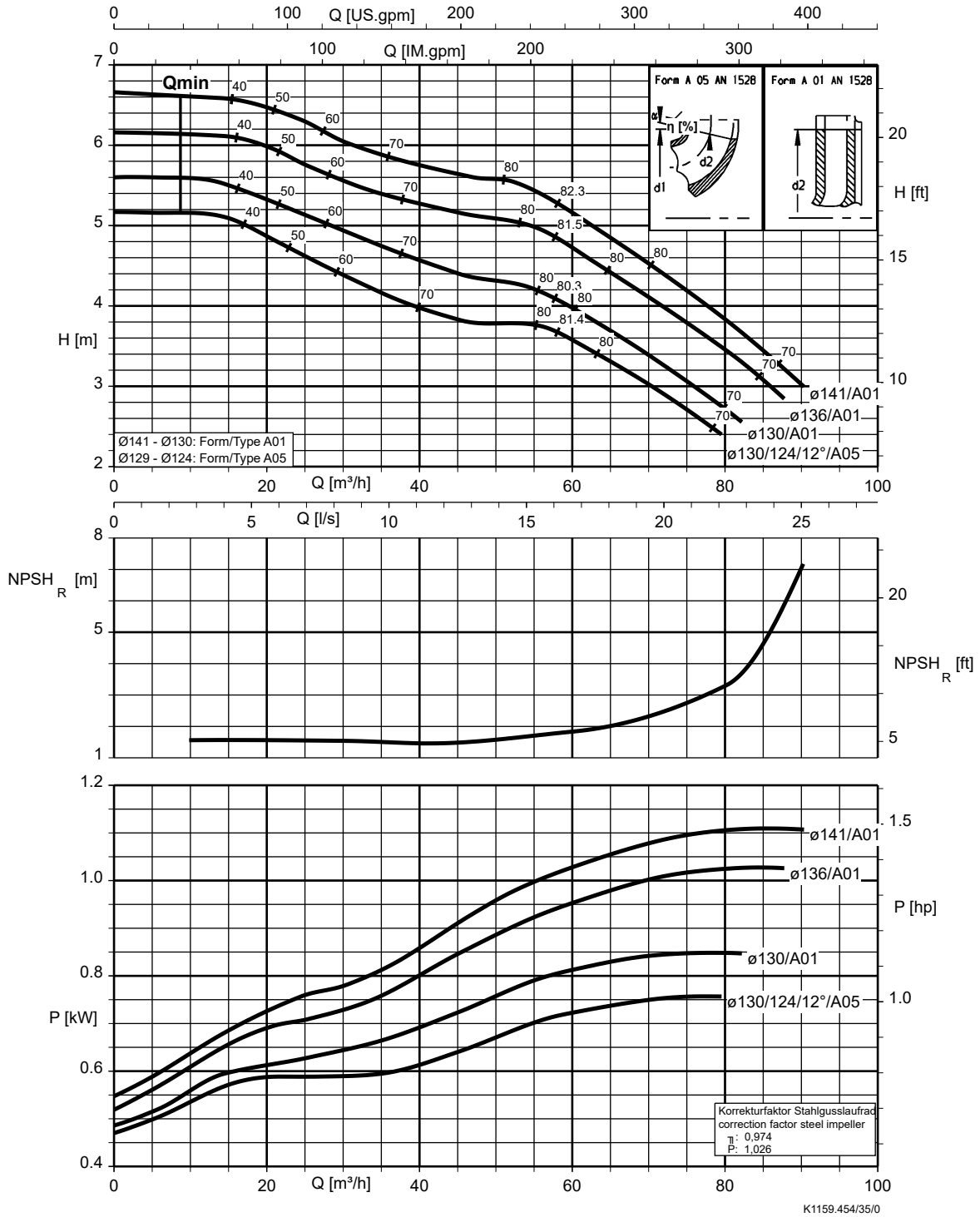
**Etaline 080-080-200, n = 1450 rpm**



**Etaline 080-080-250, n = 1450 rpm**

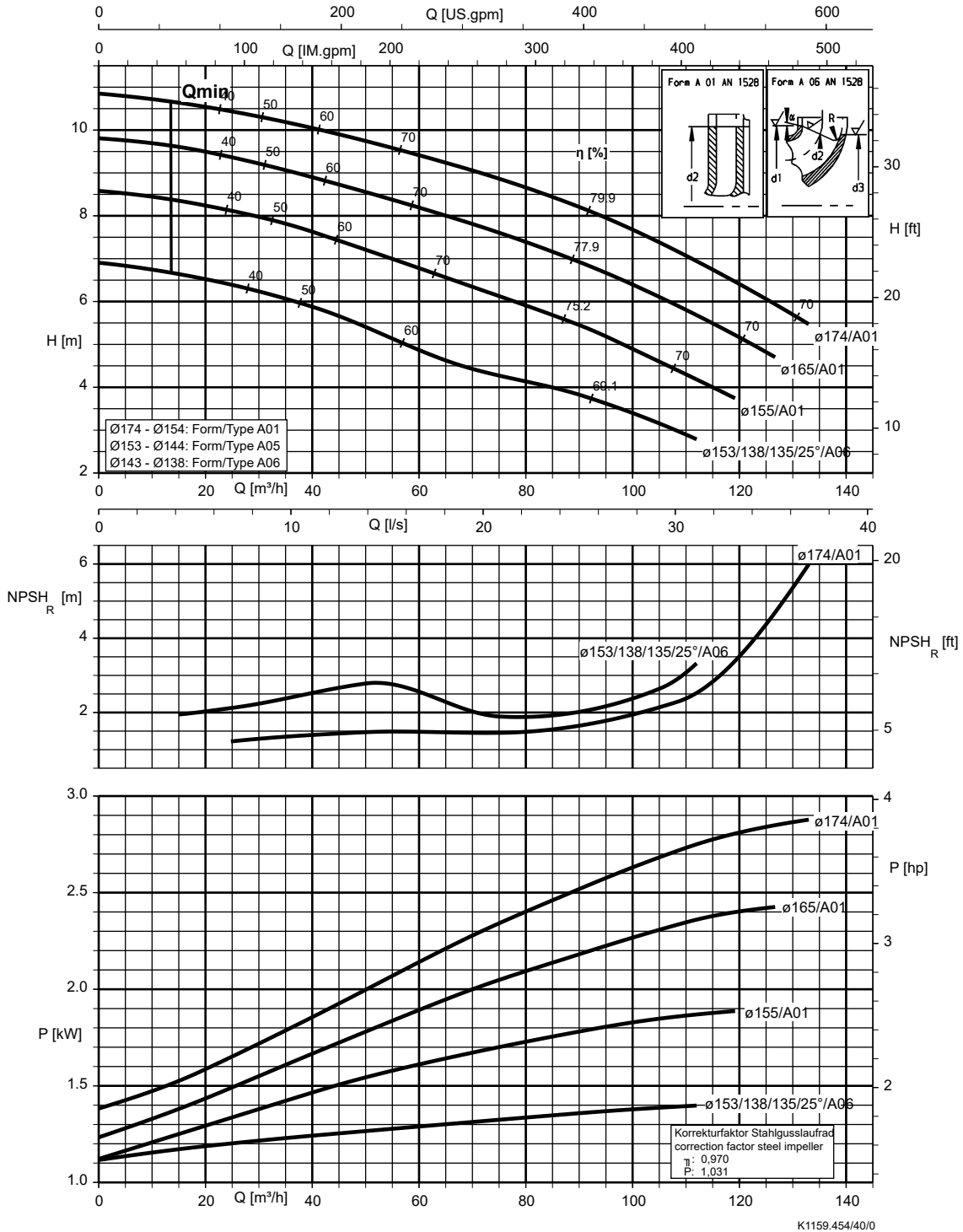


**Etaline 100-100-125, n = 1450 rpm**



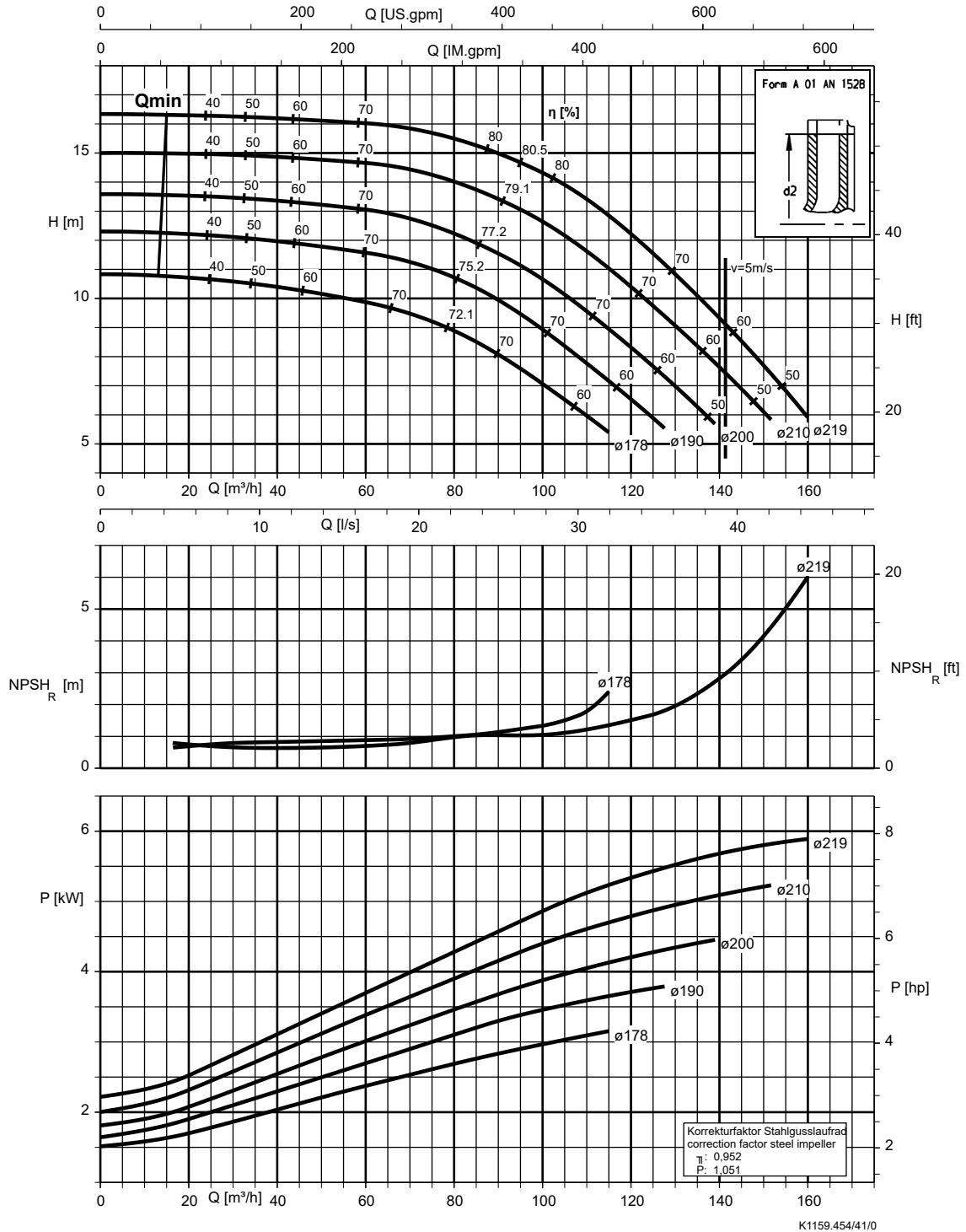
K1159.454/35/0

**Etaline 100-100-160, n = 1450 rpm**



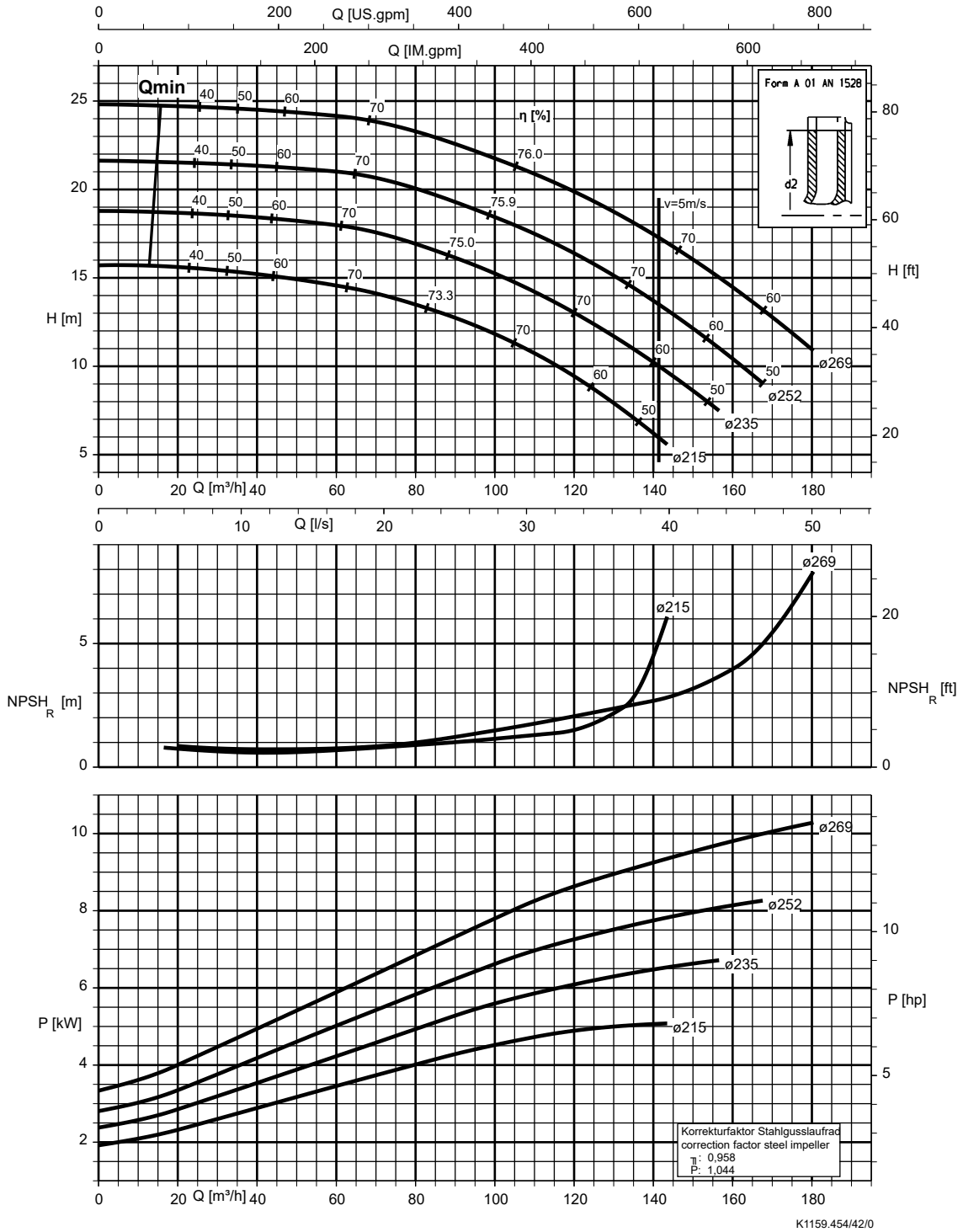
K1159.454/40/0

**Etaline 100-100-200, n = 1450 rpm**



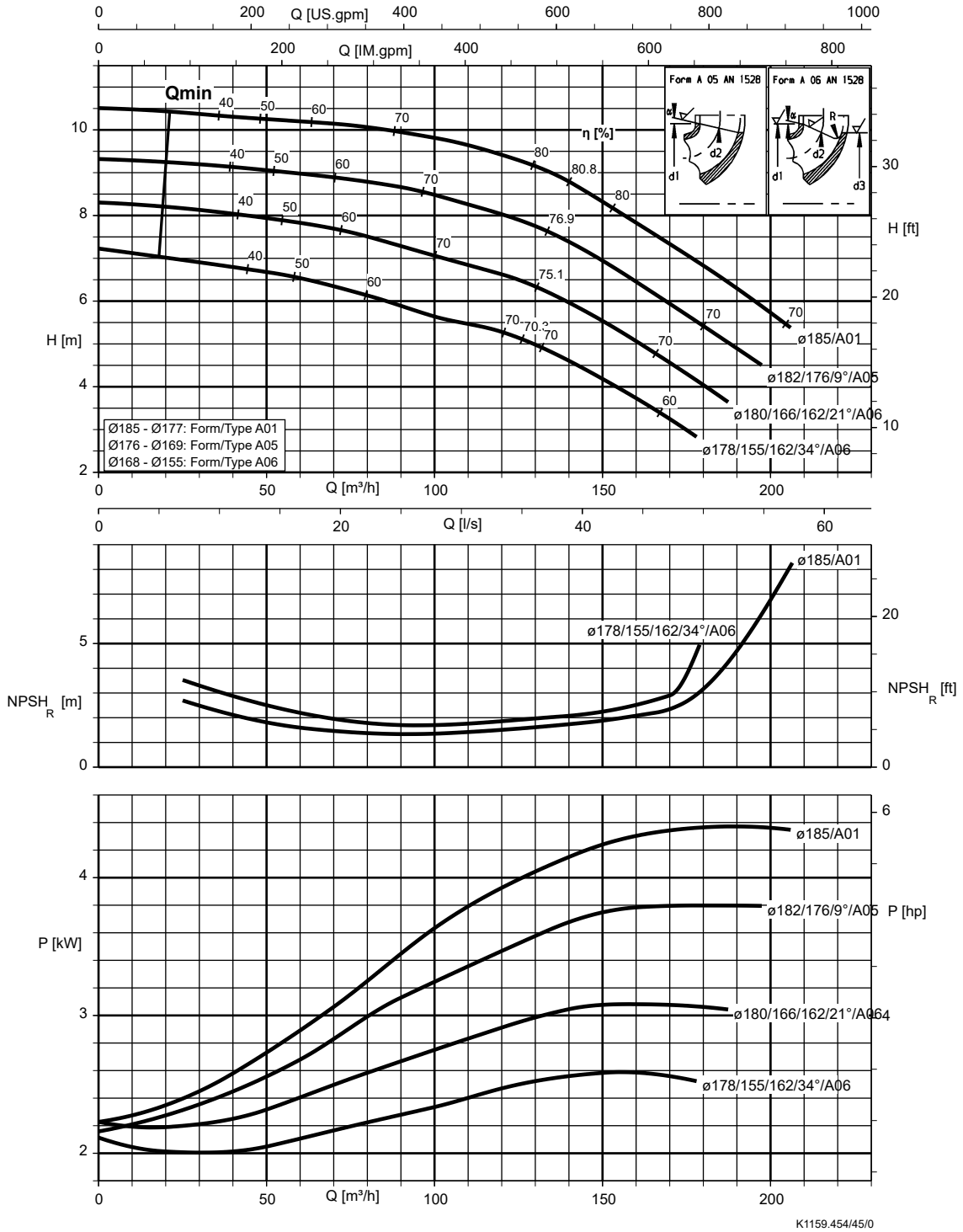


**Etaline 100-100-250, n = 1450 rpm**

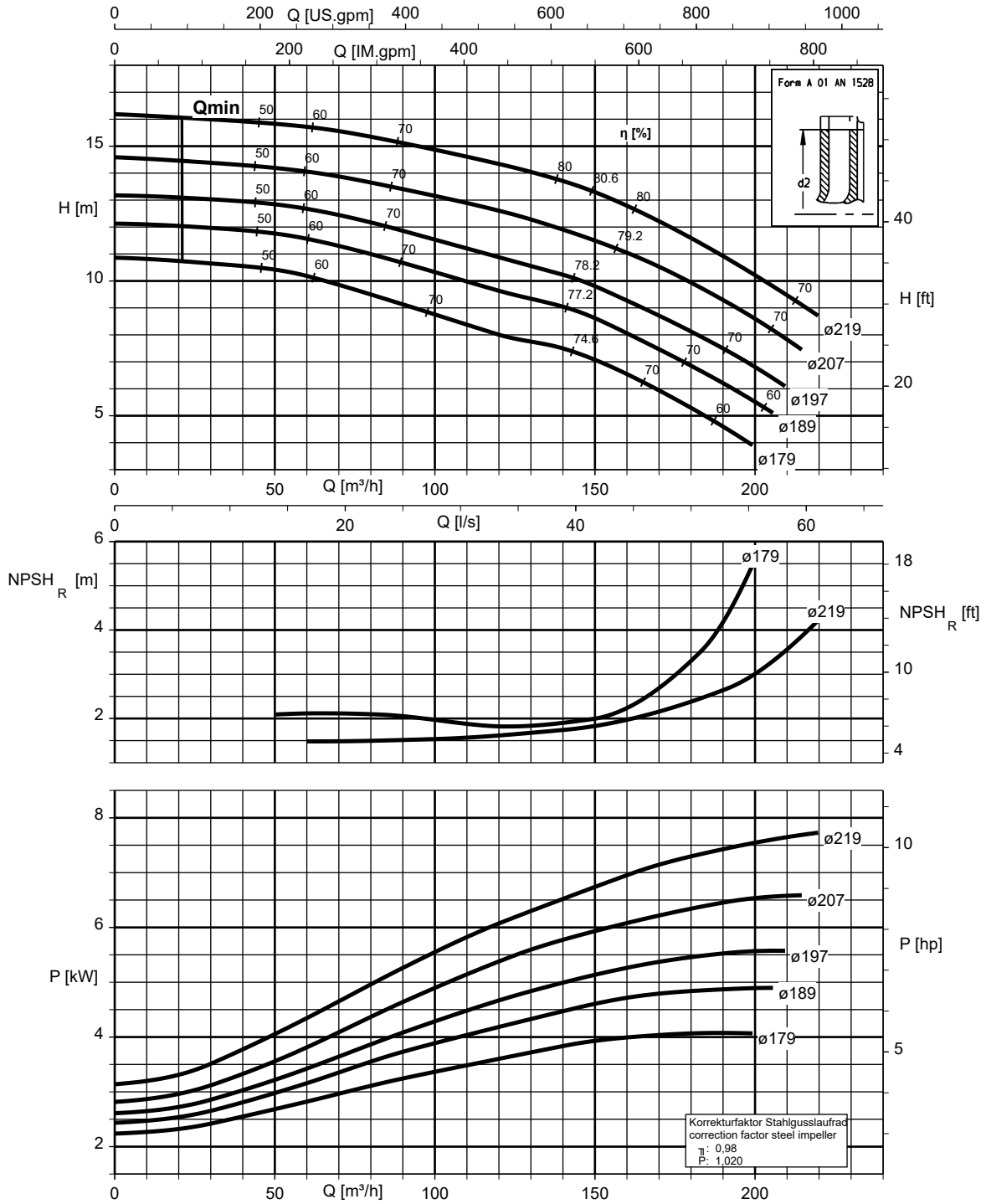


1159.5/07-EN

**Etaline 125-125-160, n = 1450 rpm**

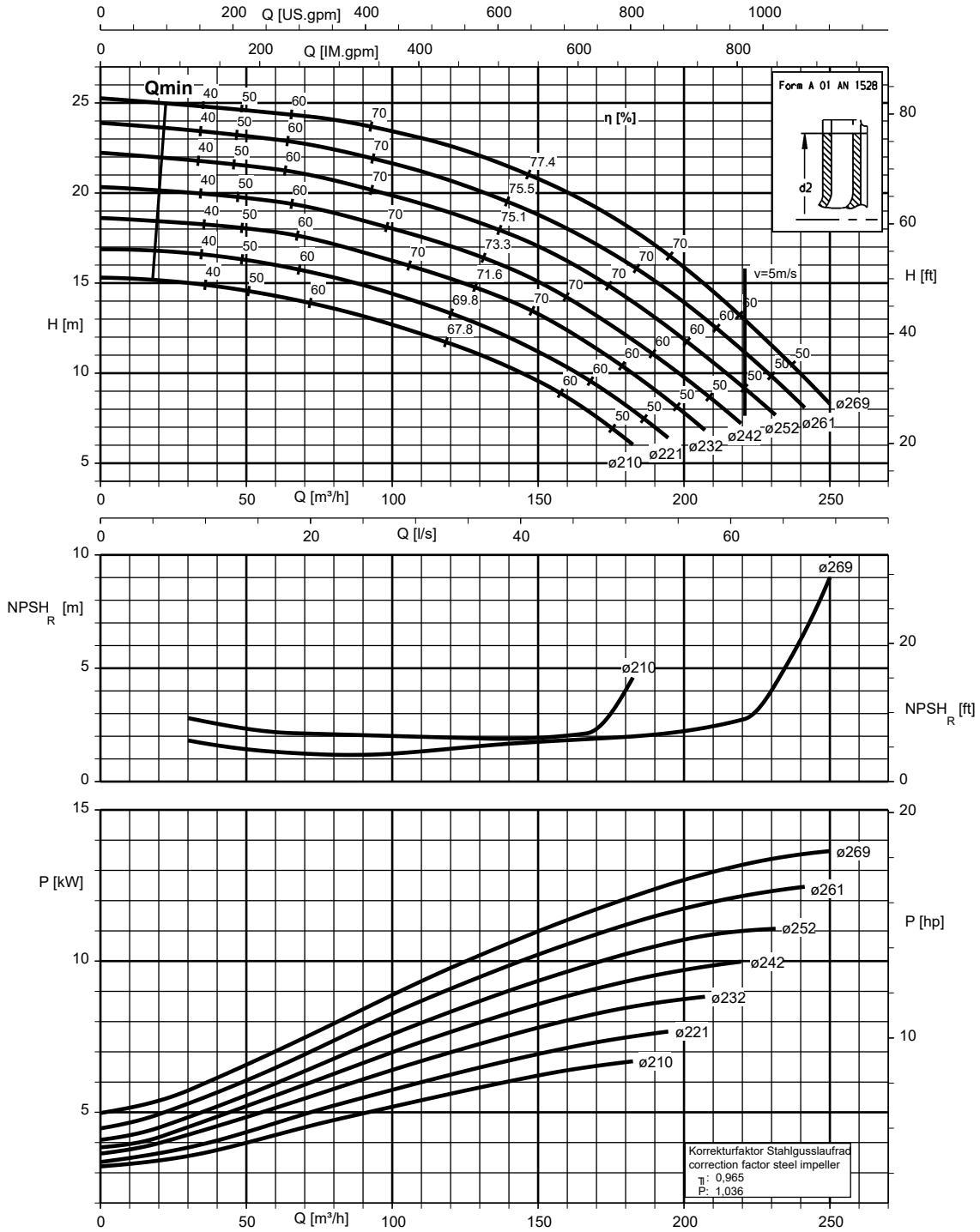


**Etaline 125-125-200, n = 1450 rpm**

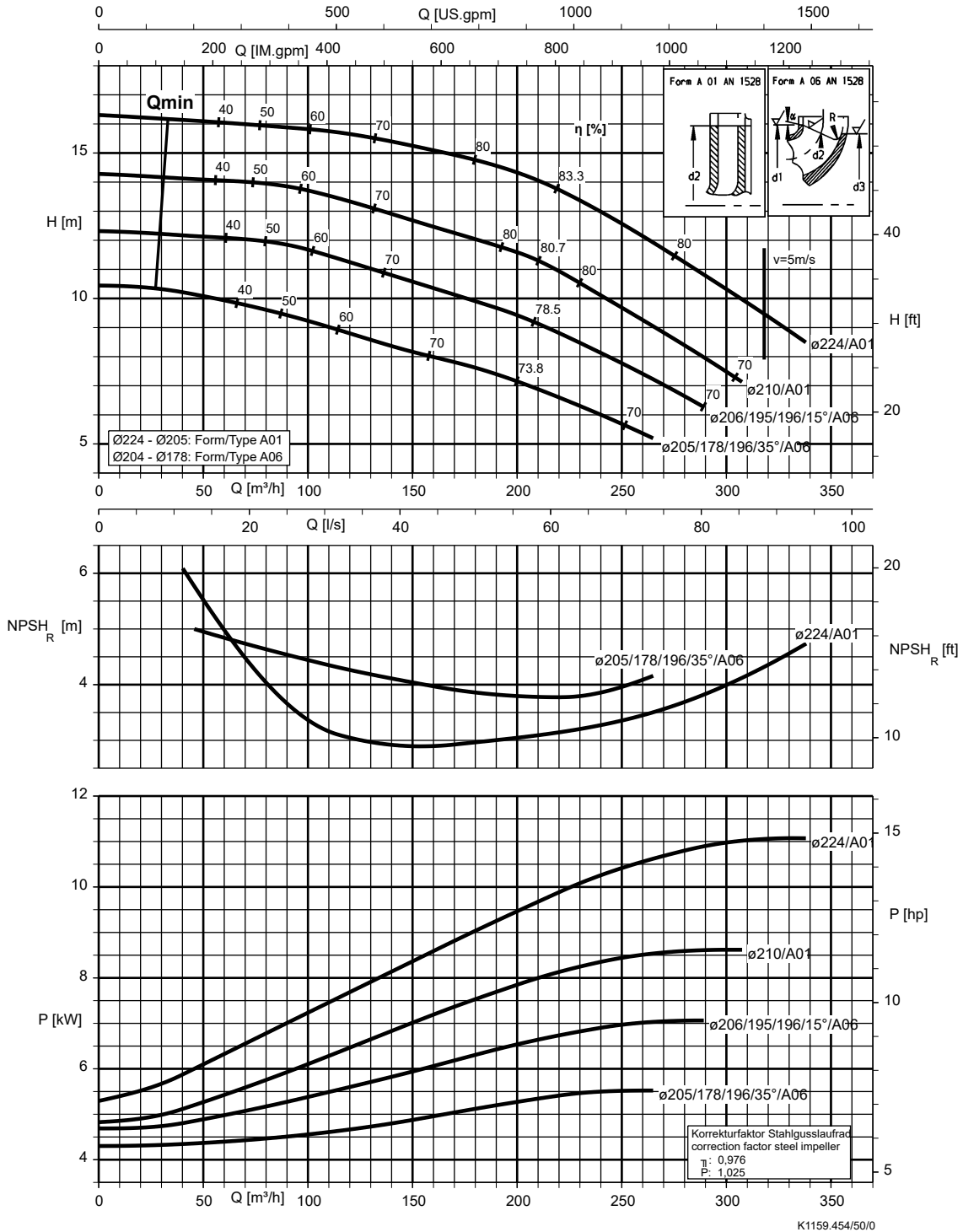


K1159.454/46/0

**Etaline 125-125-250, n = 1450 rpm**

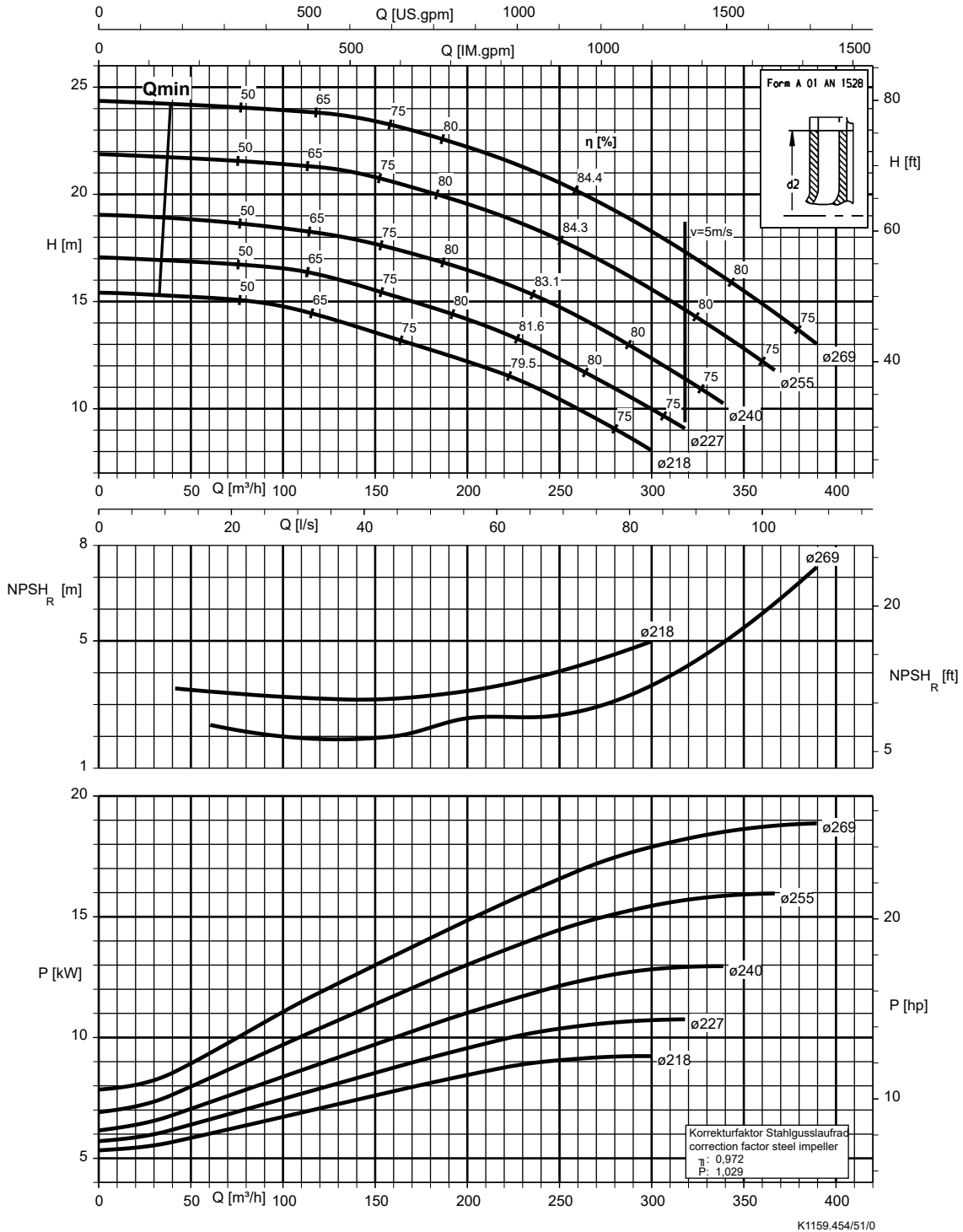


**Etaline 150-150-200, n = 1450 rpm**



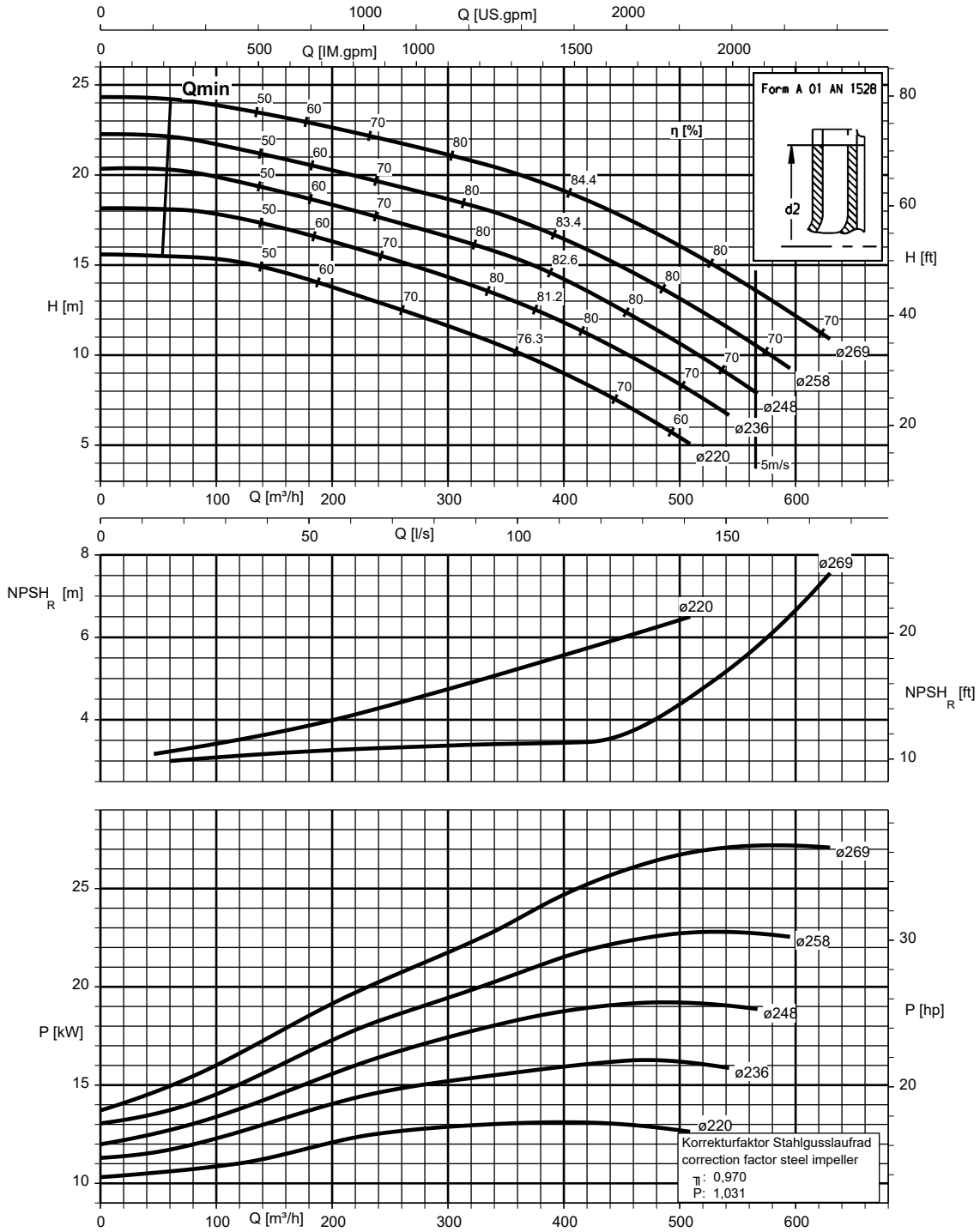
1159.5/07-EN

Etaline 150-150-250, n = 1450 rpm



K1159.454/51/0

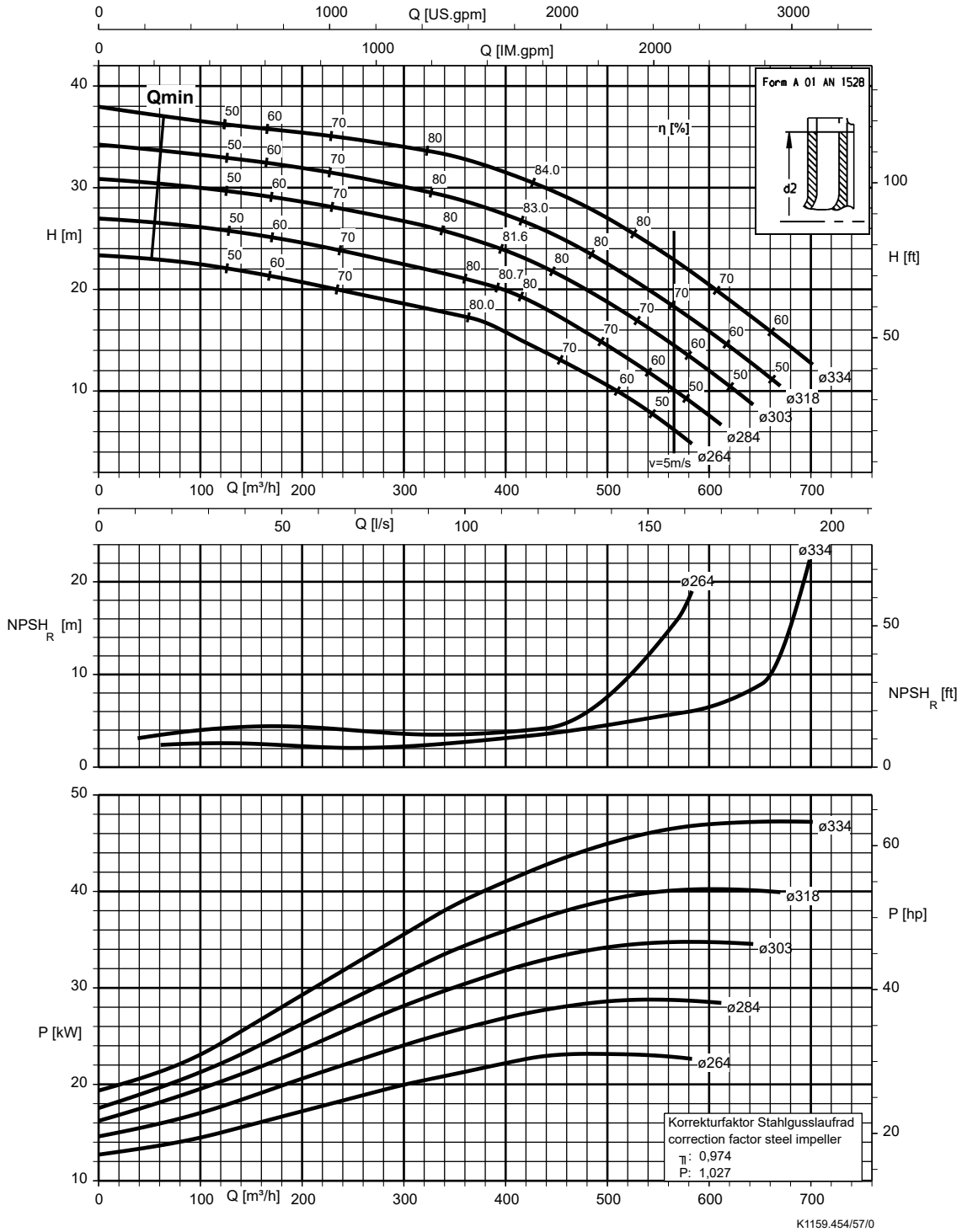
**Etaline 200-200-250, n = 1450 rpm**



K1159.454/56/0

1159.5/07-EN

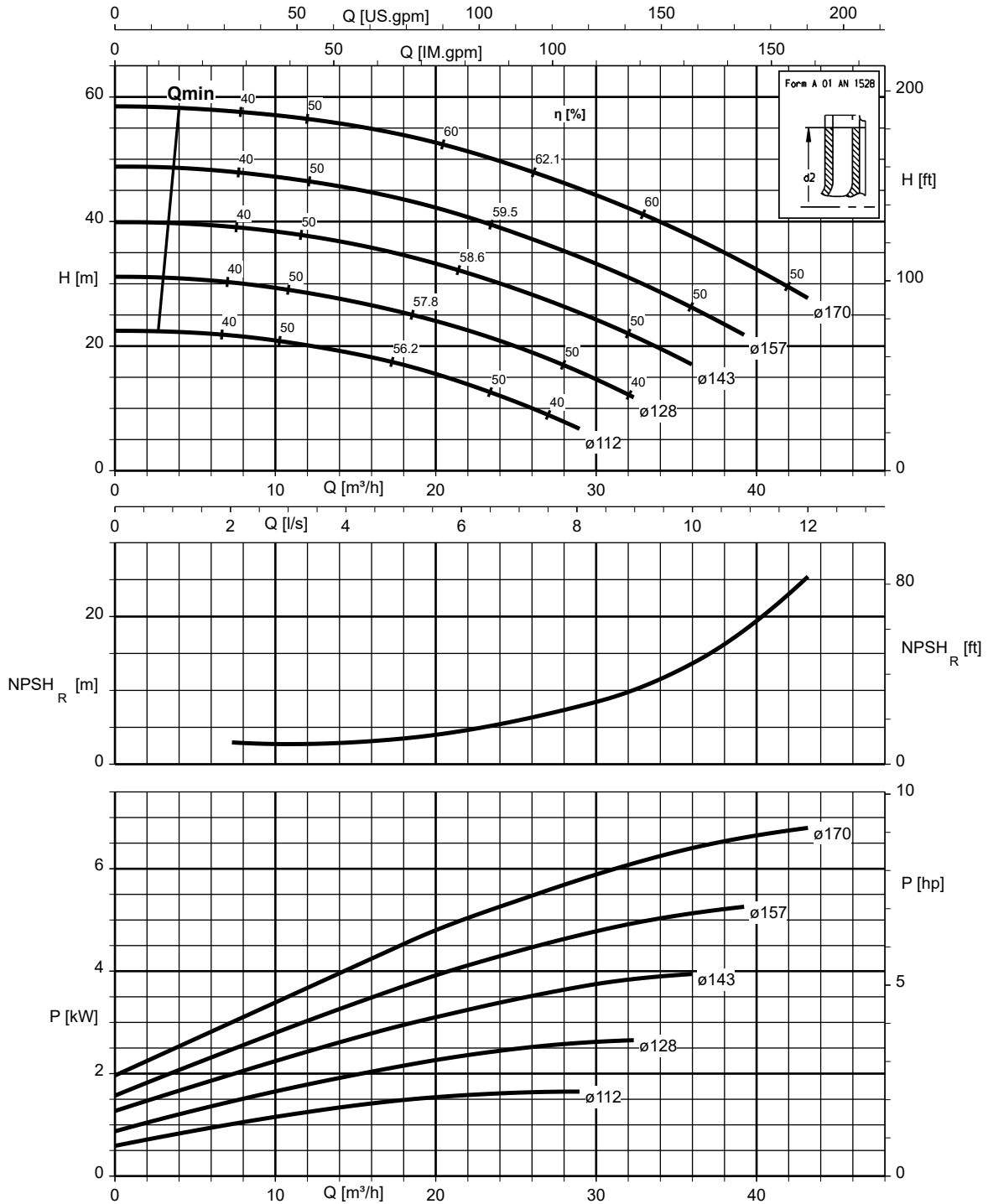
**Etaline 200-200-315, n = 1450 rpm**





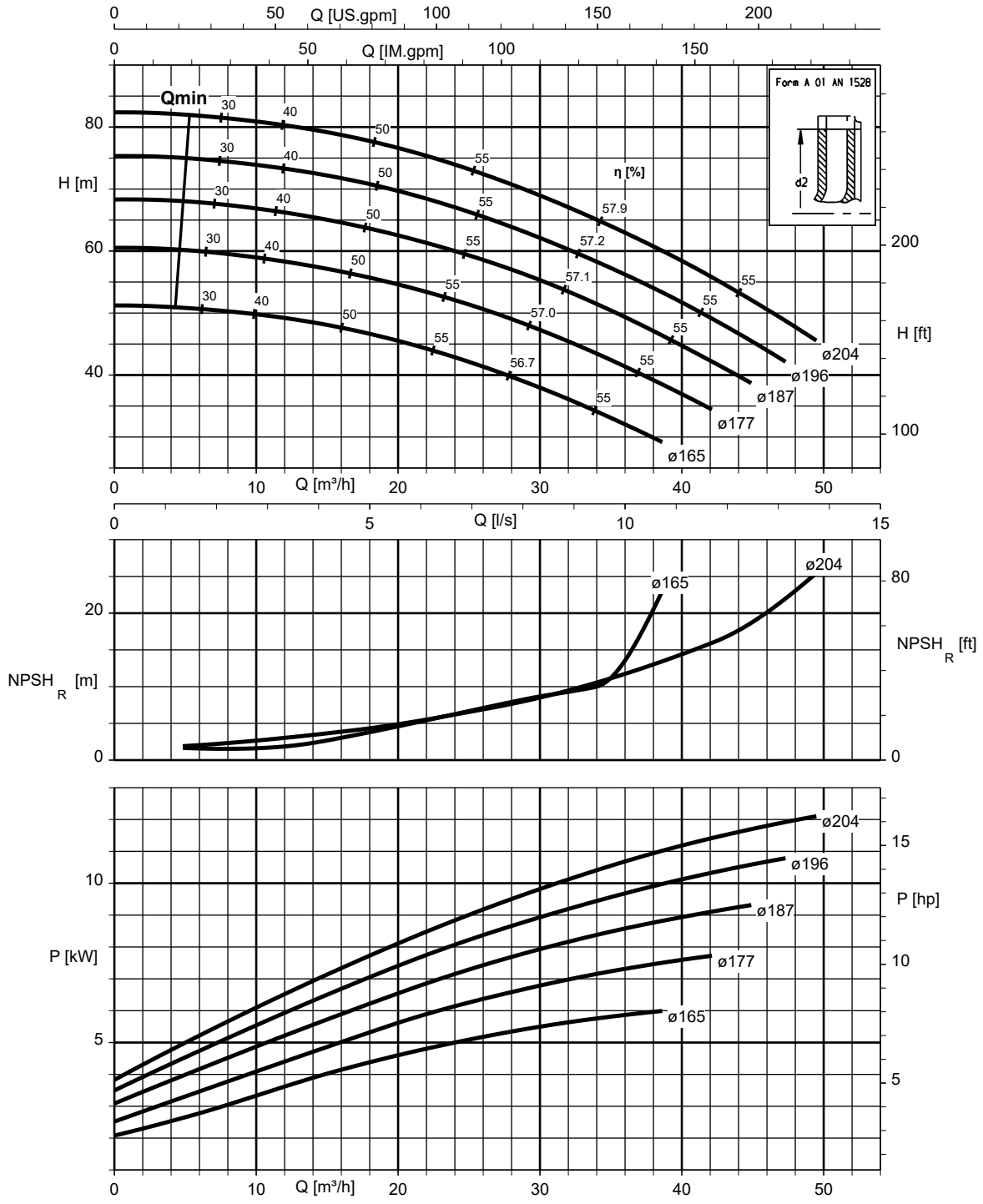
Etaline (fixed speed version), n = 3500 rpm

Etaline 032-032-160, n = 3500 rpm



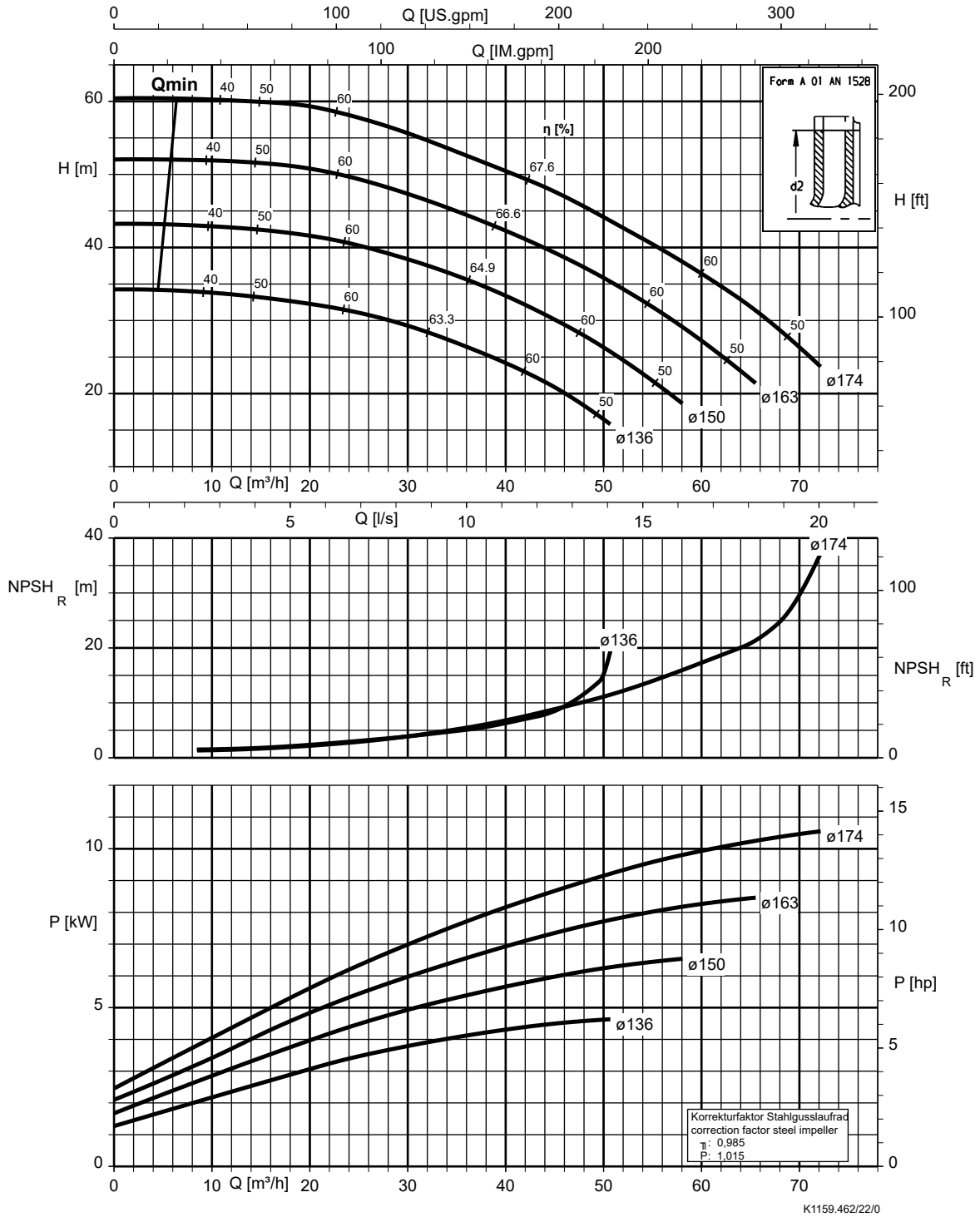
K1159.462/18/0

**Etaline 032-032-200, n = 3500 rpm**

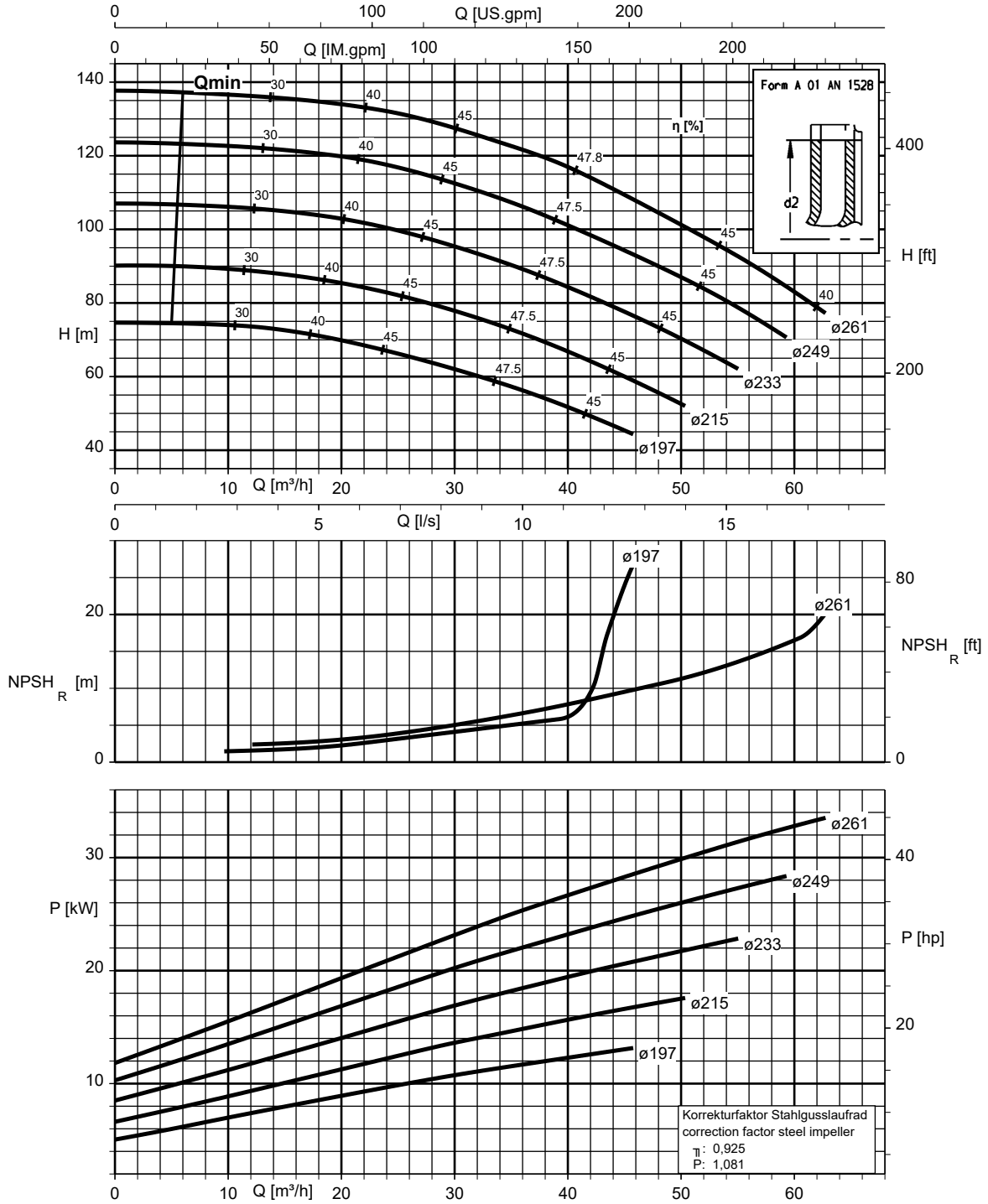


K1159.462/19/0

**Etaline 040-040-160, n = 3500 rpm**



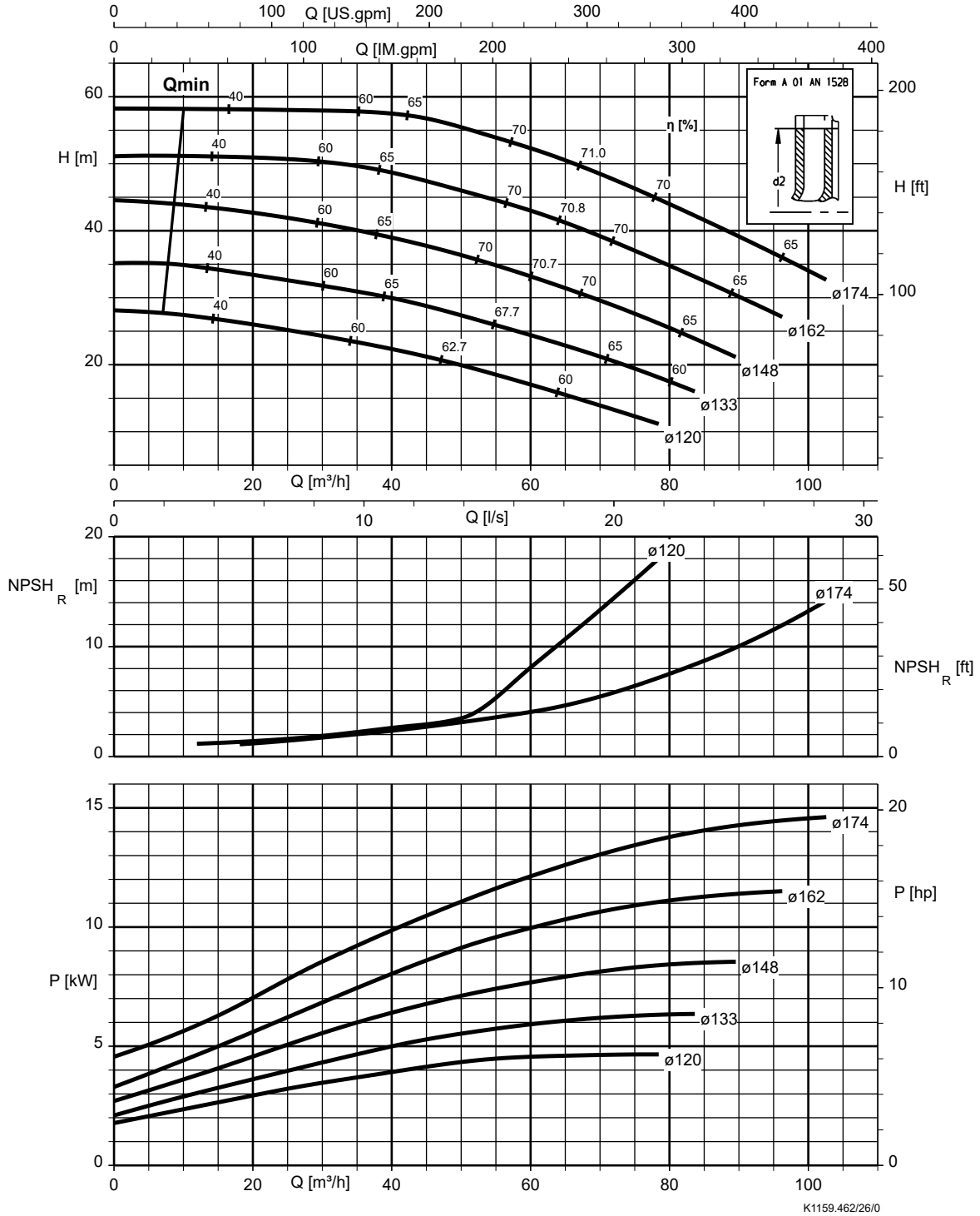
**Etaline 040-040-250, n = 3500 rpm**



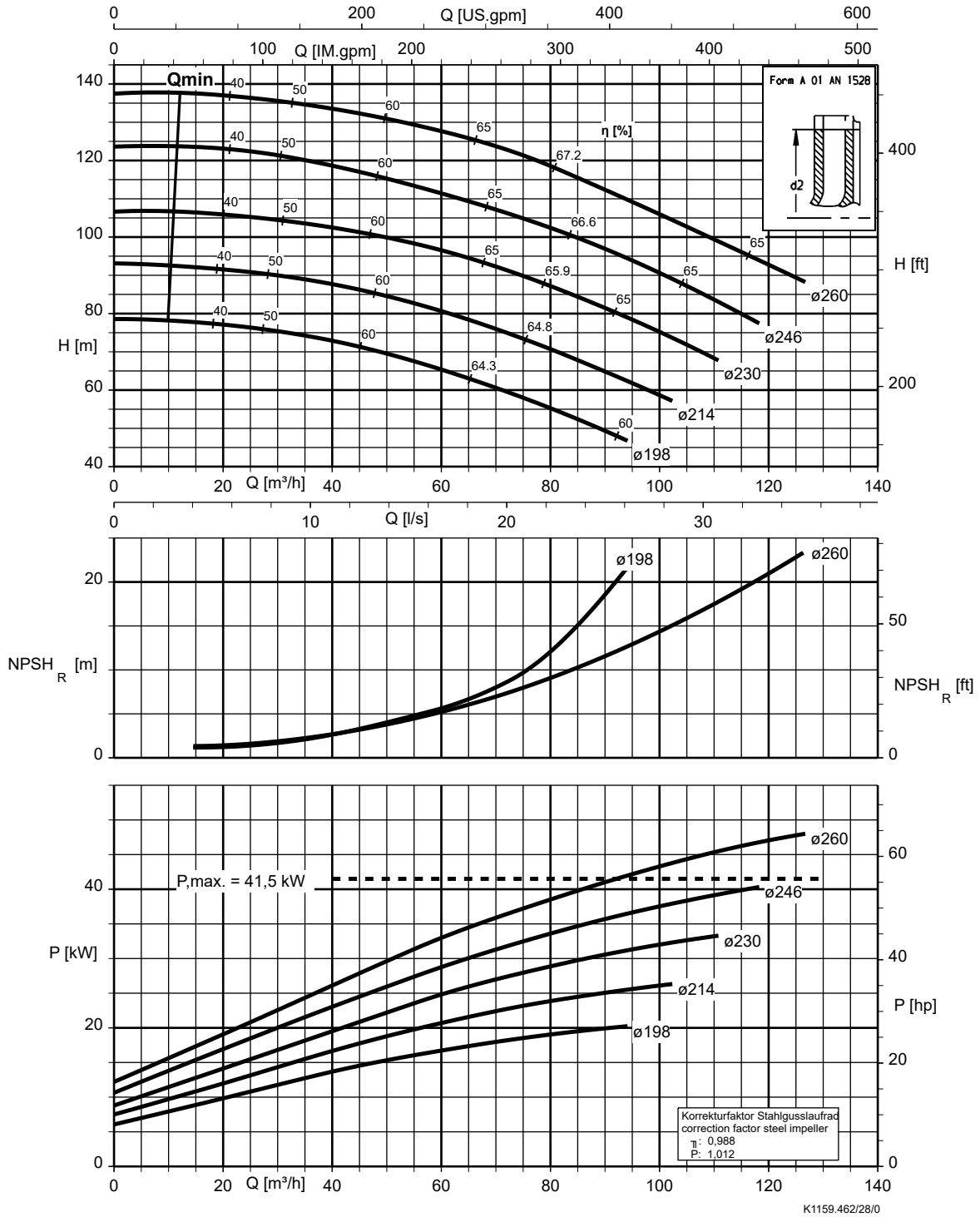
K1159.462/24/0

1159.5/07-EN

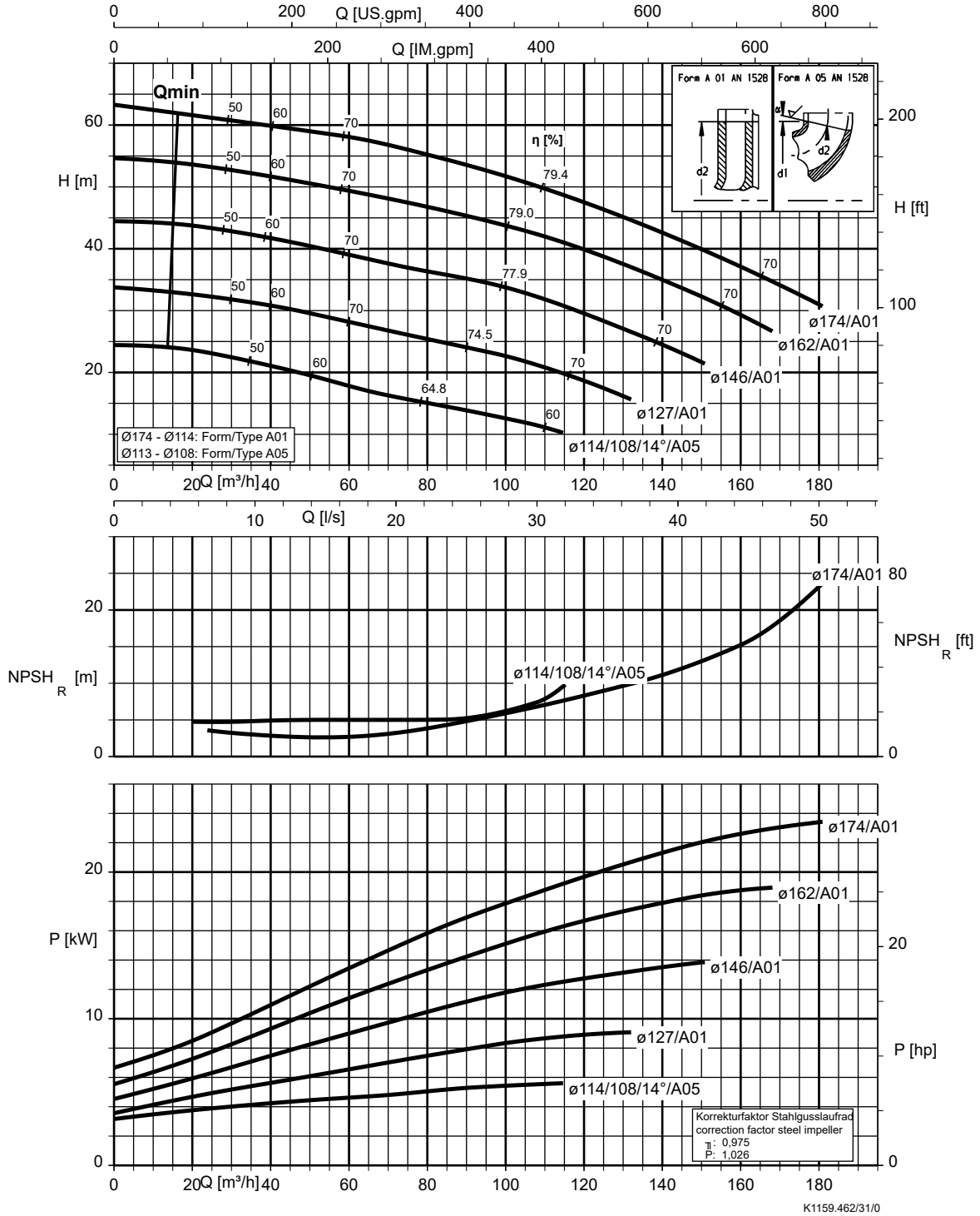
**Etaline 050-050-160, n = 3500 rpm**



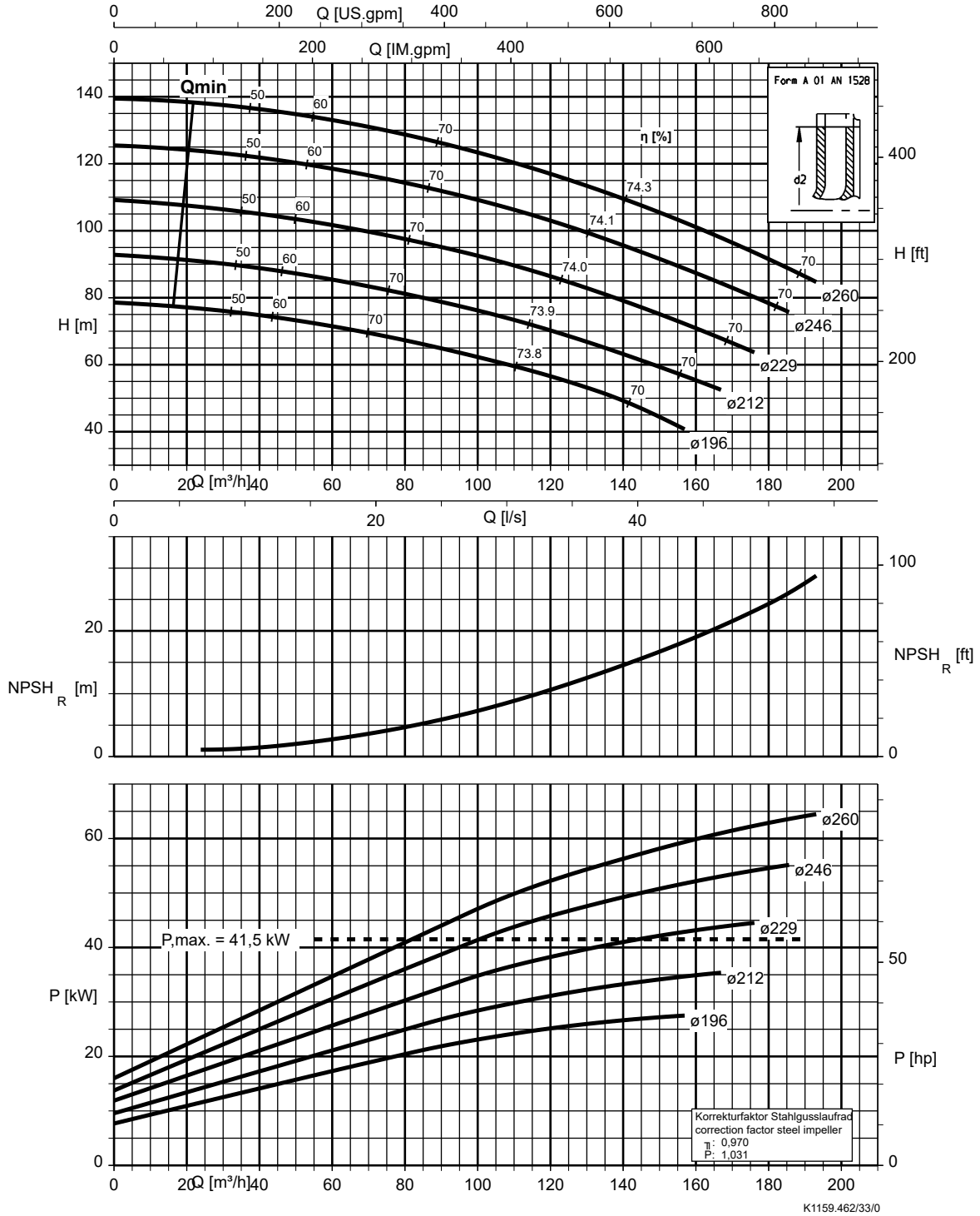
**Etaline 050-050-250, n = 3500 rpm**



**Etaline 065-065-160, n = 3500 rpm**

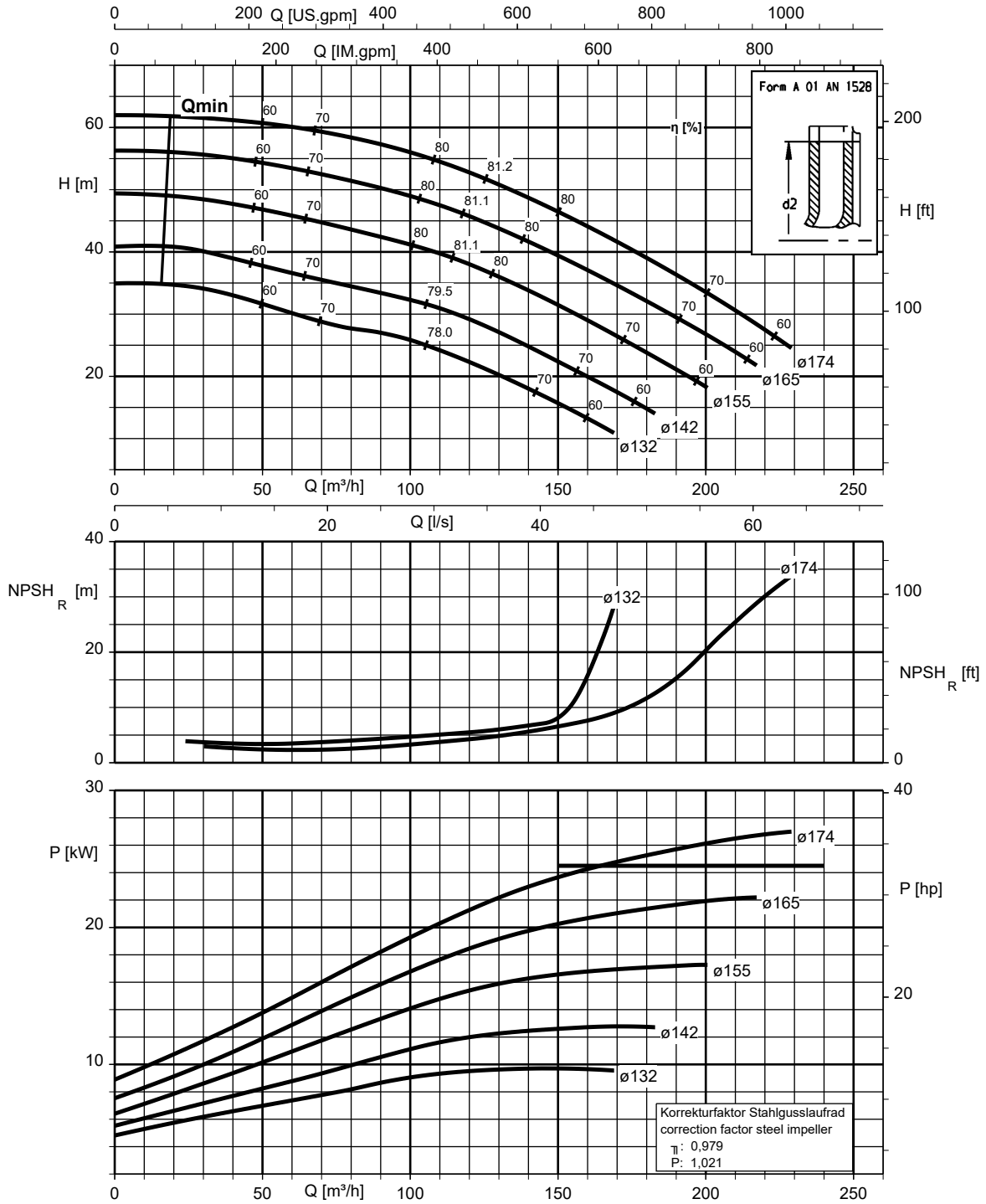


**Etaline 065-065-250, n = 3500 rpm**



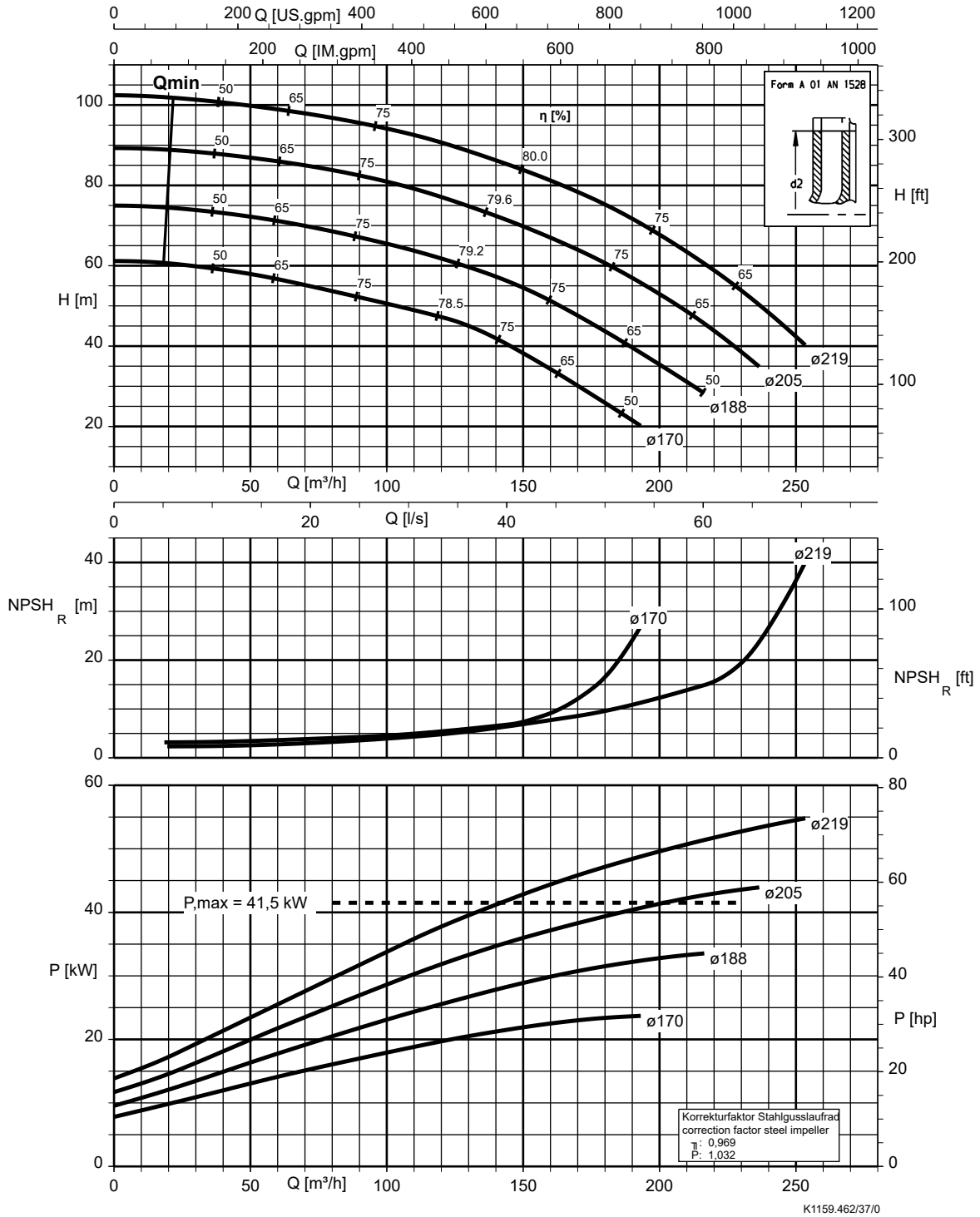


**Etaline 080-080-160, n = 3500 rpm**

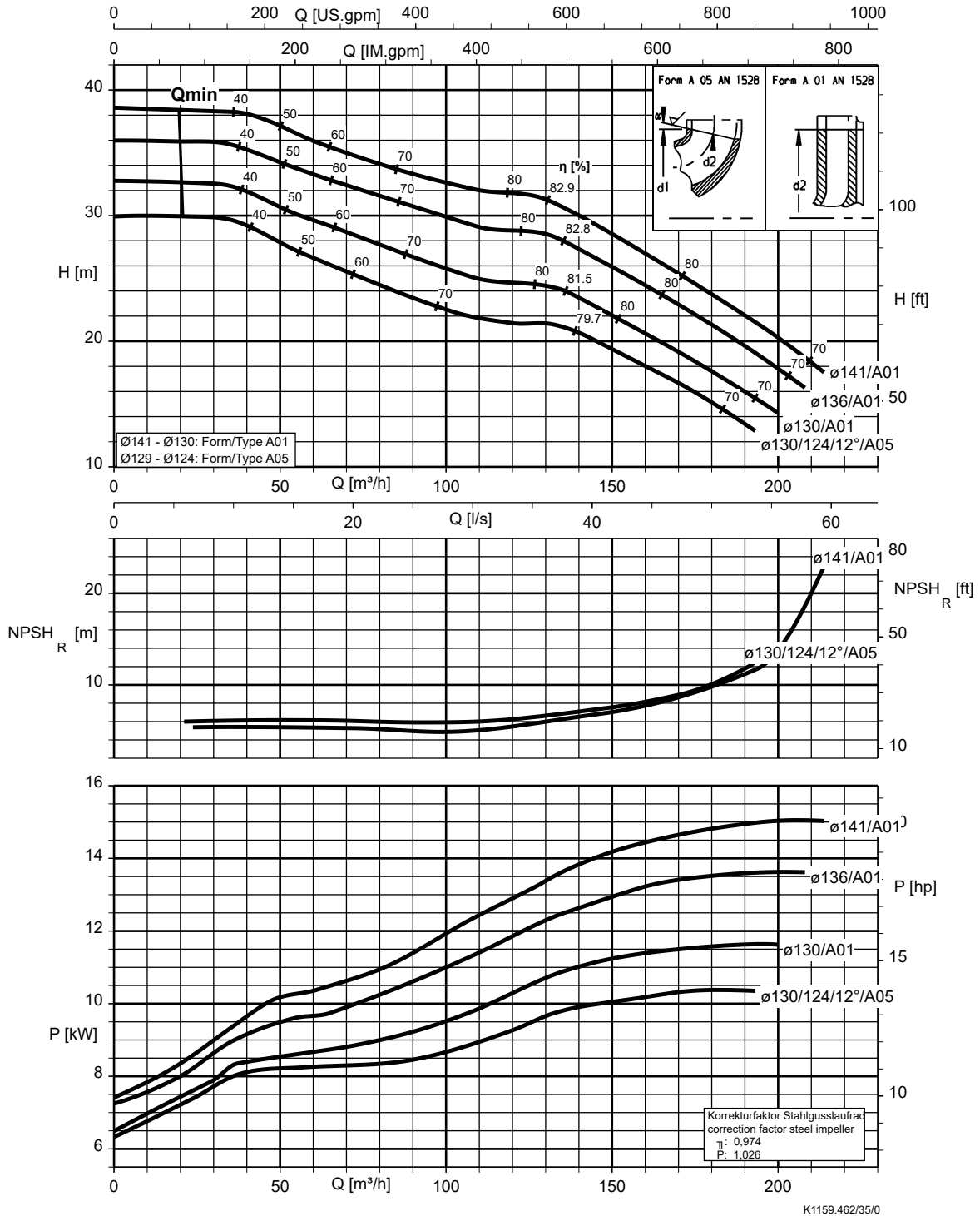


K1159.462/36/0

**Etaline 080-080-200, n = 3500 rpm**

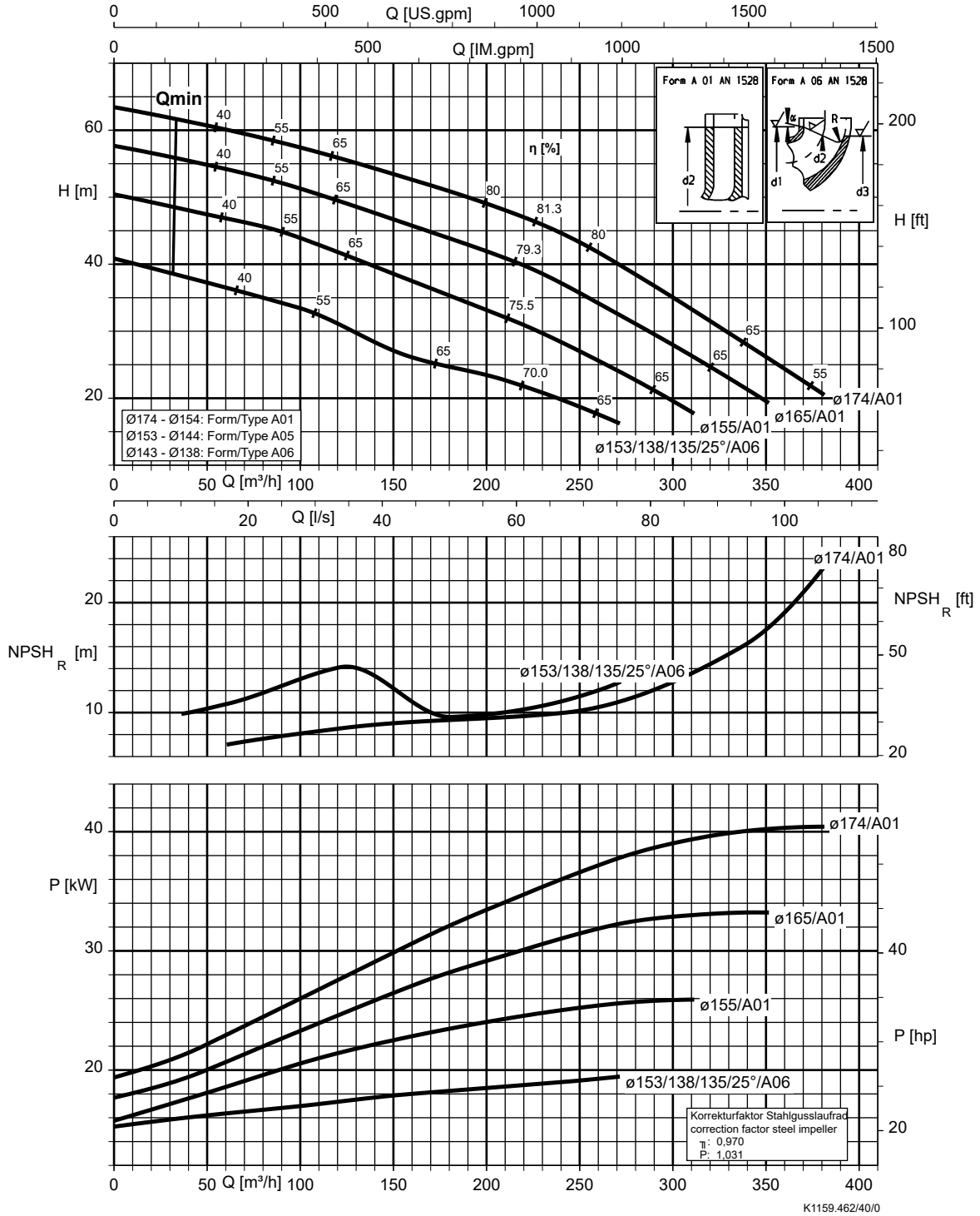


**Etaline 100-100-125, n = 3500 rpm**

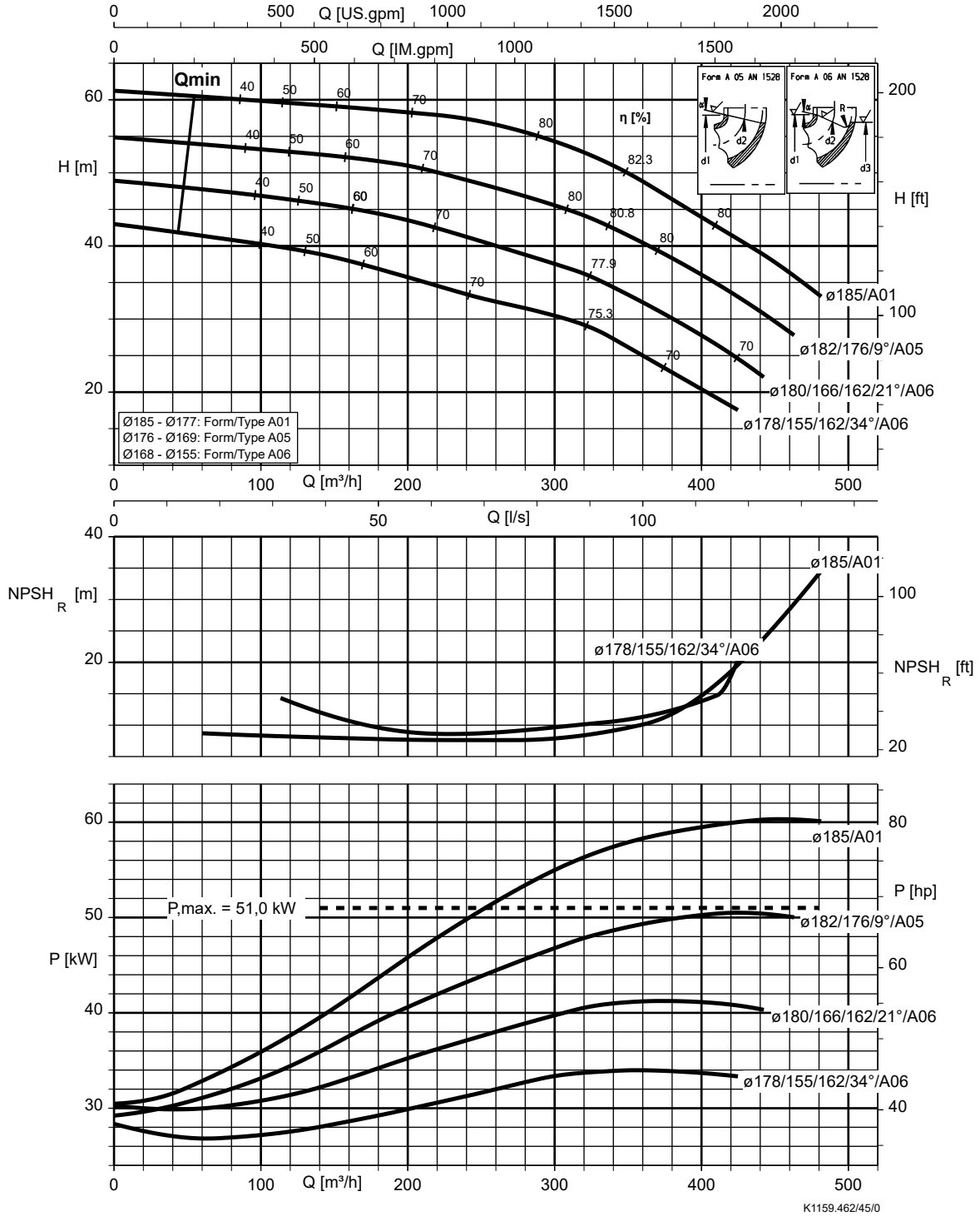


1159.5/07-EN

**Etaline 100-100-160, n = 3500 rpm**

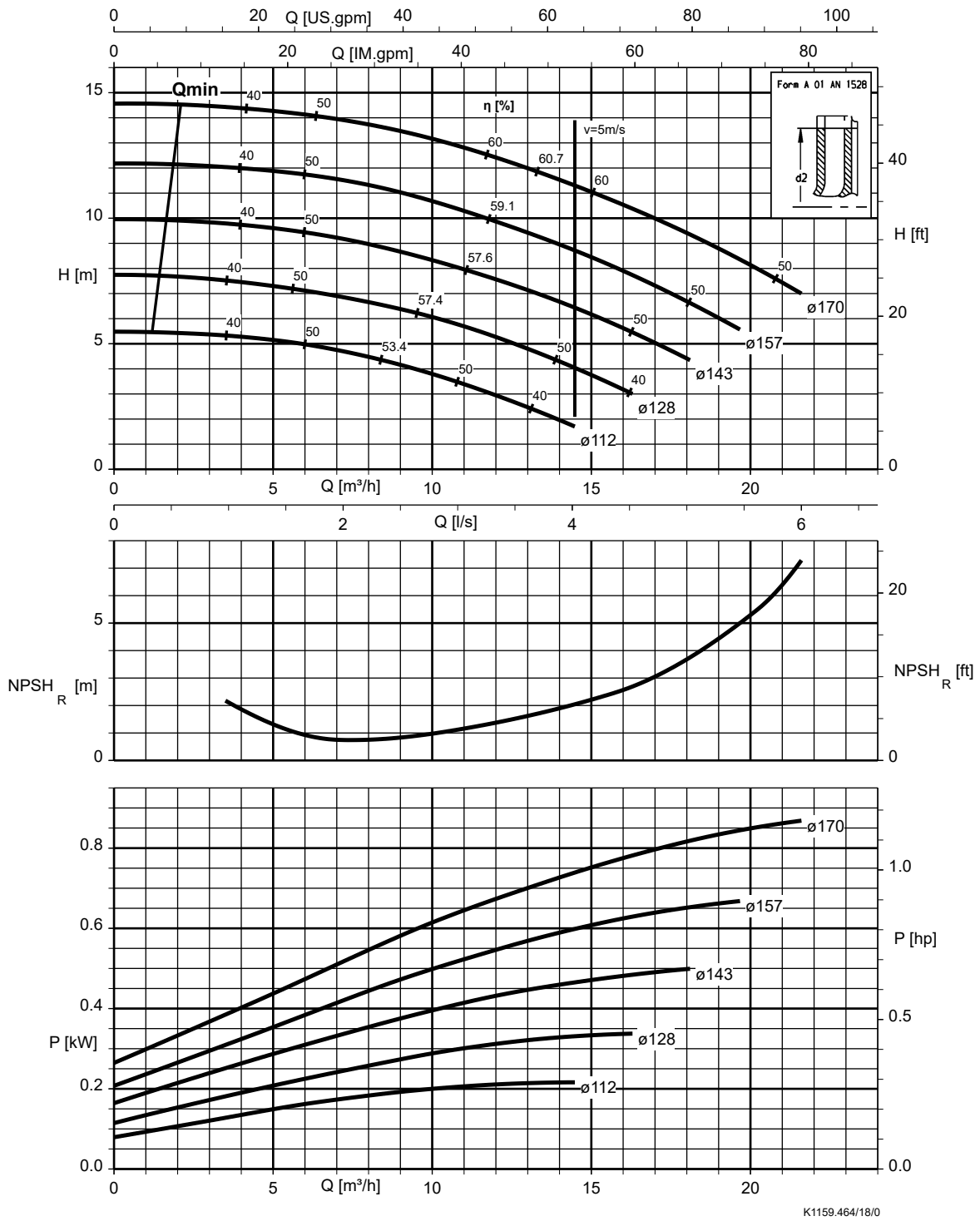


Etaline 125-125-160, n = 3500 rpm

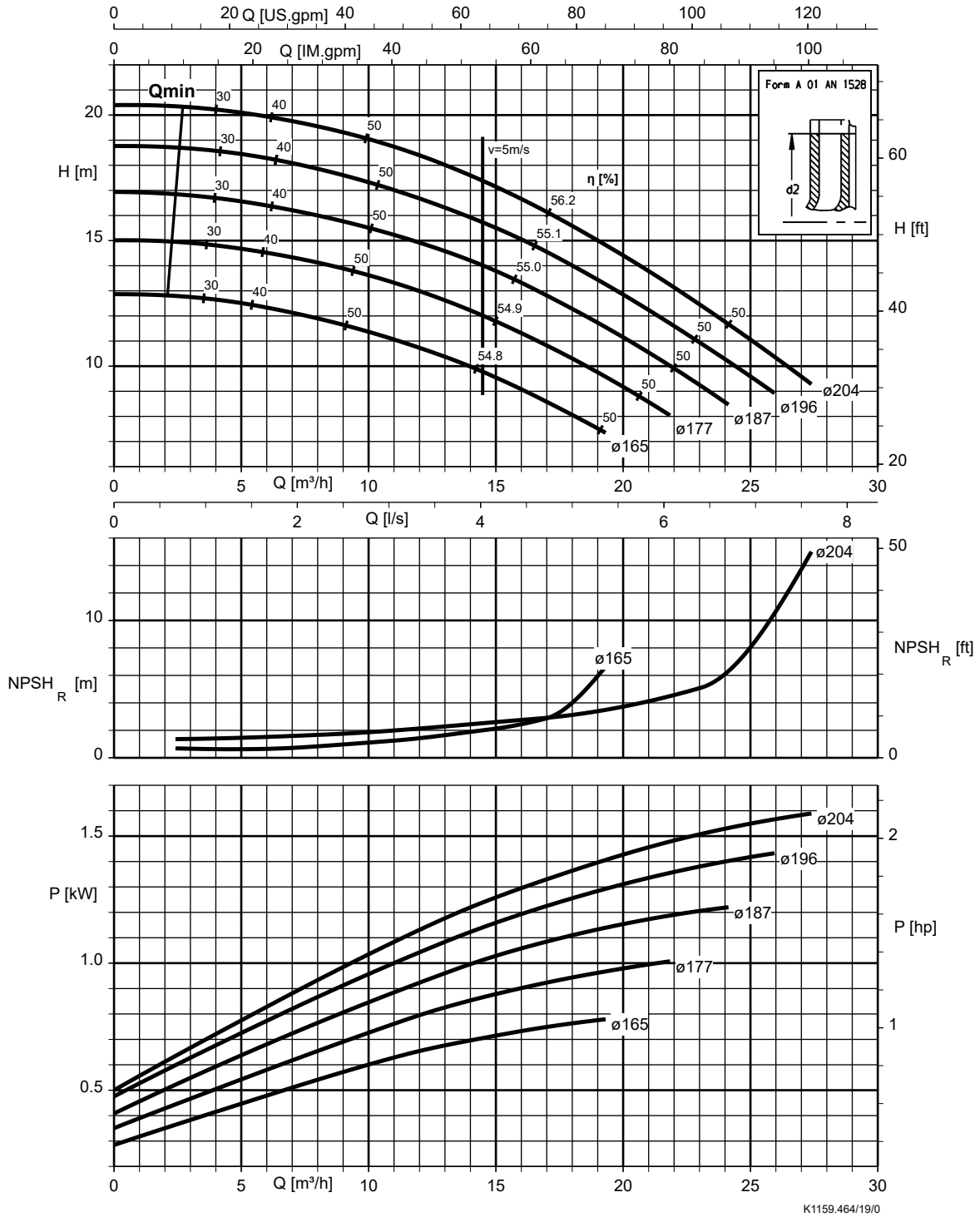


Etaline (fixed speed version), n = 1750 rpm

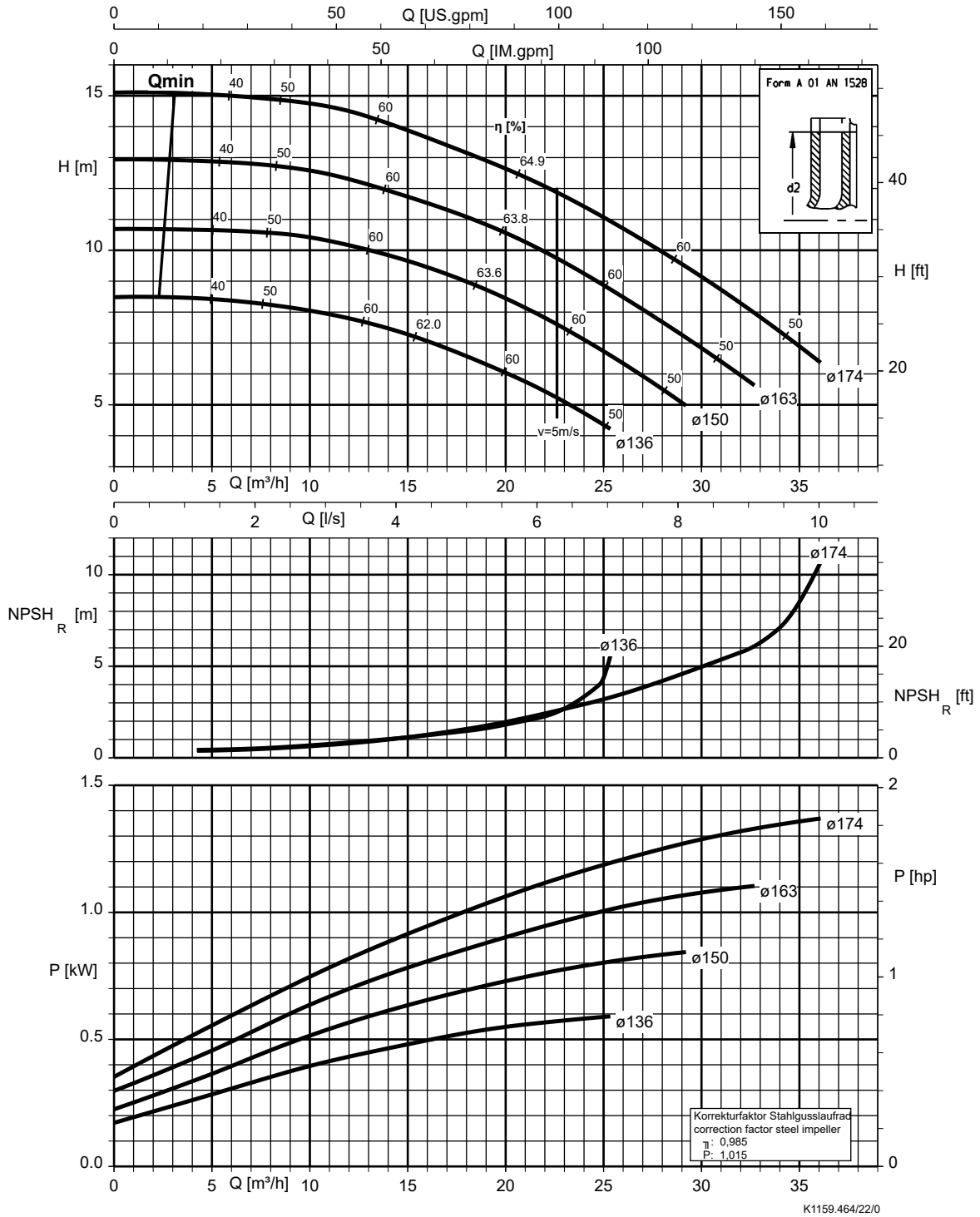
Etaline 032-032-160, n = 1750 rpm



**Etaline 032-032-200, n = 1750 rpm**

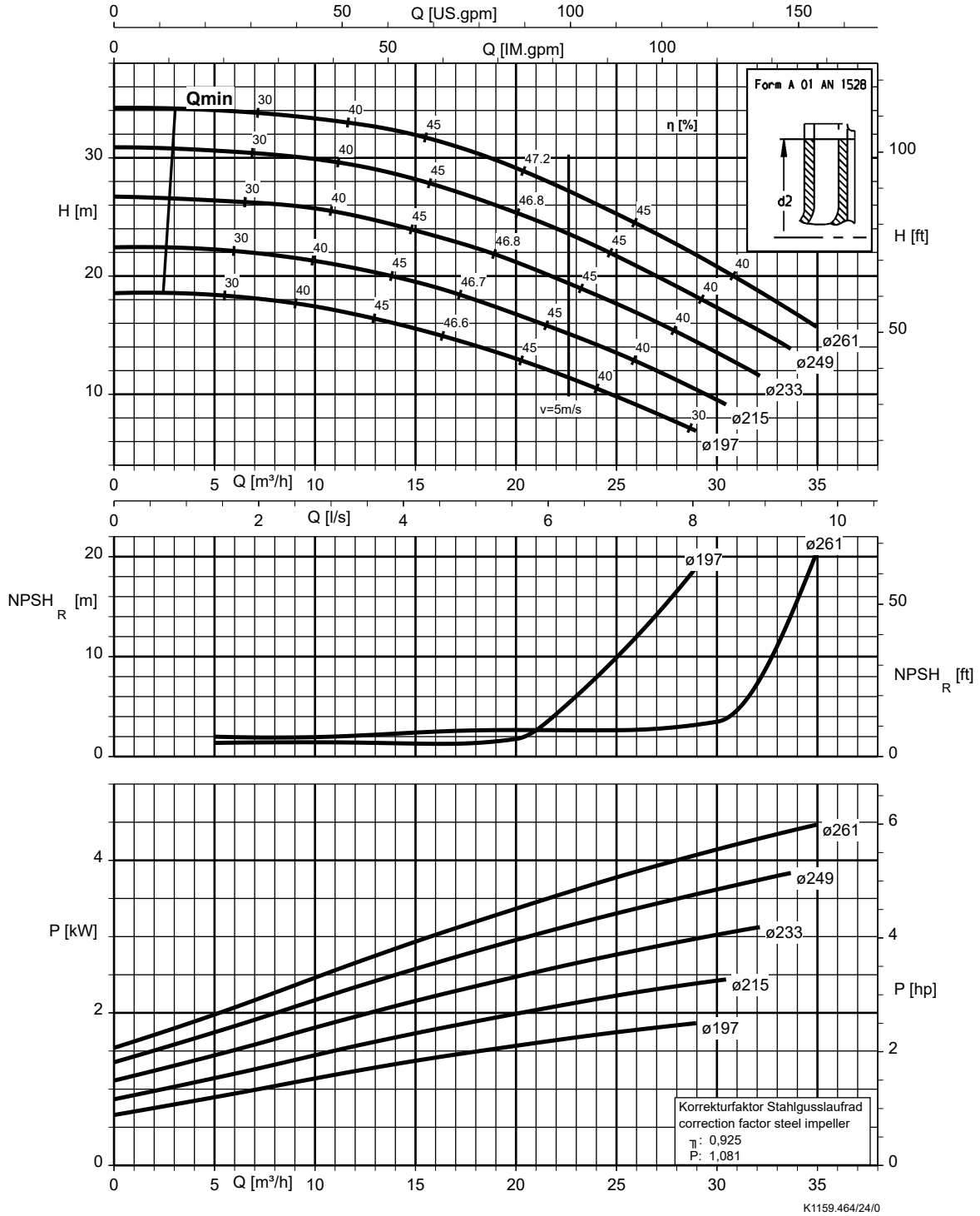


Etaline 040-040-160, n = 1750 rpm

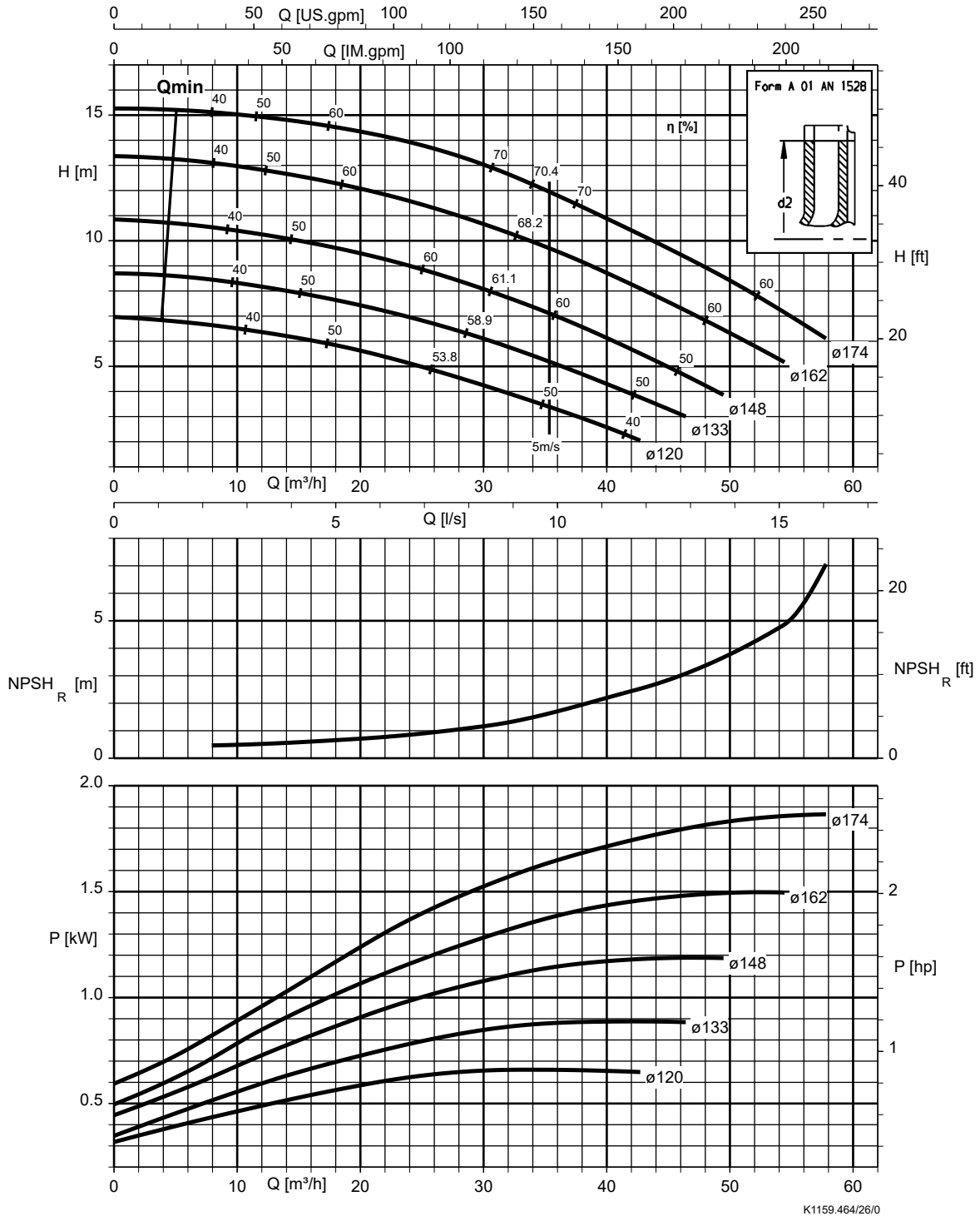




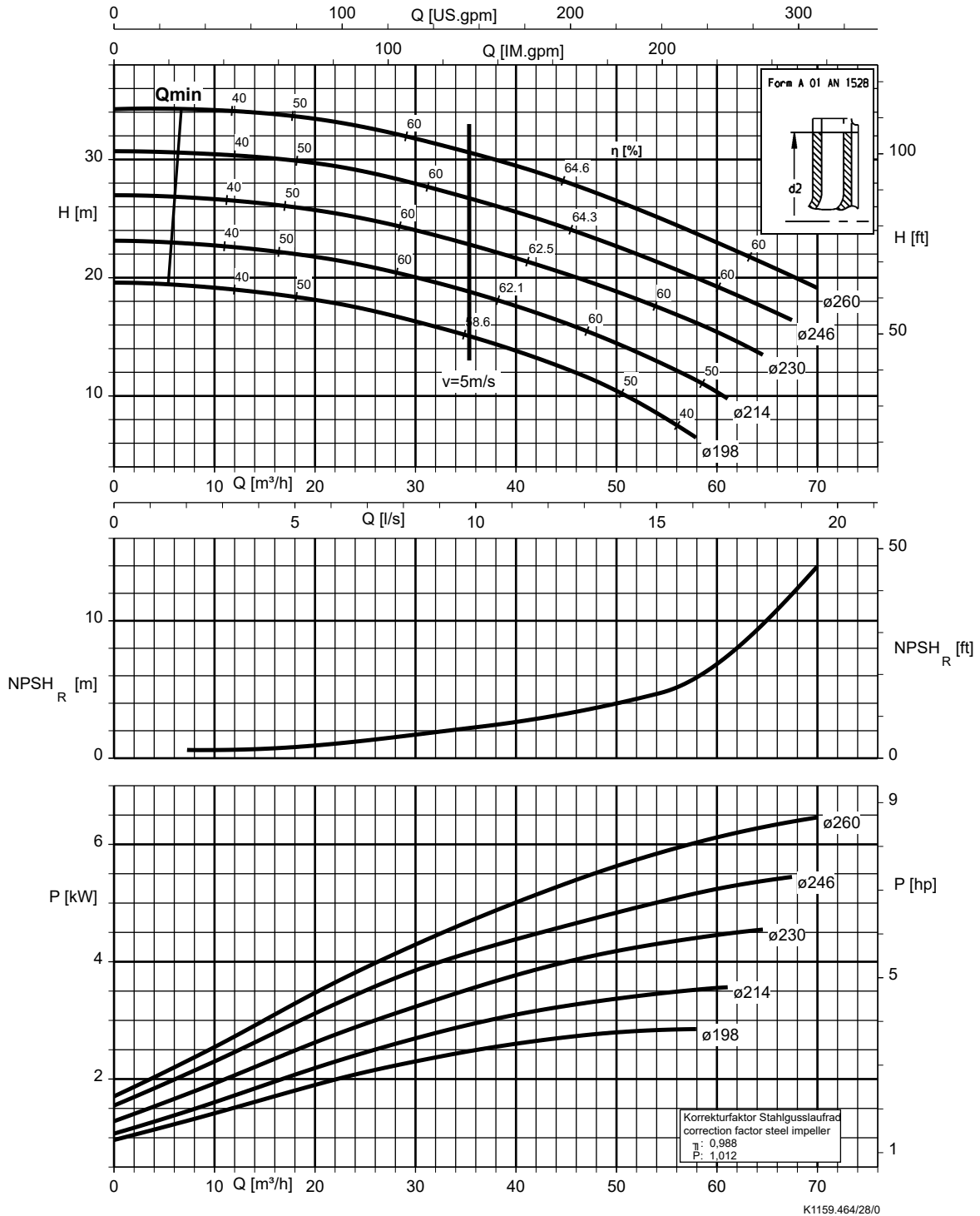
Etaline 040-040-250, n = 1750 rpm



**Etaline 050-050-160, n = 1750 rpm**

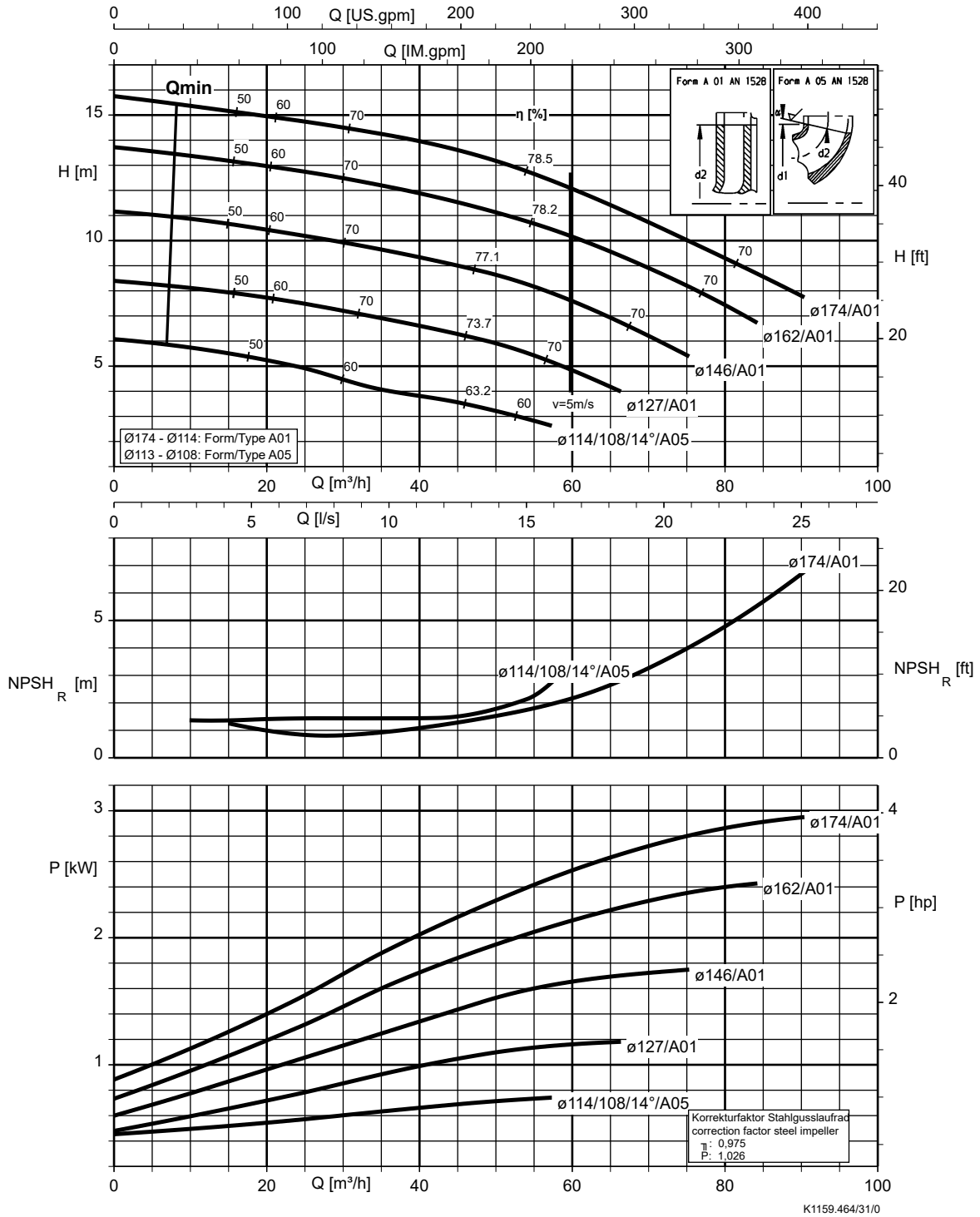


**Etaline 050-050-250, n = 1750 rpm**



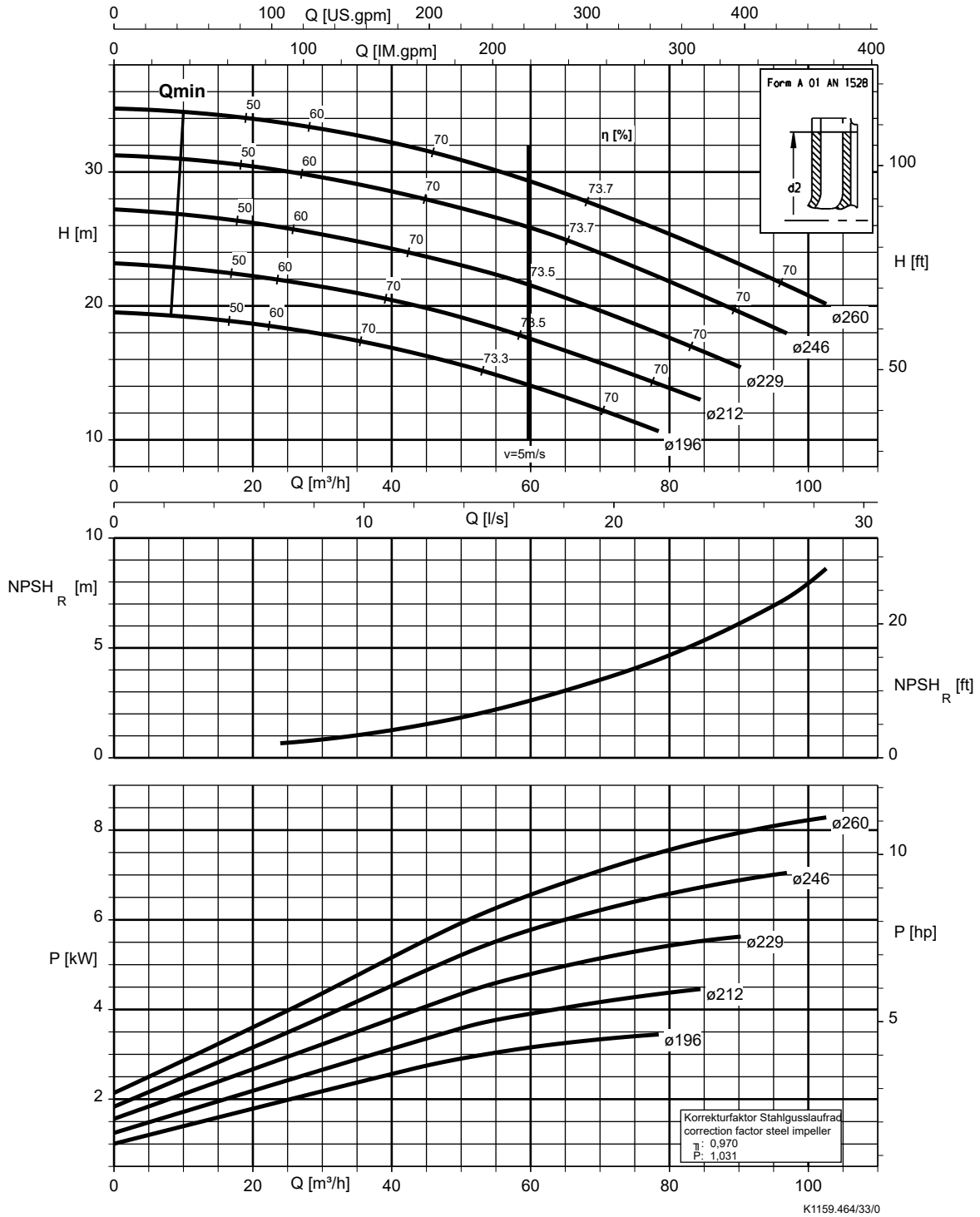
1159.5/07-EN

Etaline 065-065-160, n = 1750 rpm

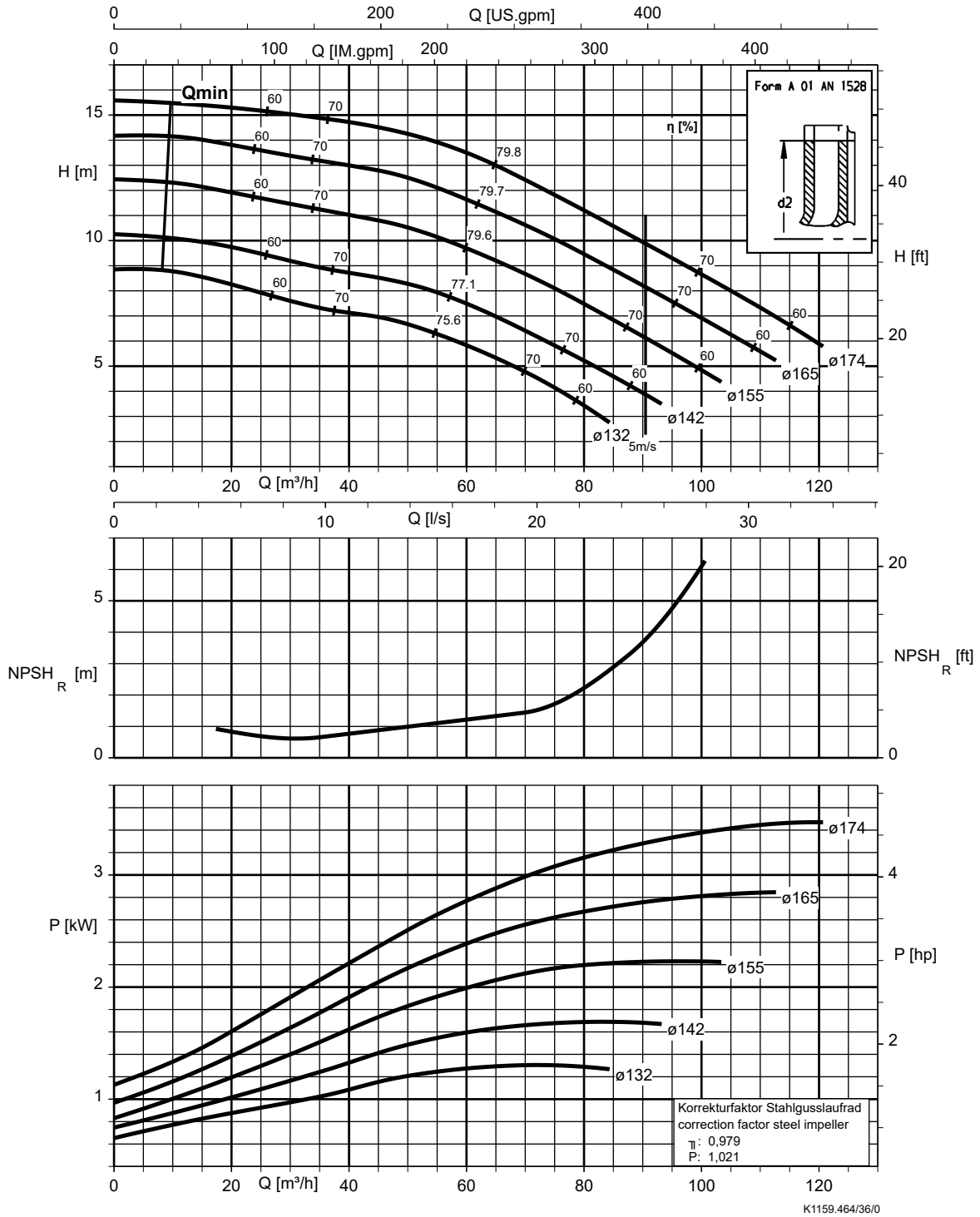


K1159.464/31/0

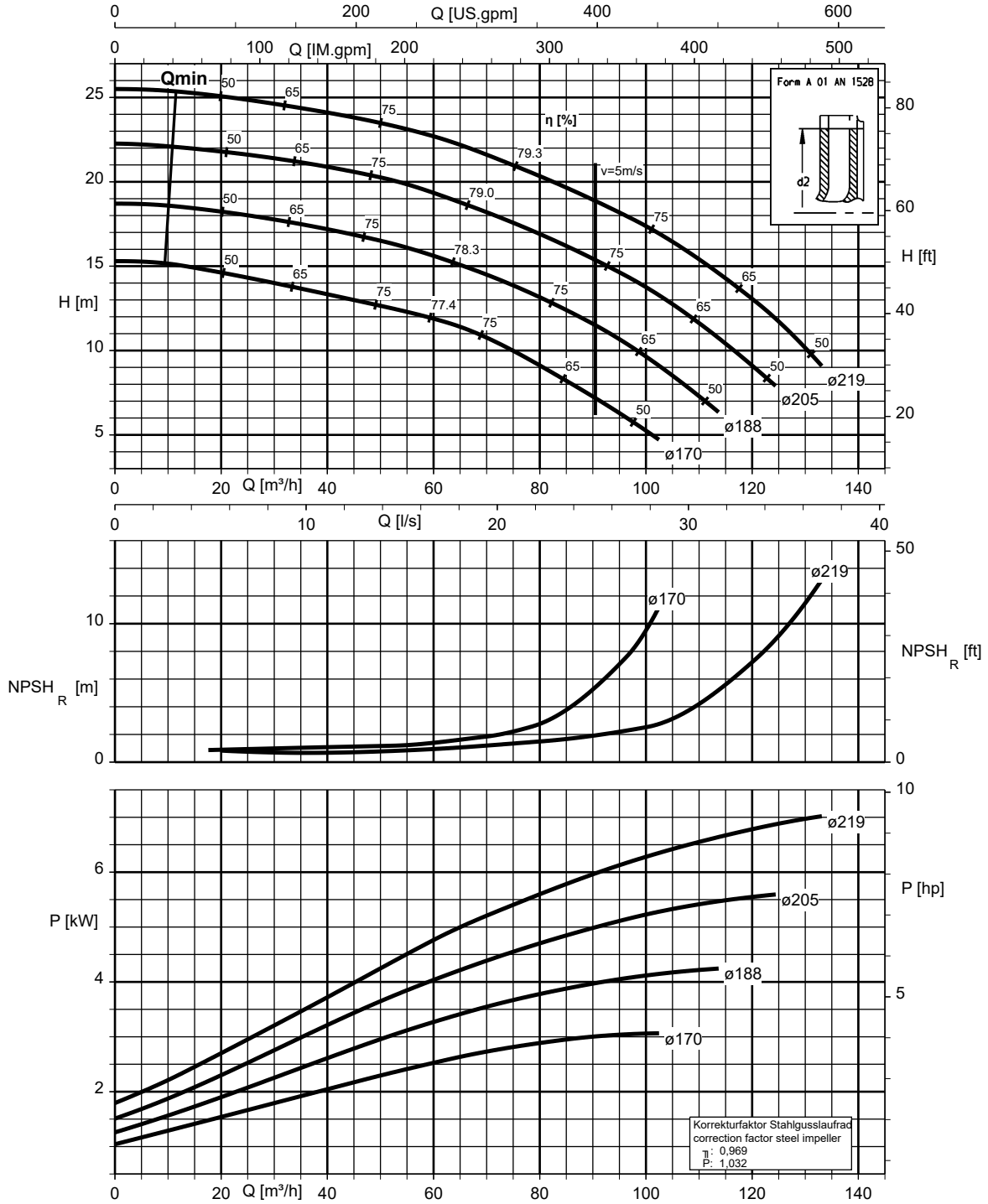
Etaline 065-065-250, n = 1750 rpm



**Etaline 080-080-160, n = 1750 rpm**

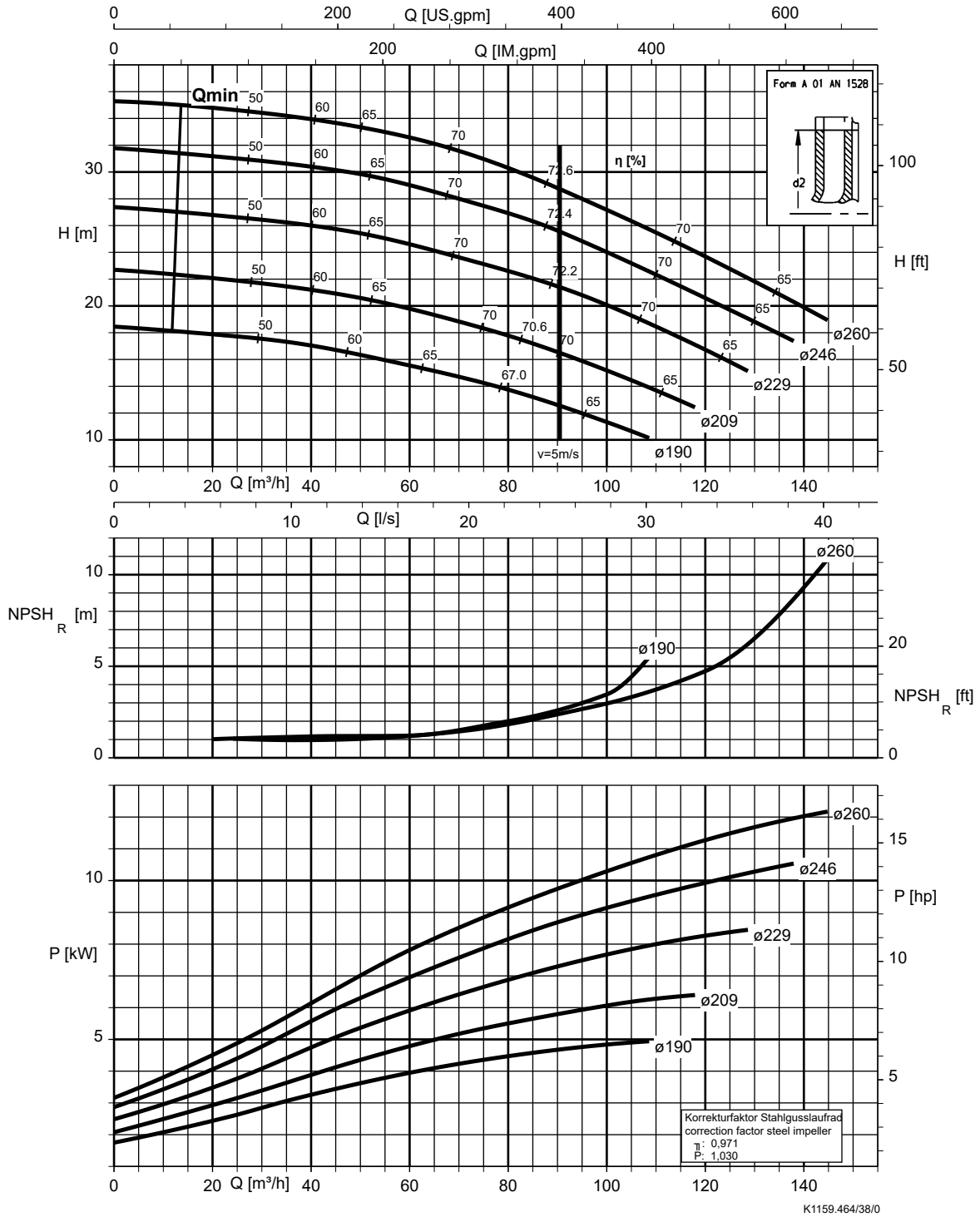


**Etaline 080-080-200, n = 1750 rpm**



K1159.464/37/0

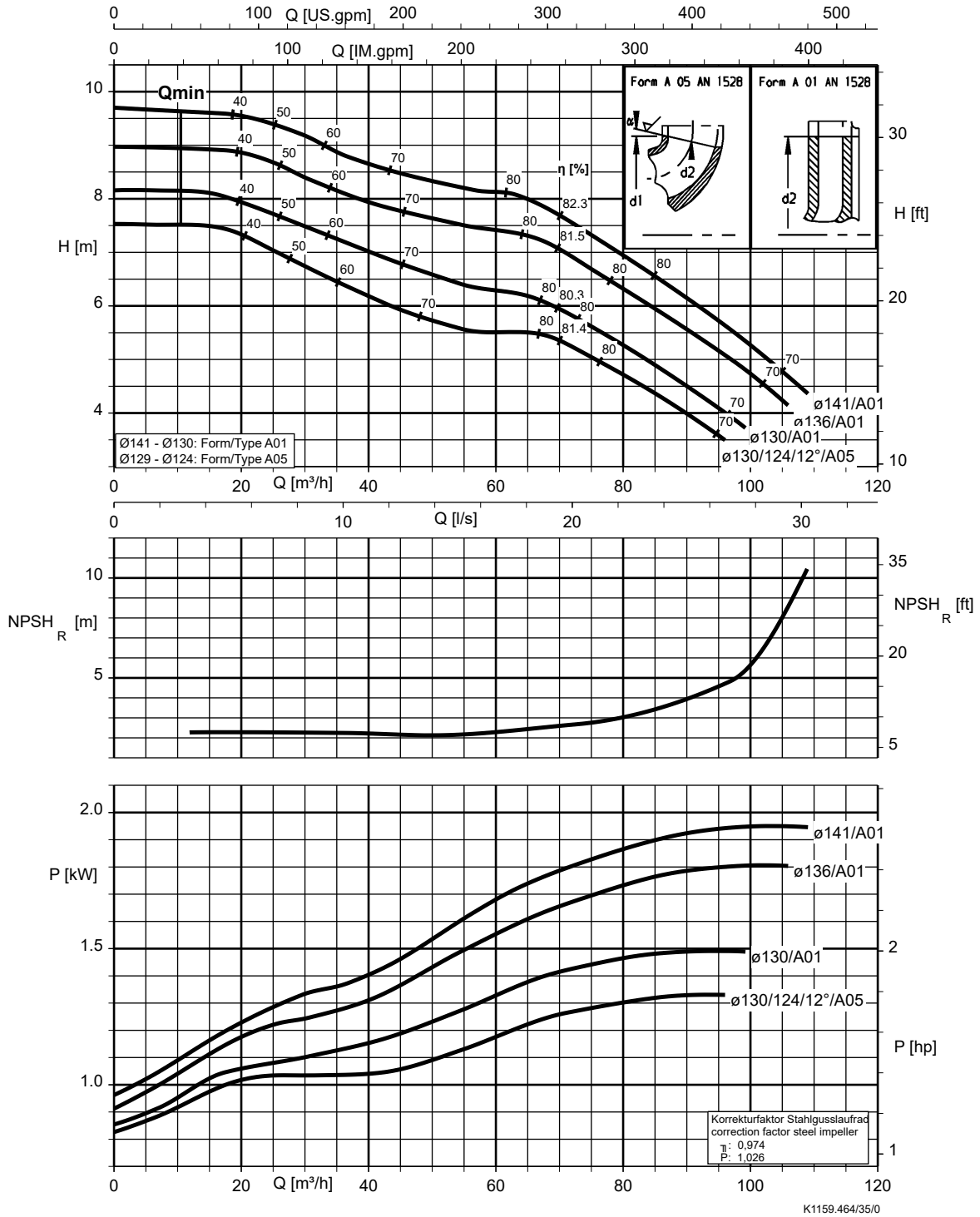
Etaline 080-080-250, n = 1750 rpm



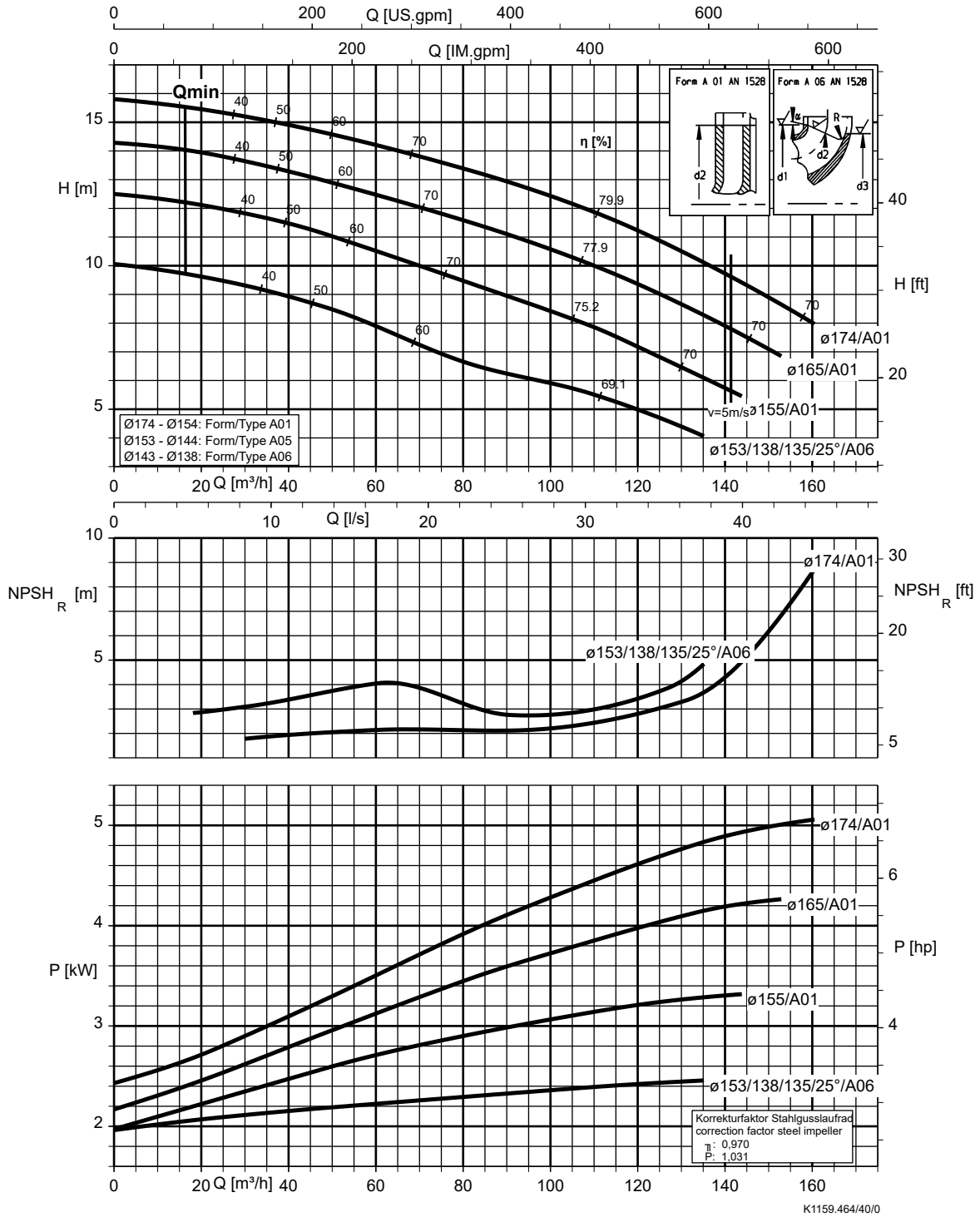
K1159.464/38/0



**Etaline 100-100-125, n = 1750 rpm**

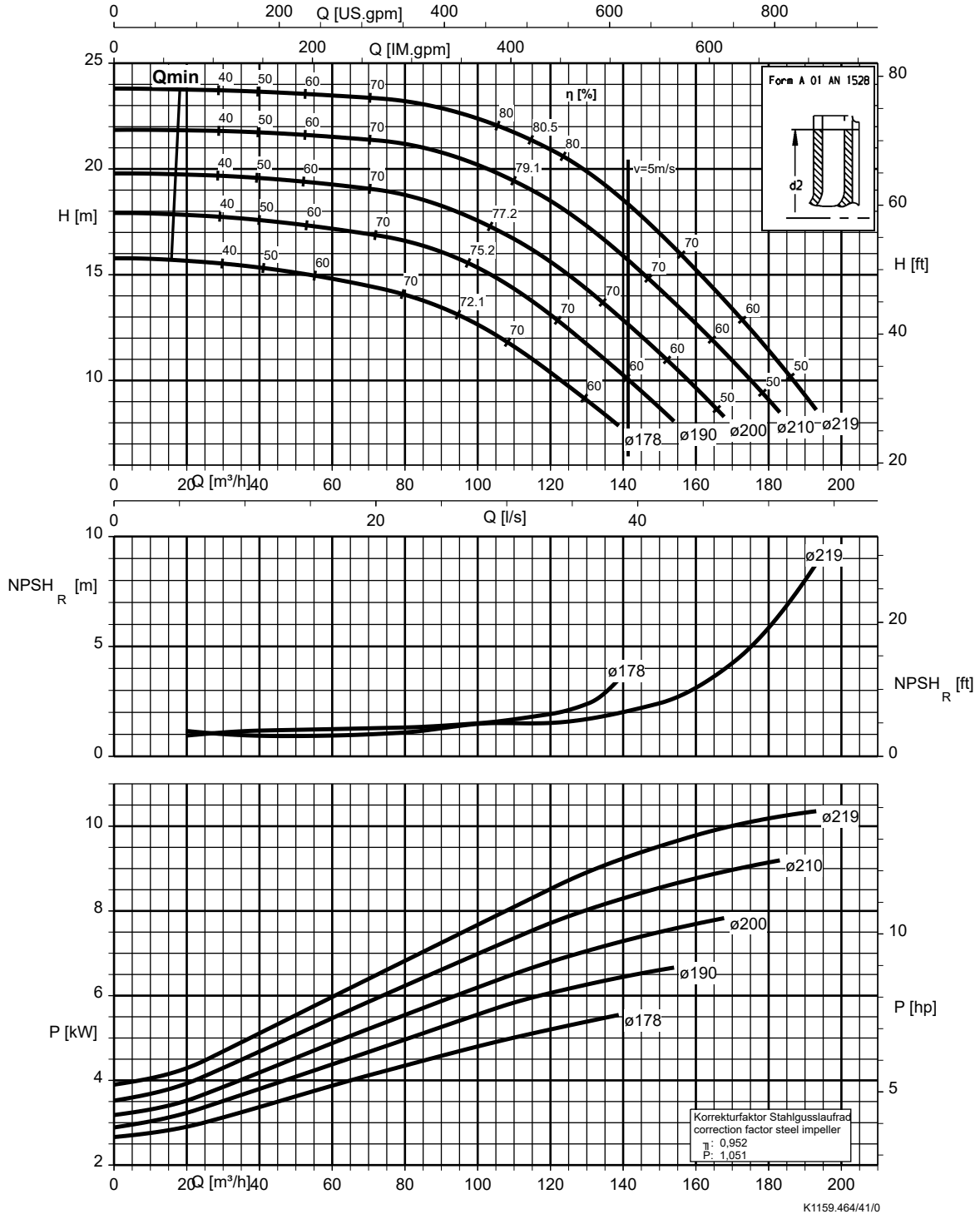


**Etaline 100-100-160, n = 1750 rpm**

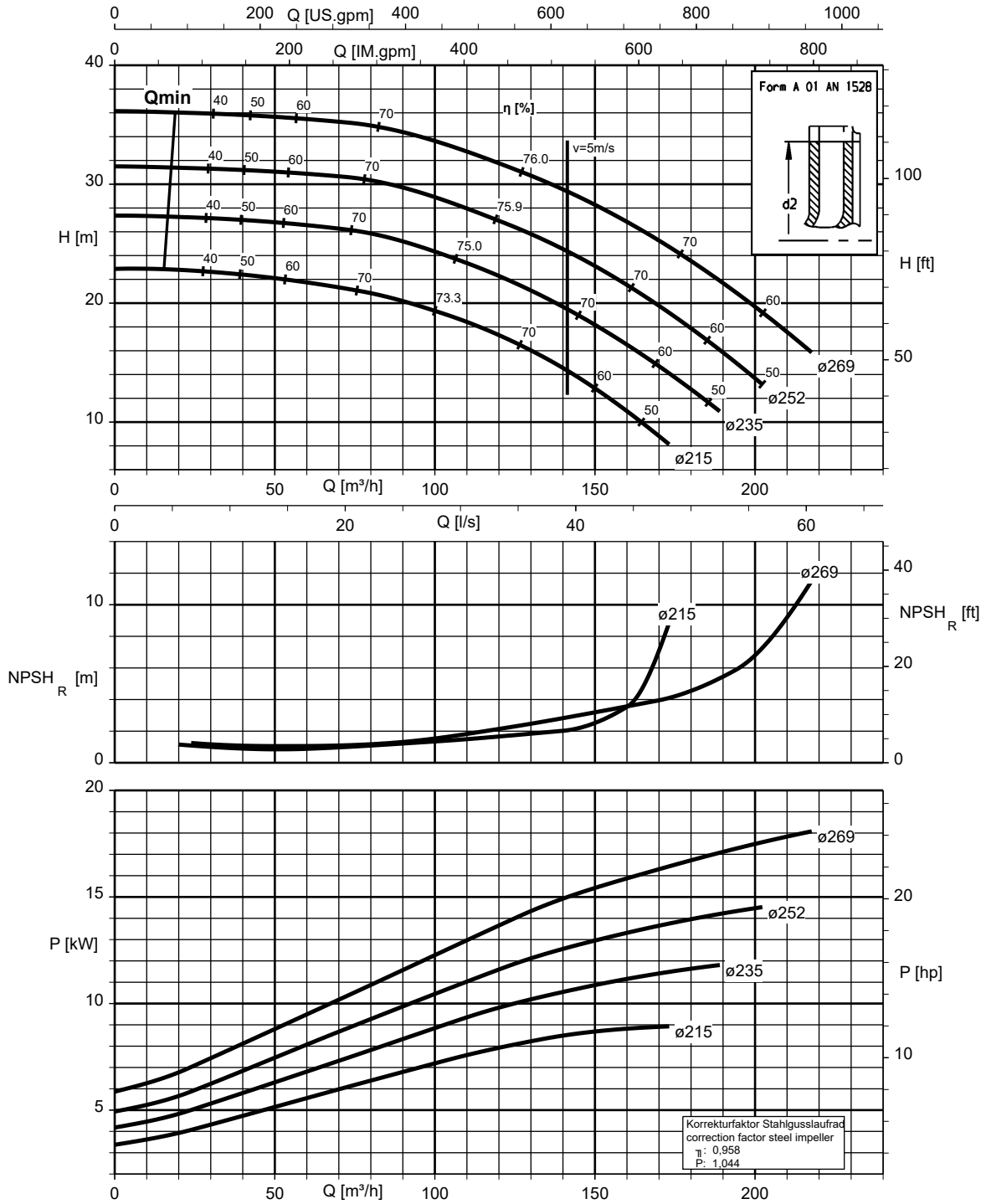


K1159.464/40/0

**Etaline 100-100-200, n = 1750 rpm**

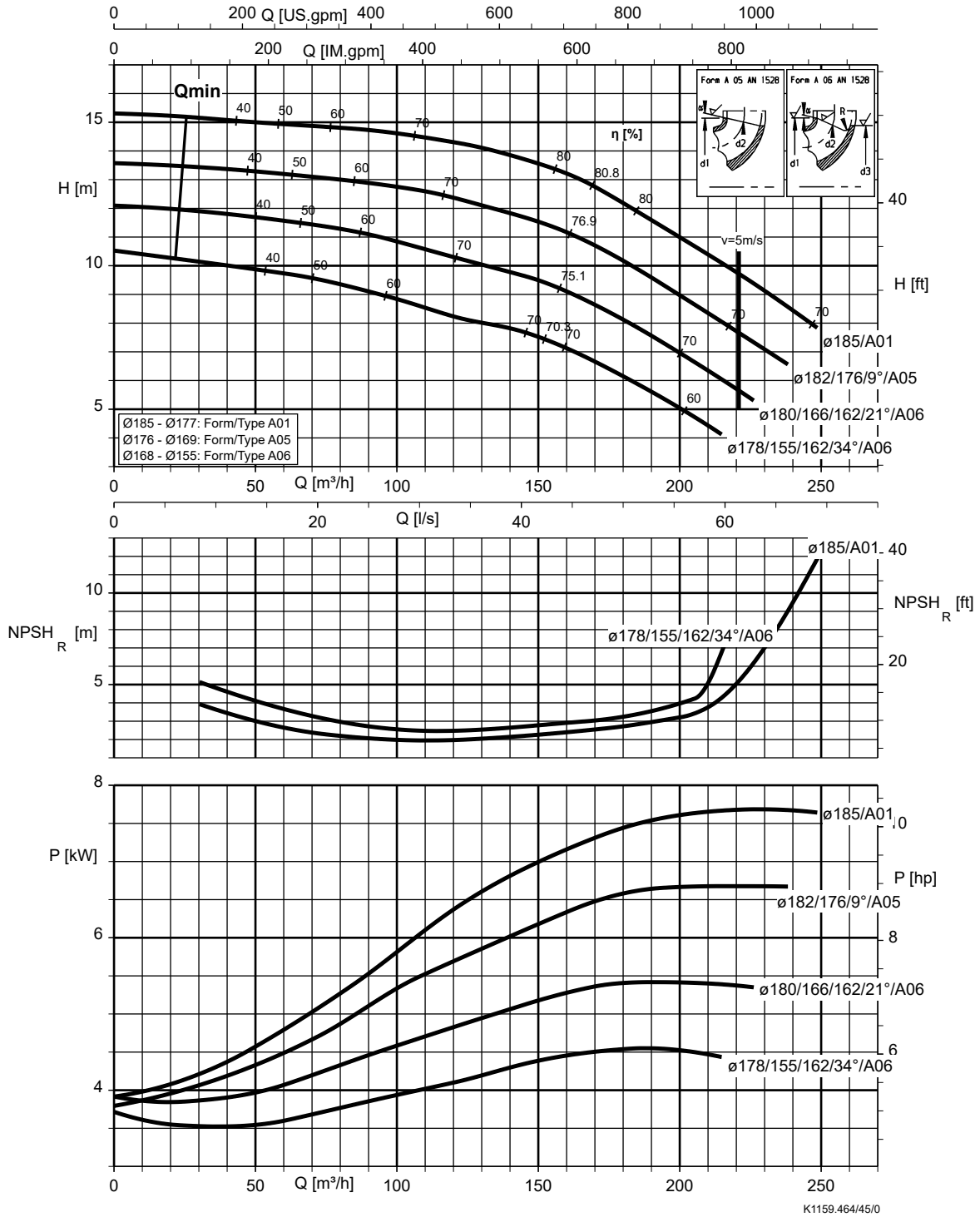


**Etaline 100-100-250, n = 1750 rpm**

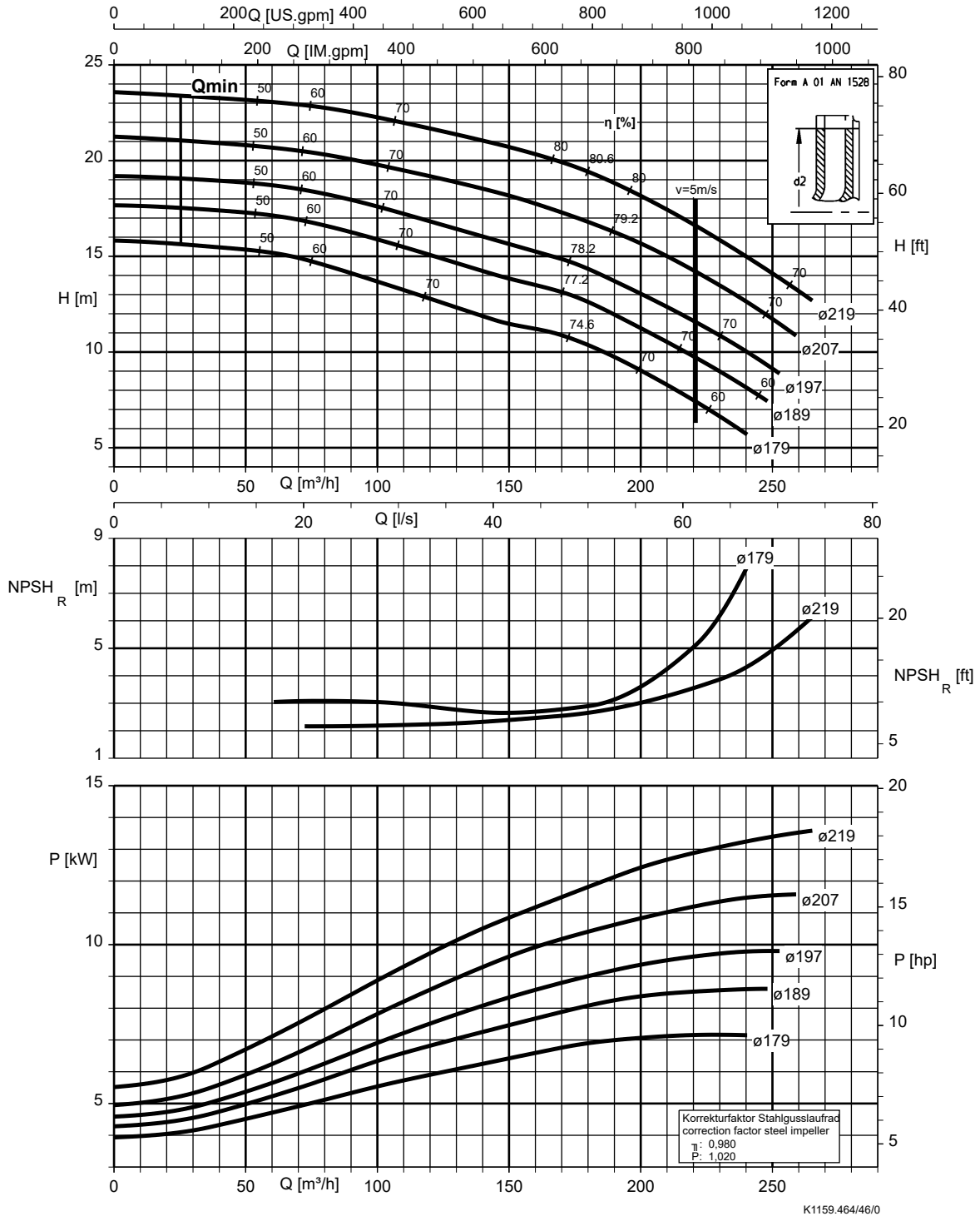


K1159.464/42/0

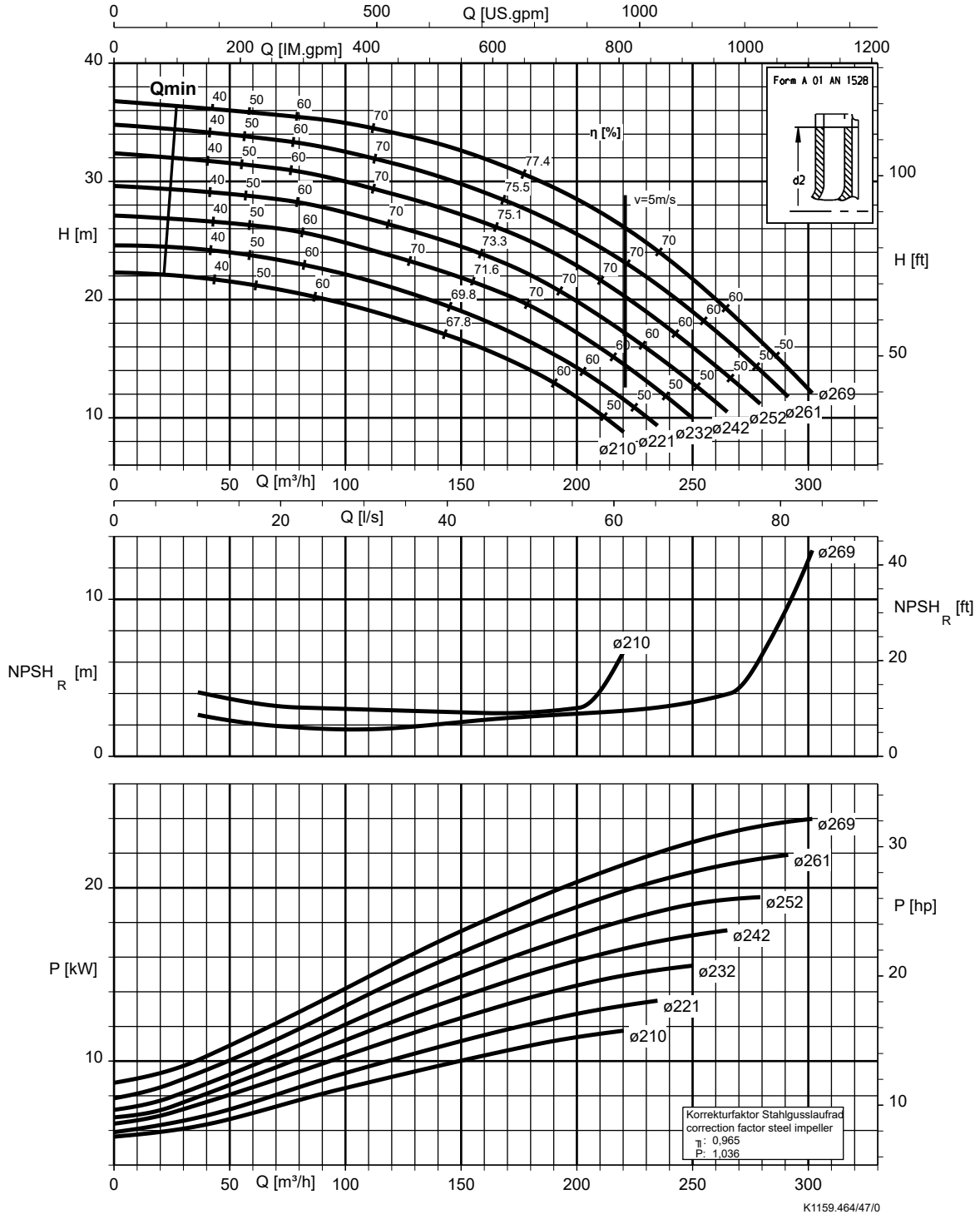
**Etaline 125-125-160, n = 1750 rpm**



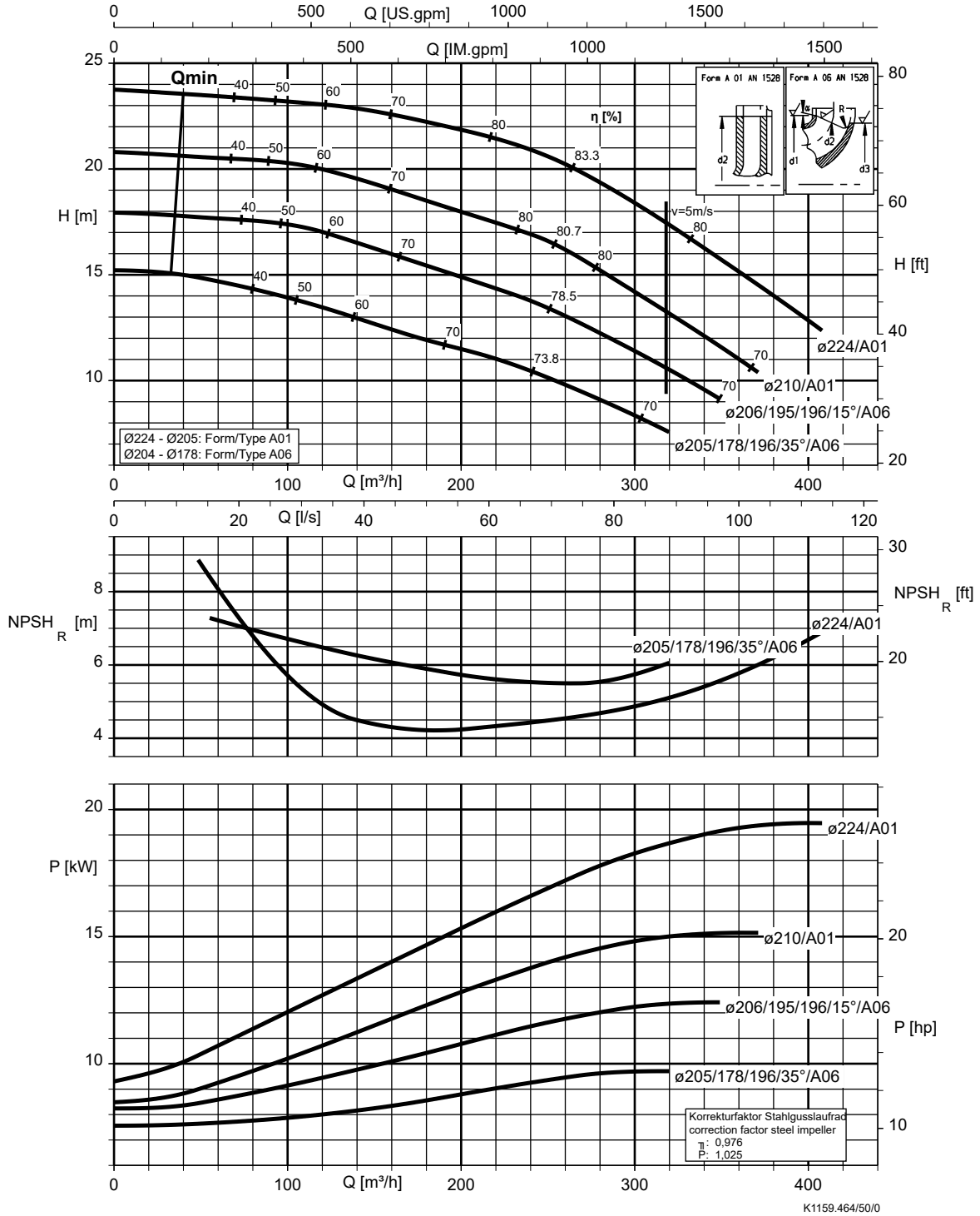
**Etaline 125-125-200, n = 1750 rpm**



Etaline 125-125-250, n = 1750 rpm



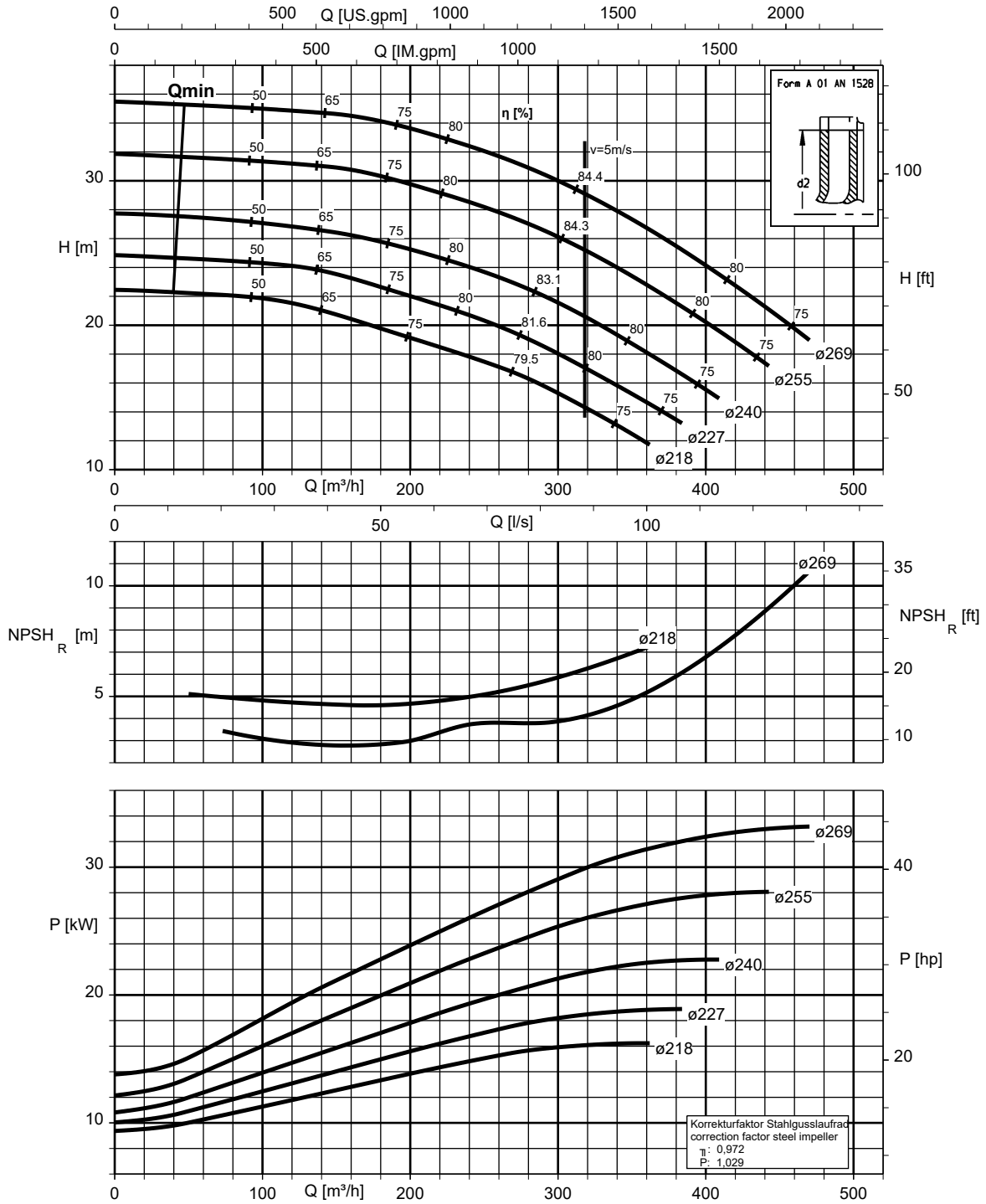
**Etaline 150-150-200, n = 1750 rpm**



K1159.464/50/0



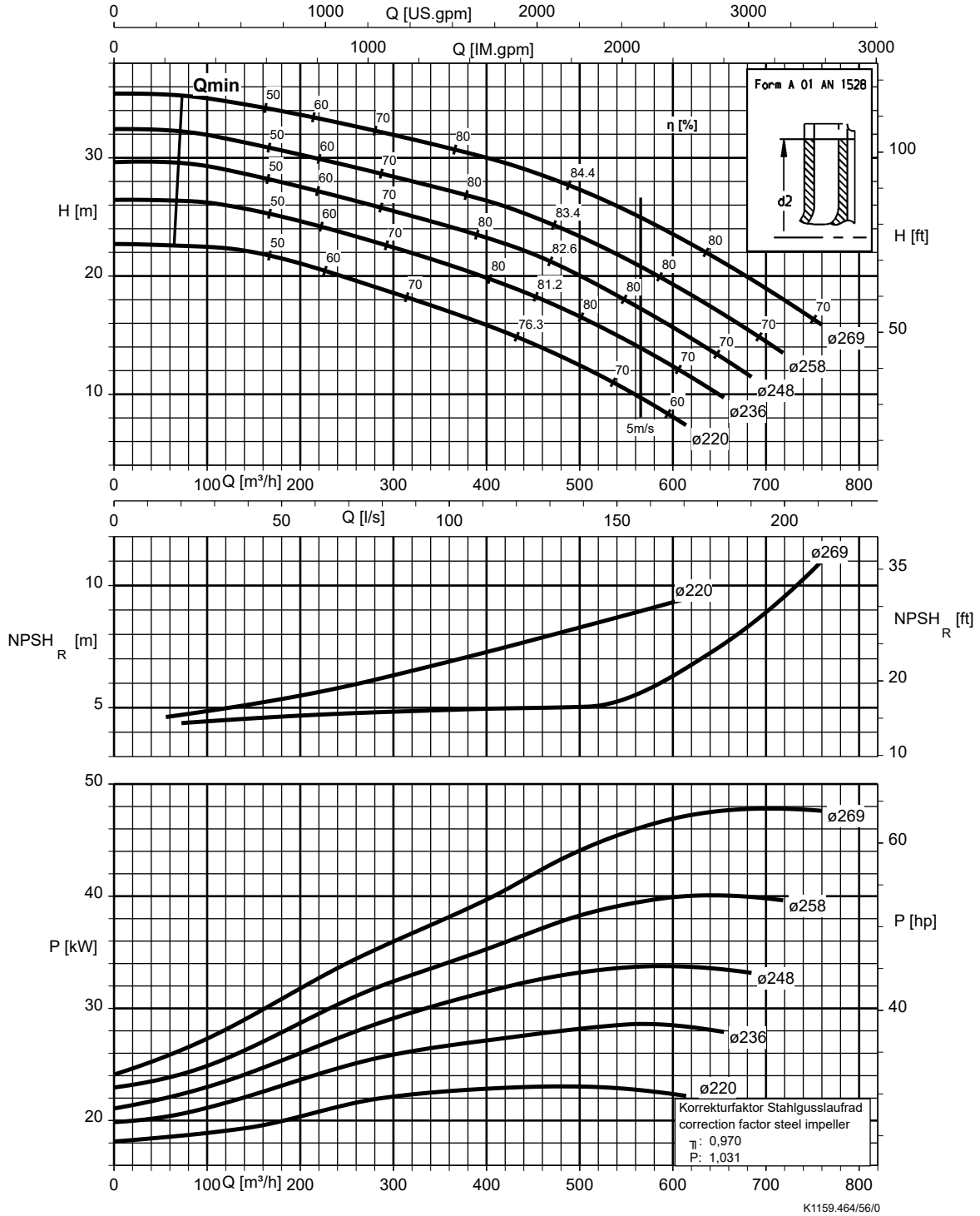
**Etaline 150-150-250, n = 1750 rpm**



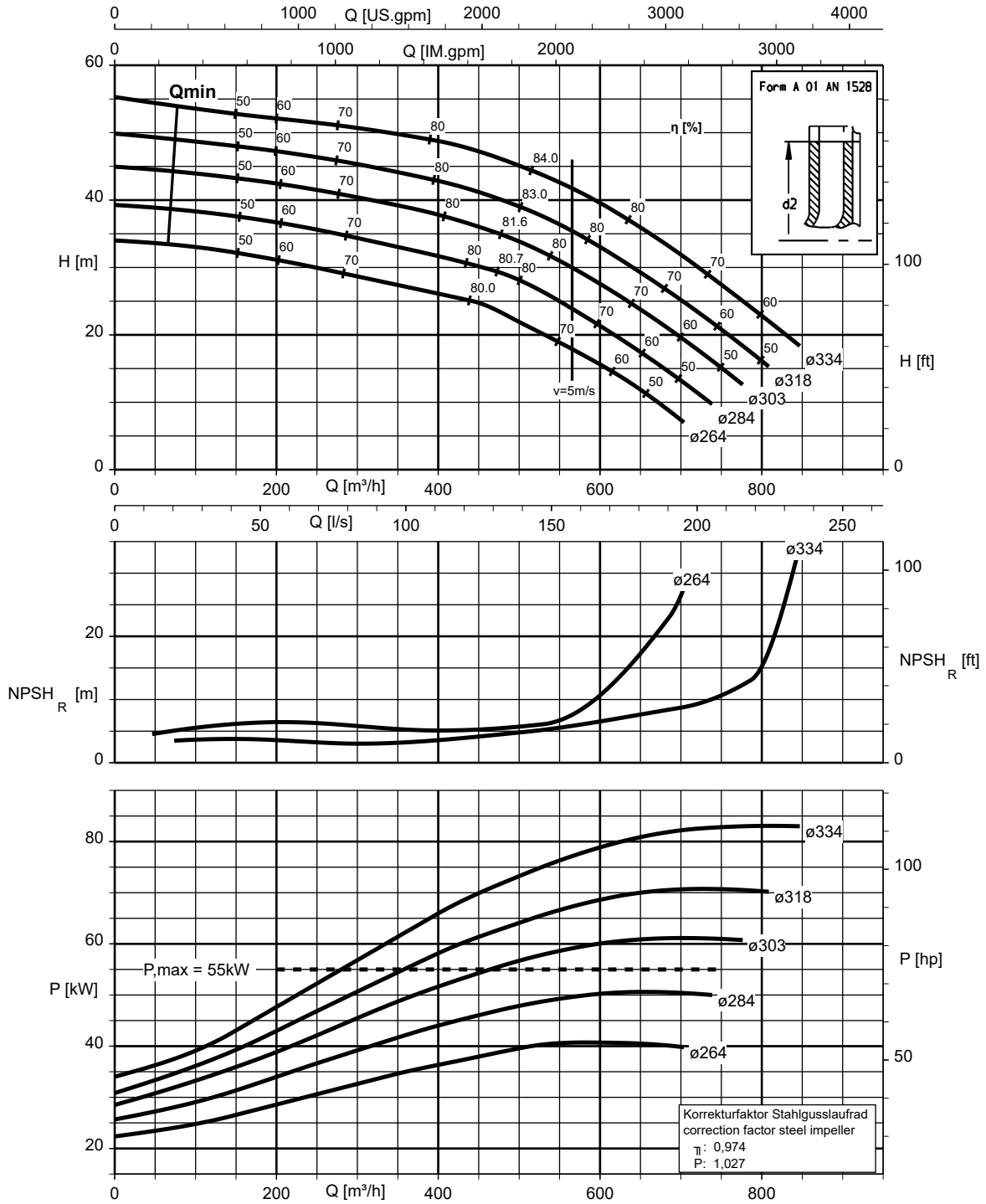
K1159.464/51/0

1159.5/07-EN

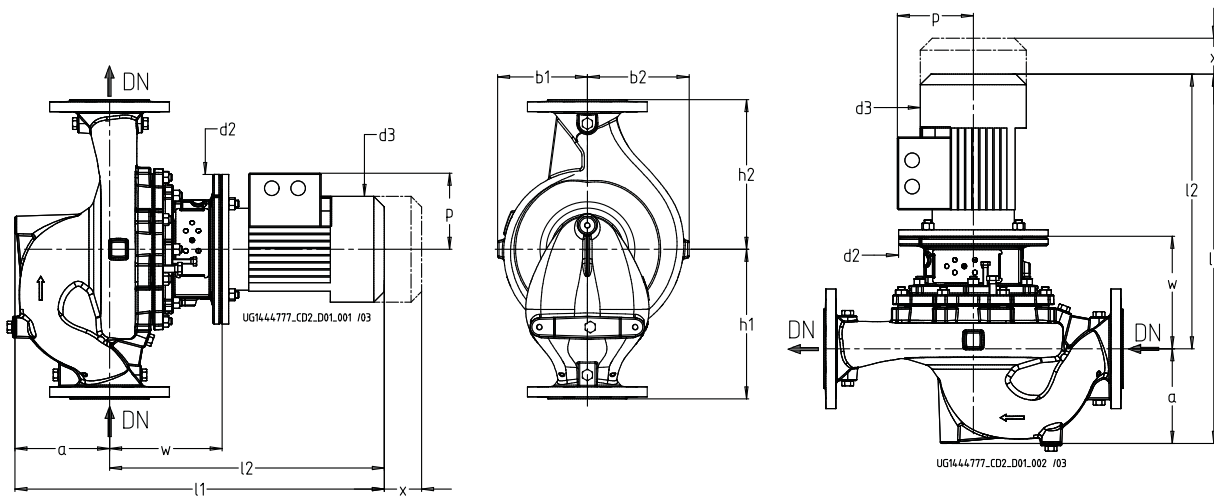
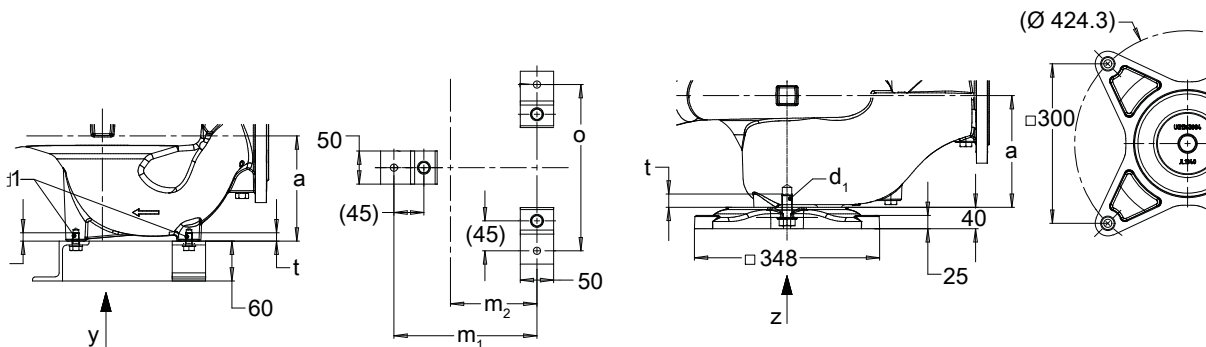
**Etaline 200-200-250, n = 1750 rpm**



**Etaline 200-200-315, n = 1750 rpm**



K1159.464/57/0

**Dimensions**
**Pump set (fixed speed version), n = 2900 rpm**

**Fig. 2: Pump set dimensions**

**Fig. 3: Foundation fastening dimensions**
**Table 19: Pump set dimensions (fixed speed version), n = 2900 rpm**

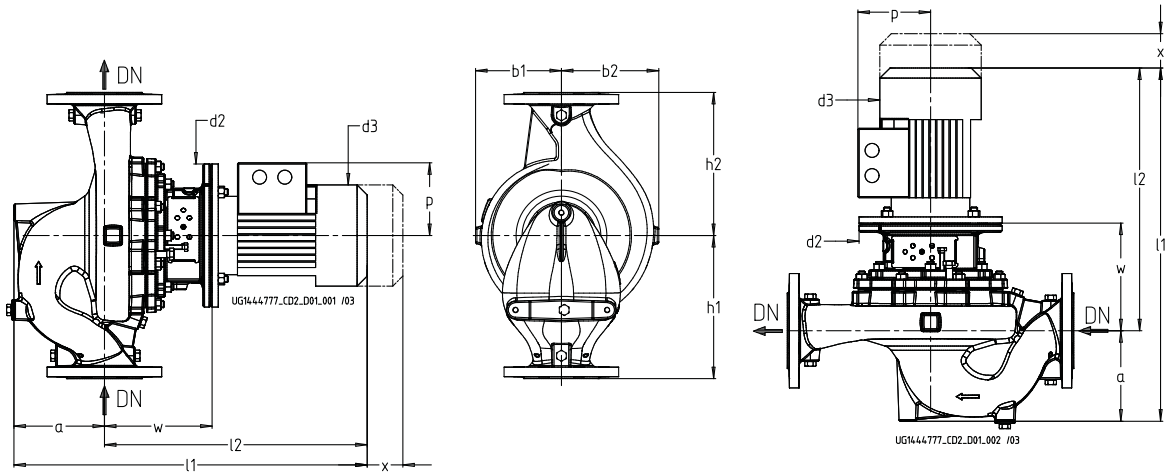
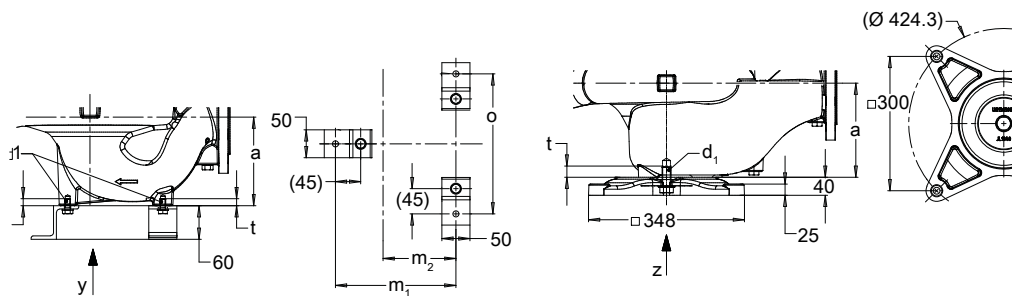
Size	P <sub>N</sub>	DN <sup>18)</sup>	a	≈b <sub>1</sub> <sup>19)</sup>	≈b <sub>2</sub> <sup>19)</sup>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sup>19)</sup>	≈l <sub>2</sub> <sup>19)</sup>	t	≈x <sup>19)</sup>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 2900 rpm	[kW]		[mm]																
032-032-160	1,10	32	87	119	131	M10	200	162	120	180	160	512	425	12,5	100	156	175	100	190
032-032-160	1,50	32	87	119	131	M10	200	190	128	180	160	525	438	12,5	100	156	175	100	190
032-032-160	2,20	32	87	119	131	M10	200	190	128	180	160	551	464	12,5	100	156	175	100	190
032-032-160	3,00	32	87	119	131	M10	250	213	135	180	160	604	517	12,5	100	170	175	100	190
032-032-160	4,00	32	87	119	131	M10	250	234	148	180	160	628	541	12,5	100	170	175	100	190
032-032-160	5,50	32	87	119	131	M10	300	266	167	180	160	693	606	12,5	100	193	175	100	190
032-032-160	7,50	32	87	119	131	M10	300	266	167	180	160	693	606	12,5	100	193	175	100	190
032-032-200	3,00	32	100	134	146	M10	250	213	135	250	190	617	517	12,5	100	170	175	100	190
032-032-200	4,00	32	100	134	146	M10	250	234	148	250	190	641	541	12,5	100	170	175	100	190
032-032-200	5,50	32	100	134	146	M10	300	266	167	250	190	706	606	12,5	100	193	175	100	190
032-032-200	7,50	32	100	134	146	M10	300	266	167	250	190	706	606	12,5	100	193	175	100	190
032-032-200	11,00	32	100	134	146	M10	350	325	197	250	190	872	772	12,5	100	226	175	100	190
032-032-200	15,00	32	100	134	146	M10	350	325	197	250	190	872	772	12,5	100	226	175	100	190
040-040-160	2,20	40	114	118	132	M10	200	190	128	180	160	578	464	12,5	100	156	165	90	190
040-040-160	3,00	40	114	118	132	M10	250	213	135	180	160	631	517	12,5	100	170	165	90	190
040-040-160	4,00	40	114	118	132	M10	250	234	148	180	160	655	541	12,5	100	170	165	90	190
040-040-160	5,50	40	114	118	132	M10	300	266	167	180	160	720	606	12,5	100	193	165	90	190
040-040-160	7,50	40	114	118	132	M10	300	266	167	180	160	720	606	12,5	100	193	165	90	190
040-040-160	11,00	40	114	118	132	M10	350	325	197	180	160	886	772	12,5	100	226	165	90	190
040-040-250	5,50	40	104	163	173	M10	300	266	167	220	220	714	610	12,5	100	197	175	100	190

<sup>18</sup> DN = EN 1092-2, PN 16

<sup>19</sup> For the exact motor-related dimensions refer to the general arrangement drawing.

Size	P <sub>N</sub>	DN <sub>(19)</sub>	a	≈b <sub>1</sub> <sub>(19)</sub>	≈b <sub>2</sub> <sub>(19)</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>(19)</sub>	≈l <sub>2</sub> <sub>(19)</sub>	t	≈x <sub>(19)</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 2900 rpm	[kW]	[mm]																	
040-040-250	7,50	40	104	163	173	M10	300	266	167	220	220	714	610	12,5	100	197	175	100	190
040-040-250	11,00	40	104	163	173	M10	350	325	197	220	220	880	776	12,5	100	230	175	100	190
040-040-250	15,00	40	104	163	173	M10	350	325	197	220	220	880	776	12,5	100	230	175	100	190
040-040-250	18,50	40	104	163	173	M10	350	325	197	220	220	886	782	12,5	100	230	175	100	190
040-040-250	22,00	40	104	163	173	M10	350	370	262	220	220	944	840	12,5	100	230	175	100	190
040-040-250	30,00	40	104	163	173	M10	400	422	305	220	220	1003	899	12,5	100	230	175	100	190
040-040-250	37,00	40	104	163	173	M10	400	422	305	220	220	1003	899	12,5	100	230	175	100	190
050-050-160	2,20	50	134	116	135	M10	200	190	128	250	190	598	464	12,5	100	156	175	100	190
050-050-160	3,00	50	134	116	135	M10	250	213	135	250	190	651	517	12,5	100	170	175	100	190
050-050-160	4,00	50	134	116	135	M10	250	234	148	250	190	675	541	12,5	100	170	175	100	190
050-050-160	5,50	50	134	116	135	M10	300	266	167	250	190	740	606	12,5	100	193	175	100	190
050-050-160	7,50	50	134	116	135	M10	300	266	167	250	190	740	606	12,5	100	193	175	100	190
050-050-160	11,00	50	134	116	135	M10	350	325	197	250	190	906	772	12,5	100	226	175	100	190
050-050-160	15,00	50	134	116	135	M10	350	325	197	250	190	906	772	12,5	100	226	175	100	190
050-050-250	7,50	50	129	167	182	M10	300	266	167	220	220	745	616	12,5	100	203	175	100	190
050-050-250	11,00	50	129	167	182	M10	350	325	197	220	220	911	782	12,5	100	236	175	100	190
050-050-250	15,00	50	129	167	182	M10	350	325	197	220	220	911	782	12,5	100	236	175	100	190
050-050-250	18,50	50	129	167	182	M10	350	325	197	220	220	917	788	12,5	100	236	175	100	190
050-050-250	22,00	50	129	167	182	M10	350	370	262	220	220	975	846	12,5	100	236	175	100	190
050-050-250	30,00	50	129	167	182	M10	400	422	305	220	220	1034	905	12,5	100	236	175	100	190
050-050-250	37,00	50	129	167	182	M10	400	422	305	220	220	1034	905	12,5	100	236	175	100	190
065-065-160	3,00	65	150	114	135	M10	250	213	135	270	170	667	517	12,5	100	170	175	110	210
065-065-160	4,00	65	150	114	135	M10	250	234	148	270	170	691	541	12,5	100	170	175	110	210
065-065-160	5,50	65	150	114	135	M10	300	266	167	270	170	756	606	12,5	100	193	175	110	210
065-065-160	7,50	65	150	114	135	M10	300	266	167	270	170	756	606	12,5	100	193	175	110	210
065-065-160	11,00	65	150	114	135	M10	350	325	197	270	170	922	772	12,5	100	226	175	110	210
065-065-160	15,00	65	150	114	135	M10	350	325	197	270	170	922	772	12,5	100	226	175	110	210
065-065-160	18,50	65	150	114	135	M10	350	325	197	270	170	928	778	12,5	100	226	175	110	210
065-065-160	22,00	65	150	114	135	M10	350	370	262	270	170	986	836	12,5	100	226	175	110	210
065-065-250	11,00	65	134	174	196	M10	350	325	197	225	250	931	797	12,5	100	251	175	100	220
065-065-250	15,00	65	134	174	196	M10	350	325	197	225	250	931	797	12,5	100	251	175	100	220
065-065-250	18,50	65	134	174	196	M10	350	325	197	225	250	937	803	12,5	100	251	175	100	220
065-065-250	22,00	65	134	174	196	M10	350	370	262	225	250	995	861	12,5	100	251	175	100	220
065-065-250	30,00	65	134	174	196	M10	400	422	305	225	250	1054	920	12,5	100	251	175	100	220
065-065-250	37,00	65	134	174	196	M10	400	422	305	225	250	1054	920	12,5	100	251	175	100	220
080-080-160	5,50	80	176	119	147	M10	300	266	167	260	180	782	606	12,5	100	193	175	100	230
080-080-160	7,50	80	176	119	147	M10	300	266	167	260	180	782	606	12,5	100	193	175	100	230
080-080-160	11,00	80	176	119	147	M10	350	325	197	260	180	948	772	12,5	100	226	175	100	230
080-080-160	15,00	80	176	119	147	M10	350	325	197	260	180	948	772	12,5	100	226	175	100	230
080-080-160	18,50	80	176	119	147	M10	350	325	197	260	180	954	778	12,5	100	226	175	100	230
080-080-160	22,00	80	176	119	147	M10	350	370	262	260	180	1012	836	12,5	100	226	175	100	230
080-080-160	30,00	80	176	119	147	M10	400	422	305	260	180	1071	895	12,5	100	226	175	100	230
080-080-200	11,00	80	158	150	170	M10	350	325	197	250	250	945	787	12,5	140	241	215	130	250
080-080-200	15,00	80	158	150	170	M10	350	325	197	250	250	945	787	12,5	140	241	215	130	250
080-080-200	18,50	80	158	150	170	M10	350	325	197	250	250	951	793	12,5	140	241	215	130	250
080-080-200	22,00	80	158	150	170	M10	350	370	262	250	250	1009	851	12,5	140	241	215	130	250
080-080-200	30,00	80	158	150	170	M10	400	422	305	250	250	1068	910	12,5	140	241	215	130	250
080-080-200	37,00	80	158	150	170	M10	400	422	305	250	250	1068	910	12,5	140	241	215	130	250
100-100-125	5,50	100	129	112	160	M10	300	266	167	230	220	744	615	12,5	100	202	195	100	230
100-100-125	7,50	100	129	112	160	M10	300	266	167	230	220	744	615	12,5	100	202	195	100	230
100-100-125	11,00	100	129	112	160	M10	350	325	197	230	220	910	781	12,5	100	235	195	100	230
100-100-125	15,00	100	129	112	160	M10	350	325	197	230	220	910	781	12,5	100	235	195	100	230
100-100-160	11,00	100	156	128	163	M20	350	325	197	245	205	948	792	25	140	246	-	-	-
100-100-160	15,00	100	156	128	163	M20	350	325	197	245	205	948	792	25	140	246	-	-	-
100-100-160	18,50	100	156	128	163	M20	350	325	197	245	205	954	798	25	140	246	-	-	-
100-100-160	22,00	100	156	128	163	M20	350	370	262	245	205	1012	856	25	140	246	-	-	-
100-100-160	30,00	100	156	128	163	M20	400	422	305	245	205	1071	915	25	140	246	-	-	-
100-100-160	37,00	100	156	128	163	M20	400	422	305	245	205	1071	915	25	140	246	-	-	-
125-125-160	18,50	125	203	182	226	M20	350	325	197	420	280	1001	798	25	140	246	-	-	-
125-125-160	22,00	125	203	182	226	M20	350	370	262	420	280	1059	856	25	140	246	-	-	-
125-125-160	30,00	125	203	182	226	M20	400	422	305	420	280	1118	915	25	140	246	-	-	-
125-125-160	37,00	125	203	182	226	M20	400	422	305	420	280	1118	915	25	140	246	-	-	-

Size	P <sub>N</sub>	DN <sub>(19)</sub>	a	≈b <sub>1</sub> <sub>(19)</sub>	≈b <sub>2</sub> <sub>(19)</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>(19)</sub>	≈l <sub>2</sub> <sub>(19)</sub>	t	≈x <sub>(19)</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 2900 rpm	[kW]	[mm]																	
125-125-160	45,00	125	203	182	226	M20	450	468	325	420	280	1235	1032	25	140	277	-	-	-
125-125-200	22,00	125	206	175	214	M20	350	370	262	380	320	1062	856	25	140	246	-	-	-
125-125-200	30,00	125	206	175	214	M20	400	422	305	380	320	1121	915	25	140	246	-	-	-
125-125-200	37,00	125	206	175	214	M20	400	422	305	380	320	1065	859	25	140	190	-	-	-
125-125-200	45,00	125	206	175	214	M20	450	468	325	380	320	1238	1032	25	140	277	-	-	-

**Pump set (fixed speed version), n = 1450 rpm**

**Fig. 4: Pump set dimensions**

**Fig. 5: Foundation fastening dimensions**
**Table 20: Pump set dimensions (fixed speed version), n = 1450 rpm**

Size	P <sub>N</sub>	DN <sup>20)</sup>	a	≈b <sub>1</sub> <sup>21)</sup>	≈b <sub>2</sub> <sup>21)</sup>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sup>21)</sup>	≈l <sub>2</sub> <sup>21)</sup>	t	≈x <sup>21)</sup>	w	m <sub>1</sub>	m <sub>2</sub>	o
<b>n = 1450 rpm</b>	<b>[kW]</b>		<b>[mm]</b>																
032-032-160	0,25	32	87	119	131	M10	160	145	111	180	160	460	373	12,5	100	136	175	100	190
032-032-160	0,37	32	87	119	131	M10	160	145	111	180	160	460	373	12,5	100	136	175	100	190
032-032-160	0,55	32	87	119	131	M10	200	162	120	180	160	498	411	12,5	100	156	175	100	190
032-032-160	0,75	32	87	119	131	M10	200	162	120	180	160	498	411	12,5	100	156	175	100	190
032-032-160	1,10	32	87	119	131	M10	200	190	128	180	160	525	438	12,5	100	156	175	100	190
032-032-200	0,37	32	100	134	146	M10	160	145	111	250	190	473	373	12,5	100	136	175	100	190
032-032-200	0,55	32	100	134	146	M10	200	162	120	250	190	511	411	12,5	100	156	175	100	190
032-032-200	0,75	32	100	134	146	M10	200	162	120	250	190	511	411	12,5	100	156	175	100	190
032-032-200	1,10	32	100	134	146	M10	200	190	128	250	190	538	438	12,5	100	156	175	100	190
032-032-200	1,50	32	100	134	146	M10	200	190	128	250	190	564	464	12,5	100	156	175	100	190
032-032-200	2,20	32	100	134	146	M10	250	213	135	250	190	617	517	12,5	100	170	175	100	190
040-040-160	0,37	40	114	118	132	M10	160	145	111	180	160	487	373	12,5	100	136	165	90	190
040-040-160	0,55	40	114	118	132	M10	200	162	120	180	160	525	411	12,5	100	156	165	90	190
040-040-160	0,75	40	114	118	132	M10	200	162	120	180	160	525	411	12,5	100	156	165	90	190
040-040-160	1,10	40	114	118	132	M10	200	190	128	180	160	552	438	12,5	100	156	165	90	190
040-040-160	1,50	40	114	118	132	M10	200	190	128	180	160	578	464	12,5	100	156	165	90	190
040-040-250	0,75	40	104	163	173	M10	200	162	120	220	220	519	415	12,5	100	160	175	100	190
040-040-250	1,10	40	104	163	173	M10	200	190	128	220	220	546	442	12,5	100	160	175	100	190
040-040-250	1,50	40	104	163	173	M10	200	190	128	220	220	572	468	12,5	100	160	175	100	190
040-040-250	2,20	40	104	163	173	M10	250	213	135	220	220	625	521	12,5	100	174	175	100	190
040-040-250	3,00	40	104	163	173	M10	250	213	135	220	220	660	556	12,5	100	174	175	100	190
040-040-250	4,00	40	104	163	173	M10	250	234	148	220	220	649	545	12,5	100	174	175	100	190
040-040-250	5,50	40	104	163	173	M10	300	266	167	220	220	714	610	12,5	100	197	175	100	190
050-050-160	0,37	50	134	116	135	M10	160	145	111	250	190	507	373	12,5	100	136	175	100	190
050-050-160	0,55	50	134	116	135	M10	200	162	120	250	190	545	411	12,5	100	156	175	100	190

<sup>20</sup> DN = EN 1092-2, PN 16

<sup>21</sup> For the exact motor-related dimensions refer to the general arrangement drawing.

Size	P <sub>N</sub>	DN <sub>20</sub>	a	≈b <sub>1</sub> <sub>21</sub>	≈b <sub>2</sub> <sub>21</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>21</sub>	≈l <sub>2</sub> <sub>21</sub>	t	≈x <sub>21</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 1450 rpm	[kW]	[mm]																	
050-050-160	0,75	50	134	116	135	M10	200	162	120	250	190	545	411	12,5	100	156	175	100	190
050-050-160	1,10	50	134	116	135	M10	200	190	128	250	190	572	438	12,5	100	156	175	100	190
050-050-160	1,50	50	134	116	135	M10	200	190	128	250	190	598	464	12,5	100	156	175	100	190
050-050-160	2,20	50	134	116	135	M10	250	213	135	250	190	651	517	12,5	100	170	175	100	190
050-050-250	1,10	50	129	167	182	M10	200	190	128	220	220	577	448	12,5	100	166	175	100	190
050-050-250	1,50	50	129	167	182	M10	200	190	128	220	220	603	474	12,5	100	166	175	100	190
050-050-250	2,20	50	129	167	182	M10	250	213	135	220	220	656	527	12,5	100	180	175	100	190
050-050-250	3,00	50	129	167	182	M10	250	213	135	220	220	691	562	12,5	100	180	175	100	190
050-050-250	4,00	50	129	167	182	M10	250	234	148	220	220	680	551	12,5	100	180	175	100	190
050-050-250	5,50	50	129	167	182	M10	300	266	167	220	220	745	616	12,5	100	203	175	100	190
050-050-250	7,50	50	129	167	182	M10	300	298	167	220	220	773	644	12,5	100	203	175	100	190
065-065-160	0,37	65	150	114	135	M10	160	145	111	270	170	523	373	12,5	100	136	175	110	210
065-065-160	0,55	65	150	114	135	M10	200	162	120	270	170	561	411	12,5	100	156	175	110	210
065-065-160	0,75	65	150	114	135	M10	200	162	120	270	170	561	411	12,5	100	156	175	110	210
065-065-160	1,10	65	150	114	135	M10	200	190	128	270	170	588	438	12,5	100	156	175	110	210
065-065-160	1,50	65	150	114	135	M10	200	190	128	270	170	614	464	12,5	100	156	175	110	210
065-065-160	2,20	65	150	114	135	M10	250	213	135	270	170	667	517	12,5	100	170	175	110	210
065-065-160	3,00	65	150	114	135	M10	250	213	135	270	170	702	552	12,5	100	170	175	110	210
065-065-250	1,50	65	134	174	196	M10	200	190	128	225	250	623	489	12,5	100	181	175	100	220
065-065-250	2,20	65	134	174	196	M10	250	213	135	225	250	676	542	12,5	100	195	175	100	220
065-065-250	3,00	65	134	174	196	M10	250	213	135	225	250	711	577	12,5	100	195	175	100	220
065-065-250	4,00	65	134	174	196	M10	250	234	148	225	250	700	566	12,5	100	195	175	100	220
065-065-250	5,50	65	134	174	196	M10	300	266	167	225	250	765	631	12,5	100	218	175	100	220
065-065-250	7,50	65	134	174	196	M10	300	298	167	225	250	793	659	12,5	100	218	175	100	220
065-065-250	11,00	65	134	174	196	M10	350	325	197	225	250	931	797	12,5	100	251	175	100	220
080-080-160	0,55	80	176	119	147	M10	160	145	111	260	180	569	393	12,5	100	156	175	100	230
080-080-160	0,75	80	176	119	147	M10	200	162	120	260	180	587	411	12,5	100	156	175	100	230
080-080-160	1,10	80	176	119	147	M10	200	190	128	260	180	614	438	12,5	100	156	175	100	230
080-080-160	1,50	80	176	119	147	M10	200	190	128	260	180	640	464	12,5	100	156	175	100	230
080-080-160	2,20	80	176	119	147	M10	250	213	135	260	180	693	517	12,5	100	170	175	100	230
080-080-160	3,00	80	176	119	147	M10	250	213	135	260	180	728	552	12,5	100	170	175	100	230
080-080-160	4,00	80	176	119	147	M10	250	234	148	260	180	717	541	12,5	100	170	175	100	230
080-080-200	1,10	80	158	150	170	M10	200	190	128	250	250	611	453	12,5	140	171	215	130	250
080-080-200	1,50	80	158	150	170	M10	200	190	128	250	250	637	479	12,5	140	171	215	130	250
080-080-200	2,20	80	158	150	170	M10	250	213	135	250	250	690	532	12,5	140	185	215	130	250
080-080-200	3,00	80	158	150	170	M10	250	213	135	250	250	725	567	12,5	140	185	215	130	250
080-080-200	4,00	80	158	150	170	M10	250	234	148	250	250	714	556	12,5	140	185	215	130	250
080-080-200	5,50	80	158	150	170	M10	300	266	167	250	250	779	621	12,5	140	208	215	130	250
080-080-200	7,50	80	158	150	170	M10	300	298	167	250	250	807	649	12,5	140	208	215	130	250
080-080-250	2,20	80	187	173	193	M10	250	213	135	350	270	724	537	12,5	140	190	180	105	230
080-080-250	3,00	80	187	173	193	M10	250	213	135	350	270	759	572	12,5	140	190	180	105	230
080-080-250	4,00	80	187	173	193	M10	250	234	148	350	270	748	561	12,5	140	190	180	105	230
080-080-250	5,50	80	187	173	193	M10	300	266	167	350	270	813	626	12,5	140	213	180	105	230
080-080-250	7,50	80	187	173	193	M10	300	298	167	350	270	841	654	12,5	140	213	180	105	230
080-080-250	11,00	80	187	173	193	M10	350	325	197	350	270	979	792	12,5	140	246	180	105	230
080-080-250	15,00	80	187	173	193	M10	350	325	197	350	270	985	798	12,5	140	246	180	105	230
100-100-125	0,75	100	129	112	160	M10	200	162	120	230	220	549	420	12,5	100	165	195	100	230
100-100-125	1,10	100	129	112	160	M10	200	190	128	230	220	576	447	12,5	100	165	195	100	230
100-100-125	1,50	100	129	112	160	M10	200	190	128	230	220	602	473	12,5	100	165	195	100	230
100-100-125	2,20	100	129	112	160	M10	250	213	135	230	220	655	526	12,5	100	179	195	100	230
100-100-160	1,50	100	156	128	163	M20	200	190	128	245	205	640	484	25	140	176	-	-	-
100-100-160	2,20	100	156	128	163	M20	250	213	135	245	205	693	537	25	140	190	-	-	-
100-100-160	3,00	100	156	128	163	M20	250	213	135	245	205	728	572	25	140	190	-	-	-
100-100-160	4,00	100	156	128	163	M20	250	234	148	245	205	717	561	25	140	190	-	-	-
100-100-160	5,50	100	156	128	163	M20	300	266	167	245	205	782	626	25	140	213	-	-	-
100-100-200	2,20	100	180	172	202	M20	250	213	135	305	245	717	537	25	140	190	-	-	-
100-100-200	3,00	100	180	172	202	M20	250	213	135	305	245	752	572	25	140	190	-	-	-
100-100-200	4,00	100	180	172	202	M20	250	234	148	305	245	741	561	25	140	190	-	-	-
100-100-200	5,50	100	180	172	202	M20	300	266	167	305	245	806	626	25	140	213	-	-	-
100-100-200	7,50	100	180	172	202	M20	300	298	167	305	245	834	654	25	140	213	-	-	-
100-100-200	11,00	100	180	172	202	M20	350	325	197	305	245	972	792	25	140	246	-	-	-
100-100-250	3,00	100	158	196	222	M20	250	213	135	290	260	754	596	25	140	214	-	-	-



Size	P <sub>N</sub>	DN <sub>20</sub>	a	≈b <sub>1</sub> <sub>21</sub>	≈b <sub>2</sub> <sub>21</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>21</sub>	≈l <sub>2</sub> <sub>21</sub>	t	≈x <sub>21</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 1450 rpm	[kW]	[mm]																	
100-100-250	4,00	100	158	196	222	M20	250	234	148	290	260	743	585	25	140	214	-	-	-
100-100-250	5,50	100	158	196	222	M20	300	266	167	290	260	808	650	25	140	237	-	-	-
100-100-250	7,50	100	158	196	222	M20	300	298	167	290	260	836	678	25	140	237	-	-	-
100-100-250	11,00	100	158	196	222	M20	350	325	197	290	260	974	816	25	140	270	-	-	-
100-100-250	15,00	100	158	196	222	M20	350	325	197	290	260	980	822	25	140	270	-	-	-
100-100-250	18,50	100	158	196	222	M20	350	370	262	290	260	1038	880	25	140	270	-	-	-
125-125-160	2,20	125	203	182	226	M20	250	213	135	420	280	740	537	25	140	190	-	-	-
125-125-160	3,00	125	203	182	226	M20	250	213	135	420	280	775	572	25	140	190	-	-	-
125-125-160	4,00	125	203	182	226	M20	250	234	148	420	280	764	561	25	140	190	-	-	-
125-125-160	5,50	125	203	182	226	M20	300	266	167	420	280	829	626	25	140	213	-	-	-
125-125-160	7,50	125	203	182	226	M20	300	298	167	420	280	857	654	25	140	213	-	-	-
125-125-200	3,00	125	206	175	214	M20	250	213	135	380	320	778	572	25	140	190	-	-	-
125-125-200	4,00	125	206	175	214	M20	250	234	148	380	320	767	561	25	140	190	-	-	-
125-125-200	5,50	125	206	175	214	M20	300	266	167	380	320	832	626	25	140	213	-	-	-
125-125-200	7,50	125	206	175	214	M20	300	298	167	380	320	860	654	25	140	213	-	-	-
125-125-200	11,00	125	206	175	214	M20	350	325	197	380	320	998	792	25	140	246	-	-	-
125-125-200	15,00	125	206	175	214	M20	350	325	197	380	320	1004	798	25	140	246	-	-	-
125-125-250	5,50	125	210	188	219	M20	300	266	167	380	320	836	626	25	140	213	-	-	-
125-125-250	7,50	125	210	188	219	M20	300	298	167	380	320	864	654	25	140	213	-	-	-
125-125-250	11,00	125	210	188	219	M20	350	325	197	380	320	1002	792	25	140	246	-	-	-
125-125-250	15,00	125	210	188	219	M20	350	325	197	380	320	1008	798	25	140	246	-	-	-
125-125-250	18,50	125	210	188	219	M20	350	370	262	380	320	1066	856	25	140	246	-	-	-
125-125-250	22,00	125	210	188	219	M20	350	370	262	380	320	1066	856	25	140	246	-	-	-
150-150-200	5,50	150	230	187	240	M20	300	266	167	385	315	856	626	25	140	213	-	-	-
150-150-200	7,50	150	230	187	240	M20	300	298	167	385	315	884	654	25	140	213	-	-	-
150-150-200	11,00	150	230	187	240	M20	350	325	197	385	315	1022	792	25	140	246	-	-	-
150-150-200	15,00	150	230	187	240	M20	350	325	197	385	315	1028	798	25	140	246	-	-	-
150-150-200	18,50	150	230	187	240	M20	350	370	262	385	315	1086	856	25	140	246	-	-	-
150-150-250	7,50	150	222	226	275	M20	300	298	167	370	330	891	669	25	140	228	-	-	-
150-150-250	11,00	150	222	226	275	M20	350	325	197	370	330	1029	807	25	140	261	-	-	-
150-150-250	15,00	150	222	226	275	M20	350	325	197	370	330	1035	813	25	140	261	-	-	-
150-150-250	18,50	150	222	226	275	M20	350	370	262	370	330	1093	871	25	140	261	-	-	-
150-150-250	22,00	150	222	226	275	M20	350	370	262	370	330	1093	871	25	140	261	-	-	-
150-150-250	30,00	150	222	226	275	M20	400	422	305	370	330	1152	930	25	140	261	-	-	-
150-150-250	37,00	150	222	226	275	M20	450	460	325	370	330	1209	987	25	140	292	-	-	-
200-200-250	11,00	200	222	233	303	M20	350	325	197	400	400	1067	845	25	140	299	-	-	-
200-200-250	15,00	200	222	233	303	M20	350	325	197	400	400	1073	851	25	140	299	-	-	-
200-200-250	18,50	200	222	233	303	M20	350	370	262	400	400	1131	909	25	140	299	-	-	-
200-200-250	22,00	200	222	233	303	M20	350	370	262	400	400	1131	909	25	140	299	-	-	-
200-200-250	30,00	200	222	233	303	M20	400	422	305	400	400	1190	968	25	140	299	-	-	-
200-200-250	37,00	200	222	233	303	M20	450	460	325	400	400	1247	1025	25	140	330	-	-	-
200-200-250	45,00	200	222	233	303	M20	450	468	325	400	400	1277	1055	25	140	330	-	-	-
200-200-315	22,00	200	255	259	318	M20	350	370	262	490	410	1141	886	25	140	276	-	-	-
200-200-315	30,00	200	255	259	318	M20	400	422	305	490	410	1200	945	25	140	276	-	-	-
200-200-315	37,00	200	255	259	318	M20	450	460	325	490	410	1257	1002	25	140	307	-	-	-
200-200-315	45,00	200	255	259	318	M20	450	468	325	490	410	1287	1032	25	140	307	-	-	-
200-200-315	55,00	200	255	259	318	M20	550	520	392	490	410	1391	1136	25	140	319	-	-	-

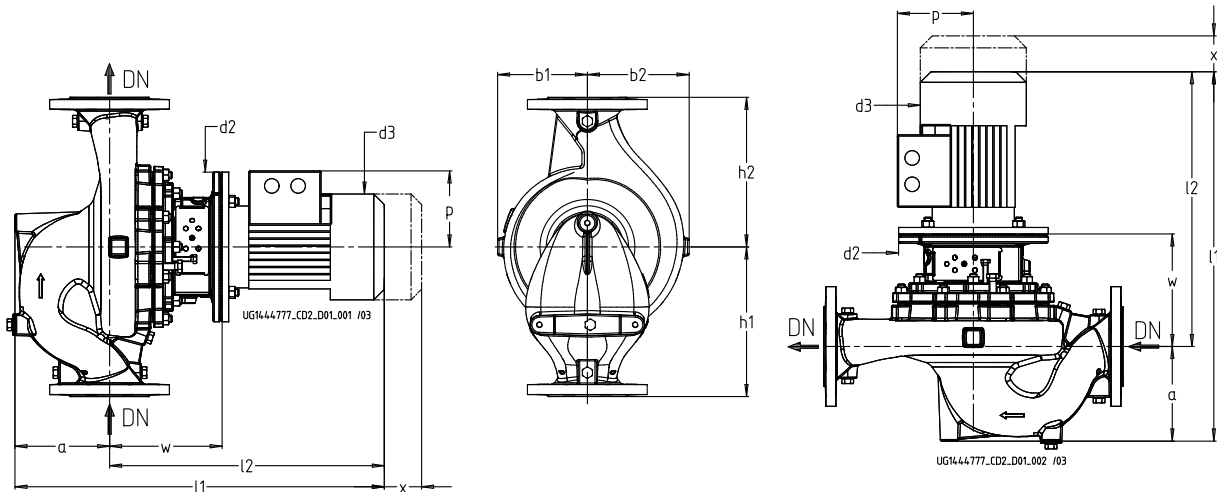
Pump set (fixed speed version),  $n = 3500$  rpm


Fig. 6: Pump dimensions

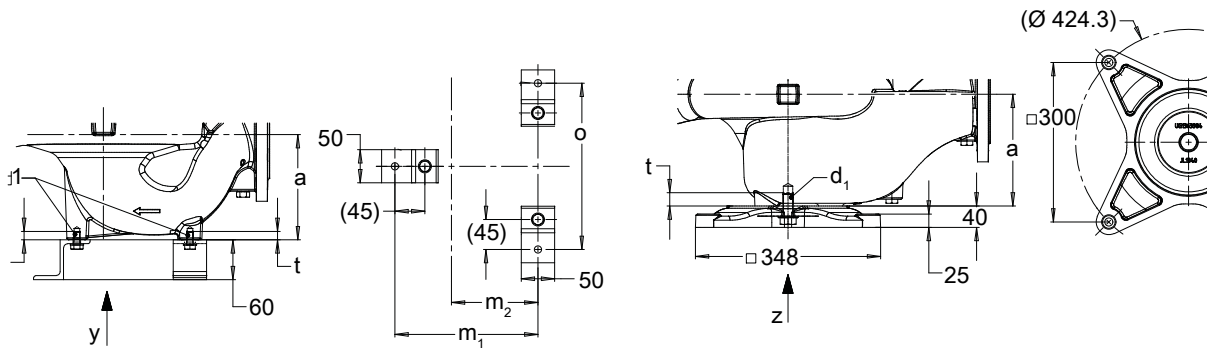


Fig. 7: Foundation fastening dimensions

 Table 21: Pump set dimensions (fixed speed version),  $n = 3500$  rpm

Etaline	$P_N$	$DN_{22}$	a	$\approx b_1$ <sup>23</sup>	$\approx b_2$ <sup>23</sup>	$d_1$	$d_2$	$d_3$	p	$h_1$	$h_2$	$\approx l_1$ <sup>23</sup>	$\approx l_2$ <sup>23</sup>	t	$\approx x$ <sup>23</sup>	w	$m_1$	$m_2$	o
n = 3500 rpm	[kW]																		
[mm]																			
032-032-160	1,27	32	87	119	131	M10	200	162	120	180	160	512	425	12,5	100	156	175	100	190
032-032-160	1,75	32	87	119	131	M10	200	190	128	180	160	525	438	12,5	100	156	175	100	190
032-032-160	2,55	32	87	119	131	M10	200	190	128	180	160	551	464	12,5	100	156	175	100	190
032-032-160	3,45	32	87	119	131	M10	250	213	135	180	160	604	517	12,5	100	170	175	100	190
032-032-160	4,55	32	87	119	131	M10	250	234	148	180	160	628	541	12,5	100	170	175	100	190
032-032-160	6,30	32	87	119	131	M10	300	266	167	180	160	693	606	12,5	100	193	175	100	190
032-032-160	8,60	32	87	119	131	M10	300	266	167	180	160	693	606	12,5	100	193	175	100	190
032-032-200	3,45	32	100	134	146	M10	250	213	135	250	190	617	517	12,5	100	170	175	100	190
032-032-200	4,55	32	100	134	146	M10	250	234	148	250	190	641	541	12,5	100	170	175	100	190
032-032-200	6,30	32	100	134	146	M10	300	266	167	250	190	706	606	12,5	100	193	175	100	190
032-032-200	8,60	32	100	134	146	M10	300	266	167	250	190	706	606	12,5	100	193	175	100	190
032-032-200	12,60	32	100	134	146	M10	350	325	197	250	190	872	772	12,5	100	226	175	100	190
032-032-200	17,30	32	100	134	146	M10	350	325	197	250	190	872	772	12,5	100	226	175	100	190
040-040-160	2,55	40	114	118	132	M10	200	190	128	180	160	578	464	12,5	100	156	165	90	190
040-040-160	3,45	40	114	118	132	M10	250	213	135	180	160	631	517	12,5	100	170	165	90	190
040-040-160	4,55	40	114	118	132	M10	250	234	148	180	160	655	541	12,5	100	170	165	90	190
040-040-160	6,30	40	114	118	132	M10	300	266	167	180	160	720	606	12,5	100	193	165	90	190
040-040-160	8,60	40	114	118	132	M10	300	266	167	180	160	720	606	12,5	100	193	165	90	190
040-040-160	12,60	40	114	118	132	M10	350	325	197	180	160	886	772	12,5	100	226	165	90	190
040-040-250	6,30	40	104	163	173	M10	300	266	167	220	220	714	610	12,5	100	197	175	100	190
040-040-250	8,60	40	104	163	173	M10	300	266	167	220	220	714	610	12,5	100	197	175	100	190
040-040-250	12,60	40	104	163	173	M10	350	325	197	220	220	880	776	12,5	100	230	175	100	190
040-040-250	17,30	40	104	163	173	M10	350	325	197	220	220	880	776	12,5	100	230	175	100	190

<sup>22</sup> DN = EN 1092-2, PN 16

<sup>23</sup> For the exact motor-related dimensions refer to the general arrangement drawing.

Etaline	P <sub>N</sub>	DN <sub>1</sub> <small>23)</small>	a	≈b <sub>1</sub> <small>23)</small>	≈b <sub>2</sub> <small>23)</small>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <small>23)</small>	≈l <sub>2</sub> <small>23)</small>	t	≈x <small>23)</small>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 3500 rpm	[kW]	[mm]																	
040-040-250	21,30	40	104	163	173	M10	350	325	197	220	220	886	782	12,5	100	230	175	100	190
040-040-250	24,50	40	104	163	173	M10	350	370	262	220	220	944	840	12,5	100	230	175	100	190
040-040-250	33,50	40	104	163	173	M10	400	422	305	220	220	1003	899	12,5	100	230	175	100	190
040-040-250	41,50	40	104	163	173	M10	400	422	305	220	220	1003	899	12,5	100	230	175	100	190
050-050-160	2,55	50	134	116	135	M10	200	190	128	250	190	598	464	12,5	100	156	175	100	190
050-050-160	3,45	50	134	116	135	M10	250	213	135	250	190	651	517	12,5	100	170	175	100	190
050-050-160	4,55	50	134	116	135	M10	250	234	148	250	190	675	541	12,5	100	170	175	100	190
050-050-160	6,30	50	134	116	135	M10	300	266	167	250	190	740	606	12,5	100	193	175	100	190
050-050-160	8,60	50	134	116	135	M10	300	266	167	250	190	740	606	12,5	100	193	175	100	190
050-050-160	12,60	50	134	116	135	M10	350	325	197	250	190	906	772	12,5	100	226	175	100	190
050-050-160	17,30	50	134	116	135	M10	350	325	197	250	190	906	772	12,5	100	226	175	100	190
050-050-250	8,60	50	129	167	182	M10	300	266	167	220	220	745	616	12,5	100	203	175	100	190
050-050-250	12,60	50	129	167	182	M10	350	325	197	220	220	911	782	12,5	100	236	175	100	190
050-050-250	17,30	50	129	167	182	M10	350	325	197	220	220	911	782	12,5	100	236	175	100	190
050-050-250	21,30	50	129	167	182	M10	350	325	197	220	220	917	788	12,5	100	236	175	100	190
050-050-250	24,50	50	129	167	182	M10	350	370	262	220	220	975	846	12,5	100	236	175	100	190
050-050-250	33,50	50	129	167	182	M10	400	422	305	220	220	1034	905	12,5	100	236	175	100	190
050-050-250	41,50	50	129	167	182	M10	400	422	305	220	220	1034	905	12,5	100	236	175	100	190
065-065-160	3,45	65	150	114	135	M10	250	213	135	270	170	667	517	12,5	100	170	175	110	210
065-065-160	4,55	65	150	114	135	M10	250	234	148	270	170	691	541	12,5	100	170	175	110	210
065-065-160	6,30	65	150	114	135	M10	300	266	167	270	170	756	606	12,5	100	193	175	110	210
065-065-160	8,60	65	150	114	135	M10	300	266	167	270	170	756	606	12,5	100	193	175	110	210
065-065-160	12,60	65	150	114	135	M10	350	325	197	270	170	922	772	12,5	100	226	175	110	210
065-065-160	17,30	65	150	114	135	M10	350	325	197	270	170	922	772	12,5	100	226	175	110	210
065-065-160	21,30	65	150	114	135	M10	350	325	197	270	170	928	778	12,5	100	226	175	110	210
065-065-160	24,50	65	150	114	135	M10	350	370	262	270	170	986	836	12,5	100	226	175	110	210
065-065-250	12,60	65	134	174	196	M10	350	325	197	225	250	931	797	12,5	100	251	175	100	220
065-065-250	17,30	65	134	174	196	M10	350	325	197	225	250	931	797	12,5	100	251	175	100	220
065-065-250	21,30	65	134	174	196	M10	350	325	197	225	250	937	803	12,5	100	251	175	100	220
065-065-250	24,50	65	134	174	196	M10	350	370	262	225	250	995	861	12,5	100	251	175	100	220
065-065-250	33,50	65	134	174	196	M10	400	422	305	225	250	1054	920	12,5	100	251	175	100	220
065-065-250	41,50	65	134	174	196	M10	400	422	305	225	250	1054	920	12,5	100	251	175	100	220
080-080-160	6,30	80	176	119	147	M10	300	266	167	260	180	782	606	12,5	100	193	175	100	230
080-080-160	8,60	80	176	119	147	M10	300	266	167	260	180	782	606	12,5	100	193	175	100	230
080-080-160	12,60	80	176	119	147	M10	350	325	197	260	180	948	772	12,5	100	226	175	100	230
080-080-160	17,30	80	176	119	147	M10	350	325	197	260	180	948	772	12,5	100	226	175	100	230
080-080-160	21,30	80	176	119	147	M10	350	325	197	260	180	954	778	12,5	100	226	175	100	230
080-080-160	24,50	80	176	119	147	M10	350	370	262	260	180	1012	836	12,5	100	226	175	100	230
080-080-160	33,50	80	176	119	147	M10	400	422	305	260	180	1071	895	12,5	100	226	175	100	230
080-080-200	12,60	80	158	150	170	M10	350	325	197	250	250	945	787	12,5	140	241	215	130	250
080-080-200	17,30	80	158	150	170	M10	350	325	197	250	250	945	787	12,5	140	241	215	130	250
080-080-200	21,30	80	158	150	170	M10	350	325	197	250	250	951	793	12,5	140	241	215	130	250
080-080-200	24,50	80	158	150	170	M10	350	370	262	250	250	1009	851	12,5	140	241	215	130	250
080-080-200	33,50	80	158	150	170	M10	400	422	305	250	250	1068	910	12,5	140	241	215	130	250
080-080-200	41,50	80	158	150	170	M10	400	422	305	250	250	1068	910	12,5	140	241	215	130	250
100-100-125	6,30	100	129	112	160	M10	300	266	167	230	220	744	615	12,5	100	202	195	100	230
100-100-125	8,60	100	129	112	160	M10	300	266	167	230	220	744	615	12,5	100	202	195	100	230
100-100-125	12,60	100	129	112	160	M10	350	325	197	230	220	910	781	12,5	100	235	195	100	230
100-100-125	17,30	100	129	112	160	M10	350	325	197	230	220	910	781	12,5	100	235	195	100	230
100-100-160	12,60	100	156	128	163	M20	350	325	197	245	205	948	792	25	140	246	-	-	-
100-100-160	17,30	100	156	128	163	M20	350	325	197	245	205	948	792	25	140	246	-	-	-
100-100-160	21,30	100	156	128	163	M20	350	325	197	245	205	954	798	25	140	246	-	-	-
100-100-160	24,50	100	156	128	163	M20	350	370	262	245	205	1012	856	25	140	246	-	-	-
100-100-160	33,50	100	156	128	163	M20	400	422	305	245	205	1071	915	25	140	246	-	-	-
100-100-160	41,50	100	156	128	163	M20	400	422	305	245	205	1071	915	25	140	246	-	-	-
125-125-160	21,30	125	203	182	226	M20	350	325	197	420	280	1001	798	25	140	246	-	-	-
125-125-160	24,50	125	203	182	226	M20	350	370	262	420	280	1059	856	25	140	246	-	-	-
125-125-160	33,50	125	203	182	226	M20	400	422	305	420	280	1118	915	25	140	246	-	-	-
125-125-160	41,50	125	203	182	226	M20	400	422	305	420	280	1118	915	25	140	246	-	-	-
125-125-160	51,00	125	203	182	226	M20	450	468	325	420	280	1235	1032	25	140	277	-	-	-
125-125-200	24,50	125	206	175	214	M20	350	370	262	380	320	1062	856	25	140	246	-	-	-

Etaline	P <sub>N</sub>	DN <sub>1</sub> <small>22)</small>	a	≈b <sub>1</sub> <small>23)</small>	≈b <sub>2</sub> <small>23)</small>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <small>23)</small>	≈l <sub>2</sub> <small>23)</small>	t	≈x <small>23)</small>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 3500 rpm	[kW]	[mm]																	
125-125-200	33,50	125	206	175	214	M20	400	422	305	380	320	1121	915	25	140	246	-	-	-
125-125-200	41,50	125	206	175	214	M20	400	422	305	380	320	1065	859	25	140	190	-	-	-
125-125-200	51,00	125	206	175	214	M20	450	468	325	380	320	1238	1032	25	140	277	-	-	-



Etaline	P <sub>N</sub>	DN <sub>1</sub> <small>(24)</small>	a	≈b <sub>1</sub> <small>(25)</small>	≈b <sub>2</sub> <small>(25)</small>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <small>(25)</small>	≈l <sub>2</sub> <small>(25)</small>	t	≈x <small>(25)</small>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 1750 rpm	[kW]	[mm]																	
050-050-160	0,86	50	134	116	135	M10	200	162	120	250	190	545	411	12,5	100	156	175	100	190
050-050-160	1,27	50	134	116	135	M10	200	190	128	250	190	572	438	12,5	100	156	175	100	190
050-050-160	1,75	50	134	116	135	M10	200	190	128	250	190	598	464	12,5	100	156	175	100	190
050-050-160	2,55	50	134	116	135	M10	250	213	135	250	190	651	517	12,5	100	170	175	100	190
050-050-250	1,27	50	129	167	182	M10	200	190	128	220	220	577	448	12,5	100	166	175	100	190
050-050-250	1,75	50	129	167	182	M10	200	190	128	220	220	603	474	12,5	100	166	175	100	190
050-050-250	2,55	50	129	167	182	M10	250	213	135	220	220	656	527	12,5	100	180	175	100	190
050-050-250	3,45	50	129	167	182	M10	250	213	135	220	220	691	562	12,5	100	180	175	100	190
050-050-250	4,55	50	129	167	182	M10	250	234	148	220	220	680	551	12,5	100	180	175	100	190
050-050-250	6,30	50	129	167	182	M10	300	266	167	220	220	745	616	12,5	100	203	175	100	190
050-050-250	8,60	50	129	167	182	M10	300	298	167	220	220	773	644	12,5	100	203	175	100	190
065-065-160	0,43	65	150	114	135	M10	160	145	111	270	170	523	373	12,5	100	136	175	110	210
065-065-160	0,63	65	150	114	135	M10	200	162	120	270	170	561	411	12,5	100	156	175	110	210
065-065-160	0,86	65	150	114	135	M10	200	162	120	270	170	561	411	12,5	100	156	175	110	210
065-065-160	1,27	65	150	114	135	M10	200	190	128	270	170	588	438	12,5	100	156	175	110	210
065-065-160	1,75	65	150	114	135	M10	200	190	128	270	170	614	464	12,5	100	156	175	110	210
065-065-160	2,55	65	150	114	135	M10	250	213	135	270	170	667	517	12,5	100	170	175	110	210
065-065-160	3,45	65	150	114	135	M10	250	213	135	270	170	702	552	12,5	100	170	175	110	210
065-065-250	1,75	65	134	174	196	M10	200	190	128	225	250	623	489	12,5	100	181	175	100	220
065-065-250	2,55	65	134	174	196	M10	250	213	135	225	250	676	542	12,5	100	195	175	100	220
065-065-250	3,45	65	134	174	196	M10	250	213	135	225	250	711	577	12,5	100	195	175	100	220
065-065-250	4,55	65	134	174	196	M10	250	234	148	225	250	700	566	12,5	100	195	175	100	220
065-065-250	6,30	65	134	174	196	M10	300	266	167	225	250	765	631	12,5	100	218	175	100	220
065-065-250	8,60	65	134	174	196	M10	300	298	167	225	250	793	659	12,5	100	218	175	100	220
065-065-250	12,60	65	134	174	196	M10	350	325	197	225	250	931	797	12,5	100	251	175	100	220
080-080-160	0,63	80	176	119	147	M10	160	145	111	260	180	569	393	12,5	100	156	175	100	230
080-080-160	0,86	80	176	119	147	M10	200	162	120	260	180	587	411	12,5	100	156	175	100	230
080-080-160	1,27	80	176	119	147	M10	200	190	128	260	180	614	438	12,5	100	156	175	100	230
080-080-160	1,75	80	176	119	147	M10	200	190	128	260	180	640	464	12,5	100	156	175	100	230
080-080-160	2,55	80	176	119	147	M10	250	213	135	260	180	693	517	12,5	100	170	175	100	230
080-080-160	3,45	80	176	119	147	M10	250	213	135	260	180	728	552	12,5	100	170	175	100	230
080-080-160	4,55	80	176	119	147	M10	250	234	148	260	180	717	541	12,5	100	170	175	100	230
080-080-200	1,27	80	158	150	170	M10	200	190	128	250	250	611	453	12,5	140	171	215	130	250
080-080-200	1,75	80	158	150	170	M10	200	190	128	250	250	637	479	12,5	140	171	215	130	250
080-080-200	2,55	80	158	150	170	M10	250	213	135	250	250	690	532	12,5	140	185	215	130	250
080-080-200	3,45	80	158	150	170	M10	250	213	135	250	250	725	567	12,5	140	185	215	130	250
080-080-200	4,55	80	158	150	170	M10	250	234	148	250	250	714	556	12,5	140	185	215	130	250
080-080-200	6,30	80	158	150	170	M10	300	266	167	250	250	779	621	12,5	140	208	215	130	250
080-080-200	8,60	80	158	150	170	M10	300	298	167	250	250	807	649	12,5	140	208	215	130	250
080-080-250	2,55	80	187	173	193	M10	250	213	135	350	270	724	537	12,5	140	190	180	105	230
080-080-250	3,45	80	187	173	193	M10	250	213	135	350	270	759	572	12,5	140	190	180	105	230
080-080-250	4,55	80	187	173	193	M10	250	234	148	350	270	748	561	12,5	140	190	180	105	230
080-080-250	6,30	80	187	173	193	M10	300	266	167	350	270	813	626	12,5	140	213	180	105	230
080-080-250	8,60	80	187	173	193	M10	300	298	167	350	270	841	654	12,5	140	213	180	105	230
080-080-250	12,60	80	187	173	193	M10	350	325	197	350	270	979	792	12,5	140	246	180	105	230
080-080-250	17,30	80	187	173	193	M10	350	325	197	350	270	985	798	12,5	140	246	180	105	230
100-100-125	0,86	100	129	112	160	M10	200	162	120	230	220	549	420	12,5	100	165	195	100	230
100-100-125	1,27	100	129	112	160	M10	200	190	128	230	220	576	447	12,5	100	165	195	100	230
100-100-125	1,75	100	129	112	160	M10	200	190	128	230	220	602	473	12,5	100	165	195	100	230
100-100-125	2,55	100	129	112	160	M10	250	213	135	230	220	655	526	12,5	100	179	195	100	230
100-100-160	1,75	100	156	128	163	M20	200	190	128	245	205	640	484	25	140	176	-	-	-
100-100-160	2,55	100	156	128	163	M20	250	213	135	245	205	693	537	25	140	190	-	-	-
100-100-160	3,45	100	156	128	163	M20	250	213	135	245	205	728	572	25	140	190	-	-	-
100-100-160	4,55	100	156	128	163	M20	250	234	148	245	205	717	561	25	140	190	-	-	-
100-100-160	6,30	100	156	128	163	M20	300	266	167	245	205	782	626	25	140	213	-	-	-
100-100-200	2,55	100	180	172	202	M20	250	213	135	305	245	717	537	25	140	190	-	-	-
100-100-200	3,45	100	180	172	202	M20	250	213	135	305	245	752	572	25	140	190	-	-	-
100-100-200	4,55	100	180	172	202	M20	250	234	148	305	245	741	561	25	140	190	-	-	-
100-100-200	6,30	100	180	172	202	M20	300	266	167	305	245	806	626	25	140	213	-	-	-
100-100-200	8,60	100	180	172	202	M20	300	298	167	305	245	834	654	25	140	213	-	-	-
100-100-200	12,60	100	180	172	202	M20	350	325	197	305	245	972	792	25	140	246	-	-	-
100-100-250	3,45	100	158	196	222	M20	250	213	135	290	260	754	596	25	140	214	-	-	-

Etaline	P <sub>N</sub>	DN <sub>1</sub> <small>24)</small>	a	≈b <sub>1</sub> <small>25)</small>	≈b <sub>2</sub> <small>25)</small>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	p	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <small>25)</small>	≈l <sub>2</sub> <small>25)</small>	t	≈x <small>25)</small>	w	m <sub>1</sub>	m <sub>2</sub>	o
n = 1750 rpm	[kW]	[mm]																	
100-100-250	4,55	100	158	196	222	M20	250	234	148	290	260	743	585	25	140	214	-	-	-
100-100-250	6,30	100	158	196	222	M20	300	266	167	290	260	808	650	25	140	237	-	-	-
100-100-250	8,60	100	158	196	222	M20	300	298	167	290	260	836	678	25	140	237	-	-	-
100-100-250	12,60	100	158	196	222	M20	350	325	197	290	260	974	816	25	140	270	-	-	-
100-100-250	17,30	100	158	196	222	M20	350	325	197	290	260	980	822	25	140	270	-	-	-
100-100-250	21,30	100	158	196	222	M20	350	370	262	290	260	1038	880	25	140	270	-	-	-
125-125-160	2,55	125	203	182	226	M20	250	213	135	420	280	740	537	25	140	190	-	-	-
125-125-160	3,45	125	203	182	226	M20	250	213	135	420	280	775	572	25	140	190	-	-	-
125-125-160	4,55	125	203	182	226	M20	250	234	148	420	280	764	561	25	140	190	-	-	-
125-125-160	6,30	125	203	182	226	M20	300	266	167	420	280	829	626	25	140	213	-	-	-
125-125-160	8,60	125	203	182	226	M20	300	298	167	420	280	857	654	25	140	213	-	-	-
125-125-200	3,45	125	206	175	214	M20	250	213	135	380	320	778	572	25	140	190	-	-	-
125-125-200	4,55	125	206	175	214	M20	250	234	148	380	320	767	561	25	140	190	-	-	-
125-125-200	6,30	125	206	175	214	M20	300	266	167	380	320	832	626	25	140	213	-	-	-
125-125-200	8,60	125	206	175	214	M20	300	298	167	380	320	860	654	25	140	213	-	-	-
125-125-200	12,60	125	206	175	214	M20	350	325	197	380	320	998	792	25	140	246	-	-	-
125-125-200	17,30	125	206	175	214	M20	350	325	197	380	320	1004	798	25	140	246	-	-	-
125-125-250	6,30	125	210	188	219	M20	300	266	167	380	320	836	626	25	140	213	-	-	-
125-125-250	8,60	125	210	188	219	M20	300	298	167	380	320	864	654	25	140	213	-	-	-
125-125-250	12,60	125	210	188	219	M20	350	325	197	380	320	1002	792	25	140	246	-	-	-
125-125-250	17,30	125	210	188	219	M20	350	325	197	380	320	1008	798	25	140	246	-	-	-
125-125-250	21,30	125	210	188	219	M20	350	370	262	380	320	1066	856	25	140	246	-	-	-
125-125-250	25,30	125	210	188	219	M20	350	370	262	380	320	1066	856	25	140	246	-	-	-
150-150-200	6,30	150	230	187	240	M20	300	266	167	385	315	856	626	25	140	213	-	-	-
150-150-200	8,60	150	230	187	240	M20	300	298	167	385	315	884	654	25	140	213	-	-	-
150-150-200	12,60	150	230	187	240	M20	350	325	197	385	315	1022	792	25	140	246	-	-	-
150-150-200	17,30	150	230	187	240	M20	350	325	197	385	315	1028	798	25	140	246	-	-	-
150-150-200	21,30	150	230	187	240	M20	350	370	262	385	315	1086	856	25	140	246	-	-	-
150-150-250	8,60	150	222	226	275	M20	300	298	167	370	330	891	669	25	140	228	-	-	-
150-150-250	12,60	150	222	226	275	M20	350	325	197	370	330	1029	807	25	140	261	-	-	-
150-150-250	17,30	150	222	226	275	M20	350	325	197	370	330	1035	813	25	140	261	-	-	-
150-150-250	21,30	150	222	226	275	M20	350	370	262	370	330	1093	871	25	140	261	-	-	-
150-150-250	25,30	150	222	226	275	M20	350	370	262	370	330	1093	871	25	140	261	-	-	-
150-150-250	34,50	150	222	226	275	M20	400	422	305	370	330	1152	930	25	140	261	-	-	-
150-150-250	42,50	150	222	226	275	M20	450	460	325	370	330	1209	987	25	140	292	-	-	-
200-200-250	12,60	200	222	233	303	M20	350	325	197	400	400	1067	845	25	140	299	-	-	-
200-200-250	17,30	200	222	233	303	M20	350	325	197	400	400	1073	851	25	140	299	-	-	-
200-200-250	21,30	200	222	233	303	M20	350	370	262	400	400	1131	909	25	140	299	-	-	-
200-200-250	25,30	200	222	233	303	M20	350	370	262	400	400	1131	909	25	140	299	-	-	-
200-200-250	34,50	200	222	233	303	M20	400	422	305	400	400	1190	968	25	140	299	-	-	-
200-200-250	42,50	200	222	233	303	M20	450	460	325	400	400	1247	1025	25	140	330	-	-	-
200-200-250	52,00	200	222	233	303	M20	450	468	325	400	400	1277	1055	25	140	330	-	-	-
200-200-315	25,30	200	255	259	318	M20	350	370	262	490	410	1141	886	25	140	276	-	-	-
200-200-315	34,50	200	255	259	318	M20	400	422	305	490	410	1200	945	25	140	276	-	-	-
200-200-315	42,50	200	255	259	318	M20	450	460	325	490	410	1257	1002	25	140	307	-	-	-
200-200-315	52,00	200	255	259	318	M20	450	468	325	490	410	1287	1032	25	140	307	-	-	-
200-200-315	63,00	200	255	259	318	M20	550	520	392	490	410	1391	1136	25	140	319	-	-	-



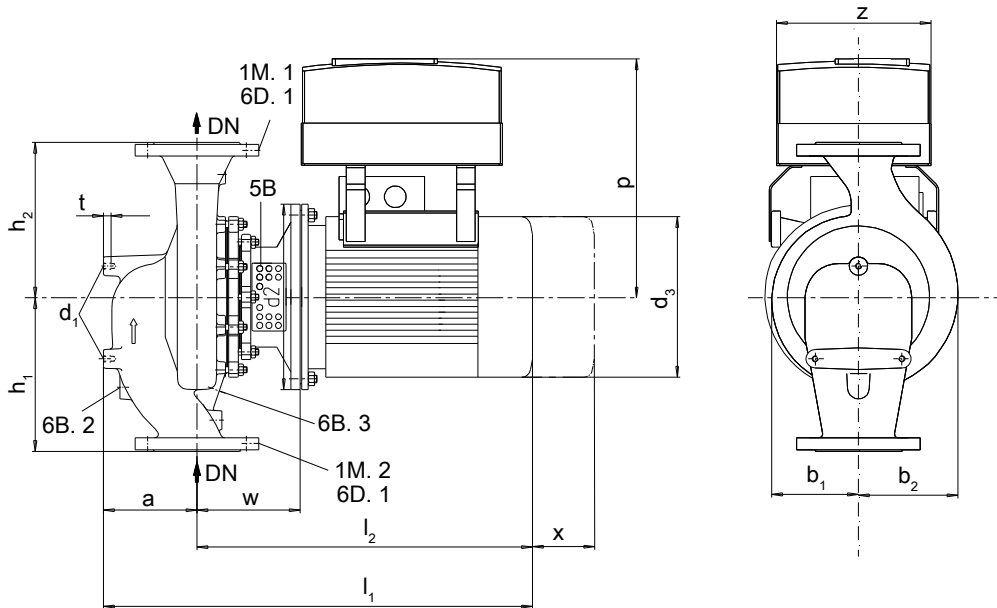
Pump set (variable speed version),  $n = 3000$  rpm


Fig. 10: Pump set dimensions with PumpDrive 2

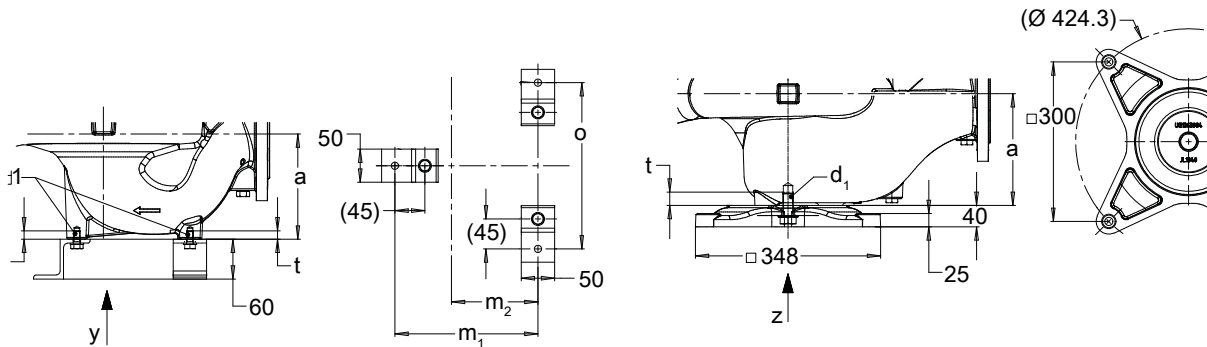


Fig. 11: Foundation fastening dimensions

 Table 23: Dimensions of pump set with PumpDrive 2 (variable speed version),  $n = 3000$  rpm <sup>26)</sup>

Size	$P_N$	DN	a	$\approx b_1$	$\approx b_2$	$d_1$	$d_2$	$d_3$	$\approx p$	$h_1$	$h_2$	$\approx l_1$	$\approx l_2$	t	$\approx x$	w	$m_1$	$m_2$	o	z
n = 3000 rpm	[kW]		[mm]																	
032-032-160	1,10	32	87	119	131	M10	200	162	294	180	160	512	425	12,5	100	156	175	100	190	190
032-032-160	1,50	32	87	119	131	M10	200	190	299	180	160	525	438	12,5	100	156	175	100	190	190
032-032-160	2,20	32	87	119	131	M10	200	190	299	180	160	551	464	12,5	100	156	175	100	190	211
032-032-160	3,00	32	87	119	131	M10	250	213	338	180	160	604	517	12,5	100	170	175	100	190	211
032-032-160	4,00	32	87	119	131	M10	250	234	353	180	160	628	541	12,5	100	170	175	100	190	211
032-032-160	5,50	32	87	119	131	M10	300	266	374	180	160	693	606	12,5	100	193	175	100	190	255
032-032-160	7,50	32	87	119	131	M10	300	266	374	180	160	693	606	12,5	100	193	175	100	190	255
032-032-200	3,00	32	100	134	146	M10	250	213	338	250	190	617	517	12,5	100	170	175	100	190	211
032-032-200	4,00	32	100	134	146	M10	250	234	353	250	190	641	541	12,5	100	170	175	100	190	211
032-032-200	5,50	32	100	134	146	M10	300	266	374	250	190	706	606	12,5	100	193	175	100	190	255
032-032-200	7,50	32	100	134	146	M10	300	266	374	250	190	706	606	12,5	100	193	175	100	190	255
032-032-200	11,00	32	100	134	146	M10	350	325	405	250	190	872	772	12,5	100	226	175	100	190	255
032-032-200	15,00	32	100	134	146	M10	350	325	457	250	190	872	772	12,5	100	226	175	100	190	325
040-040-160	2,20	40	114	118	132	M10	200	190	299	180	160	578	464	12,5	100	156	165	90	190	211
040-040-160	3,00	40	114	118	132	M10	250	213	338	180	160	631	517	12,5	100	170	165	90	190	211
040-040-160	4,00	40	114	118	132	M10	250	234	353	180	160	655	541	12,5	100	170	165	90	190	211
040-040-160	5,50	40	114	118	132	M10	300	266	374	180	160	720	606	12,5	100	193	165	90	190	255
040-040-160	7,50	40	114	118	132	M10	300	266	374	180	160	720	606	12,5	100	193	165	90	190	255

<sup>26)</sup> The dimensions of IE3, IE4, and IE5 drives may differ slightly.

<sup>27)</sup> DN = EN 1092-2, PN 16

<sup>28)</sup> For the exact motor-related dimensions refer to the general arrangement drawing in KSB EasySelect.



Size	P <sub>N</sub>	DN <sub>21</sub>	a	≈b <sub>1</sub> <sub>28</sub>	≈b <sub>2</sub> <sub>28</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	≈p <sub>28</sub>	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>28</sub>	≈l <sub>2</sub> <sub>28</sub>	t	≈x <sub>28</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o	z
n = 3000 rpm	[kW]	[mm]																		
040-040-160	11,00	40	114	118	132	M10	350	325	405	180	160	886	772	12,5	100	226	165	90	190	255
040-040-250	5,50	40	104	163	173	M10	300	266	374	220	220	714	610	12,5	100	197	175	100	190	255
040-040-250	7,50	40	104	163	173	M10	300	266	374	220	220	714	610	12,5	100	197	175	100	190	255
040-040-250	11,00	40	104	163	173	M10	350	325	405	220	220	880	776	12,5	100	230	175	100	190	255
040-040-250	15,00	40	104	163	173	M10	350	325	457	220	220	880	776	12,5	100	230	175	100	190	325
040-040-250	18,50	40	104	163	173	M10	350	325	457	220	220	886	782	12,5	100	230	175	100	190	325
040-040-250	22,00	40	104	163	173	M10	350	370	509	220	220	944	840	12,5	100	230	175	100	190	325
040-040-250	30,00	40	104	163	173	M10	400	422	558	220	220	1003	899	12,5	100	230	175	100	190	325
040-040-250	37,00	40	104	163	173	M10	400	422	573	220	220	1003	899	12,5	100	230	175	100	190	425
050-050-160	2,20	50	134	116	135	M10	200	190	299	250	190	598	464	12,5	100	156	175	100	190	211
050-050-160	3,00	50	134	116	135	M10	250	213	338	250	190	651	517	12,5	100	170	175	100	190	211
050-050-160	4,00	50	134	116	135	M10	250	234	353	250	190	675	541	12,5	100	170	175	100	190	211
050-050-160	5,50	50	134	116	135	M10	300	266	374	250	190	740	606	12,5	100	193	175	100	190	255
050-050-160	7,50	50	134	116	135	M10	300	266	374	250	190	740	606	12,5	100	193	175	100	190	255
050-050-160	11,00	50	134	116	135	M10	350	325	405	250	190	906	772	12,5	100	226	175	100	190	255
050-050-160	15,00	50	134	116	135	M10	350	325	457	250	190	906	772	12,5	100	226	175	100	190	325
050-050-250	7,50	50	129	167	182	M10	300	266	374	220	220	745	616	12,5	100	203	175	100	190	255
050-050-250	11,00	50	129	167	182	M10	350	325	405	220	220	911	782	12,5	100	236	175	100	190	255
050-050-250	15,00	50	129	167	182	M10	350	325	457	220	220	911	782	12,5	100	236	175	100	190	325
050-050-250	18,50	50	129	167	182	M10	350	325	457	220	220	917	788	12,5	100	236	175	100	190	325
050-050-250	22,00	50	129	167	182	M10	350	370	509	220	220	975	846	12,5	100	236	175	100	190	325
050-050-250	30,00	50	129	167	182	M10	400	422	558	220	220	1034	905	12,5	100	236	175	100	190	325
050-050-250	37,00	50	129	167	182	M10	400	422	573	220	220	1034	905	12,5	100	236	175	100	190	425
065-065-160	3,00	65	150	114	135	M10	250	213	338	270	170	667	517	12,5	100	170	175	110	210	211
065-065-160	4,00	65	150	114	135	M10	250	234	353	270	170	691	541	12,5	100	170	175	110	210	211
065-065-160	5,50	65	150	114	135	M10	300	266	374	270	170	756	606	12,5	100	193	175	110	210	255
065-065-160	7,50	65	150	114	135	M10	300	266	374	270	170	756	606	12,5	100	193	175	110	210	255
065-065-160	11,00	65	150	114	135	M10	350	325	405	270	170	922	772	12,5	100	226	175	110	210	255
065-065-160	15,00	65	150	114	135	M10	350	325	457	270	170	922	772	12,5	100	226	175	110	210	325
065-065-160	18,50	65	150	114	135	M10	350	325	457	270	170	928	778	12,5	100	226	175	110	210	325
065-065-160	22,00	65	150	114	135	M10	350	370	509	270	170	986	836	12,5	100	226	175	110	210	325
065-065-250	11,00	65	134	174	196	M10	350	325	405	225	250	931	797	12,5	100	251	175	100	220	255
065-065-250	15,00	65	134	174	196	M10	350	325	457	225	250	931	797	12,5	100	251	175	100	220	325
065-065-250	18,50	65	134	174	196	M10	350	325	457	225	250	937	803	12,5	100	251	175	100	220	325
065-065-250	22,00	65	134	174	196	M10	350	370	509	225	250	995	861	12,5	100	251	175	100	220	325
065-065-250	30,00	65	134	174	196	M10	400	422	558	225	250	1054	920	12,5	100	251	175	100	220	325
065-065-250	37,00	65	134	174	196	M10	400	422	573	225	250	1054	920	12,5	100	251	175	100	220	425
080-080-160	5,50	80	176	119	147	M10	300	266	374	260	180	782	606	12,5	100	193	175	100	230	255
080-080-160	7,50	80	176	119	147	M10	300	266	374	260	180	782	606	12,5	100	193	175	100	230	255
080-080-160	11,00	80	176	119	147	M10	350	325	405	260	180	948	772	12,5	100	226	175	100	230	255
080-080-160	15,00	80	176	119	147	M10	350	325	457	260	180	948	772	12,5	100	226	175	100	230	325
080-080-160	18,50	80	176	119	147	M10	350	325	457	260	180	954	778	12,5	100	226	175	100	230	325
080-080-160	22,00	80	176	119	147	M10	350	370	509	260	180	1012	836	12,5	100	226	175	100	230	325
080-080-160	30,00	80	176	119	147	M10	400	422	558	260	180	1071	895	12,5	100	226	175	100	230	325
080-080-200	11,00	80	158	150	170	M10	350	325	405	250	250	945	787	12,5	140	241	215	130	250	255
080-080-200	15,00	80	158	150	170	M10	350	325	457	250	250	945	787	12,5	140	241	215	130	250	325
080-080-200	18,50	80	158	150	170	M10	350	325	457	250	250	951	793	12,5	140	241	215	130	250	325
080-080-200	22,00	80	158	150	170	M10	350	370	509	250	250	1009	851	12,5	140	241	215	130	250	325
080-080-200	30,00	80	158	150	170	M10	400	422	558	250	250	1068	910	12,5	140	241	215	130	250	325
080-080-200	37,00	80	158	150	170	M10	400	422	573	250	250	1068	910	12,5	140	241	215	130	250	425
100-100-125	5,50	100	129	112	160	M10	300	266	374	230	220	744	615	12,5	100	202	195	100	230	255
100-100-125	7,50	100	129	112	160	M10	300	266	374	230	220	744	615	12,5	100	202	195	100	230	255
100-100-125	11,00	100	129	112	160	M10	350	325	405	230	220	910	781	12,5	100	235	195	100	230	255
100-100-125	15,00	100	129	112	160	M10	350	325	457	230	220	910	781	12,5	100	235	195	100	230	325
100-100-160	11,00	100	156	128	163	M20	350	325	405	245	205	948	792	25	140	246	-	-	-	255
100-100-160	15,00	100	156	128	163	M20	350	325	457	245	205	948	792	25	140	246	-	-	-	325
100-100-160	18,50	100	156	128	163	M20	350	325	457	245	205	954	798	25	140	246	-	-	-	325
100-100-160	22,00	100	156	128	163	M20	350	370	509	245	205	1012	856	25	140	246	-	-	-	325
100-100-160	30,00	100	156	128	163	M20	400	422	558	245	205	1071	915	25	140	246	-	-	-	325
100-100-160	37,00	100	156	128	163	M20	400	422	573	245	205	1071	915	25	140	246	-	-	-	425
125-125-160	18,50	125	203	182	226	M20	350	325	457	420	280	1001	798	25	140	246	-	-	-	325
125-125-160	22,00	125	203	182	226	M20	350	370	509	420	280	1059	856	25	140	246	-	-	-	325

Size	P <sub>N</sub>	DN <sub>27)</sub>	a	≈b <sub>1</sub> <sub>28)</sub>	≈b <sub>2</sub> <sub>28)</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	≈p <sub>28)</sub>	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>28)</sub>	≈l <sub>2</sub> <sub>28)</sub>	t	≈x <sub>28)</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o	z
n = 3000 rpm	[kW]	[mm]																		
125-125-160	30,00	125	203	182	226	M20	400	422	558	420	280	1118	915	25	140	246	-	-	-	325
125-125-160	37,00	125	203	182	226	M20	400	422	573	420	280	1118	915	25	140	246	-	-	-	425
125-125-160	45,00	125	203	182	226	M20	450	468	597	420	280	1235	1032	25	140	277	-	-	-	425
125-125-200	22,00	125	206	175	214	M20	350	370	509	380	320	1062	856	25	140	246	-	-	-	325
125-125-200	30,00	125	206	175	214	M20	400	422	558	380	320	1121	915	25	140	246	-	-	-	325
125-125-200	37,00	125	206	175	214	M20	400	422	573	380	320	1065	859	25	140	190	-	-	-	425
125-125-200	45,00	125	206	175	214	M20	450	468	597	380	320	1238	1032	25	140	277	-	-	-	425

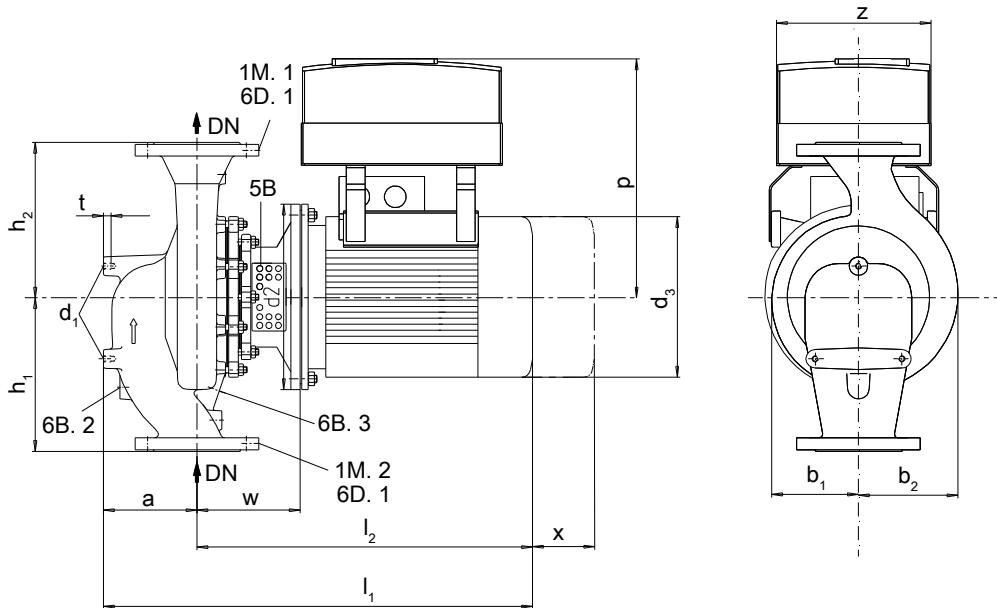
Pump set (variable speed version),  $n = 1500$  rpm


Fig. 12: Pump set dimensions with PumpDrive 2

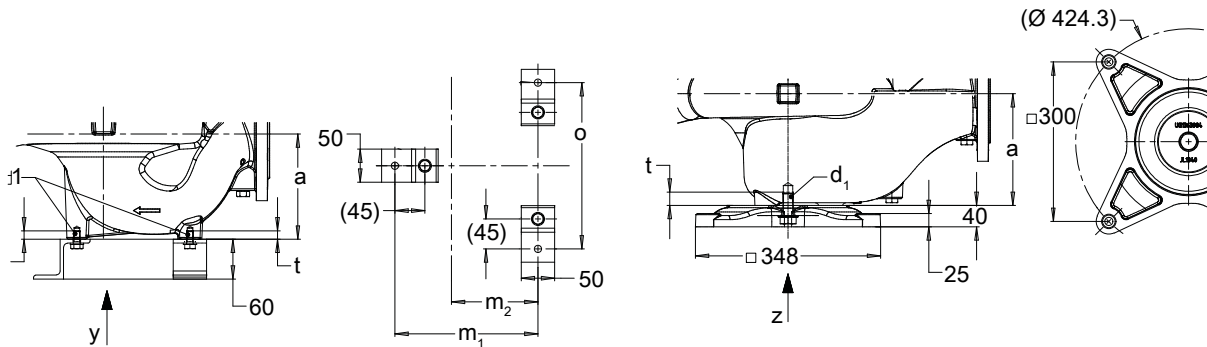


Fig. 13: Foundation fastening dimensions

 Table 24: Dimensions of pump set with PumpDrive 2 (variable speed version),  $n = 1500$  rpm <sup>29)</sup>

Size	$P_N$	DN	a	$\approx b_1$	$\approx b_2$	$d_1$	$d_2$	$d_3$	$\approx p$	$h_1$	$h_2$	$\approx l_1$	$\approx l_2$	t	$\approx x$	w	$m_1$	$m_2$	o	z
n = 1500 rpm	[kW]		[mm]																	
032-032-160	0,55	32	87	119	131	M10	200	162	294	180	160	498	411	12,5	100	156	175	100	190	190
032-032-160	0,75	32	87	119	131	M10	200	162	294	180	160	498	411	12,5	100	156	175	100	190	190
032-032-160	1,10	32	87	119	131	M10	200	190	299	180	160	525	438	12,5	100	156	175	100	190	190
032-032-200	0,55	32	100	134	146	M10	200	162	294	250	190	511	411	12,5	100	156	175	100	190	190
032-032-200	0,75	32	100	134	146	M10	200	162	294	250	190	511	411	12,5	100	156	175	100	190	190
032-032-200	1,10	32	100	134	146	M10	200	190	299	250	190	538	438	12,5	100	156	175	100	190	190
032-032-200	1,50	32	100	134	146	M10	200	190	299	250	190	564	464	12,5	100	156	175	100	190	190
032-032-200	2,20	32	100	134	146	M10	250	213	338	250	190	617	517	12,5	100	170	175	100	190	211
040-040-160	0,55	40	114	118	132	M10	200	162	294	180	160	525	411	12,5	100	156	165	90	190	190
040-040-160	0,75	40	114	118	132	M10	200	162	294	180	160	525	411	12,5	100	156	165	90	190	190
040-040-160	1,10	40	114	118	132	M10	200	190	299	180	160	552	438	12,5	100	156	165	90	190	190
040-040-160	1,50	40	114	118	132	M10	200	190	299	180	160	578	464	12,5	100	156	165	90	190	190
040-040-250	0,75	40	104	163	173	M10	200	162	294	220	220	519	415	12,5	100	160	175	100	190	190
040-040-250	1,10	40	104	163	173	M10	200	190	299	220	220	546	442	12,5	100	160	175	100	190	190
040-040-250	1,50	40	104	163	173	M10	200	190	299	220	220	572	468	12,5	100	160	175	100	190	190
040-040-250	2,20	40	104	163	173	M10	250	213	338	220	220	625	521	12,5	100	174	175	100	190	211
040-040-250	3,00	40	104	163	173	M10	250	213	338	220	220	660	556	12,5	100	174	175	100	190	211
040-040-250	4,00	40	104	163	173	M10	250	234	353	220	220	649	545	12,5	100	174	175	100	190	211

<sup>29)</sup> The dimensions of IE3, IE4, and IE5 drives may differ slightly.

<sup>30)</sup> DN = EN 1092-2, PN 16

<sup>31)</sup> For the exact motor-related dimensions refer to the general arrangement drawing in KSB EasySelect.

Size	P <sub>N</sub>	DN <sub>30</sub>	a	≈b <sub>1 31</sub>	≈b <sub>2 31</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	≈p <sub>31</sub>	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1 31</sub>	≈l <sub>2 31</sub>	t	≈x <sub>31</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o	z
n = 1500 rpm	[kW]	[mm]																		
040-040-250	5,50	40	104	163	173	M10	300	266	374	220	220	714	610	12,5	100	197	175	100	190	255
050-050-160	0,55	50	134	116	135	M10	200	162	294	250	190	545	411	12,5	100	156	175	100	190	190
050-050-160	0,75	50	134	116	135	M10	200	162	294	250	190	545	411	12,5	100	156	175	100	190	190
050-050-160	1,10	50	134	116	135	M10	200	190	299	250	190	572	438	12,5	100	156	175	100	190	190
050-050-160	1,50	50	134	116	135	M10	200	190	299	250	190	598	464	12,5	100	156	175	100	190	190
050-050-160	2,20	50	134	116	135	M10	250	213	338	250	190	651	517	12,5	100	170	175	100	190	211
050-050-250	1,10	50	129	167	182	M10	200	190	299	220	220	577	448	12,5	100	166	175	100	190	190
050-050-250	1,50	50	129	167	182	M10	200	190	299	220	220	603	474	12,5	100	166	175	100	190	190
050-050-250	2,20	50	129	167	182	M10	250	213	338	220	220	656	527	12,5	100	180	175	100	190	211
050-050-250	3,00	50	129	167	182	M10	250	213	338	220	220	691	562	12,5	100	180	175	100	190	211
050-050-250	4,0	50	129	167	182	M10	250	234	353	220	220	680	551	12,5	100	180	175	100	190	211
050-050-250	5,5	50	129	167	182	M10	300	266	374	220	220	745	616	12,5	100	203	175	100	190	255
050-050-250	7,5	50	129	167	182	M10	300	298	374	220	220	773	644	12,5	100	203	175	100	190	255
065-065-160	0,55	65	150	114	135	M10	200	162	294	270	170	561	411	12,5	100	156	175	110	210	190
065-065-160	0,75	65	150	114	135	M10	200	162	294	270	170	561	411	12,5	100	156	175	110	210	190
065-065-160	1,10	65	150	114	135	M10	200	190	299	270	170	588	438	12,5	100	156	175	110	210	190
065-065-160	1,50	65	150	114	135	M10	200	190	299	270	170	614	464	12,5	100	156	175	110	210	190
065-065-160	2,20	65	150	114	135	M10	250	213	338	270	170	667	517	12,5	100	170	175	110	210	211
065-065-160	3,00	65	150	114	135	M10	250	213	338	270	170	702	552	12,5	100	170	175	110	210	211
065-065-250	1,50	65	134	174	196	M10	200	190	299	225	250	623	489	12,5	100	181	175	100	220	190
065-065-250	2,20	65	134	174	196	M10	250	213	338	225	250	676	542	12,5	100	195	175	100	220	211
065-065-250	3,00	65	134	174	196	M10	250	213	338	225	250	711	577	12,5	100	195	175	100	220	211
065-065-250	4,00	65	134	174	196	M10	250	234	353	225	250	700	566	12,5	100	195	175	100	220	211
065-065-250	5,50	65	134	174	196	M10	300	266	374	225	250	765	631	12,5	100	218	175	100	220	255
065-065-250	7,50	65	134	174	196	M10	300	298	374	225	250	793	659	12,5	100	218	175	100	220	255
065-065-250	11,00	65	134	174	196	M10	350	325	405	225	250	931	797	12,5	100	251	175	100	220	255
080-080-160	0,55	80	176	119	147	M10	160	145	294	260	180	569	393	12,5	100	156	175	100	230	190
080-080-160	0,75	80	176	119	147	M10	200	162	294	260	180	587	411	12,5	100	156	175	100	230	190
080-080-160	1,10	80	176	119	147	M10	200	190	299	260	180	614	438	12,5	100	156	175	100	230	190
080-080-160	1,50	80	176	119	147	M10	200	190	299	260	180	640	464	12,5	100	156	175	100	230	190
080-080-160	2,20	80	176	119	147	M10	250	213	338	260	180	693	517	12,5	100	170	175	100	230	211
080-080-160	3,00	80	176	119	147	M10	250	213	338	260	180	728	552	12,5	100	170	175	100	230	211
080-080-160	4,00	80	176	119	147	M10	250	234	353	260	180	717	541	12,5	100	170	175	100	230	211
080-080-200	1,10	80	158	150	170	M10	200	190	299	250	250	611	453	12,5	140	171	215	130	250	190
080-080-200	1,50	80	158	150	170	M10	200	190	299	250	250	637	479	12,5	140	171	215	130	250	190
080-080-200	2,20	80	158	150	170	M10	250	213	338	250	250	690	532	12,5	140	185	215	130	250	211
080-080-200	3,00	80	158	150	170	M10	250	213	338	250	250	725	567	12,5	140	185	215	130	250	211
080-080-200	4,00	80	158	150	170	M10	250	234	353	250	250	714	556	12,5	140	185	215	130	250	211
080-080-200	5,50	80	158	150	170	M10	300	266	374	250	250	779	621	12,5	140	208	215	130	250	255
080-080-200	7,50	80	158	150	170	M10	300	298	374	250	250	807	649	12,5	140	208	215	130	250	255
080-080-250	2,20	80	187	173	193	M10	250	213	338	350	270	724	537	12,5	140	190	180	105	230	211
080-080-250	3,00	80	187	173	193	M10	250	213	338	350	270	759	572	12,5	140	190	180	105	230	211
080-080-250	4,00	80	187	173	193	M10	250	234	353	350	270	748	561	12,5	140	190	180	105	230	211
080-080-250	5,50	80	187	173	193	M10	300	266	374	350	270	813	626	12,5	140	213	180	105	230	255
080-080-250	7,50	80	187	173	193	M10	300	298	374	350	270	841	654	12,5	140	213	180	105	230	255
080-080-250	11,00	80	187	173	193	M10	350	325	405	350	270	979	792	12,5	140	246	180	105	230	255
080-080-250	15,00	80	187	173	193	M10	350	325	457	350	270	985	798	12,5	140	246	180	105	230	325
100-100-125	0,75	100	129	112	160	M10	200	162	294	230	220	549	420	12,5	100	165	195	100	230	190
100-100-125	1,10	100	129	112	160	M10	200	190	299	230	220	576	447	12,5	100	165	195	100	230	190
100-100-125	1,50	100	129	112	160	M10	200	190	299	230	220	602	473	12,5	100	165	195	100	230	190
100-100-125	2,20	100	129	112	160	M10	250	213	338	230	220	655	526	12,5	100	179	195	100	230	211
100-100-160	1,50	100	156	128	163	M20	200	190	299	245	205	640	484	25	140	176	-	-	-	190
100-100-160	2,20	100	156	128	163	M20	250	213	338	245	205	693	537	25	140	190	-	-	-	211
100-100-160	3,00	100	156	128	163	M20	250	213	338	245	205	728	572	25	140	190	-	-	-	211
100-100-160	4,00	100	156	128	163	M20	250	234	353	245	205	717	561	25	140	190	-	-	-	211
100-100-160	5,50	100	156	128	163	M20	300	266	374	245	205	782	626	25	140	213	-	-	-	255
100-100-200	2,20	100	180	172	202	M20	250	213	338	305	245	717	537	25	140	190	-	-	-	211
100-100-200	3,00	100	180	172	202	M20	250	213	338	305	245	752	572	25	140	190	-	-	-	211
100-100-200	4,00	100	180	172	202	M20	250	234	353	305	245	741	561	25	140	190	-	-	-	211
100-100-200	5,50	100	180	172	202	M20	300	266	374	305	245	806	626	25	140	213	-	-	-	255
100-100-200	7,50	100	180	172	202	M20	300	298	374	305	245	834	654	25	140	213	-	-	-	255
100-100-200	11,00	100	180	172	202	M20	350	325	405	305	245	972	792	25	140	246	-	-	-	255

Size	P <sub>N</sub>	DN <sub>30)</sub>	a	≈b <sub>1</sub> <sub>31)</sub>	≈b <sub>2</sub> <sub>31)</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	≈p <sub>31)</sub>	h <sub>1</sub>	h <sub>2</sub>	≈l <sub>1</sub> <sub>31)</sub>	≈l <sub>2</sub> <sub>31)</sub>	t	≈x <sub>31)</sub>	w	m <sub>1</sub>	m <sub>2</sub>	o	z
n = 1500 rpm	[kW]	[mm]																		
100-100-250	3,00	100	158	196	222	M20	250	213	338	290	260	754	596	25	140	214	-	-	-	211
100-100-250	4,00	100	158	196	222	M20	250	234	353	290	260	743	585	25	140	214	-	-	-	211
100-100-250	5,50	100	158	196	222	M20	300	266	374	290	260	808	650	25	140	237	-	-	-	255
100-100-250	7,50	100	158	196	222	M20	300	298	374	290	260	836	678	25	140	237	-	-	-	255
100-100-250	11,00	100	158	196	222	M20	350	325	405	290	260	974	816	25	140	270	-	-	-	255
100-100-250	15,00	100	158	196	222	M20	350	325	457	290	260	980	822	25	140	270	-	-	-	325
100-100-250	18,50	100	158	196	222	M20	350	370	509	290	260	1038	880	25	140	270	-	-	-	325
125-125-160	2,20	125	203	182	226	M20	250	213	338	420	280	740	537	25	140	190	-	-	-	211
125-125-160	3,00	125	203	182	226	M20	250	213	338	420	280	775	572	25	140	190	-	-	-	211
125-125-160	4,00	125	203	182	226	M20	250	234	353	420	280	764	561	25	140	190	-	-	-	211
125-125-160	5,50	125	203	182	226	M20	300	266	374	420	280	829	626	25	140	213	-	-	-	255
125-125-160	7,50	125	203	182	226	M20	300	298	374	420	280	857	654	25	140	213	-	-	-	255
125-125-200	3,00	125	206	175	214	M20	250	213	338	380	320	778	572	25	140	190	-	-	-	211
125-125-200	4,00	125	206	175	214	M20	250	234	353	380	320	767	561	25	140	190	-	-	-	211
125-125-200	5,50	125	206	175	214	M20	300	266	374	380	320	832	626	25	140	213	-	-	-	255
125-125-200	7,50	125	206	175	214	M20	300	298	374	380	320	860	654	25	140	213	-	-	-	255
125-125-200	11,00	125	206	175	214	M20	350	325	405	380	320	998	792	25	140	246	-	-	-	255
125-125-200	15,00	125	206	175	214	M20	350	325	457	380	320	1004	798	25	140	246	-	-	-	325
125-125-250	5,50	125	210	188	219	M20	300	266	374	380	320	836	626	25	140	213	-	-	-	255
125-125-250	7,50	125	210	188	219	M20	300	298	374	380	320	864	654	25	140	213	-	-	-	255
125-125-250	11,00	125	210	188	219	M20	350	325	405	380	320	1002	792	25	140	246	-	-	-	255
125-125-250	15,00	125	210	188	219	M20	350	325	457	380	320	1008	798	25	140	246	-	-	-	325
125-125-250	18,50	125	210	188	219	M20	350	370	509	380	320	1066	856	25	140	246	-	-	-	325
125-125-250	22,00	125	210	188	219	M20	350	370	509	380	320	1066	856	25	140	246	-	-	-	325
150-150-200	5,50	150	230	187	240	M20	300	266	374	385	315	856	626	25	140	213	-	-	-	255
150-150-200	7,50	150	230	187	240	M20	300	298	374	385	315	884	654	25	140	213	-	-	-	255
150-150-200	11,00	150	230	187	240	M20	350	325	405	385	315	1022	792	25	140	246	-	-	-	255
150-150-200	15,00	150	230	187	240	M20	350	325	457	385	315	1028	798	25	140	246	-	-	-	325
150-150-200	18,50	150	230	187	240	M20	350	370	509	385	315	1086	856	25	140	246	-	-	-	325
150-150-250	7,50	150	222	226	275	M20	300	298	374	370	330	891	669	25	140	228	-	-	-	255
150-150-250	11,00	150	222	226	275	M20	350	325	405	370	330	1029	807	25	140	261	-	-	-	255
150-150-250	15,00	150	222	226	275	M20	350	325	457	370	330	1035	813	25	140	261	-	-	-	325
150-150-250	18,50	150	222	226	275	M20	350	370	509	370	330	1093	871	25	140	261	-	-	-	325
150-150-250	22,00	150	222	226	275	M20	350	370	509	370	330	1093	871	25	140	261	-	-	-	325
150-150-250	30,00	150	222	226	275	M20	400	422	558	370	330	1152	930	25	140	261	-	-	-	325
150-150-250	37,00	150	222	226	275	M20	450	460	597	370	330	1209	987	25	140	292	-	-	-	425
200-200-250	11,00	200	222	233	303	M20	350	325	405	400	400	1067	845	25	140	299	-	-	-	255
200-200-250	15,00	200	222	233	303	M20	350	325	457	400	400	1073	851	25	140	299	-	-	-	325
200-200-250	18,50	200	222	233	303	M20	350	370	509	400	400	1131	909	25	140	299	-	-	-	325
200-200-250	22,00	200	222	233	303	M20	350	370	509	400	400	1131	909	25	140	299	-	-	-	325
200-200-250	30,00	200	222	233	303	M20	400	422	558	400	400	1190	968	25	140	299	-	-	-	325
200-200-250	37,00	200	222	233	303	M20	450	460	597	400	400	1247	1025	25	140	330	-	-	-	425
200-200-250	45,00	200	222	233	303	M20	450	468	597	400	400	1277	1055	25	140	330	-	-	-	425
200-200-315	22,00	200	255	259	318	M20	350	370	509	490	410	1141	886	25	140	276	-	-	-	325
200-200-315	30,00	200	255	259	318	M20	400	422	558	490	410	1200	945	25	140	276	-	-	-	325
200-200-315	37,00	200	255	259	318	M20	450	460	597	490	410	1257	1002	25	140	307	-	-	-	425
200-200-315	45,00	200	255	259	318	M20	450	468	597	490	410	1287	1032	25	140	307	-	-	-	425

## Connections

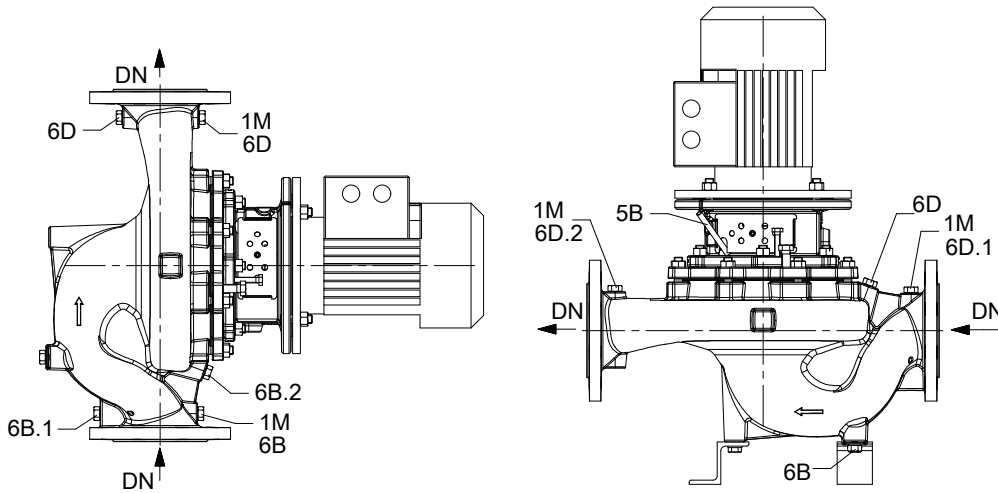


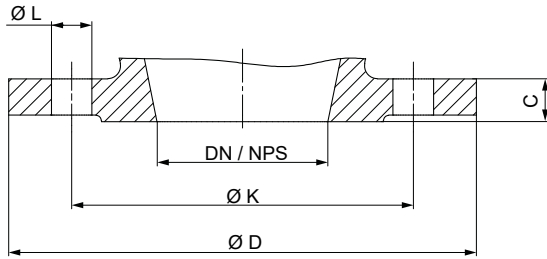
Fig. 14: Connections

Table 25: Connection types

Connection	Description	Configuration	Position
1M	Connection for pressure gauge	Drilled and closed, or pressure sensor for PumpMeter (if selected)	Suction flange and discharge flange
5B	Vent connection for the mechanical seal chamber	Plugged with vent plug	Casing cover
6B, 6B.1, 6B.2	Fluid drain	Drilled and closed	Volute casing
6D, 6D.1, 6D.2	Fluid priming and venting	Drilled and closed	Volute casing

Table 26: Connection [mm]

Etaline	1M, 6B, 6D	5B
032-032-160	G 1/4	G 1/4
032-032-200	G 1/4	G 1/4
040-040-160	G 1/4	G 1/4
040-040-250	G 1/4	G 1/4
050-050-160	G 1/4	G 1/4
050-050-250	G 1/4	G 1/4
065-065-160	G 1/4	G 1/4
065-065-250	G 1/4	G 1/4
080-080-160	G 3/8	G 1/4
080-080-200	G 3/8	G 1/4
080-080-250	G 3/8	G 1/4
100-100-125	G 3/8	G 1/4
100-100-160	G 3/8	G 1/4
100-100-200	G 3/8	G 1/4
100-100-250	G 3/8	G 1/4
125-125-160	G 1/2	G 1/4
125-125-200	G 1/2	G 1/4
125-125-250	G 1/2	G 1/4
150-150-200	G 1/2	G 1/4
150-150-250	G 1/2	G 1/4
200-200-250	G 1/2	G 1/4
200-200-315	G 1/2	G 1/4

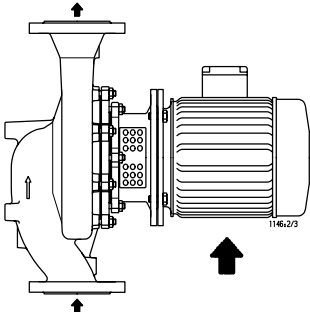
**Flange design**

**Fig. 15:** Flange dimensions

**Table 27:** Flange dimensions [mm]

DN / NPS	Standard					
	EN 1092-2			ASME B 16.1		
	Material					
	G			G		
	PN 16			Class 125		
	Ø K	Ø D	Number of holes L	Ø K	Ø D	Number of holes L
32 / NPS 1 1/4	100	140	4xØ19	88,9	140	4xØ15,7
40 / NPS 1 1/2	110	150	4xØ19	98,6	150	4xØ15,7
50 / NPS 2	125	165	4xØ19	120,7	165	4xØ19,1
65 / NPS 2 1/2	145	185	4xØ19	139,7	185	4xØ19,1
80 / NPS 3	160	200	8xØ19	152,4	200	4xØ19,1
100 / NPS 4	180	229	8xØ19	190,5	229	8xØ19,1
125 / NPS 5	210	254	8xØ19	215,9	254	8xØ22,4
150 / NPS 6	240	285	8xØ23	241,3	285	8xØ22,4
200 / NPS 8	295	343	12xØ23	298,5	343	8xØ22,4

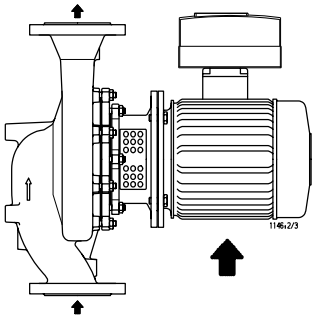
**Table 28:** Flange design by materials

Material variant	Standard	Nominal size	Pressure class
GG, GB, GC	EN 1092-2	DN 32 - DN 200	PN 16
	Drilled to ASME B16.1	DN 32 - DN 200	Class 125

**Installation types**
**Horizontal installation**


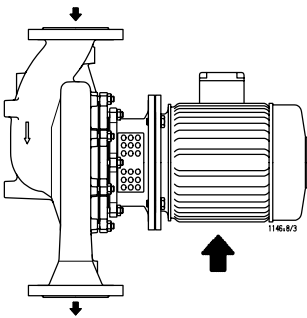
**Fig. 16:** Horizontal installation, direction of flow from bottom to top

**i** Motors of size 180 (18.5 kW) and above on pump sets with horizontal motor axis need to be supported without transmitting any stresses or strains. Use the foot fastening holes at the motor housing for this purpose.



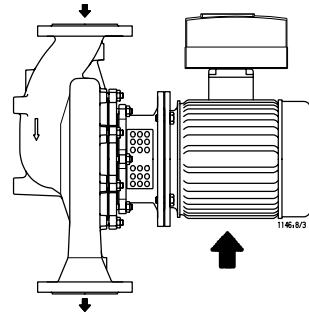
**Fig. 17:** Horizontal installation of pump sets with PumpDrive, direction of flow from bottom to top

**i** Motors of size 160 (11 kW) and above on pump sets with horizontal motor axis need to be supported without transmitting any stresses or strains. Use the foot fastening holes at the motor housing for this purpose.



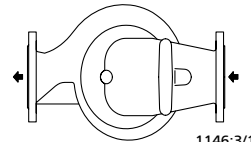
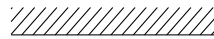
**Fig. 18:** Horizontal installation, direction of flow from top to bottom

**i** Turn the volute casing and/or back pull-out unit by 180° so that the terminal box remains in its current position on top. Motors of size 180 (18.5 kW) and above on pump sets with horizontal motor axis need to be supported without transmitting any stresses or strains. Use the foot fastening holes at the motor housing for this purpose.



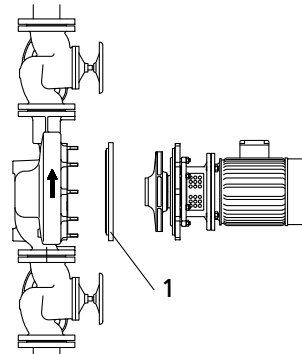
**Fig. 19:** Horizontal installation of pump sets with PumpDrive, direction of flow from top to bottom

**i** Turn the volute casing and/or back pull-out unit by 180° so that the terminal box remains in its current position on top. Motors of size 160 (11 kW) and above on pump sets with horizontal motor axis need to be supported without transmitting any stresses or strains. Use the foot fastening holes at the motor housing for this purpose.



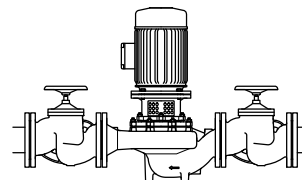
**Fig. 20:** Horizontal installation (for example under the ceiling)

**i** Turn the volute casing and/or back pull-out unit by 90° so that the terminal box remains in its current position on top.



**Fig. 21:** Horizontal installation with blind flange (1 = blind flange, accessory)

**i** If one of the pumps needs to be serviced, shut the pump chamber off with a blind flange. The pump installation will remain functional.

**Vertical installation**


**Fig. 22:** Vertical installation / mounted without pump foot, sizes 032-032-160 to 100-100-125

**i** Pumps up to size 100-100-125 can be installed directly in the piping without requiring any additional supports. Always anchor the pipes in close proximity to the pump.



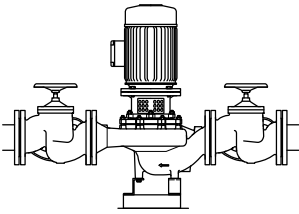


Fig. 23: Vertical installation / mounted on three angle feet (steel 37, accessory), sizes 032-032-160 to 100-100-125

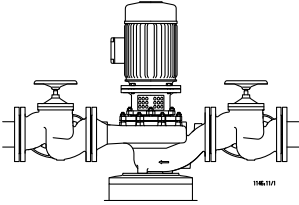


Fig. 24: Vertical installation / mounted on pump foot (grey cast iron, accessory), sizes 100-100-160 to 200-200-315

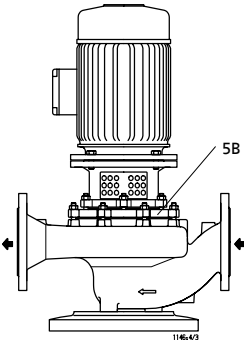


Fig. 25: Vertical installation

**i** Provide a vent valve to prevent dry running of the mechanical seal. Pumps which have been ordered for vertical installation are supplied with a vent valve. For vertical installation with the motor on top, use connection 5B for venting.

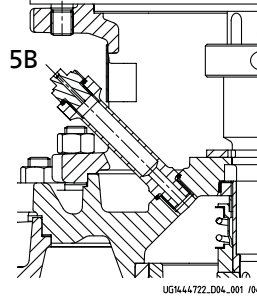


Fig. 26: Vent, mechanical seal chamber

**i** Mechanical seal chamber can be vented with vent valve 5B.

## Accessories

### Pump accessories

Table 29: Pump accessories

Item	Description	Connection	Mat. No.	[kg]
-	Pump foot	Etaline 032-032-160 to 100-100-125	47077960	1,5
	Three pump feet with bolts	Etaline 100-100-160 to 200-200-315	01614068	12,4
	One pump foot with bolt			
-	Vent valve 5B <sup>32)</sup> for vertical installation	-	-	-
	Blind flange with sealing element	Etaline 032/040/050/065/080/100-160, 100-125	01621012	6,7
		Etaline 032/080/100/125/150-200, 125-160	01621013	12,4
		Etaline 040/050/065/080/100/125/150/200-250	01621014	14,7
		Etaline 200-315	01621015	22,2

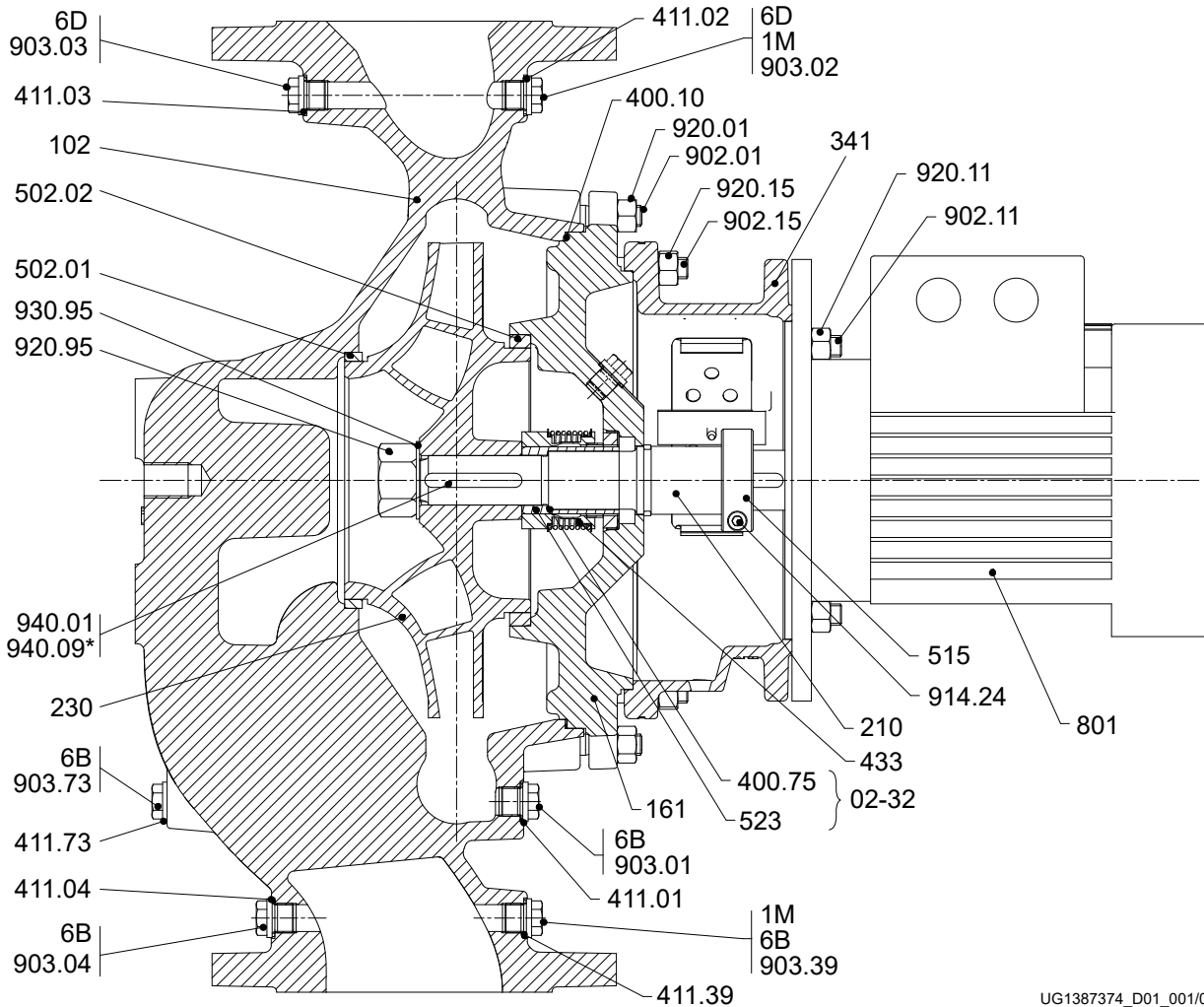
<sup>32</sup> Can only be processed via KSB EasySelect (configurable range)

General assembly drawings

General assembly drawing with list of components

Table 30: This view applies to the following pump sizes with bolted casing cover:

032-032-200	040-040-250	050-050-250	065-065-250	080-080-200	100-100-250	125-125-250	150-150-250	200-200-250
				080-080-250				200-200-315



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Fig. 27: General assembly drawing (\* Second key for WS 55 only)

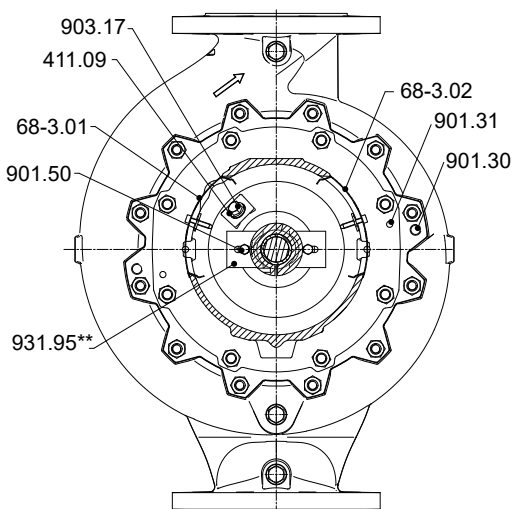


Fig. 28: General assembly drawing: side view (\*\* pump in operation)

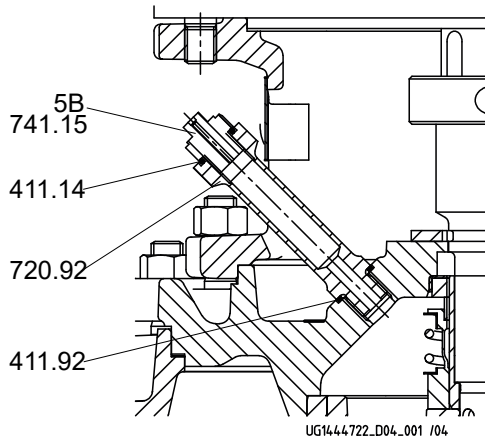


Fig. 29: Fastening elements for the impeller, WS 25

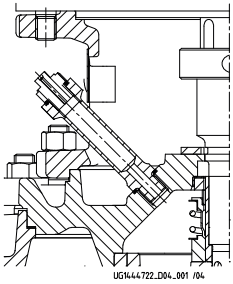


Fig. 30: Vent valve 5B for vertical installation

Table 31: This view applies to the following pump sizes with clamped casing cover:

032-032-160	040-040-160	050-050-160	065-065-160	080-080-160	100-100-125	125-125-160	150-150-200
					100-100-160	125-125-200	
					100-100-200		

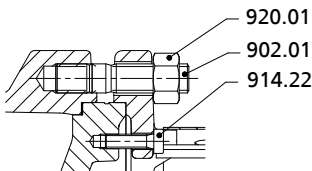


Fig. 31: Fastening elements for the clamped casing cover

Table 32: List of components

Part No.	Description	Part No.	Description
102	Volute casing	68-3.01/.02	Cover plate
161	Casing cover	720.92	Fitting
210	Shaft	741.15	Vent valve
230	Impeller	801	Flanged motor
341	Drive lantern	901.31/.31/.50	Hexagon head bolt
400.10/.75	Gasket	902.01/.11/.15	Stud
411.01/.02/.03/.04/.09/.14/.39/.73/.92	Joint ring	903.01/.02/.03/.04/.17/.39/.73	Screw plug
433	Mechanical seal	914.22/.24	Hexagon socket head cap screw
502.01/.02	Casing wear ring	920.01/.11/.15/.95	Hexagon nut
515	Locking ring	930.95	Safety device
523	Shaft sleeve	931.95	Lock washer
550.95 <sup>33)</sup>	Disc	940.01/.09	Key

<sup>33)</sup> For shaft unit 25 only

Table 33: Connections

Part No.	Description	Part No.	Description
1M	Pressure gauge	6B	Fluid drain
5B <sup>34)</sup>	Vent, mechanical seal chamber	6D	Fluid priming and venting

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<sup>34)</sup> Only for vertically installed pump sets

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## Glossary

### ACS

French drinking water regulations (ACS = Attestation de Conformité Sanitaire)

### Back pull-out design

The complete back pull-out unit can be pulled out without having to remove the pump casing from the piping.

### Close-coupled design

Motor directly fitted to the pump via a flange or a drive lantern

### IE1

Efficiency class to IEC 60034-30: 1 = Standard Efficiency (IE = International Efficiency)

### IE2

Efficiency class to IEC 60034-30: 2 = High Efficiency (IE = International Efficiency)

### IE3

Efficiency class to IEC 60034-30: 3 = Premium Efficiency (IE = International Efficiency)

### IE4

Efficiency class to IEC TS 60034-30-2:2016 = Super Premium Efficiency (IE = International Efficiency)

### IE5

Efficiency class to IEC TS 60034-30-2:2016 = Ultra Premium Efficiency (IE = International Efficiency)

### In-line design

A pump whose suction and discharge nozzle are arranged opposite each other and have the same nominal diameter.

### Mat. No.

This identification number is composed of an 8-digit numerical code that uniquely identifies a product entered in SAP.

### Mech. seal

Mechanical seal

### SU

Shaft unit

### UBA

German drinking water regulations to German Environment Agency

### WRAS

Approved by all water suppliers in the UK (WRAS = Water Regulations Advisory Scheme)







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