



**Etaline 040-040-160 GG**

ETL 040-040-160-GGSBV11 WSEBS2HHB

**Auxiliary connections pump**

6B Fluid Drain	G 1/4 Drilled and plugged	1M Pressure gauge Discharge nozzle	G 1/4 Drilled and plugged
6D Fluid Filling and venting	G 1/4 Drilled and plugged	1M Pressure gauge Suction nozzle	G 1/4 Drilled and plugged
5B Venting and drain	G 1/4 Drilled and plugged		

**Shaft sealing**

Shaft seal type	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore) - AV	Shaft seal code	Code 11
Determined pressure Seal chamber	1.5 bar.r	Shaft seal manufacturer inboard	KSB's choice
		Mechanical seal type inboard	KSB's choice
		Material Shaft seal inboard	BQEGG DW001

**Materials**

Material Volute casing (102)	EN-GJL-250/A48 CL 35B	Material Bolts/Screws Volute casing (902.01)	8.8
Material Casing cover (161)	EN-GJL-250/A48 CL 35B	Material Nut Impeller fastening (920.95)	(ST)
Material Shaft	C45+N		
Material Impeller (230)	EN-GJL-250/A48 CL 35B		
Material Static seal Volute casing (400.10)	DPAF DW001		
Material Casing wear ring suction-side	JL/LAMELLAR GRAPHITE CAST IRON		
Material Casing wear ring discharge-side (502.02)	JL/LAMELLAR GRAPHITE CAST IRON		
Material Shaft protecting sleeve (523)	(CRNIMO ST INT)		
Material Static seal Discharge cover	DPAF DW001		
Material Drive lantern	EN-GJL-250/A48 CL 35B		
Material Support foot	WITHOUT		

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**Driver**

Electric motor	Yes	Rated speed Motor	2,870 1/min
Drive concept	Electric actuator	Number of motor poles	2
Drive standard, mechanical	IEC	Rated power Motor	2.2 kW
Drive standard electric	IEC	Motor power reserve determined	58.3 %
Motor bearing, insulated	No	Rated voltage Motor	400 V
Motor manufacturer	KSB's choice	Motor winding	230 / 400 V
Customer supply Drive	No	Rated frequency Motor	50Hz
Motor construction type	IM V1 (IM3011) IEC 60034-7	Motor switching type	Star
Motor size	90L	Rated current Motor	4.62 A
Efficiency class	IE3 (Premium)	Starting current ratio Ia/In	8.7
Material motor housing	AL	Cos phi at 4/4 load	0.86
Enclosure Motor	IP55 (TEFC)	Motor efficiency at 4/4 load	85.9 %
Enclosure Unit	Without	Marking according to directive CE Drive	
Thermal class	155 (F) nach IEC 60085		
Temperature sensor motor	1 PTC thermistors		
Terminal box position of motor (looking at the motor shaft)	360 °		
Operation on a frequency inverter permitted	Yes (acc to motor manufact)		
Sound pressure level Motor	68 dBa		
Type series Motor manufacturer	Acc. to motor manufacturer		

**Coating**

**Aggregate**

Surface preparation	Free from dirt, grease, rust
Properties Primer coat	Hydro dip primer, water-dilutable
Thickness Primer coat	60 µm
Properties Top coat	Acrylate dispersion water-thinned
Thickness Top coat	40 µm
Colour Top coat	RAL5002 Ultramarine Blue

**Packaging**

Suitable for transport	Truck transport
Suitable for storage	Indoor storage
Packaging category	KSB's choice (A0)

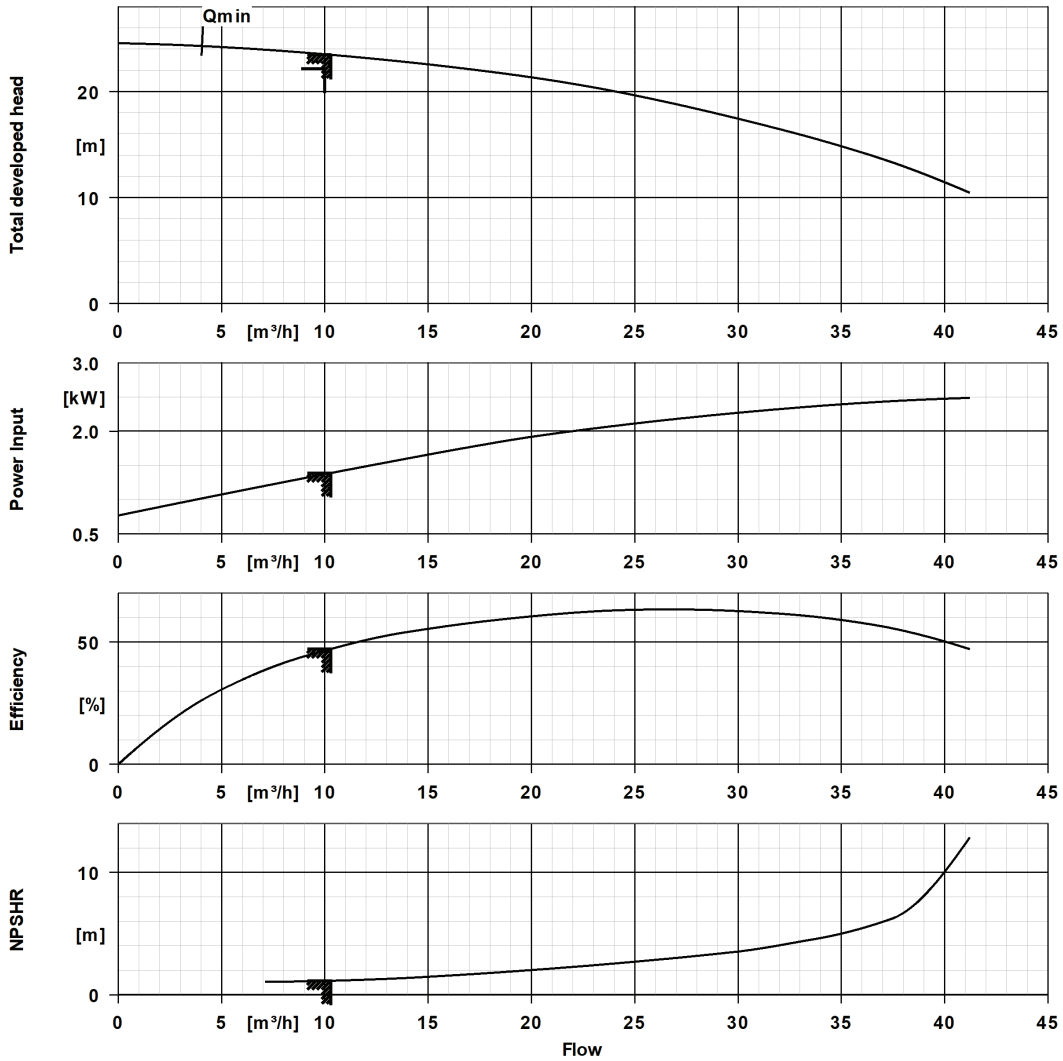
**Nameplates**

Duplicate name plate	No
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# Performance Curve (Pump)



## Etaline 040-040-160 GG ETL 040-040-160-GGSBV11 WSEBS2HHB



### Curve Data

Pump speed	2,927 1/min	Efficiency Pump	47.1 %
Density Fluid handled	998 kg/m <sup>3</sup>	Minimum efficiency index MEI	0.7
Kinematic viscosity Fluid handled	1 mm <sup>2</sup> /s	Maximum power input at duty point	1.39 kW
Flow rate	10.3 m <sup>3</sup> /h	NPSH required	1.14 m
Head	23.5 m	Hydraulic impeller diameter	136 mm
		Hydraulic calculation according to standard/class	EN ISO 9906 Class 3B



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Dimensions are given in mm

## Motor

Motor manufacturer	KSB's choice
Motor size	90L
Rated power Motor	2.2 kW
Number of motor poles	2
Rated speed Motor	2,870 1/min
Terminal box position of motor (looking at the motor shaft)	360 °

## Connections

Nominal diameter Suction nozzle	DN 40
Suction flange bolt hole pattern as per standard	EN1092-2
Nominal diameter Discharge nozzle	DN 40
Discharge flange bolt hole pattern as per standard	EN1092-2
Nominal pressure Suction nozzle	PN 16
Nominal pressure Discharge nozzle	PN 16



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**Net weight**

Total weight Pump	25.9 kg
Total weight Drive	21 kg
Total weight Pump set	46.9 kg
Total weight Assembly/transport aids	2.42 kg

**Connect pipelines stress-free**

Dimensional tolerances for shaft axis height: DIN 747  
Dimensions without tolerances, middle tolerances to: ISO 2768-m  
Connection dimensions for pumps: EN735  
Dimensions without tolerances - welded parts: ISO 13920-B  
Dimensions without tolerances - gray cast iron parts: ISO 8062-CT9

**Plan for additional connections see extra drawing**