

## NBE50-125/144 A-F2-A-GQQE

Grundfos pump 96539134



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<https://www.lenntech.com/grundfos/NBE00/96539134/NBE-50-125-144-A-F-A-GQQE.html>

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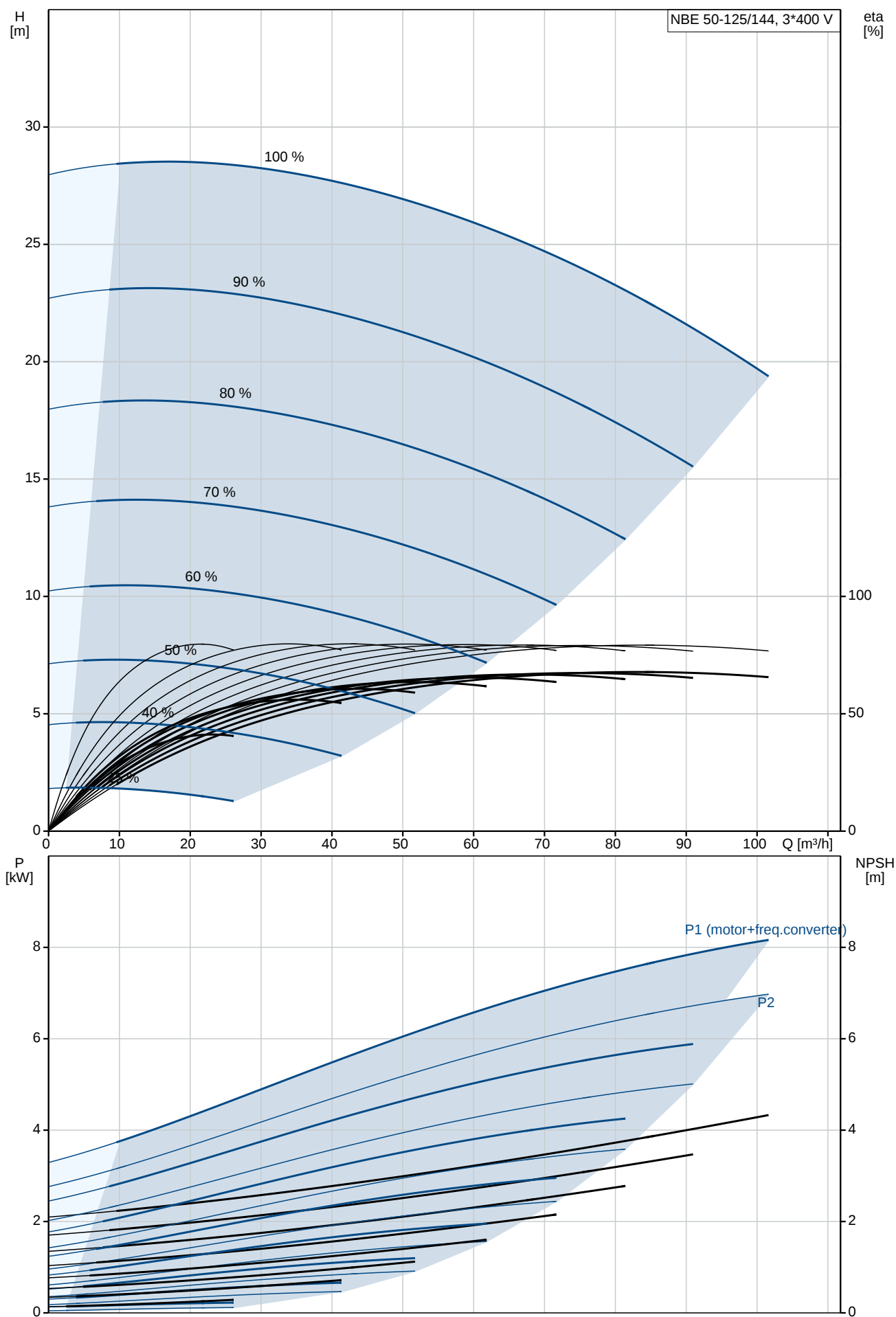
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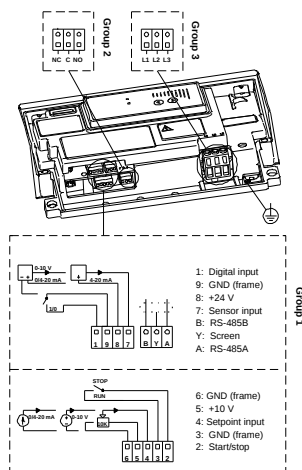
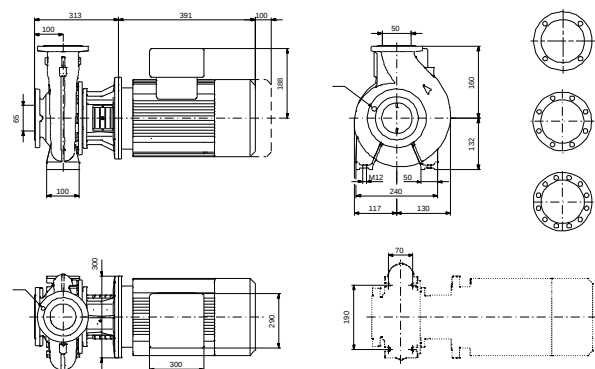
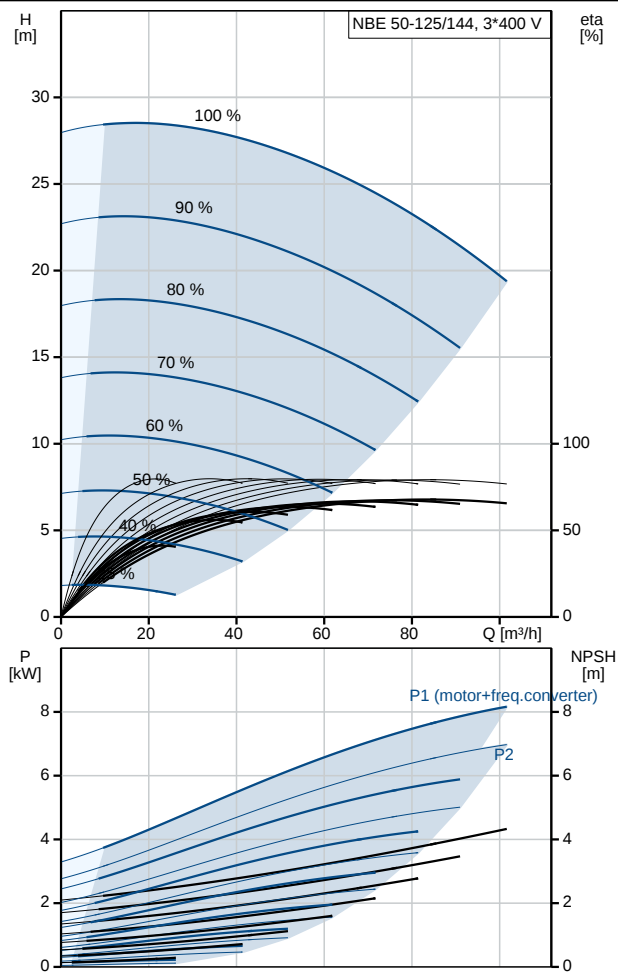
| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | 1    | <p><b>NBE 50-125/144 A-F-A-GQQE</b></p>  <p><b>Note! Product picture may differ from actual product</b></p> <p>Product No.: On request</p> <p>Non-self priming, single-stage centrifugal pump according to DIN.</p> <p>The pump is for the pumping of thin, clean or slightly contaminated liquids without abrasive or long-fibred solids.</p> <p>The impeller is hydraulically as well as dynamically balanced.</p> <p>The pump has the following characteristics:</p> <ul style="list-style-type: none"> <li>- flange dimensions according to EN 1092-2,</li> <li>- Cast iron volute pump housing,</li> <li>- stainless steel shaft and Cast iron impeller and bronze wear rings,</li> <li>- unbalanced mechanical shaft seal according to EN 12756.</li> </ul> <p>The pump is fitted with an IEC-flanged three-phase MGE motor with frequency converter and PI-controller integrated in the motor terminal box. No additional motor protection is required, as both motor and electronics are protected by integrated overload and temperature protection.</p> <p>An external sensor can be connected if controlled pump operation based on for example flow, differential pressure or temperature is required.</p> <p>A control panel enables setting of required setpoint as well as setting of pump to MIN or MAX operation or to STOP. The control panel has indicator lights for "Operation" and "Fault".</p> <p>Communication with the pump is possible by means of Grundfos R100 Remote Control enabling further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".</p> <p>The terminal box holds terminals for the connection of:</p> <ul style="list-style-type: none"> <li>- pump start/stop (potential-free contact),</li> <li>- external remote setpoint setting via analog signal, 0 - 5 V, 0 - 10 V, 0(4) - 20 mA,</li> <li>- 5 V voltage supply for setpoint potentiometer, I<sub>max</sub> = 5 mA,</li> <li>- sensor, 0 - 5 V, 0 - 10 V, 0(4) - 20 mA,</li> <li>- 24 V voltage supply for sensor, I<sub>max</sub> = 40 mA,</li> </ul> |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <ul style="list-style-type: none"> <li>- input for forced control to MIN or MAX (potential-free contact),</li> <li>- potential-free fault signal relay with changeover contact,</li> <li>- RS485 GENIbus.</li> </ul> <p><b>Liquid:</b></p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -25 .. 90 °C</p> <p>Liquid temperature during operation: 20 °C</p> <p>Density: 998.2 kg/m³</p> <p><b>Technical:</b></p> <p>Rated flow: 79.6 m³/h</p> <p>Rated head: 21.8 m</p> <p>Actual impeller diameter: 144 mm</p> <p>Impeller nom: 125 mm</p> <p>Primary shaft seal: GQQE</p> <p><b>Materials:</b></p> <p>Pump housing: Cast iron<br/>EN-JL1040</p> <p>Impeller: Cast iron<br/>EN-JL1030<br/>ASTM A48-30 B</p> <p><b>Installation:</b></p> <p>Maximum ambient temperature: 40 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Flange standard: DIN</p> <p>Pump inlet: DN 65</p> <p>Pump outlet: DN 50</p> <p>Pressure rating: PN 16</p> <p><b>Electrical data:</b></p> <p>Motor type: 132SD</p> <p>IE Efficiency class: IE2</p> <p>Rated power - P2: 7.5 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 3 x 380-480 V</p> <p>Rated current: 15.0-12.0 A</p> <p>Cos phi - power factor: 0.94-0.93</p> <p>Rated speed: 360-3510 rpm</p> <p>Efficiency: IE2 88,1%</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p><b>Others:</b></p> <p>Net weight: 91 kg</p> <p>Gross weight: 98 kg</p> <p>Shipping volume: 0.184 m³</p> |

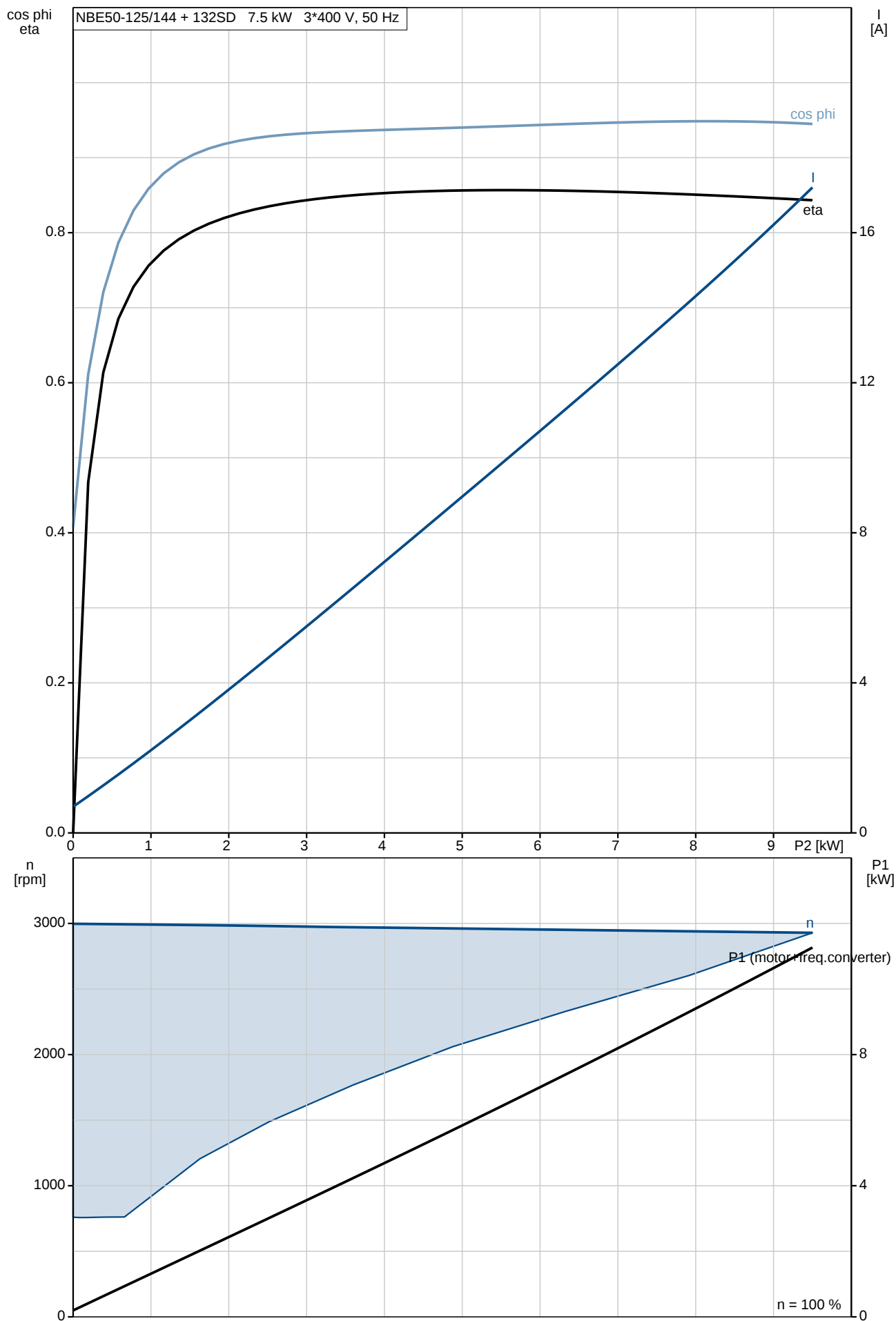
# On request NBE 50-125/144 A-F-A-GQQE 50 Hz



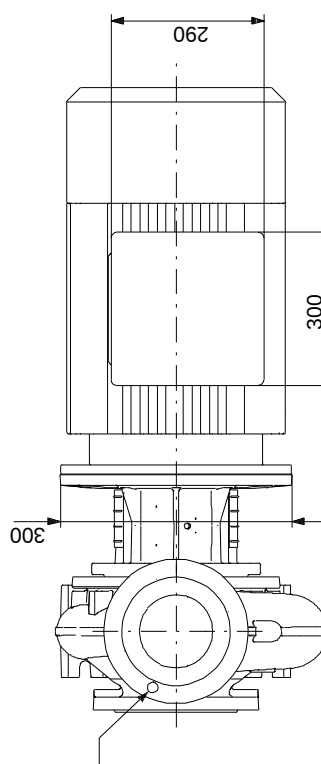
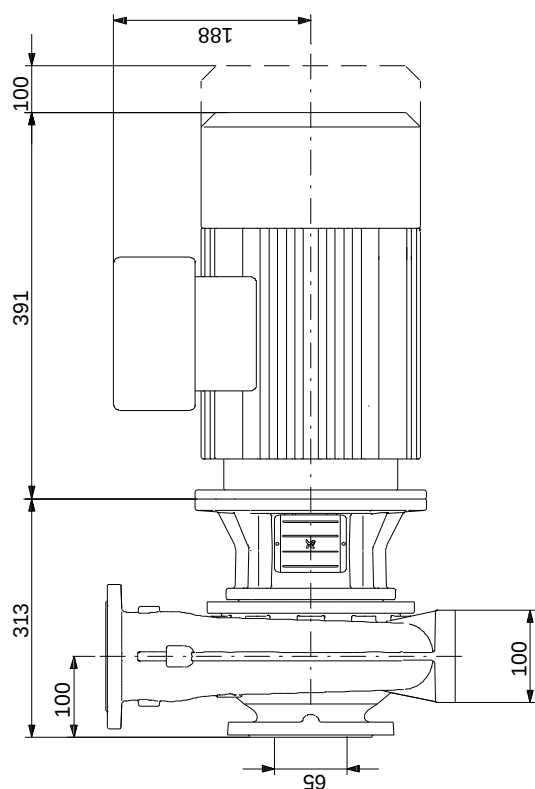
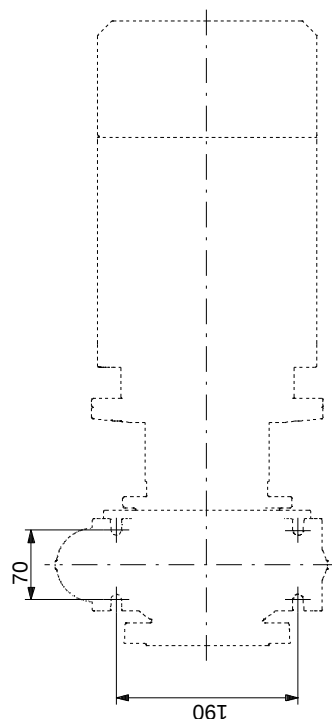
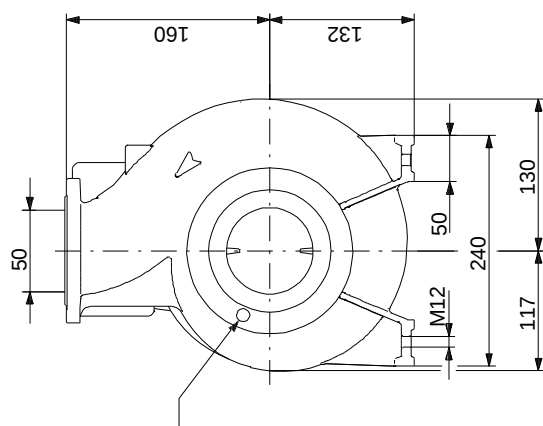
| Description                          | Value                   |
|--------------------------------------|-------------------------|
| <b>General information:</b>          |                         |
| Product name:                        | NBE 50-125/144          |
| Product No:                          | A-F-A-GQQE              |
| EAN number:                          | On request              |
| <b>Technical:</b>                    |                         |
| Rated flow:                          | 79.6 m <sup>3</sup> /h  |
| Rated head:                          | 21.8 m                  |
| Actual impeller diameter:            | 144 mm                  |
| Impeller nom:                        | 125 mm                  |
| Primary shaft seal:                  | GQQE                    |
| Pump version:                        | A                       |
| <b>Materials:</b>                    |                         |
| Pump housing:                        | Cast iron               |
|                                      | EN-JL1040               |
| Impeller:                            | Cast iron               |
|                                      | EN-JL1030               |
|                                      | ASTM A48-30 B           |
| Material code:                       | A                       |
| <b>Installation:</b>                 |                         |
| Maximum ambient temperature:         | 40 °C                   |
| Maximum operating pressure:          | 16 bar                  |
| Flange standard:                     | DIN                     |
| Pump inlet:                          | DN 65                   |
| Pump outlet:                         | DN 50                   |
| Pressure rating:                     | PN 16                   |
| Wear ring(s):                        | neckring(s)             |
| Connect code:                        | F                       |
| <b>Liquid:</b>                       |                         |
| Pumped liquid:                       | Water                   |
| Liquid temperature range:            | -25 .. 90 °C            |
| Liquid temperature during operation: | 20 °C                   |
| Density:                             | 998.2 kg/m <sup>3</sup> |
| <b>Electrical data:</b>              |                         |
| Motor type:                          | 132SD                   |
| IE Efficiency class:                 | IE2                     |
| Rated power - P2:                    | 7.5 kW                  |
| Mains frequency:                     | 50 Hz                   |
| Rated voltage:                       | 3 x 380-480 V           |
| Rated current:                       | 15.0-12.0 A             |
| Cos phi - power factor:              | 0.94-0.93               |
| Rated speed:                         | 360-3510 rpm            |
| Efficiency:                          | IE2 88,1%               |
| Number of poles:                     | 2                       |
| Enclosure class (IEC 34-5):          | IP55                    |
| Insulation class (IEC 85):           | F                       |
| Motor protec:                        | YES                     |
| Motor No:                            | 87771062                |
| Mount. design. acc. IEC 34-7:        | IM V1/B5                |
| <b>Others:</b>                       |                         |
| Net weight:                          | 91 kg                   |
| Gross weight:                        | 98 kg                   |
| Shipping volume:                     | 0.184 m <sup>3</sup>    |
| Config. file no:                     | 96116111                |



# On request NBE 50-125/144 A-F-A-GQQE 50 Hz



# On request NBE 50-125/144 A-F-A-GQQE 50 Hz



Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

# Exploded view



Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

# Exploded view ( TM057026 for MGE model H/I )



**Parts list NBE 50-125/144, Product No. On request**  
**Valid from 20.6.2008 (0825)**

| Pos | Description        | Annotation | Données de classification | Référence | Quantité | Unité |
|-----|--------------------|------------|---------------------------|-----------|----------|-------|
| +   | Motor              |            |                           |           | 1        | pcs   |
| -   | Nut                |            |                           |           | 1        | pcs   |
| 66  | Washer             |            |                           |           | 1        |       |
| 66a | Spring lock washer |            |                           |           | 1        |       |
| 67  | Nut                |            | Thread: M14               |           | 1        |       |
| -   | Motor stool cpl.   |            |                           |           | 1        | pcs   |
| 1a  | Motor stool        |            |                           |           | 1        |       |
| 7   | Coupling guard     |            |                           |           | 2        |       |
| 77a | Pan head screw     |            |                           |           | 4        |       |
| -   | Pump housing cpl.  |            |                           |           | 1        | pcs   |
| 6   | Pump housing       |            |                           |           | 1        |       |
| 36  | Nut                |            | Thread: M10               |           | 6        |       |
| -   | Stub shaft         |            |                           |           | 1        | pcs   |
| 9   | Socket set screw   |            | Length (mm): 6            |           | 2        |       |
|     |                    |            | Thread: M8                |           |          |       |
| 11  | Parallel key       |            | Dimension: 6X6X35         |           | 1        |       |
| 51  | Pump shaft         |            |                           |           | 1        |       |
| 49  | Impeller           |            | Outer diameter: 144       |           | 1        | pcs   |
| 72a | O-ring             |            | Diameter: 177,39          |           | 1        | pcs   |
|     |                    |            | Material type: EPDM       |           |          |       |
|     |                    |            | Thickness: 3,53           |           |          |       |
| 105 | Shaft seal         |            | Material type: GQQE       |           | 1        | pcs   |

*Disclaimer: The information about the Grundfos pump in this document may be outdated.*

*Data may be subject to alterations without further notice.*

*Please contact us to verify the data above is still accurate/up-to-date.*

*All information is copyright Grundfos.*



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