

# Technical Information

GRP111 D



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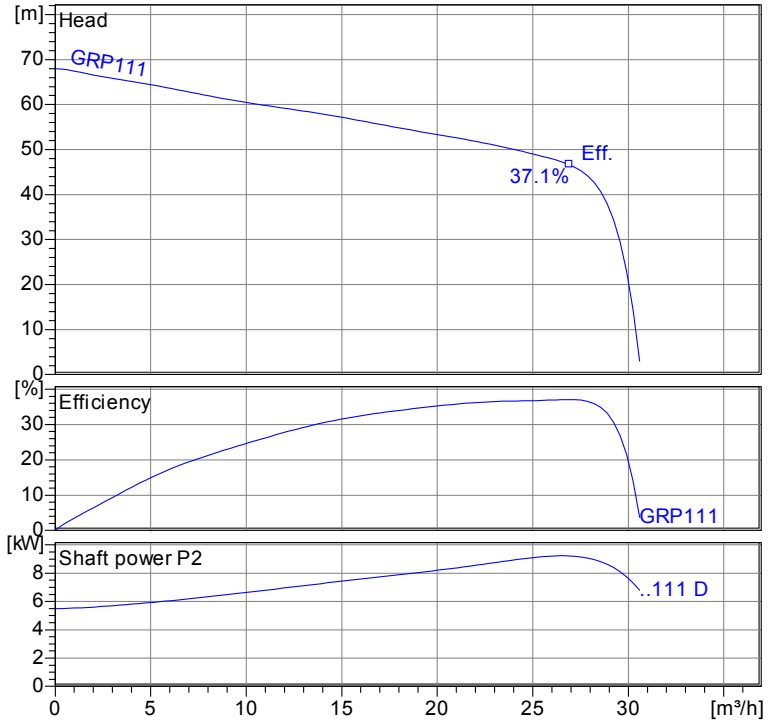
|                       |                     |
|-----------------------|---------------------|
| <b>Operating data</b> |                     |
| Flow                  | 0 m <sup>3</sup> /h |
| Head                  | 0 m                 |
| Shaft power P2        |                     |
| Pump efficiency       | s %                 |
| Required pump NPSH    |                     |
| Pumpe type            | Single head pump    |
| No. of pumps          | 1                   |
| Fluid                 | Water, clean        |

|                |                                |
|----------------|--------------------------------|
| <b>Pump</b>    |                                |
| Pump Code      | GRP111 D                       |
| Impeller       | Vane impeller with cutter sys. |
| Impeller size  | 219 mm                         |
| Solid size     | s                              |
| Discharge port | DN50                           |
| Suction port   | s                              |

|                      |          |
|----------------------|----------|
| <b>Motor</b>         |          |
| Rated voltage        | 400 V    |
| Frequency            | 50 Hz    |
| Rated power P2       | 9.5 kW   |
| Rated speed          | 2900 rpm |
| Number of poles      | 2        |
| Efficiency           | 86 %     |
| Rated current        | 18.8 A   |
| Degree of protection | IP 68    |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Materials</b>               |                                 |
| Motor housing                  | Grey cast iron EN-GJL-250       |
| Impeller                       | Grey cast iron EN-GJL-250       |
| Pump housing                   | Grey cast iron EN-GJL-250       |
| Cutting system                 | Stainless steel 1.4122          |
| Motor shaft                    | Stainless steel 1.4104          |
| Bolts                          | Stainless steel                 |
| <b>Elastomeres</b>             |                                 |
|                                | Nitrile Rubber                  |
| Mechanical seal on motor side  | SiC / SiC                       |
| Mechanical seal on medium side | SiC / SiC                       |
| Lower Bearing                  | Double row angular ball bearing |
| Upper Bearing                  | Deep Groove Ball Bearing        |

Testnorm: ISO9906 Sect. 4.4.2



Wet well installation with coupling kit  
Dimensions in mm,

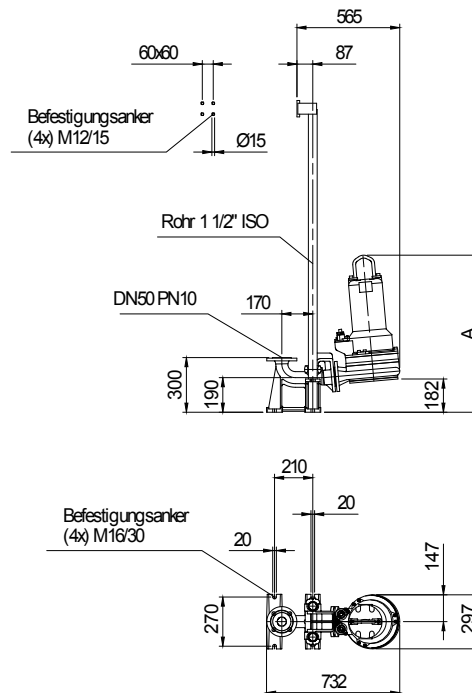


Table Dimensions (mm)

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2.3.7 - 14/03/2012 (Build 345)

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# Performance Curve

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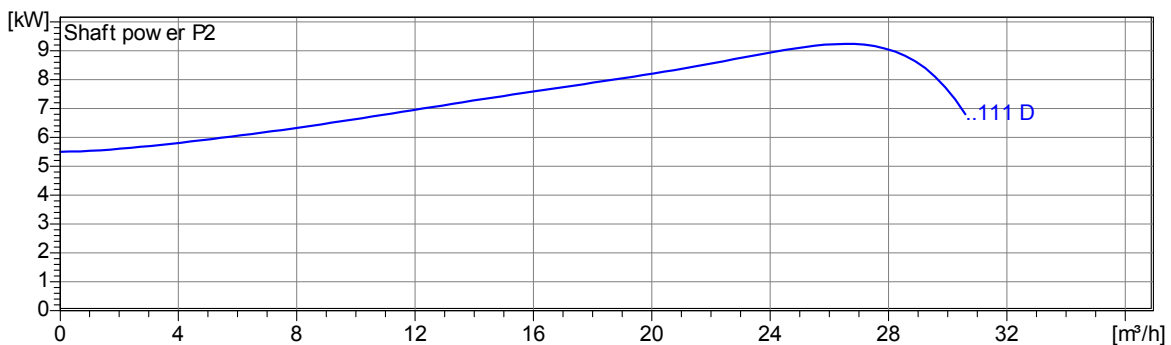
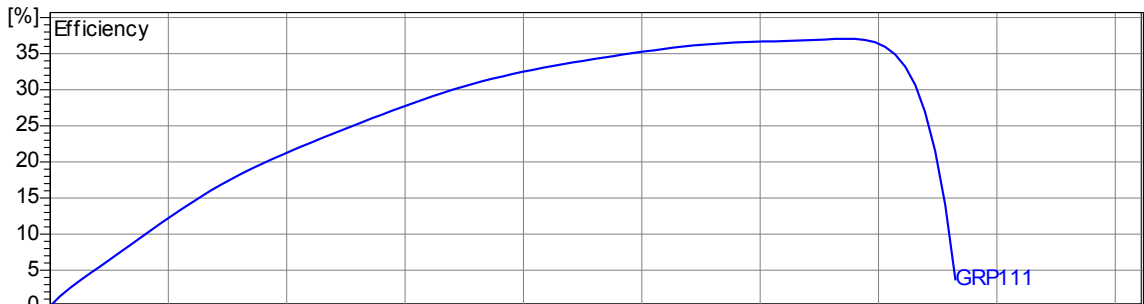
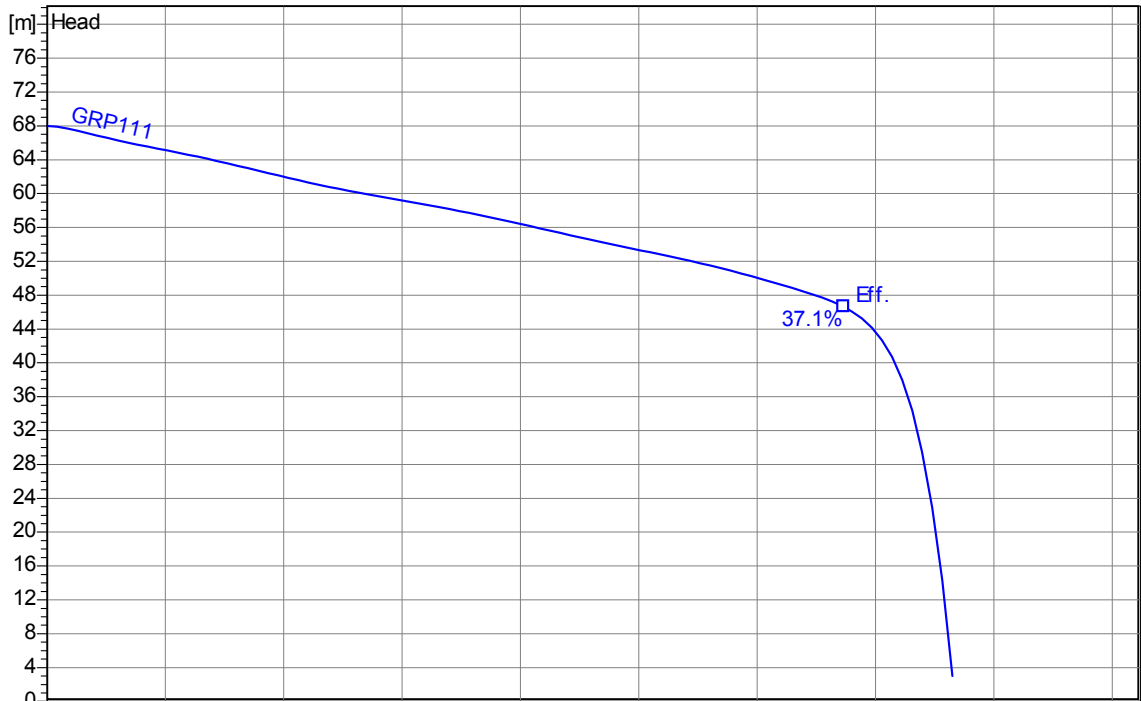
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| Impeller   |            |    |                   |                   |                   |  |
|--|------------|----|-------------------|-------------------|-------------------|--|
| Impeller type:<br>Vane impeller with cutter sys. | Solid size | Ø: | Max. Ø:<br>219 mm | Min. Ø:<br>178 mm | Sel. Ø:<br>219 mm |  |

| Operating data            |                            |                                  |                |                 |                                |
|---------------------------|----------------------------|----------------------------------|----------------|-----------------|--------------------------------|
| Speed:<br><b>2900 rpm</b> | Frequency:<br><b>50 Hz</b> | Duty point:<br><b>Q = 0 m³/h</b> | <b>H = 0 m</b> | Shaft power P2: | Discharge port:<br><b>DN50</b> |

Power data referred to:  
Water, clean [100%]; 20°C; 998.3kg/m³; 1.005mm²/s

Testnorm: ISO9906 Sect. 4.4.2



2.3.7 - 14/03/2012 (Build 345)

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# Dimensions

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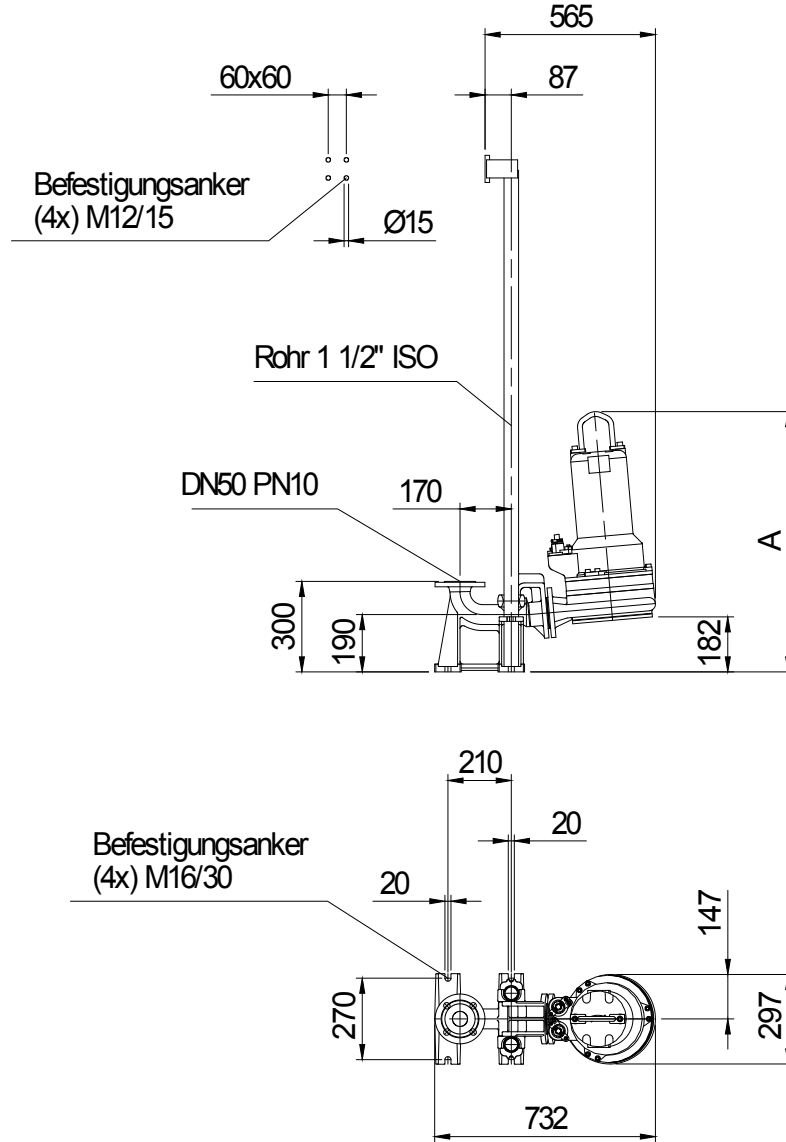


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Wet well installation with coupling kit  
Dimensions in mm, le



**Table Dimensions ( mm )**

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# Technical Data

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| Operating data  |                  |       |                    |       |       |
|-----------------|------------------|-------|--------------------|-------|-------|
| Flow            | 0 m³/h           | m³/h  | Head               | 0     | m     |
| Shaft power P2  |                  | kW    | Geodetic head      | 0     | m     |
| Pump efficiency | s                | %     | Required pump NPSH |       | m     |
| Pumpe type      | Single head pump |       | No. of pumps       | 1     |       |
| Fluid           | Water, clean     |       | Temperature        | 20 °C |       |
| Density         | 998.3            | kg/m³ | Kin. viscosity     | 1.005 | mm²/s |

| Pump           |                             |    |                              |        |           |
|----------------|-----------------------------|----|------------------------------|--------|-----------|
| Pump Code      | GRP111 D                    |    | Speed                        | 2900   | rpm       |
| Suction port   |                             |    | Head                         | Max.   | 68.0 m    |
| Discharge port | DN50                        |    |                              | Min.   | 3.0 m     |
| Impeller type  | Vane impeller with cutter s |    | Flow                         | Max.   | 30.6 m³/h |
| Solid size     |                             | mm | Pump efficiency max.         | 37.1 % |           |
| Impeller Ø     | 219                         | mm | Required rated power max. P2 | 6.8    | kW        |

| Motor                             |                                |      |                                 |         |      |
|-----------------------------------|--------------------------------|------|---------------------------------|---------|------|
| Motor version                     | Submersible motor              |      | Insulation class                | H       |      |
| Motor name                        | AM 173.11/2 T                  |      | Degree of protection            | IP 68   |      |
| Frequency                         | 50                             | Hz   | Temperature class               | T4      |      |
| Rated power P1                    | 11.0                           | kW   |                                 | --      |      |
| Rated power P2                    | 9.5                            | kW   | Explosion protection            |         |      |
| Rated speed                       | 2900                           | rpm  | Efficiency at % rated power     | 100%    | 86 % |
| Rated voltage                     | 400                            | V 3~ |                                 | 75%     | 87 % |
| Rated current                     | 18.8                           | A    |                                 | 50%     | 87 % |
| Starting current, direct starting | 112.8                          | A    | cos phi at % rated power        | 100%    | 0.89 |
| Starting current, star-delta      | 37.6                           | A    |                                 | 75%     | 0.84 |
| Starting mode                     | Star-delta                     |      |                                 | 50%     | 0,71 |
| Power cable                       | 7G1.5                          |      | Control cable                   | 5G1.5   |      |
| Type of power cable               | H07RN-F                        |      | Type of control cable           | H07RN-F |      |
| Cable length                      | 10 m                           |      | Service factor                  | 1.15    |      |
| Shaft seal                        | Mechanical seal on motor side  |      | SiC / SiC                       |         |      |
|                                   | Mechanical seal on medium side |      | SiC / SiC                       |         |      |
| Bearing                           | Lower Bearing                  |      | Double row angular ball bearing |         |      |
|                                   | Upper Bearing                  |      | Deep Groove Ball Bearing        |         |      |
| Remarks                           | s                              |      |                                 |         |      |

| Materials / Weight |                           |             |                 |
|--------------------|---------------------------|-------------|-----------------|
| Motor housing      | Grey cast iron EN-GJL-250 | Bolts       | Stainless steel |
| Pump housing       | Grey cast iron EN-GJL-250 | Elastomeres | Nitrile Rubber  |
| Impeller           | Grey cast iron EN-GJL-250 |             |                 |
| Cutting system     | Stainless steel 1.4122    |             |                 |
| Motor shaft        | Stainless steel 1.4104    |             |                 |
|                    |                           |             |                 |
| Weight aggregat    | 107 kg                    |             |                 |

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