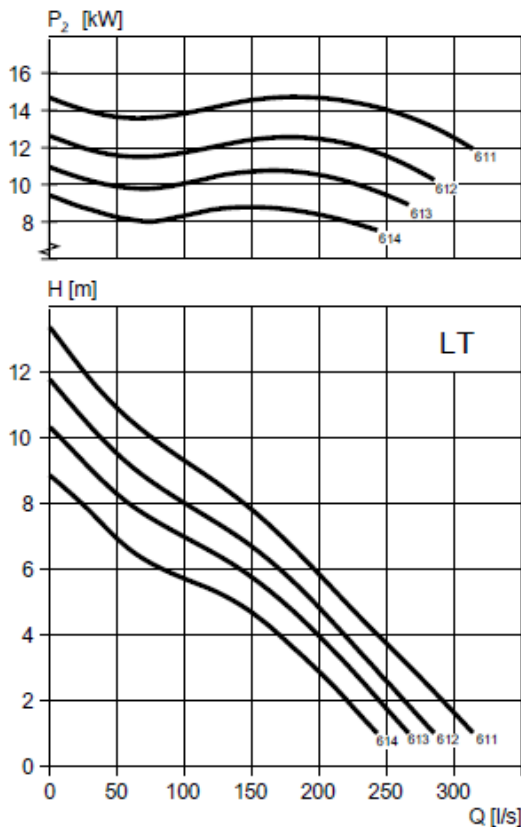


## Motor rating and performance curves



## Product description

### Usage

The submersible pump is designed for pumping clean water, surface water, and wastewater containing solids or long-fibred material.

### Denomination

| Type       | Non explosion proof version | Explosion proof version | Pressure class  | Installation types |
|------------|-----------------------------|-------------------------|---|--------------------|
| Cast iron  | 3171.181                    | 3171.091                | LT – Low head   | P, S, T, Z         |
| Hard-Iron™ | 3171.185                    | 3171.095                | MT – Medium head<br>HT – High head<br>SH – Super head |                    |

The pump can be used in the following installations:

- P Semi permanent, wet well arrangement with pump installed on two guide bars with automatic connection to discharge.
- S Portable semi permanent, wet well arrangement with hose coupling or flange for connection to discharge pipeline.
- T Vertical permanent, dry well arrangement with flange connection to suction and discharge piping.
- Z Horizontal permanent, dry well arrangement with flange connection to suction and discharge piping.



**AmoraSub**

[www.amorasub.pt](http://www.amorasub.pt)

Parque Industrial S. Marta  
de Corroios  
Rua Manuel Ribeiro, Lote 13  
2845-409 Amora - Portugal

T +351 919 708 279  
E [geral@amorasub.pt](mailto:geral@amorasub.pt)

## Application Limits

| Feature                                | Description                    |
|--|--------------------------------|
| Liquid temperature                     | Maximum 40°C, (104°F)          |
| Liquid temperature, warm water version | Maximum 70°C, (158°F)          |
| Depth of immersion                     | Maximum 20 m (65 ft)           |
| pH of the pumped liquid                | 5.5 - 14                       |
| Liquid density                         | Maximum 1100 kg/m <sup>3</sup> |

## Motor data

| Feature                          | Description   |
|----------------------------------|---|
| Motor type                       | Squirrel-cage induction motor   |
| Frequency                        | 50 Hz   |
| Power supply                     | 3-phase   |
| Starting method                  | <ul style="list-style-type: none"> <li>• Direct on-line</li> <li>• Star-delta</li> <li>• Variable Frequency Drive (VFD)</li> </ul>  |
| Number of starts per hour        | Maximum 30  |
| Code compliance                  | IEC 60034-1   |
| Rated output variation           | ±10%  |
| Voltage variation                | <ul style="list-style-type: none"> <li>• Continuously running: Maximum ±5%</li> <li>• Intermittent running: Maximum ±10%</li> </ul> |
| Voltage imbalance between phases | Maximum 2%  |
| Insulation class                 | H (180°C, 356°F)  |

## Options

Warm liquid version (non-explosion proof versions)

## Accessories

Discharge connections, adapters, hose connections, and other mechanical accessories.  
Electrical accessories such as pump controller, control panels, starters, monitoring relays, cables.

**Table 10: 400 V, 50 Hz, 3-phase**

| Rated power kW | Rated power hp | Curve/ Impeller No | Revolutions per minute, rpm | Rated current, A | Starting current, A | Power factor, cos $\varphi$ | Installation |
|----------------|----------------|--------------------|-----------------------------|------------------|---------------------|-----------------------------|--------------|
| 15             | 20             | 611                | 965                         | 30               | 167                 | 0.84                        | P,S,T,Z      |
| 15             | 20             | 612                | 965                         | 30               | 167                 | 0.84                        | P,S,T,Z      |
| 15             | 20             | 613                | 965                         | 30               | 167                 | 0.84                        | P,S,T,Z      |
| 15             | 20             | 614                | 965                         | 30               | 167                 | 0.84                        | P,S,T,Z      |



# AmoraSub

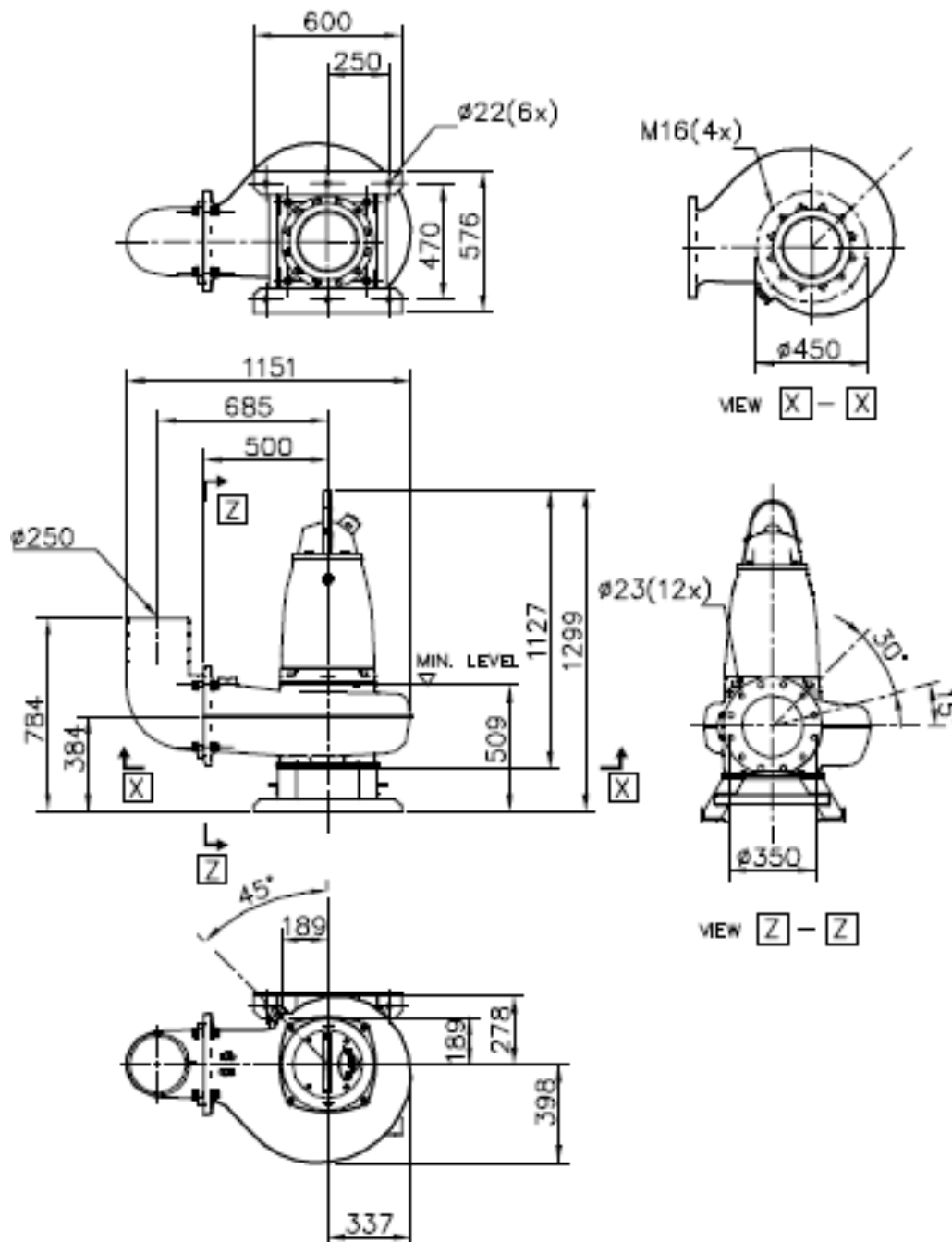
[www.amorasub.pt](http://www.amorasub.pt)

Parque Industrial S. Marta  
de Corroios  
Rua Manuel Ribeiro, Lote 13  
2845-409 Amora - Portugal

T +351 919 708 279  
E [geral@amorasub.pt](mailto:geral@amorasub.pt)

# Dimensions and Weight, Standard Motor

Drawings



NS 3171.091, 095, 181, 185 LT



**AmoraSub**

[www.amorasub.pt](http://www.amorasub.pt)

Parque Industrial S. Marta  
de Corroios  
Rua Manuel Ribeiro, Lote 13  
2845-409 Amora - Portugal

T +351 919 708 279  
E [geral@amorasub.pt](mailto:geral@amorasub.pt)