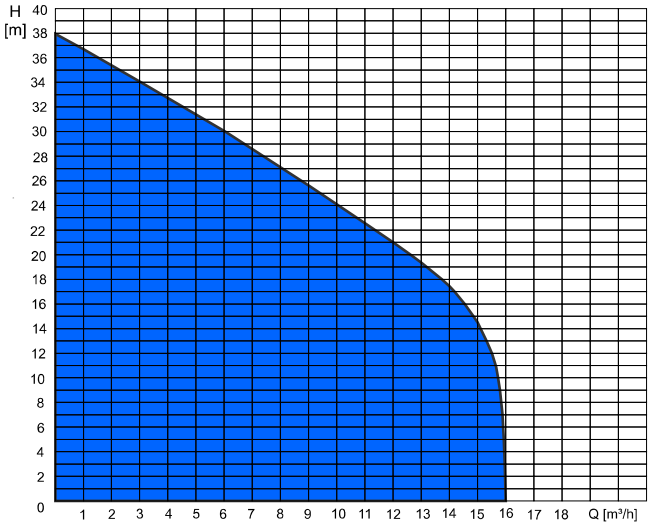
Characteristic curve



Series description
TES 2-poles

Sewage submersible pump with patented cutting system

Type code

Example: TES 148 W

TE Submersible waste water pump with single-channel impeller
S Cutting system
148 Nominal diameter of impeller [mm]
W AC Motor

Application

ORCUT TES submersible motor pumps with cutting unit are suitable for the pumping of domestic wastewater with faecal matter. The patented cutting unit shreds the solids in the wastewater to create a medium which can be pumped easily. The pumps are predominantly used in pressure drainage systems. They are used in places where the costs for a conventional drainage system with a gravity pipeline become unjustifiably high, e.g., in cases of:

- high groundwater level;
- absent average ground slopes;
- non-continuous wastewater flow (e.g., holiday homes, campsites…)

The installation costs are considerably lower thanks to the small pipe diameters required, e.g., DN 40.

Medium to be pumped

- domestic wastewater and sewage water with faecal matter

Design / Equipment:

Submersible wastewater motor pump as submersible block type with cutting unit for vertical wet-well installation
- Explosion protection as standard
- Patented cutting unit
- Internal cutter
- Shreds medium to be pumped
- Oblique cutting

Motor:

Rotary current asynchronous motor 3~ 400 V, 50 Hz or AC motor 1~ 230 V, 50 Hz, protection class IP 68, insulation class F, thermal motor protection switch

Bearing application:

Bedding of the motor shaft in permanently lubricated and maintenance-free rolling bearings.

Shaft seal:

Via rotating mechanical seal independent of direction of rotation and oil-filled intermediate chamber for cooling and lubrication.

Hydraulics:

Closed single-channel impeller (with a completely free passage of 15 mm) in combination with a patented cutter allows pumping without blockages and with optimal efficiency.

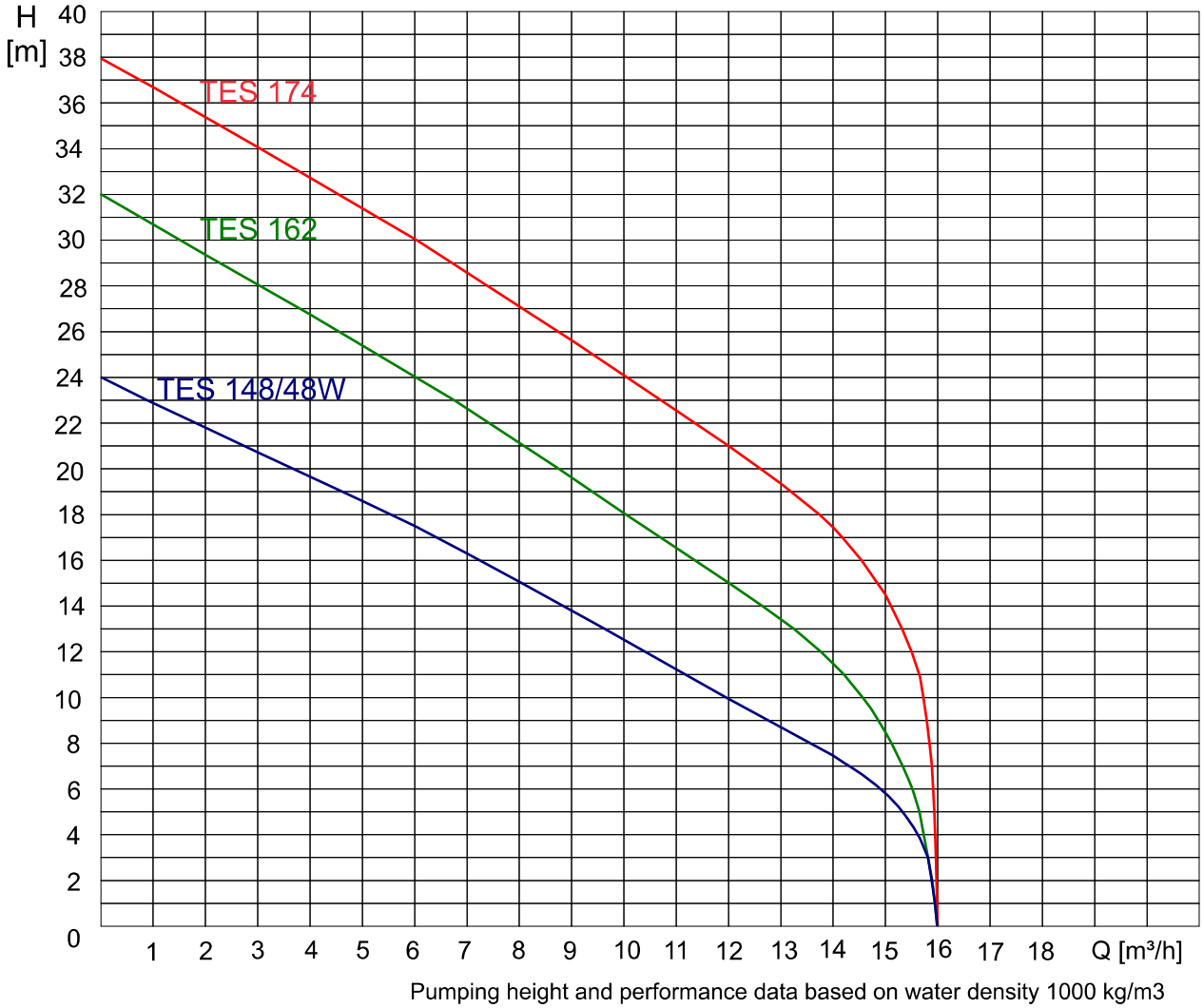
Operation mode:

At 40°C media temperature
- Motor submersible: Continuous operation S1 100% ED
- Motor surfaced: Intermittent operation S3 25% ED

Scope of delivery:

Ready-to-connect pump with 10 m connection cable and free cable end at 3~ 400 V, switch cabinet (strip terminal) at 1~ 230 V).

Characteristic curves



Pumping height and performance data based on water density 1000 kg/m3

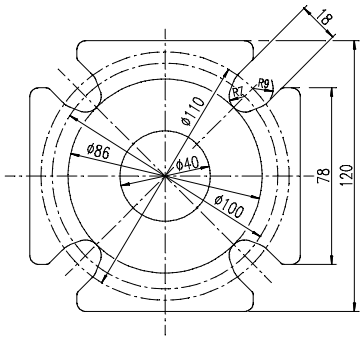
Rating 2900 min^{-1}, pumped media temperature max. 40°C, motor with thermal motor protection switch

Type	Power input P1 (kW)	Nominal-Power P_2 (kW)	Operating Voltage U (V)	Rated frequency f (Hz)	Rated current I_N (A)	Starting current IA (A)	electric cable H07RN-F
ORCUT TES 174	3,30	2,6	400 3~	50	6,3	26,8	7x1,5
ORCUT TES 162	2,55	2,0	400 3~	50	5,4	23,3	7x1,5
ORCUT TES 148	1,84	1,5	400 3~	50	3,4	20,7	7x1,5
ORCUT TES 148W	2,00	1,5	230 1~	50	9,1	51,2	7x1,5

Materials:

Pump housing:	GG 20
Cutting unit:	1.4528
Impeller:	GG 20
Shaft:	1.4021
Motor housing:	GG 20
Mechanical seal:	SiC/SiC

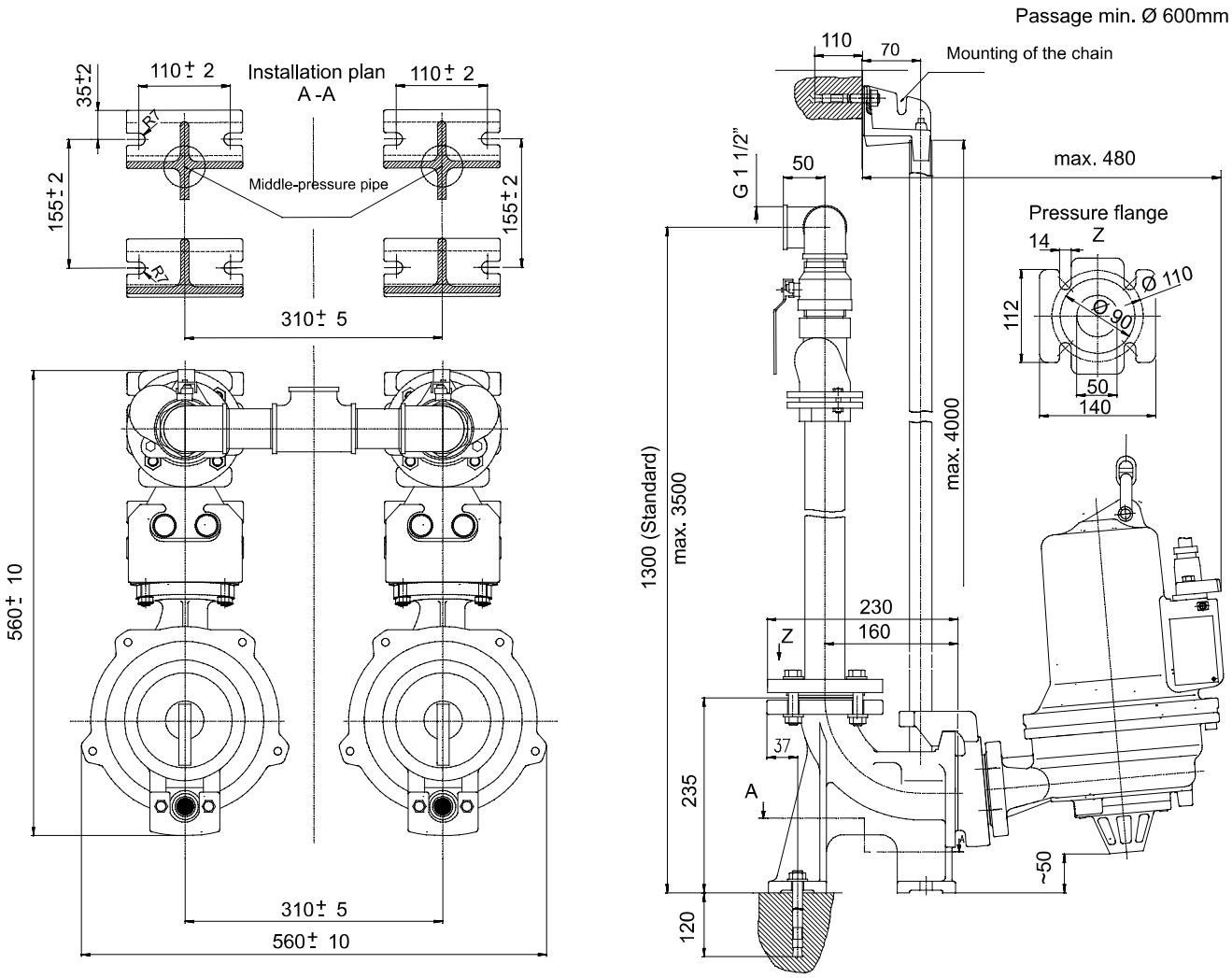
Pump flange according to DIN 2501



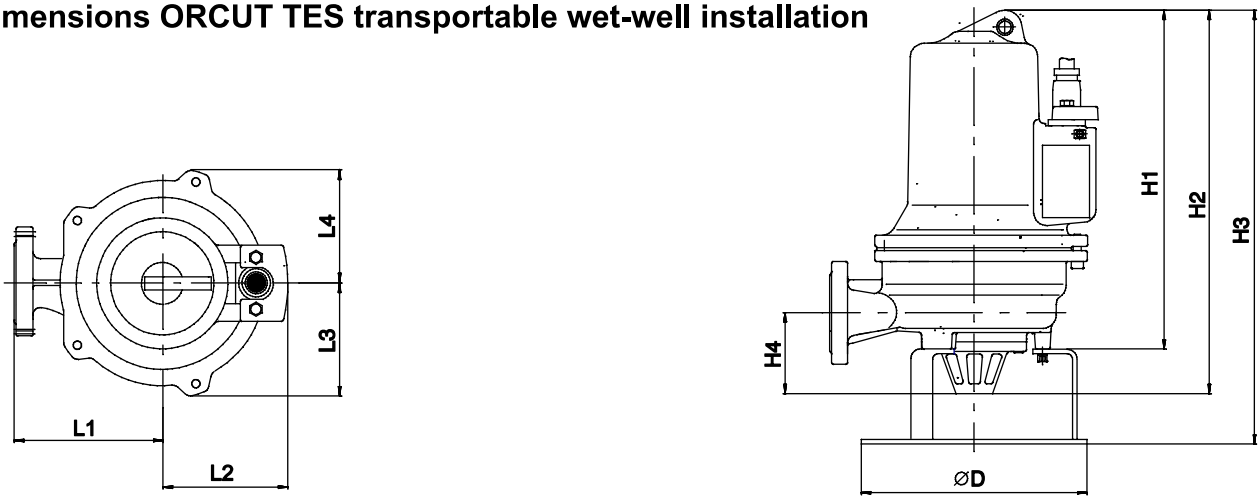
DN 40 PN 6
DN 40 PN 10

Optionally
DN 32 PN 6

Dimensions ORCUT TES stationary wet-well installation



Dimensions ORCUT TES transportable wet-well installation



	L1	L2	L3	L4	H1	H2	H3	H4	Ø D	Weight (kg)
TES 162/174	170	135	120	105	430	480	535	90	250	49
TES 148/148W	160	135	125	125	385	430	490	90	250	34/36