

Data sheet: Wilo-EMU TRE 90-2.13-6/16

Design / Direction of rotation

Unit

Power consumption $P_{1,1}$	1.1 kW
Max. thrust F	680 N
Max. weight* m	145 kg
Explosion protection	-
Protection class	IP 68

Motor data

Type of motor	TE 17-6/16R
Motor type	Submersible motor according to DIN/VDE 0530 (IEC 34)
Mains connection	3~400 V, 50 Hz
Rated current I_N	4.70 A
Starting current - direct I_A	39 A
Starting current - star-delta I_A	13 A
Power consumption P_1	2.60 kW
Rated power P_2	2.10 kW
Rated speed n	941 rpm
Efficiency η_M	81.90
Power factor $\cos \varphi$	0.79
Fluid temperature T	+3 ... +40 °C
Max. immersion depth	20 m
Insulation class	H
Max. switching frequency t	15
min. switching break t	3
Starting torque M	80 Nm
Moment of inertia	0.0206 kg/m ²
Motor bearings	1 grooved ball bearing, 1 two-row inclined ball bearing

Gear

Gear construction type	m 2.0 as per DIN 780/P10 (ISO 54); Sun and planetary gears case hardened and sanded, internal gear butt-jointed
Gear bearings	Three needle roller bearing (planetary), one two-row inclined ball bearing and one grooved ball bearing (output shaft)
Service life Lh10	> 100000 operating hours, ISO 281

Propeller

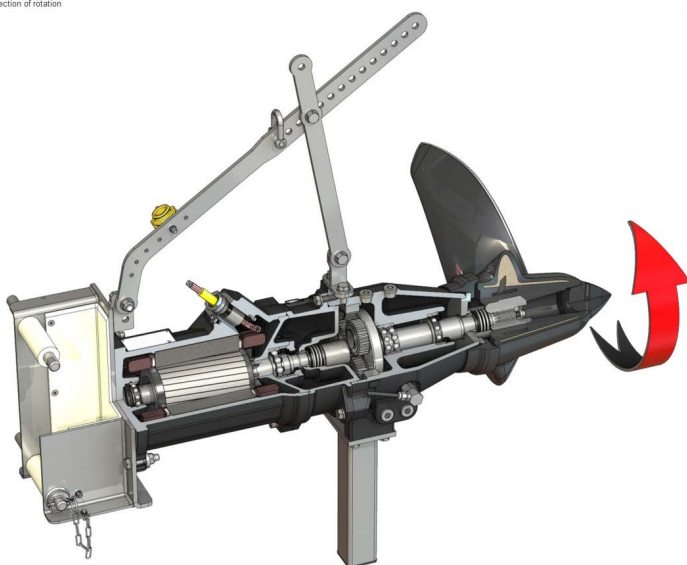
Propeller model	2-blade propeller with self-cleaning hub; backward-curved as a result clogging- and entwining-free
Nominal propeller diameter	900 mm
Propeller speed n	131 rpm
Transmission ratio	7.5

Materials

Motor housing	EN-GJL-250
Motor shaft	1.4021
Gear housing	EN-GJL 250
Planetary gear	1.7131
Hollow gear	1.5216
Sun gear	1.7131
Output shaft	1.4462
Static seal	FPM
Sealing on pump side	SIC/SIC
Seal, gear chamber/prechamber	FPM
Seal, gear/sealing chamber	SIC/SIC
Sealing on motor side	FPM
Propeller	PUR/GFK

Fill quantities and types

Filling prechamber	CLP transmission oil, ISO VG 220
Filling volume prechamber V	1.20 l
Filling gear chamber	CLP transmission oil, ISO VG 220
Fill quantity gear chamber V	0.50 l
Filling sealing chamber	White oil
Fill level sealing chamber V	1.10 l



Design / Direction of rotation

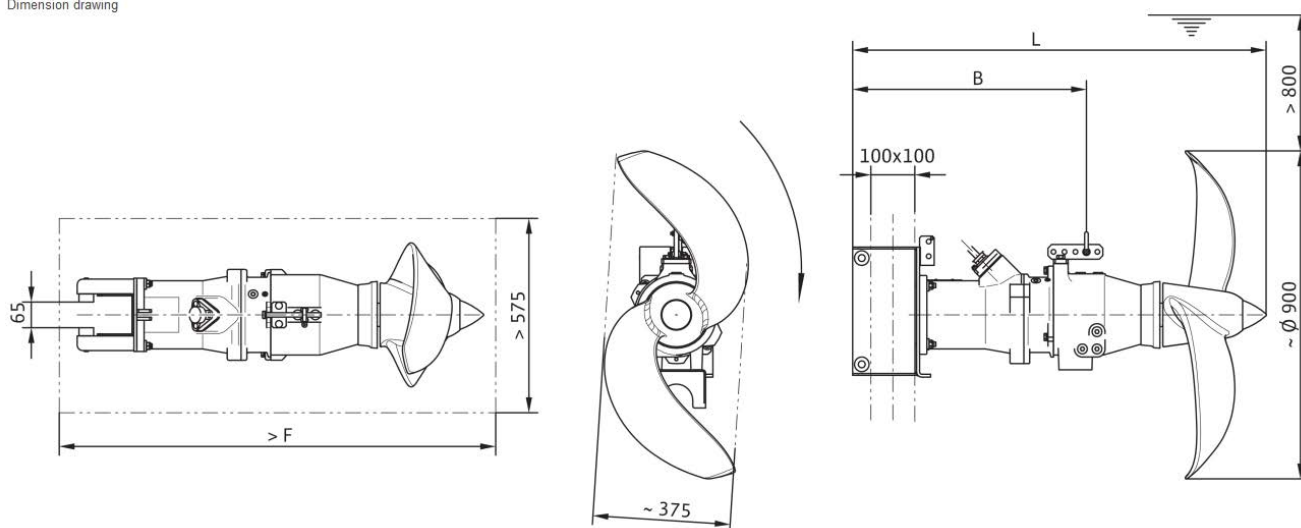
Dimensions and dimensions drawings: Wilo-EMU TRE 90-2.13-6/16

Dimension drawing Wilo-EMU TRE 90-2

Dimensions <i>B</i>	520 mm
Dimensions <i>F</i>	1305 mm
Dimensions <i>L</i>	1155 mm
Max. weight* <i>m</i>	145 kg

* = maximum weight including accessories

Dimension drawing





Motor type
TE 17-6/16R

Rated output [P2]
0,86kW

Rated voltage
400V~3+50Hz

Date
05.02.2018

Application data

data sheet standard
S1 submerged

VDE 0530 operating mode:
Service factor: **1**
Pumped water temperature: **40** [°C]
Max. installation depth: **IP68 20** [m]
min. water level: **-** [mm]

Explosion-proof:

Explosion code: **-**
nr. for operation Ex: **-**
nr. for frequency converter Ex: **-**

Motor connection wiring:

Direct: **7x1,5 NSSHÖU**

Motor data:

Rated output [P2]: **0,86** [kW]
power input [P1]: **1,11** [kW]
Rated speed: **980,1** [min-1]
Rated current: **3,05** [A]
Max. starts per hour: **15** [h]
length: **477** [mm]
Weight: **72** [kg]
Efficiency: 100/75/50 **78,1/74,0/66,5** [%]
Cos phi: 100/75/50 **0,53/0,44/0,34**
Starting current: Direct **39** [A]
Cos phi start: **0,74**
torque: load 100%/starting **8,4/80** [Nm]
Mass moment of inertia: **0,0206** [kgm²]
Insulating class: **H / B**

