

Wilo-Para ST



Design

Glandless circulation pump with a cast iron pump housing and threaded connection. EC-motor with automatic power adjustment and self-protecting modes. Mechanical design dedicated for solar thermal applications.

Application

Hot-water heating systems of all kinds, cooling applications

Type key

Example: **Para ST 15-30/7-50/SC**

Para Electronically controlled high-efficiency pump pump range adapted to requirements of the OEM market

Heating inline cast iron pump housing

ST Standard cast iron pump housing

15-130 Nominal diameter - Pump housing length

15 threading 1"

25 threading 1 1/2"

30 threading 2"

7-50 Nominal delivery head range [m] -

Power consumption

SC control:

SC = Self Controlled pump

or

iPWM2 = the pump is controlled by an external system via PWM2 or iPWM2 signal

LIN = the pump is controlled by an external system via Lin Bus Communication

12 Position of electronic module

→ Self-controlled pump (operating button)
or externally controlled (iPWM2 or LIN Bus)

→ Unique LED user interface

→ Self-protecting modes

→ Designed for optimised integration

Options

→ External control via iPWM

→ Control mode Δp -c (constant), Δp -v (variable), constant speed

→ Control mode selection and differential pressure setpoint setting for Δp -c, Δp -v via operating button

→ Delivery in collective (180 pumps/packaging)

Type Key Example:

Technical data	
Approved fluids (other fluids on request)	
Drinking water and water for food-processing companies in accordance with TrinkwV 2001 (drinking water ordinance)	-
Water-glycol mixtures (max. 1:1; above 20% admixture, the pumping data must be checked)	*
Power	
Energy efficiency index (EEI)	≤ 0.20
Max. delivery head H_{max}	8.1 m
Max. volume flow Q_{max}	3.5 m³/h
Permitted field of application	
Temperature range at max. ambient temperature	-
Maximum static pressure p	10 bar

Electrical connection

* = appropriate, - = not appropriate

Technical data	
Mains connection	1~230 V, 50/60 Hz
Motor/electronics	
Electromagnetic compatibility	EN 61800-3
Emitted interference	EN 61000-6-3 / EN 61000-6-4
Speed control	Frequency converter
Interference resistance	EN 61000-6-2 / EN 61000-6-1
Protection class	IP X4D
Insulation class	F
Minimum suction head at suction port for avoiding cavitation at water pumping temperature	
Minimum suction head at 50 / 95 °C	0.5 / 4.5 m

* = appropriate, - = not appropriate

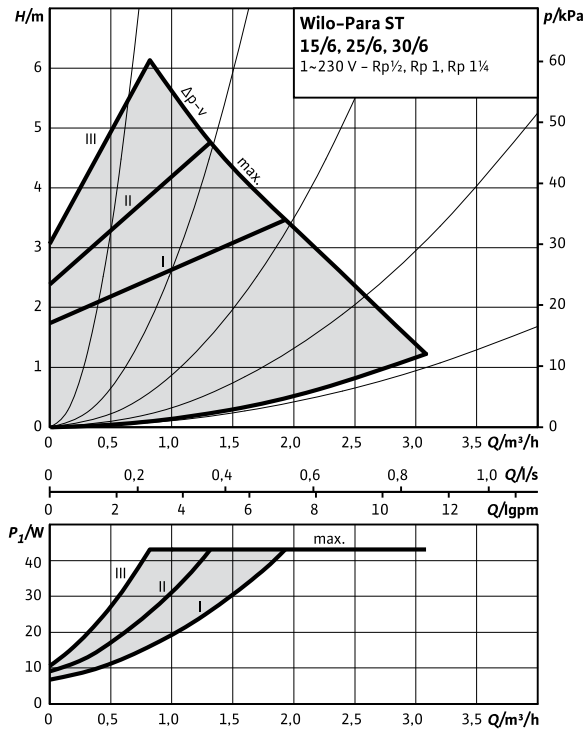
Motor data SC					
Para ST	Speed	EEI	Power consumption 1~230 V	Current at 1~230V	Motor protection
	n rpm		P_1 W	I A	
ST 15-130/6-43/SC	2430 – 4300	≤ 0.20	3 – 43	0.04 – 0.44	integrated
ST 25-130/6-43/SC	2430 – 4300	≤ 0.20	3 – 43	0.04 – 0.44	integrated
ST 25-180/6-43/SC	2430 – 4300	≤ 0.20	3 – 43	0.04 – 0.44	integrated
ST 30-180/6-43/SC	2430 – 4300	≤ 0.20	3 – 43	0.04 – 0.44	integrated
ST 15-130/7-50/SC	2580 – 4700	≤ 0.20	6 – 50	0.07 – 0.44	integrated
ST 25-130/7-50/SC	2580 – 4700	≤ 0.20	6 – 50	0.07 – 0.44	integrated
ST 25-180/7-50/SC	2580 – 4700	≤ 0.20	6 – 50	0.07 – 0.44	integrated
ST 30-180/7-50/SC	2580 – 4700	≤ 0.20	6 – 50	0.07 – 0.44	integrated
ST 15-130/8-75/SC	3000 – 4800	≤ 0.21	10 – 75	0.03 – 0.66	integrated
ST 25-130/8-75/SC	3000 – 4800	≤ 0.21	10 – 75	0.03 – 0.66	integrated
ST 25-180/8-75/SC	3000 – 4800	≤ 0.21	10 – 75	0.03 – 0.66	integrated
ST 30-180/8-75/SC	3000 – 4800	≤ 0.21	10 – 75	0.03 – 0.66	integrated

Motor data IPWM/LIN					
Para ST	Speed	EEI	Power consumption 1~230 V	Current at 1~230V	Motor protection
	n rpm		P_1 W	I A	
ST 15-130/6-43*	700 – 4300	≤ 0.20	1 – 43	0.04 – 0.44	integrated
ST 25-130/6-43*	700 – 4300	≤ 0.20	1 – 43	0.04 – 0.44	integrated
ST 25-180/6-43*	700 – 4300	≤ 0.20	1 – 43	0.04 – 0.44	integrated
ST 30-180/6-43*	700 – 4300	≤ 0.20	1 – 43	0.04 – 0.44	integrated
ST 15-130/7-50*	700 – 4700	≤ 0.20	1 – 50	0.02 – 0.44	integrated
ST 25-130/7-50*	700 – 4700	≤ 0.20	1 – 50	0.02 – 0.44	integrated
ST 25-180/7-50*	700 – 4700	≤ 0.20	1 – 50	0.02 – 0.44	integrated
ST 30-180/7-50*	700 – 4700	≤ 0.20	1 – 50	0.02 – 0.44	integrated
ST 15-130/8-75*	500 – 4800	≤ 0.21	2 – 75	0.03 – 0.66	integrated
ST 25-130/8-75*	500 – 4800	≤ 0.21	2 – 75	0.03 – 0.66	integrated
ST 25-180/8-75*	500 – 4800	≤ 0.21	2 – 75	0.03 – 0.66	integrated
ST 30-180/8-75*	500 – 4800	≤ 0.21	2 – 75	0.03 – 0.66	integrated

*IPWM2 or LIN

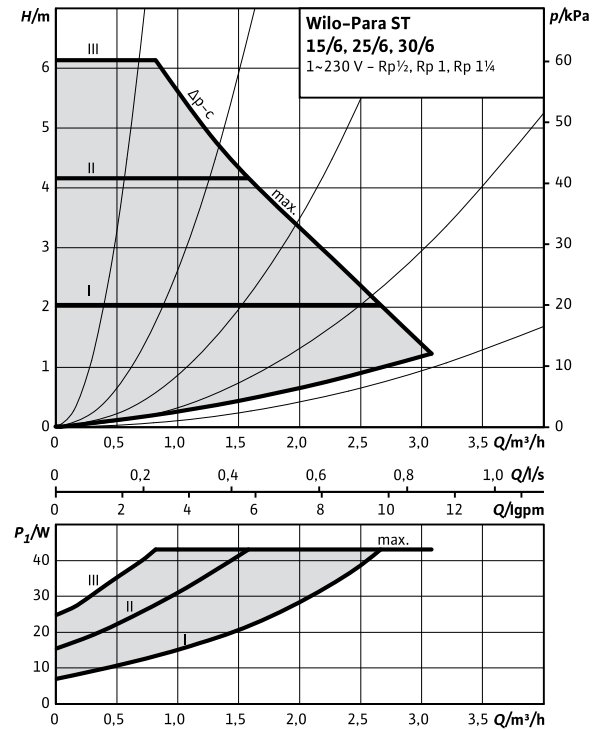
Pump curves

$\Delta p-v$ (variable)



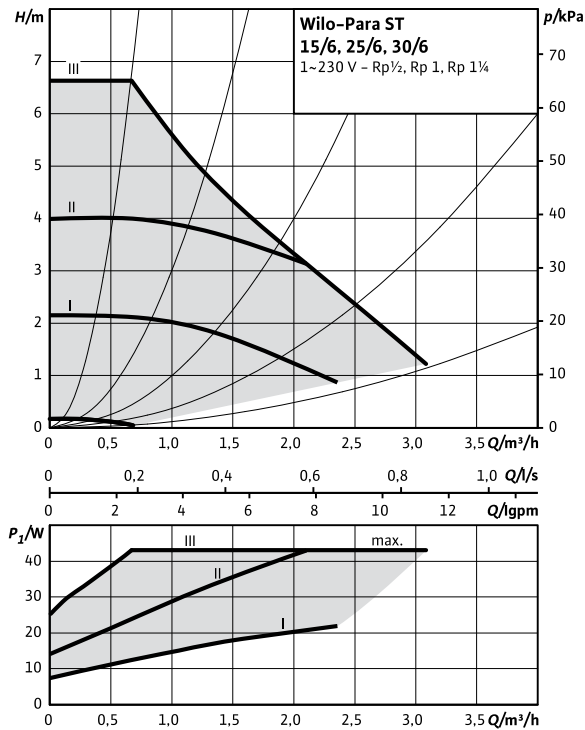
Pump curves

$\Delta p-c$ (constant)



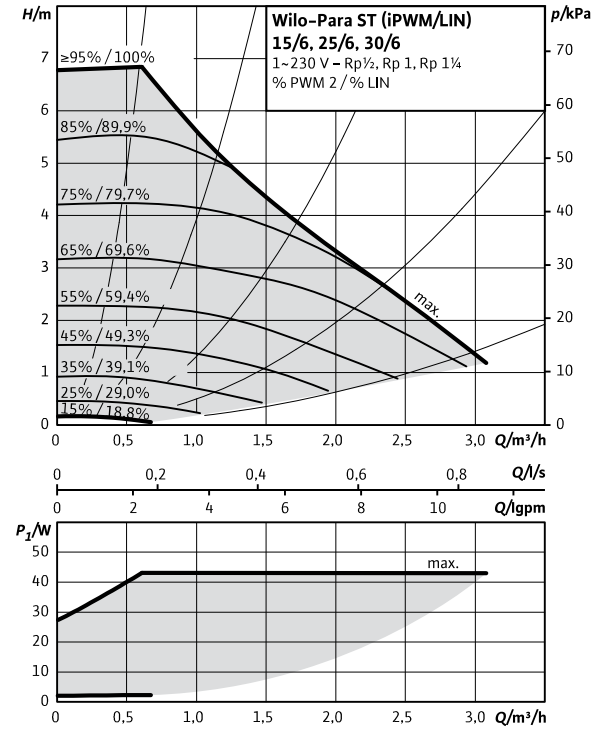
Pump curves

Constant speed I, II, III

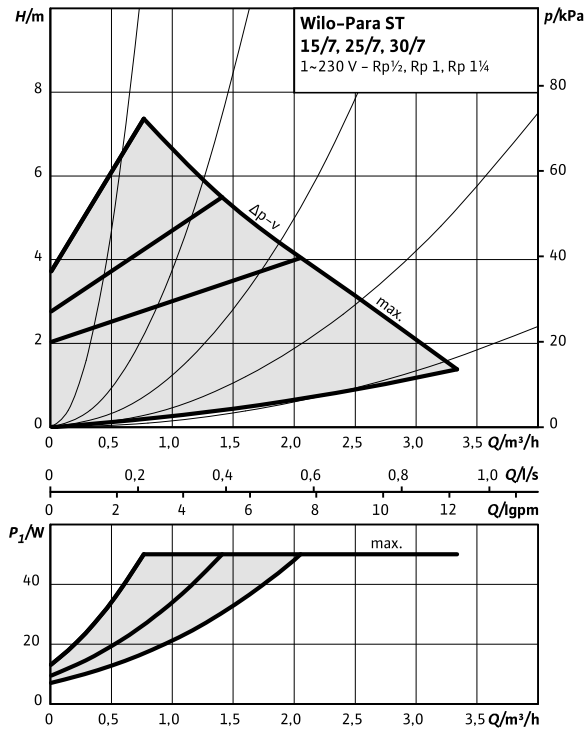


Pump curves

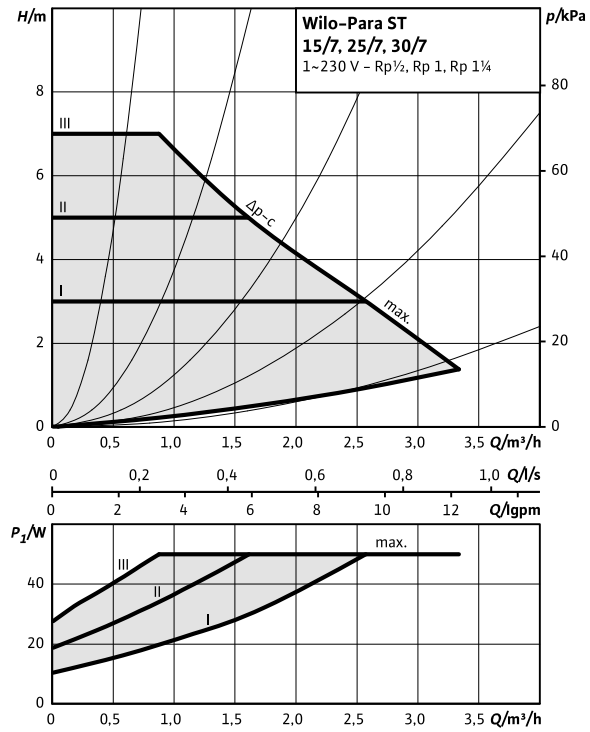
External control via PWM2/LIN



Pump curves

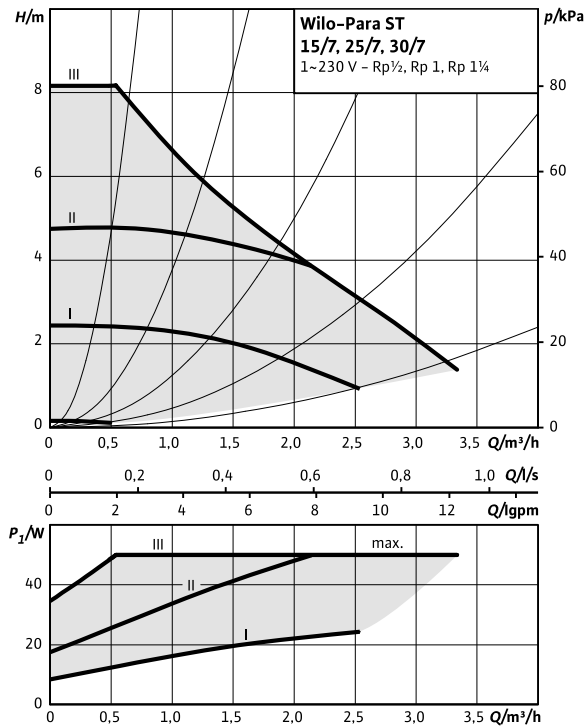
 $\Delta p-v$ (variable)

Pump curves

 $\Delta p-c$ (constant)

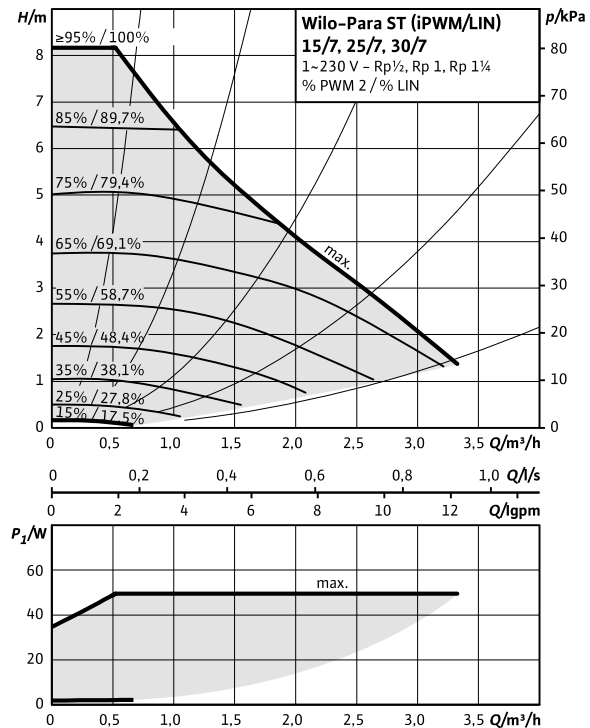
Pump curves

Constant speed I, II, III



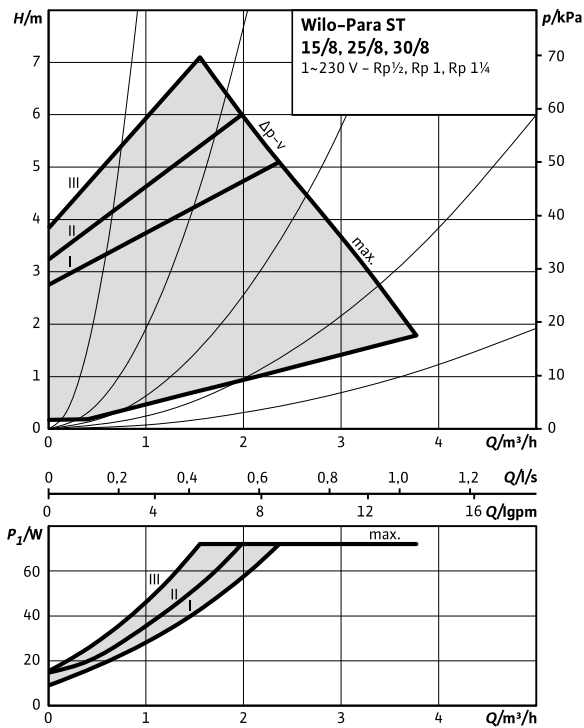
Pump curves

External control via PWM2/LIN



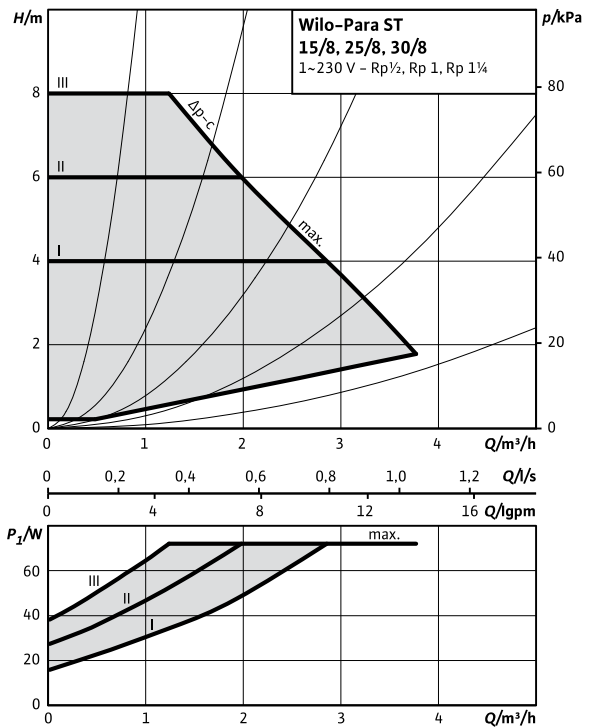
Pump curves

$\Delta p-v$ (variable)



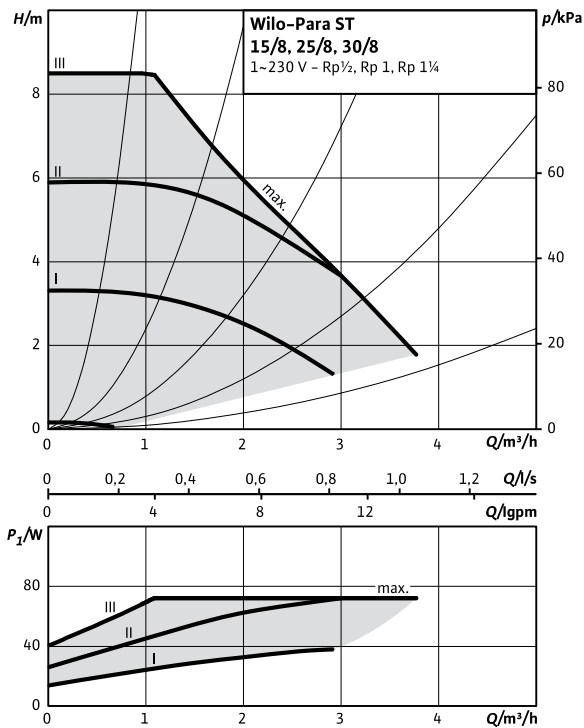
Pump curves

$\Delta p-c$ (constant)



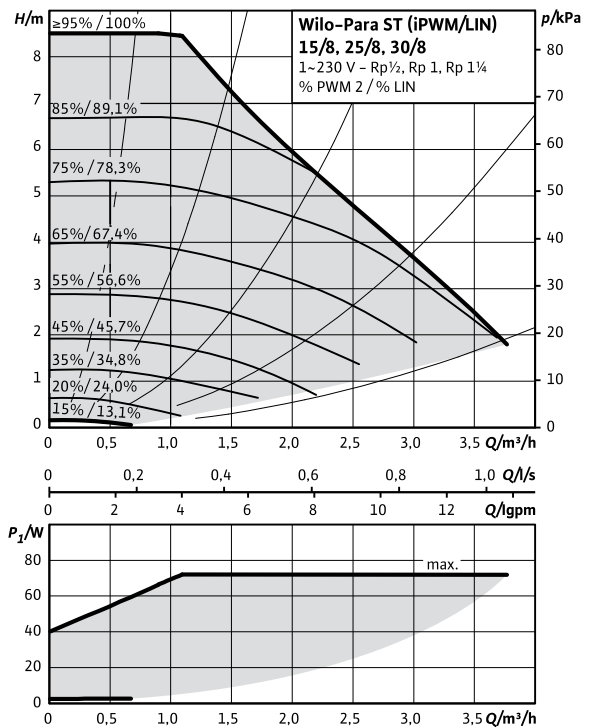
Pump curves

Constant speed I, II, III



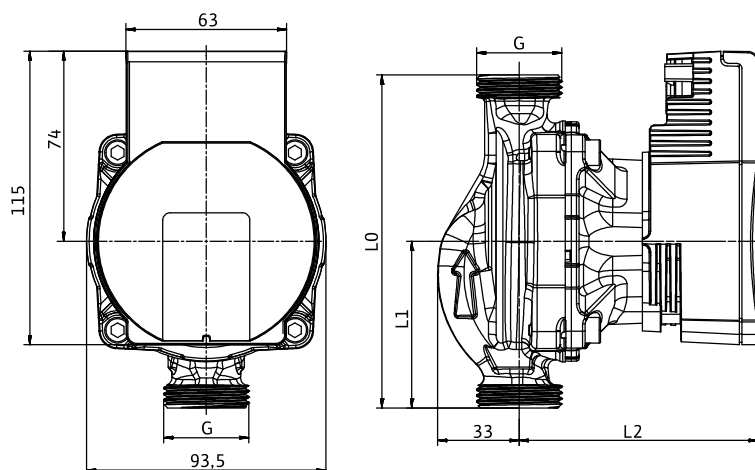
Pump curves

External control via PWM2/LIN



Dimension drawing SC

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Technical data			
Designation	Para ST 15-130/6-43/SC	Para ST 15-130/7-50/SC	Para ST 15-130/8-75/SC
Threaded pipe union	Rp 1/2		
Thread	G 1		
Overall length l_o	130 mm		
Dimensions L1	65 mm		
Dimensions L2	94 mm		
Weight approx. m	1.54 kg		1.7 kg

Technical data						
Designation	Para ST 25-130/6-43/SC	Para ST 25-180/6-43/SC	Para ST 25-130/8-75/SC	Para ST 25-130/7-50/SC	Para ST 25-180/7-50/SC	Para ST 25-180/8-75/SC
Threaded pipe union	Rp 1					
Thread	G 1 1/2					
Overall length l_o	130 mm	180 mm	130 mm	130 mm	180 mm	180 mm
Dimensions L1	65 mm	90 mm	65 mm	90 mm	65 mm	90 mm
Dimensions L2	94 mm				105 mm	
Weight approx. m	1.66 kg	1.78 kg	1.8 kg	1.66 kg	1.78 kg	2 kg

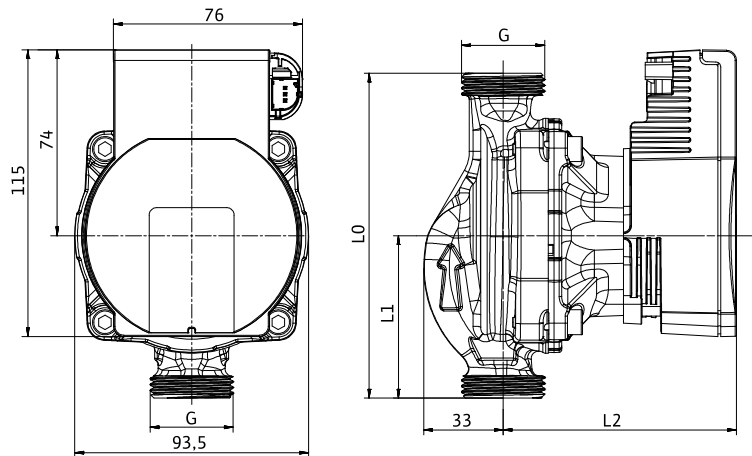
Technical data			
Designation	Para ST 30-180/6-43/SC	Para ST 30-180/7-50/SC	Para ST 30-180/8-75/SC
Threaded pipe union	Rp 1 1/4		
Thread	G 2		
Overall length l_o	180 mm		
Dimensions L1	90 mm		
Dimensions L2	94 mm		
Weight approx. m	1.96 kg		

Materials

Pump housing	Cast iron with cataphoresis treatment
Impeller	PP composite with GF 40%
Pump shaft	Stainless steel
Bearing	Carbon, metal impregnated

Dimension drawing iPWM/LIN

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Technical data			
Designation	Para ST 15-130/6-43*	Para ST 15-130/7-50*	Para ST 15-130/8-75*
Threaded pipe union	Rp ½		
Thread	G 1		
Overall length l_o	130 mm		
Dimensions L1	65 mm		
Dimensions L2	94 mm		105 mm
Weight approx. m	1.54 kg		1.7 kg

Technical data						
Designation	Para ST 25-130/6-43*	Para ST 25-180/6-43*	Para ST 25-130/7-50*	Para ST 25-180/7-50*	Para ST 25-130/8-75*	Para ST 25-180/8-75*
Threaded pipe union	Rp 1					
Thread	G 1½					
Overall length l_o	130 mm	180 mm	130 mm	180 mm	130 mm	180 mm
Dimensions L1	65 mm	90 mm	65 mm	90 mm	65 mm	90 mm
Dimensions L2	94 mm				105 mm	
Weight approx. m	1.66 kg	1.78 kg	1.66 kg	1.78 kg	1.8 kg	2 kg

Technical data			
Designation	Para ST 30-180/6-43*	Para ST 30-180/7-50*	Para ST 30-180/8-75*
Threaded pipe union	Rp 1¼		
Thread	G 2		
Overall length l_o	180 mm		
Dimensions L1	90 mm		
Dimensions L2	94 mm		105 mm
Weight approx. m	1.96 kg		2.1 kg

Materials

Pump housing	Cast iron with cathaphoresis treatment
Impeller	PP composite with GF 40%
Pump shaft	Stainless steel
Bearing	Carbon, metal impregnated

*iPWM2 or LIN

