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*HVAC OEM Competence Centre*

# Yonos PARA RS \*\*/7.5 PWM1 Ku Datasheet



**ErP**  
READY

APPLIES TO  
EUROPEAN  
DIRECTIVE  
FOR ENERGY  
RELATED  
PRODUCTS

# Yonos PARA RS \*\*/7.5 PWM1 Ku



**Field of application**



**Heating**

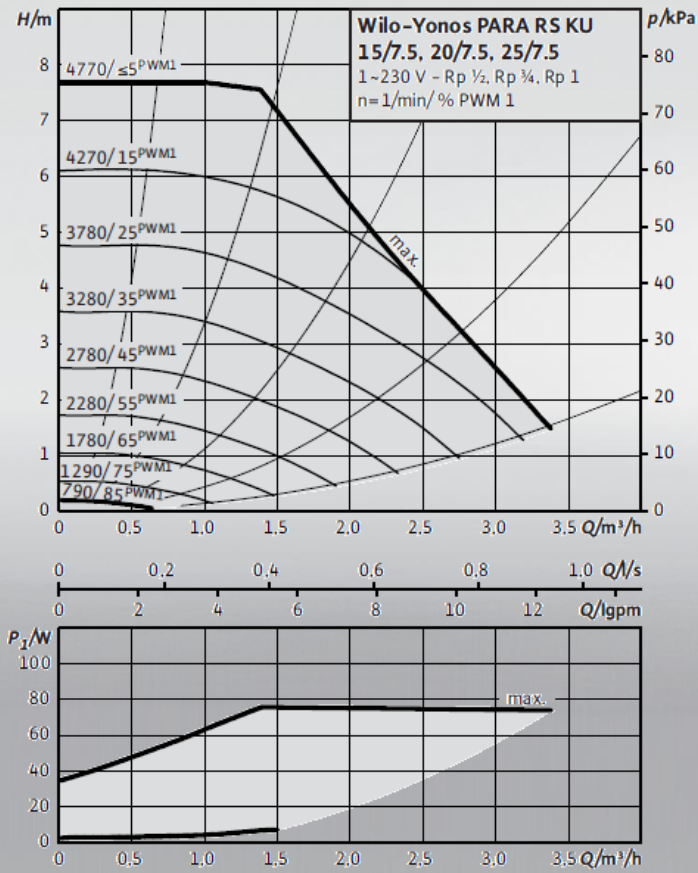
## Yonos PARA RS 15/7.5 PWM1 130 12 Ku

Yonos PARA	High Efficiency pump for heating application
RS...Ku	Inline composite pump housing
15	Threaded connection DN 15 (20, 25 : also available )
7.5	7.5 = delivery head in [m] at Q = 0 m <sup>3</sup> /h
PWM1	Externally controlled by PWM1 signal
130	Pump housing length 130 mm (180 mm: also available)
12	Control box orientation 12 o'clock (3, 6, 9 o'clock: also available)

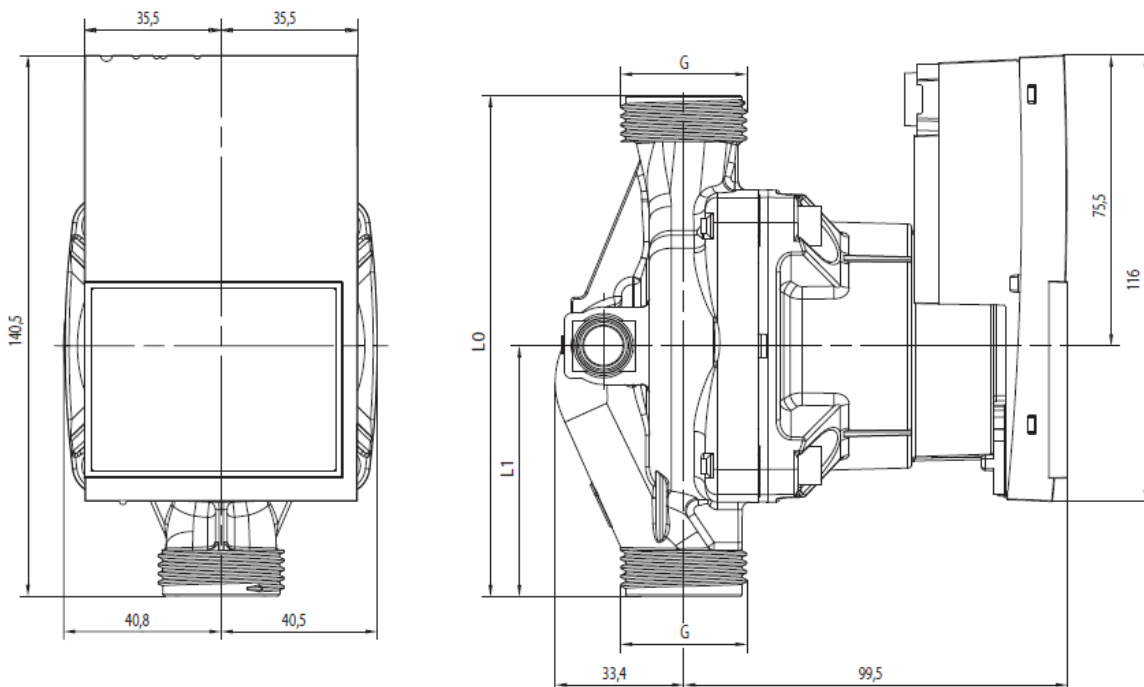
# Hydraulic operational area



## External control via PWM 1



# Dimensions



Thread	Overall length (mm)	Dimensions (mm)
	10	L1
G1"	130	65
G1 1/4"	130	65
G1 1/2"	130	65



## Electrical connections

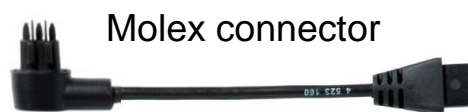
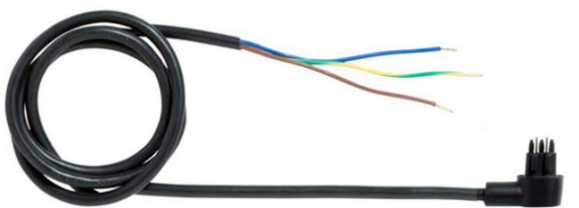
Integrated Molex 3-way connector



Overmoulded connector



Overmoulded power cables



Molex connector



Volex connector



WS8 connector



Standard signal cables



Approved fluids (other fluids on request)	Heating water (in accordance with VDI 2035) Water-glycol mixtures (max. 1:1; above 20% admixture, the pumping data must be checked)
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**Power**

Energy Efficiency Index (EEI)	≤ 0,21
Max. delivery head	7.6 m
Max. volume flow	3.4 m <sup>3</sup> /h

**Permitted field of application**

Temperature range for applications in HVAC systems at max. ambient temperature. Limit values for continuous operation at maximum rated power	Of 58°C = 0 to 100°C Of 62°C = 0 to 90°C Of 66°C = 0 to 80°C Of 71°C = 0 to 70°C
Maximum static pressure	PN 6

**Electrical connection**

Mains connection	1~230 V +10%/-15%, 50/60 Hz (IEC 60038 standard voltage)
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**Motor/electronics**

Low voltage directive	2006/95/EC Conform
Electromagnetic compatibility	EN 61800-3
Emitted interference	EN 61000-6-3 EN 61000-6-4
Interference resistance	EN 61000-6-2 EN 61000-6-1
Protection class	IPx4D
Insulation class	F
RoHS / REACH	Not submitted

**Minimum suction head at suction port to avoid cavitation at water pumping temperature**

Minimum suction head at 50/95°C	0.5/4.5 m
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**Motor data**

Yonos PARA	Speed	Power consumption 1-230 V	Current at 1-230 V	Motor protection
	n	P1	I	-
	rpm	W	A	-
RS **/7.5 PWM1 Ku	800 / 4770	4-75	0.04-0.60	Integrated

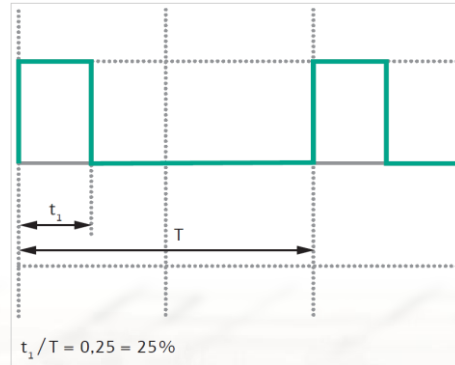
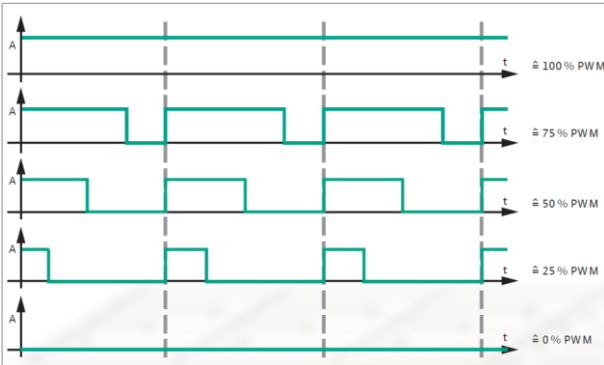
**Materials**

Yonos PARA	Pump housing	Impeller	Pump shaft	Bearing
RS **/7.5 PWM1 Ku	PA6.6 composite with GF30%	PP composite with GF 40%	Stainless steel	Carbon, metal impregnated

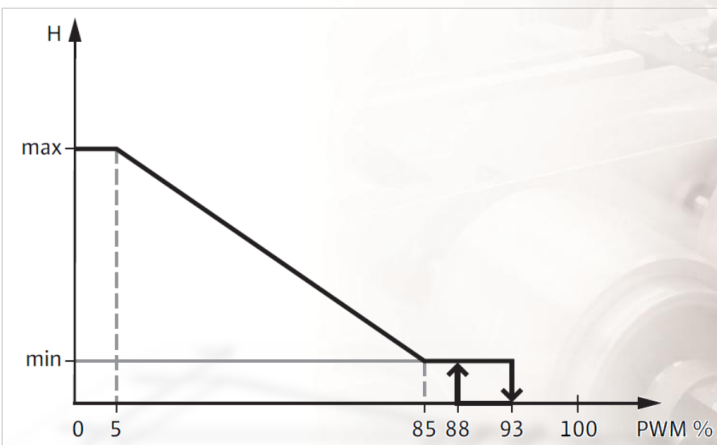
# External control via a PWM system



The actual/setpoint level assessment required for control is referred to a remote controller. The remote controller sends a PWM signal as an actuating variable to the Wilo-Yonos PARA. The PWM signal generator gives a periodic order of pulses to the pump (the duty cycle), according to DIN IEC 60469-1. The actuating variable is determined by the ratio between pulse duration and the pulse period. The duty cycle is defined as a ratio without dimension, with a value of 0 ... 1 or 0 ... 100 %. This is explained in the following with ideal pulses which form a rectangular wave.



## PWM signal logic 1 (heating)



## PWM Input signal (%)

< 5	Pump runs at maximum speed
5-85	Pump speed decreases linearly from maximum to minimum
85-93	Pump runs at minimum speed (operation)
85-88	Pump runs at minimum speed (start-up)
93-100	Pump stops (Standby)
Signal frequency:	100 Hz-5000 Hz (1000 Hz nominal)
Signal amplitude:	Minimum 3.6V at 3 mA Up to 24V for 7.5 mA absorbed by the pump interface
Signal polarity:	none



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