

eVAL3+

✓ LOW-NOISE OPERATION

✓ LOW ENERGY CONSUMPTION

✓ RELIABILITY

✓ EASY HANDLING

APPLICATION

eVAL3+ pumps are designed for pumping clean water in domestic heating systems and industrial heating systems. Pumped liquids: non-aggressive, non-explosive liquids with low kinematic viscosity up to 10cSt, free of solids and fibres; cooling liquids, without mineral oils.

High-efficiency circulator pumps eVAL3+ are ideal for installations with variable flow rate (e.g. heating installations with radiators controlled by a thermostat) and in installations characterized by low flows and significant temperature differences of the pumped liquid (solar installations).

✓ Dual PWM control for heating and solar systems

✓ One pump with two flow (Q) and height (H) ranges – 25/4 and 25/6

✓ Easy and timesaving installation thanks to SMART PLUG

✓ One of the lowest circulators (in motor axis)

✓ 4 control modes with 12 curves



RANGE OF USE

Flow	up to 5 m ³ /h
Head	up to 10 m
System pressure	1,0 MPa
Liquid temperature	+2 up to 110°C

DESIGNATION KEY

eVAL3+ 25 / 8 / 180

Pump type

Nominal
diameter
[mm]

Maximum
head
H = 8 m

Port-to-port
length [mm]

CONSTRUCTION FEATURES

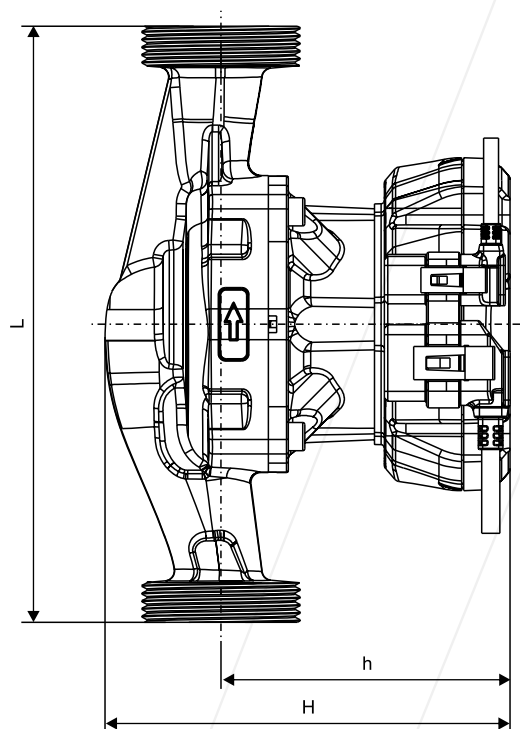
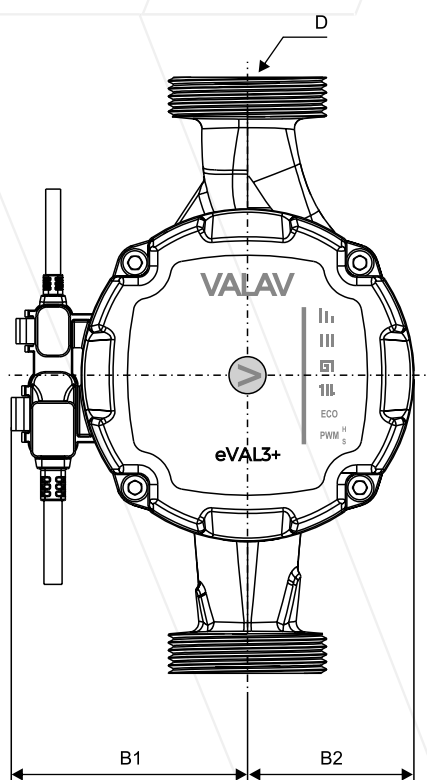
Hydraulic part:

- ✓ glandless pump,
- ✓ cast iron pump body with cataphoretic coating,
- ✓ closed impeller, composite impeller,
- ✓ threaded connections.

Motor:

- ✓ wet motor rotor,
- ✓ synchronous motor with permanent magnet,
- ✓ stepless self-regulation of rotational speed,
- ✓ ceramic shaft and bearings,
- ✓ double-insulated motor winding,
- ✓ chromium-nickel steel stator.

DIMENSIONS



Dimensions [mm]

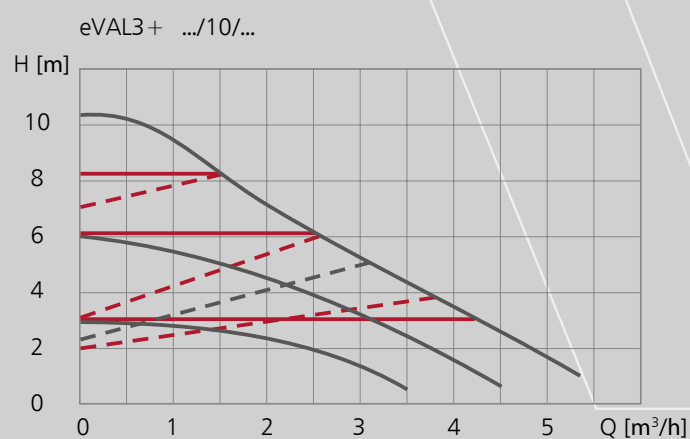
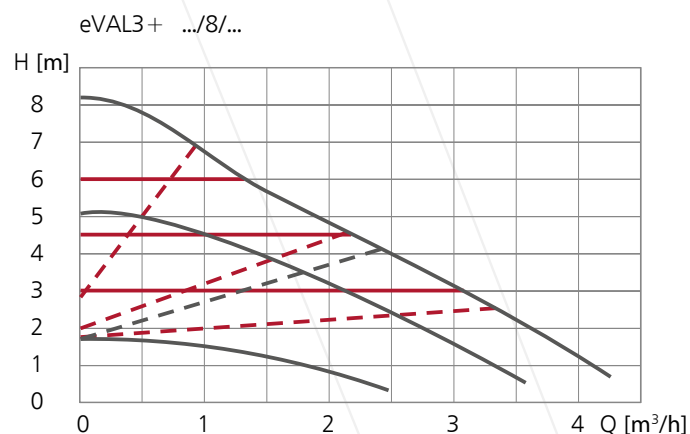
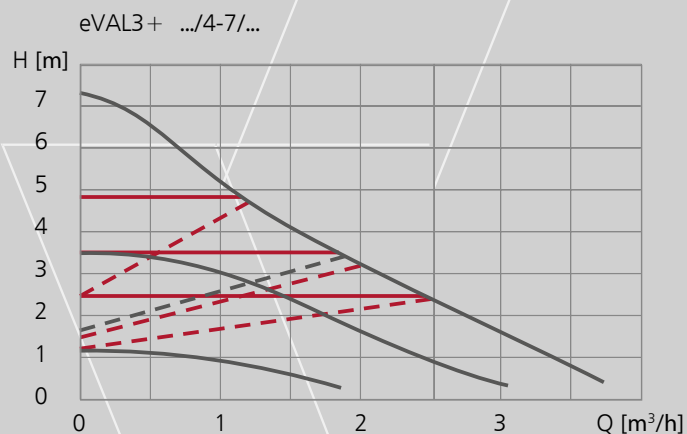
Pump type	L	H	h	B1	B2	D	Weight [kg]
eVAL3+ 15/4-7/130	130	124	95	72	50	1"	1,4
eVAL3+ 20/4-7/130	130	124	95	72	50	1 1/4"	1,5
eVAL3+ 25/4-7/130	130	124	95	72	50	1 1/2"	1,5
eVAL3+ 25/4-7/180	180	122	87	72	50	1 1/2"	1,7
eVAL3+ 32/4-7/180	180	122	87	72	50	2"	1,9
eVAL3+ 25/.../130	130	135	98	72	50	1 1/2"	1,9
eVAL3+ 25/.../180	180	133	98	72	50	1 1/2"	2,1
eVAL3+ 32/.../180	180	133	98	72	50	2"	2,3

eVAL3+

ELECTRICAL DATA

Pump type	Rated voltage [V]	EEI	P ₁ [W]		I [A]		Insulation class	Enclosure class
			min	max	min	max		
eVAL3+ .../4-7/...	1~230-240	0,19	4	45	0,04	0,21	H	IP 44
eVAL3+ .../8/...		0,20	8	65	0,05	0,39		
eVAL3+ .../10/...		0,20	9	92	0,06	0,53		

PUMP PERFORMANCE



proportional pressure curves III - - - - constant pressure curves III — constant speed curves III — ECO mode ECO - - - -

PWM PROFILES

PWM control in heating mode H

PWM input signal [%]:

- < 5: The pump operates with maximum speed
- 6-85: The pump speed decreases linearly from $n_{\max}$ to $n_{\min}$
- 86-88: The pump runs at minimum speed
- 89-93: If the input signal fluctuates near the speed change point, it will prevent the pump from starting and stopping according to the principle of hysteresis
- 94-100: Pump stops (standby)

If the signal cable is disconnected from the pump, e.g. due to an interruption, the pump accelerates to speed.

Properties of the feedback signal:

Output frequency $f_{\text{out}} 75 \text{ Hz} \pm 5\%$

Maximum interface voltage 30 V DC (<10 mA)

Properties of the feedback signal [%]:

- 95: The pump is in standby state
- 90: Locked-rotor protection
- 85: Dry running protection, too high motor current, one phase in motor missing
- 80: The input voltage is too high or too low, or the winding temperature is too high
- 75: Other faults
- 0~70: Feedback at $0.03 \text{ m}^3/\text{h}$ per 1%, for eVAL3+ .../4-7/...

PWM control in solar mode S

PWM input signal [%]:

- 0-7: Pump stops (standby)
- 8-12: If the input signal fluctuates near the speed change point, it will prevent the pump from starting and stopping according to the principle of hysteresis
- 13-15: The pump runs at minimum speed
- 16-95: The pump speed increases linearly from $n_{\min}$ to $n_{\max}$
- > 95: The pump operates with maximum speed

If the signal cable is disconnected from the pump, e.g. due to an interruption, the pump stops.

