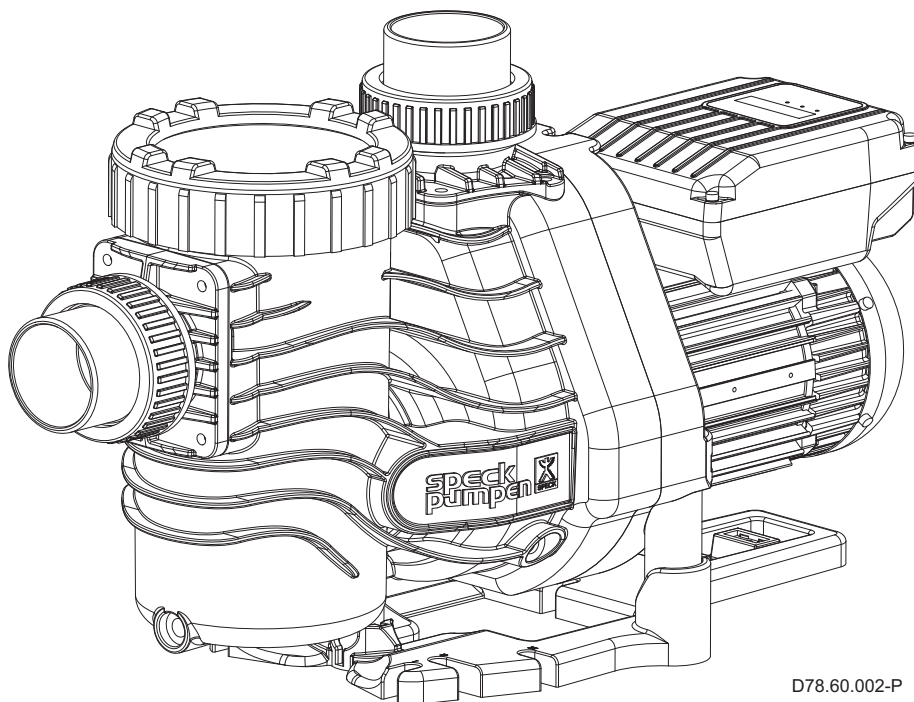


## EN Data sheet

### Related Documentation

The additional information compiled in this data sheet must be kept together with the original operation manual for "Non-self-priming and self-priming pumps with/without plastic lanterns" and must be accessible to the relevant personnel at all times.

## BADU® EasyFit Eco VS



D78.60.002-P

<b>Glossary</b>	
TD	Technical data
Sa	Inlet connection
Da	Outlet connection
d-Saug	Recommended diameter - inlet connection at 5 m
d-Druck	Recommended diameter - outlet connection at 5 m
max. L	Maximum length of the pump
P <sub>1</sub>	Power Input
P <sub>2</sub>	Power Output
I	Rated current
L <sub>pa</sub> (1 m)	Sound pressure level at 1 m measured in accordance with DIN 45635
L <sub>wa</sub>	Acoustic capacity
m	Weight
WSK	Built-in or external overload switch
PTC	PTC Resistor
H <sub>max.</sub>	Total dynamic head
SP	Self-priming
H <sub>s</sub> ; H <sub>z</sub>	Geodetic head between water level and pump
H <sub>s</sub>	Total suction head
H <sub>z</sub>	Total dynamic head with flooded suction
IP	Type of motor enclosure
W-KI	Class of insulation
n	Motor speed
P-GHI	2,5 bar max. casing pressure/system pressure
T	Water temperature
●	Yes
○	No
T/°C	Clarification of the max. water temperature 40 °C (60 °C): 40 °C = the max. water temperature allowed according to the GS approval. (60 °C) = the pump is designed to withstand a max. water temperature of 60 °C.
1~/3~	Suitable for continuous operation at 1~ 220 - 240 V ± 5% 3~ Y/Δ 380 - 420 V/220 - 240 V ± 5% 3~ Y/Δ 660 - 725 V/380 - 420 V ± 5%  For standard voltage in accordance with DIN IEC 60038; DIN EN 60034

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## Alternative connection options

An alternative connection option may also be chosen instead of the standard connection option:

### Connection option 1

Inlet connection W 78.50.006, Rp 1½ or Rp 2, outlet connection Rp 1½ or Rp 2 including appropriate pump feet; compatible with Pentair® „Ultraflow®“ pumps among other brands of pump.

### Connection option 2

Inlet connection W 78.50.007, Rp 1½ or Rp 2, outlet connection Rp 1½ or Rp 2 including appropriate pump feet; compatible with Pentair® „Whisperflo®“ pumps among other brands of pump.

### Connection option 3

Inlet connection W 78.50.005, Rp 1½ or Rp 2, outlet connection Rp 1½ or Rp 2 including appropriate pump feet; compatible with Hayward® „SuperPump®“ pumps among other brands of pump.

### Connection option 4

Inlet connection W 78.50.008, Rp 1½ or Rp 2, outlet connection Rp 1½ or Rp 2 including appropriate pump feet; compatible with Sta-Rite® „5P2R“ pumps among other brands of pump.

### Connection option 5

Inlet connection W 78.50.017, outlet connection W 78.50.018 including appropriate pump feet; compatible with Astral „Super Sprint“, Astral „Victoria Plus“ and Wilo „Filtec FBS“ pumps among other brands of pump.

### Connection option 6

Inlet connection W 78.50.019, Rp 2, outlet connection W 78.50.020, Rp 2, including appropriate pump feet; compatible with Sta-Rite® „5MPR (Dyna Glas™)“ pumps among other brands of pump.

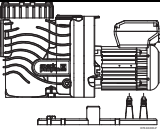
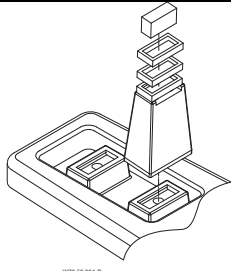
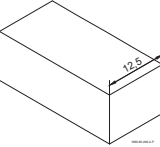
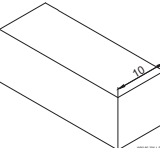
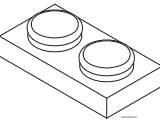
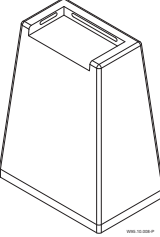
## NOTICE

The characteristics of the standard connection option with male thread may vary when using alternative connections.

*Pentair®, Sta-Rite®, Dyna-Glas™, WhisperFlo® and Ultra-Flow® are trademarks and/or registered trademarks of Pentair Water Pool and Spa, Inc. and/or its affiliated companies.*

*Hayward® and Super Pump® are trademarks of Hayward Industries, Inc.*

## Number of adapter units for motor construction support

Option	Adapter	BADU EasyFit Eco VS
Motor position		 W78.00.001-P
Standard	 W78.00.001-P	1
1		-
2		1
3		1
4		-
5		1
6		1
Standard	 W78.00.001-P	-
1		1
2		-
3		-
4		1
5		-
6		-
Standard	 W78.00.001-P	7
1		4
2		7
3		-
4		5
5		6
6		7
Standard	 W78.00.001-P	-
1		1
2		-
3		-
4		1
5		-
6		-

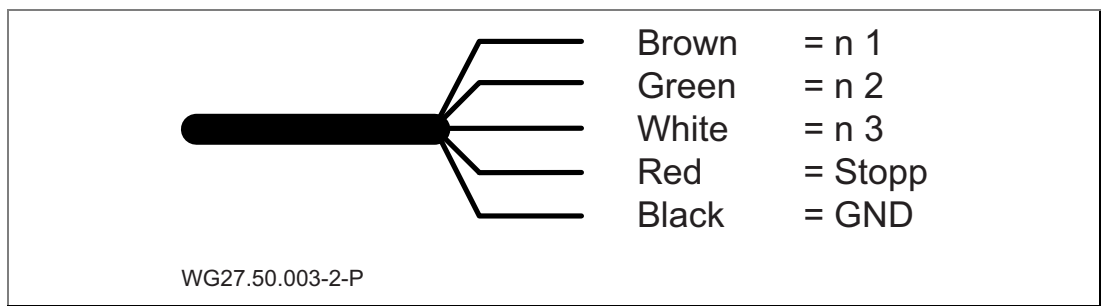
## Characteristics of the standard connection option with male thread

For special voltages and/or the 60 Hz version, the performance data can be taken from the pump name plate. With some special types or motors there is no GS approval – GS approval on pump name plate where applicable.

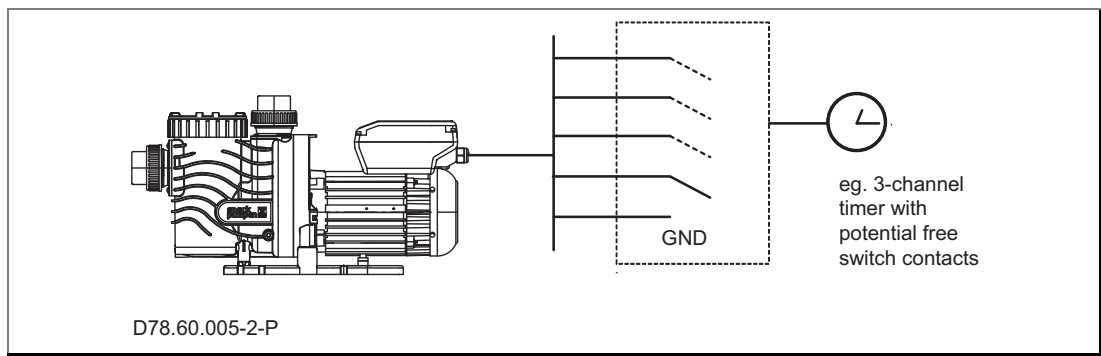
The pump has a permanently magnetic motor and is electronically protected against overload.

### Connecting external switch contacts

The pump has a 5-wire cable with open ends for external control. Assignment of the cables to the individual speeds is as follows:



**The cables must be connected potential free. Only switch the contacts individually (observe priority of the contacts). Otherwise the desired speed is not activated.**



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## NOTICE

The motor speed is switched on using the manual button or external switch contacts. The switch contacts and the assigned speed are activated.

If the pump starts from a standstill, it starts up in priming mode and subsequently with the selected fixed speed.

During running operation the pump is started up to the fixed speed directly, without priming time.

If external control is not necessary, the cable ends need to be insulated.

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## NOTICE

Installing a flow monitor in the circulation line is recommended so that a failure message can be displayed. A lengthy interruption of the bath water circulation can be prevented in this way.

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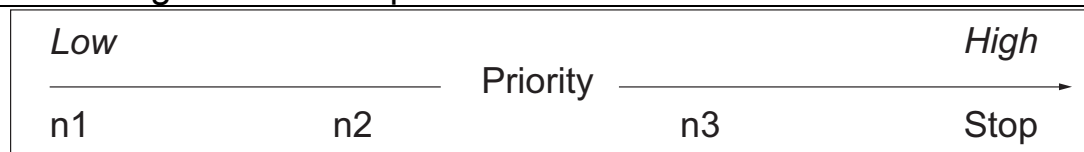
## NOTICE

The following points must be observed in order to avoid motor malfunctions:

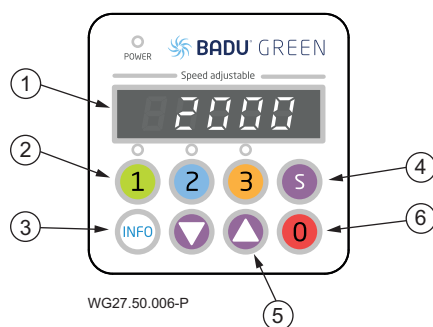
- The control line should be correctly installed by a specialist. Assembly parallel to power lines or their load should be avoided.
  - Should the control lines be extended, dangerous voltages can occur at the digital input. These should be avoided with isolation.
  - The power cables for various inputs should not be connected to the same supply line.
-

**Default setting:**

Speed:	1 = 2000 min <sup>-1</sup> 2 = 2400 min <sup>-1</sup> 3 = 2850 min <sup>-1</sup>
Priming speed:	= 2850 min <sup>-1</sup>
Priming time:	= 5 minutes
Speeds which can be set:	1000 - 3000 min <sup>-1</sup> ( <i>in 10 min<sup>-1</sup> steps</i> )
Priming time which can be set:	oFF, 1 - 10 Min. ( <i>in 1 Min. steps</i> )
External controlling	oFF
Switching behaviour Input "0"	0 cl

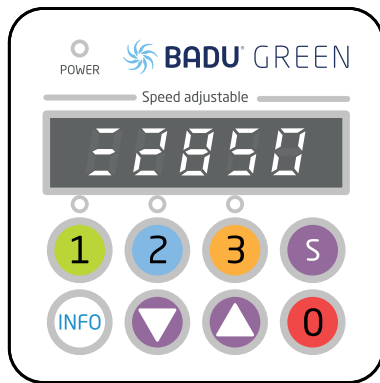


WG27.50.094-2-P

**User interface:**

- (1) **LED display:** displays the current speed of the motor.
- (2) **"1, 2, 3" button:** selection of the preset speeds.
- (3) **"INFO" button:** to display the current consumption and select the parameters in the setup.
- (4) **"Setup" button:** to set the parameters.
- (5) **"▼ ▲" buttons:** to change the speed
- (6) **"0" button:** to stop the motor.

The software version "-rX.X-" is displayed briefly when the supply voltage is switched on.



WG27.50.007-P

### Operation:

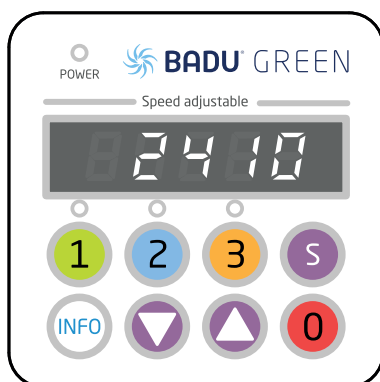
Press the button "1", "2" or "3" to select the preset fixed speed.

If the pump starts from a standstill, it starts up in priming mode (in far as it is activated) and subsequently with the selected fixed speed.

As long as the pump is in the priming phase a bar moves in the first position on the display from the lower, through the middle to the upper position.

During operation the pump is started up to the fixed speed directly, without priming time.

The motor is stopped by pressing the "0" button. The "Power" LED flashes and the display shows "oFF".



WG27.50.008-P

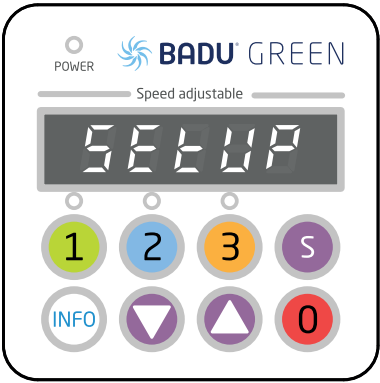
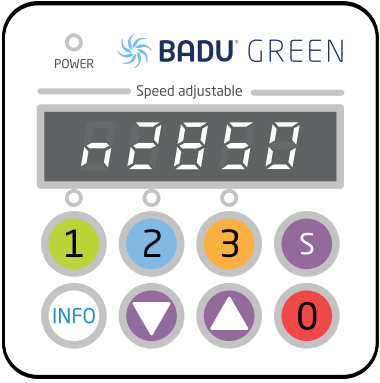
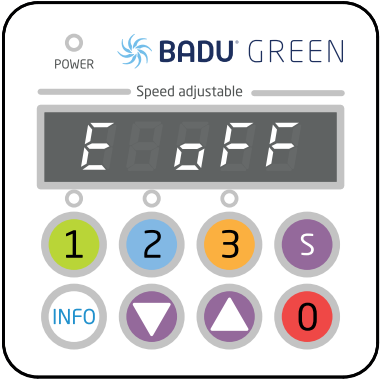
### Setting the speeds:

Press the button of the fixed speed that is to be changed ("1", "2" or "3") and then change the speed by using the "▼ ▲" buttons. The set speed is stored directly and approached immediately when the fixed speed is selected again.



**Notice:** The speed cannot be changed during the priming phase.



 <p>WG27.50.009-P</p>	<p><b>Setting the parameters:</b>          You change to the setup menu by pressing the <b>"Setup"</b> button for 3 seconds. There the "Info" button can be used to scroll through the menu. The first position of the display shows the current menu item and the remaining four positions the parameter to be set.          If the <b>"S"</b> button is pressed within the menu, all the changed values are stored and the setup menu exited. The text <b>"StorE"</b> is shown in the display.          If you press the <b>"0"</b> button, the setup menu is exited without the changed values being stored.</p>
 <p>WG27.50.010-P</p>	<p><b>Priming parameters:</b>          The speed is set under the menu item <b>"n"</b> while the time during the priming phase is set under the item <b>"t"</b>.  <b>"t oFF"</b> = no priming phase          from oFF, 1 - 10 minutes can be set</p>
 <p>WG27.50.011-P</p>	<p><b>Digital Inputs:</b>          External controlling can be activated or deactivated with the menu item <b>"E"</b>.  <b>"oFF"</b> = deactivated  <b>"dl"</b> = digital inputs (potential-free) activated</p>

<p>The image shows the BADU GREEN control unit. At the top, there is a 'POWER' indicator and the 'BADU GREEN' logo. Below the logo is a 'Speed adjustable' label. The main display shows '0 cL'. Below the display are eight buttons: '1' (green), '2' (blue), '3' (orange), 'S' (purple), 'INFO' (light blue), a downward arrow (purple), an upward arrow (purple), and '0' (red).</p>	<p><b>Switching behaviour "0 (stop):</b>  The switching behaviour of the digital input "0" can be changed (inverted) by using the menu item "0".  <b>"cL"</b> means that the motor is stopped at a closed contact.  <b>"oP"</b> means that the motor is stopped at an open contact.</p>
<p>The image shows the BADU GREEN control unit. At the top, there is a 'POWER' indicator and the 'BADU GREEN' logo. Below the logo is a 'Speed adjustable' label. The main display shows 'rESet'. Below the display are eight buttons: '1' (green), '2' (blue), '3' (orange), 'S' (purple), 'INFO' (light blue), a downward arrow (purple), an upward arrow (purple), and '0' (red).</p>	<p><b>Resetting:</b>  The motor is reset to the factory setting when the <b>"Info"</b> button is pressed for at least 10 seconds. The motor stopd and <b>"rESet"</b> is displayed.</p>
<p>The image shows the BADU GREEN control unit. At the top, there is a 'POWER' indicator and the 'BADU GREEN' logo. Below the logo is a 'Speed adjustable' label. The main display shows 'P 700'. Below the display are eight buttons: '1' (green), '2' (blue), '3' (orange), 'S' (purple), 'INFO' (light blue), a downward arrow (purple), an upward arrow (purple), and '0' (red).</p>	<p>The pump current power requirements are shown in watt (P XXX) in the display when the <b>"INFO"</b> button is pressed.</p> <p>The control unit's display switches off after three minutes without action.</p>
<p>After a voltage drop the pump automatically starts up again with the speed last set, or remains stopped if it had been stopped beforehand.</p>	

The pump can be turned on and off using the control cable (potential-free contact) intended for this purpose. This can be via a Logic control (SPECK Pumpen) or via a small coupling relay. This puts less stress on the electronics.

## Overview of possible operating and error messages

If an error occurs, the motor switches off permanently and a message is displayed. Exception: "Under voltage" if there is a failure or the power supply switches off. In this case the motor restarts when the power supply is switched on again.

If an error occurs, the system must be disconnected from the power supply. See chapter 2.2 of the original operating manual "Non self-priming and self-priming pumps with/without plastic lanterns (AK version)".

Error No.	Description
Err 1	Undervoltage intermediate circuit
Err 2	Overvoltage intermediate circuit
Err 3	Supply voltage too low/too high
Err 4	Temperature at the power electronics too high
Err 5	Overtemperature motor
Err 7	Overcurrent electronics
Err 10	Current measurement faulty
Err 20	Abortion during start-up, overload
Err 64	Short-circuit electronics
Err 97	Simultaneous occurrence of several errors or faults
Err 98	Connection to the control unit faulty

The following points refers to the related documentation!

### 8.1 Installing or removing the cover/strainer basket

