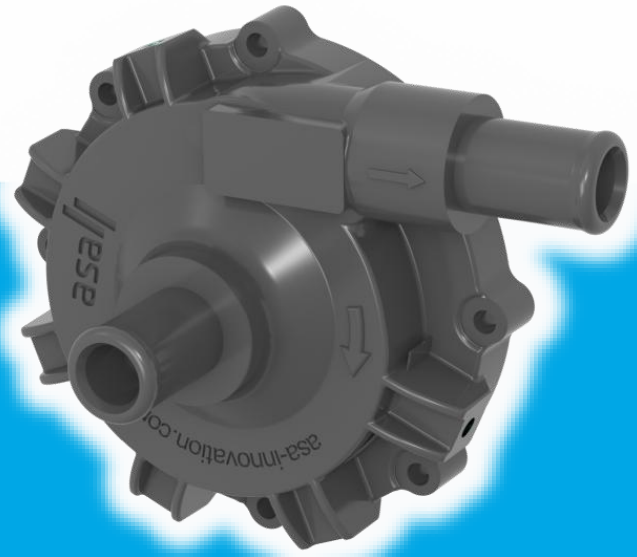


Fluid Controls

Centrifugal Water Pump Unit
12V/24V DC

be different.
make a difference.

Fluid Controls

Centrifugal Water Pump Unit 12/24V

Design

The *asa* water pump operates on the centrifugal principle and uses a spiral housing with 1" or ¾" hose connections, magnet coupling, and a 12V or a 24 V DC brushless motor. The motor and the coupling are installed in an aluminium die cast housing. This motor/pump unit is mainly designed to create compact and cost efficient cooling circuits for electric devices such as battery packs, electric motors and power electronics like converters.



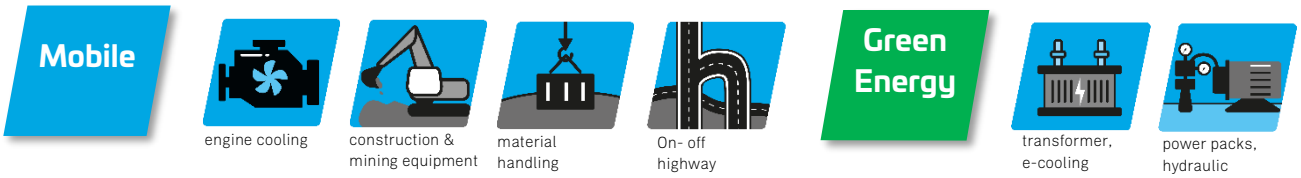
Advantages

- Optimized flow characteristics for high efficiency.
- Even distribution of the coolant in the system.
- Minimization of pressure losses and maximization of delivery capacity.
- High efficiency and lower energy consumption.
- Long service life thanks to wear-free operation.
- Reduced maintenance costs thanks to brushless design.
- High strength and durability.
- Good protection against mechanical damage and environmental influences.
- Space-saving design for easy integration.

Validation plan:

- ✓ Water pump test
- ✓ Salt spray chamber according DIN EN ISO 9227
- ✓ Sound Power Measurement according to DIN EN ISO 9614-2
- ✓ Vibration test acc. IEC 60068-2-6/64 and combined climate test bench IEC 60068-2-14

Applications



Fluid Controls

Centrifugal Water Pump Unit 12/24V

A	B	P	W	0	9	0	S	2	0	E	P	0	2	K		
1			2			3	4	5	6	7		8		9		

Order Code

1 Product Category

ABP	Pumps

2 Product Series

W	Water pump

3 Displacement volume

090	90 l/min

4 Connection

S	standard motor/pump

5 Dimensions

20	¾ “
25	1”

6 Sealing Material (medium side)

E	EPDM
H	HNBR (on request)
V	FPM (Viton) (on request)

7 Control

P	PWM

8 Voltage

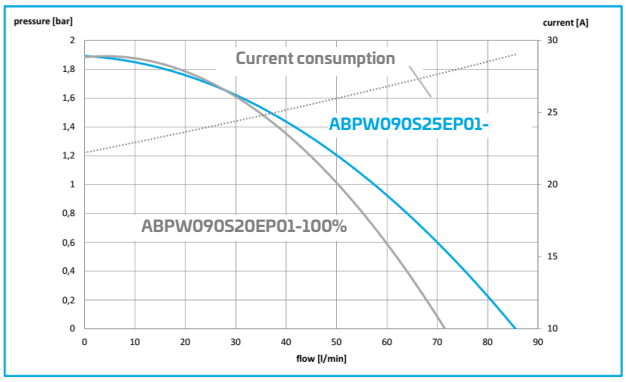
01	12 V
02	24 V

9 Index / Customized

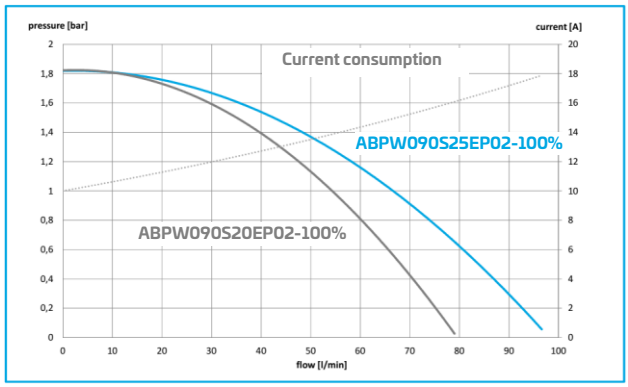
K	standard sales kit
B00	mounting option picture 1, page 6
B01	mounting option picture 2, page 6
BXX	special / customized specifications; to be advised by asa

Pump Characteristic

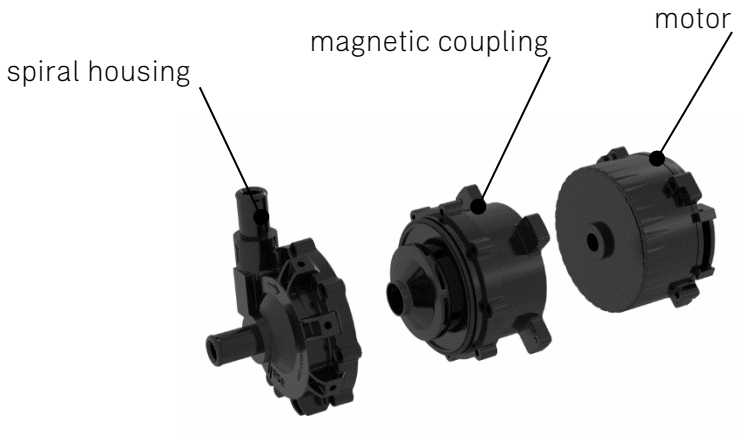
Pressure rise vs. flow 13,6V, medium: water, 20°C *



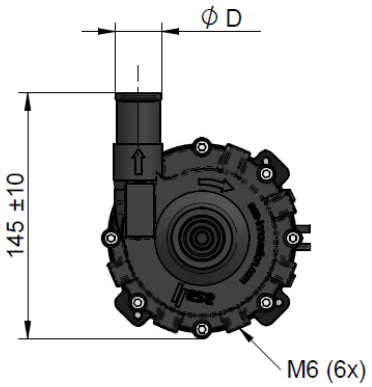
Pressure rise vs. flow 27,2V, medium: water, 20°C*

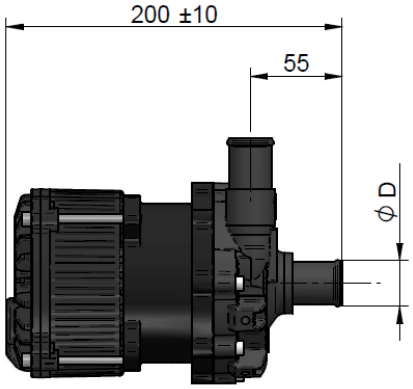


*) Tested and verified according *asa* standards on *asa* bench.

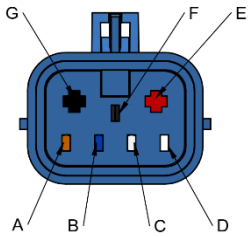


Fluid Controls
Centrifugal Water Pump Unit 12V





Pump Connector:
Delphi Metri Pack
150/480 7 Way
Sealed Male Connector



PIN	color	function
A	orange	reserved, not used
B	blue	PWM input
C	white	fault feedback output
D	-	-
E	red	12V
F	-	-
G	Black	GND

Technical Data

order number	description	fuse	protection	flow rate	motor type	ØD	weight
		[A]		[l/min]			[kg]
ABPW090S20EP01K	Water pump 90 l/min ¾“ 12V EPDM	35	IP68	see chart page 3	brushless	¾”	3,2
ABPW090S25EP01K	Water pump 90 l/min 1“ 12V EPDM	35	IP68			1”	3,2

Specification

operating supply voltage range	9-16V
max. current	31A
housing an cover material	aluminium
sealing material (fluid side)	EPDM
working temperature range	-40°C to +120°C (pump flow derated between +85°C and +120°C)

Features

adjustable flow rate	PWM signal
diagnostic output	PWM signal
medium to be pumped	water & water-gycol

Connector Counterpart kit

connector type	Delphi Metri Pack (optional mating connector order number: **ESMPWP12K**)

Type Approval

KBA (E1) 10R-05 9582

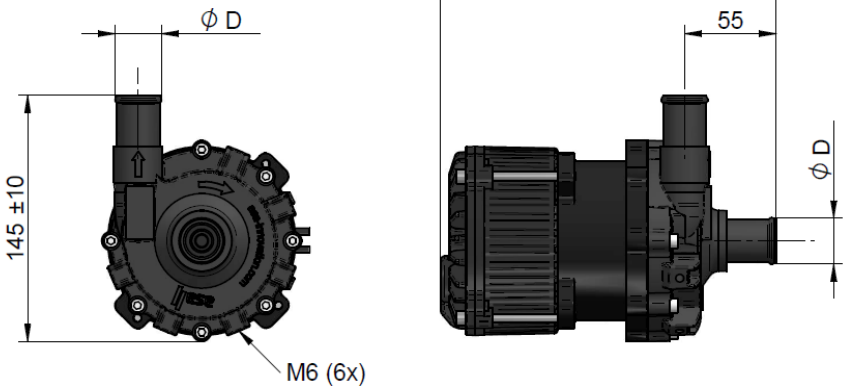
Duty cycle:	Definition:
40%	Pump is running dry
50%	Over current
70%	Over temperature
80%	Under- and Over voltage
100%	No error



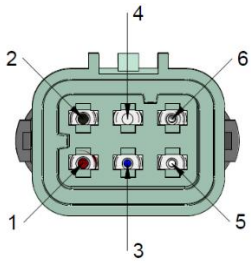
Safety process / Diagnostic output

This data sheet and the corresponding technical drawings serve solely as a general guideline and a technical overview of our products. Please contact us for additional information. We always try to keep the technical data up to date. However, due to constant development, no guarantee can be given for the correctness of the information (or printing errors). This applies to general properties such as dimensions, colors and weight. Any cooling performances and general technical values indicated in this catalogue are measured at a test benches according to asa testing procedures or calculated based on such tests and may therefore deviate from values obtained by test procedures from other manufacturers. The performance can vary by around +/- 15%. All information and calculation values are provided to the best of our knowledge, they do not represent intrinsic product properties and it is strongly recommended that the product is tested under the actual operating conditions. All drawings shown here are to be understood as schematic representations. For exact dimensions and the applicable tolerances, please ask for the corresponding scale drawings. Any form of liability is excluded for the information included in this datasheet. asa GmbH reserves the right to modify the product without any separate notification. This refers to both technical data and the product itself. Furthermore, it is herewith specified that the datasheet and the corresponding scale drawings are not a substitute for the assembly, installation and operating instructions.

Fluid Controls
Centrifugal Water Pump Unit24V



Pump Connector:
Ducon 2.8 male, 6 Way
Sealed Male Connector



PIN	function
1	24V
2	GND
3	diagnostic (output)
4	reserved, not used
5	-
6	PWM (input)

Technical Data

order number	description	fuse	protection	flow rate	motor type	ØD	weight
		[A]		[l/min]			[kg]
ABPW090S20EP02K	Water pump 90 l/min ¾“ 24V EPDM	25	IP68	see charts page 3	brushless	¾”	3,2
ABPW090S25EP02K	Water pump 90 l/min 1“ 24V EPDM	25	IP68			1”	3,2

Specification

operating supply voltage range	20-32V
max. current	19A
housing an cover material	aluminium
sealing material (fluid side)	EPDM
working temperature range	-40°C to +120°C (pump flow derated between +85°C and +120°C)

Features

adjustable flow rate	PWM signal
diagnostic output	PWM signal
medium to be pumped	water & water-glycol

Connector Counterpart kit

connector type	Ducon 2.8 (optional mating connector order number: **ESDU6P2.8K**)

Type Approval

KBA (E1) 10R-05 9582

Safety process / Diagnostic output

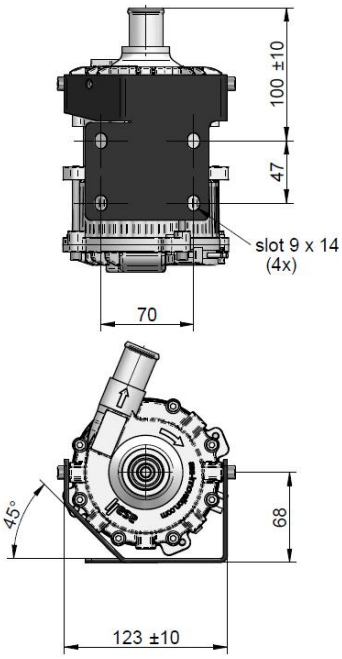
Duty cycle:	Definition:
40%	Pump is running dry
50%	Over current
70%	Over temperature
80%	Under- and Over voltage
100%	No error

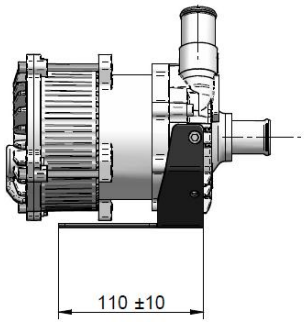


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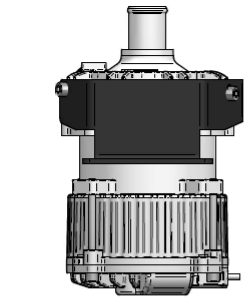
1.) Mounting option B00

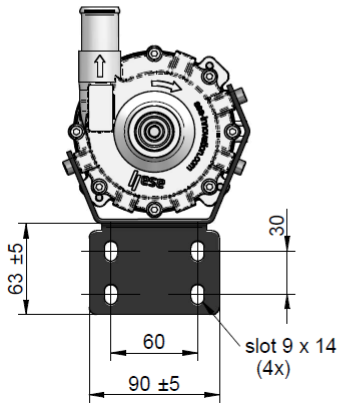


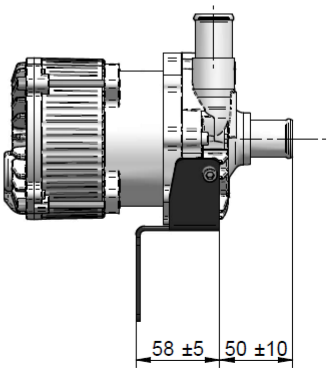


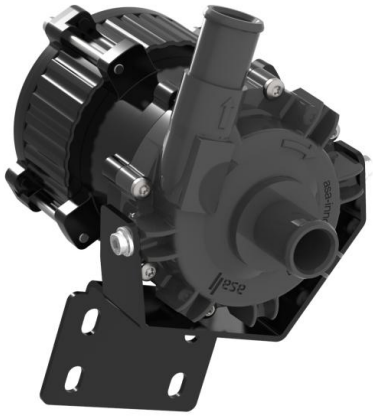


2.) Mounting option B01









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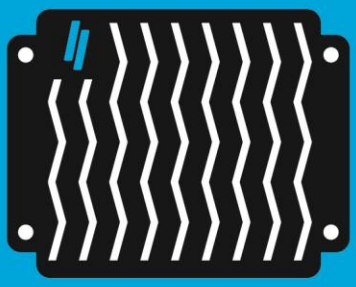
Company

asa stands for innovations and reliable solutions that are already being used by our customers in various mobile and stationary applications. With over 40 years of experience in thermal systems, connection technology, and fluid control, we have become a global leader in advanced fluid power solutions. Our experience fosters progress to grant you competitive pricing, consistent product performance, and exceptional reliability.

History

1980-1990

- Hydraulic components distribution, service and system integration
- Manufacture of valves and components
- Heat exchanger Shell & Tube platform "Silver ST80



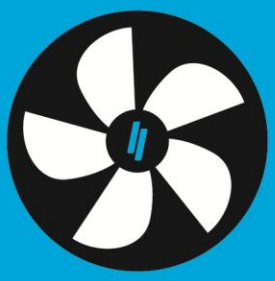
Thermal Management Systems

Our heat exchangers are designed and produced with an innovative spirit and a passion for technology, ensuring highest performance and quality.

- Bar & Plate: oil and water/glycol coolers
- Tube & Fin: coolant cooler, silent pump, electronics cooler
- Shell & Tube

1990 - 2000

- Specializing on heat exchanger market
- Manufacture first modular cooler system in plate & bar "OKO" (2 brazing lines)
- Foundation of asa hydraulic of America Inc./ USA



Ventilation & Drive

We offer a broad range of ventilation solutions. The installation space influences the choice of the most suitable airflow technology, thus ensuring the optimal configuration for volume flow, efficiency and noise reduction.

- Ventilation: adjustable fan blade systems
- Six phase sensorless VR-motor
- Electronic fan speed control, temperature control

2000 - 2010

- Foundation of asa Products Pty Ltd / Australia
- Foundation of asa Hydraulik Technology
- Patents:
  - AUC - 1st flexible connectors
  - ABP - 1st intergated bypass tube
  - ATT - asa extruded profil



Fluid Controls

The asa gerotor pumps meet the demands of modern fluid power systems, while our centrifugal water pump units are designed primarily to create compact, cost-efficient cooling circuits for electric devices, such as battery packs and electric motors.

- Gerotor pumps
- Centrifugal water pumps

2010 - 2020

- New R&D Center / Austria
- Manufacture of water/oil pumps
- Foundation of asa heat exchanger Pvt. Ltd / India
- Patents:
  - x-changer "Fusion of heat exchanger & ventilation"
  - Multiaxial silent absorber



Connection Technology

Our connection product collection fills technological gaps in various markets and applications.

- Silent absorbers
- Multi-axle vibration absorbers
- Expansion joints
- Hybrid SAE/DIN shut-off valves

2020 - today

- New technology of six phase sensorless
- VR-motors
- Manufacture ST heat exchanger
- Manufacture X wings (new lead fins)
- Foundation of asahydraulic do Brasil Pvt. Ltd /Brazil
- Patents:
  - META - microchannel with flexible lead fins
  - AHM - hybrid shell tube heat exchanger

Thermal Systems
Connection Technology
Fluid Controls



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