

ELECTRIC WATER PUMP



LHY TECH. CORP.



YT STABLE TECH. CORP.

ELECTRIC WATER PUMP

MODEL No.: WEV-140505E

- ✓ for E-Scooter Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: Pump IP68 / Controller IP65



Specifications

Model #	WEV-140505E	
Voltage	DC 12 V	DC 14 V
Voltage Range	DC 8V~16 V	
Withstanding Voltage*	18V	
Current	1.3A ± 10%	1.25A ± 10%
Max. Power	1.56 W ± 10%	17.5 W ± 10%
Flow Rate	480 LPH	
Pressure	5 M	
Inlet Diameter	11.0 mm	
Outlet Diameter	11.0 mm	
Water Temperature	- 30 ~ 105 °C	
Ambient Temperature	- 30 ~ 85 °C	
Storage Temperature	- 30 ~ 85 °C	
Dimensions	93.0 x 64.2 x 52.0 mm (pump only) 66 x 45 x 19 (controller)	
Weight	242 g	
Pump Body Material	PA66 + 30% GF	
Noise Level	< 40 dB	
Single / Variable Speed	Single Speed / Variable Speed (PWM)	
Controller	External	
Fluids Type	Water / Coolant (pH 4-10)	

*Pump running in withstanding voltage or voltage exceeding range stated above is not recommended.
It may cause pump failure.

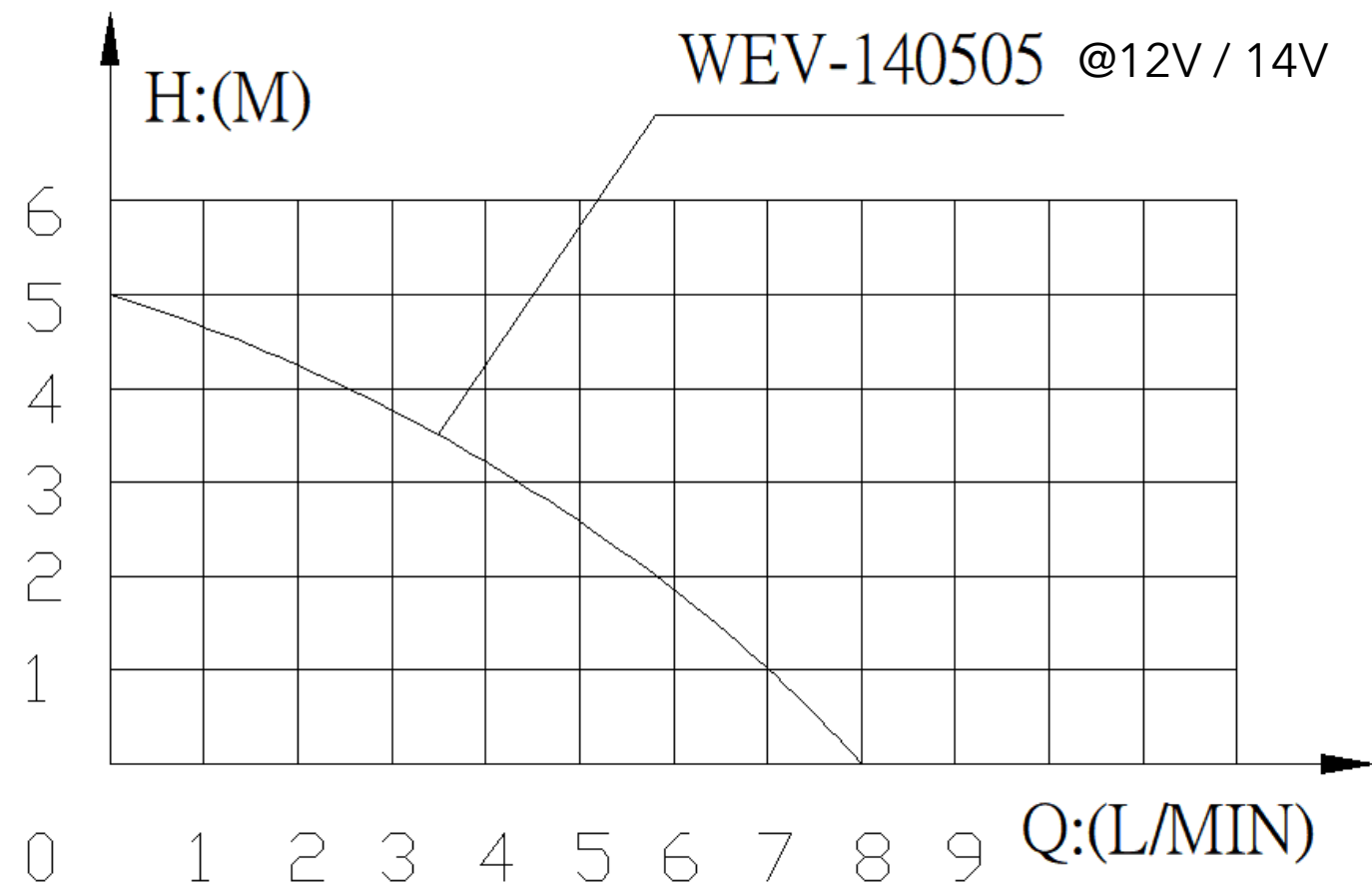
ELECTRIC WATER PUMP

MODEL No.: WEV-140505E

- ✓ for E-Scooter Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: Pump IP68 / Controller IP65



Flow / Pressure Curve



ELECTRIC

WATER PUMP

Specifications

MODEL No.: WEV-140505G

- ✓ for E-Scooter Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed
- ✓ Water Proof Level: IP65



Model #	WEV-140505G
2 Phase / 3 Phase	3 Phase
Voltage	DC 14 V
Voltage Range	DC 8V~16 V
Withstanding Voltage*	18V
Current	1.25A ± 10%
Max. Power	17.5 W ± 10%
Flow Rate	480 LPH
Pressure	5 M
Inlet Diameter	11.0 mm
Outlet Diameter	11.0 mm
Water Temperature	-30 ~ 95 °C
Ambient Temperature	- 30 ~ 85 °C
Storage Temperature	- 30 ~ 85 °C
Dimensions	93.0 x 64.2 x 60.1 mm
Weight	302 g
Pump Body Material	PA66 + 30% GF
Noise Level	< 40 dB
Single / Variable Speed	Single Speed
Controller	Built-In
Fluids Type	Water / Coolant (pH 4-10)

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It may cause pump failure.

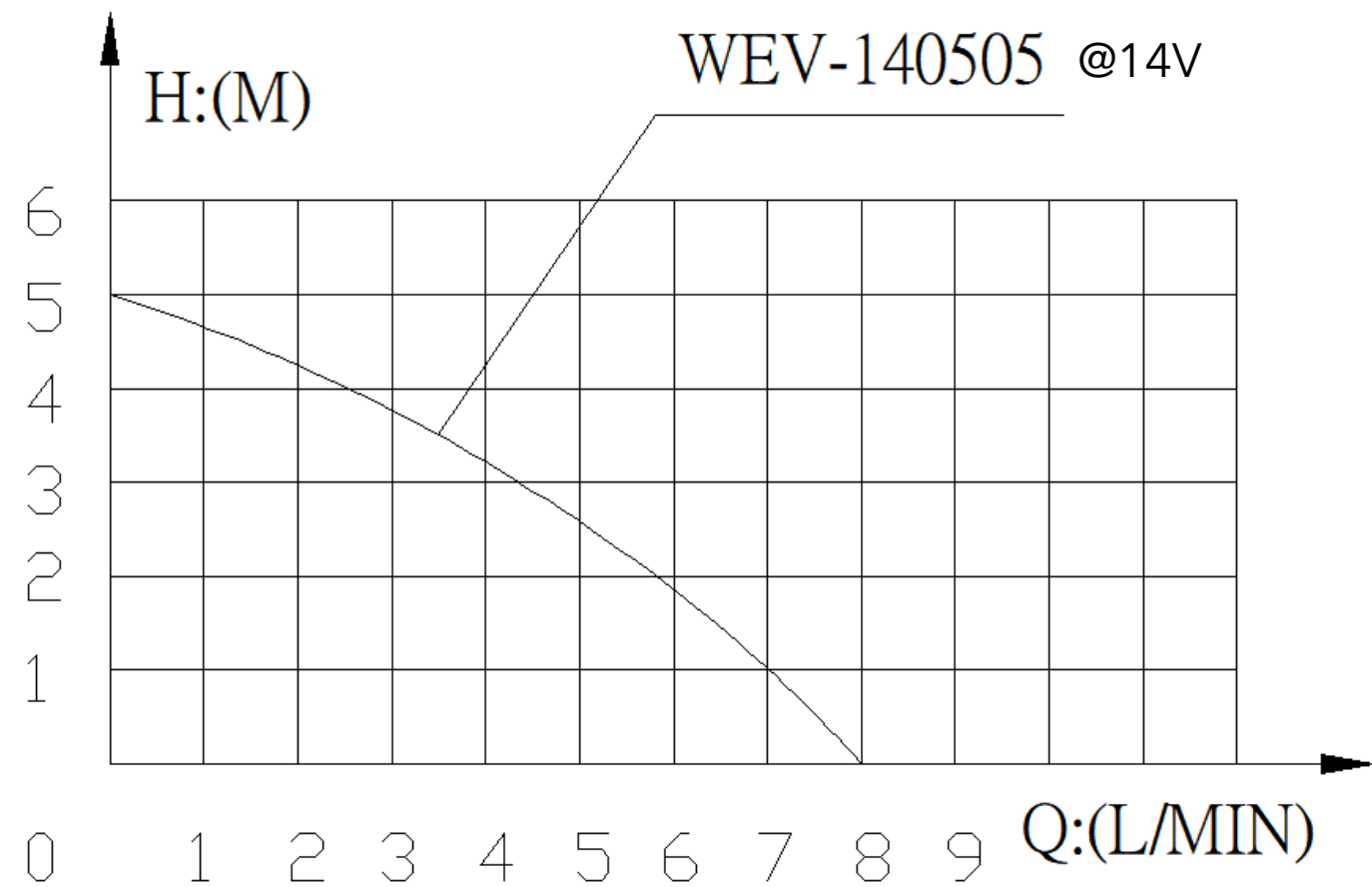
ELECTRIC WATER PUMP

MODEL No.: WEV-140505G

- ✓ for E-Scooter Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed
- ✓ Water Proof Level: IP65



Flow / Pressure Curve



ELECTRIC WATER PUMP

MODEL No.: WEV-45-21

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP67

✓ Mass Production: May-2021

Specifications



11mm w/ bracket



11mm w/o bracket



DN15 w/ bracket



DN15 w/o bracket

<u>Voltage</u>	<u>Current</u>	<u>Pressure</u>	<u>Flow Rate</u>	<u>Inlet/Outlet</u>	<u>Weight</u>	<u>Dimensions</u>
12V	3.1A	10M	13L/M	11mm	377g ± 10%	96.4x76.6x78.5 mm
12V	2.2A	7.6M	11.8L/M	11mm		
24V	2A	11.5M	14L/M	11mm		
12V	2.5A	7M	18L/M	DN15	388g ± 10%	96.4x76.6x83.5 mm
24V	2.1A	9M	20L/M	DN15		

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ELECTRIC WATER PUMP

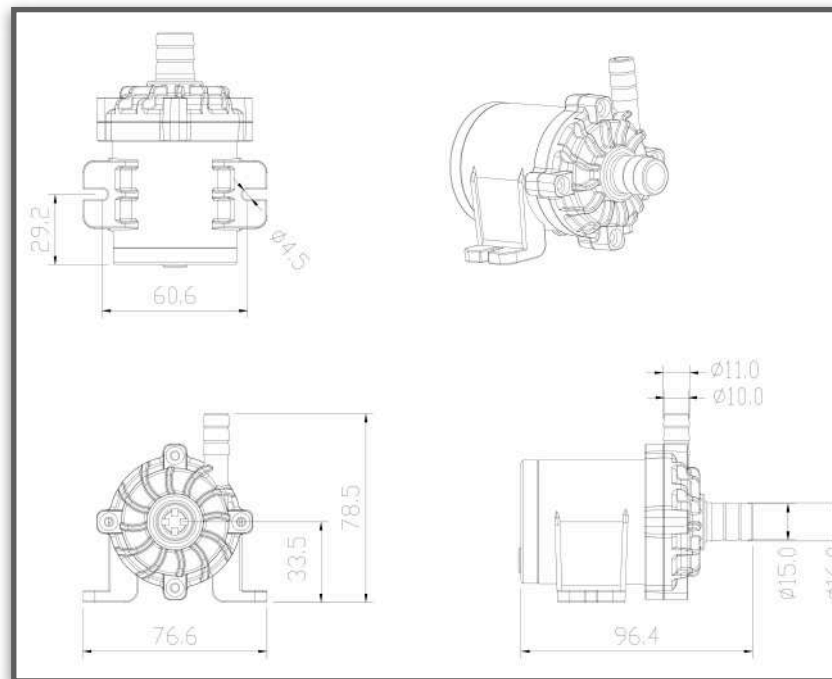
Dimensions

MODEL No.: WEV-45-21

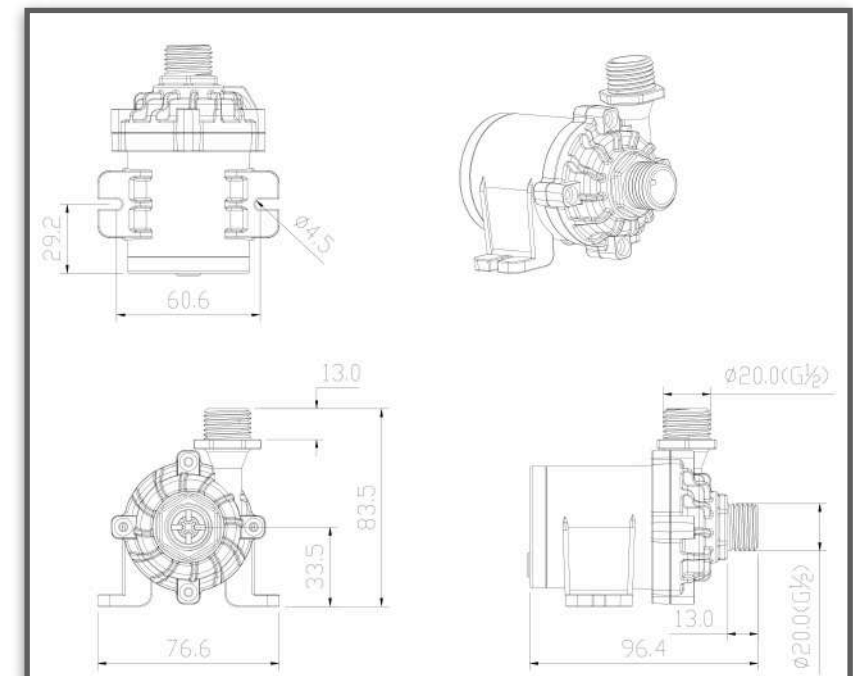
- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP67

2 Phase / 3 Phase	Water Temperature	Ambient Temperature	Storage Temperature	Pump Body Material	Noise Level	Single / Variable Speed	Controller	Fluids Type
3 Phase	-30 ~ 105 °C	- 30 ~ 85 °C	- 30 ~ 85 °C	PA66 + 30% GF	< 40 dB	Single Speed / Variable Speed (PWM)	Built-In	Water / Coolant (pH 4-10)

11mm w/ bracket



DN15 w/ bracket



✓ Mass Production: May-2021

ELECTRIC WATER PUMP

MODEL No.: WEV-52-21

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP67

✓ Mass Production: May-2021

Specifications



22mm w/ bracket



22mm w/o bracket



DN15 w/ bracket



DN15 w/o bracket

<u>Voltage</u>	<u>Current</u>	<u>Pressure</u>	<u>Flow Rate</u>	<u>Inlet/Outlet</u>	<u>Weight</u>	<u>Dimensions</u>
24V	1.8A	5.5M	25L/M	22mm	539g ± 10%	91x104.7x105.5 mm
24V	3.2A	8.8M	34L/M	22mm		
24V	2A	7M	35L/M	22mm		
12V	3.4A	6M	28L/M	22mm		
12V	1.9A	4M	25L/M	22mm		
24V	2A	6.5M	30L/M	22mm		
24V	3.4A	6M	30L/M	22mm		
24V	3.5A	10.1M	36L/M	22mm		
12V	3.2A	7.4M	20L/M	DN15	526g ± 10%	91x97.7x100.5 mm
12V	3.6A	7.8M	21L/M	DN15		
24V	2.5A	10M	24L/M	DN15		

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It may cause pump failure.

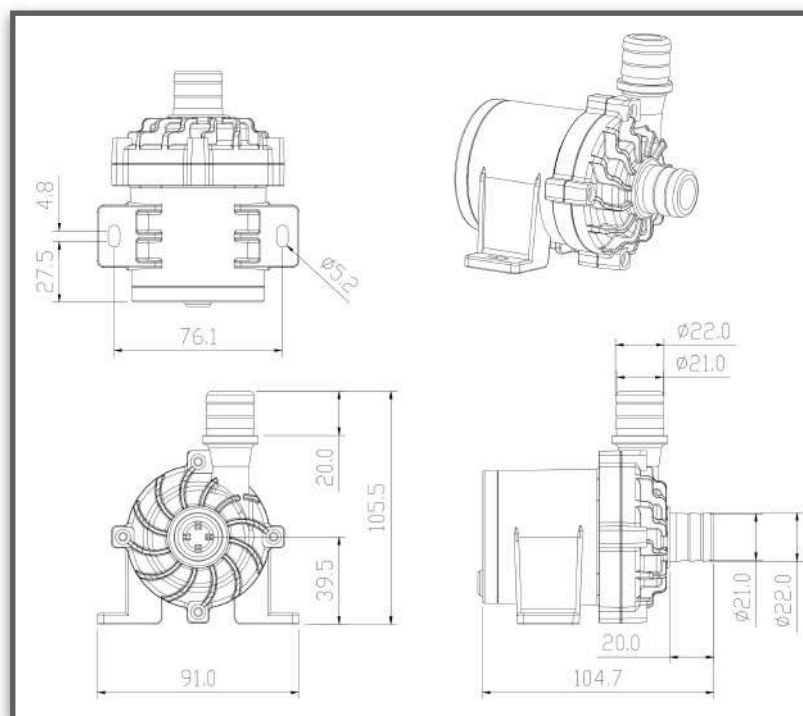
ELECTRIC WATER PUMP

Dimensions

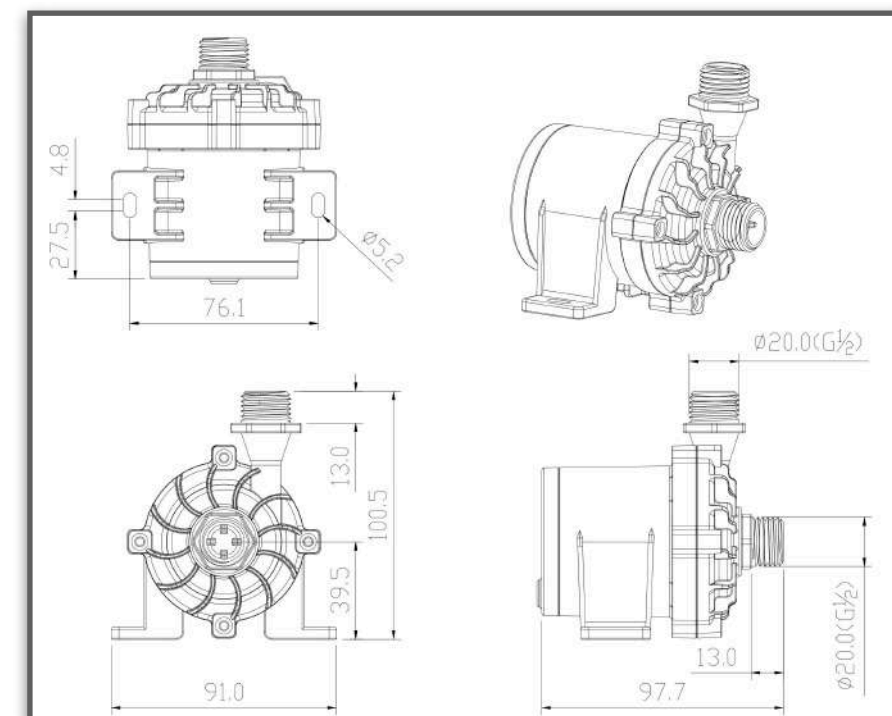
MODEL No.: WEV-52-21

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP67

2 Phase / 3 Phase	Water Temperature	Ambient Temperature	Storage Temperature	Pump Body Material	Noise Level	Single / Variable Speed	Controller	Fluids Type
3 Phase	-30 ~ 105 °C	- 30 ~ 85 °C	- 30 ~ 85 °C	PA66 + 30% GF	< 40 dB	Single Speed / Variable Speed (PWM)	Built-In	Water / Coolant (pH 4-10)



22mm w/ bracket



DN15 w/ bracket

ELECTRIC WATER PUMP

WEV 5 Series for EV (22mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



Specifications

Model #	WEV-152508	WEV-252508
Voltage	DC 12V	DC 24V
Voltage Range	DC 10V~16V	DC 14V~30V
Withstanding Voltage*	20V	36V
Current	5.6 A \pm 10%	4.5 A \pm 10%
Max. Power	67.2 W	108 W
Flow Rate	2500 LPH	
Pressure	8 M	
Inlet Diameter	22 mm	
Outlet Diameter	22 mm	
Water Temperature	-10 ~ 105 °C	
Ambient Temperature	- 10 ~ 85 °C	
Storage Temperature	- 10 ~ 85 °C	
Dimensions	122.0 x 94.0 x 96.3 mm	
Pump Body Material	PA66 + 30% GF / Aluminum	
Noise Level	< 40 dB	
Single / Variable Speed	Single Speed / Variable Speed (PWM)	
Controller	Built-in	
Weight	about 800g	

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It may cause pump failure.

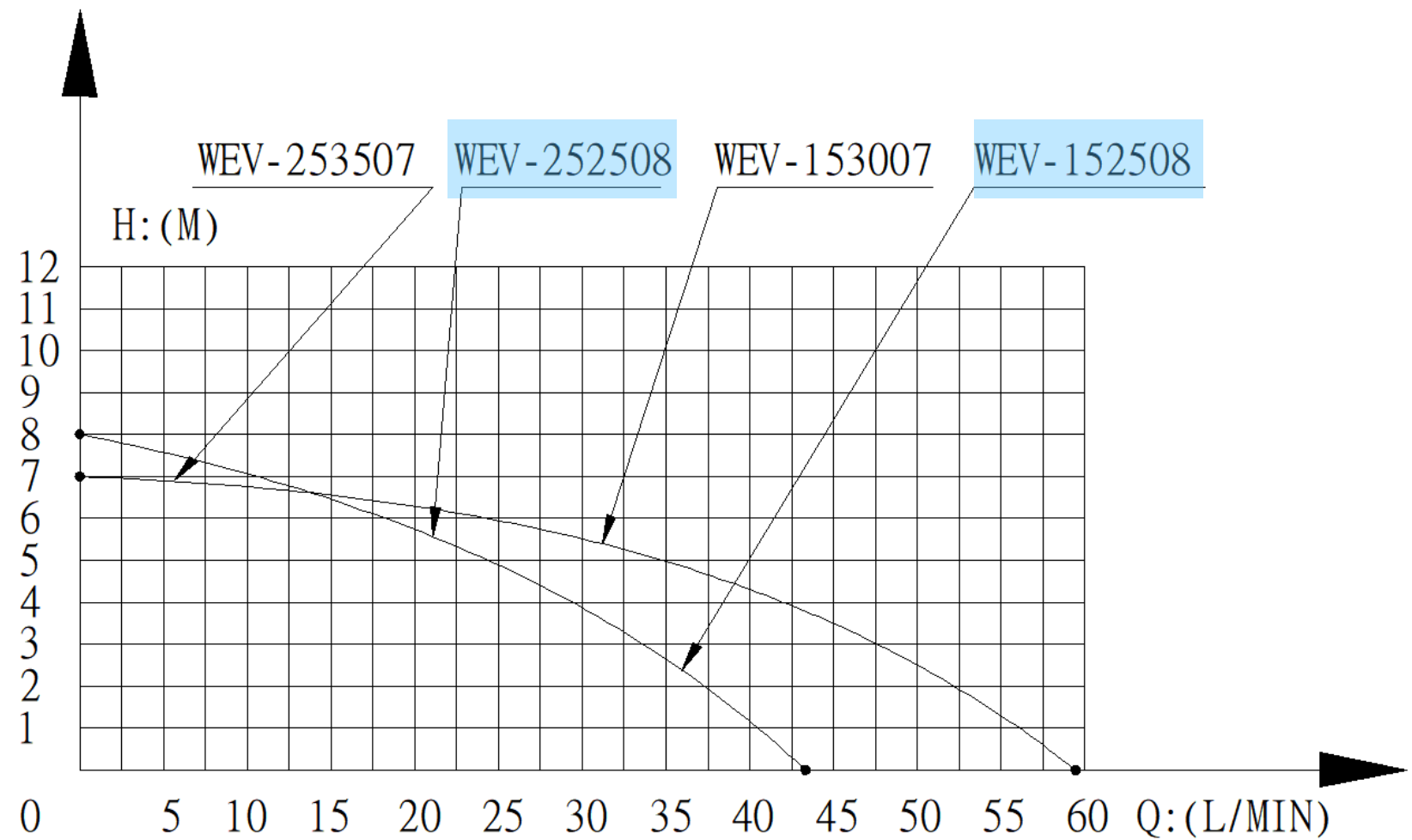
ELECTRIC WATER PUMP

WEV 5 Series for EV (22mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
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Flow / Pressure Curve



ELECTRIC WATER PUMP

WEV 5 Series for EV (27mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
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- ✓ Water Proof Level: IP65



Specifications

Model #	WEV-153007	WEV-253507
Voltage	DC 12V	DC 24V
Voltage Range	DC 10V~16V	DC 14V~30V
Withstanding Voltage*	20V	36V
Current	5.6 A \pm 10%	4.5 A \pm 10%
Max. Power	67.2 W	108 W
Flow Rate	2800 LPH	3500 LPH
Pressure	7 M	
Inlet Diameter	27 mm	
Outlet Diameter	27 mm	
Water Temperature	-10 ~ 105 °C	
Ambient Temperature	- 10 ~ 85 °C	
Storage Temperature	- 10 ~ 85 °C	
Dimensions	124.0 x 94.0 x 96.2 mm	
Pump Body Material	PA66 + 30% GF / Aluminum	
Noise Level	< 40 dB	
Single / Variable Speed	Single Speed / Variable Speed (PWM)	
Controller	Built-in	
Weight	about 800g	

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It may cause pump failure.

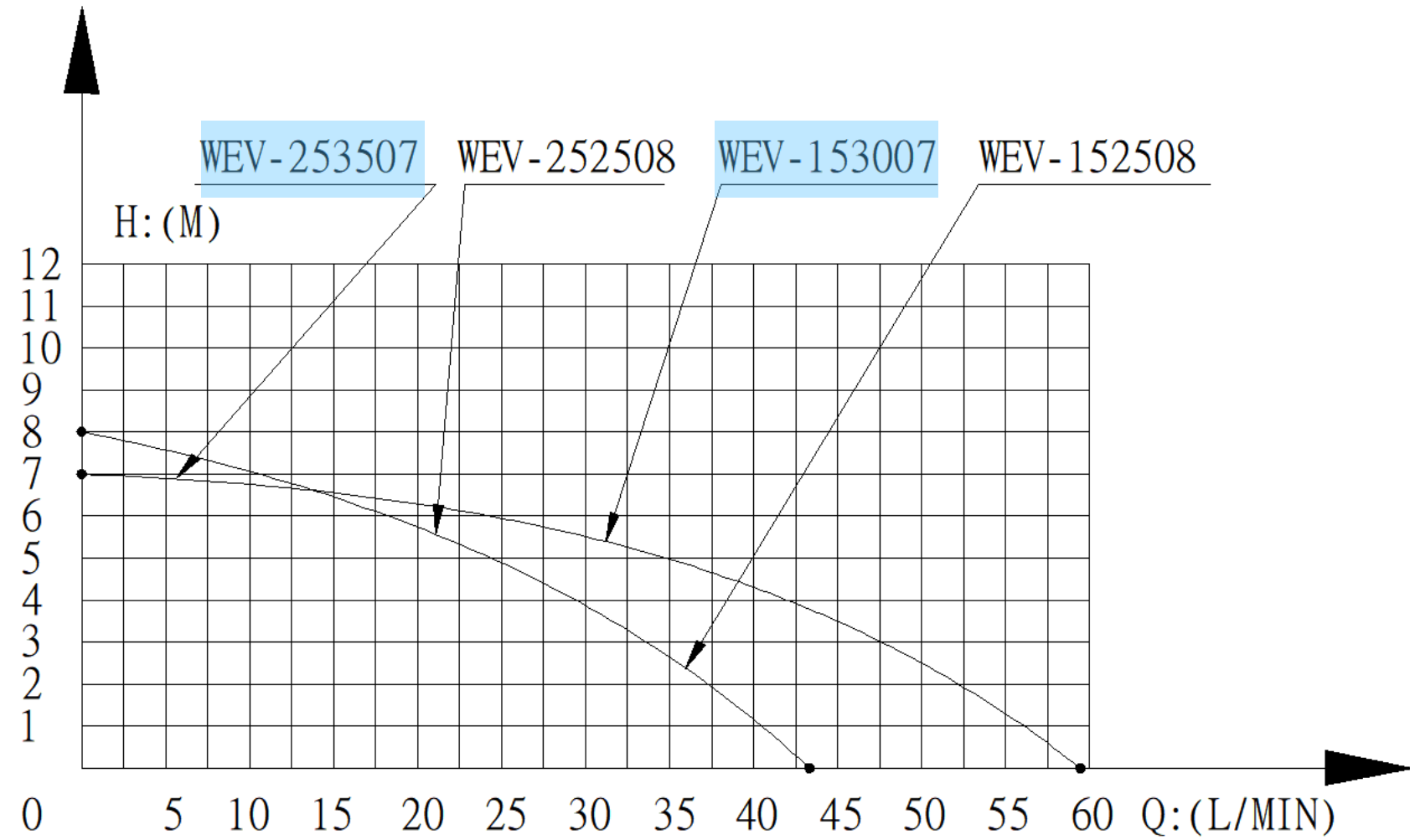
ELECTRIC WATER PUMP

WEV 5 Series for EV (27mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



Flow / Pressure Curve



ELECTRIC WATER PUMP

WEV 6 Series for EV (22mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



Specifications

Model #	WEV-162508	WEV-263012
Voltage	DC 12 V	DC 24V
Voltage Range	DC 10V~16V	DC 14V~30V
Withstanding Voltage*	18V	36V
Current	5.5 A \pm 10%	5.5 A \pm 10%
Max. Power	66 W \pm 10%	132 W \pm 10%
Flow Rate	2500 LPH	3000 LPH
Pressure	8 M	12 M
Inlet Diameter	22 mm	22 mm
Outlet Diameter	22 mm	22 mm
Water Temperature	-10 ~ 105 °C	
Ambient Temperature	- 10 ~ 85 °C	
Storage Temperature	- 10 ~ 85 °C	
Dimensions	154.0 x 114.3 x 122.0 mm	
Pump Body Material	PPS GF30 + Aluminium	
Noise Level	< 40 dB	
Single / Variable Speed	Single Speed / Variable Speed (PWM)	
Controller	Built-in	
Weight	about 1.4 kg	

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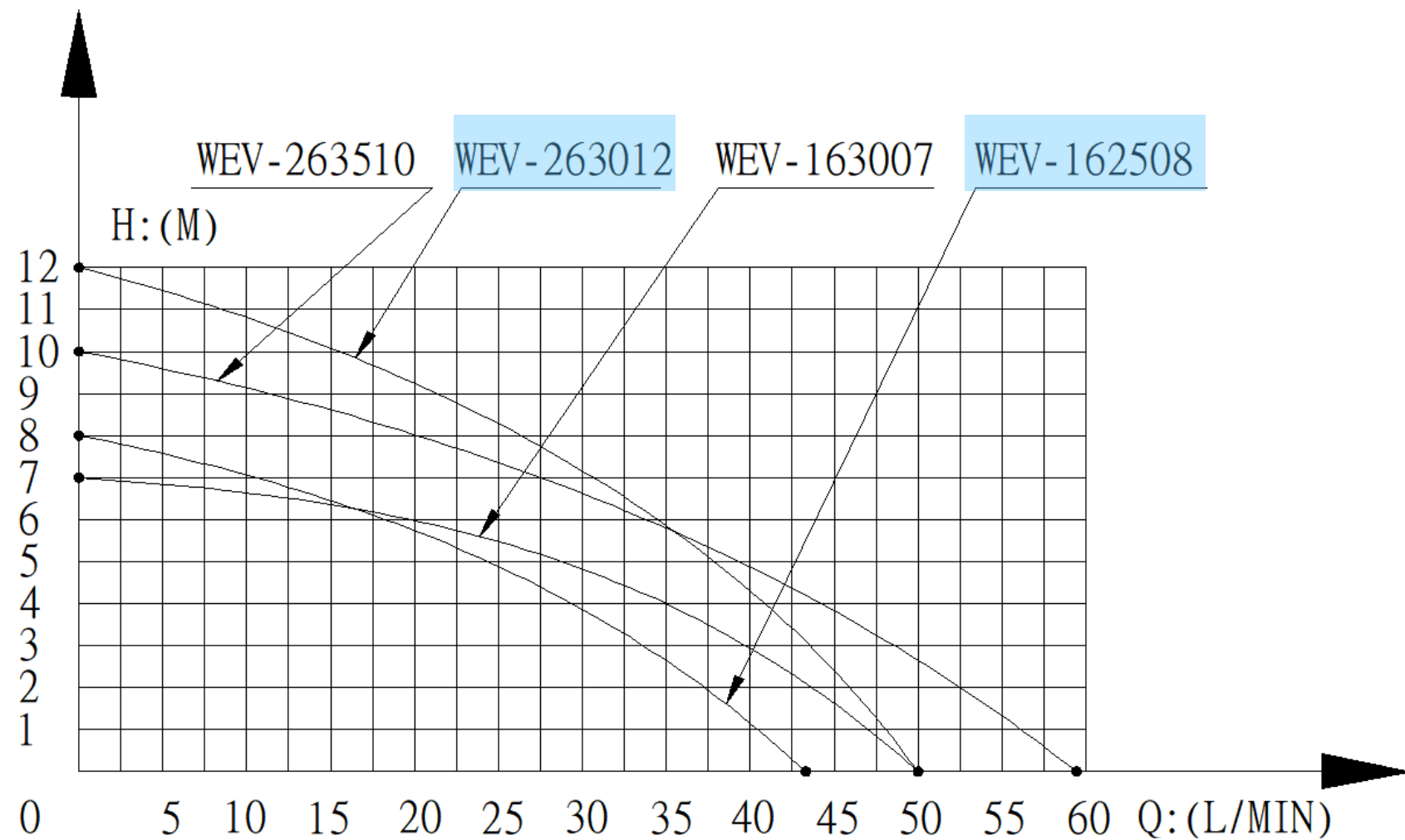
ELECTRIC WATER PUMP

WEV 6 Series for EV (22mm)

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- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



Flow / Pressure Curve



ELECTRIC WATER PUMP

WEV 6 Series for EV (27mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



Specifications

Model #	WEV-163007	WEV-263510
Voltage	DC 12 V	DC 24 V
Voltage Range	DC 10V~16V	DC 14V~30V
Withstanding Voltage*	20V	36V
Current	5.5 A ± 10%	5.5 A ± 10%
Max. Power	66 W ± 10%	132 W ± 10%
Flow Rate	3000 LPH	3500 LPH
Pressure	7 M	10 M
Inlet Diameter	27 mm	27 mm
Outlet Diameter	27 mm	27 mm
Water Temperature	-10 ~ 105 °C	
Ambient Temperature	- 10 ~ 85 °C	
Storage Temperature	- 10 ~ 85 °C	
Dimensions	154.0 x 114.3 x 127.0 mm	
Pump Body Material	PPS GF30 + Aluminium	
Noise Level	< 40 dB	
Single / Variable Speed	Single Speed / Variable Speed (PWM)	
Controller	Built-in	
Weight	about 1.4 kg	

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It may cause pump failure.

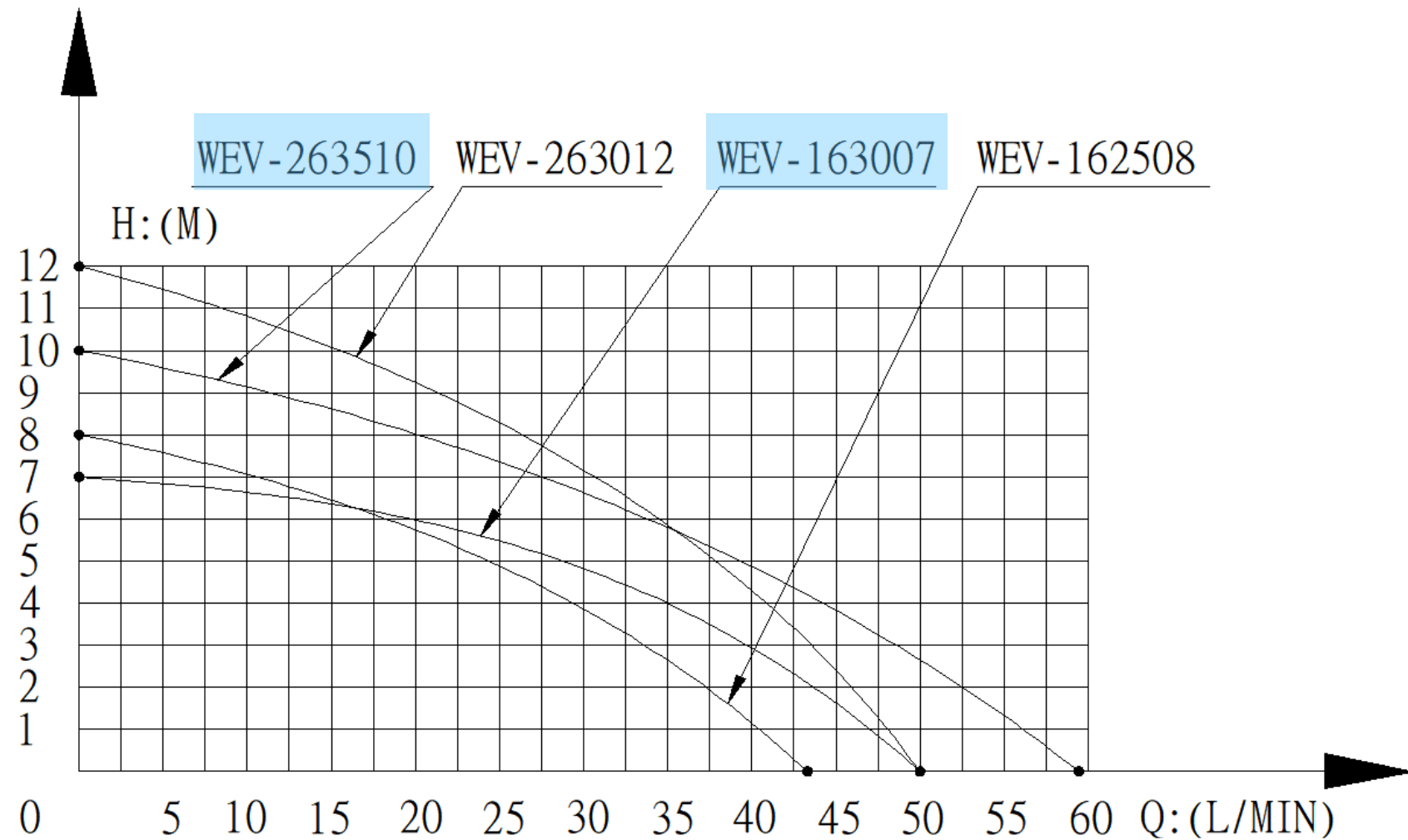
ELECTRIC WATER PUMP

WEV 6 Series for EV (27mm)

- ✓ for EV Cooling and Heating system
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



Flow / Pressure Curve



ELECTRIC

WATER PUMP

Specifications

MODEL No.: WMC-45-21

- ✓ for Machinery Cooling System
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65



11mm w/o bracket



DN15 w/o bracket

<u>Voltage</u>	<u>Current</u>	<u>Pressure</u>	<u>Flow Rate</u>	<u>Inlet/Outlet</u>	<u>Weight</u>	<u>Dimensions</u>
12V	3.5A	10.5M	13.5LPM	11mm	365g ± 10%	96.4x65x77.5 mm
24V	3.4A	16.5M	17LPM	11mm		
24V	3.5A	13.5M	24LPM	DN15	375g ± 10%	96.4x65x82.5 mm

✓ Mass Production: May-2021

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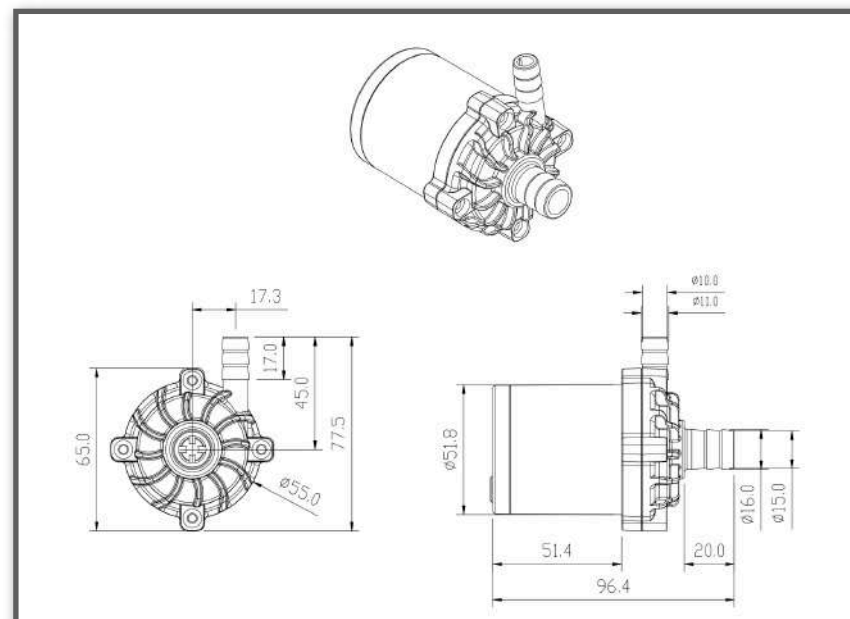
ELECTRIC WATER PUMP

Specifications

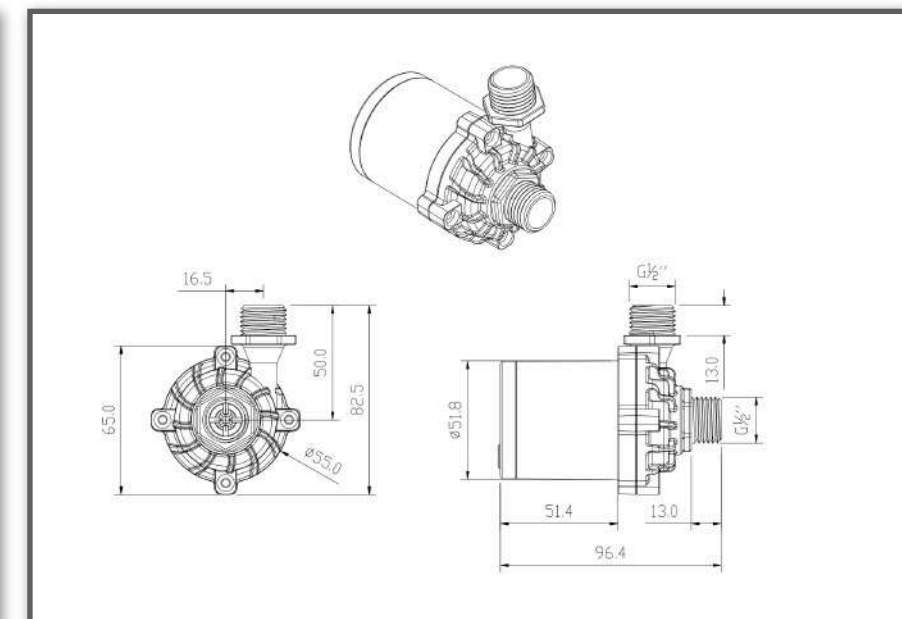
MODEL No.: WMC-45-21

- ✓ for Machinery Cooling System
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65

2 Phase / 3 Phase	Water Temperature	Ambient Temperature	Storage Temperature	Pump Body Material	Noise Level	Single / Variable Speed	Controller	Fluids Type
3 Phase	-30 ~ 85 °C	- 30 ~ 85 °C	- 30 ~ 85 °C	PA66 + 30% GF	< 40 dB	Single Speed / Variable Speed (PWM)	Built-In	Water / Coolant (pH 4-10)



11mm w/o bracket



DN15 w/o bracket

✓ Mass Production: May-2021

ELECTRIC WATER PUMP

MODEL No.: WMC-52-21

- ✓ for Machinery Cooling System
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65

✓ Mass Production: May-2021

Specifications



22mm w/o bracket



DN15 w/o bracket

<u>Voltage</u>	<u>Current</u>	<u>Pressure</u>	<u>Flow Rate</u>	<u>Inlet/Outlet</u>	<u>Weight</u>	<u>Dimensions</u>
12V	3.6A	7.8M	21LPM	DN15	507g ± 10%	97.7x78x100.0 mm
24V	3.5A	10.1M	36LPM	22mm	520g ± 10%	104.7x78x105.0 mm

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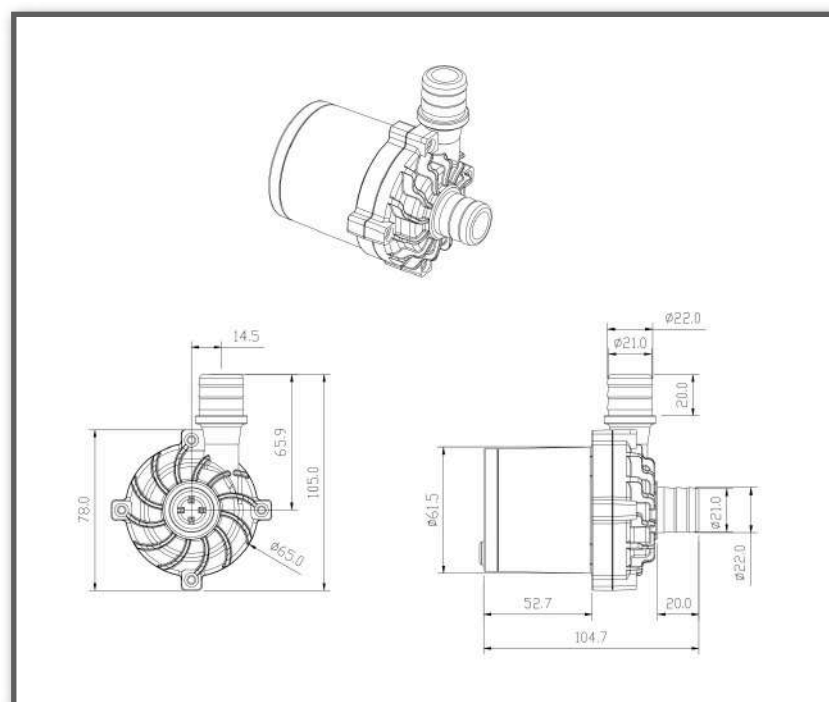
ELECTRIC WATER PUMP

Specifications

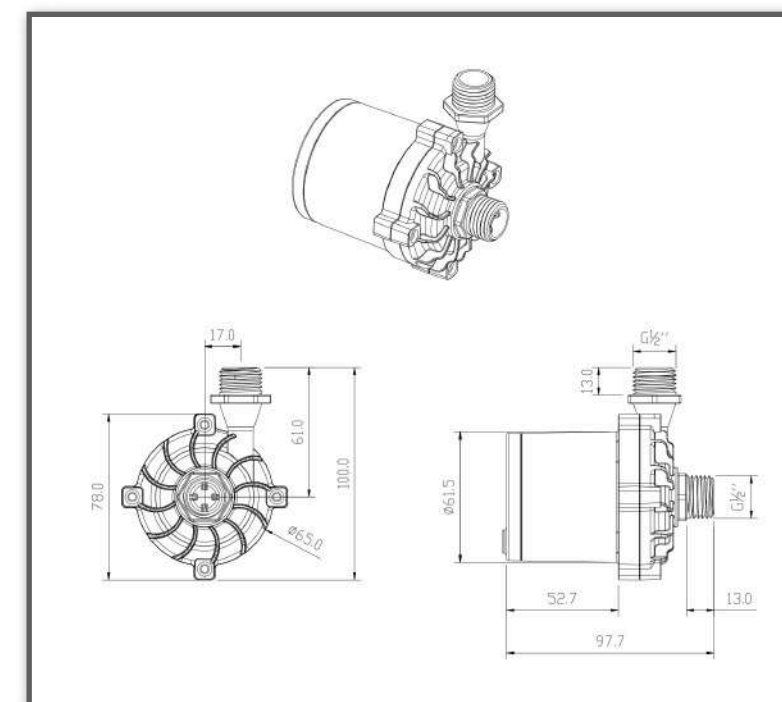
MODEL No.: WMC-52-21

- ✓ for Machinery Cooling System
- ✓ 3 Phase Brushless Motor
- ✓ Centrifugal Pump
- ✓ Soft Start
- ✓ Single Speed / Variable Speed
- ✓ Water Proof Level: IP65

2 Phase / 3 Phase	Water Temperature	Ambient Temperature	Storage Temperature	Pump Body Material	Noise Level	Single / Variable Speed	Controller	Fluids Type
3 Phase	-30 ~ 85 °C	- 30 ~ 85 °C	- 30 ~ 85 °C	PA66 + 30% GF	< 40 dB	Single Speed / Variable Speed (PWM)	Built-In	Water / Coolant (pH 4-10)



22mm w/o bracket



DN15 w/o bracket

✓ Mass Production: May-2021

ELECTRIC WATER PUMP

PWM & CAN

Variable Speed Function

- Standard: PWM Signal
 - Frequency: 50-800 HZ
 - Duty: 0-99.9%
 - Max. 5V
 - For: WEV-140505E, WEV-45-21, WEV-52-21
WEV 5 Series for EV, WEV 6 Series for EV,
WMC-45-21 & WMC-52-21
- Optional: CAN
 - YT protocols or
 - Client's protocols
 - Developing time: 90 days
 - MOQ: 1,000 pcs
 - For: WEV-140505E, WEV-45-21, WEV-52-21
WEV 5 Series for EV & WEV 6 Series for EV

ELECTRIC WATER PUMP

For

- ✓ WEV-140505E
- ✓ WEV-140505G
- ✓ All models of WEV 5 Series for EV
- ✓ All models of WEV 6 Series for EV

- * Developing lead time: 60 days.
- * MOQ: 1,000 pc

Protections & Fail Safes(Optional)

Model #	WEV-140505E	WEV-140505G
Loss of Input Signal	If input signal not detected, runs full speed. ↓ Reset when input signal is detected.	
Over Current	If current > 2.3A, shutdown. ↓ Automatic restart after 3 seconds shutdown.	
Over Voltage	If voltage > 16V, shutdown. ↓ Automatic restart after 3 seconds shutdown.	
Under Voltage	If voltage < 8V, shutdown. ↓ Automatic restart after 3 seconds shutdown.	
Reverse Polarity	If reverse polarity applied, shutdown. ← ↓ Automatic restart after 3 seconds shutdown. →	
Dry Run	If torque/speed discrepancy, shut down. ↓ Automatic restart after 3 seconds shutdown.	
Over Temperature	If temperature > threshold (by client). ↓ Automatic restart after 3 seconds shutdown.	

WATER PUMP

- * Developing lead time: 60 days.
- * MOQ: 1,000 pc

Protections & Fail Safes(Optional)

Model #	WEV-152508	WEV-153007	WEV-162508	WEV-163007	WEV-252508	WEV-253507	WEV-263012	WEV-263510
Loss of Input Signal	<p>If input signal not detected, runs full speed.</p> <p>↓</p> <p>Reset when input signal is detected.</p>							
Over Current	<p>If current > 8A, shutdown.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>				<p>If current > 8A, shutdown.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>			
Over Voltage	<p>If voltage > 16V, shutdown.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>				<p>If voltage > 28V, shutdown.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>			
Under Voltage	<p>If voltage < 9V, shutdown.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>				<p>If voltage < 18V, shutdown.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>			
Reverse Polarity	<p>If reverse polarity applied, shutdown.</p>							
Dry Run	<p>If torque/speed discrepancy, shut down.</p> <p>↓</p> <p>Automatic restart after 3 seconds shutdown.</p>							
Over Temperature	<p>If temperature > threshold (by client).</p> <p>↓</p> <p>Operating with 20% of max. power until temperature < threshold</p>							

ELECTRIC WATER PUMP

Wiring

For

✓ Single Speed



※ Notice ※

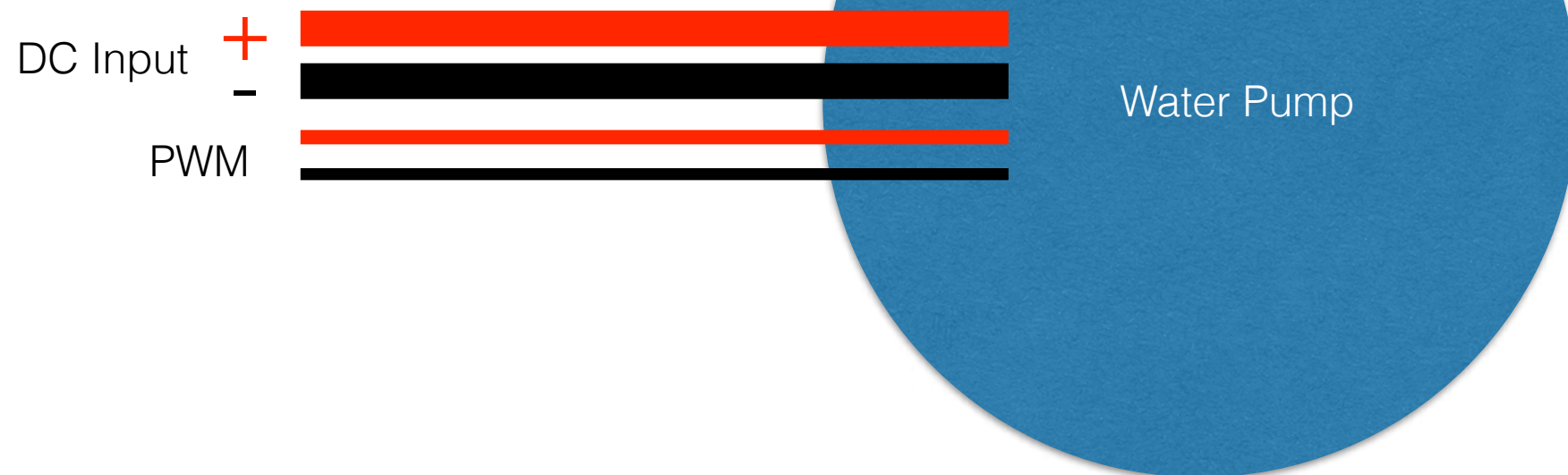
1. Please Do Not Dry Run Water Pump.
2. This water pump is not a self-priming pump, the water level must be higher than water pump so that the water can flow in.
3. Please aware of the maximum working voltage.

ELECTRIC WATER PUMP

Wiring

For

✓ PWM Variable Speed



- PWM: frequency 50-800 HZ / Duty: 0-99.9%/ Max. 5V
- Water pump will work at full speed without PWM signal input.

※ Notice ※

1. Please Do Not Dry Run Water Pump.
2. This water pump is not a self-priming pump, the water level must be higher than water pump so that the water can flow in.
3. Please aware of the maximum working voltage.

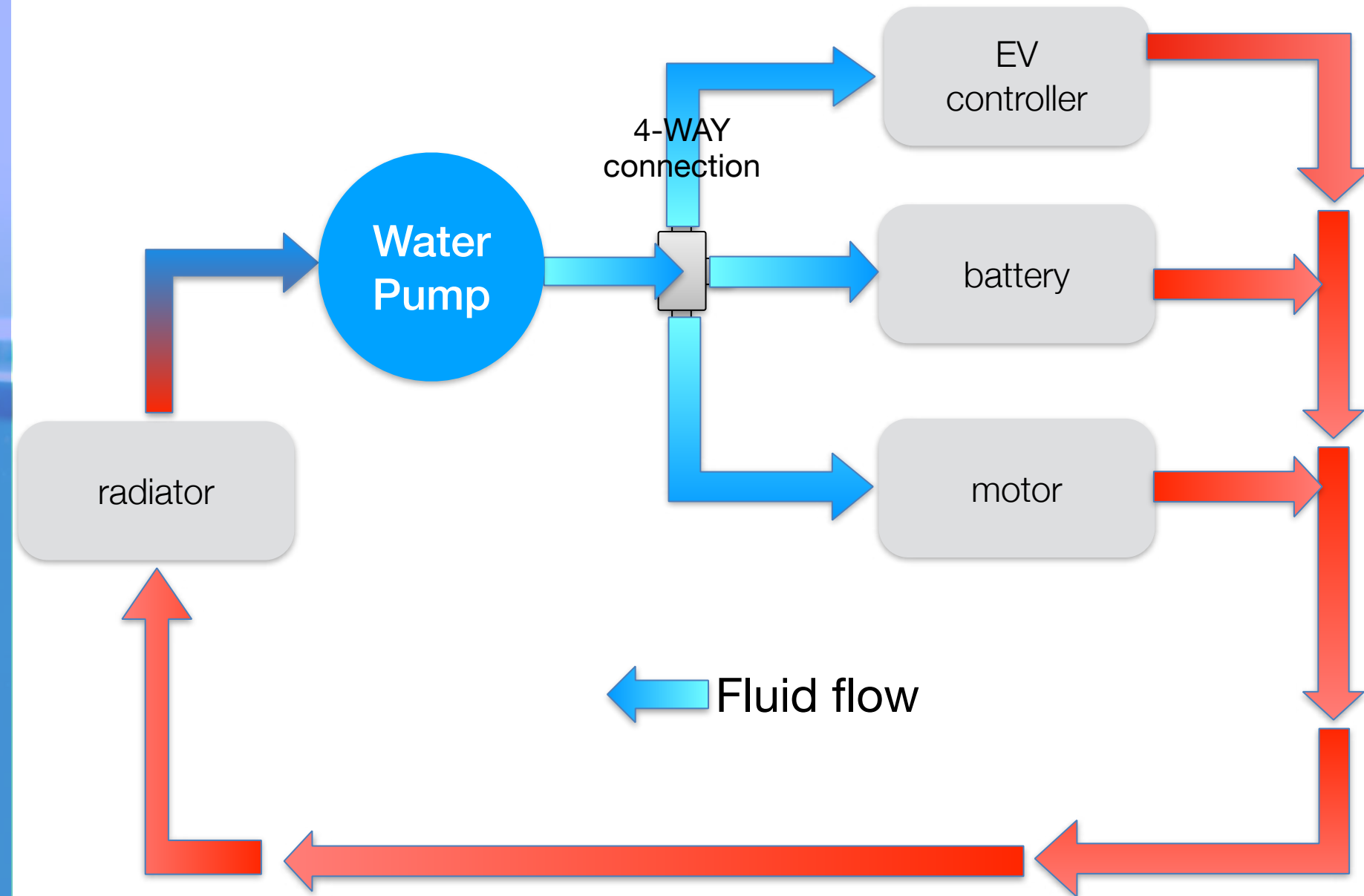
ELECTRIC

WATER PUMP

For

- ✓ WEV-140505E
- ✓ WEV-140505G
- ✓ WEV-45-21
- ✓ All models of WEV 6 Series for EV
- ✓ Purpose: Cooling

Installation

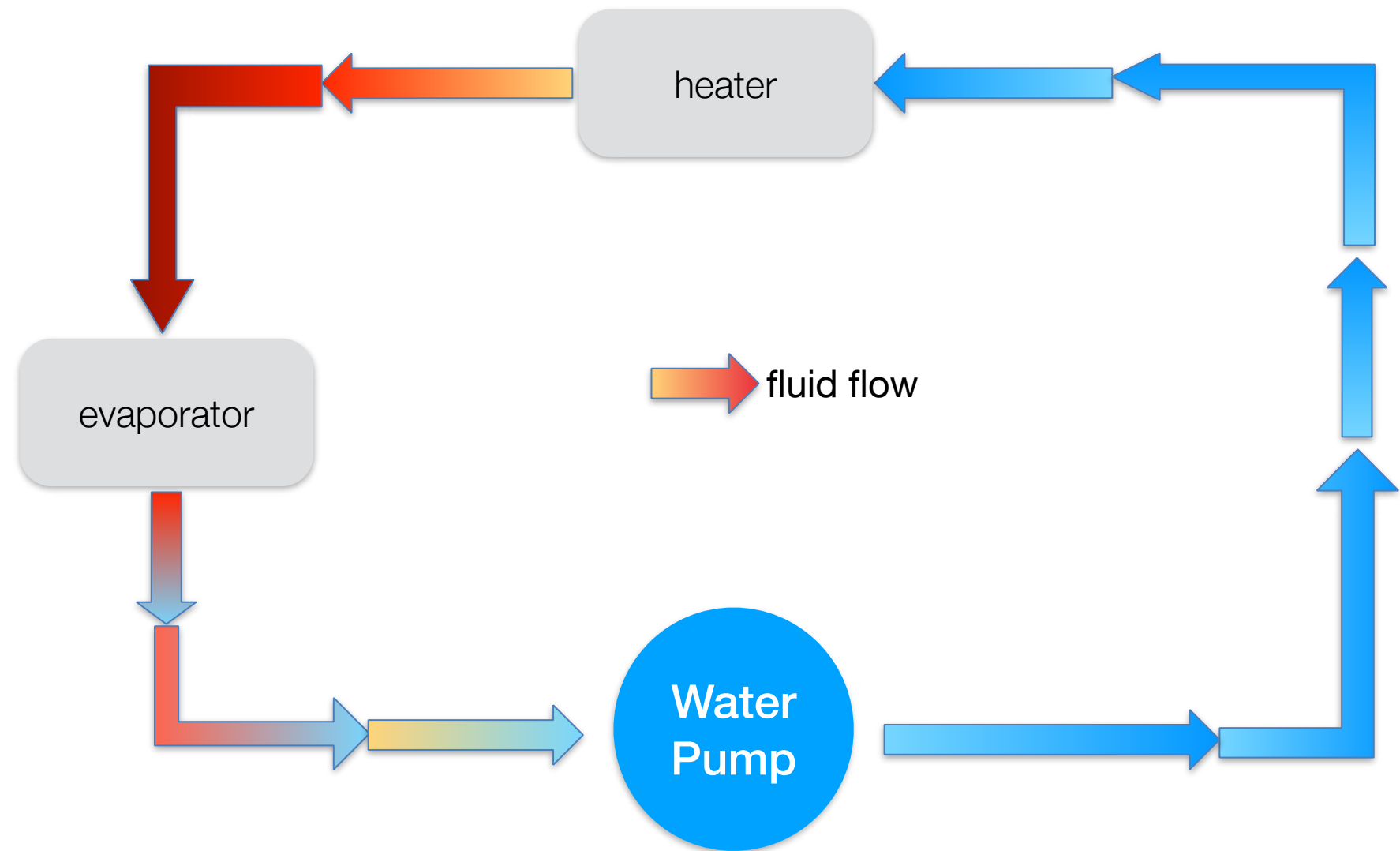


ELECTRIC WATER PUMP

Installation

For

- ✓ WEV-140505E
- ✓ WEV-140505G
- ✓ WEV-45-21
- ✓ All models of WEV 6 Series for EV
- ✓ Purpose: heating



ELECTRIC WATER PUMP

Contact

✓ Taiwan



LHY TECH. CORP. / YT STABLE TECH. CORP.

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E-MAIL: sales@yutai.tw

✓ China



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✓ Japan
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