What is the CWA100?

The stock supercharger coolant recirculation pump in our car is an extremely robust and powerful flowing pump, particularly at flowing against head pressure. The stock pump is a Pierburg CW50.

That said as people add additional heat exchangers, killer chillers, or additional boost tgey may want increased circulation.

Here are the specs of the stock Pierburg CWA50 and CWA100:

Specifications water pumps

CWA50

Name:	Pierburg „CWA50"
Dimensions:	about 100x100x123mm
Operating voltage:	8 to 16 Volt
Current consumption:	6.5A max. about 0.2mA in standby mode
Speed:	20 bis 5800 rpm
Nominal diff. pressure:	0.55 bar
Flow rate:	25 l/min @ 0.6 bar / 35 l/min @ 0.3 bar
Temperature range:	-40°C to +140°C
Protection:	IP67

Part numbers:

Pierburg:	7.01360.15.0 / 7.02500.05.0 / . . .
BMW:	11 51 7 566 335 / . . .
Audi:	8K0965567B / 8K0965569 / . . .

CWA100

Name:	Pierburg „CWA100"
Dimensions:	about 100x100x123mm
Operating voltage:	8 to 16 Volt
Current consumption:	13.5A max. about 0.2mA in standby mode
Nominal diff. pressure:	0.85 bar
Flow rate:	30 l/min @ 0.85 bar / 40 l/min @ 0.65 bar
Temperature range:	-40°C to +140°C
Protection:	IP67

Part numbers:

Pierburg:	7.06754.05.0 / . . .
Mercedes:	A 000 500 04 86 / . . .

As you can see the CWA100 almost doubles the flow of the CWA50. Looking at the technical documents, it also massively outflows the hobby style pumps such as the Varimax and Meziere style pumps when any head pressure is seen.

CWA100-2 versus CWA100-3

There are three different versions of the CWA100 pump but we will focus on the currently available versions, the CWA100-2 and the CWA100-3.

First it should be known that as far as the specifications suggests, there are no flow differences at all between these pumps. They should both work identically. The only difference appears to be in the following:

CWA 100-3 has slightly shorter water inlets and outlets.

The connectors on the CWA100-2 and CWA100-3 are different.

I have had both of these pumps.

Here is the connector/socket for the CWA100-2:

Here is the connector/socket of the CWA100-3:

Availability of the CWA100 variants:

-The CWA100-2 is an old AMG pump that was used in a ton of Mercedes Benz supercharged applications. The Mercedes Benz part number is: A0005000486

You can source this part from a multitude of MB dealerships as a remanufactured item in the $300 to $350 range. FCP Euro has it currently for $342 and of course that is with a lifetime warranty. Tecomotive also has this available for 249Euro and you can buy the plug and play connector from them. They are a great site to support as well as they have been kind enough to publish most of the research you see here.

-The CWA100-3 is a new VAG pump that is used overseas in the Audi Q7 4M hybrid. The VAG part number is: 4N0965567

Interestingly you can find this pump from salvage cars on ebay for around $75. HOP ON THIS WHILE YOU CAN!

Harnesses for each of these pumps?

You can easily make a harness for each of these pumps.

Here are the part numbers needed for the CWA100-2

Connector to the CWA10-2 Pump: BMW part number: 12527549033 (available at ecstuning or fcp for under $5)
Connector to the stock harness: TE Connectivity p/n 1-1703494-1 (available on arrow.com for $1.69)

Here are the part numbers needed for the CWA100-3

Connector to the CWA100-3 Pump: VAG part number: 4D0971993 (ebay for around $8)
Connector to the stock harness: TE Connectivity p/n 1-1703494-1 (available on arrow.com for $1.69)

PIN Diagrams:

CWA50

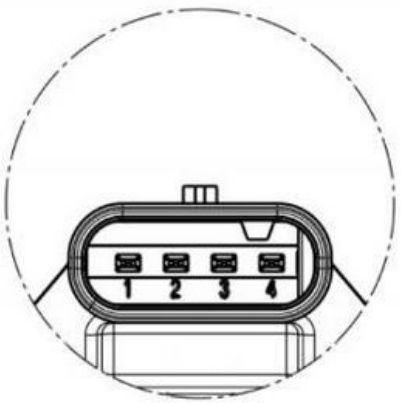
‘CWA50“

c water pump in the small to medium capacity range.

1 - Power (12V)
2 - Signal (PWM)
3 - Power (GND)

“CWA100“ (CWA100-2)

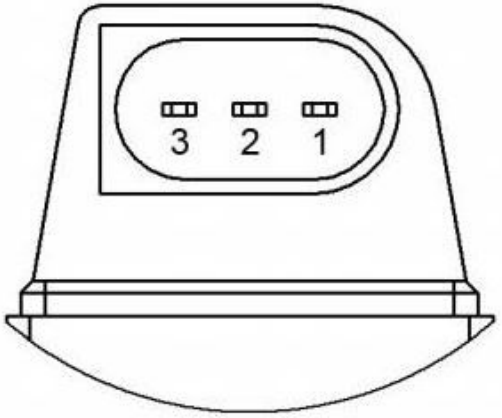
ric water pump in the medium capacity range.



1 - Power (GND)
2 - Signal (GND)
3 - Signal (PWM)
4 - Power (12V)

“CWA100-3“

electric water pump in the medium capacity range.



1 - Power (GND)
2 - Power (12V)
3 - Signal (PWM)