

How do I make sure I have the correct LED driver?

In the LED world there is a plethora of information around and trying to identify and find the right driver for your job can be very difficult.

Constant Current or Constant Voltage?

There are two types of LED driver, **constant current** and **constant voltage**. The easy way to identify the difference is to look at the rating on the front of the driver. In short is the 'current' or 'voltage' the constant?

For instance, look at the below which could be found on the front of a typical driver:

Output: 30-40VDC 950mA

You will notice the 'constant' of fixed part of the output is the mA rating, which is milliamps or current and the voltage is variable (30-40V). Therefore, you can identify this as a constant current LED driver. Also remember that if the voltage is variable, it **must** be a constant current LED driver.

Conversely, look at the below which could be found on the front of a different driver:

Output: 100W – 24V

You will notice the 'constant' of fixed part of the output is the voltage. Therefore, you can identify this as a constant voltage LED driver.

Drivers are often obsolete so you may not necessarily be able to get the exact LED driver again. For constant current, ensure that the current is the same (950mA in the above) and that the voltage range on the new driver is at least the same if not a bigger range. For instance, 30-40V on a new driver would be fine but so would 25-40V or 30-50V.

IP rating?

The IP rating is quite simple. In short, the first number is the intrusion protection, often known as dust, rating and the second is the moisture protection, often known as water, rating. So an IP20 driver is 2 (out of 7) for dust and 0 (out of 9) for moisture. Hence, it would be used for a very protected environment indoors protecting itself from only large solid objects.

An IP67 driver is 6 for dust and 7 for water. It could be used outside and is protected from any dust that could harm it and against strong water jets or waves.

To specify for a new driver, ensure that your IP rating is at least the same as the one you are replacing on both digits.