

TECHNICAL FREQUENTLY ASKED QUESTIONS



POWERING THE FUTURE

Logic Plus™ 30W Power Delivery (PD) Fast Charging USB Type-C Product

WHAT CHARGING CAPACITY DOES THE NEW 30W USB TYPE-C SOCKET PROVIDE?

The 30W Fast Charging USB Integrated socket comes with 1x USB Type-C and 1x Type-A port. The USB-C port provides max 30W charging capacity and the USB-A port provides max 27W charging capacity. Both operates at various current and voltage level dependent on the devices connected. For details, please refer to tech sheet.

Note – when both A & C ports are in use, the combined current is 3A and max power at 15W.

WHAT IS POWER DELIVERY (PD) CHARGING?

Power delivery is also called PD. The PD protocol enables the charger to communicate with connected electronic devices using PD protocol to negotiate charging parameters (current/voltage), in order to optimize charging speed and also protect the battery health.

WHAT IS GAN TECHNOLOGY?

Gallium nitride (the chemical formula for this is GaN) is a crystal-like semiconductor material with special properties. GaN has been used in electronics for decades. GaN chargers more efficient comparing to silicon-based chargers in converting power to electricity, and they're much smaller and more portable too, enabling them to charge your phones faster than a regular charger.

CAN I CHARGE TWO DIFFERENT DEVICES FROM TWO DIFFERENT MANUFACTURERS AT THE SAME TIME?

MK's USB Integrated sockets are designed such that the dynamic device recognition is unique to each USB port, which means that different manufacturers' devices can be charged simultaneously without any impairment to the other.

CAN I PLUG THE ELECTRONIC DEVICES, THAT HAS ORIGINAL CHARGER SIZE LESS THAN 30W, IN THE 30W USB SOCKET?

MK's 30W USB Integrated sockets are designed to provide fast charging for majority of the new smart phone, tablet products on the market, as most of them today are designed to take PD charging at up to 30W. A latest electronic device, that supports PD charging and comes with original charger less than 30W, will get same charging speed as using original charger.

WHICH STANDARDS DO YOUR PRODUCTS CONFORM TO?

The product holds UKCA & CE markings as it conforms to all the safety certification and approvals applicable for a 13A socket, including BS 5733 and relevant parts of BS 1363-2 and IEC BS1363-2 (2016). This includes IEC 61000-6-1 and IEC 61000-6-3, which covers Electromagnetic compatibility (EMC).

WHAT BACK BOX DEPTH WILL I NEED?

The 30W product fit into a 25mm back box.

For extra wiring space, we would recommend the use of a 35mm back box.

THE FRONT OF THE PRODUCT BECOMES WARM IN USE, IS THIS NORMAL?

Yes, it is usual for the front surface of the product to become slightly warm during use. MK's efficient design has kept this warming to a minimum.

HOW IS THE CHARGERS OUTPUT PROTECTED?

The USB output is fully protected against overload and short circuit.

In the event of short circuit, the output will completely shut down and then recover back to normal operation after short circuit conditions are removed.

In the event of overload, the charger will operate at constant current mode. Voltage will drop as overload increases. Eventually, the overload will be seen as short circuit and output will completely shut down.

CAN I UNDERTAKE AN INSTALLATION COMMISSIONING TEST WITH THE PRODUCT WIRED INTO CIRCUIT?

The USB charger should be removed from the circuit before undertaking an Insulation Resistance (Mega) test between Line and Neutral on the wiring installation. However, If the product is accidentally left in circuit, then it will not be damaged by a 500V IR test.

DOES THE USB INTEGRATED SOCKET HAVE THE SAME SAFETY CAPABILITIES EXPECTED FROM MK ELECTRIC?

Yes, the sockets are double pole, dual earthing with three-pin operated shutters and are fully approved in accredited test facilities to the latest BS 1363-2 safety standards.

WHY MY LAPTOP REPORTS PLUGGED IN A LOWER WATTAGE POWER ADAPTER? DOES THAT WARNING MEAN IT IS STILL SAFE TO CHARGE MY LAPTOP?

The 30W USB charger is designed to provide fast charging to latest electronic device rated 30W and below. Typical laptop configs 65W or 90W power adapter, the 30W Fast Charging USB Integrated socket Type C port can charge your device, but charge speed maybe slower than your original power adapter due to the size of the device.

Note: If your laptop, such as mobile workstation, comes with over 90W power adapter, the 30W USB socket product may not be suitable for it.

WHY CAN'T MY DEVICE TRIG FAST SPEED CHARGING?

Whether the connected devices can trig fast charge or not, it depends on multi factors, such as cable used, device statement, battery health and protocol that the device support etc. Majority new electronic devices made from 2019 onwards support the PD fast charging. If you still have issues, please contact our customer support team for details.

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mkelectric.com

