# electrium





USB Socket Solutions

### Crabtree Wiring Accessories

Crabtree are widely acknowledged as one the leading brands in British Standard markets around the world, Crabtree offers designers & specifiers a wide range of quality products that caters for a vast array of applications including Commerce, Education, Hospitals & Health, Hotels & Leisure facilities, in fact wherever quality products are required.

Crabtree operates a series of internationally recognized standards including ISO9001 for quality, OHSAS 18001 for Health & Safety and ISO14001 for Environmental Management. The UK manufacturing locations are also home to the product management, engineering, design, quality & logistics teams.

Crabtree also operates to recognised standards for product safety & sustainability, Crabtree wiring accessories are ROHS and REACH compliant often in excess of the BS market standards.

Crabtree products are all designed manufactured and tested in accordance with the recognised product standards, and backed by standard & extended guarantees.

Electrium operates Intertek CB3 recognised satelite test laboratories that carry out R&D and compliance testing on all Crabtree products, this highly accredited facility ensures that safety, quality & reliability remain consistent with relevant legislation, regulations & Siemens internal standards, policies & practices.

Crabtree is part of Electrium, a UK based company with Manufacturing, R&D, Test Laboratories & Logistics facilities in the North West of England, and its Commercial HQ located in the West Midlands. Electrium is a Siemens company.



Certificate Number 18828 ISO 9001, ISO 14001, ISO 45001



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Testing Laboratory No. 1460 Testing Laboratory No. 2003

As a leading manufacturer of electrical installation equipment, Crabtree is committed to the continual improvement of all quality assurance procedures and performance.







# **USB Socket Solutions**

The Universal Serial Bus (USB) Type C 24 pin connector design was finalised in 2014, the connector itself gave both physical and functional improvements to its predeceasing Type A connector, which included a smaller reversable connection method.

The speed and power attributed to a device with Type A or C is directly linked in parallel to the USB standards. These standards have been evolving for many years, but the new Type C connection allows the evolution of the traditional Type A.

The latest most common iterations of these USB standards vary from versions 3.0, 3.1, 3.2 and 4.0. Each gives an improved power and data transfer to its predecessor. So for example a USB Type C conforming to the 3.1 standard could transfer data speeds up to 10 Gbit/s, but conforming to the 4.0 standard it could increase to 40 Gbit/s.

In addition to these standards the power availability is influenced by several power delivery protocols that it may be compatible with. As an example with the 13A socket outlet, most Type A only products on the market were predominately a 5 Volt output up to 2.4Amps. The new Crabtree USB A & C Socket outlet however is compatible with Power Delivery (PD), Programmable Power Supply (PPS) and Quick Charge (QC) battery charging protocols. This allows the product to output voltages up to 20 Volts with its 30 Watt version and 12 Volts with the 20 Watt version. The voltages of the sockets are variable and will adjust with the power requirements of your device from 5, 9, 12 and 20 Volts, up to 3 Amps. So not only will devices such as tablets and phones charger quicker (assuming devices are compatible with these protocols), but will also be powerful enough to charge much more power hungry devices such as Laptops.

In 2022, the European Parliament passed a law that in 2024 all phones and small devices must be compatible with a universal charger, this method will be USB Type C. In 2026 this must also apply to laptops. With a large number of devices only supplied with a cable and no charging plug, the demand for Type C charging will only increase. The Crabtree solution caters for both now and future changes by its high charging capabilities and by having both Type A and Type C outlets on the socket outlets, understanding there is still a large demand for Type A charging.

### WHITE MOULDED USB SOCKET OUTLETS







CR1306/USB/D





4304/USBC

### **INSTINCT TYPE A & C USB SOCKET OUTLET**

Description	
CR1304/USBC	13A 1 Gang SP Switched Socket & 20 Watt 1 x Type A and 1 x Type C Dual USB
	5V to 12V, 3 Amp Max Output, PD/PPS/QC Charging Protocols
CR1306/USBC	13A 2 Gang SP Switched Socket & 20 Watt 1 x Type A and 1 x Type C Dual USB
	5V to 12V, 3 Amp Max Output, PD/PPS/QC Charging Protocols
CR1306/USBC3 *	13A 2 Gang SP Switched Socket & 30 Watt 1 x Type A and 1 x Type C Dual USB
	5V to 20V, 3 Amp Max Output, PD/PPS/QC Charging Protocols

<sup>\*</sup> Recommeded for high power charging

Minimum back box depth 25mm, however some installations may require 35mm depending on cable arrangement and back box position

### **INSTINCT TYPE A USB SOCKET OUTLET**

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-	91 I P		

CR1306/USB/D 13A 2 Gang DP Switched Socket & 2 x Type A Dual USB

5V, 2.1 Amp Max Output

Minimum back box depth 35mm

### **CAPITAL TYPE A & C USB SOCKET OUTLET**

Des	crir	stin	n

4304/USBC	13A 1 Gang SP Switched Socket & 20 Watt 1 x Type A and 1 x Type C Dual USB	
	5V to 12V, 3 Amp Max Output, PD/PPS/QC Charging Protocols	
4306/USBC	13A 2 Gang SP Switched Socket & 20 Watt 1 x Type A and 1 x Type C Dual USB	
	5V to 12V, 3 Amp Max Output, PD/PPS/QC Charging Protocols	

Minimum back box depth 25mm, however some installations may require 35mm depending on cable arrangement and back box position

### **CAPITAL TYPE A USB SOCKET OUTLET**

#### Description

4306/USB/D 13A 2 Gang DP Switched Socket & 2 x Type A Dual USB 5V, 2.1 Amp Max Output

Minimum back box depth 35mm

## WHITE MOULDED USB SOCKET OUTLETS

### TYPE A & C SOCKET OUTLETS 20 & 30 WATTS



	20 Watts	30 Watts
Voltage (Input)	250 AC 50Hz	250 AC 50Hz
Rating	13A	13A
Socket Type	Type G	Type G
Switching Type	Single Pole	Single Pole
Product Standard	BS 1363-2	BS 1363-2
USB Output	Variable 5V to 12V DC	Variable 5V to 20V DC
	20 Watts Maximum	30 Watts Maximum
	3 Amps Maximum from 1 outlet	3 Amps Maximum from 1 outlet
	Maximum at 12V is 1.67A	Maximum at 20V is 1.5A
Power shared across both outlets	Yes	Yes
Charging Protocol	Power Delivey (PD), Quick Charge (QC),	Power Delivey (PD), Quick Charge (QC),
	Programmable Power Supply (PPS)	Programmable Power Supply (PPS)
Product Marking	CE,UKCA, G-Mark	CE,UKCA, G-Mark
Ambient Temprature	-5 to 40°C	-5 to 40°C
Recommended Torque setting	1.2Nm	1.2Nm
Terminal Capacity L & N	3 x 2.5mm², 2 x 4mm²	3 x 2.5mm², 2 x 4mm²
Terminal Capacity E	3 x 2.5mm², 2 x 4mm²	3 x 2.5mm², 2 x 4mm²
Ingress Protection (IP) Rating	IP20	IP20
Light Reflectance Value (LRV)	74	74
Minimum Back Box	25mm*	25mm*

 $<sup>^{\</sup>star}$  Minimum back box depth 25mm, however some installations may require 35mm depending on cable arrangement and back box posistion

### **TYPE A SOCKET OUTLETS**



	20 Watts
Voltage (Input)	250 AC 50Hz
Rating	13A
Socket Type	Type G
Switching Type	Double Pole
Product Standard	BS 1363-2
USB Output	5V DC
	20 Watts Maximum
	2.1 Amps Maximum
Power shared across both outlets	Yes
Product Marking	CE,UKCA, G-Mark
Ambient Temprature	-5 to 40°C
Recommended Torque setting	1.2Nm
Terminal Capacity L & N	3 x 2.5mm², 2 x 4mm²
Terminal Capacity E	3 x 2.5mm², 2 x 4mm²
Ingress Protection (IP) Rating	IP20
Light Reflectance Value (LRV)	74
Minimum Back Box	35mm



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Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Latest details can be obtained from Electrium.