POWERVERTER PVPro *A & C Range*
12/24VDC USB CHARGERS

A & C PORT USB CHARGING FOR 12V AND 24VDC APPLICATIONS

The PowerVerter PVPro Range of USB chargers has now been completely updated into the A & C Range, amalgamating all the great design concepts of USB charging on vehicles into one simple range. Models are now available offering both USB A and C connections, including Single and Double A as well as Single C and a combined Dual A & C output version.

As well as standard (rear fit), all versions are also available in front fit versions. This is a popular option for when rear space access is limited, and also allows for quick removal and replacement should that be required.

Ingress protection is to IP30 as standard. However, the PVPWp versions retain the slimline design and offer enhanced protection to IP65 (not connectors). The ruggedised PV65R versions (also IP65) offer additional transient protection and are particularly suitable in more demanding environments such as for installation into vehicle walls.

Output power performance has also been enhanced. As well as charging both Apple and Android mobile phones, the USB C models offer higher current outputs for limited charge assistance on tablets and laptops.
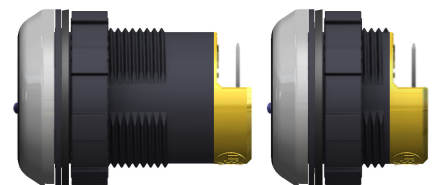
Standard versions require only 20mm (typical) rear space and can easily be installed in bus and coach seat backs, walls and dashboards. A series of installation pod designs enable retrofit options for underseat, table and wall mounting options.

The PV65R-ACFf offers both A & C outputs, Front fitting bezel ring and IP protection to IP65
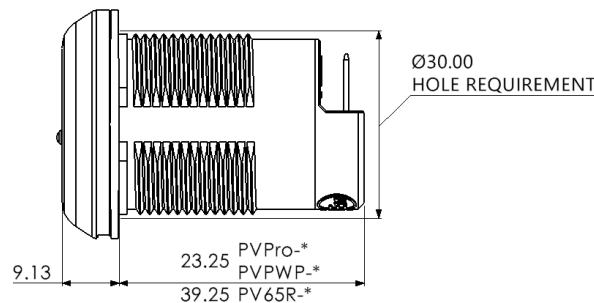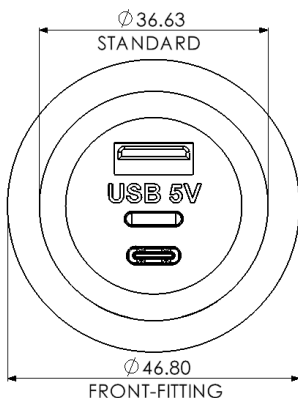
THE RANGE

All units are installed through a 30mm hole. Standard format units are retained by a rear nut while the front fit versions include a bezel with tamperproof cover ring. Input power is by way of two 6.3mm push-in flat fit automotive terminals.

Dimensionally, both A and C Chargers are the same dimensions and are interchangeable with the ever-popular PVPro Range. Electronically the designs include reverse polarity protection and automatic short circuit protection, so in the event of tampering or compromise the unit will shut down, then restart again, once the fault has been removed.

PVPro-A
Single output
A connector

PVPro-AA
Double output
A connector

PVPro-C
Single output
C connector

PVPro-AC
Dual output A
& C connector

The new A & C range has the following key benefits:

- Both type-A and type-C outputs
- USB A & C dual output available
- Apple and Android compatible
- Dashboard, slimline seat back or underseat pod configurations
- LED output indicator
- IP30 or IP65 ingress protection
- CE, E and UKCA marked

All products are available in front fit options for when rear access is limited

PV65R – ruggedised version and PVPWp, both IP65 rated; indicated by yellow rear cap.

WARRANTY

The PVPro A and C range of chargers are manufactured using rugged components to provide years of service in demanding commercial environments and are covered by a three year return to base guarantee.

Ø36.63
STANDARD

USB 5V

Ø46.80
FRONT-FITTING

Ø30.00
HOLE REQUIREMENT

9.13

23.25 PVPro-*
PVPWP-*
39.25 PV65R-*

CHOOSE YOUR USB PRODUCT

Part Number	Description	Dims (mm) Diameter x Length. Hole Ø. Rearspace (typ)	Weight
Standard IP30			
PVPro-A	USB 'A' Single output 12/24-5V, 2.1A	37 x 33; Hole Ø30; typ.22	20g
PVPro-AA	USB 'A' Double output 12/24-5V, 3.0A	37 x 33; Hole Ø30; typ.22	24g
PVPro-C	USB 'C' Single output 12/24-5V, 2.5A	37 x 33; Hole Ø30; typ.22	20g
PVPro-AC	USB 'A' & 'C' Dual output 12/24-5V, 3.6A	37 x 33; Hole Ø30; typ.22	25g
Ruggedised IP65			
PV65R-A	USB 'A' Single output rugged, IP65 12/24-5V, 2.1A	37 x 49; Hole Ø30; typ.36	36g
PV65R-AA	USB 'A' Double output rugged, IP65 12/24-5V, 3.0A	37 x 49; Hole Ø30; typ.36	41g
PV65R-C	USB 'C' Single output rugged, IP65 12/24-5V, 2.5A	37 x 49; Hole Ø30; typ.36	36g
PV65R-AC	USB 'A' & 'C' Dual output rugged, IP65 12/24-5V, 3.6A	37 x 49; Hole Ø30; typ.36	42g
Slimline IP65			
PVPWp-A	USB 'A' Single, slimline, IP65 12/24-5V, 2.1A	37 x 49; Hole Ø30; typ.22	26g
PVPWp-AA	USB 'A' Double, slimline, IP65 12/24-5V, 3.0A	37 x 49; Hole Ø30; typ.22	30g
PVPWp-C	USB 'C' Single, slimline, IP65 12/24-5V, 2.5A	37 x 49; Hole Ø30; typ.22	26g
PVPWp-AC	USB 'A' & 'C' Dual, slimline, IP65 12/24-5V, 3.6A	37 x 49; Hole Ø30; typ.22	31g
Accessories			
USB-POD	Underseat mounting pod for USB chargers	W 60, H 52, D 80, Hole Ø30	55g
USB-TPOD	Table mounting pod for 2x USB chargers	W 103, H 44.5, D 88, Hole Ø30	62g
USB-WPOD	Wall mounting pod for USB chargers	W 60.5, H 76, D 26, Hole Ø30	22g
PV-USB-H1	Standard 1.2 wiring with in line fuse	1x red 1.2m, 1x black 1.2m, 1x 2A fuse	50g

For front fit versions, please add the suffix Ff, e.g. PVPro-AFf, PV65R-ACFf etc. The detachable ring in both standard and front fit format can be customised for branding and advertising purposes. Please ask our sales team.

TECHNICAL DATA

Input voltage range	9-32Vdc
Output voltage	5.2Vdc +/- 0.2V
Max Output Power	Single A: 2.1A, Double A: 3.0A, Single C: 2.5A, Dual A & C: 3.6A
Application	Charging of USB devices including Apple and Android
Transient voltage protection	Meets ISO7637-2 International standard for 12/24V vehicles
Output noise	<50mV pk-pk
Off load current (quiescent current)	<2.5mA
Isolation	Non-isolated >400Vrms between casing and terminals
Power conversion efficiency	90%
Operating temperature	-25°C to +55°C to meet this specification table
Storage temperature	-25°C to +100°C
Operating humidity	95% max., non-condensing
Casework	Dark grey polycarbonate body, contrasting trim ring
Connections	Input: 6.3mm push-in flat blade connectors
	Output: USB 'A' single/double socket, USB 'C' socket
Output indicator	Blue LED output indication
Mounting method	30mm diameter hole, with rear nut or front fit bezel
Safe area protection: Over Current	Limited by current sensing circuit
Over heat	Limited by temperature sensing circuit
Overvoltage and Undervoltage	Limited by sensing circuit
Reverse Polarity	Protected by sensing circuit
Transients	Protected by filters and rugged component selection
Catastrophic protection	Internal fuse (external fusing recommended)
Approvals	2014/30/EU The general EMC directive
	Regulation 10 The automotive directive
	93/68/EEC The CE marking directive
	IP65 approved (PV65R-* and PVPWp-*)
	Regulation R118 (Automotive Fire)
	EN61373 vibration
Designed to	EN50498, ISO 7637-2, R118 & R080
Markings	CE, UKCA and E marked
IP Rating	IP30/IP65 according to product selection