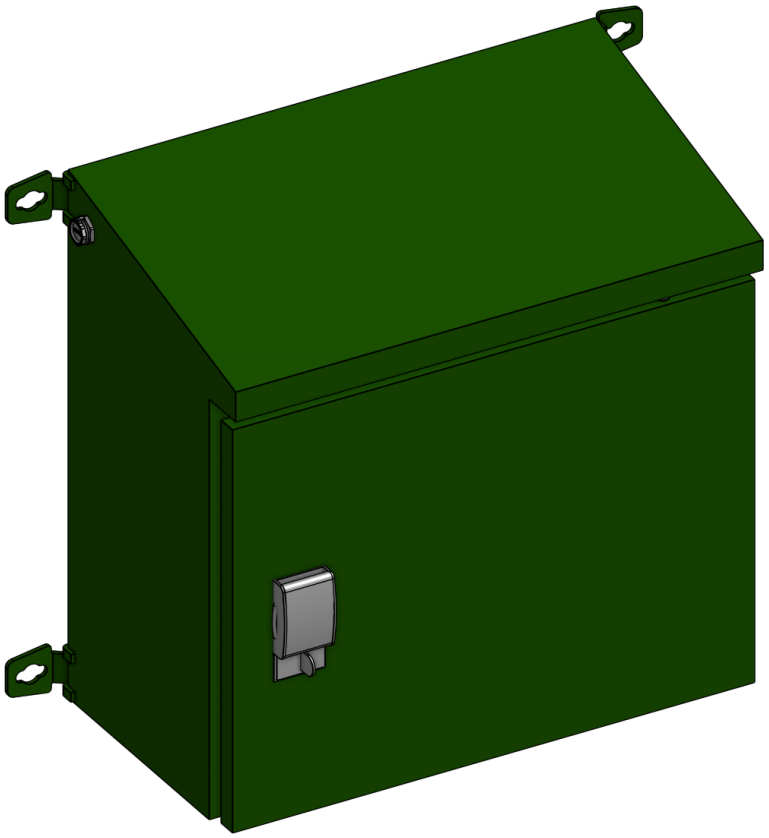
Uconnect
PV Kiosk System Cabinet



Highlights

- 4G/3G/2G resilient communications
- Solar powered with rechargeable backup battery
- Long battery buffer
- Galvanic isolation (no electrical earth installation required)
- Weatherproof construction

Uconnect PV Kiosk System Cabinet

The Uconnect PV Kiosk System Cabinet is a UtonomyOne component.

Uconnect provides data logging and secure communications between Ucontrol equipment and the centralised Uscope data management platform.

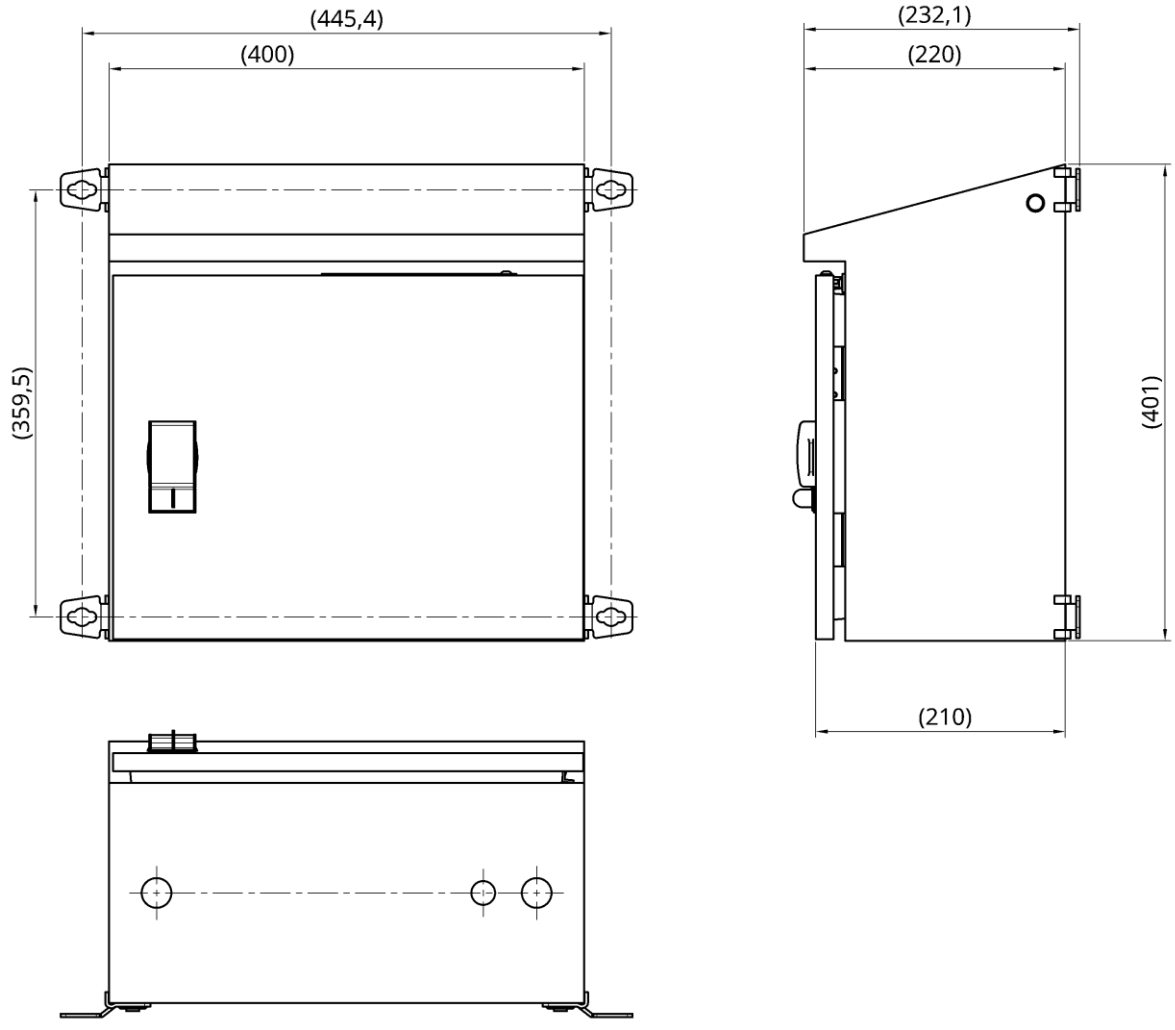
The Uconnect PV Kiosk System Cabinet incorporates a solar charging sub-system and a galvanically isolated barrier that complies with ATEX and UKEX standards. The barrier eliminates the need for an electrical earth, making cabling to equipment inside the hazardous area easier.

The router in the cabinet provides wireless connectivity using 4G/3G/2G cellular technologies across multiple frequency bands for resilient communications.

The Uconnect PV Kiosk System Cabinet is designed to be wall-mounted to pressure regulation site kiosks. Components have been selected to minimise the power consumption of the system, and to reduce the cabinet's dimensions and weight for ease of mounting.

Used within the wider UtonomyOne system, the Uconnect PV Kiosk System Cabinet facilitates secure communications for remote monitoring & control of connected Ucontrol equipment.

Dimensions (mm)



Electrical Characteristics

Solar Panel		Min.	Typ.	Max.	Units
Power		-	-	80	W
Open-circuit Voltage (V_{oc})		-	-	30	V
Max. power point voltage (V_p)		16	21	-	V
Battery					
Chemistry		VRLA (Valve-Regulated Lead-Acid)			
Lifetime		10 years based on typical operating environment and usage profile			
		Runtime on battery only [1], days			
		12 min. comms		1 hour comms	
Nominal capacity (C_{120}), Ah, Typ.	14	11		18	
	28 [2]	23		37	
	30	25		39	
	48	40		64	
Communications		Description			
Supported Cellular Types	4G / LTE	700, 800, 900, 1800, 2100 MHz (bands 1, 3, 8, 20, 28) LTE Cat. 1 (DL: max. 10.2 Mbps, UL: max. 5.2 Mbps)			
	3G / UMTS / HSPA	900, 2100 MHz (bands 1, 8) HSDPA/HSUPA (DL: max. 7.2Mbps, UL: max. 5.7Mbps)			
	2G / GPRS / EDGE	900, 1800 MHz GPRS/EDGE Class 12 (DL: max. 85.6 kbps, UL: max. 85.6 kbps)			
RS485		Galvanically Isolated. Up to 38,400 bps			

[1] Starting from a fully charged battery, with no further solar energy input; calculated assuming worst case average monthly temperature of -5 °C and 80% residual battery capacity at end-of-life.
[2] Uses 2 x 14Ah batteries

Environmental Characteristics

		Min.	Typ.	Max.	Units
Ambient Temperature	Storage	-20	-	55	°C
	Operating	-20	-	60	°C
Relative Humidity (non-condensing)		10	-	90	% RH

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Mechanical Characteristics

System Cabinet	Description
Materials	Stainless Steel (AISI 304)
Degree of Protection	IP54 as per IEC EN 60529 (pending)
Dimensions	400 x 400 x 210 mm (W x H x D)
Weight (kg; approx.)	14 (without battery) 17.6 (inc. 14Ah battery) 21.2 (inc. 2 x 14Ah batteries) 22.5 (inc. 30Ah battery) 29 (inc. 48Ah battery)
Finish	Powdercoat - Green (RAL 6005)
Security	Padlock clasp
Mounting	Wall mounting brackets included

Approvals

Directive	Standards Applied/Description
EMC Emissions	EN 55011, Class B
EMC Immunity Radio Equipment	EN IEC 61326-1 EN ETSI 301 489-1 EN ETSI 301 489-52
Low Voltage	EN IEC 62368-1 EN IEC 62485-2
RoHS	EN IEC 63000 Compliant with exemptions 6 a, 6 b, 6 c, 7 a, 7 c (I), 7 c (II)

Ordering Information

Part Number	Description
0800-000061	Uconnect PV Kiosk System Cabinet (excludes battery)
0800-000073	VRLA Rechargeable Battery with fused cable assembly, 12V, 14Ah
0800-000074	VRLA Rechargeable Battery with fused cable assembly, 12V, 28Ah
0800-000075	VRLA Rechargeable Battery with fused cable assembly, 12V, 30Ah
0800-000076	VRLA Rechargeable Battery with fused cable assembly, 12V, 48Ah

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