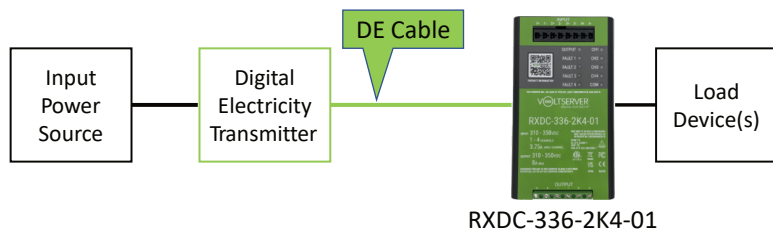


The RXDC-336-2K4-01 Receiver is a component in a Digital Electricity™ line powering system. When paired with a VoltServer transmitter unit, a Digital Electricity™ system is formed (see diagram). If a person or a foreign conductor comes in contact with the DE wiring, power is disconnected; preventing fire, equipment damage and personal injury. The RXDC-336-2K4-01 is a **Listed** product, certified to safety and EMC standards by a **Nationally Recognized Testing Laboratory**.



RXDC-336-2K4-01 Receiver

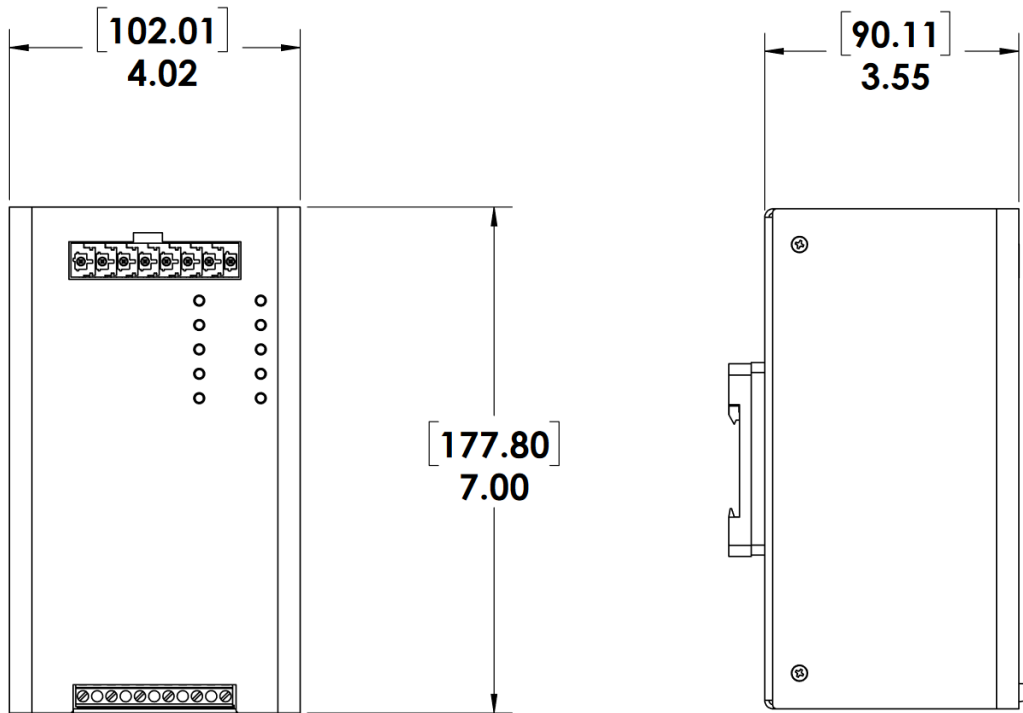
Digital Electricity™ is a **Limited Power Source** per IEC/UL/CSA 62368-1 suitable for supplying a **Class 2 circuit** under **NEC Art. 725** and **CEC Rule 16-200** (NOTE: Always follow local codes).

Specifications

TYPE	PARAMETER	SPECIFICATION	NOTES
Input	Voltage	310-350 Vdc (336 Vdc Nominal)	Must be supplied by listed VoltServer transmitter shelf
	Number of Channels	4	
	Current Per Input Channel	3.75 A Max	
	Current, Total	8.0 A Max	
Output	Voltage	310-350 Vdc (336 Vdc Nominal)	
	Number of Connections	2	
	Current Per Output Connection	8.0 A Max	
	Current, Total	8.0 A Max	
Environment	Operating Temperature	-40°C (-40°F) to 70°C (158°F)	Cold Start limited to -20°C (-4°F). [See page 2 for temperature derating curve]
	Altitude	Up to 2000m	
	Weatherproofing	None	
Mechanical	Dimensions	7.00" x 4.02" x 3.55" 177.80mm x 102.01mm x 90.11mm	[See page 2]
	Weight	2.132 lbs	
Approvals	Safety	UL 62368-1 EN IEC 62368-1 CAN/CSA-C22.2 No. 62368-1	
		EMC	
Box Contents	Other	CE, RoHS, WEEE, UKCA	
	Hardware Kit	(1) 8 Position Terminal Block Plug, P/N: 8000078359	

Specification subject to change without notice

Detailed Dimensions
inches [mm]



Connection Diagram



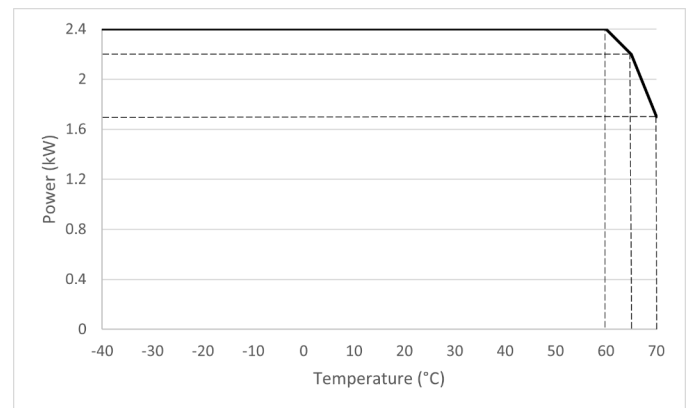
1 Digital Electricity™ Input Port

Four (4) channels, eight (8) conductors, 18AWG minimum (16AWG recommended)

2 High Voltage DC Output Port

Two (2) connections, three (3) conductors per connection, 18AWG minimum (16AWG recommended)

Temperature Derating Curve





WARNING! AVERTISSEMENT!

Ensure that the unit is de-energized before contacting any exposed conductors. Up to 350 Vdc is present inside the unit while running.

Assurez-vous que l'appareil est mis hors tension avant de faire du contact avec des conducteurs nus. Jusqu'à 350 Vdc est présent à l'intérieur de l'appareil pendant le fonctionnement.

WARNING! AVERTISSEMENT!

The minimum wire gauge for use with VoltServer GEN2 Transmitters is 18AWG copper conductors. Mutual conductor capacitance shall be no more than 40 pF per foot or 131 pF per meter.

Le calibre de fil minimum à utiliser avec les émetteurs VoltServer GEN2 est constitué de conducteurs en cuivre de 18 AWG. La capacité mutuelle des conducteurs ne doit pas dépasser 40 pF par pied ou 131 pF par mètre.

WARNING! AVERTISSEMENT!

VoltServer RX Receiver inputs are intended to be powered by VoltServer TX Transmitter products only. Ensure that only VoltServer TX Transmitter products are used as sources of power for this receiver unit.

Les entrées du récepteur VoltServer RX sont destinées à être alimentées uniquement par les produits émetteurs VoltServer TX. Assurez-vous que seuls les produits émetteurs VoltServer TX sont utilisés comme sources d'alimentation pour ce récepteur.

WARNING! AVERTISSEMENT!

The voltage rating of the transmission wiring between VoltServer TX Transmitter and RX Receiver(s) must be a minimum of 400 Vrms.

La tension nominale du câblage de transmission entre l'émetteur VoltServer TX et le(s) récepteur(s) RX doit être 400 Vrms au minimum.

FCC CAUTION

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

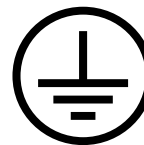
Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAN ICES-003(A) / NMB-003(A)

Symbols



Hazardous Voltages present when energized. Do not open the unit while it is running.



This symbol indicates the main earth ground terminal for the device. See "Grounding" section below.

Warranty Statement

There are no serviceable parts within the RXDC-336-2K4-01. Opening or modifying the unit and/or factory attached cables will void the warranty.

Installation Instructions

CAUTION / ATTENTION

Input and Output wiring and over-current protection must be installed in accordance with all local and national electric codes and requirements.

Le câblage d'entrée et de sortie et la protection contre les surintensités doivent être installés conformément à tous les codes et exigences électriques locaux et nationaux.

Physical Installation

The RXDC-336-2K4-01 is intended to mount vertically on a 35mm DIN rail with the input connector positioned at the top and the output connector positioned at the bottom. The RXDC-336-2K4-01 should have free air space around the top and bottom of the unit. The DIN rail mounting clip is located on the back of the enclosure.

IMPORTANT: Unit must be oriented with the vents at the top and bottom.

Grounding

The RXDC-336-2K4-01 receiver must be properly grounded to the user's facility earth connection for safe operation. The ground for the receiver must be the same ground as the transmitter chassis it is being fed from, otherwise overvoltage protection (OVP) is needed (see OVP Design Guide and/or Best Practices Guide for more details). If the product is being enclosed in a metal, non-insulated external enclosure, connect a green/yellow 12 AWG wire from the external enclosure to one of the ground connections of the RXDC-336-2K4-01 output. The grounding connection of the user's end load must also be connected to one of the ground connections of the RXDC-336-2K4-01 output.

Accessories (Sold Separately)

JBKIT-INPUT: Junction box kit, connects up to two (2) RXDC-336-2K4-01 from the DE cable, IP65 enclosure

JBKIT-INPUT-DIN: 8x8 terminal block on a 6in DIN rail, connects up to two (2) RXDC-336-2K4-01 from the DE cable, no enclosure

JBKIT-OUTPUT-HV: Junction box kit, connects up to two (2) loads from the RXDC-336-2K4, IP65 enclosure

OVP-MODULE-4: 4x Individual CITELE OVP Modules with Ground Bus Bar (DIN rail not included)

OVPBOX-4: IP67 Enclosure, Contains 4x CITELE OVP modules, One required per Receiver

OVPDIN-4: Primary Protection CITELE OVP 4 Pairs protected per 6" DIN Rail For Deployment in IDFs

General

DO NOT connect a load while the RXDC-336-2K4-01 Receiver is running. The RXDC-336-2K4-01 must be de-energized prior to wiring the load device.

Method of Disconnect from Power

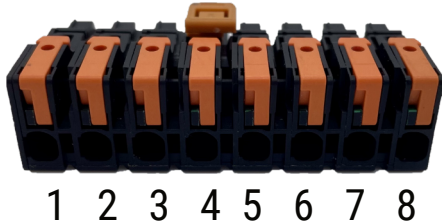
To disconnect the RXDC-336-2K4-01 Digital Electricity Receiver unit from power, unplug **ALL** corresponding channels from the DE Transmitter Chassis either at the transmitter location or at the receiver by separating the input quick connector.

Due to the amount of capacitance in the RXDC-336-2K4-01, it may take up to one minute for the RXDC-336-2K4-01 to drop to safe voltage levels.

Input Wiring

NOTE: Units ship with a plug-able input connector mate. The wiring must be terminated appropriately at the installation site.

Input Mating Connector Pin-Out



Pin	Description
1	DE Input Channel 1 Pos(+)
2	DE Input Channel 1 Neg(-)
3	DE Input Channel 2 Pos(+)
4	DE Input Channel 2 Neg(-)
5	DE Input Channel 3 Pos(+)
6	DE Input Channel 3 Neg(-)
7	DE Input Channel 4 Pos(+)
8	DE Input Channel 4 Neg(-)

Output Wiring

NOTE: Output is a screw-type terminal block connector. The wiring must be terminated appropriately at the installation site. Ensure screws are fully torqued down after wire installation.

Output Connector Pin-Out

Front View:



Bottom View:



1 2 3 4 5 6

Pin	Description
1	336V Out POS (+)
2	336V Out POS (+)
3	336V Out NEG (-)
4	336V Out NEG (-)
5	Ground
6	Ground

LED Codes and Troubleshooting

Output	●	●	CH 1
Fault 1	●	●	CH2
Fault 2	●	●	CH3
Fault 3	●	●	CH4
Fault 4	●	●	COM

FAULT CODE	TROUBLESHOOTING
FAULT 1 - LOAD	Connection problem between receiver output and load. <ul style="list-style-type: none"> • Make sure output is not shorted • Reduce load
FAULT 2 - ENVIRONMENTAL	Receiver over temperature <ul style="list-style-type: none"> • Reduce ambient temp surrounding receiver • Reduce Load
FAULT 3 - INTERNAL	Internal Failure <ul style="list-style-type: none"> • Contact VoltServer
FAULT 4 - INPUT/ OTHER	Transmitter Power Problem Not Enough Input channels <ul style="list-style-type: none"> • Check wiring between TX and RX • Transmitter Low Voltage • Contact VoltServer •

Document Revision History

Revision	Date	Description
A	Sep 28, 2023	Initial Release