

USER MANUAL

ISO TX

for PowerValue RT G2 UL 5-10 kVA



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1 Important safety instructions

1.1 Save these instructions



THIS CHAPTER CONTAINS IMPORTANT SAFETY INSTRUCTIONS. READ IT CAREFULLY BEFORE DISASSEMBLING THE UNIT.



THIS MANUAL CONTAINS IMPORTANT INSTRUCTIONS THAT SHOULD BE FOLLOWED DURING THE INSTALLATION AND MAINTENANCE OF THE PDU. THE PDU MODELS THAT ARE COVERED IN THIS MANUAL ARE INTENDED FOR INSTALLATION IN ENVIRONMENTS WHERE TEMPERATURES ARE WITHIN 0 TO 40 °C AND ARE FREE OF CONDUCTIVE CONTAMINANTS.

1.2 Safety symbols and warnings

Follow all operating and user instructions.



THIS SYMBOL IN CONJUNCTION WITH THE SIGNAL WORD **“DANGER”** INDICATES AN IMMINENT ELECTRICAL HAZARD. FAILURE TO OBSERVE THE RELATED SAFETY NOTE MAY CAUSE INJURY, DEATH OR EQUIPMENT DAMAGE.



THIS SYMBOL IN CONJUNCTION WITH THE SIGNAL WORD **“WARNING”** INDICATES A POTENTIALLY DANGEROUS SITUATION. FAILURE TO OBSERVE MAY CAUSE INJURY, DEATH OR EQUIPMENT DAMAGE.



THIS SYMBOL INDICATES A SAFETY NOTE: **“ATTENTION! HAZARDOUS VOLTAGE!”** INSTALLATION BY A CERTIFIED SERVICE ENGINEER ONLY.”



THIS SYMBOL IN CONJUNCTION WITH THE SIGNAL WORD **“NOTE”** INDICATES OPERATOR TIPS OR PARTICULARLY USEFUL OR IMPORTANT INFORMATION FOR THE USE OF THE PRODUCT. THIS SYMBOL AND WORDING DO NOT INDICATE A DANGEROUS SITUATION.















THIS SYMBOL INDICATES THAT READING THE INSTRUCTION MANUAL/ BOOKLET BEFORE STARTING WORK OR BEFORE OPERATING EQUIPMENT OR MACHINERY IS COMPULSORY.



DO NOT DISPOSE OF WITH ORDINARY TRASH.

1.3 Safety rules

	TERMINAL BLOCKS MAY BE ENERGIZED, EVEN IF THE SYSTEM IS DISCONNECTED FROM THE AC POWER SOURCE.
DANGER	
	DANGEROUS VOLTAGE LEVELS ARE PRESENT WITHIN THE SYSTEM.
DANGER	
	THE SYSTEM MUST BE PROPERLY GROUNDED: ALWAYS CONNECT THE EARTH WIRE FIRST.
DANGER	
	CAUTION! TO REDUCE THE RISK OF FIRE, ONLY CONNECT THE UNIT TO A CIRCUIT PROVIDED WITH BRANCH CIRCUIT OVERCURRENT PROTECTION FOR:
WARNING	<ul style="list-style-type: none"> - 40A rating, for 5/6kVA models - 63A rating, for 8/10kVA models
	CHECK THAT THE INDICATIONS ON THE RATING LABEL CORRESPOND WITH YOUR AC POWERED SYSTEM AND THE ACTUAL ELECTRICAL CONSUMPTION OF ALL THE EQUIPMENT TO BE CONNECTED TO THE SYSTEM.
WARNING	
	NEVER INSTALL THE SYSTEM NEAR LIQUIDS OR IN AN EXCESSIVELY DAMP ENVIRONMENT.
WARNING	
	NEVER BLOCK THE VENTILATION GRILLES GRATES OF THE SYSTEM.
WARNING	
	NEVER EXPOSE THE SYSTEM TO DIRECT SUNLIGHT OR OTHER SOURCES OF HEAT.
WARNING	
	THE UPSTREAM CIRCUIT BREAKER FOR NORMAL AC/BYPASS AC MUST BE EASILY ACCESSIBLE.
NOTE	THE UNIT CAN BE DISCONNECTED FROM THE AC POWER SOURCE BY OPENING THIS CIRCUIT BREAKER.
	DISCONNECTION AND OVERCURRENT PROTECTION DEVICES ARE NOT INCLUDED AND MUST ALREADY BE INSTALLED FOR PERMANENTLY CONNECTED AC INPUT (NORMAL AC/BYPASS AC) AND AC OUTPUT CIRCUITS.
NOTE	
	FOR PLUGGABLE EQUIPMENT, THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.
NOTE	
	IF THE SYSTEM NEEDS TO BE STORED PRIOR TO INSTALLATION, STORAGE MUST BE IN A DRY PLACE.
NOTE	



THE ADMISSIBLE STORAGE TEMPERATURE RANGE IS **-25 TO +60 °C**.



THIS ISO TX IS DESIGNED TO WORK WITH UPS POWERVALUE RT G2 UL 5-10KVA.

1.4 UPS disposal and recycling

1.4.1 For professional users in the European Union



THE CROSSED WHEELED BIN SYMBOL ON THE PRODUCT(S) AND / OR ACCOMPANYING DOCUMENTS MEANS THAT USED ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) SHOULD NOT BE MIXED WITH GENERAL HOUSEHOLD WASTE.

IF YOU WISH TO DISPOSE OF ELECTRICAL AND ELECTRONIC EQUIPMENT (EEE), PLEASE CONTACT YOUR DEALER OR SUPPLIER FOR FURTHER INFORMATION.

CORRECT WASTE DISPOSAL OF THIS PRODUCT WILL HELP SAVE VALUABLE RESOURCES AND PREVENT ANY POTENTIAL NEGATIVE EFFECTS ON HUMAN HEALTH AND THE ENVIRONMENT, WHICH COULD OTHERWISE ARISE FROM INAPPROPRIATE WASTE HANDLING

1.4.2 For disposal in countries outside of the European Union



THE CROSSED WHEELED BIN SYMBOL IS ONLY VALID IN THE EUROPEAN UNION (EU) MEANING THAT USED ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) SHOULD NOT BE MIXED WITH GENERAL HOUSEHOLDWASTE.

IF YOU WISH TO DISPOSE OF THIS PRODUCT PLEASE CONTACT YOUR LOCAL AUTHORITIES OR DEALER AND ASK FOR THE CORRECT METHOD OF DISPOSAL.

CORRECT WASTE DISPOSAL OF THIS PRODUCT WILL HELP SAVE VALUABLE RESOURCES AND PREVENT ANY POTENTIAL NEGATIVE EFFECTS ON HUMAN HEALTH AND THE ENVIRONMENT, WHICH COULD OTHERWISE ARISE FROM INAPPROPRIATE WASTE HANDLING

1.5 Certification standards

- Safety: UL 1778, CSA 107.3.
- Radiated: FCC CFR 47 Part 15 Class A.
- Conducted: FCC CFR 47 Part 15 Class A.
- IEC 61000-2-2 (Low Frequency Signals)
- IEC 61000-4-2 (ESD): level 3.
- IEC 61000-4-3 (RS): level 3.
- IEC 61000-4-4 (EFT): level 3.
- IEC 61000-4-5 (Surge): level 2 (Line-Line) level 3(Line-Earth).
- IEC 61000-4-6 (CS): level 3.
- IEC 61000-4-8 (Power Frequency Magnetic Field Immunity): level 4.

2 Introduction

ISO TX transforms the output of the UPS to different voltage options and provides a galvanic isolation between the output and load of the UPS.



WE RECOMMEND YOU TAKE THE TIME TO READ THIS MANUAL TO TAKE FULL ADVANTAGE OF THE MANY FEATURES OF YOUR ISO TX.

2.1 Environmental protection

Our products are developed using the eco-design approach.


2.1.1 Substances

This product does not contain CFCs, HCFCs, or asbestos.

2.1.2 Packing

To improve waste treatment and facilitate recycling, separate the various packing components.

- The cardboard we use comprises over 50% recycled cardboard.
- Sacks and bags are made of polyethylene.
- Packing materials are recyclable and bear the appropriate identification symbol

Materials	Abbreviations	Number in the symbols	
Polyethylene terephthalate	PET	01	
High-density polyethylene	HDPE	02	
Polyvinyl chloride	PVC	03	
Low-density polyethylene	LDPE	04	
Polypropylene	PP	05	
Polystyrene	PS	06	

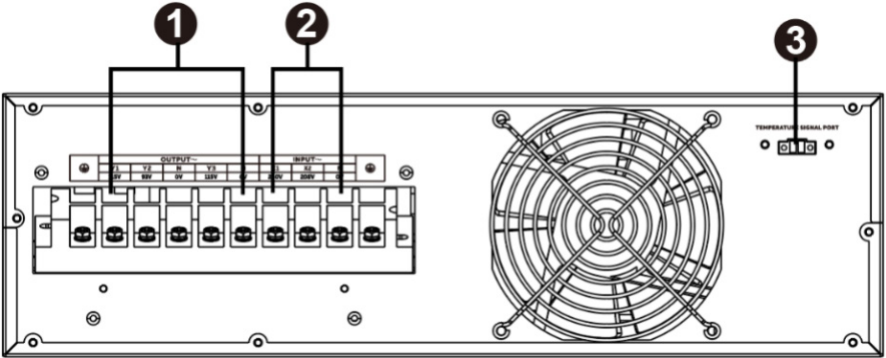


FOLLOW ALL LOCAL REGULATIONS FOR THE DISPOSAL OF PACKING MATERIALS

3 General characteristics

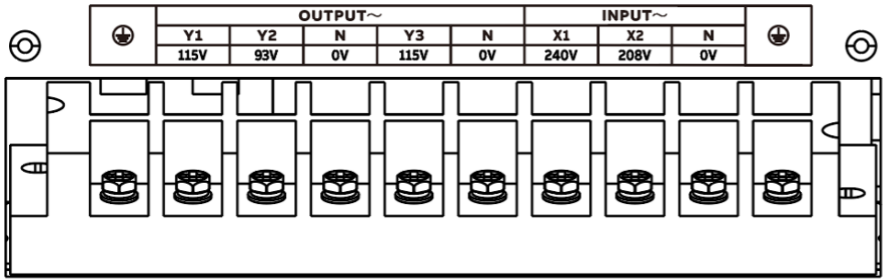
3-1
Rear Panel View

3-2
Terminal Block View



3-1 ISO TX rear panel view

No	Item
1.	Load output connection
2.	Input (to UPS output)
3.	Temperature signal port



3-2

4 Installation



THE SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE SAFETY REGULATIONS



NOTE

INSTALLATION AND COMMISSIONING SHALL BE IN COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL SAFETY REGULATIONS AND MUST BE CARRIED OUT BY SUITABLY QUALIFIED PERSONS AS PER NATIONAL, STATE, AND LOCAL REQUIREMENTS.

4.1 Inspecting the equipment



WARNING

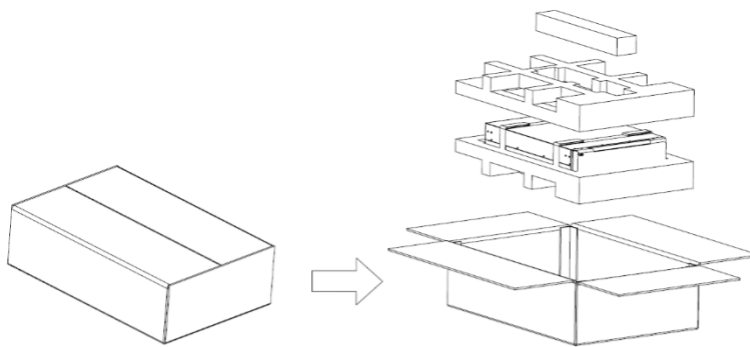
RISK OF FALLING: DISMANTLING THE UPS REQUIRES WORKING AT HEIGHT. TAKE THE NECESSARY PRECAUTIONS.

4.2 Unpacking the Unit



DANGER

UNPACKING THE UNIT IN A LOW-TEMPERATURE ENVIRONMENT MAY CAUSE CONDENSATION TO FORM BOTH INSIDE AND ON THE CABINET. DO NOT INSTALL THE UNIT UNTIL THE INSIDE AND OUTSIDE OF THE UNIT ARE DRY (RISK OF ELECTRIC SHOCK).



NOTE

IF ANY EQUIPMENT HAS BEEN DAMAGED DURING SHIPMENT, KEEP THE SHIPPING CARTONS AND PACKING MATERIALS FOR THE CARRIER OR PLACE OF PURCHASE AND FILE A CLAIM FOR SHIPPING DAMAGE. IF YOU DISCOVER THE DAMAGE AFTER ACCEPTANCE, FILE A CLAIM FOR CONCEALED DAMAGE



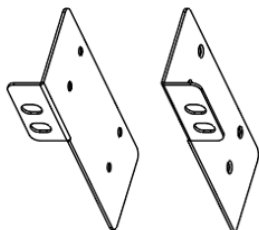
DISCARD OR RECYCLE THE PACKAGING IN A RESPONSIBLE MANNER OR STORE IT FOR FUTURE USE.

PACKING MATERIALS MUST BE DISPOSED OF IN COMPLIANCE WITH ALL LOCAL REGULATIONS CONCERNING WASTE. RECYCLING SYMBOLS ARE PRINTED ON THE PACKING MATERIALS TO FACILITATE SORTING.

4.3 Checking the accessory kit

Unpack the package and check the package contents. The shipping package contains:

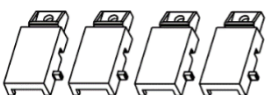
- Mounting ear (left) x 1, Mounting ear (right) x 1



- Mounting ear screws x 8
- Cable glands x 2 for 6K (x 3 for 10K)
- Temperature signal cable x 1
- Foot extend(long) x 4



- Foot extend(short) x 4



- Rail slide (left) x 1
- Rail slide (Right) x 1
- Screw(M6) x 14
- Nut(M6) x 4

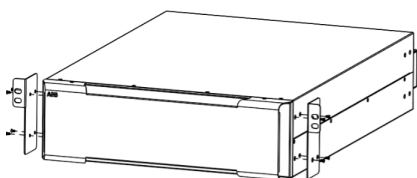


4.4 Installing the ISO TX

4.4.1 Installing in the rack position

4.4.1-1
Step 1

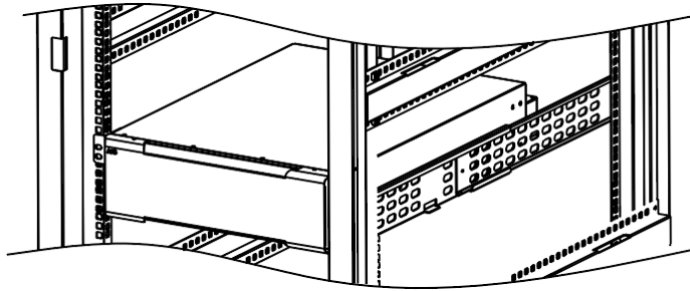
Step 1: Install mounting ears to the side mounting holes of the Transformer box using the screws provided, mounting ears should face forward.



4.4.1-1

—
4.4.1-2
Step 2

Step 2: Lift the Transformer box module and slide it into the rack enclosure. Install the Transformer box to the rack with screws, nuts through its mounting ears and into the rack rails.

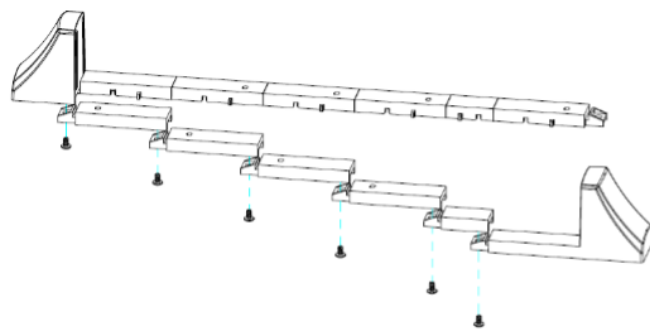


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4.4.1-2

4.4.2 Installing in the tower position

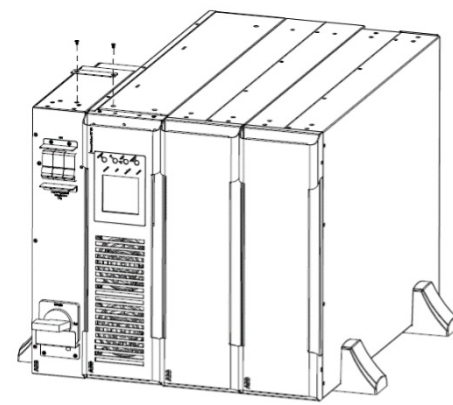
—
4.4.2-1
Step 1
—
4.4.2-2
Step 2

Step 1: Prepare the tower feet (UPS accessory) and extension feet, the extension feet depend on your system configuration. (Tower feet=2U, long extension=2U, short extension=1U).



—
4.4.2-1

Step 2: Place MBS(optional), UPS, EBM, and ISO TX on tower feet assembly.



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4.4.2-2

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4.4.3 Electrical installation:

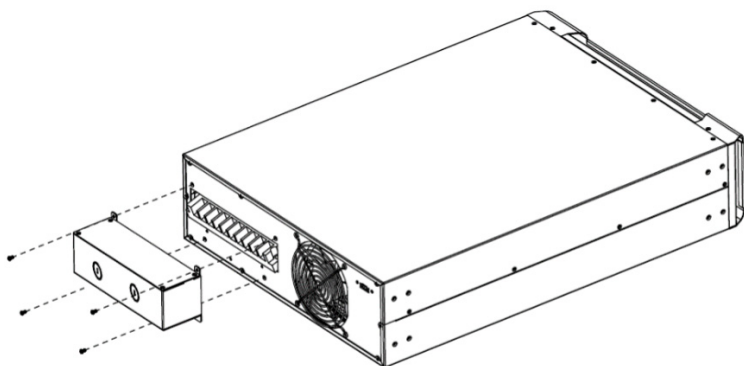
4.4.3-1
Step 2

Step 1: Prepare cables according to chapter 5.

Step 2: Remove the terminal cover from unit.

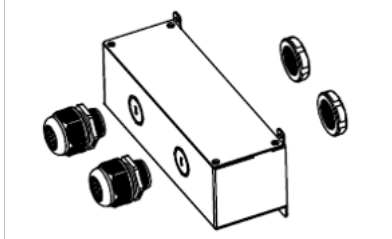
4.4.3-2
Step 3

4.4.3-3
Step 4



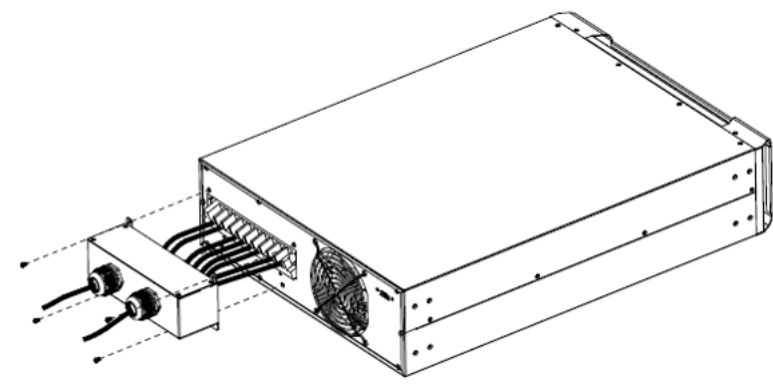
4.4.3-1

Step 3: Remove the knock-out hole of terminal cover, fix the Cable gland in it.



4.4.3-2

Step 4: Fix wires on terminal block as needed (terminal wiring details in the following paragraphs), through the cable gland, and assemble the terminal cover back on unit.



4.4.3-3

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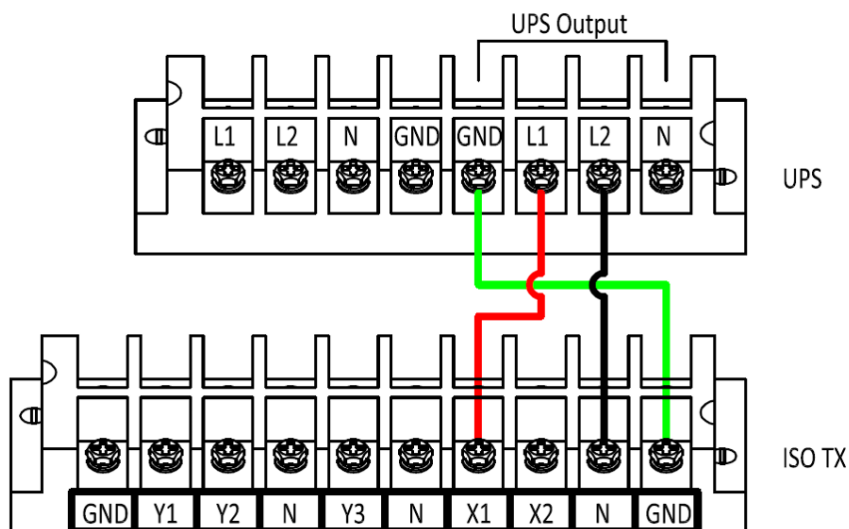
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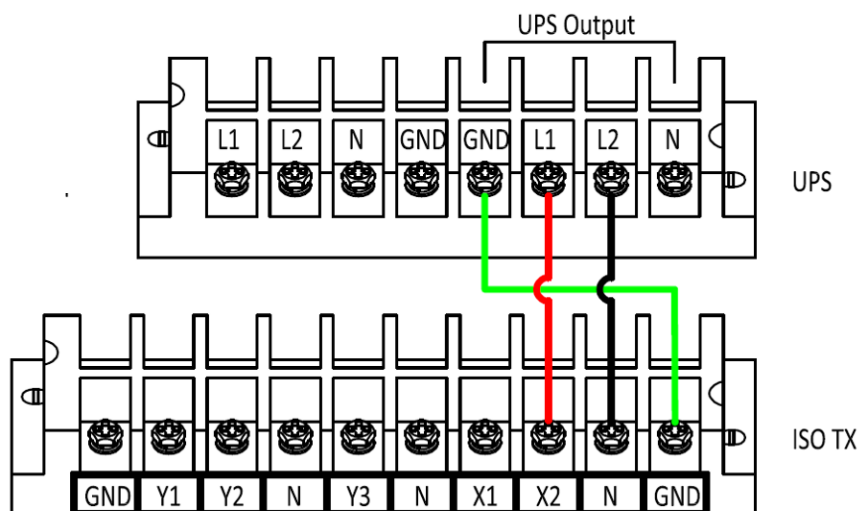
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Step 5: Connections between UPS output and ISO TX input are different according to the output voltage of UPS.

a) if the output voltage (L1 – L2) of UPS is 240V.

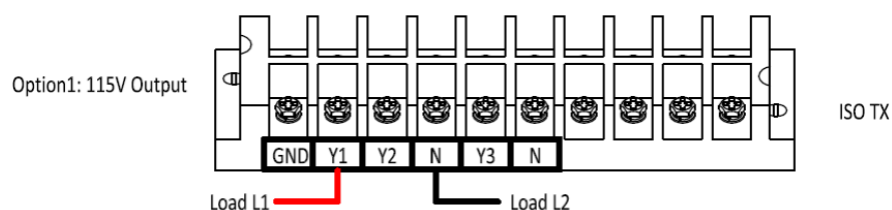
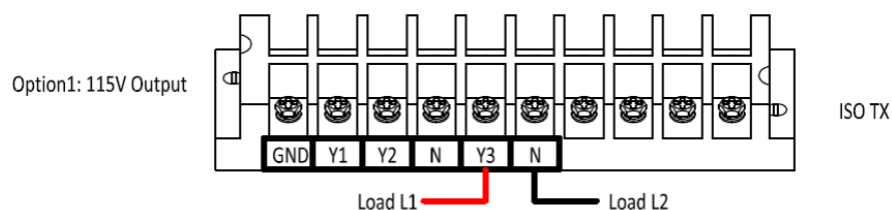


b) if the output voltage (L1 – L2) of UPS is 208V.

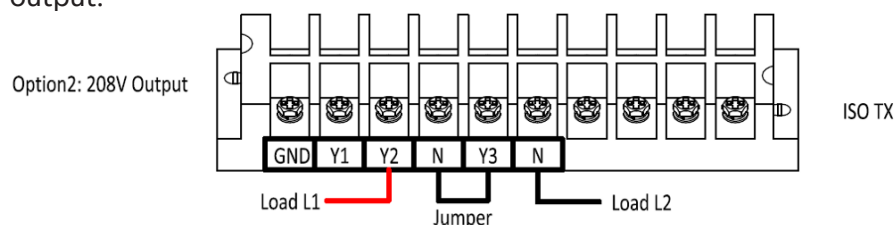


Step 6: There are 3 different output options for ISO TX.

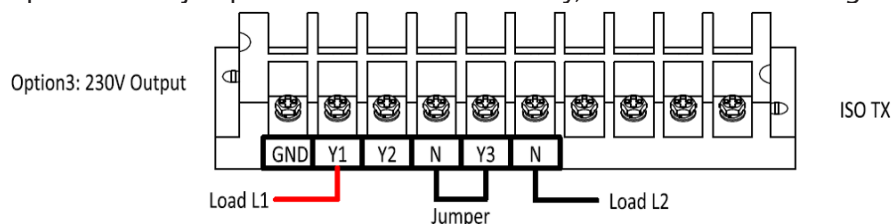
Option 1: Connect Y3 and N or Y1 and N to get 115V voltage output.



Option 2: Use jumper to short N and Y3 firstly, connect Y2 and N to get 208V voltage output.



Option 3: Use jumper to short N and Y3 firstly, connect Y1 and N to get 230V output.



Step 7: Connect the temperature signal cable between the temperature signal port of ISO TX and dry contact terminal of UPS.

Step 8: Connect the input cables of UPS according to related user manual.

5 Recommended cable cross-sections

	ISO TX 6K	ISO TX 10K
UPS to ISO TX [L1, L2, PE]	3 x 10AWG	3 x 8AWG
ISO TX Output [Load L1, Load L2, PE]	3 x 10AWG	3 x 8AWG
ISO TX Jumper	1 x 10AWG	1 x 8AWG

6 Specification

Power Module model list

Model	UPS rated power
ISO TX 6k/10k	6000VA (6000W) / 10000VA (10000W)

Weight and dimensions

Model	Net weight	Dimensions D x H x W
ISO TX 6k	70.75 kg / 156 lbs	616 x 131 x 438mm / 24.25 x 5.25 x 17.24 inches
ISO TX 10k	72.5 kg / 159.8 lbs	696 x 131 x 438mm / 27.4 x 5.25 x 17.24 inches

Electrical

ISO TX 6K / ISO TX 10K	
Rated input voltage	208 Vac / 240 Vac
Rated output voltage	115Vac / 208Vac / 240 Vac
Frequency	50 Hz or 60 Hz
Efficiency	92%
Isolation grade	Class H

Certifications

ESD	IEC 61000-4-2 Level 3
Low Frequency Signals	IEC 61000-2-2
RS	IEC 61000-4-3 Level 3
EFT	IEC 61000-4-4 Level 3
Surge	IEC 61000-4-5 Level 2 (Line-Line) IEC 61000-4-5 Level 3 (Line-Earth)
CS	IEC 61000-4-6 Level 3
Power Frequency Magnetic Field Immunity	IEC 61000-4-8 Level 4
Conducted	FCC CFR 47 Part 15 Class A
Radiated	FCC CFR 47 Part 15 Class A
Safety	UL 1778, CSA 107.3

ENVIRONMENTAL

Operating temperature	0°C to 40°C / 32°F-104°F
Storage temperature	-15°C to 60°C / 5°F-140°F
Relative humidity	5% to 95% no condensation
Operating altitude	<1000m (3281ft) for Nominal power, Over 1000m (3281ft) the power de-rating is 1% every 100m (328ft) 4000M (13123ft) max
Audible noise	58 dB

* for output cable < 10m.

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