

COTEK



SR-1600 Plus MBS (Manual Bypass Switch)

User's Manual

Telecom / Datacom

PURE SINE WAVE INVERTER

Legal Provisions

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1. Safety Instructions

1-1. General Safety Precautions



Warning! Before using the Inverter, read the safety instructions.

- Do not expose the inverter to rain, snow, spray or dust. To reduce the risk of fire hazard, do not cover or obstruct the ventilation openings and do not install the inverter in a zero-clearance compartment.
- To avoid the risk of fire and electric shock, make sure that the existing wiring is in good electrical condition, and the wire size is not undersized.
- This equipment contains components which can produce arcs or sparks. To prevent fire or explosion do not install in compartments containing batteries or flammable materials or in locations which require ignition protected equipment. This includes any space containing gasoline-powered machinery, fuel tanks, or joints, fittings, or other connection between components of the fuel system.
- Depending on the user scenario, the AC output of the inverter may require user installed breaker or fuse. In AC output hardwire application, AC socket will not be provided. The inverter incorporates standard AC short circuit protection.
- The following precautions should be taken when working on the inverter :
 - Step 1 Remove watches, rings, or other metal objects
 - Step 2 Use tools with insulated handles
 - Step 3 Wear rubber gloves and boots

1-2. Other Safety Notes

- Upon receipt, examine the carton box for damage. Notify the carrier immediately, before opening, if damage is evident.
- Do not operate near water or in excessive humidity.
- The DC side connections should be firm and tight.
- Grounding : Reliable grounding should be maintained.
- Do not drop a metal tool on the battery. The resulting spark or short-circuit on the battery or on the other electrical part may cause an explosion.
- Install the inverter in a well-ventilated area. Do not block the front air vents, or the rear air exhausts of the unit.
- Wiring : Adequate input power must be supplied to the inverter for proper use; correct wiring sizes must be ensured.
- Mount the inverter such that the fan axis is horizontal.
- Do not operate the inverter close to combustible gas or open fire.
- Do not operate appliances that may feed power back into the inverter.
- Temperature : The inverter should be operated in an ambient temperature range of -25℃ to 40 ℃ otherwise the output efficiency may be affected. Air flow to the inverter must not be blocked.

Electrical	Specification	Model No.
	Item	SR-3U63 MBS
AC Input	Nominal Voltage	230VAC
	Voltage Range (Full power rating)	150~265VAC \pm 3%
	Nominal Current	50A(63AMAX)
	Frequency	50 / 60 Hz
AC Output	Rating Power	50A(63A MAX)
Transfer Performance	NORMAL to TRANSFER	0 second
	TRANSFER to BY-PASS	0 second
	BY-PASS to TRANSFER	0 second
	TRANSFER to NORMAL	0 second
Environment	Operating Temp.	-25°C ~ 40°C; refer to SR-1600 PLUS power de-rating curve
	Storage Temp.	-40°C ~70°C
	Relative Humidity	95%, non-condensing
Others	Dimension	484.6 x 304 x 133 mm (19.1 x 12.0 x 5.2 in)
	Weight (net)	5.88 kg (13.0 lbs)

2. Mechanical Drawings (19" 2U)

Unit: mm [inch]

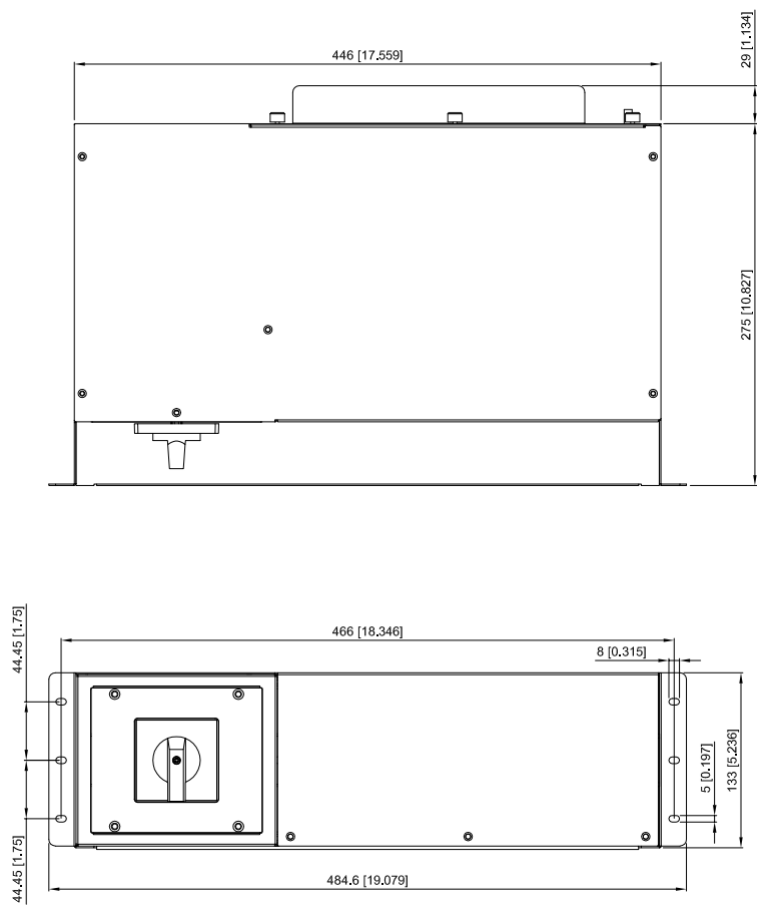
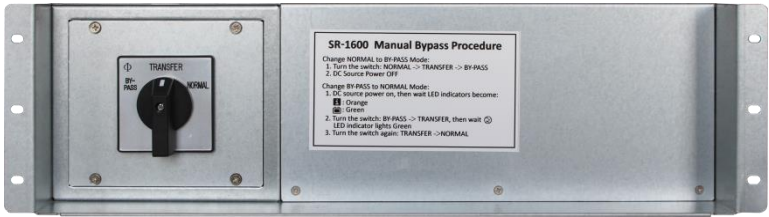


Figure 1. SR-1600 Plus MBS mechanical drawing

3. Introduction and Installation

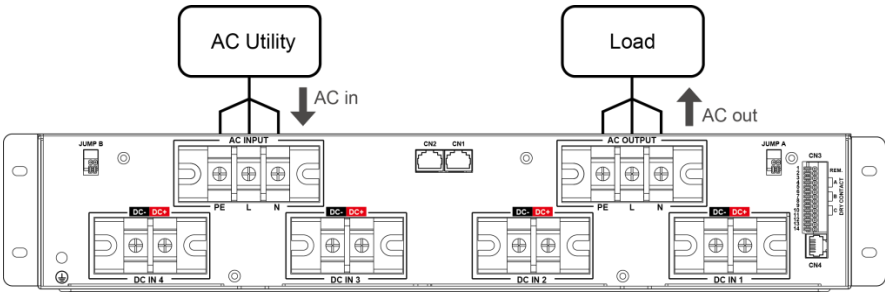
3-1. Introduction



NOTE: Please make sure the SR-1600 PLUS is in AC mode before operating with the MBS or it may cause damage to the SR-1600 Plus.

Description	Function
Normal ➡ By-pass	<div>1. Turn the switch : Normal ➡ Transfer ➡ By-pass</div> <div>2. DC Source Power off</div> <div>3. Remove the module</div>
By-pass ➡ Normal	<div>1. Plug in all the module</div> <div>2. DC source Power on, then wait LED indicators become : Green Orange</div> <div>3. Turn the switch By-pass ➡ Transfer, then wait & LED Indicator lights Green</div> <div>4. Turn the switch again : Transfer ➡ Normal</div>

SR AC-OUTPUT			LOAD CONNECTION			SR AC-INPUT			GRID		
	N	L		N	L		N	L		N	L
	11	9		8	6		4	2		3	1



Description			Function
1	SR AC-OUTPUT	GND	SR-1600 PLUS AC-OUTPUT PE
		N(11)	SR-1600 PLUS AC-OUTPUT NEUTRAL
		L(9)	SR-1600 PLUS AC-OUTPUT LINE
2	LOAD CONNECTION	GND	GROUND
		N(6)	NEUTRAL
		L(8)	LINE
3	SR AC-INPUT	GND	SR-1600 PLUS AC-INPUT PE
		N(4)	SR-1600 PLUS AC-INPUT NEUTRAL
		L(2)	SR-1600 PLUS AC-INPUT LINE
4	GRID	GND	GRID GROUND
		N(3)	GRID NEUTRAL
		L(1)	GRID LINE

3-1-1 Input / Output Terminal

AC Input / Output Terminal ④⑦

SR AC-OUTPUT

SR-3U63 MBS provides the AC utility input terminal at the rear side, and user can connect the AC cable at SR-1600 RACK(AC IN) L / N / PE. The SR-1600 PLUS support the AC input side internal parallel connection.

LOAD CONNECTION

The AC output terminal at the rear side of the SR-3U63 MBS. User can connect the LOAD L / N / PE.

SR AC-INPUT

The AC output terminal at the rear side of the SR-3U63 MBS. User can connect the SR-1600 RACK(AC OUT) L / N / PE.

GRID

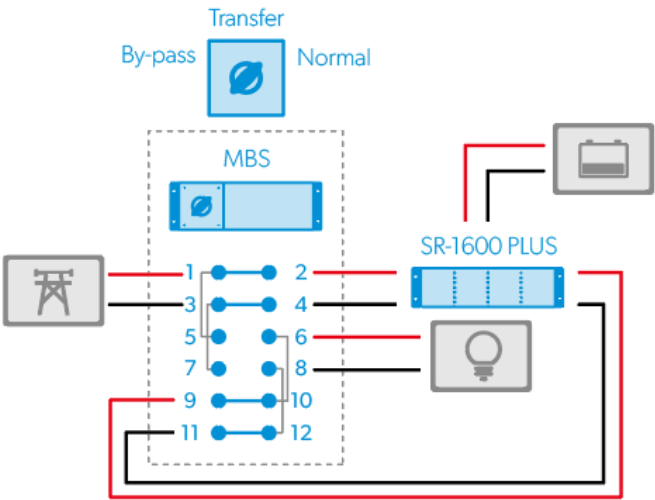
The AC output terminal at the rear side of the SR-3U63 MBS. User can connect the GRID(MAIN POWER) L / N / PE.

3-1-2 AC Cabling

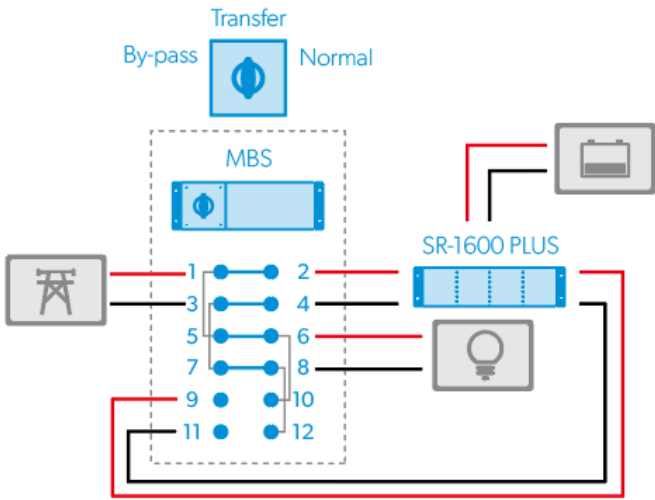
Interface		Wire Color	Wire AWG
SR AC-OUTPUT	Line (L)	Black	Breaker suggestion 200-240Vac : 50A/Shelf/8AWG
	Neutral (N)	White	
LOAD CONNECTION	Line (L)	Black	
	Neutral (N)	White	
SR AC-INPUT	Line (L)	Black	
	Neutral (N)	White	
GRID	Line (L)	Black	
	Neutral (N)	White	
Ground		Green-Yellow	6 ~16AWG

Table 1. AC cabling definition

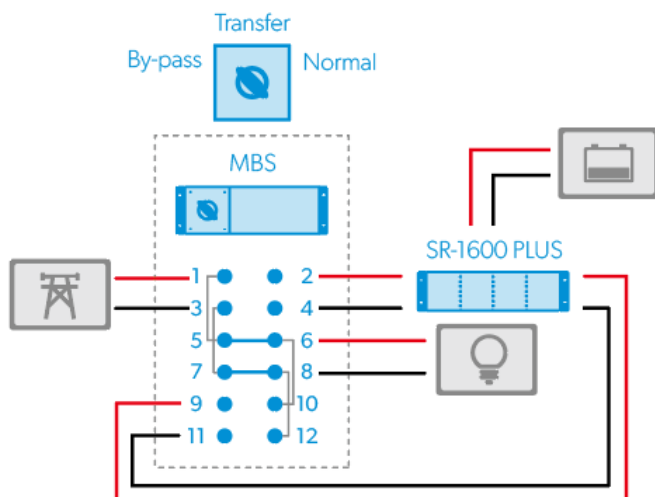
3-2. Installation



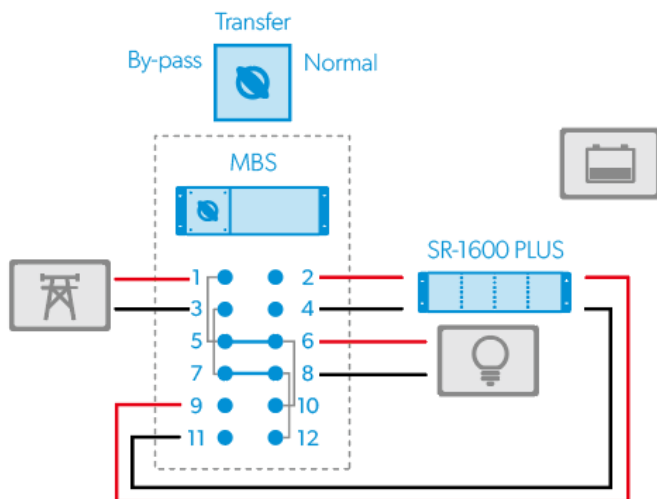
Turn the switch : Normal ➡ Transfer



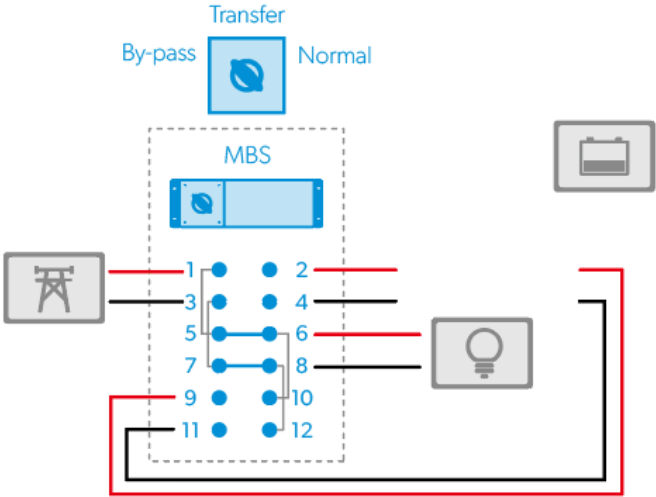
Turn the switch : Transfer ➡ By-pass



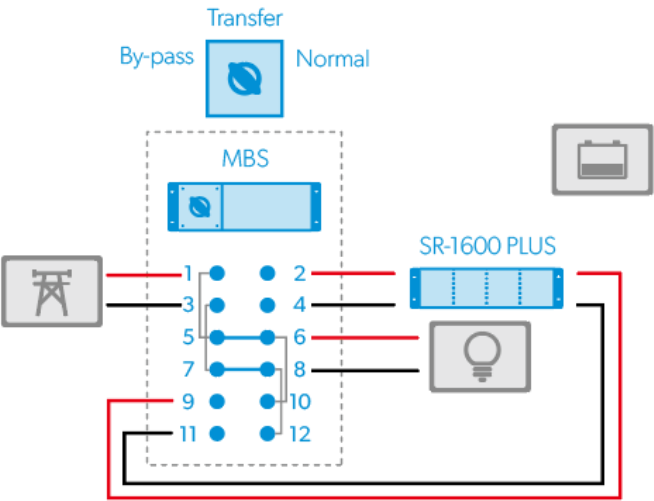
DC Source Power off



Remove the module

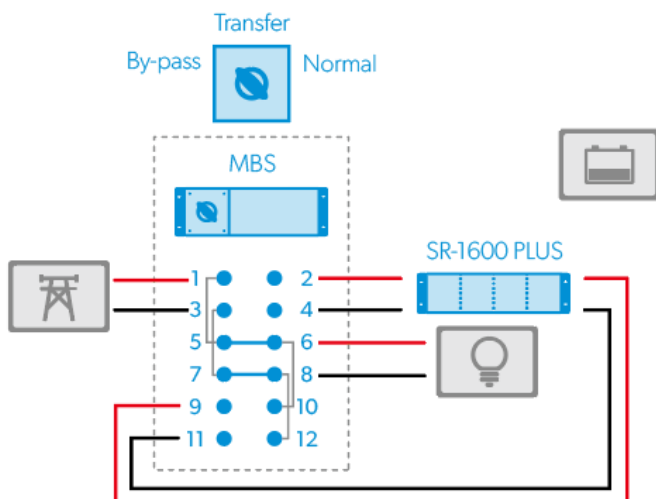




Plug in all the module

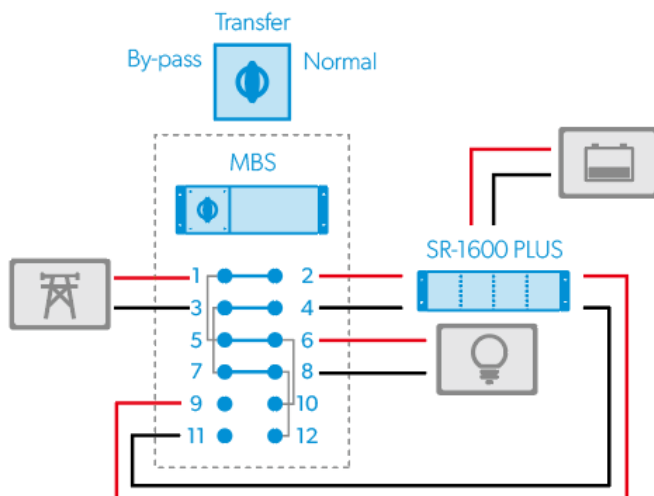


DC source Power on, then wait LED indicators become :

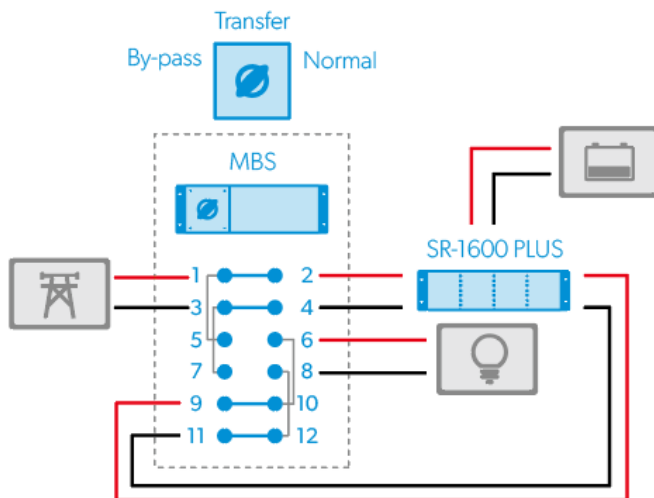
 Green  Orange



Turn the switch By-pass ➡ Transfer, then wait  &  LED Indicator lights Green



Turn the switch again : Transfer ➡ Normal



4. Warranty



Warning! Do not open or disassemble the Inverter. Attempting to do so may cause risk of electrical shock or fire.

We guarantee this product against defects in materials and workmanship for a period of 24 months from the date of purchase. In case you need to repair or replace any defective power inverters, please contact COTEK local distributor. This warranty will be considered void if the unit has been misused, altered, or accidentally damaged. COTEK is not liable for anything that occurs as a result of the user's fault.

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