HTS RESIDENTIAL AUTOMATIC TRANSFER SWITCH

OPERATION MANUAL

⚠WARNING The automatic transfer switch must be installed by qualified technical personnel. Improper installation may cause personal injury or equipment damage.

● SPECIFICATIONS

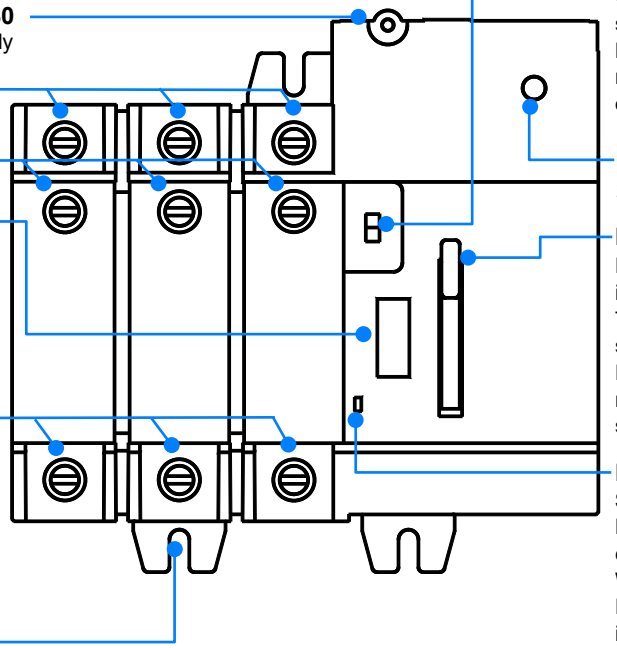
ELECTRICAL SPECIFICATION	
Operating Voltage (Ue)	110V：90 Vac to 125 Vac
	220V：180 Vac to 250 Vac
Rated Current (Ie)	80 Amp
Operating Frequency	45 to 65 Hz
Changeover Delay Time	2 – 30 seconds (Adjustable)
Static Power Consumption	Less than 0.3W
Load Category	AC-33A *1
Equipment Classification	Class PC *2

PHYSICAL SPECIFICATION	
HTS2P	736 g +/- 2% / 1.62 lb +/- 2%
Operating Temperature	-20 to +50 ˚C
Storage Temperature	-30 to +80 ˚C
Relative Humidity	90% max.

*1 **AC-33A**: Electric motor loads, or mixed loads including motors, resistive load and less than 30% incandescent lamps.

*2 **Class PC**: Capable of making and withstanding short-time short-circuit current, but not expected to break short-circuit current.

● OUTLINE DRAWING



Mounting holes for RS-80
for optional modules used only

Utility Power Input

Generator Power Input

Switch Position Indicator
N : Utility power to Load
E : Generator power to Load
OFF : Both Utility and Generator isolated to Load

Load Output
Recommended wire size and torque for Utility power, backup power input, and load output wiring:
Wire gauge: 4 AWG *3
Torque: 4 N·m *3

Mounting Holes
M4L8 Bolts

AUTO / MANU Selector
AUTO : HTS continuously monitors Utility and Generator power, prioritizing the Utility power supply automatically.
MANU : Disables automatic switching. If RS-80 module is installed, remote start signal remains open circuit.

Changeover Delay Time
2 – 30 seconds (Adjustable)

Manual Switching Handle
Repeatedly move the handle up and down until the indicator window shows the desired switch position. The HTS switch will cycle through the following sequence: **N → OFF → E → OFF.**
Ensure the function selector switch is in MANU mode before manual operation; otherwise, HTS will still auto-switch based on Utility power priority.

Fault Indicator
Steady On: Switching failure.
Flashing: Incorrect switch position, switching cannot be executed. *4
When fault indicator lights up, manually switch HTS to the desired position using the handle. The indicator will turn off and system operation restored. The ***AUTO／MANU Selector*** does not need to be changed.

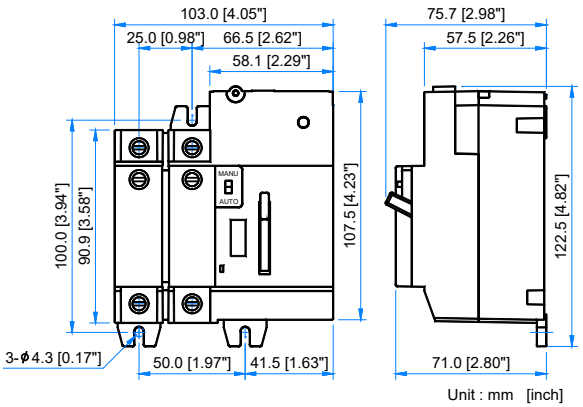
*3 : Improper wire gauge or tightening torque may lead to safety hazards. Insufficient torque can cause poor contact and overheating, resulting in equipment failure or fire; excessive torque may damage the terminal body and reduce system reliability.

*4 : Do not switch to the OFF position while in AUTO mode at any time. This may cause the HTS to fail to switch properly and the fault indicator LED will continuously flash.

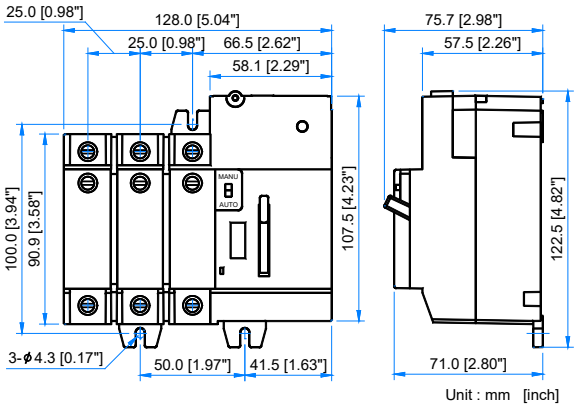
● INSTALLATION

1. For three-phase systems, ensure Utility and Generator power have the same phase sequence; mismatches may cause motor rotation issues.
2. HTS should be installed inside an insect-proof electrical enclosure, and should not be installed in environments subject to strong vibrations (e.g., small single-cylinder engine generators), excessive humidity, heavy dust, or corrosive gases.

● DIMENSIONS Unit：mm[inch]



HTS 2P



HTS 3P

★The HTS transfer switch has the same height as the BH-type MCCB.
The partition cutout dimensions in the distribution box are: HTS2P: 60 x 105 mm / HTS3P: 60 x 130 mm

● OPTIONAL ACCESSORIES – RS-80 Engine Remote Start Module

The RS-80 is a dedicated remote start module for HTS, providing dry contact output signals to the generator control unit for start or stop operations, as well as electrical signal outputs corresponding to the activation of the Utility or Generator power sources.

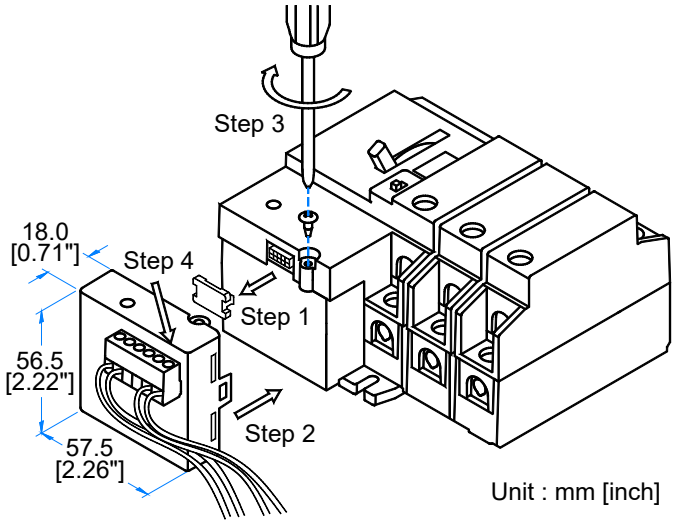
● SPECIFICATIONS

ELECTRICAL SPECIFICATION	
DC Input Voltage	9 to 36 Vdc
TDES Time Delay Engine Start (TDES)	2 to 10 seconds (adjustable)
Time Delay Engine Cool-down (TDEC)	10 seconds (fixed)
Static Power Consumption	Less than 0.3W
Remote Start Signal Output	4A @ 30Vdc max.
Utility / Generator Power to Load signal output	NPN Output 1.5A max.
Compatible Wire Size	24 to 18 AWG

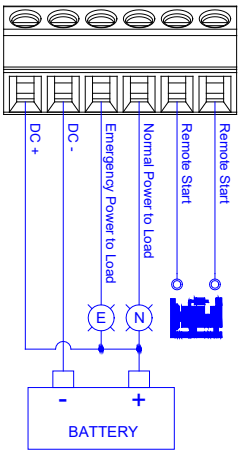
PHYSICAL SPECIFICATION	
Weight	41 g +/- 2% 0.09 lb +/- 2%
Operating Temperature	-20 to + 50 ˚C
Storage Temperature	-30 to + 80 ˚C
Relative Humidity	90% max.

● DIMENSIONS, INSTALLATION AND WIRING INSTRUCTIONS

Installation Steps：
Step 1: Remove the slot cap
Step 2: Insert RS-80 to slot
Step 3: Tighten the fixed screw
Step 4: Wiring (Refer to the wiring diagram)



Dimensions and Installation Diagram



Wiring Diagram

Caution: Ensure both Utility and Generator power sources of the HTS are disconnected, and the generator controller is in stop mode before installing, removing, or wiring the RS-80 remote start module.