

1. General Information

ATTENTION – READ FIRST

- This document is for quick guidance only. For details, please refer to the Energy Intelligence (EI) ATS Installation & Operations Manual.
- Damage caused by failure to follow the contents of the EI ATS Installation & Operations Manual is not covered by the warranty.
- Before installing this system, check that the package contents are intact and complete against the packing list. If any damage is found or any component is missing, contact your dealer.

1.1 Package Contents

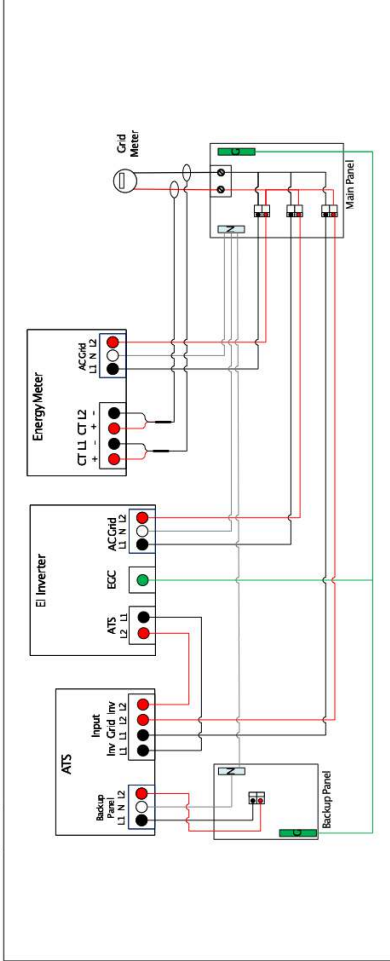
Item	Quantity	Box
TSS-50-US ATS	1	Box
Quick Start Guide	1	Box
Sleeve anchors	3	Bag
Mounting screws	2	Bag
O-type terminal	3	Bag
Wire ferrules	8	Bag
Keys	2	Bag
Mounting bracket	1	Box

1.2 Required Tools

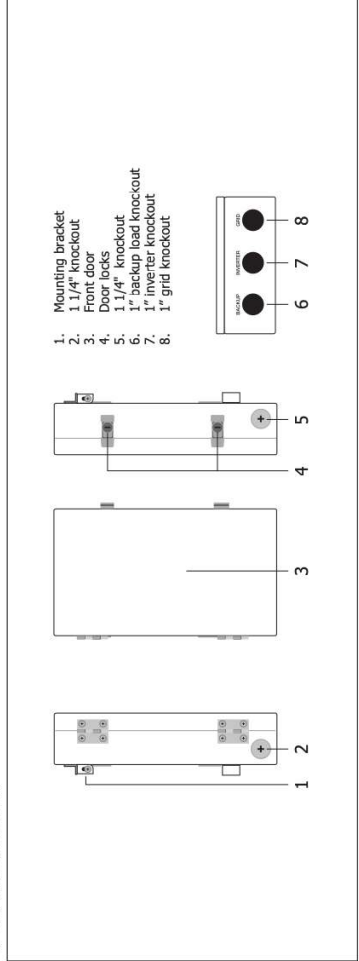
CAUTION – Use tools with insulated handles. Always wear appropriate PPE.

Item
Wire cutter/crimp tool
Screwdriver
Rubber mallet/hammer
Drill
Level

1.3 AC wiring diagram



1.4 EI ATS Overview

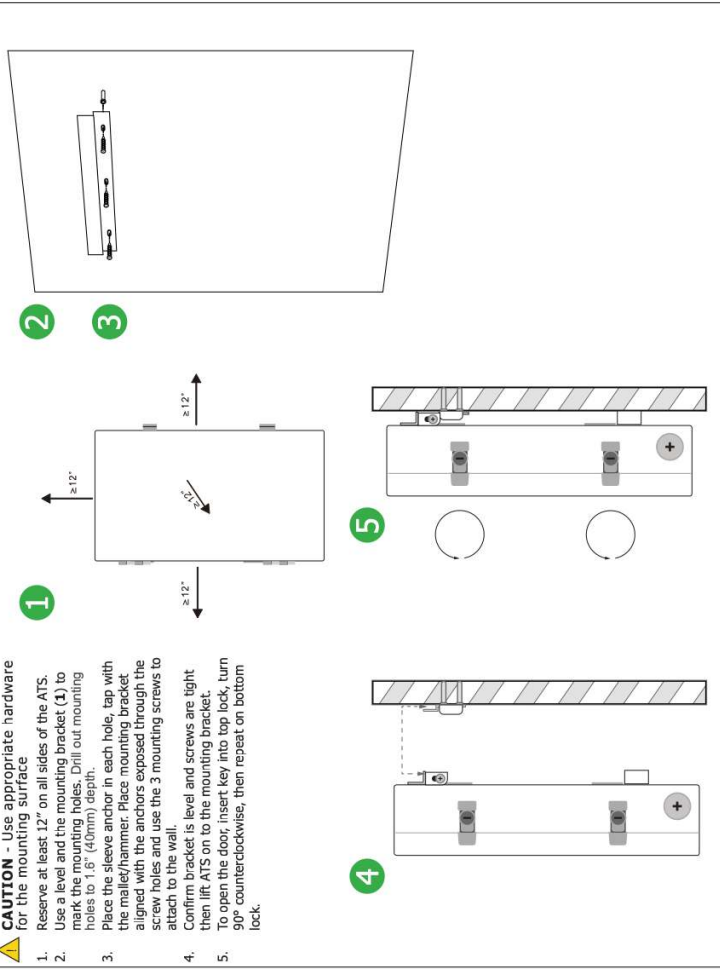


2. Installation

2.1 Mounting

CAUTION - Use appropriate hardware for the mounting surface

- Reserve at least 12" on all sides of the ATS.
- Use a level and the mounting bracket (1) to mark the mounting holes. Drill out mounting holes to 1.6" (40mm) depth.
- Place the sleeve anchor in each hole, tap with the mallet/hammer. Place mounting bracket aligned with the anchors exposed through the screw holes and use the 3 mounting screws to attach to the wall.
- Confirm bracket is level and screws are tight then lift ATS on to the mounting bracket.
- To open the door, insert key into top lock, turn 90° counterclockwise, then repeat on bottom lock.



3. Electrical connections

CAUTION - Check that all Disconnect switches are OFF before wiring. For personal safety, do not operate with electricity and always wear appropriate PPE.

3.1 Wire Schedule/preparation

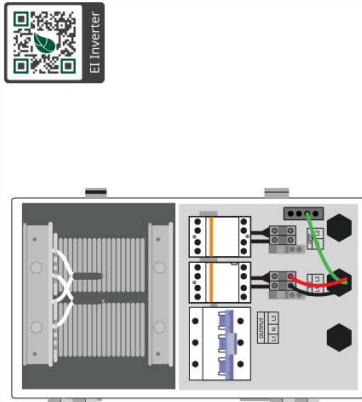
- To prepare the AC conductors (L1, L2, N), use the wire cutters to strip 15mm of insulation from one side of the conductor and crimp the wire ferrule to the end of the conductor.
- To prepare the ground conductors, strip 7mm of insulation (if using insulated conductors) from one side of the conductor and crimp the O-type terminal to the end.

Conductor	Quantity	Conductor Schedule	
		Type	Size
Grid	2	Min. 90°C rated, insulated, copper, solid or stranded (not fine stranded)	L1, L2: 10-6AWG
Inv Backup	2		L1, L2: 12-6AWG
Load	3		L1, L2, N: 10-6AWG
Load EGC	1	Min. 90°C rated, insulated or bare, copper, solid or stranded (not fine stranded)	EGC: 6AWG
Grid EGC	1		EGC: 6AWG
Inv backup EGC	1		EGC: 6AWG

3.2 Inverter connections

Note – Refer to section 3.4 Backup output connections in the EI Inverter quick start guide for the connection of these conductors in the inverter.

- Use the screwdriver to loosen screws in positions **R2** and **R8** at the inverter's **INV** inputs.
- Insert L1 and L2 of the INV backup conductors into the **INV** input terminals of **R2** and **R8**.
- Tighten to 2.5Nm.
- Use the screwdriver to secure the inverter-backup EGC to the grounding bus bar.

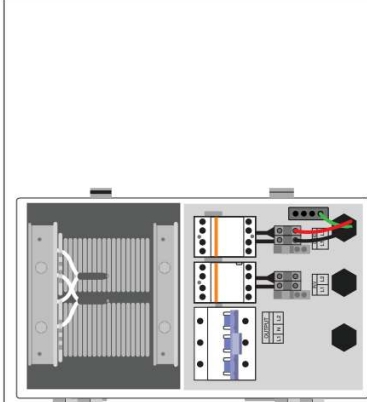


EI Inverter

3.3 Grid connections

CAUTION – Two control lines are terminated to positions 3 and 5 of the contactor. These are necessary for the operation of the ATS. **DO NOT REMOVE**.

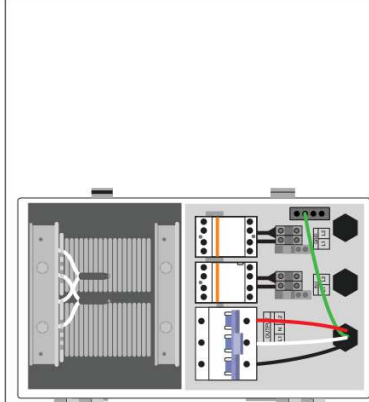
- Note** – The opposite end of the GRID conductors is fed from the main service panel by a 50A circuit breaker.
- Use the screwdriver to loosen screws in positions **4** and **6** at the contactor's **GRID** inputs.
 - Insert L1 and L2 of the GRID conductors into the **GRID** input terminals of **4** and **6**.
 - Tighten to 2.5Nm.
 - Use screwdriver to secure the GRID EGC to the grounding bus bar.



3.4 Backup connections

Note – The opposite end of the BACKUP load conductors feed the subpanel dedicated to backup loads.

- Use the screwdriver to loosen the three screws on the **BACKUP** terminals.
- Insert L1, L2, and N of the BACKUP load conductors into the **L1, L2,** and **N BACKUP** terminals.
- Tighten to 3.5Nm.
- Use screwdriver to secure the BACKUP EGC to the grounding bus bar.



4. Pre-power checklist

Check Item	Acceptance Criteria
ATS installation	The ATS is installed correctly, securely and reliably.
Conduit/Cable layout	Conduit/cables and conductors are routed properly, and as requested by the customer.
Cable connections	The AC output conductors, DC input conductors, and communications cables are labeled and connected correctly and securely.
Cable ties	Cable ties are secured evenly with no sharp protrusions.
Grounding	Ground conductors are connected correctly, securely and reliably.
Conduit connections	All conduit attachments are sealed and bonded, when necessary.
Unused conduit openings	Any unused conduit openings are fitted with waterproof caps or left unopened.
Disconnect switches	All external disconnect switches connecting to the ATS are in the OFF position.
Wirebox cleanliness	The wirebox is left clean and tidy.
Installation environment	An appropriate installation space had been chosen and the environment is left clean and accessible.

5. Commissioning

CAUTION – For personal safety always wear appropriate PPE.

After completing the Pre-power checklist, close the cover.

If the battery, inverter, backup load panel installations are already complete, the system may now be turned on for operation. Follow the EI Inverter's Commissioning Instructions (Section 6) to commission the system.

Keep the instruction manual and keys nearby.

6. Troubleshooting

Issue	Check
In grid-on operation the ATS does not switch over when there is loss of grid.	<ol style="list-style-type: none"> Turn OFF the EI Inverter and the grid. Open the ATS door and check the grid and INV conductors are properly connected to the correct terminals. If issues persist, please contact Tigo Customer Service team.
Backup load panel has no power.	<ol style="list-style-type: none"> Turn OFF the EI Inverter and the grid. Open the ATS door and check the control line, the INV and BACKUP conductors are properly connected to the correct terminals. If issues persist, please contact Tigo Customer Service team.

7. Your Customer Service Contact

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