

CTI Transfer Panel

OPERATORS INSTRUCTION MANUAL

GENERAL SAFETY INSTRUCTION

- > This system must always be installed and commissioned by competent and qualified personnel.
- > The maintenance operations must be carried out exclusively by authorised and appropriately trained personnel.
- > For more information see the Technical Instruction Manual.

GENERAL INTRODUCTION

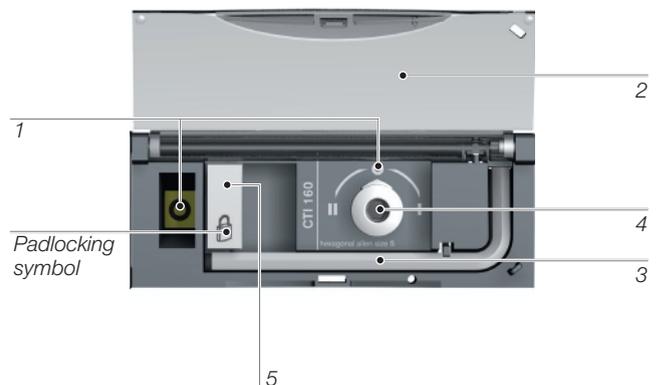
NEW CTI enclosure integrates a new 4-pole change-over switch including electronics' control to meet standard IEC 60947-6-1. CTI enclosure is also available to standard IEC 61439-2.



SWITCH MODULE INTERFACE

The new enclosure design allows switch module front panel direct access without opening of the enclosure for:

1. Visualization of the current changeover panel position.
2. Functioning mode selection (Cover closed = Automatic / Cover open = Manual).
3. Handle for manual operation.
4. Handle insertion in manual mode only to guarantee the transfer operation in any situation.
5. Padlocking mechanism only in manual mode.



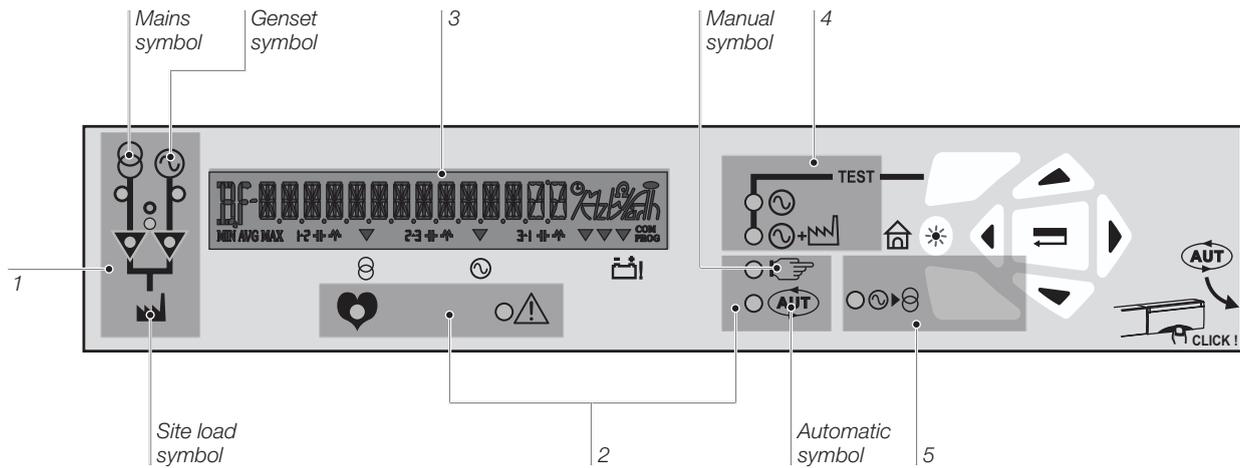
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ELETRONIC MODULE INTERFACE

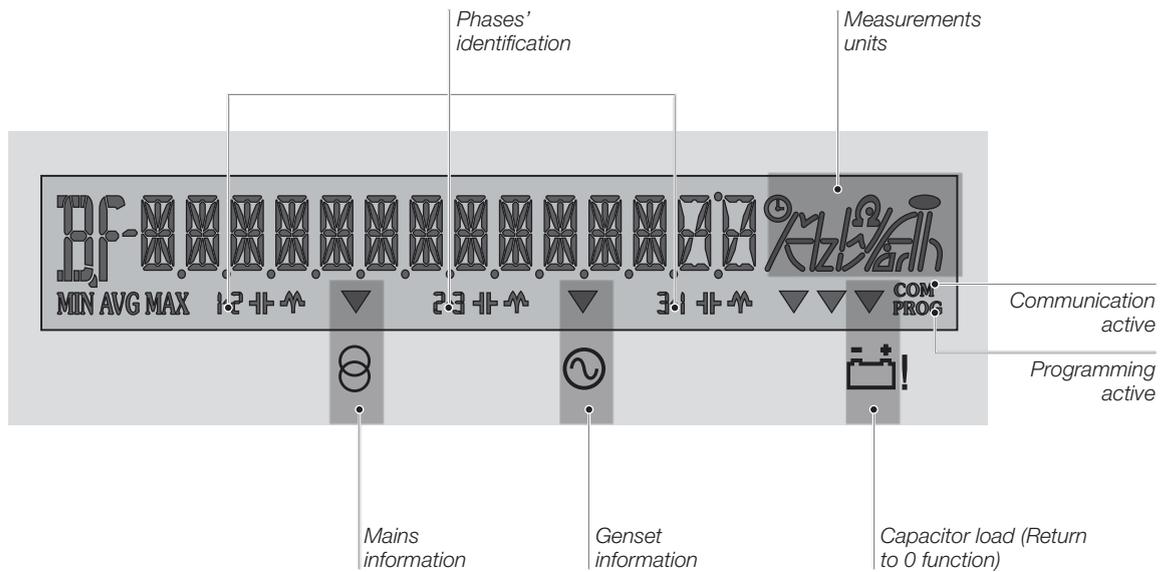
The electronic module, also accessible from the front panel, includes:

1. Sources monitoring by Led (Availability, Positions I-0-II).
2. Transfer switches monitoring by Led (Functioning modes, Power supply, Fault).
3. Metering (Voltage (V) and Frequency (F) as standard), Sequences' timers & settings display.
4. Tests operations (On load & Off load).
5. Retransfer Inhibit (RTI) Led and push button.



VISUALISATION

> Display



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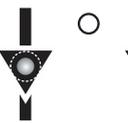
VISUALISATION

> Led

• Sources availability

| Sources | Available | Not available |
|---------|---|--|
| Mains |  Led on |  Led off |
| Genset |  Led on |  Led off |

• Automatic Transfer Switch positions

| Position I Mains | Position 0 | Position II Genset |
|--|--|--|
|  Led on |  Led on |  Led on |

• Operating modes

| AUTO | MANUAL |
|---|---|
|  Led on |  Led on |

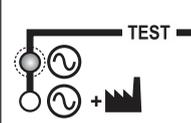
• Lamp test



> Timers

| Timer menu | | |
|--|--------------------------------|-----------|
| 1FT | Loss of mains validation timer | (3 sec) |
| Once mains has disappeared, 1FT is started. If Mains comes back before 1FT ends, the commutation cycle is not started. (Delay on Gen start.) | | |
| 2AT | Genset stabilisation timer | (5 sec) |
| Generator needs to be stable during 2AT to allow transfer from Mains. | | |
| 1RT | Mains Return validation timer | (180 sec) |
| Once Mains power has returned 1RT is started. If Mains power disappears before 1RT ends, the load is not switched back to the Mains. | | |

• Test modes

| On load | Off load |
|---|---|
|  Led on |  Led on |

• Retransfer inhibit function

| Active | Inactive | Blinking |
|---|---|-----------------------------------|
|  |  | Push the RTI button to retransfer |

• Power supply

| Active | Inactive | Blinking |
|--|--|------------|
|  Software Error |  Power supply off | Product OK |

• Fault synthesis

| Active | Inactive |
|--|---|
|  Product error |  Product OK |

| | | |
|--|-------------------|-----------|
| 2CT | Run on time timer | (180 sec) |
| Once the load is switched back from the Generator to the Mains, 2CT is started and the Generator will stop once 2CT is finished. (Allows generator cool down). | | |
| ODT | Dead Band timer | (3 sec) |
| This timer is counted down before transferring the load from the Mains source to the Generator or vice versa. | | |

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OPERATING

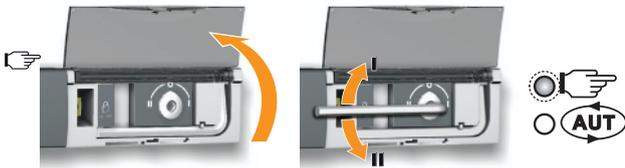
> Automatic



In Auto Mode:

- Possible:
 - the automatic changeovers.
- Not possible:
 - to insert the handle
 - to pull the padlocking mechanism.

> Manual



In Manual Mode:

- Possible:
 - to insert the handle and to operate manually.
- Not possible:
 - to operate electrically.

> Padlocking



In Padlocking Mode:

- Possible:
 - to padlock in position 0 with a standard configuration.
- Not possible:
 - to operate electrically
 - to select the auto mode.

** Please note padlock is not supplied with panel.*

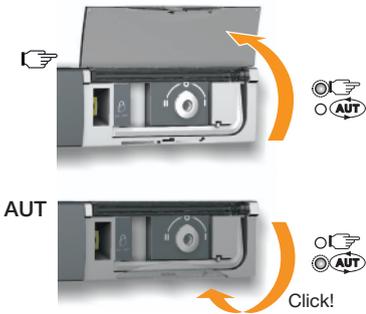
> Start/Stop group contact connection

Start Signal; Start & Stop (X & Y) should be connected to “control panel autostart signal”. Refer to control panel schematic for details.

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FAULT FINDING GUIDE

| Symptom | Step | Result |
|--|--|---|
| 01 Automatic operations availability. | 01 AUTO Led is on. | > NEGATIVE <ul style="list-style-type: none"> • Check that the switch has not been padlocked. • Check that the manual operating handle has been removed from housing. • Close the Auto/Manu front cover. • Then consult your local dealer. |
| | | > POSITIVE <ul style="list-style-type: none"> • Go to the next step. |
| | 02 Fault synthesis Led is off. | > NEGATIVE <ul style="list-style-type: none"> • Led is on Try to reset the product (see the instructions below). Then consult your local dealer. |
| | | <ul style="list-style-type: none"> • Reset  |
| | > POSITIVE <ul style="list-style-type: none"> • Go to the next step. | |
| 03 Power supply Led is blinking. | 03 Power supply Led is blinking. | > NEGATIVE <ul style="list-style-type: none"> • Consult your local dealer. |
| | | > POSITIVE <ul style="list-style-type: none"> • Go to the next symptoms. |
| 02 The mains availability. | 01 Mains availability Led is on. | > NEGATIVE <ul style="list-style-type: none"> • Check lamp test. • Check that the mains return timer (1RT) is still not counting down. • Check that the mains protection system (breaker) is on (Position 1). • Then consult your local dealer. |
| | | > POSITIVE <ul style="list-style-type: none"> • Go to the next steps or symptoms. |
| 03 The genset availability (genset supposed started). | 01 Genset availability Led is on. | > NEGATIVE <ul style="list-style-type: none"> • Check lamp test. • Check that the genset stabilisation timer (2AT) is still not counting down. • Check that the genset protection system (breaker) is on (Position 1). • Then consult your local dealer. |
| | | > POSITIVE <ul style="list-style-type: none"> • Go to the next steps or symptoms. |

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FAULT FINDING GUIDE

| Symptom | Step | Result |
|--|--|--|
| 04 The product doesn't transfer to the genset in case of mains failure or test on load. | 01 AUT Led is on & Fault synthesis Led is off & Power supply Led is blinking. | > NEGATIVE • Go to symptom 01. |
| | | > POSITIVE • Go to the next step. |
| | 02 Genset is started. | > NEGATIVE • Check that the mains failure timer (1FT) is still not counting down. • Check the genset control panel is set to the auto position. • Then consult your local dealer. |
| | | > POSITIVE • Go to the next step. |
| | 03 Genset availability Led is on. | > NEGATIVE • Go to symptom 03. |
| | | > POSITIVE • Consult your local dealer. |
| 05 The product doesn't transfer to the mains in case of mains return or test on load end. | 01 AUT Led is on & Fault synthesis Led is off & Power supply Led is blinking. | > NEGATIVE • Go to symptom 01. |
| | | > POSITIVE • Go to the next step. |
| | 02 Mains availability Led is on. | > NEGATIVE • Go to symptom 02. |
| | | > POSITIVE • Go to the next step. |
| | 03 Retransfer inhibit (RTI) function is off. | > NEGATIVE • Push the RTI push button:  |
| | | > POSITIVE • Consult your local dealer. |
| 06 Genset keeps on running after mains restores and switch retransfers to the mains position. | 01 AUT Led is on & Fault synthesis Led is off & Power supply Led is blinking. | > NEGATIVE • Go to symptom 01. |
| | | > POSITIVE • Go to the next step. |
| | 02 The run on time timer (2CT) is still counting down (visible on the display). | > NEGATIVE • Check the genset control panel is set to the auto position. • Then consult your local dealer. |
| | | > POSITIVE • Wait for the 2CT end. |

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FAULT FINDING GUIDE

| Symptom | Step | Result |
|--|---|--|
| 07 Switch manual operations are not possible. | 01 The manual operation is possible | > NEGATIVE • Check the required rotation of the switch • Check that the sufficient torque has been applied. • Then consult your local dealer. |
| | | > POSITIVE • Goal reached. |
| 08 Switch padlocking operations are not possible. | 01 Possible to pull the padlocking mechanism | > NEGATIVE • Check that the product is in the 0 position for standard configuration. • Then consult your local dealer. |
| | | > POSITIVE • Goal reached. |

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CONDITIONS OF USE



Hygrometry:

- 80% humidity without condensation at 55 °C
- 95 % humidity without condensation at 40 °C



Temperature:

- -10 +40 °C without de-rating
- +40 +65 °C with de-rating*



Ingress Protection:

- Enclosed: IP41
- Loose: IP2x



Storage:

- Temperature -20 to +40 °C
- Period: 1 year max



Power input:

- $V_n = 230\text{Vac} \rightarrow [160 / 305\text{Vac}]$

* For de-rating information see Instruction Manual.

INSTRUCTION MANUAL REFERENCE

> For detailed instruction & installation guide, please refer to:

