ATSC25
ATS Controller

1. GENERAL SAFETY INSTRUCTIONS

- This manual provides instructions on safety, connections instructions on the ETI ATSC25 ATS controller

- Weather the ATSC25 is sold as a loose product, as a spare, in a kit or as part of an enclosed solution or in any other configuration, this device must always be installed and commissioned by qualified and experienced personnel, in line with the manufacturers recommendations, following good engineering practices and after having read and understood the details in the latest release of the relative product instruction manual.

- Maintenance on the product and any other associated equipment including but not limited to servicing operations must be performed offload by adequately trained and qualified personnel using the appropriate protection equipment.

- Each product is shipped with a label or other form of marking including rating and other important specific product information. One must also refer to and respect markings on the product prior to installation and commissioning for values and limits specific to that product.

- Using the product outside the intended scope, outside ETI recommendations or outside the specified the specified ratings and limits can cause personal injury and/or damage to equipment.

- This instruction manual must be made accessible so as to be easily available to anyone who may need to read it in relation with the ATSC25.

- The ATSC25 meets the European Directives governing this type of product and includes CE marking on each product.

- No covers on the C25 should be opened (with or without voltage) as there may still be dangerous voltages inside the product such as those from external circuits.

- Do not handle any control or voltage sensing cables connected to the ATSC25 when voltage may be present on the product directly through the mains or indirectly through external circuits.

- Voltages associated with this product may cause injury, electric shock, burns or death. Prior to carrying out any maintenance or other actions on live parts in the vicinity of exposed live parts, ensure that the switch including all control and associated circuits are de-energized.

⚠ DANGER	⚠ WARNING	⚠ CAUTION
RISK: Electric shock, burns, death	RISK: Possible personal injury	RISK: Equipment damage

The information provided in this instruction manual is subject to change without notice, remains for general information only
and is non-contractual.

Abbreviation and terms:

ATS : Automatic transfer switch (as defined in 60947-6-1)

ATSE : Automatic transfer switching equipment (as defined in 60947-6-1)

RTSE : Remotely operated transfer switching equipment (as defined in 60947-6-1)

HMI : Human machine interface (includes DIP switch and LED information available on the ATSC25 front face).

2. STANDARDS

- As a minimum the ATSC25 comply with the following international standards:

    o IEC/EN 60947-6-1*
    o IEC/EN 60947-1
    o IEC/EN 61010-2-201
    o IEC/EN 61010-2-030
    o IEC/EN 61010-
    1 o GB/T
    14048.11*
    o GB/T 14048.11 Annex
    C o EMC 60947

- The Electromagnetic compatibility (EMC) directive 2004/30/UE

- LVD Low voltage directive 2014/35/UE

- EMC according to IEC/EN 60947-6-1 and GB/T 14048.11 (including annex C) & IEC / EN 61326-1 standard

- Vibration according to IEC 60068-2-6 / GB/T 2324.10

- Shock test according to IEC 60068-2-27 / GB/T 2324.5

- Dry heat 16 h , 70 °C according to IEC 60068-2-2 / GB/T 2324.2

- Damp heat at 55°C according to IEC 60068-2-30 / GB/T 2324.4

- Low Temperature 16 h, -25 °C according to IEC 60068-2-1 / GB/T 2423.1

- Salt mist severity 1 according with IEC 60068-2-52 / GB/T 2423.11

3. INTRODUCTION

ATSC25 "ATS Controller" in association with an RTSE (Remote transfer switching equipment) forms an ATSE (Automatic transfer switching equipment), the ATSE formed by the association is designed for use in power systems for the safe transfer of a load supply between a normal and alternate source. When associated with ETI RTSE the changeover is done in open transition insuring full compliance with IEC 60947-6-1, GB 14048-11 and other international standards as listed. As a standalone product the ATSC25 is compliant with IEC 61010-2-201 and is compatible with use with PC and CC type RTSE.

ATSC25 "ATS Controller" Ensures:

- Monitoring of the availability of a Normal and Alternate source
- Supply to the controller and switch from the Normal or Alternate source
- Transfer orders to the RTSE and position reception from the RTSE
- A complete solution fully tested with ETI RSTE
- Intuitive HMI for emergency/local operation
- Clearly visible and indicated HMI
- Suitable for door mounting on the enclosure or DIN Rail mounting inside the enclosure
- Inherent electrical interlock between position orders
- Monitoring of the RTSE stable positions (I – 0 – II)
- Strait forward installation with effective ergonomics
- Power supply continuity for most Utility / Generator or Utility / Utility network applications when linked to an RTSE (Remotely operated transfer switches).
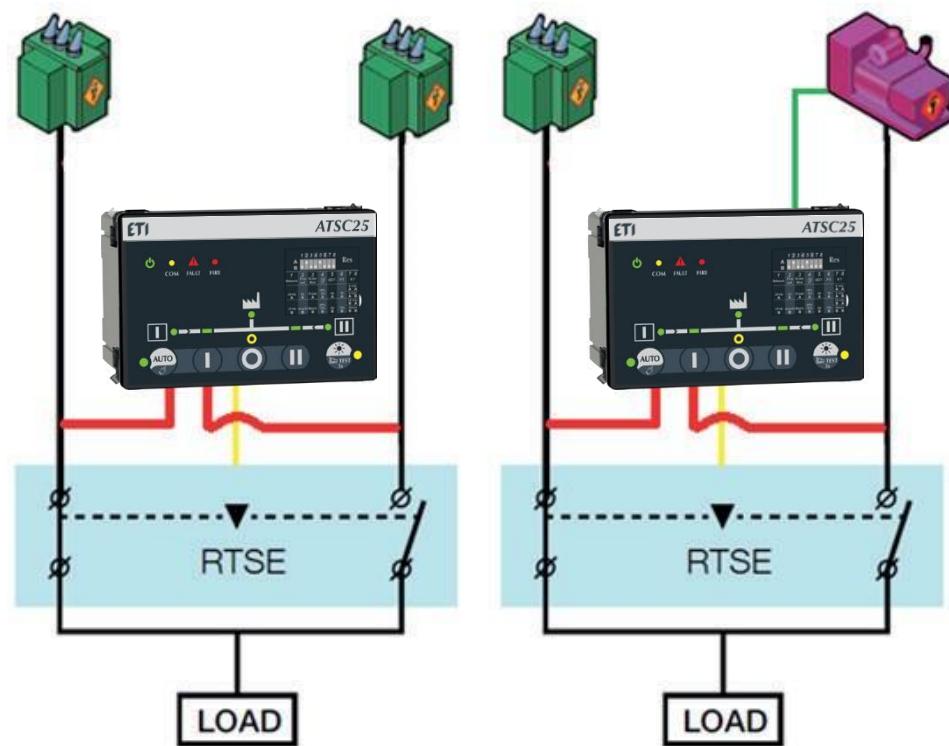
4. GENERAL OVERVIEW

4.1 Product identification
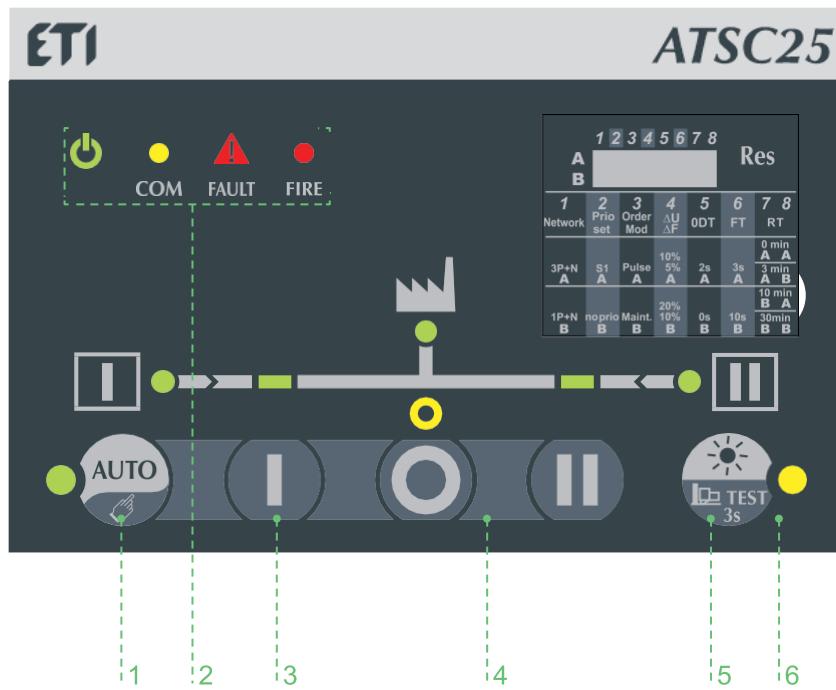
1. AUTO/Manual selector
2. Controller state LED
3. Remote position order selector
4. ATSE Synoptic
5. Test function selector
6. DIP switch programing

1. Source 1 availability information (Green fixed when source 1 is present and available within threshold limits, green blinking when source 1 is present but outside of threshold limits, off when under 50VAC).
2. Switch 1 LED position indication (Green fixed when in position 1).
3. Zero position LED indication (Yellow when in position 0).
4. Load supplied information (Green fixed when load is supplied by an available source)
5. Switch 2 LED position indications (Green fixed when in position 2).
6. Source 2 availability information (Green fixed when source 2 is present and available within threshold limits, green blinking when source 2 is present but outside of threshold limits, off when under 50VAC).
7. Auto LED indication (Green fixed when in automatic, blinking when a transfer is ongoing, off when in manual mode or inhi- bited or fault is ongoing).
8. Test LED (Yellow fixed when test on load is ongoing).
9. Configurations dip switches (8 dip switches with 2 positions A and B.
10. Run LED (Green when product is powered).
11. COM LED (yellow blinking when RS communications is ongoing).
12. Fault LED (Red blinking – long blink when fault or product in inhibited, fast blink when a dip switch parameter has been changed and needs validation).
13. Fire (Red when fire input is activated).

See Annex I page 29 for more details on the LED indicators

· 4.3 Environmental

The ATSC25 controllers meet the following environmental requirements:

- IP Rating

IP degree according to IEC 60529

- P4X on the front face when door mounted.
- IP2X on the back of the controller.

- IK Rating

IK rating according to IEC 61010-2-201

- IP4X on the front face when door mounted
- IP2X on the back of the controller

- Operating Conditions

- From -25 to + 60°C
- 95% humidity without condensation at 40°C according to IEC 61010-1
- 95% humidity without condensation 50°C according to GB14.11 Annex Q

- EMC

- · IEC/EN 60947-6-1 and GB/T 14048.11 (including annex C) standards
- · IEC / EN 61326-1

- Altitude

- Up to 2000m

- Storage Conditions

- From -30 to +70°C
- Maximum storage up to a period of 12 months
- To be stored in a dry, non-corrosive and non-saline atmospheric conditions
- A maximum of 3 boxes may be stacked vertically

- Volume and shipping weights

- Volume LxWxH (mm): 172x128x154.5
- Weight : 850 g

- Lead free process
  - The ATSC25 complies with :
  - The UE directive for RoHS 2 2011/65/UE
  - The UE directive RoHS 3 2015/863/UE
  - China RoHS 2 SJ/T 11364-2014

- WEEE
  - The ATSC25 is built in accordance with 2012/19/EU directive:

- Pollution class
  - Pollution class II

- Other compliances and marking

4.4 CONTENT OF PACKAGING

The C25 packaging includes:

- 1 C25 controller
- 1 C25 quickstart guide
- All connector
- Door mounting clips

All other products described in this instruction sheet are delivered and sold separately.

· 5.1 Product dimensions

dimensions in mm.
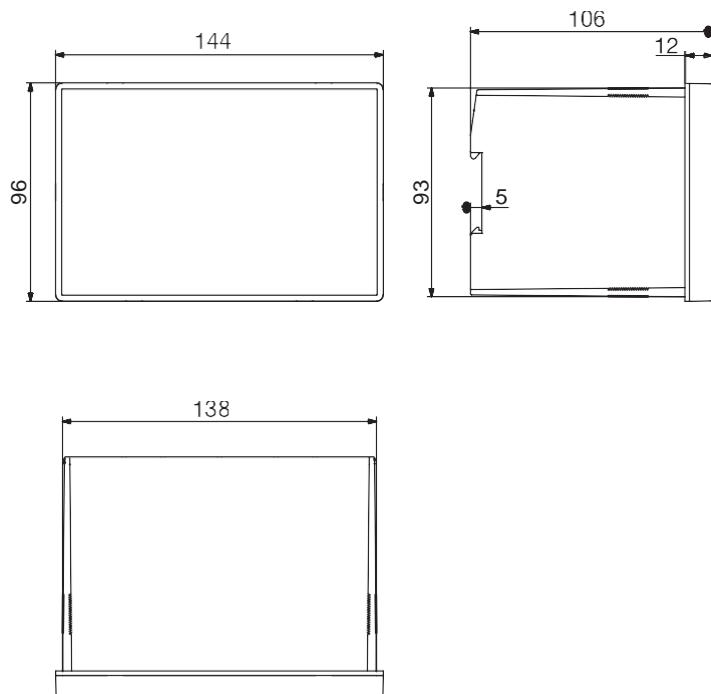
· 5.2 Mounting

· Door mounting

Door cut-out of 93(+0.8) x138(+1) mm, door thickness 1.5- 3mm.

Remove all connectors and clip before inserting the controller in the cut-out then fix the controller in place using all 4 fixations clips (cf. image below):
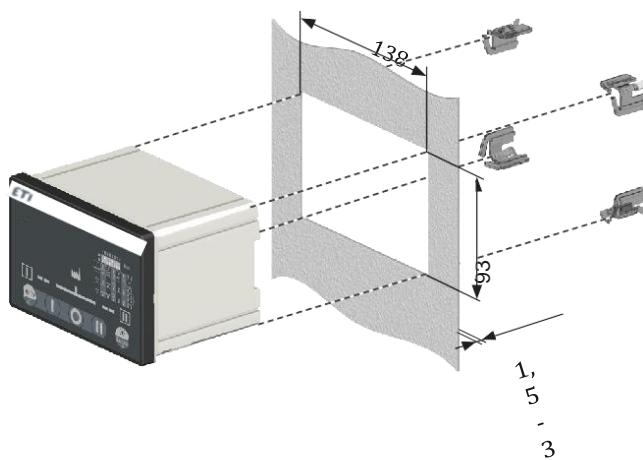
- ## DIN RAIL mounting

Install on IEC 60715 Standard Din RAIL.

When mounting make sure both clips are pushed up, then clip on the DIN Rail.

To remove from the DIN Rail, drag the two mounting clips down before removing the product.
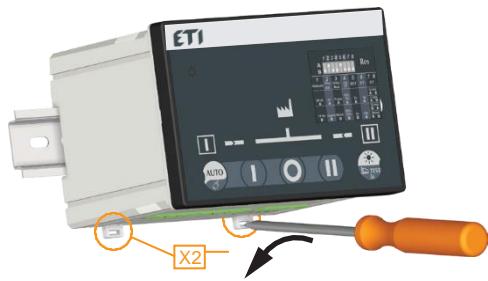
- ## 6.1 Networks

- ### Type of networks

1P +N :

The C25 is suitable for single phase networks, for with voltages within 184-300 V.a.c Ph-N

In these networks, the phase must be connected to the L1 input (terminal 104 for source 1 and 204 for source 2).
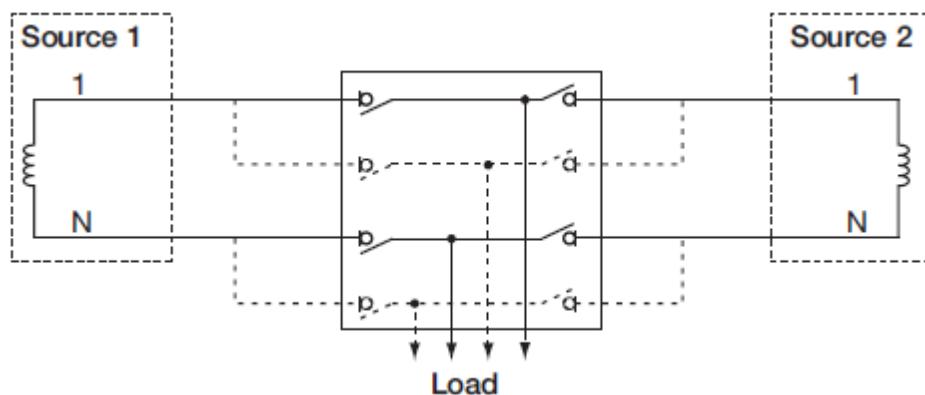
3P+N:

The ATSC25 is suitable for three phase with neutral networks, for with voltages within 184-300 V.a.c Ph-N and 318-520 PH-PH.

In these networks, the phase must be connected to the L1 input (terminal 104 for source 1 and 204 for source 2).
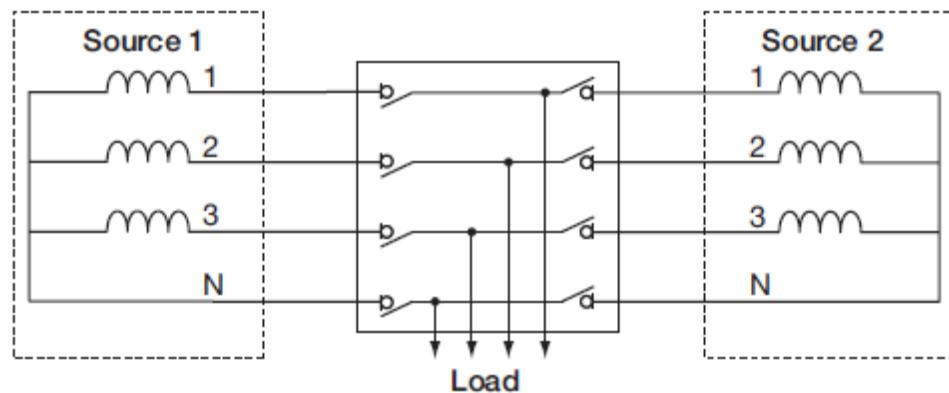
- Metering and sensing detail

Network type			
		1P	3P+N
Source 1		1 phase 2 wire	3 phase 4 wire
Source 2			
Source 1			
Source 2			
Voltage sensing			
Source 1		- V1	U12, U23, U31 V1, V2, V3
Source 2		- V1	U12, U23, U31 V1, V2, V3
Source presence (source available)		✔	✔
Source in ranges (U, V, F)		✔	✔
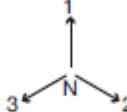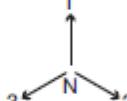
⚠	**CAUTION**	**In 3 phases with Neutral balanced networks, there is a risk that the loss of neutral will not be detected.** **To limit this risk the Dip switch 4 (Hysteresis) can be switched to position A. (Cf chapter 7-5 programing).**

- ## 7.2 Connections

TOP
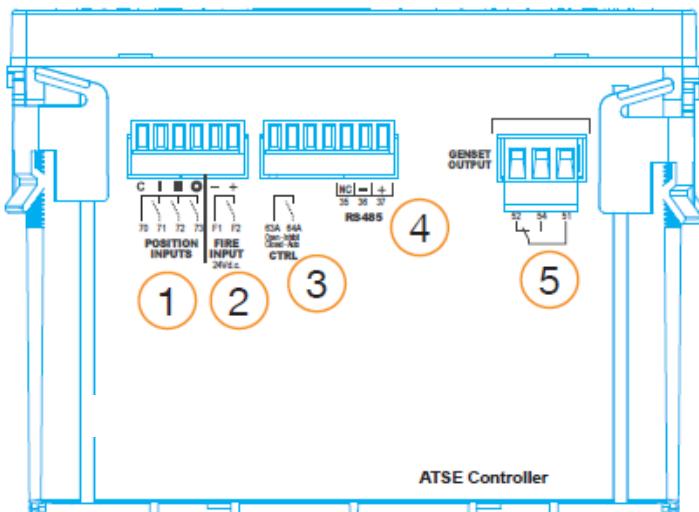
BOTTOM
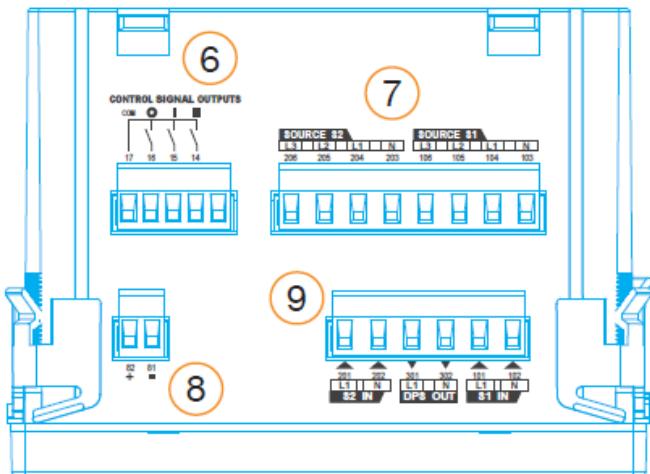
1. RTSE position feedback input
2. 24 V.d.c fire input
3. Enable control when closed / disable control when open
4. RS485 connections
5. Genset Start relay
6. RTSE position control outputs
7. Source 1 and 2 voltage inputs
8. 24 V.d.c Aux supply
9. External DPS – Input / output

For additional connection diagrams (MLBS 4P 63...125, Contactors , etc..) see ANNEX I
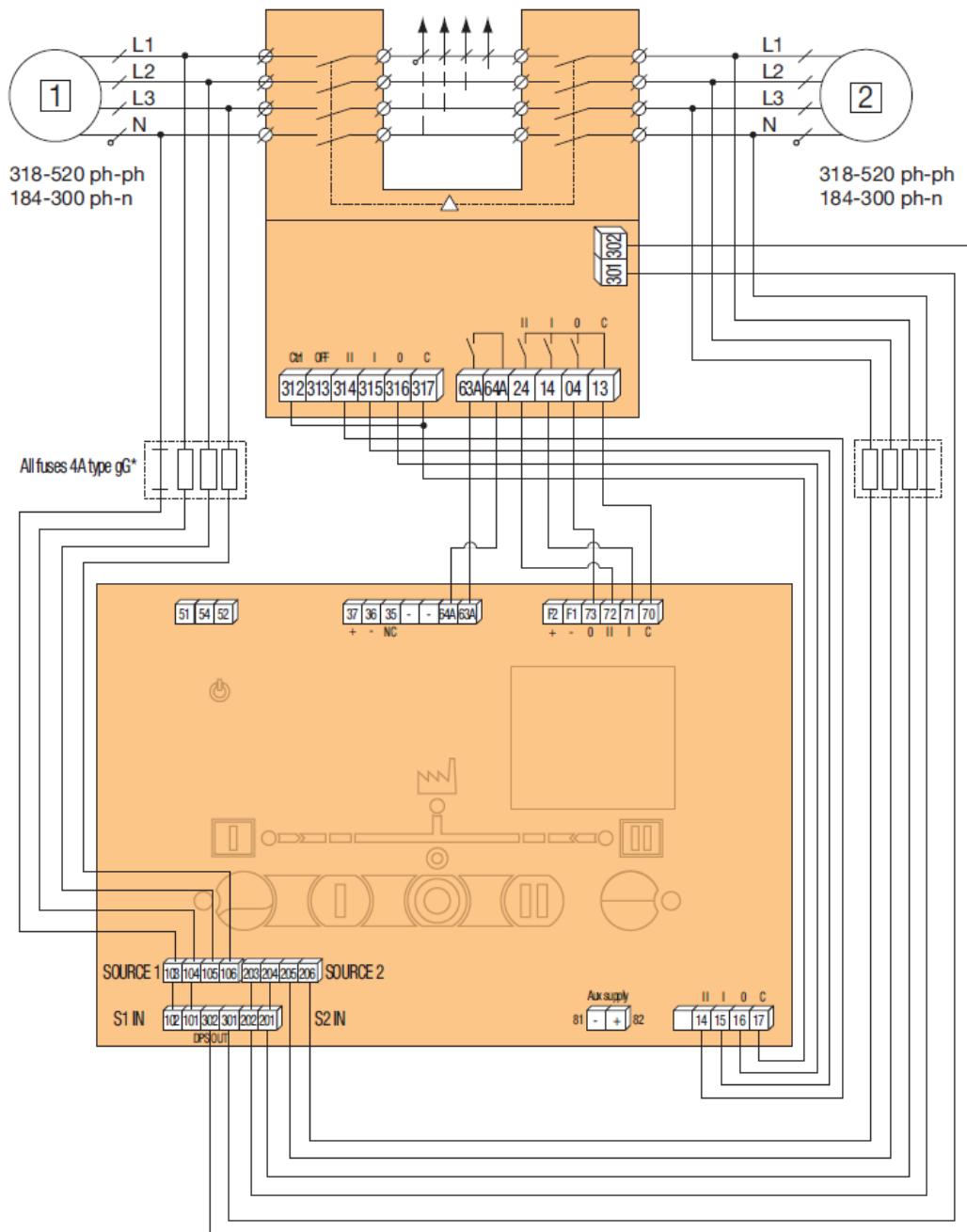
6.3 Terminal denomination, description and characteristics

Denomination	Terminal	Description	Characteristics	Recommended Cable section	Tightening torque / screw type
Control signal outputs (orders to RTSE)	14	Position II order	AC1 – General use – Ie: 5A, Ue: 250 V.a.c DC1 – General use – Ie: 5A, Ue: 30 V.d.c AC15 - Ie: 3A, Ue: 120 V.a.c AC15 - Ie: 1.5A, Ue: 240 V.a.c DC13 - Ie: 0.22A, Ue: 125 V.d.c DC13 - Ie: 0.11A, Ue: 250 V.d.c	1-2.5mm²	0.58 Nm
	15	Position I order			
	16	Position 0 order			
	17	Common point for position output			
RS485	35	NC – Not connected	RS485 Isolated bus		
	36	Negative electrode			
	37	Positive electrode			
Genset output	51	Common point	AC1 – General use – Ie: 3A , Ue: 250 V.a.c DC1 – General use – Ie: 3A , Ue: 30 V.d.c AC15 - Ie 54/51: 3A 52/51: 1.5A Ue: 120 V.a.c AC15 - Ie 54/51: 1.5A 52/51: 0.75A Ue: 240 V.a.c DC13 - Ie 54/51: 0.22A 52/51: 0.22 A 125 V.d.c DC13 - Ie 54/51: 0.11A 52/51: 0.11 A 250 V.d.c		
	52	Closed to start the Genset (closed when controller is powered off)			
	54	Open to start the genset			
Controller inhibit input	63A	Controller is inhibited when this contact is open	Do not use external voltage - Power from common point	0.5-1.5mm²	0.2 Nm/ M2
	64A				
Return of information from RTSE (Position inputs)	70	Common point for position inputs	Do not use external voltage - Power from common point		
	71	Position I RTSE			
	72	Position II RTSE			
	73	Position 0 RTSE			
Fire input	F1	Negative electrode of the 24 V.d.c	12-24 V.d.c		
	F2	Positive electrode of the 24 V.d.c			
Optional Aux supply 24V.d.c	81	Negative electrode of the 24 V.d.c	10-30 V.d.c (Auxiliary supply for controller, does not supply RTSE)	1-2.5mm²	0.58 Nm / M3
	82	Positive electrode of the 24 V.d.c			
Source 1 and 2 voltage inputs	103	Source 1 N	Sensing range: 90-520 V.a.c (ph-ph) 50-300 V.a.c (ph-n) 45-65 Hz Supply: 184-300 V.a.c* (ph-n) 45-65 Hz Max consumption 10 W *200-300 V.a.c in maintained mode		
	104	Source 1 L1			
	105	Source 1 L2			
	106	Source 1 L3			
	203	Source 2 N			
	204	Source 2 L1			
	205	Source 2 L2			
	206	Source 2 L3			
DPS output (RTSE power supply)	301	Phase output	AC – General use – Ie: 6A , Ue: 250 V.a.c DC – General use – Ie: 6A , Ue: 30 V.d.c AC15 - Ie: 3A, Ue: 120 V.a.c AC15 - Ie: 1.5A, Ue: 240 V.a.c DC13 - Ie: 0.22A, Ue: 125 V.d.c DC13 - Ie: 0.11A , Ue: 250 V.d.c		
	302	Neutral output			

*LiYCY sheilded twisted pair

NOTE 1: Use 7mm as stripping length for the controller terminals
NOTE 2: Use 90°C copper wire for installations with ambient temperature from 35-60°C.

When the ambient temperature is above 60°C, Use 105°C copper wire.

The ATSC25 has 3 distinct working modes, the working modes are selected using the HMI button or by using the 63A/64A input.
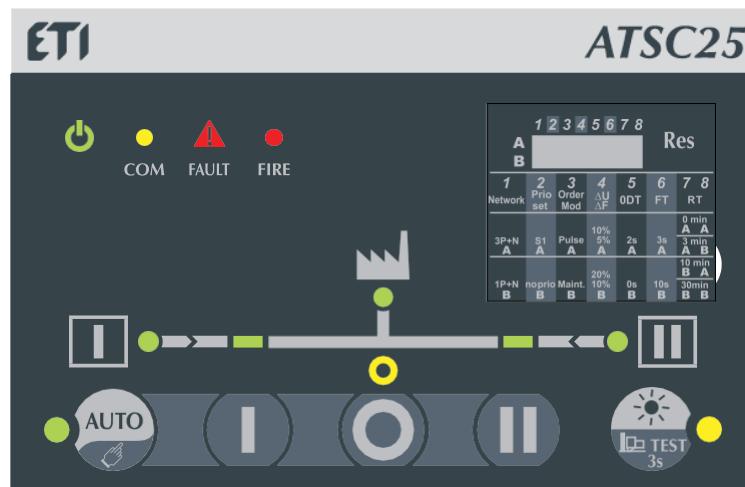
The 3 working modes are working as described below:

- Auto mode

In this mode the controller will automatically give orders to the RTSE connected to switch to the correct position according to the settings selected.

In this mode, the manual order buttons [I], [O], [II] are disabled.

This mode is activated when the LED 7 is ON (fixed). To access this Mode make sure that you are in manual mode (the LED 7 is OFF and that the fault LED (12) or the TEST LED (8) are not activated) and then press the [AUTO] button for 3 seconds, the LED 7 should then turn ON.

- Manual mode

In this mode the manual orders buttons [I], [O], [II] enable manual orders to switch respectively to position I , 0 or II.

This mode is activated when the LED 7 is OFF and the LED 12 is OFF and that the fault LED (12) or the TEST LED (8) are not activated. To switch from AUTO mode to manual mode, press the button [AUTO] for 3 seconds.

- Inhibit mode

In this mode both the Automatic transfer and manual orders will be blocked. This mode is activated when the input 63A/64A is OPEN.

In this mode the fault LED (12) will be blinking, and AUTO LED will be OFF. To leave the inhibit mode close the 63A/64A input, the controller will return to the last working mode (Automatic or Manual).

7.1 Triple power supply

The ATSC25 can be supplied by 3 power sources:

AC – Power through the voltage sensing (terminals 103-104 for source 1 and terminal 203-204 for source 2) with power supply range going from 184-300 V.a.c (in pulse mode) 200-300 V.a.c (in maintained mode) 50/60 Hz+/- 10%

DC - Auxiliary supply (optional), 10-30 V.d.c power supply using terminals 82-81.

⚠	**CAUTION**	**The DPS output to the RTSE will not be functional when powering through the DC auxiliary power supply.**

7.2 Voltage sensing Inputs

The ATSC25 includes dual single phase and 3 phase voltage sensing (terminals 103-106 and 203-206) designed to monitor 1 Phase supplies up to 300 V.a.c (L-N) and 3 phase +N up to 520 V.a.c (L-L).

The ATSC25 is designed to handle single phase and three phases with neutral networks, simply define the correct configuration of single phase / 3phase with neutral using the DIP switch 1 on the front of the controller (cf. Chapter 7-5 programming).

Sensing values measured will have a direct influence on determining the availability of the main and alternate supplies as well as the ATSC25 automation.

The parameters monitored through the sensing are the following:

7.3 Phase rotation

When both sources are available the controller will check that the phase rotation is identical on both sources. If the sources have different phase rotations the source available LED will be blinking on both sources.

⚠	**CAUTION**	**When only one source is available, the controller will automatically accept the source regardless of the phase rotation order**

7.2.1 Frequency within set limits

The ATSC25 will check that the frequency is within the limits configured through DIP switch 4 or through communication (cf. configuration chapter configuration). Frequency is checked on L1 only.

7.2.2 Loss of the main or alternate power supply

Loss of supply depends on the nominal voltage and frequency configured together with the hysteresis (set in DIP switch 4)The source will be considered as lost after the fail timer as counted down (set through dip switches 7 & 8 (0 / 3 /10 / 30 min).

7.2.3 Return of main and/ or alternate power supply

Return of supply depends on the nominal voltage and frequency configured together with the hysteresis set. (Set in DIP switch 4). The source will be considered as available when the return timer will have counted down (set through dip switches 6 (3s / 10s).

7.2.4 Loss of Neutral

In a 3phase network with unbalanced loads the loss of the neutral will be detected.

7.3   Fixed outputs

10.3.1. Control signal outputs

CONTROL SIGNAL OUTPUTS
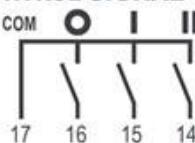
Control signal outputs are the output orders (dry contact) to the RTSE; the ATSC25 includes 3 signal outputs and a common (point powered by the user) (Terminals 17 to 14). These outputs are rated for 250 Vac, 50/60 Hz 5A general use , and 30 V.d.c 5A general use.

These outputs function as described below:

When order 0 is given through the Automatism in automatic mode or manually using the button ⊙ the contact between 17 and 16 will be closed.

When order I is given through the Automatism in automatic mode or manually using the button I the contact between 17 and 14 will be closed.

When order II is given through the Automatism in automatic mode or manually using the button II the contact between 17 and 15 will be closed.

These outputs can be impulse or maintained depending on the setting on DIP switch 3 Order Mod.

In maintained mode when an order is sent it will be maintained until a different order is sent.

In impulse mode orders are sent for maximum 5s and are stopped when either 5s has expired or the controller received feedback that the RTSE has reached the requested position. If 5s expire and the RTSE has not reached the requested position the controller will consider this as a fault and will inhibit the automatism until the fault is cleared.

10.3.2. Genset start output
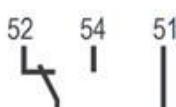
Genset start outputs are the output orders (dry contact), the contact between 51 and 54 will open & the contact between 51 and 52 will close when the signal to start the genset should be sent (during a test on load or when source 1 is lost). These outputs are rated for 250 V.a.c, 50/60 Hz 5A general use for NO contact and 3A general use for NC contact, and 30 V.d.c 5A general use for the contact between 51-54 and 3A general use for the contact 51-52.

Control	51/54	51/52
Generator Start	Contact open	Contact closed
Generator Stop	Contact closed	Contact open

When the switch returns in position I the Cooldown timer will start counting (Default value 180s) during the cooldown timer, the contacts will maintain the generator start signals.

⚠ **CAUTION** **If the 24 V.d.c auxiliary power supply is not used the timer 1FT will not count and the order to start the generator will be sent immediately when source 1 is lost.**

7.4   Fixed inputs

10.4.1. Inhibit input
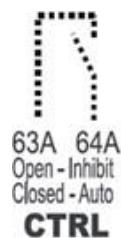
When the contact 63A/64A is open the controller is in inhibit mode (Fault LED blinking and automatism and manual controls are deactivated). When this contact is closed the controller returns to the last working mode (either manual mode or automatic mode).

When the product is delivered this input is hardwired to closed, to use the input first remove the wire

10.4.2. Position inputs
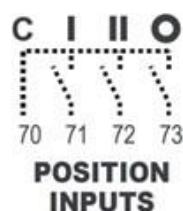
These inputs must be connected from the RTSE to the controller in order to indicate the position of the RTSE, when the controller gives an order both through manual command and automatically it will check that the position input corresponding to this order has closed. If this is not the case the controller fault LED will blink and the buzzer will be on, to clear the fault expected position input should be closed and the user must press the AUTO button.

73/70 must be closed when the RTSE is in position 0.
72/70 must be closed when the RTSE is in position II.
71/70 must be closed when the RTSE is in position I.

10.4.3. Fire input
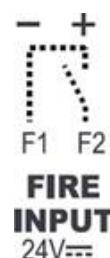
This input is activated by applying 24 V.d.c (12-24 V.d.c) on F1 and F2 (negative electrode connected to F1 and positive electrode on F2.

When this input is activated the Fire LED (13) will be ON (fixed) and the buzzer will sound, the controller will give the order to the switch to go to position 0 and both manual and automatic controls will be inhibited. When the input is removed, the switch will go back to the last working mode automatically

10.4.4. RS485

The RS485 connector provides the Modbus communication allowing to read values from the controller (eg: Voltage values, settings, switch position etc...) for details on the values that can be read through communication (see Annex II).

7.5   Programming

The programming of the controller is done through the DIP switches available on the front HMI.

> ⚠️ **WARNING**   **Program only when in manual mode to avoid unexpected transfers or injuries.**

7.5.1 Programing through DIP switch
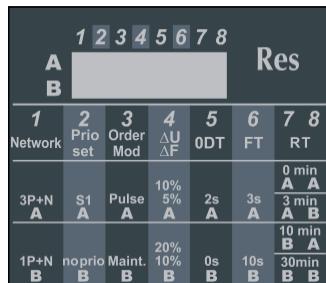
Programming through DIP switches is done using the 8 DIP switches on the front of the controller. Each DIP switch has positions A & B, by default all DIP switches are in position A.

When programming the dip switches with the switch powered off simply change the position of the DIP switches. To change the position of the DIP switches use a small screwdriver.

When programing the DIP switches with the controller powered on, switch to manual mode. When a DIP switch changed position the Fault LED will blink fast (3Hz), to validate the change of the DIP switch press the RES button shortly (<1s). The Fault LED will stop blinking and the buzzer will sound twice. If instead of validating the DIP switch is brought back to the original position without pressing the **Res** button, the Fault LED will also stop blinking and the configuration will remain the same

DIP Switch		
1. Network	A	Three phase network
	B	Single phase network
2. Prio Set	A	Prioritty source 1
	B	No priority
3. Order Mod	A	Control mode impulse logic
	B	Control mode contactor logic
4. ΔU/ΔF	A	Overvoltage setting at 10% of nom voltage / overfrequency setting 5% of nominal frequency (hysteresis value is 20% of ΔU/ΔF)
	B	Overvoltage setting at 20% of nom voltage / overfrequency setting 10% of nominal frequency (hysteresis value is 20% of ΔU/ΔF)**
5. 0DT	A	Load supply down time of 2 second (0DT = 02 sec)**
	B	Load supply down time of 0 second (0DT = 0 sec)
6. FT	A	Wait time of 3s before source is lost (Fail timer = 3s)
	B	Wait time of 10s before source is lost (Fail timer = 10s)
7/8. RT	AA	Wait time of 0min (3s) before source returns (retrun timer = 0min (3s))*
	AB	Wait time of 3min before source returns (retrun timer = 3min)
	BA	Wait time of 10min before source returns (retrun timer = 10min)
	BB	Wait time of 30min before source is lost returns (retrun timer = 30min)

*When 0min is selected the return timer is set to 3s

**When Control mode contactor is selected the minimum hysteresis is -15%

8. CHARACTERISTICS

Electrical characteristics	
AC operating limits	184 - 300 VAC[2]
Optional DC supply	24 VDC
Frequency limits	45 - 65 Hz
Power consumption	< 10 W
Inputs	5 - fixed (auto inhibit & 24 VDC fire input, position indication I-0-II)
Outputs	4 - fixed (position control I-0-II & genset start)
Impulse withstand	6/4 kV[1]
Overvoltage category	CAT 3

Mechanical characteristics	
Weight	845 gr
Door cutout	138 x 92 mm
Operating temperature	-25 … +60°C
Communications	
Interface type	RS485. 2 to 3 half duplex wires
Protocol	MODBUS RTU
Baudrate	38400

(1) 6 kV tested between phases of a different source and 4 kV tested between phases of a
the same source.
(2) 190 - 300 VAC in contactor mode.

9. PREVENTIVE MAINTENANCE

⚠ **WARNING**   **Maintenance operation should be done by trained and qualified personnel using the appropriate protection equipment.**

It is recommended to verify at least once a year the tightening torque of all connections and to operate the product in a full operating cycle (I – 0 – II – 0 – I: Auto and Manual) as well as tightening the door mounting clips and testing the LED's with the lamp test button when applicable.

In case of upstream protection tripping (fuse protection / Circuit breakers) make sure that the ATS remains functional by doing a functional test with the RTSE connected to the controller.

To clean the front face of the equipment, use a soft cloth with water and non-abrasive liquids.

Note: Maintenance should be planned carefully and carried out by qualified and authorized personnel. Consideration of the critical level and application where the product is installed should form an essential and integral part of the maintenance plan. Good engineering practice is imperative whilst all necessary precautions must be taken to ensure that the intervention (whether directly or indirectly) remains safe in all aspects.

10. TROUBLE SHOOTING GUIDE

DEFINITION	RECOMMENDED ACTION
Sources are not detected	- Verify that the product is correctly powered on using the power LED. - Verify that the DIP switch settings are corresponding to your installation.
Positions are not detected	-Verify that the position input cabling is correctly done.
Source LED are blinking	- Verify that the sources are in the voltage range configured through DIP switch or communication. - Verify that the sources are cabled correctly. - Verify that the phase rotation.
Alarm LED is blinking	- Verify that the input 63-64 is closed. - Verify that there has not been a problem during a transfer order and validate fault with the AUTO button. -Verify that the DIP switches have not changed position or validate the change of position using the RES button.
COM LED is on fixed	- Verify that Communication settings are set according to your specification. - Press "RES" for 30 seconds to reset the Communication settings. - Contact ETI for other information.
DIP switch parameters are not taken into account	- Check if the alarm LED is blinking. - Verify that you are in manual mode when changing DIP switch parameters. - Press the "RES" button for less than 3s to validate the parameter change.

11 ANNEX I

Reminder C25 HMI :

1. Source 1 availability information (Green fixed when source 1 is present and available within threshold limits, green blinking when source 1 is present but outside of threshold limits, off when under 50VAC).

2. Switch 1 LED position indication (Green fixed when in position 1).

3. Zero position LED indication (Yellow when in position 0).

4. Load supplied information (Green fixed when load is supplied by an available source)

5. Switch 2 LED position indications (Green fixed when in position 2).

6. Source 2 availability information (Green fixed when source 2 is present and available within threshold limits, green blinking when source 2 is present but outside of threshold limits, off when under 50VAC).

7. Auto LED indication (Green fixed when in automatic, blinking when a transfer is ongoing, off when in manual mode or inhi- bited or fault is ongoing).

8. Test LED (Yellow fixed when test on load is ongoing).

9. Configurations dip switches (8 dip switches with 2 positions A and B see chapter 7.5 for configuration details).

10. Run LED (Green when product is powered).

11. COM LED (yellow blinking when RS communications is ongoing).

12. Fault LED (Red blinking – long blink when fault or product in inhibited, fast blink when a dip switch parameter has been changed and needs validation).

13. Fire (Red when fire input is activated).

11.1 LED Functioning modes

LED indicator (cf HMI image)	LED blinking	LED ON**	LED OFF*
1: Source 1 availability	Source 1 present but not available for following possible reason: -Source undervoltage / under frequency -Source overvoltage /over frequency -Phase rotation order of source 1 & 2 are different	Source is available	Source is not available
2: Position I indicator	/	RTSE is in position I / Load is connected to source 1	RTSE is not in position 1 / Load is not connected to source 1
3: Position 0 indicator	/	RTSE is in position 0 / Load is not connected to source 1 or source 2	RTSE is in position 0 / Load is not connected to either source 1 or source 2
4: Load supplied indicator	/	Load is being supplied by a source which is available	Load is not being supplied by a source which is available
5: Position I indicator	/	RTSE is in position II / Load is connected to source 1	RTSE is not in position II / Load is not connected to source 1
6: Source 2 availability	Source 2 present but not available for following possible reason: -Source undervoltage / under frequency -Source overvoltage /over frequency -Phase rotation order of source 1 & 2 are different	Source is available	Source is not available
7: AUTO/MANUAL indicator	A timer is counting down and a transfer will be initiated. (If fault is blinking with buzzer AUTO/MANU will be blinking)	The controller is in automatic mode	Controller is not in automatic mode possible modes : -Manual -Inhibited -Fault detected
8: TEST led	/	Test is ongoing	No test ongoing
10: Power	/	Controller is powered up	Controller is OFF
11: Communication	Controller is sending / receiving information	Communication parameters have been modified (Baud rate / Parity / address)	No communications orders are currently being sent or received
12 : Fault indicator	Fast blinking (3Hz): one or more Dip switch has changed and configuration as not been saved. Long blinking (2Hz): Inhibit input is active or fault is active	/	Inhibit is not active / no faults active and dip switch configuration has been saved.

*Considering that the controller is powered.
**Considering that lamp TEST has not been initiated

11.2 Connection diagrams

11.2.1 Connections with MLBS 4P 63...125
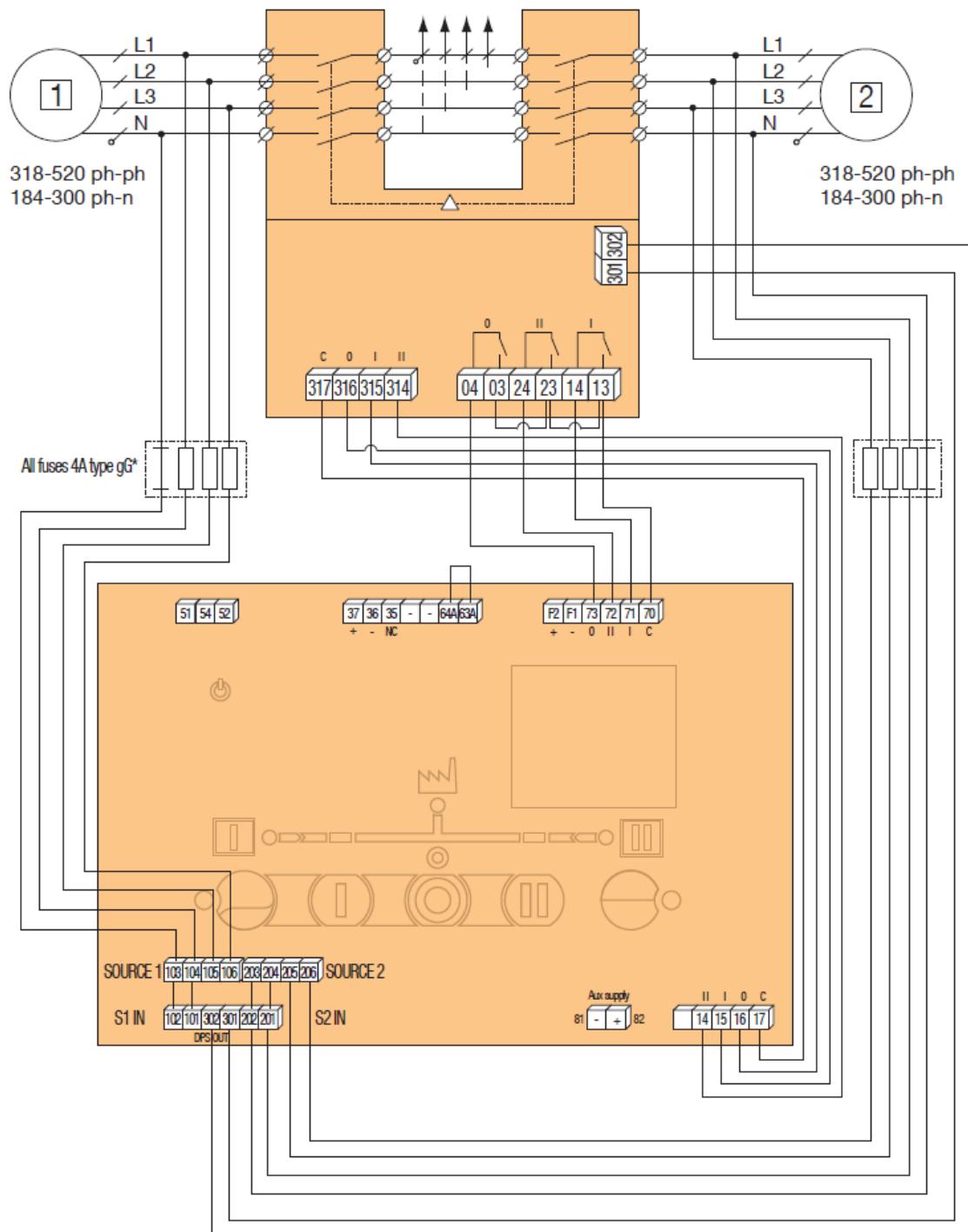
11.2.2 Connections with standard Contactors (CEM and CES)

K1   **K2**

1   318-520 ph-ph
184-300 ph-n

2   329-520 ph-ph
190-300 ph-n

All fuses 4A type gG*

51 54 52

37 36 35 - - 64A 63A
+ - NC

P2 F1 73 72 71 70
+ - 0 II I C

SOURCE 1 103 104 105 106 203 204 205 206 SOURCE 2

S1 IN 102 101 302 301 202 201 S2 IN
DPS OUT

Aux supply
81 - + 82

II I 0 C
14 15 16 17
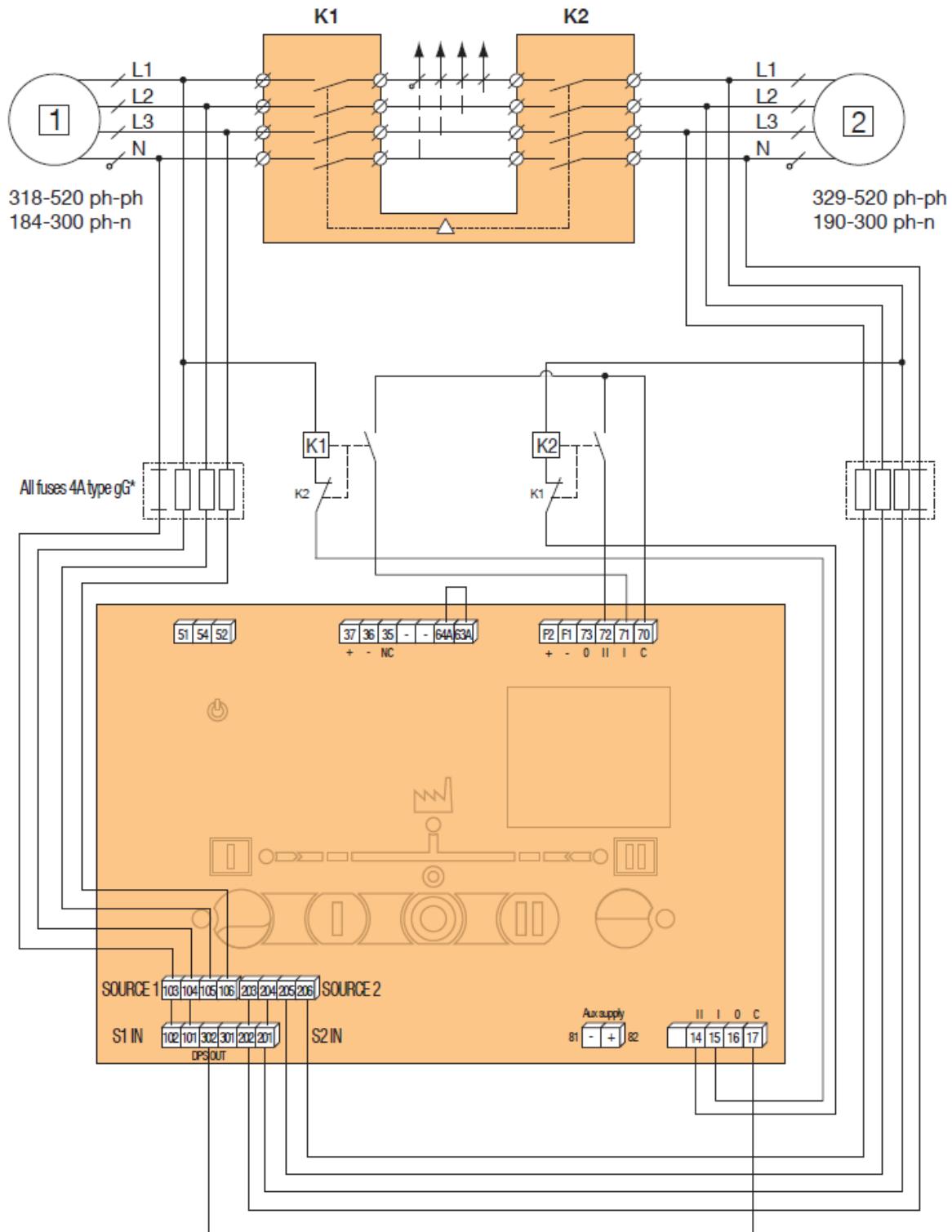
11.2.3 Connections with MCCBs EB2 and MO2

318-520 ph-ph
184-300 ph-n

329-520 ph-ph
190-300 ph-n

4A gG

4A gG

Q1: Aux. and signal contacts

Q2: Aux. and signal contacts

51 54 52

37 36 35 − − 64A 63A
+ − NC

F2 F1 73 72 71 70
+ − O I II C

SOURCE 1   103 104 105 106 203 204 205 206   SOURCE 2

out

S1 IN   102 101 302 301 202 201   S2 IN
         N L

Aux. supply
81 − + 82

II I O C
14 15 16 17

Q2

Q1: Aux.   ON Q2

Q2: Aux.   ON Q1

off Q1   off Q2

K1   K2   K3

Q2 con   Q1 con   Q1 con Q2 con

Q1 ⊥ P2 P1

Q2 ⊥ P2 P1

MO2 AC 230-240V without AUTORESET ONLY!
Set controller DIP switch 3 to Pulse (A) mode

11.3 Phase rotation check

When both sources are available the controller will check that both sources have the same phase rotation.

If the two sources have different phase orders the source LED (1 & 6) will blink , the fault LED will light up and the sources will be considered as not available (switch will not transfer from the current position to the opposite source).

If only 1 source is available the product will not check the phase rotation order.

11.4 Voltage/Frequency Levels configuration

Voltage and frequency levels can be configured through communication or DIP switch (DIP switch 4).
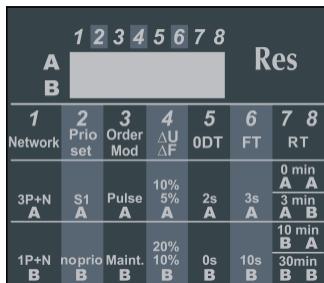
Configuration through DIP switch

The DIP switch configuration allows setting the voltage and frequency limits to 10% of nominal vol- tage & 5% of nominal frequency or 20% of nominal voltage & 5% of nominal frequency. In both cases the hysteresis is 20 % of the selected value. The default value for nominal voltage is 230 V.a.c and the default value for nominal frequency is 50Hz.

To reboot the product press the **Res** button for 30s, this will restart the product and take into account any changes on the DIP switches (even if the controller was in AUTO mode at the time of restart). In case of a configuration change the controller Buzzer will beep twice.

11.5 Timers

11.5.1 Fail timers and Return timers

Source failure timers FT and source return timers can be configured using the DIP switches.
The source fail timer FT is the time during which the source can be outside the voltage and frequency threshold before it is considered lost. (cf. graph below)

The source return timer is the time for which the source must be within the voltage and frequency threshold before it is considered available. (cf. graph below)

If only one source is present, the controller will give the order to switch to this source before the return timer has finished counting.
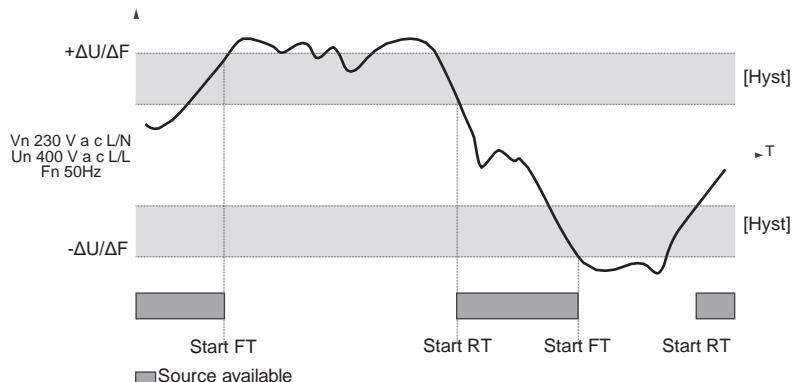
11.5.2 Cooldown timer

When the switch returns in position I the Cooldown timer will start counting (Default value 180s) during the cooldown timer, the contacts will maintain the generator start signals.

11.5.3 Dead band timer ODT

The dead band timer ODT can be configured using the DIP switches 5 (2s or 0s). This timer defines the time for which the switch should stay in the 0 position when transferring from one source to another.

11.6 Priority settings

Priority settings can be configured using the DIP switch 2 "PRIO SET" or through

communication. The priority can be set to:

> 11.6.1 S1, in this case when source 1 is available the controller will give the order to switch to position I
> 11.6.2 No prio, if both sources are available the controller will give the order to remain in the current position.

12 Tests

The C25 allows for 2 test functions using the HMI test button:

A short press on this button (<3s) will start a LED test, allowing the user to check that all LEDs are functional.

A long press (>3s) on this button will start a TEST ON LOAD, this test will start the genset, and transfer to the Source II once the source is considered available.

The product will remain on source 2 until the test ends, to end the test press again the test button for more than 3s to return in the last working mode (Manual or Automatic).

It is also possible to start and stop the test on load and off load through communication

13   ATSC25 Operating sequence

Controller operating sequence with source 1 priority:
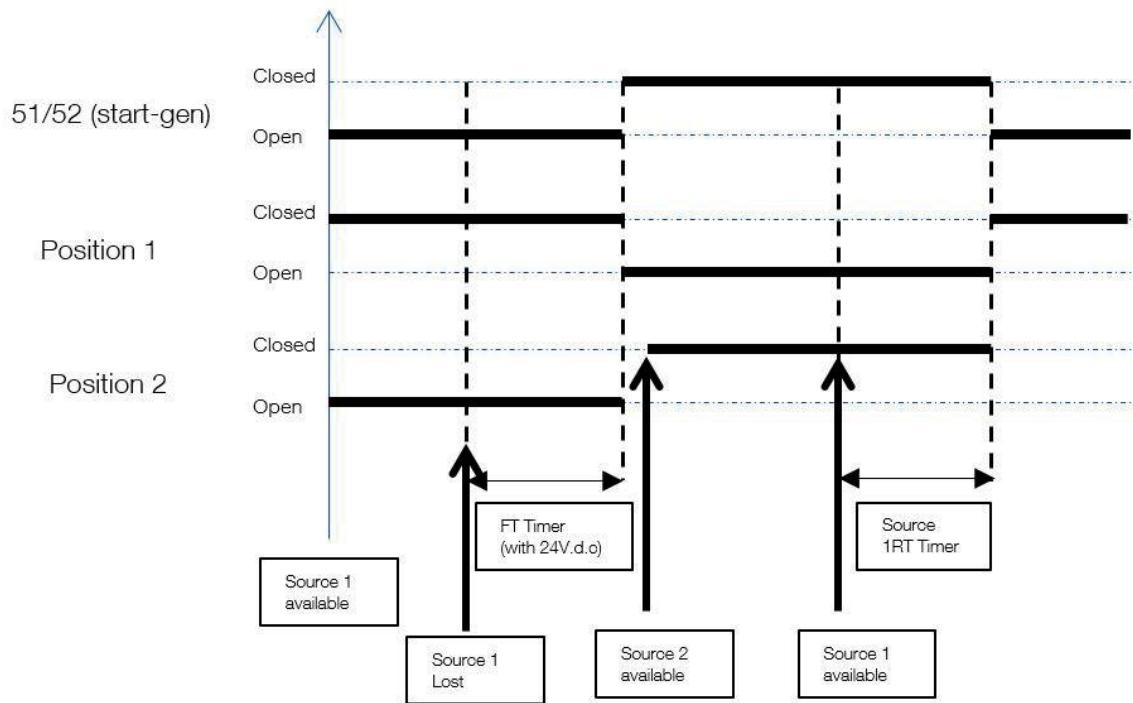
DPS Output operating sequence :
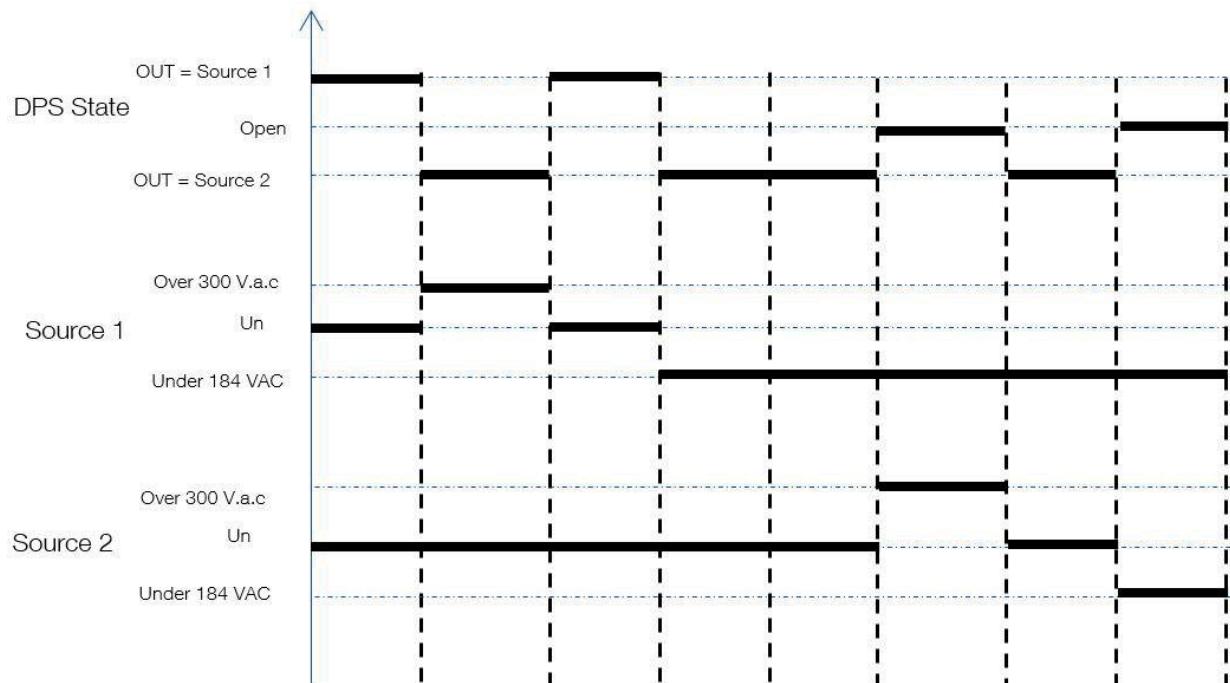
14. ANNEXE II MODBUS COMMUNICATION ADDRESS AND DE-SIGNATION DETAILS

All communication addresses, except communication parameters (4) are read only RO (read function 03/04).

The communication protocol adopts the standard MODBUS-RTU protocol, with master-slave acknowledgment connection (half duplex).

As standard the baud rate is set to 38400, parity bit to 1 (these settings can be modified through

Modbus). When the product is communicating the COM Led will blink.

- ## Input / Output state

Dec. Address	Word count	Description	Unit
10008	1	Position I input state (70-71) :	0 : OFF 1 : ON
10009	1	Position II input state (70-72) :	0 : OFF 1 : ON
10010	1	Position 0 input state (70-72) :	0 : OFF 1 : ON
10011	1	Fire Input state (F1-F2):	0 : OFF 1 : ON
10012	1	CTRL inhibit (63A-64A)	0 : Inhibit 1 : Automatic
10022	1	Genset control output: (51-52-54)	0 : Genset start order OFF 0 : Genset start order ON
10023	1	Control signal output I (15-17):	0: Output not activated I : Output activated
10024	1	Control signal output II (16-17):	0: Output not activated I : Output activated
10025	1	Control signal output I (15-17):	0: Output not activated I : Output activated
10026	1	Control signal output I (15-17):	0: Output not activated I : Output activated
10120	1	I position state :	0 : OFF I : ON
10121	1	II position state :	0 : OFF I : ON
10123	1	0 position state :	0 : OFF I : ON

- ## Status

Dec. Address	Word count	Description	Unit
10124	1	Source 1 power status	0 : OFF 1 : ON
10125	1	Source 2 power status	0 : OFF 1 : ON
10040 – 10071	32	Alarms 01-32 :	0 : No alarm 1 : Alarm
40005	1	C25 operating mode (1-4):	2 : Manual 3 : Automatic 4 : Test

- Voltage sensing

Dec. Address	Word count	Description	Unit
10192	1	Source 1 L1-N voltage value	(V)
10193	1	Source 1 L2-N voltage value	(V)
10194	1	Source 1 L3-N voltage value	(V)
10195	1	Source 1 L-N average voltage	(V)
10196	1	Source 1 L1 –L2 voltage value	(V)
10197	1	Source 1 L2 –L3 voltage value	(V)
10198	1	Source 1 L3 –L1 voltage value	(V)
10199	1	Source 1 L-L average voltage	(V)
10204	1	Source 1 frequency	(0.1 Hz)
10205	1	Source 2 L1-N voltage value	(V)
10206	1	Source 2 L2-N voltage value	(V)
10207	1	Source 2 L3-N voltage value	(V)
10208	1	Source 2 L-N average voltage	(V)
10209	1	Source 2 L1 –L2 voltage value	(V)
10210	1	Source 2 L2 –L3 voltage value	(V)
10211	1	Source 2 L3 –L1 voltage value	(V)
10212	1	Source 2 L-L average voltage	(V)
10217	1	Source 2 frequency	(0.1 Hz)

- Communication parameters

Dec. Address	Word count	Description	Unit
40017	1	C25 communication node address:	1-247
40018	1	Baud rate :	2 – 2400 3 – 4800 4 – 9600 5 – 19200 6 – 38400
40019	1	Serial Data format : 1-5	1- 8N 2 – 8O 3 – 8E 4 – 7O 5 – 7E
40020	1	Stop bit:	1 – 2

As standard the baud rate is set to 38400, parity bit to 1, Modbus address 3 these parameters can be changed using the write function 10.

Once the configuration is done, write data 1 at address Dec. 40565. After changing the parameters the product buzzer will sound twice and the Com LED will stay on.

To reset to default parameters press the RES button for 30 seconds, the product will reboot and the standard communication settings will be set.

- Maintenance

Dec. Address	Word count	Description	Unit
10126	2	Position I operation count in AUTO mode:	0-60 000
10128	2	Position II operation count in AUTO mode:	0-60 000
10130	2	Position I operation count in Manual mode:	0-60 000
10132	2	Position II operation count in Manual mode:	0-60 000
10170 -10179	8	Serial number	(V)
10186	1	Hardware version	(V)
10187	1	Software version	(V)

ETI

QUICK START EN

ATSC25

ATS Controller

ETI d.o.o., Obrezija 5, SI-1411 IZLAKE
www.etigroup.eu/products-services

551074B

IEC 61010
Non contractual document.
Subject to change without notice.

SAFETY WARNING

EN (reference language) The manufacturer will not be held liable for failure to follow the instructions in this manual or available at www.etigroup.eu.

⚠ **Risk of electrocution !**
- Only qualified and authorized personnel are allowed to work on or to install/dismiss the product.
- The instructions are valid together with the operating instructions of the product.
- The product is designed only for the application specified in the operating instructions.
- Accessories can be used with the product only if approved or specified by ETI.
- Before proceeding with the implementing, mounting, commissioning, configuration, cleaning, decommissioning, dismounting, wiring or maintenance operations, the product and the installation must be powered off. However, specific instructions for a product may allow live intervention under certain conditions, means, qualifications and authorizations.
- The product is not to be repaired by the user.
- Contact ETI for any questions regarding the disposal of the product.
- For other languages please contact ETI or relevant distributor
- Failure to follow the product instructions and this safety information may result in personal injury, electric shock, burns, death or property damage.

DE Der Hersteller übernimmt keine Haftung bei Nichtbeachtung der in diesem Handbuch oder unter www.etigroup.eu aufgeführten Anweisungen.

⚠ **Stromschlaggefahr!**
- Die Arbeit am Gerät bzw. dessen Installation/Deinstallation darf nur durch qualifiziertes und autorisiertes Personal erfolgen.
- Die Anweisungen gelten zusammen mit der Bedienungsanleitung des Gerät.
- Das Gerät ist ausschließlich für die in der Bedienungsanleitung angegebene Anwendung ausgelegt.
- Zubehör darf nur dann mit dem Gerät verwendet werden, wenn es von ETI zugelassen oder spezifiziert wurde.
- Vor Beginn der Implementierungs-, Montage-, Inbetriebnahme-, Konfigurations-, Reinigungs-, Außerbetriebnahme-, Demontage-, Verdrahtungs- oder Wartungsarbeiten muss das Produkt und die Anlage ausgeschaltet werden. Gemäß den Anweisungen für ein spezifisches Produkt können jedoch unter bestimmten Bedingungen und mit bestimmten Hilfsmitteln, Qualifikationen und Genehmigungen Eingriffe bei anliegender Spannung durchgeführt werden.
- Das Gerät darf nicht vom Benutzer repariert werden.
- Wenden Sie sich bei Fragen zur Entsorgung des Geräts an ETI.
- Die Nichtbeachtung der Gerätehinweise und der vorliegenden Sicherheitsinformationen kann zu Verletzungen, Stromschlägen, Verbrennungen, zum Tod oder zu Sachschäden führen.

ES El fabricante no será responsable por el incumplimiento de las instrucciones de este manual o disponibles en www.etigroup.eu.

⚠ **¡Riesgo de electrocución!**
- Solo personal cualificado y autorizado puede trabajar en el producto, instalarlo o desinstalarlo.
- Las instrucciones son válidas junto con el manual de uso del producto.
- El producto se ha diseñado solo para la aplicación especificada en el manual de uso.
- Solo pueden utilizarse con el producto accesorios aprobados o especificados por ETI.
- Antes de proceder con las operaciones de implantación, montaje, puesta en marcha, configuración, limpieza, retirada de servicio, desmontaje, cableado o mantenimiento, tanto el producto como la instalación tienen que dejar de recibir alimentación. No obstante, las instrucciones específicas de un producto pueden exigir la intervención mientras recibe alimentación, siempre en condiciones precisas y con los medios, cualificaciones y autorizaciones pertinentes.
- El usuario no puede reparar el producto.
- Para cualquier duda sobre como desechar el producto, póngase en contacto con ETI.
- El incumplimiento de las instrucciones del producto y de esta información de seguridad puede provocar lesiones personales, descargas eléctricas, quemaduras, muerte o daños materiales.

IT Il costruttore declina ogni responsabilità per la mancata osservanza delle istruzioni riportate in questo manuale o di quelle disponibili all'url www.etigroup.eu.

⚠ **Rischio di folgorazione!**
- Solo il personale qualificato e autorizzato può operare o installare/rimuovere il prodotto.
- Le presenti istruzioni sono valide unitamente al manuale d'uso del prodotto.
- È possibile utilizzare accessori/opzioni con il prodotto solo se approvati o specificati da ETI.
- Prima di procedere con le operazioni di implementazione, montaggio, messa in servizio, configurazione, pulizia, smontaggio, cablaggio o manutenzione, il prodotto e l'impianto devono essere spenti. Tuttavia, le istruzioni per un prodotto specifico possono ammettere l'intervento sotto tensione in presenza di particolari condizioni, strumenti, qualifiche e autorizzazioni.
- Il prodotto non può essere riparato dall'utente.

- Contattare ETI per eventuali domande relative allo smaltimento del prodotto.
- La mancata osservanza delle istruzioni del prodotto e delle presenti informazioni di sicurezza può provocare lesioni personali, scosse elettriche, ustioni, incidenti mortali o danni patrimoniali.

PT O fabricante não será responsável pelo incumprimento das instruções neste manual ou disponíveis em www.etigroup.eu.

⚠ **Risco de eletrocussão!**
- Apenas os funcionários qualificados e autorizados podem trabalhar ou instalar/desinstalar o produto.
- As instruções são válidas juntamente com as instruções de utilização do produto.
- O produto destina-se apenas à aplicação especificada nas instruções de utilização.
- Podem ser utilizados acessórios com o produto se forem aprovados ou especificados pela ETI.
- Antes de efetuar operações de implementação, montagem, arranque dos equipamentos, configuração, limpeza, desativação, desmontagem, cablagem ou manutenção, o produto e a instalação têm de estar desligados. No entanto, as instruções específicas para um produto podem permitir a intervenção com o equipamento em funcionamento consoante as condições, meios, qualificações e autorizações.
- O produto não deve ser reparado pelo utilizador.
- Contacte a ETI em caso de dúvidas relativamente à eliminação do produto.
- O incumprimento das instruções do produto e estas informações de segurança pode resultar em ferimentos pessoais, choques elétricos, queimaduras, morte ou danos materiais.

PL Producent nie będzie odpowiedzialny za szkody spowodowane nieprzestrzeganiem instrukcji zawartych w niniejszym podręczniku lub dostępnych na stronie www.etigroup.eu.

⚠ **Ryzyko porażenia prądem!**
- Tylko wykwalifikowany i autoryzowany personel może obsługiwać produkt lub przeprowadzać jego montaż/demontaż.
- Niniejsze instrukcje stanowią uzupełnienie instrukcji obsługi produktu.
- Produkt jest przeznaczony do użycia wyłącznie w aplikacjach określonych w instrukcji obsługi.
- Do pracy z produktem mogą być stosowane wyłącznie akcesoria zatwierdzone lub wyspecyfikowane przez firmę ETI.
- Przed rozpoczęciem wdrażania, montażu, przekazywania do eksploatacji, konfigurowania, czyszczenia, wycofywania z eksploatacji, demontażu, instalacji elektrycznej lub konserwacji produkt i cały układ od zasilania. Jednak instrukcje dotyczące określonego urządzenia mogą zezwalać na ingerencję w układ pod napięciem w szczególnych warunkach, przy zastosowaniu odpowiednich procedur oraz pod warunkiem posiadania odpowiednich kwalifikacji i uprawnień.
- Produkt nie może być naprawiany przez użytkownika.
- W przypadku pytań dotyczących utylizacji produktu należy skontaktować się z firmą ETI.
- Nieprzestrzeganie instrukcji dotyczących produktu i bezpieczeństwa może prowadzić do obrażeń, porażenia prądem, poparzenia, śmierci lub uszkodzenia mienia.

FR Le non-respect des indications de la présente notice jointe ou téléchargeable sur le site : www.etigroup.eu ne saurait engager la responsabilité du constructeur.

⚠ **Risque d'électrocution !**
- Seul un personnel qualifié et dûment habilité est autorisé à intervenir sur le produit ou à l'installer / le désinstaller.
- Les consignes sont valables en association avec les instructions spécifiques du produit.
- Le produit est exclusivement conçu pour l'application prescrite dans les instructions.
- Seuls des accessoires autorisés ou prescrits par ETI peuvent être utilisés en association avec le produit.
- Avant de procéder à des opérations de mise en œuvre, montage, mise en service, configuration, nettoyage, mise hors service, démontage, câblage ou maintenance, veillez à mettre le produit et l'installation hors tension. Toutefois, dans certaines conditions, avec certains moyens et sous réserve de certaines qualifications et autorisations, l'intervention sur un produit sous tension peut être préconisée par des instructions spécifiques.
- Le produit n'est pas voué à être réparé par l'utilisateur.
- Pour toutes questions relatives à l'élimination du produit, contacter ETI.
- Le non-respect des instructions du produit et des présentes informations de sécurité peuvent être à l'origine de lésions corporelles, de chocs électriques, de brûlures, de mort ou de dommages matériels.

NL De fabrikant kan niet aansprakelijk worden gesteld voor het niet naleven van de instructies die in deze handleiding staan of beschikbaar zijn op www.etigroup.eu.

⚠ **Elektrocutiegevaar!**
- Alleen gekwalificeerd en gemachtigd personeel mag werkzaamheden uitvoeren aan het product of het product installeren/verwijderen.
- De instructies gelden in combinatie met de gebruiksinstructies van het product.
- Het product is alleen ontworpen voor de toepassing die beschreven staat in de gebruiksinstructies.
- Accessoires mogen alleen worden gebruikt bij het product indien ze zijn goedgekeurd of gespecificeerd door ETI.
- Vooraleer enige implementatie, montage, inbedrijfstelling, configuratie, reiniging, afdanking, demontage, bekabeling of onderhoudswerkzaamheden uit te voeren, moeten het product en de installatie zijn uitgeschakeld. Specifieke instructies voor een product kunnen echter interventies zonder uitschakeling toestaan, in bepaalde omstandigheden, met bepaalde middelen, kwalificaties en autorisaties.
- Het product mag niet worden gerepareerd door de gebruiker.
- Neem contact op met ETI indien u vragen hebt over het afdanken van het product.
- Indien de productinstructies en deze veiligheidsinformatie niet worden gevolgd, kan dit leiden tot persoonlijke verwondingen, elektrische schokken, brandwonden, dodelijke verwondingen of schade aan eigendommen.

UA Виробник не несе відповідальність за недотримання інструкцій, що містяться в цьому посібнику або на веб-сайті www.etigroup.eu.

⚠ **Небезпека ураження електричним струмом!**
- Тільки кваліфікований і уповноважений персонал допускається до роботи з даним виробом або до його встановлення / виведення з експлуатації.
- Дані інструкції застосовуються разом з інструкціями щодо застосування виробу.
- Виріб призначений тільки для зазначених в керівництві застосувань.
- Допоміжне обладнання може використовуватися з виробом, тільки якщо воно схвалено або рекомендовано до використання компанією ETI.
- Перед тим як приступати до введення в експлуатацію, монтажу, пусконалагоджувальних робіт, налаштування, очищення, виведення з експлуатації, демонтажу, підключення або технічного обслуговування необхідно відключити живлення виробу та установки. Проте, особливі інструкції для виробу можуть передбачати проведення робіт на виробі, коли воно знаходиться під напругою, при певних умовах і з використанням спеціальних засобів силами кваліфікованого персоналу, що має відповідні повноваження.
- Виріб не призначений для ремонту користувачем.
- З усіх питань, що стосуються утилізації виробу, звертайтеся в компанію ETI.
- Якщо вам необхідна документація на інших мовах, звертайтеся в компанію ETI або до відповідного дистриб'ютора.
- Недотримання цієї рекомендації щодо застосування виробу і інформації по дотриманню техніки безпеки, що міститься в цьому документі, може призвести до травми, ураження електричним струмом, опіків, смерті або пошкодження майна.

TR Üretici, bu kılavuzda veya www.etigroup.eu adresinde yer alan talimatlara uyulmamasından sorumlu değildir.

⚠ **Elektrik çarpması riski!**
- Sadece kalifiye ve yetkili personelin ürün üzerinde çalışmasına veya ürünü monte etmesine/sökmesine izin verilir.
- Talimatlar, ürünün kullanım kılavuzu birlikte geçerlidir.
- Ürün sadece, kullanım kılavuzunda belirtilen uygulama için tasarlanmıştır.
- Aksesuarlar, sadece eğer ETI tarafından onaylanmış veya belirtilmişse ürünle kullanılabilir.
- Uygulama, montaj, devreye alma, yapılandırma, temizlik, devreden çıkarma, sökme, kablo tesisatı veya bakım işlemlerini yapmadan önce, ürünün ve tesisatın elektrik beslemesi kesilmelidir. Bununla birlikte, bir ürün için geçerli belirli talimatlar doğrultusunda, belirli koşullar, yöntemler, kalifikasyonlar ve yetkiler/izinler dahilinde çalışma anında müdahale yapılabilir.
- Ürün, kullanıcı tarafından tamir edilemez.
- Ürünün imhasıyla ilgili sorularınız için ETI ile temasa geçiniz.
- Ürün talimatlarına ve bu güvenlik bilgilerine riayet edilmemesi, kişisel yaralanmalar, elektrik çarpması, yanma, ölüm veya eşyalarının hasar görmesiyle sonuçlanabilir.

BG Производителят няма да носи отговорност за неспазването на указанията, които са налични в това ръководство или на www.etigroup.eu.

⚠ **Опасност от токов удар!**
- Само квалифициран и утпълномощен персонал може да работи по или да монтира/демонтира продукта.
- Указанията са валидни заедно с указанията за работа на продукта.
- Продуктът е проектиран само за посочената в указанията за работа приложение.
- С продукта могат да бъдат използвани само тези аксесоари, които са одобрени или изрично посочени от ETI.
- Преди да пристъпите към дейности по внедряването, монтирането, пускането в експлоатация, конфигурирането, почистването, извеждането от експлоатация, демонтирането, окабеляването или техническото обслужване, захранването на продукта и инсталацията трябва да бъде прекъснато. Определени обаче, специфични указания за продукта могат да позволяват интервенция при включено захранване при определени условия, начини, квалификации и авторизации.
- Продуктът не трябва да бъде поправян от потребителя.
- Свържете се със ETI за каквито и да било въпроси, касаещи изхвърлянето на продукта.
- Неспазването на инструкциите за продукта и тази информация за безопасност могат да доведат до лично нараняване, токов удар, изгаряния, смърт или имуществени щети.

CS Výrobce nenese odpovědnost za nedodržení pokynů uvedených v tomto návodu nebo na stránkách www.etigroup.eu.

⚠ **Nebezpečí úrazu elektrickým proudem!**
- Instalaci nebo rušení instalace tohoto výrobku a zásahy do něho může provádět pouze kvalifikovaná nebo oprávněná osoba.
- Pokyny jsou platné společně s návodem k obsluze výrobku.
- Výrobek je určen pouze pro použití, jež je uvedeno v návodu k obsluze.
- S výrobkem může být používáno příslušenství, jež je schváleno nebo specifikováno společností ETI.
- Před instalací, montáží, čištěním, uvedením do provozu, konfigurací, čištěním, uvedením mimo provoz, demontáží, připojováním kabelů nebo údržbou je nutné výrobek a instalaci vypnout. Zvláštní pokyny pro výrobek však mohou za zvláštních podmínek, za použití různých prostředků, kvalifikací a oprávnění umožňovat provádění zásahů pod napětím.
- Výrobek nesmí být opravován uživatelem.

- Veškeré informace od likvidaci výrobku vám poskytne společnost ETI.
- Nedodržení pokynů k výrobku a těchto bezpečnostních informací může mít za následek zranění, úraz elektrickým proudem, popálení, smrt nebo poškození majetku.

DA Producenten hæfter ikke for skader, der måtte opstå som følge af, at anvisningerne i denne instruktionsbog eller på www.etigroup.eu ikke følges.

⚠ **Risiko for elektrisk stød!**
- Det er kun kvalificerede og godkendte medarbejdere, der må arbejde på eller montere/afmontere produktet.
- Anvisningerne gælder sammen med instruktionsbogen til dette produkt.
- Produktet er kun beregnet til den anvendelse, der er angivet i instruktionsbogen.
- Der må kun anvendes udstyr, der er godkendt eller specificeret af ETI, sammen med produktet.
- Inden der udføres arbejde med implementering, montering, ibrugtagning, konfiguration, rengøring, udtagning af drift, adskillelse, ledningsføring eller vedligeholdelse, skal der være slukket for produktet og installationen. Specifikke anvisninger for et produkt kan gøre det nødvendigt at foretage indgreb under drift under bestemte forhold, med særlige midler, kvalifikationer og godkendelser.
- Produktet må ikke repareres af brugeren.
- Kontakt ETI, hvis der er spørgsmål vedrørende anvendelsen af produktet.
- Hvis instruktionsbogen og disse sikkerhedsanvisninger ikke følges, kan det medføre personskader, elektrisk stød, forbrændinger, død eller materielle skader.

EL Ο κατασκευαστής δεν είναι υπεύθυνος για τη μη τήρηση των οδηγιών που διατίθενται στο παρόν εγχειρίδιο ή στη διεύθυνση www.etigroup.eu.

⚠ **Κίνδυνος ηλεκτροπληξίας!**
- Μόνο εξειδικευμένο και εξουσιοδοτημένο προσωπικό επιτρέπεται να εκτελεί εργασίες στο προϊόν ή να εγκαθιστά/απεγκαθιστά το προϊόν.
- Οι οδηγίες ισχύουν σε συνδυασμό με τις οδηγίες λειτουργίας του προϊόντος.
- Το προϊόν έχει σχεδιαστεί μόνο για την εφαρμογή που καθορίζεται στις οδηγίες λειτουργίας.
- Εξαρτήματα μπορούν να χρησιμοποιηθούν με το προϊόν μόνο εφόσον έχουν εγκριθεί ή καθοριστεί από την ETI.
- Πριν προχωρήσετε στις εργασίες εφαρμογής, τοποθέτησης, δοκιμαστικής λειτουργίας, διαμόρφωσης, καθαρισμού, απόσυρσης, αφαίρεσης, καλωδίωσης ή συντήρησης, το προϊόν και η εγκατάσταση πρέπει να απενεργοποιηθούν. Ωστόσο, σε ορισμένες οδηγίες για κάποιο προϊόν μπορεί να επιτρέπεται η εκτέλεση εργασιών υπό τάση, σε συγκεκριμένες συνθήκες και με ειδικά μέσα, προσόντα και εξουσιοδοτήσεις.
- Το προϊόν δεν πρέπει να επισκευάζεται από τον χρήστη.
- Για τυχόν ερωτήσεις σχετικά με την απόρριψη του προϊόντος, επικοινωνήστε με την ETI.
- Η μη τήρηση των οδηγιών προϊόντων και αυτών των πληροφοριών ασφαλείας μπορεί να οδηγήσει σε τραυματισμό, ηλεκτροπληξία, εγκαύματα, θάνατο ή υλικές ζημιές.

ET Tootja ei kanna vastutust juhul, kui ei järgita käesolevas juhendis või saidil www.etigroup.eu toodud juhiseid.

⚠ **Elektrilöögi oht!**
- Tootega on lubatud töötada või seda paigaldada / kasutusest kõrvaldada ainult kvalifitseeritud ja volitatud personnel.
- Käesolevad juhised kehtivad koos toote kasutusjuhendiga.
- Toode on ette nähtud kasutamiseks ainult kasutusjuhendis näidatud eesmärgil.
- Tarvikuid/lisaseadmeid võib koos käesoleva tootega kasutada ainult siis, kui need on heaks kiidetud või ette nähtud ETI poolt.
- Enne toote kasutuselevõttu, kokkupanekut, kükluskanesti, konfigureerimist, puhastamist, kasutusest mahavõtmist, lahtivõtmist, juhtmestikuga ühendamist või hooldustööde alustamist tuleb toote ja paigalduse toide välja lülitada. Siiski võivad toote kohta käivad erijuhised lubada teatavatel tingimustel, kindlate vahenditega, omades vastavat kvalifikatsiooni ja volitusi, teha tööd pingestatud seadme juures.
- Kasutajal pole lubatud toodet remontida.
- Ükskõik milliste küsimuste tekkimisel toote kasutamiselt kõrvaldamisel pöörduge ETI poole.
- Tootega kaasasolevate juhiste ja käesoleva ohutusalase teabe eiramine võib kaasa tuua vigastusi, elektrilöögi, põletusi, surma või põhjustada varalist kahju.

FI Valmistaja ei ota mitään vastuuta, jos tässä käyttöoppaassa ja sivustolla www.etigroup.eu olevia ohjeita ei noudateta.

⚠ **Hengenvaarallisen sähköiskun vaara!**
- Vain pätevä, valtuutettu henkilökunta saa käsitellä tuotetta ja/tai asentaa/purkaa tuotteen.
- Ohjeet ovat voimassa yhdessä tuotteen käyttöohjeiden kanssa.
- Tuote on asennettu ainoastaan käyttöohjeissa kuvattua käyttötarkoitusta varten.
- Tuotteen kanssa voidaan käyttää vain ETI:n hyväksymiä tai määrittelemiä lisäosia.
- Ennen valmistelua, asentamista, käyttöönottoa, konfigurointia, puhdistamista, käytöstäpoistoa, purkamista, kaapelointia tai huoltotoimenpiteitä tuotteen ja järjestelmän virta on katkaistava. Tuotteen erityisohjeet kuitenkin voivat sallia toimenpiteitä jännitteessä olevalle laitteelle määrätyissä olosuhteissa, määrätyillä välineillä, määrätyllä pätevyydellä ja valtuutuksella.
- Käyttäjä ei saa korjata tätä tuotetta.
- Jos sinulla on tuotteen hävittämistä koskevia kysymyksiä, ota yhteys ETIin.
- Tuotteen ohjeiden ja näiden turvallisuustietojen noudattamisen laiminlyöminen voi johtaa henkilövahinkoon, sähköiskuun, palovammoihin, kuolemaan tai omaisuusvahinkoihin.

SRP/BOS/HR Proizvođač ne preuzima odgovornost za nepoštovanje uputa navedenih u ovom priručniku ili dostupnih na adresi www.etigroup.eu.

⚠ **Opasnost od strujnog udara!**
- Rad na proizvodu te njegova instalacija/deinstalacija dopušteni su samo kvalificiranom i ovlaštenom osoblju.
- Upute vrijede zajedno s uputama za rad proizvoda.
- Proizvod je namijenjen samo primjeni navedenoj u uputama za rad.
- Dodatna oprema smije se upotrijebiti s proizvodom samo ako je odobrena ili navedena od strane tvrtke ETI.
- Prije provedbe postupaka implementacije, montaže, primopredaje, konfiguracije, čišćenja, povlačenja, demontaže, spajanja ožičenja ili održavanja instalacija i proizvod moraju biti isključeni. Međutim, specifične upute u vezi s proizvodom mogu dopuštati intervencije s uključenim napajanjem u određenim uvjetima, određenim sredstvima, uz određene kvalifikacije i ovlaštenja.
- Korisnik ne smije sam popravljati proizvod.
- Za sva pitanja u vezi sa zbrinjavanjem proizvoda obratite se tvrtki ETI.
- Nepoštovanje uputa za proizvod i ovih sigurnosnih informacija može prouzročiti ozljede, strujni udar, opekotine, smrt ili oštećenja imovine.

HU A gyártó nem tartozik felelősséggel a jelen kézikönyvben található, illetve a www.etigroup.eu címen elérhető utasítások betartásának elmulasztásáért.

⚠ **Áramütés veszélye!**
- Csak szakképzett és felhatalmazott személyzet dolgozhat a terméken, illetve végezheti annak telepítését/leszerelését.
- Az utasítások a termék használati utasításával együtt érvényesek.
- A terméket kizárólag a használati utasításban meghatározott alkalmazásra tervezték.
- Tartozékok csak akkor használhatók a termékkel, ha azokat a ETI jóváhagyta vagy specifikálta.
- Mielőtt telepítési, szerelési, üzembe helyezési, konfigurálási, tisztítási, leszerelési, szétszerelési, huzalozási vagy karbantartási tevékenységeket folytatna, a termék és a telepítés tápellátását ki kell kapcsolni. Azonban az egy adott termékre vonatkozó specifikus utasítások lehetővé tehetik a feszültség alatti beavatkozást bizonyos feltételek, eszközök, képzettségek és felhatalmazások esetén.
- A termék javítását nem végezheti a felhasználó.
- Vegye fel a kapcsolatot a ETI céggel, ha bármilyen kérdése van a termék ártalmatlanításával kapcsolatban.
- A használati utasítás és a jelen biztonsági tájékoztató betartásának elmulasztása személyi sérülést, áramütést, égési sérüléseket, halált vagy anyagi kárt okozhat.

LT Gamintojas neprisiima atsakomybės, jei nesilaikoma instrukcijų, kurios pateikiamos šiame vadove arba adresu www.etigroup.eu.

⚠ **Mirties nuo elektros smūgio pavojus!**
- Tik kvalifikuoti ir įgalioti darbuotojai gali dirbti su šiuo gaminiu arba jį sumontuoti / išmontuoti.
- Instrukcijos galioja kartu su gaminio eksploatavimo instrukcijomis.
- Gaminys yra sukurtas tik naudoti pagal eksploatavimo instrukcijose nurodytą paskirtį.
- Priedus su gaminiu galima naudoti tik tuo atveju, jei juos patvirtino arba nurodė ETI.
- Prieš montuodami, valdydami, išmontuodami, įrengdami instaliaciją arba vykdydami techninę priežiūrą būtina išjunkti gaminį ir įrenginį.
- Naudotoji draudžiama remontuoti gaminį.
- Kreipkitės į ETI, jei turite klausimų dėl gaminio atidavimo į atlieksą.
- Nesilaikant gaminio instrukcijų ir šių saugos nurodymų galima susižaloti, patirti elektros smūgį, nudegti, žūti arba sugadinti turtą.

LV Ražotājs nav atbildīgs, ja netiek ievērotas šajā rokasgrāmatā vai vietnē www.etigroup.eu norādītās instrukcijas.

⚠ **Elektrotrieciena risks!**
- Ar izstrādājumu drīkst strādāt, kā arī to uzstādīt/noņemt drīkst tikai kvalificēti un pilnvaroti darbinieki.
- Instrukcijas ir lietojamas kopā ar izstrādājuma ekspluatācijas instrukcijām.
- Izstrādājumu ir paredzēts izmantot tikai tādā veidā, kā noteikts ekspluatācijas instrukcijās.
- Piederumus ar izstrādājumu drīkst izmantot tikai tad, ja tos ir apstiprinājusi vai noteikusi uzņēmums ETI.
- Pirms salikšanas, uzstādīšanas, nodošanas ekspluatācijā, konfigurēšanas, tīrīšanas, ekspluatācijas izbeigšanas, izjaukšanas, elektroinstalācijas ierīkošanas un apkopes veikšanas izstrādājums un iekārta jāatslēdz no strāvas. Tomēr konkrētos norādījumos par izstrādājumu var tikt pieļauts darbs ar ieslēgtu ierīci noteiktos apstākļos, ar noteiktiem līdzekļiem, kvalifikāciju un atļaujām.
- Lietotājs nedrīkst veikt izstrādājuma remontu.
- Par jebkuriem jautājumiem attiecībā uz izstrādājuma utilizāciju sazinieties ar ETI.
- Ja netiek ievērotas izstrādājuma lietošanas instrukcijas un šī informācija par drošību, var tikt gūtas traumas, tostarp letālas, elektriskās strāvas trieciens, apdegumi vai tikt sabojāts īpašums.

MT Il-manifattur mhux se jinżamm responsabbli għan-nuqqas li ssegwi l-istruzzjonijiet f'dan il-manwal, jew l-istruzzjonijiet li huma disponibli fuq www.etigroup.eu.

⚠ **Riskju ta' xokk!**
- Staff ikkwalifikat u awtorizzat biss hu permess li jaħdem fuq, jew jinstalla/iżarma l-prodott.
- L-istruzzjonijiet huma validi flimkien mal-istruzzjonijiet tat-tħaddim.
- Il-prodott hu maħsub biss għall-applikazzjoni speċifikata fl-istruzzjonijiet tat-tħaddim.
- L-accessorji jistgħu jintużaw mal-prodott biss jekk ikunu approvati jew speċifikati minn ETI.
- Qabel ma tipproċedi bl-operazzjonijiet tal-implimentazzjoni, l-immuntar, l-ikkummissjonar, il-konfigurazzjoni, it-tindif, id-dekummissjonar, iż-żarmar, il-wiring jew il-manutenzjoni, il-prodott u l-installazzjoni għandhom jiġu powered off. Madankollu, istruzzjonijiet speċifiċi għal prodott jistgħu jippermettu intervent live taht ċerti kundizzjonijiet, mezzi, kwalifikazzjonijiet u awtorizzazzjonijiet.
- Il-prodott m'għandux jissewwa mill-utent.
- Ikkuntattja lil ETI jekk ikollok kwalunkwe mistoqsijiet dwar ir-rimi tal-prodott.
- Jekk tonqos li ssegwi l-istruzzjonijiet tal-prodott u din l-informazzjoni dwar is-sigurtà, dan jista' jirriżulta fi hsara personali, xokk elettriku, ħruq, mewt jew ħsara li proprjetà.

RO Producătorul nu va fi tras la răspundere pentru nerespectarea instrucțiunilor din acest manual sau pentru cele disponibile la www.etigroup.eu.

⚠ **Risc de electrocutare!**
- Numai personal calificat și autorizat are permisiunea de a efectua lucrări la produs și de a-l instala/dezinstala.
- Instrucțiunile sunt valabile împreună cu instrucțiunile de utilizare a produsului.
- Produsul este destinat numai pentru aplicația specificată în instrucțiunile de utilizare.
- Accesoriile pot fi utilizate cu produsul numai dacă sunt aprobate sau recomandate de către ETI.
- Înainte de a începe operațiile de implementare, montare, punere în funcțiune, configurare, curățare, dezafectare, demontare, cablare sau mentenanță, produsul și instalația trebuie oprite. Cu toate acestea, instrucțiuni specifice pentru un produs pot permite intervenția sub tensiune în anumite condiții, cu anumite metode, calificări și autorizații.
- Produsul nu trebuie reparat de către utilizator.
- Contactați firma ETI pentru întrebări legate de salubrizarea produsului.
- Nerespectarea instrucțiunilor referitoare la produs și a informațiilor de siguranță poate avea ca rezultat rănirea personală, electrocutare, arsuri, deces sau deteriorarea bunurilor.

SK Výrobca neponesie žiadnu zodpovednosť za poruchy a škody spôsobené nedodržaním pokynov v tomto návode alebo na stránke www.etigroup.eu.

⚠ **Riziko zásahu elektrickým prúdom!**
- Pri inštalácii alebo odinštalovaní výrobku smú pracovať iba kvalifikovaní alebo poverení pracovníci.
- Pokyny platia spolu s prevádzkovými pokynmi pre výrobok.
- Výrobok je určený iba pre aplikácie špecifikované vo výrobných pokynoch.
- Príslušenstvo sa smie použiť s výrobkom, iba ak je schválené alebo odporúčané spoločnosťou ETI.
- Pred implementáciou, montážou, uvedením do prevádzky, konfiguráciou, čistením, vyradením z prevádzky, odmontovaním, káblovým zapojením alebo údržbou musí byť výrobok odpojený od elektrického napájania. Napriek tomu môžu niektoré špecifické pokyny vyžadovať zásah na zariadení pod napätím, v takýchto prípadoch sa musia dodržať predpísané podmienky a zásahy smú vykonávať iba kvalifikovaní a poverení pracovníci.
- Používateľ nesmie výrobok opravovať.
- Ak by ste mali nejaké otázky súvisiace s výrobkom, kontaktujte ETI.
- Nedodržanie pokynov na používanie výrobku a uvedených bezpečnostných pokynov môže spôsobiť osobné zranenie, zásah elektrickým prúdom, popálenie, smrť alebo poškodenie majetku.

SL Proizvajalec ne prevzema odgovornosti v primeru neupoštevanja navodil v tem priročniku ali na spletni strani www.etigroup.eu.

⚠ **Nevarnost smrti zaradi električnega udara!**
- Na izdelku lahko delajo oz. ga nameščajo/odstranjujejo samo usposobljene osebe.
- Navodila veljajo skupaj z navodili za uporabo izdelka.
- Izdelek je načrtovan samo za uporabo, ki je predpisana v navodilih za uporabo.
- Oprema se lahko uporablja z izdelkom samo, če so to odobrili oz. predpisali v podjetju ETI.
- Pred izvajanjem postopkov montaže, zagona, konfiguracije, čiščenja, ustavitve delovanja, razstavljanja, ožičenja ali vzdrževanja morata biti izdelek in napeljava izključena. Vendar pa posebna navodila za izdelek morda pri določenih pogojih, opremi, usposobljenosti in pooblaščenosti dovoljujejo posredovanje pod napetostjo.
- Izdelek ni namenjen za popravila s strani uporabnika.
- Za vsa vprašanja v zvezi z odstranitvijo izdelka se obrnite na podjetje ETI.
- V primeru neupoštevanja navodil za uporabo izdelka in teh varnostnih informacij lahko pride do telesne poškodbe, električnega udara, opeklin, smrti ali do poškodbe opreme.

SV Tillverkaren ansvarar inte för underlåtenhet att följa instruktionerna i denna manual eller de som är tillgängliga på www.etigroup.eu.

⚠ **Risk för elektriska stötar!**
- Endast kvalificerad och auktoriserad personal får arbeta på produkten eller installera/avinstallera produkten.
- Instruktionerna är giltiga tillsammans med produktens driftsinstruktioner.
- Produkten är endast avsedd för den application som anges i driftsinstruktionerna.
- Tillbehör kan användas med produkten endast om de är godkända eller specificeras av ETI.
- Innan arbete utförs för implementering, montering, rengöring, urdrifttagning, demontering, ledningsdragning eller underhåll måste produkten svara spänning under vissa förhållanden, metoder, kvalifikationer och auktoriseringar.
- Produkten får inte repareras av användaren.
- Kontakta ETI om du har frågor om kassering av produkten.
- Underlåtenhet att följa produktinstruktionerna och denna säkerhetsinformation kan resultera i personskador, elektriska stötar, brännskador, dödsfall eller materiella skador.

AR

(اللغة المرجعية) الشركة المصنعة لن تكون مسؤولة عن عدم اتباع التعليمات الواردة في هذا الدليل أو المتاحة في الموقع www.etigroup.eu.

⚠ خطر الصعق الكهربائي!
- يسمح فقط للموظفين المؤهلين والمصرح لهم بالعمل على أو التركيب/التخلص من المنتج.
- التعليمات صالحة مع تعليمات التشغيل للمنتج.
- تم تصميم المنتج فقط للتطبيق المحدد في تعليمات التشغيل.
- يمكن استخدام الملحقات مع المنتج فقط إذا تمت الموافقة عليها أو تحديدها من قبل SOCOMEC.
- قبل البدء في عمليات التنفيذ أو التركيب أو التشغيل أو التكوين أو التنظيف أو الإيقاف أو التفكيك أو التوصيل أو الصيانة ، يجب إيقاف تشغيل المنتج وفصله عن الطاقة. ومع ذلك ، قد تسمح التعليمات المحددة لمنتج ما بالتدخل المباشر في ظل ظروف ووسائل ومؤهلات وتصاريح محددة.
- لا يجب إصلاح المنتج من قبل المستخدم.
- اتصل بـ ETI لأية أسئلة تتعلق بالتخلص من المنتج.
- للغات الأخرى يرجى الاتصال بـ ETI أو الموزع المعني.
- قد يؤدي عدم اتباع تعليمات المنتج ومعلومات السلامة هذه إلى إصابة الأشخاص أو الصدمة الكهربائية أو الحروق أو الموت أو ضرر في الممتلكات.

RU Производитель не несёт ответственность за несоблюдение инструкций, содержащихся в данном руководстве или на веб-сайте www.etigroup.eu.

⚠ **Опасность поражения электрическим током!**
- Только квалифицированный и уполномоченный персонал допускается к работе с данным изделием или к его установке/демонтажу.
- Настоящие инструкции применяются вместе с инструкциями по применению изделия.
- Изделие предназначено только для указанных в руководстве применений.
- Вспомогательное оборудование может использоваться с изделием, только если оно одобрено или рекомендовано к использованию компанией ETI.
- Перед тем как приступать к вводу в эксплуатацию, монтажу, пусконаладочным работам, настройке, очистке, выводу из эксплуатации, демонтажу, подключению или техническому обслуживанию необходимо отключить питание изделия и установки. Тем не менее, особые инструкции для изделия могут предусматривать проведение работ на изделии, когда оно находится под напряжением, при определённых условиях и с использованием специальных средств квалифицированного и имеющего соответствующие полномочия персонала.
- Изделие не предназначено для ремонта пользователем.
- По всем вопросам, касающимся утилизации изделия, обращайтесь в компанию ETI.
- Если вам необходима документация на других языках, обращайтесь в компанию ETI или к соответствующему дистрибьютору.
- Несоблюдение инструкций по применению изделия и содержащейся в настоящем документе информации по технике безопасности может привести к травме, поражению электрическим током, ожогам, смерти или повреждению имущества.

DIN rail mounting

1. Mounting

IEC 60715
DIN rail

Click!

2. Unmounting

X2

Door mounting (IP 40)
dimensions in mm.

138(0+1)

92(0+0.8)

1.5 - 3

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1. Source 1 availability information (Green fixed when source 1 is present and available and within threshold limits, green blinking when source 1 is present but outside of threshold limits, off when under 50VAC)
2. Switch 1 LED position indication (Green fixed when in position 1)
3. Zero position LED indication (Yellow when in position 0)
4. Load supplied information (Green fixed when load is supplied by an available source)
5. Switch 2 LED position indications (Green fixed when in position 2)
6. Source 2 availability information (Green fixed when source 2 is present and available and within threshold limits, green blinking when source 2 is present but outside of threshold limits, off when under 50VAC)
7. Auto LED indication (Green fixed when in automatic, blinking when transfer is ongoing, off when in manual mode)
8. Test LED (Yellow fixed when test on load is ongoing)
9. Configurations dip switches (see settings)
10. Run LED (Green when product is powered)
11. COM LED (yellow blinking when RS communications is ongoing)
12. Fault LED (Red blinking – long blink when fault or inhibit is activated (63A/64A open), short blink when a dip switch parameter has been changed and needs validation)
13. Fire (Red when fire input is activated)
14. Change AUTO/MANU pushbutton, press at least 3 seconds to switch from AUTO to MANU or MANU to AUTO
15. Remote order to switch positions, controller must be in MANU mode for the buttons to be active
16. Test button with two functions lamp test and TEST ON LOAD. To start a lamp test short press on the test button (<3s) ,press again (<3s) to end test. To start a TEST ON LOAD, long press on the test button (>3s), when LED (8) is blinking press the "0" button. To end the TEST on load long press on the test button (>3s)

+ΔU/ΔF

Vn 230 V a c L/N
Un 400 V a c L/L
Fn 50Hz

-ΔU/ΔF

[Hyst]

[Hyst]

Start FT   Start RT   Start FT   Start RT

Source available
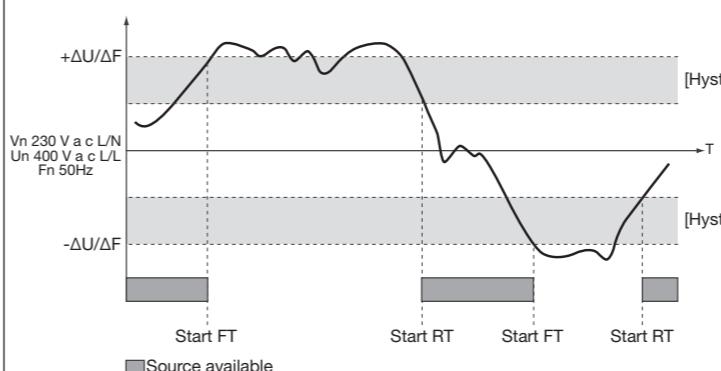
Standards

	IEC 60947-6-1 *	IEC 61010-2-201	IEC 61010-2-030	GB/T 14048.11 appendix C
Voltage Sensing	50-300Vac L/N 90-520Vac L/L'			
Mesurement Cat.			CAT III	
Frequency	50-60Hz	50-60Hz	50-60Hz	50Hz
Overvoltage Cat.	III	III		III
U imp	4kV			6kV **

★ When type tested with IEC 60947-6-1 RTSE   ** Test level ; Between SOURCES

1

318-520 ph-ph
184-300 ph-n

All fuses 4A type gG*

2

318-520 ph-ph
184-300 ph-n

SOURCE 1   SOURCE 2

S1 IN   S2 IN

Aux supply

---

dimensions in mm.

144   106   12

96   92   5

138
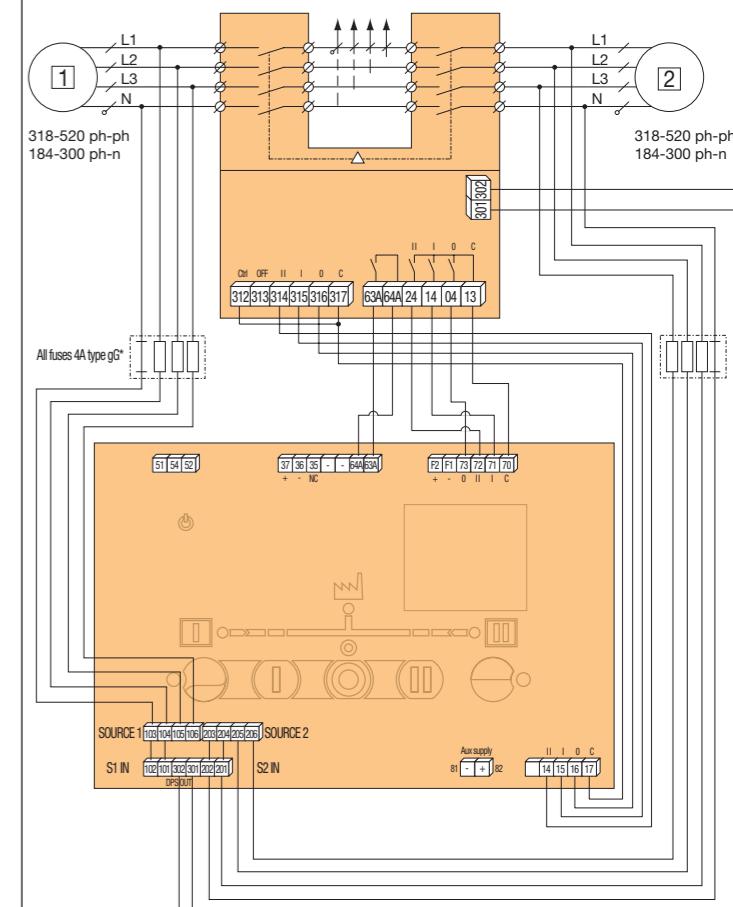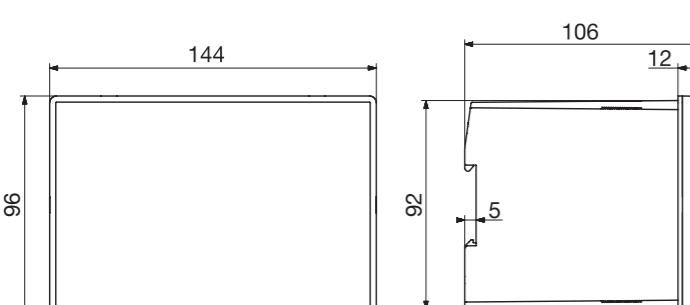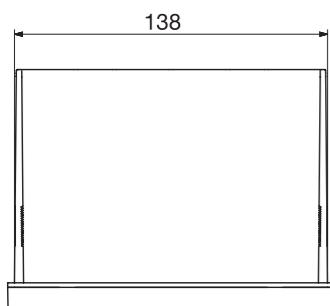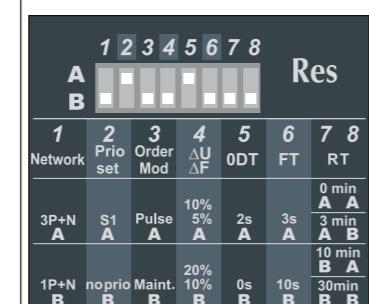
⚠ Warning : Product must be in manual mode (LED 7 OFF) for configuration changes.

After changing DIP switch settings press RES button shortly (<3s) to validate.

DIP Switch

1. Network	A	Three phase network
	B	Single phase network
2. Prio Set	A	Prioritty source 1
	B	No priority
3. Order Mod	A	Control mode impulse logic
	B	Control mode contactor logic
4. ΔU/ΔF	A	Overvoltage setting at 10% of nom voltage / overfrequency setting 5% of nominal frequency (hysteresis value is 20% of ΔU/ΔF)
	B	Overvoltage setting at 20% of nom voltage / overfrequency setting 10% of nominal frequency (hysteresis value is 20% of ΔU/ΔF)
5. 0DT	A	Load supply down time of 2 second (0DT = 2 sec)
	B	Load supply down time of 0 second (0DT = 0 sec)
6. FT	A	Wait time of 3s before source is lost (Fail timer = 3s)
	B	Wait time of 10s before source is lost (Fail timer = 10s)
7/8. RT	AA	Wait time of 0min (3s) before source returns (retrun timer = 0min (3s))
	AB	Wait time of 3min before source returns (retrun timer = 3min)
	BA	Wait time of 10min before source returns (retrun timer = 10min)
	BB	Wait time of 30min before source is lost returns (retrun timer = 30min)

Denomination	Terminal	Description	Characteristics
Control signal outputs (orders to RTSE)	14	Position II order	AC1 – General use : Ie: 5A , Ue: 250 V.a.c DC1 – General use : Ie: 5A , Ue: 30 V.d.c AC15 - Ie: 3A, Ue: 120 V.a.c AC15 - Ie: 1.5A, Ue: 240 V.a.c DC13 - Ie: 0.22A, Ue: 125 V.d.c DC13 - Ie: 0.11A, Ue: 250 V.d.c
	15	Position I order	
	16	Position 0 order	
	17	Common point for position output	
RS485	35	NC – Not connected	
	36	Negative electrode	RS485 Isolated bus
	37	Positive electrode	
Genset output	51	Common point	AC1 – General use – Ie: 3A , Ue: 250 V.a.c DC1 – General use – Ie: 3A , Ue: 30 V.d.c AC15 - Ie 54/51: 3A 52/51: 1.5A Ue: 120 V.a.c AC15 - Ie 54/51: 1.5A 52/51: 0.75A Ue: 240 V.a.c DC13 - Ie 54/51: 0.22A 52/51: 0.22 A 125 V.d.c DC13 - Ie 54/51: 0.11A 52/51: 0.11 A 250 V.d.c
	52	Closed to start the Genset (closed when controller is powered off)	
	54	Open to start the genset	
Controller inhibit input	63A	Controller is inhibited when this contact is open, product delivered with shunt wire on this input	Do not use external voltage - Power from common point
	64A		
Return of information from RTSE (Position inputs)	70	Common point for position inputs	Do not use external voltage - Power from common point
	71	Position I RTSE	
	72	Position II RTSE	
	73	Position 0 RTSE	
Fire input	F1	Negative electrode of the 24 V.d.c	12-24 V.d.c
	F2	Positive electrode of the 24 V.d.c	
Optional Aux supply 24V.d.c	81	Negative electrode of the 24 V.d.c	10-30 V.d.c (Auxiliary supply for controller, does not supply RTSE)
	82	Positive electrode of the 24 V.d.c	
Source 1 and 2 voltage inputs	103	Source 1 N	Sensing range: 90-520 V.a.c (ph-ph) 50-300 V.a.c (ph-n) 45-65 Hz
	104	Source 1 L1	
	105	Source 1 L2	
	106	Source 1 L3	
	203	Source 2 N	Supply: 184-300 V.a.c* (ph-n) 45-65 Hz Max consumption 10 W *200-300 V.a.c in maintained mode
	204	Source 2 L1	
	205	Source 2 L2	
	206	Source 2 L3	
DPS output (RTSE power supply)	301	Phase output	AC – General use – Ie: 6A , Ue: 250 V.a.c DC – General use – Ie: 6A , Ue: 30 V.d.c AC15 - Ie: 3A, Ue: 120 V.a.c AC15 - Ie: 1.5A, Ue: 240 V.a.c DC13 - Ie: 0.22A, Ue: 125 V.d.c DC13 - Ie: 0.11A ,Ue: 250 V.d.c
	302	Neutral output	

Connectors top view

POSITION INPUTS   FIRE INPUT   CTRL   RS485   GENSET OUTPUT

ATSE Controller

* Remove shunt wire when using MLBS.

Connectors bottom view

CONTROL SIGNAL OUTPUTS

SOURCE S2   SOURCE S1

S2 IN   DPS OUT   S1 IN