

**Elmeasure India Private Limited**

**Head office & Manufacturing Unit 1**  
 Plot NO.: 47-P, KIADB Hardware Park,  
 Huvinayakanahalli, Bengaluru - 562 149,  
 Karnataka INDIA.

**Manufacturing Unit 2**  
 Goutham Garden, No.4, Veerapandi,  
 Coimbatore - 641019 Tamil Nadu, INDIA  
 T: 0422 2697200. TF: 0422 2695200  
 E: contactcbe@elmeasure.com

**Manufacturing Unit 3**  
 SHED NO.: A-71/1 MARUTHI INDUSTRIAL  
 ESTATE, PHASE-1, GIDC VATVA, VATVA ROAD,  
 AHMEDABAD, GUJARAT - 382445

www.elmeasure.com

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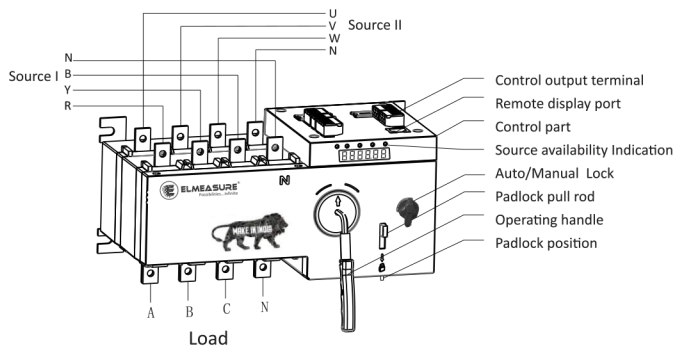


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**1. FEATURES**

- Intelligent Micro-processor automatic transfer switch controller.
- Configurable timer for generator start, transfer delay, restore delay, generator cooling time, Center Off Trip Delay overload amps tripping cycle.
- Programmable 1phase/3phase healthy selection for primary source & Secondary source.
- Reliable and field proven mechanism can provide you under voltage and over voltage protection for your power sources.
- Monitor and displays VLL, VLN,A and Hz for Source I & Source II.
- Wifi communication with In-Built Display and Keys.
- Digital input relay for fire alarm or other inputs of standby generator.
- Universal AC Power Supply of 160-285 V AC taken from R Phase.
- External trip available in Auto/ manual mode.

**2. CONSTRUCTION DETAILS**



**3. OPERATION MODES**

- Auto Mode/Manual Mode/ Remote Mode.












**4. PROGRAMMING MODE**

**4.1 Programming Keys**

 To select / Edit & save Value

 To decrement value

**4.2 Setup Procedure**

- Press  +  to enter setup mode.
- Enter Password (default 1000) blinking of digit indicates Edit is possible.
- Press  to decrement value from 9 to 1.
- Press  to move to the next digit till 4th digit.
- If Password is correct, editing is possible.
- Enters into Setup mode and meter display's Ctrl.
- Press  to view and press  to edit the parameter.
- Press  to decrement values or to select from available options.
- Press  to save the value of the parameter.
- Press  to edit next till end of last parameter and parameter display screen will prompt **SAVE** display reads **Y**(YES).
- Press  to change to **n** (NO).
- Press  to save.


**4.3 Clear Mode :**

Press <b>Up</b> key	Display shows CLR.n. (with 'n' blinking)	Option : (YES)/(NO) 'y' (for clearing) 'n' (for not clearing)
Press <b>Up</b> key	Displays xxxxx (Clear Mode ends here)	

**4.4 Display**

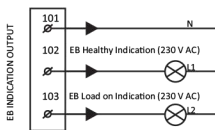
Programming Parameter	Default	Option/Range
VA selection (UA) (vector harmonics)	VECHUA	Vector Harmonic / Vector/ Arithmetic
Baud rate (bA)	9600bA	2400 to 19.2k
Parity (Pr)	EUENPr	Even/ no/ Odd
Device Id (dU.)	1000dU	1.000 to 247.0
Password (PW)	----PU	1000 to 9999
Energy (EN)	COUNEN	(rESL / COUN)
Energy Selection(ES)	Wh ES	Wh/VAh
EB Under voltage(VL-U1)	1800U1	160V to 210V
EB Over voltage(VH-O1)	2600O1	240V to 285V
DG Under voltage(VL-U2)	1800U2	160V to 210V
DG Over voltage(VH-O2)	2600O2	240V to 285V
DG max current limit(dA)	4000L2	40A Default
EB max current limit(EA)	4000L1	40A Default
Current Unbalance	2000AU	10 to 90%
Generator start	EnbLGE	enable/disable
Generator start time	1000Gt	3 to 9999
Transfer delay	5000Td	3 to 600sec
cooling time	3000Ct	3 to 600sec
Restore delay	5000rd	1 to 600sec
Source parity	SrC.1SP	S1/S2*
C1 Cycle time (C1)	1000C1	6 to 150Sec*
C2 Cycle time (C2)	1500C2	6 to 150Sec*
C3 Cycle time (C3)	3000C3	6 to 150Sec*
C4 Cycle time (C4)	6000C4	6 to 150Sec*
No. of ON/OFF cycles	2000CL	2 to 10 Cycles
DG Phase Selection	3Ph S2	3ph/1.ph DG
Delay Time	2000dt	0 to 180sec
EB Phase Selection	ALL.3.51	ALL.3./Any.1
Phase sequence	EnbLPS	enable/disable
Over frequency limit	65000F	45 to 65
Under frequency limit	45000F	45 to 65
TRIP center off delay	5000Cd	2 to 60 secs

**4.5 Enabling and Disabling Auto Scrolling**

Press  for 5 Secs. Display shows : **EnbLAW** Again press any key to disable. Display shows : **d5bLAW**

## 5. ATS CONTROLLER WIRING

EB STATUS CONTROL WIRING

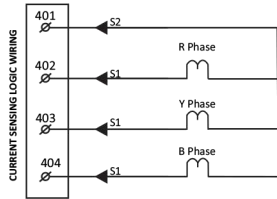


DG STATUS CONTROL WIRING



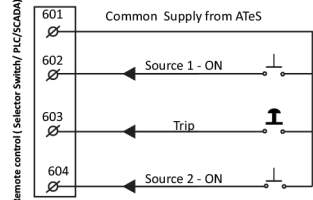
Note:-  
Don't give a any input supply to 101 ,102, 103,201, 202, 203. All are 230 V AC Output for status indication.

CURRENT SENSING INPUT



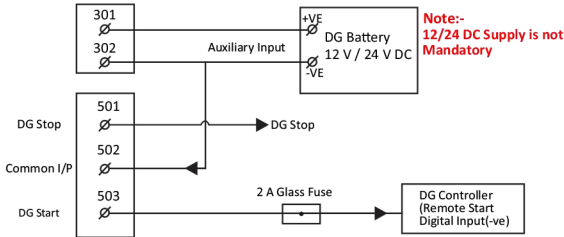
Note:-  
Don't Connect more than 25mA Input to CT terminal (401 , 402, 403, 404)

EXTERNAL REMOTE CONTROL



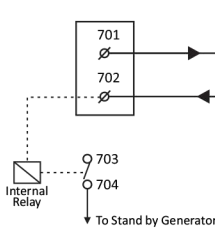
Note:-  
Don't connect any input supply to 601, 602,603, 604.

DG START/STOP LOGIC



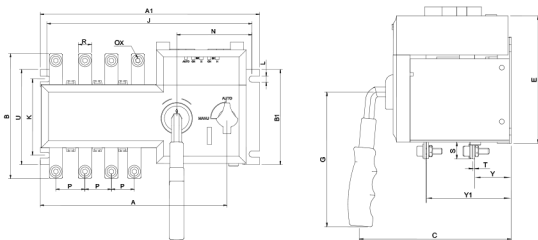
Note:-  
12/24 DC Supply is not Mandatory

EMERGENCY DG START WIRING



Note:-  
If 701 & 702 is Shorted 703 & 704 Will become NC for Standby Generator Start

## 6. MECHANICAL DIMENSION



Overall Dimensions

	40-63A	100-125A	160A	200-250A	315-630A
A	195	210	200	332	387
A1	226	243	302	375	436
B	117	119	135	165	260
B1	107	107	127	134	222
C	190	168	204	240	285
E	126	125	136	154	220
G	175	172	200.5	172	172
J	215	228	287	348	406
K	87	86	101	109	180
L	7	6.5	8	6.5	9
N	81	89	100	100	103
P	25	30	36	50	65
R	12	15	20	24	40
S	18	34.7	23.5	30	50.5
T	2	2.4	3.5	3.5	5
U	107	107	126.5	134	222
ØX	6	8	10	11	13
Y	43	41	69	69	84
Y1	94	91	151	151	191



## 7. PRECAUTIONARY MEASURES TO BE TAKEN

- Allow only professional to install, commissioning and maintenance.
  - Switch off the primary and secondary source before installation, commissioning and maintenance.
  - Mandatory use of a multimeter to check to ensure power is switched off.
  - The device must be reliably earthed as per requirement.
- Reset the panel door and arc shield before powering the device. An unauthorized operation may result in electric shock, fire or explosion.



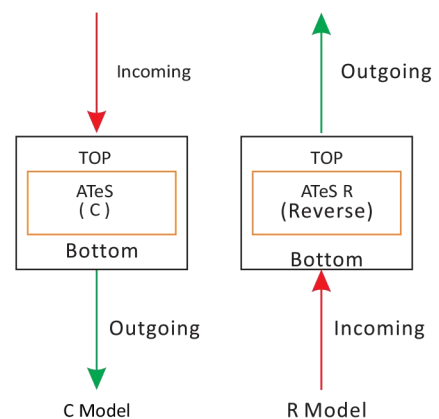
## 8. TROUBLESHOOTING GUIDELINES

ATeS does not operate electrically	<ol style="list-style-type: none"> <li>1. Verify the Source I and Source II power supply voltage and frequency healthiness.</li> <li>2. Verify if the selector switch in the auto position</li> <li>3. Verify the source healthiness LED (Red) is ON</li> <li>4. Verify the Source I and Source II Glass Fuse 5A Condition.</li> </ol>
Manual operation of ATeS not possible	<ol style="list-style-type: none"> <li>1. Verify if front selector switch is in manual mode.</li> <li>2. Make sure that the product is padlocked.</li> <li>3. Verify the direction of the handle.</li> </ol>
Source availability indication not blinking	<ol style="list-style-type: none"> <li>1. Verify the Source I and Source II power \ supply voltage &amp; frequency healthiness.</li> <li>2. Verify the Glass Fuse 5A status, replace the fuse if it is failed.</li> </ol>
Fuse failure	<ol style="list-style-type: none"> <li>1. Verify the control wiring ( short circuit or wrong wiring )</li> </ol>
DG does not start in auto mode / remote mode	<ol style="list-style-type: none"> <li>1. Verify the DC auxiliary voltage ( should be 12-30 VDC )</li> <li>2. Verify the battery system voltage, If any fault in DG Controller.</li> <li>3. Verify the (501-503) terminal connector.</li> <li>4. Verify the selector switch is in position in auto.</li> <li>5. Verify the generator control wiring.</li> <li>6. 501- DG stop output 502 – common 503 – DG Start output</li> </ol>
Source healthy indication is flashing	<ol style="list-style-type: none"> <li>1. This happens when ATeS timer is running for the changeover.</li> <li>2. Verify the Source healthy condition.</li> <li>3. Verify if the Fire Linkage Fault is active.</li> </ol>

## ATeS Mounting orientation



Note - ✓ Recommended / Allowed  
• Don't mount in any other direction \*





## 9. WARRANTY INFORMATION

Warranty is provided by Elmeasure and covers defects in workmanship and materials in your product. The Period of warranty is 12 months from the date of Commissioning or 18 months from the date of Invoicing. The warranty claims that relate to defects caused by any of the following factors are not covered by the Contractual Warranty.

- ✓ Improper use or Non-compliance with installation, commissioning, operation or maintenance instructions (i.e. not according to the operation & installation manual).
- ✓ Unauthorized modifications, changes or attempted repairs.
- ✓ Failure to observe applicable safety standards & regulations.
- ✓ Damages during transportation or storage.
- ✓ If the original identification (trade-mark, serial number) markings have been defaced, altered, or removed.



## INFORMATION

Manufacturer assumes no responsibility for a hazard or damage caused by incorrect or non-application of any of the instructions mentioned herein. ELMEASURE shall not be liable for any consequential or resulting injury or for loss, damage or expense directly or indirectly from the use of this product under any circumstances.

ELMEASURE does not claim any responsibility for the damage caused by using the product directly or indirectly as sufficient care has been taken to provide all information regarding the product. The user is advised to use according to the operating instructions, professional practices, wiring rules, codes, safety regulations applicable to the given installation.



## CAUTION

During normal operation of this instrument, hazardous voltages are present at the rear terminals, which may cause injury or death. Installation, disconnection or removal of the meter should be carried out only by qualified, trained personnel, after de-energizing connected circuit. The warranty will become void incase the seal is broken, improper installation as well as improper grounding.