

energy  
toolbase


A pason Company

321 E. OSCEOLA ST.  
STUART, FL 34994  
(866) 303.7786

DESCRIPTION:  
NETWORKING SINGLE LINE - 480V

SYSTEM TYPE:  
SOCOMECHES L

BY	DATE	DESCRIPTION	REV.
KM	05.10.22	SINGLE LINE PUBLISHED	1
KM	10.11.22	QR CODE ADDED	2
LL	07.16.24	ETB CONTROLLER UPDATE	3
NA	07.15.25	ETB ENCLOSURE UPDATE	4



Scan QR for  
ETB Controller  
Installation  
Manuals

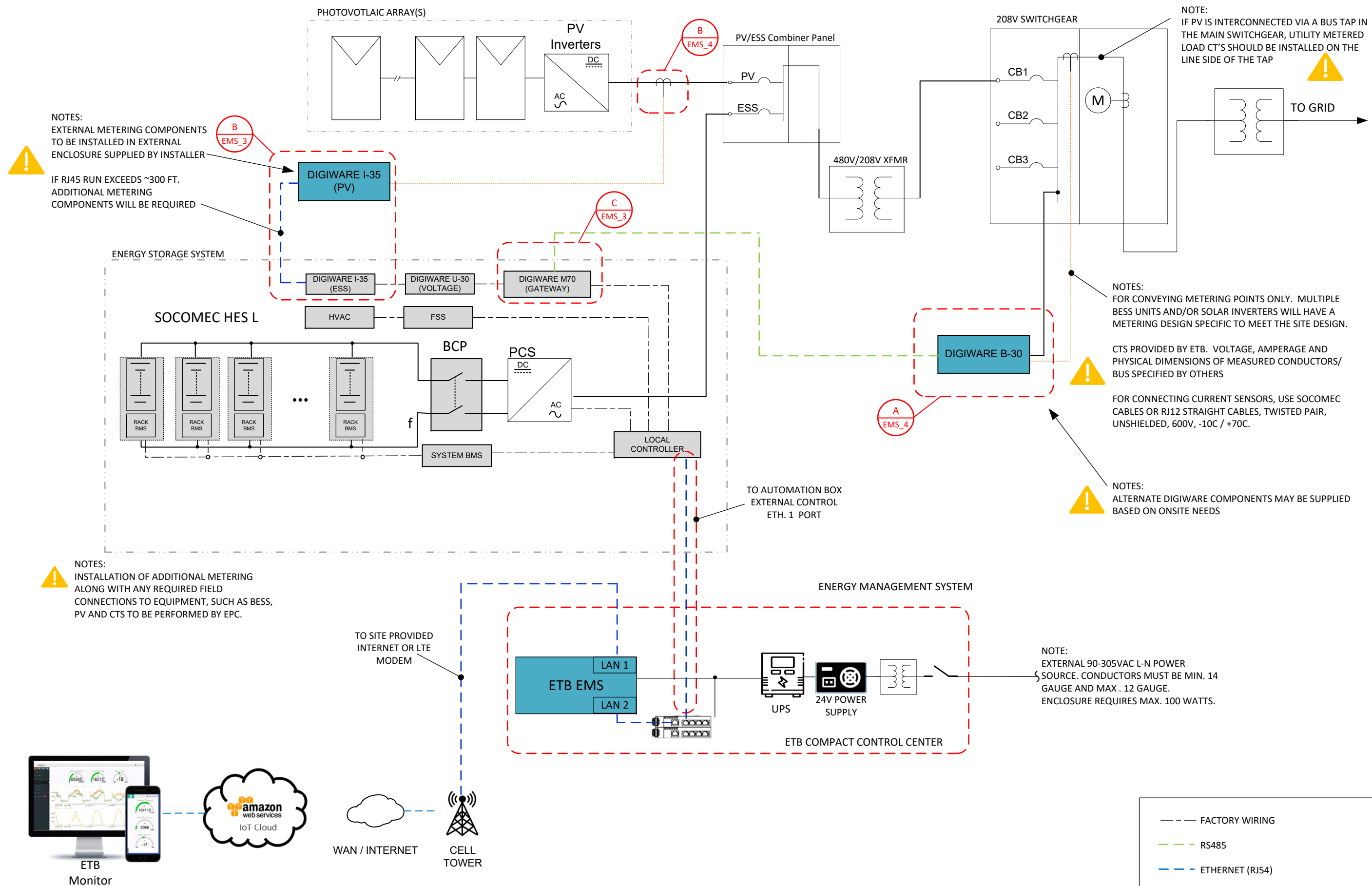
TITLE:  
ETB CONTROLLER  
SINGLE LINE


DRAWING NUMBER:  
EMS\_1

SCALE:  
NS

SHEET:  
1 OF 4

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ON USE CASE, ACTUAL  
CONDITIONS ELECTRICAL  
CODES, UTILITY  
REQUIREMENTS AND LOCAL  
CODE ENFORCEMENT.






A pason Company

321 E. OSCEOLA ST.  
STUART, FL 34994  
(866) 303.7786

DESCRIPTION: NETWORKING SINGLE LINE - 208V					
SYSTEM TYPE: SOCOMEH HES L					
BY	DATE	DESCRIPTION	REV.	DATE	DESCRIPTION
KM	05.10.22	SINGLE LINE PUBLISHED	1	05.10.22	SINGLE LINE PUBLISHED
KM	10.11.22	QR CODE ADDED	2	10.11.22	QR CODE ADDED
LL	07.16.24	ETB CONTROLLER UPDATE	3	07.16.24	ETB CONTROLLER UPDATE
NA	07.15.25	ETB ENCLOSURE UPDATE	4	07.15.25	ETB ENCLOSURE UPDATE



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Manuals

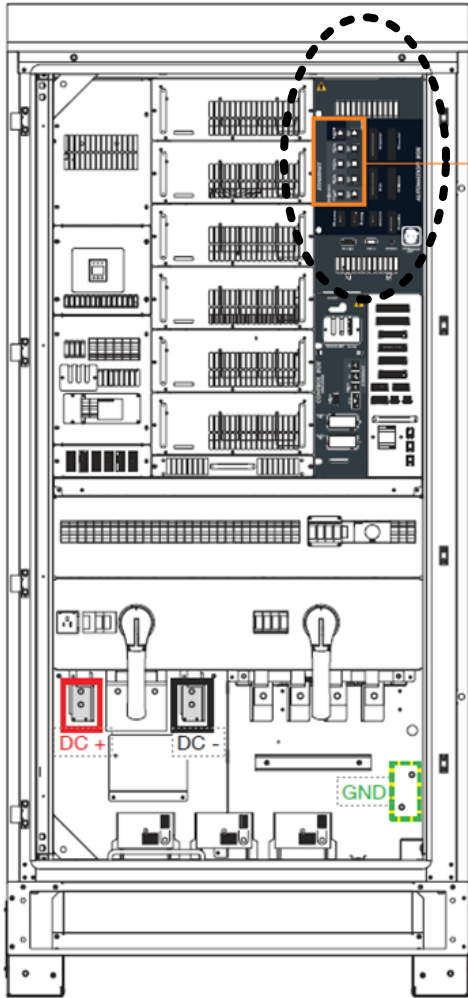
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ETB CONTROLLER  
SINGLE LINE

DRAWING NUMBER:  
EMS\_2

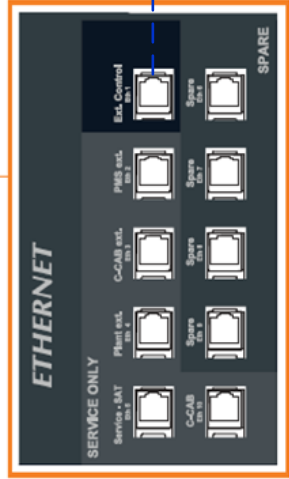
SCALE:  
NS

SHEET:  
2 OF 4

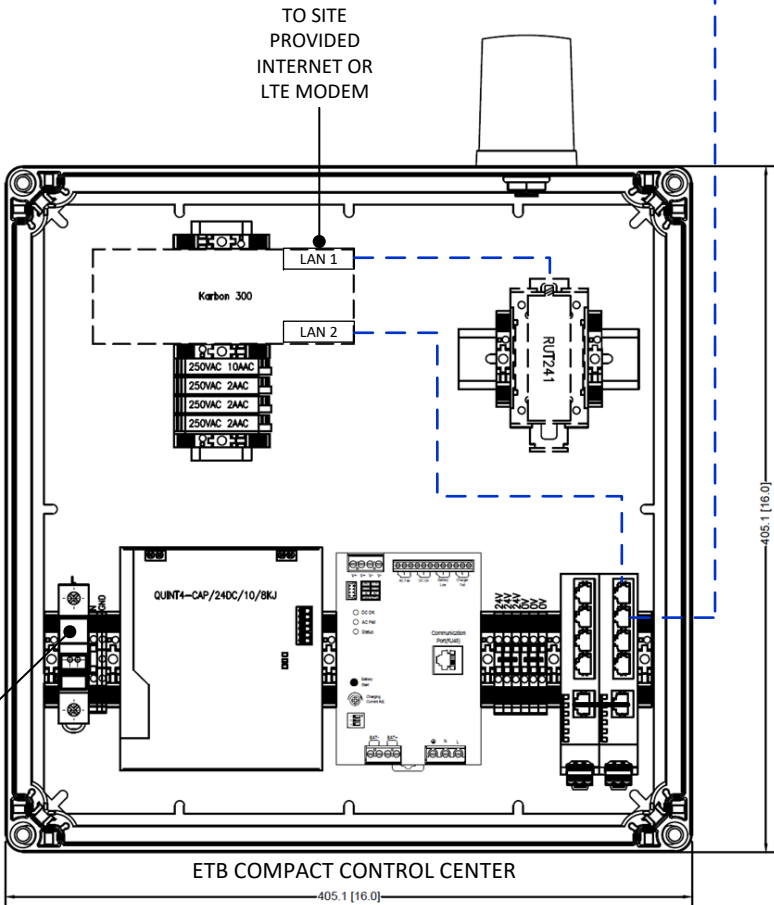
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SOCOMEC HESL C-CAB



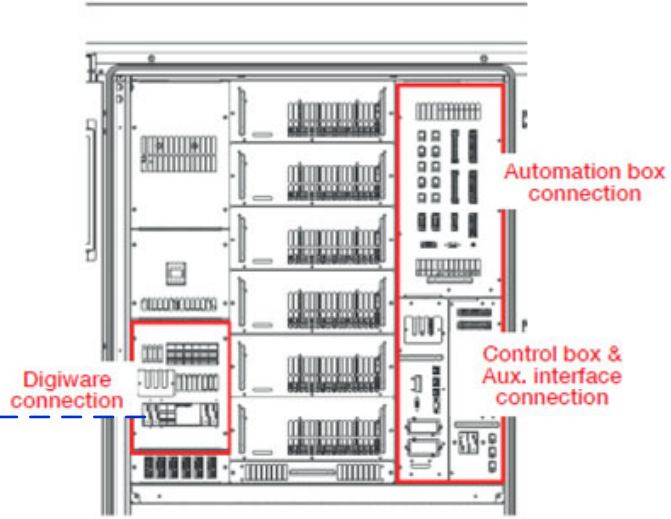
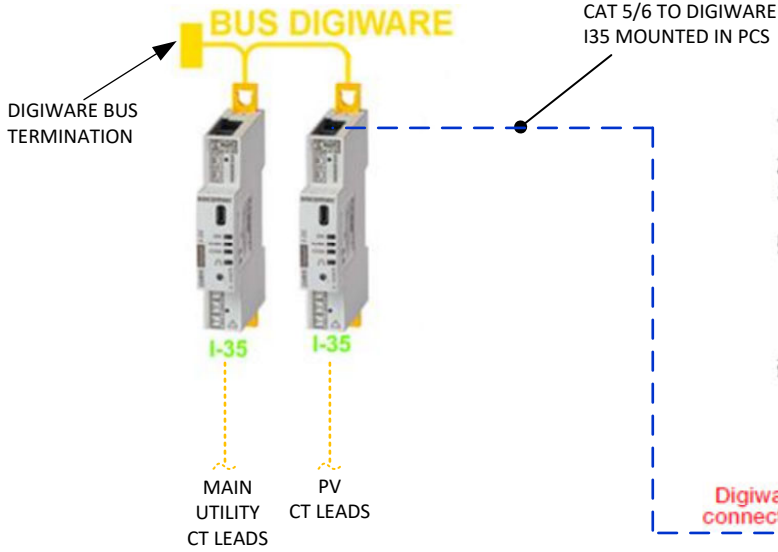
CAT 5/6 TO AUTOMATION  
BOX EXTERNAL CONTROL  
ETH. TO SWITCH



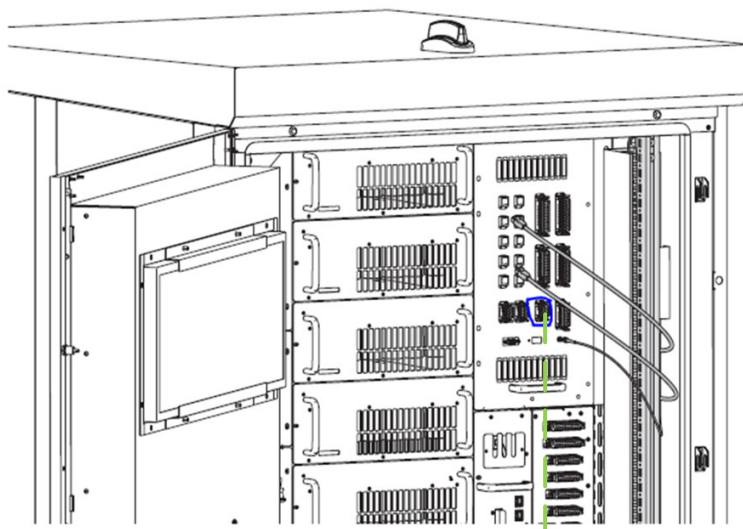
NOTE:  
EXTERNAL 90-305VAC L-N POWER  
SOURCE. CONDUCTORS MUST BE MIN. 14  
GAUGE AND MAX. 12 GAUGE.  
ENCLOSURE REQUIRES MAX. 100 WATTS.

ETB CONTROLLER CONNECTION  
TO PMS

METERING COMPONENTS TO BE INSTALLED IN  
EXTERNAL ENCLOSURE SUPPLIED BY INSTALLER

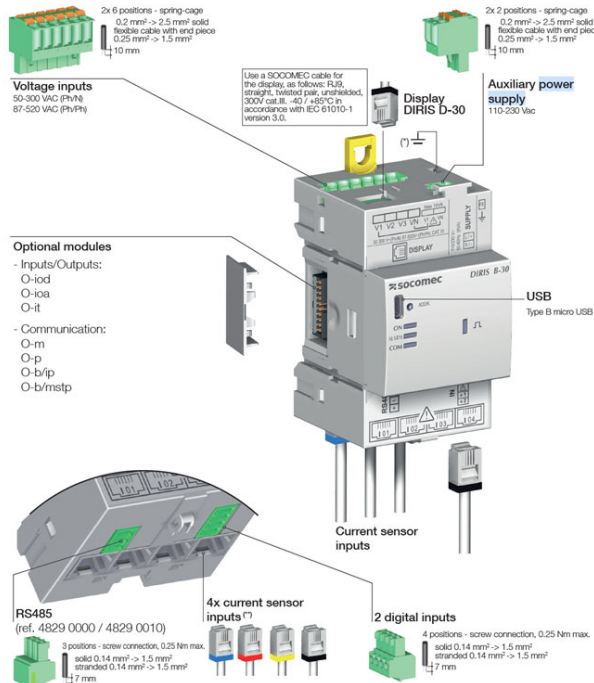


B I-35 METER CONNECTION



ALTERNATE DIGIWARE COMPONENTS MAY BE SUPPLIED  
BASED ON ONSITE NEEDS

C B30 METER CONNECTION



321 E. OSCEOLA ST.  
STUART, FL 34994  
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DESCRIPTION:  
EXTERNAL COMPONENT  
CONNECTION DETAILS  
SYSTEM TYPE:  
SOCOME HES L

REV.	DESCRIPTION	DATE	BY
1	DETAILS PUBLISHED	05.10.22	KM
2	QR CODE ADDED	10.11.22	KM
3	ETB CONTROLLER UPDATE	07.16.24	LL
4	ETB ENCLOSURE UPDATE	07.15.25	NA



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Manuals

TITLE:  
ETB CONTROLLER  
SINGLE LINE

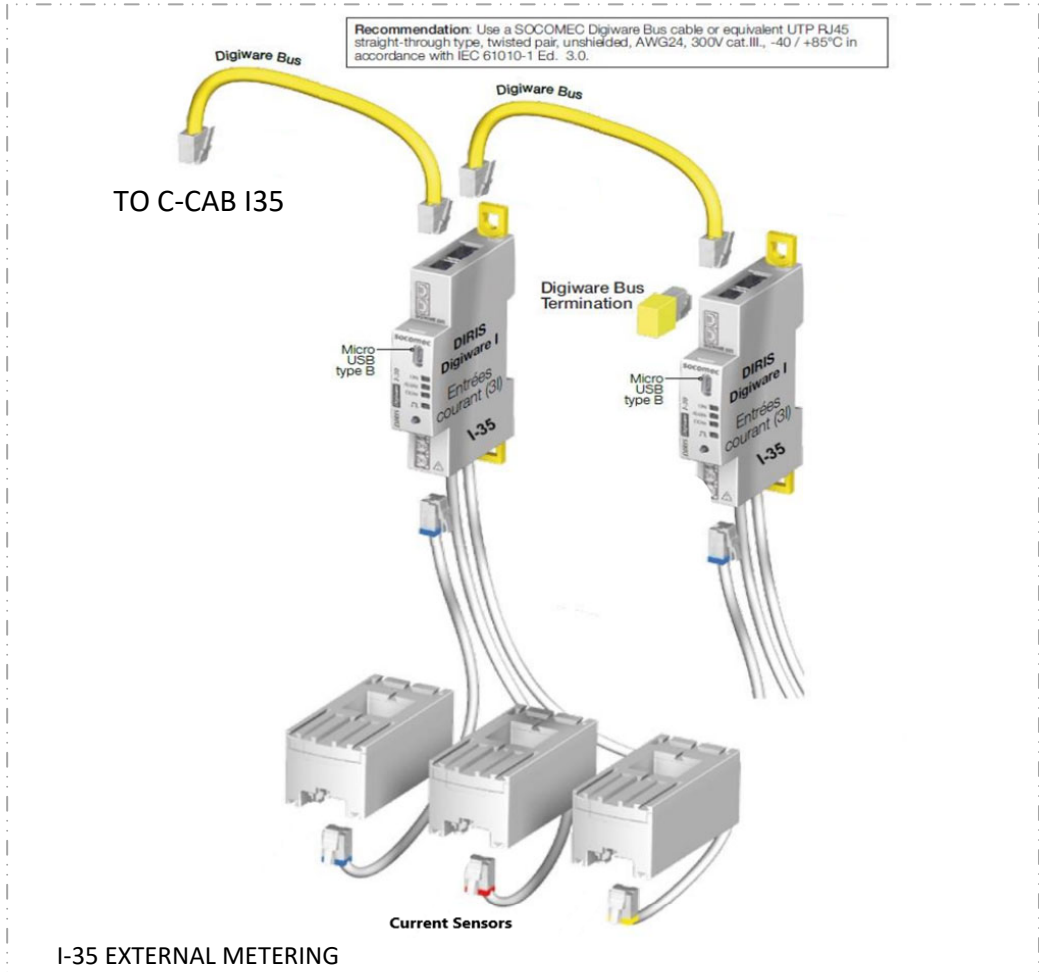
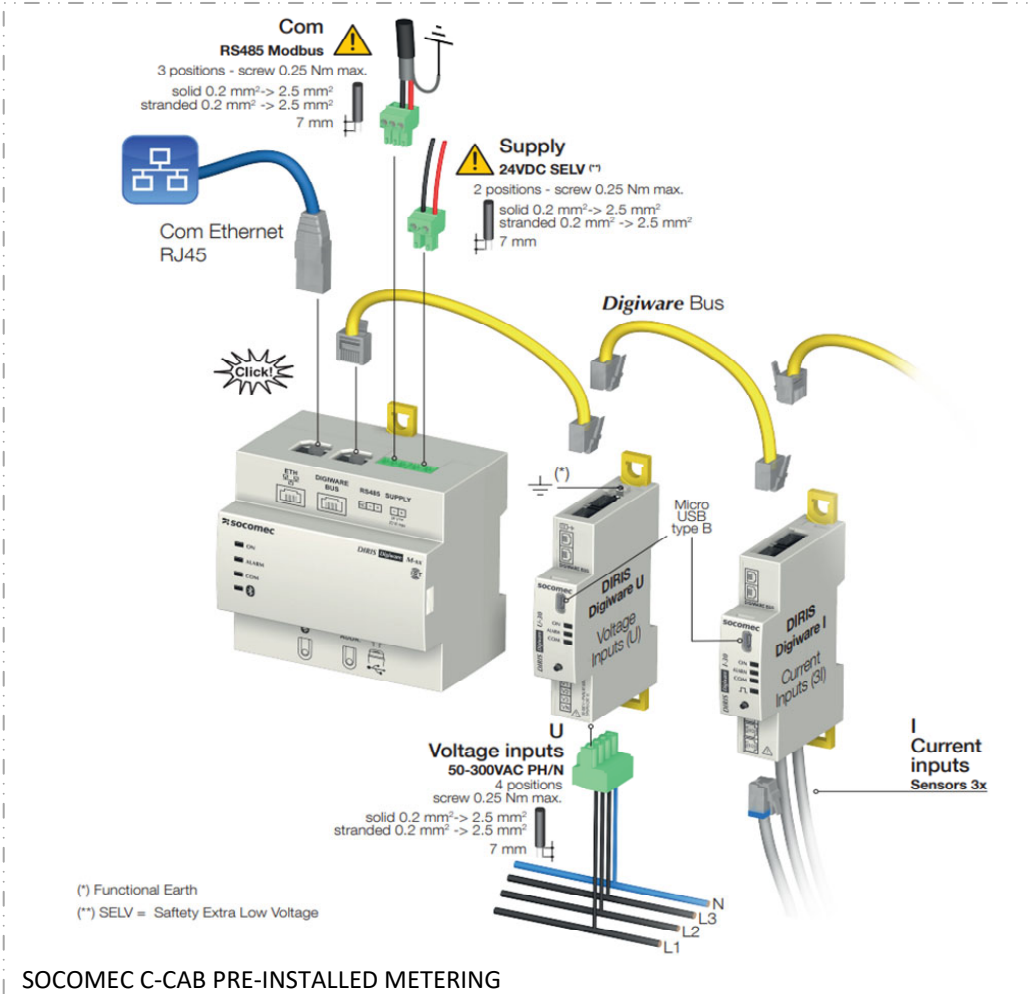
DRAWING NUMBER:  
EMS\_3

SCALE:  
NS

SHEET:  
3 OF 4

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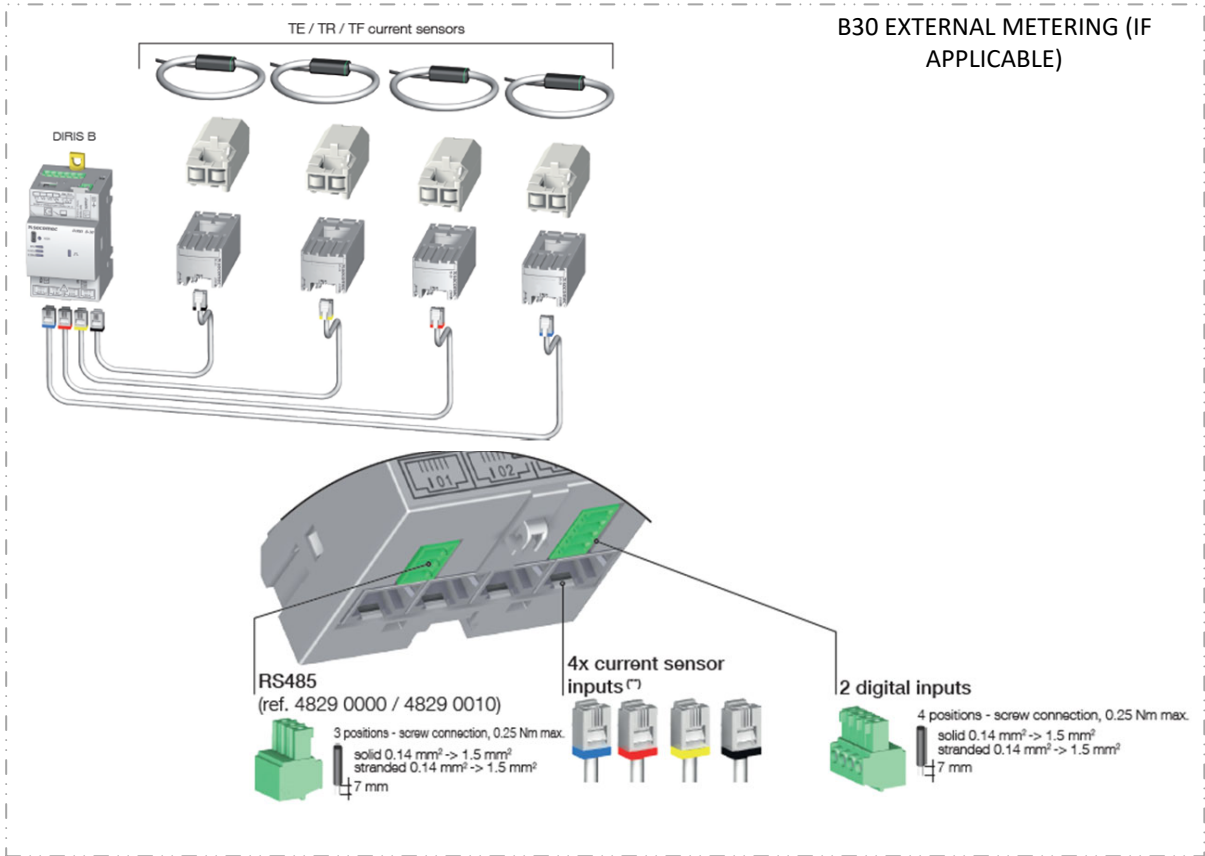


**NOTE:**  
VOLTAGE REFERENCE CONDUCTORS MAY BE BROWN/ ORANGE/YELLOW OR OTHER COLOR SCHEMES BASED ON CONNECTION VOLTAGE.

VOLTAGE TAPS **MUST** BE TAKEN AT THE SAME REFERENCE VOLTAGE (LOAD) THE CTS ARE MEASURING. IDEALLY THIS WOULD BE WITHIN THE SAME PANELBOARD THAT THE CTS ARE LOCATED.

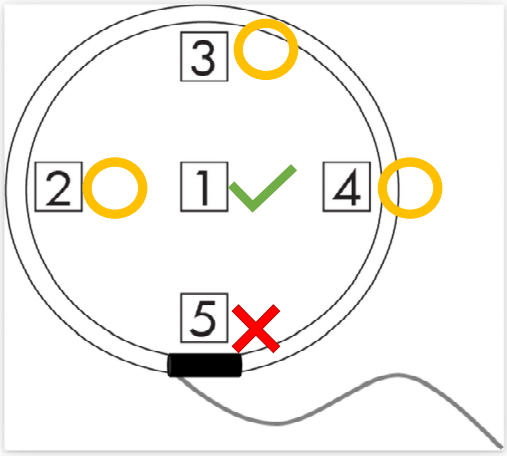
DIGIWARE BUS TERMINATION MUST BE INSTALLED ON LAST UNIT IN THE DIGIWARE BUS

ALTERNATE DIGIWARE METERING COMPONENTS MAY BE SUPPLIED BASED ON ONSITE NEEDS

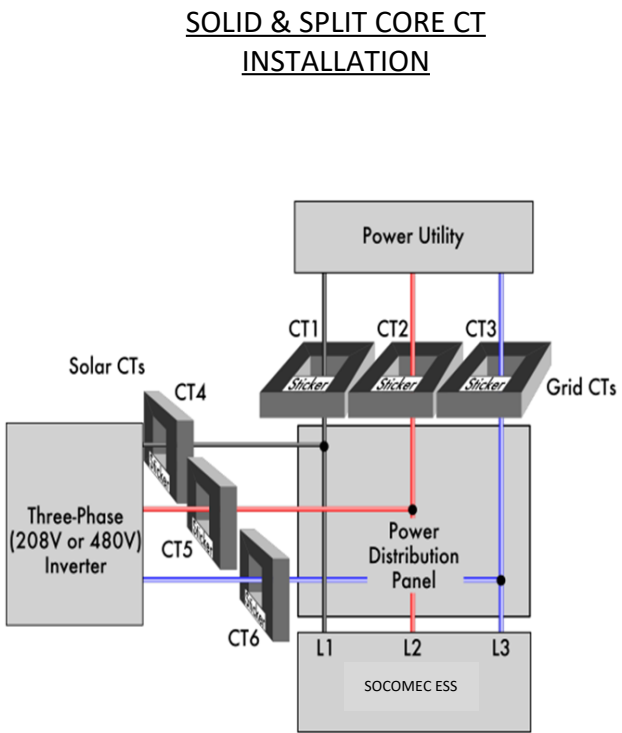


**ROPE CT INSTALLATION**

ROPE CTS SHOULD BE INSTALLED PROPERLY TO REDUCE THE MAXIMUM ERROR BASED ON POSITIONING. IDEALLY THE CONDUCTOR BEING MONITORED WILL BE PERPENDICULAR TO THE ROPE CT LOOP, AND PASS THROUGH THE CENTER OF THE ROPE CT AS SHOWN BELOW. TIE-WRAPS OR OTHER NON-CONDUCTIVE FASTENERS CAN BE USED TO CENTER THE ROPE CT AROUND THE CONDUCTOR.



Position Number	Position Description	Error
1	Centered	< 0.4%
2, 3, 4	Near outer edge	< 2.0%
5	Near connector	< 4.0%



SPLIT AND SOLID CORE CT'S SHOULD BE INSTALLED WITH THE STICKER SIDE FACING THE LOAD BEING MEASURED. CERTAIN CT'S MAY HAVE AN ARROW, IN WHICH CASE ENSURE THE ARROW IS POINTING TOWARDS THE LOAD BEING MEASURED.



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DESCRIPTION:  
METER DETAILS

SYSTEM TYPE:  
SOCOME C HES L

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ETB Controller  
Installation  
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TITLE:  
ETB CONTROLLER  
SINGLE LINE

DRAWING NUMBER:  
EMS\_4

SCALE:  
NS

SHEET:  
4 OF 4

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A

METER DETAILS

B

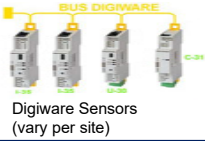
CT INSTALLATION INFORMATION



# Quick Start Guide – ETB Controller

## For Integration with SOCOMEC HES L

### SHIPPED FROM ENERGY TOOLBASE SOFTWARE, INC.



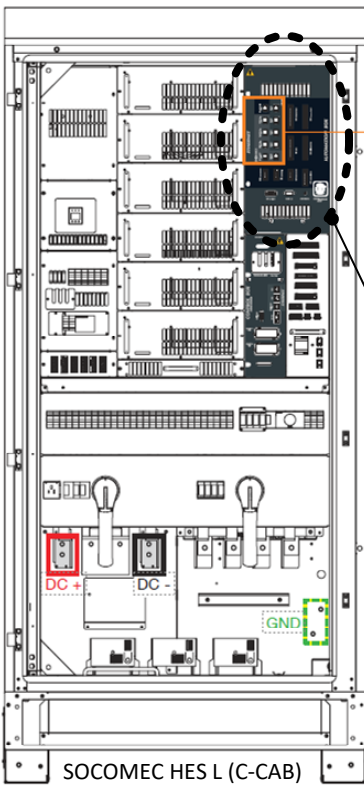
### TOOLS AND EQUIPMENT YOU MAY NEED:

- Flat-head Screwdriver
- Philips-head Screwdriver
- Drill and Bits
- Adjustable Wrench
- Wire Cutters
- Wire Strippers
- Volt-meter
- DIN rail, self tapping screws
- Comms cabling

## INSTALLATION STEPS:

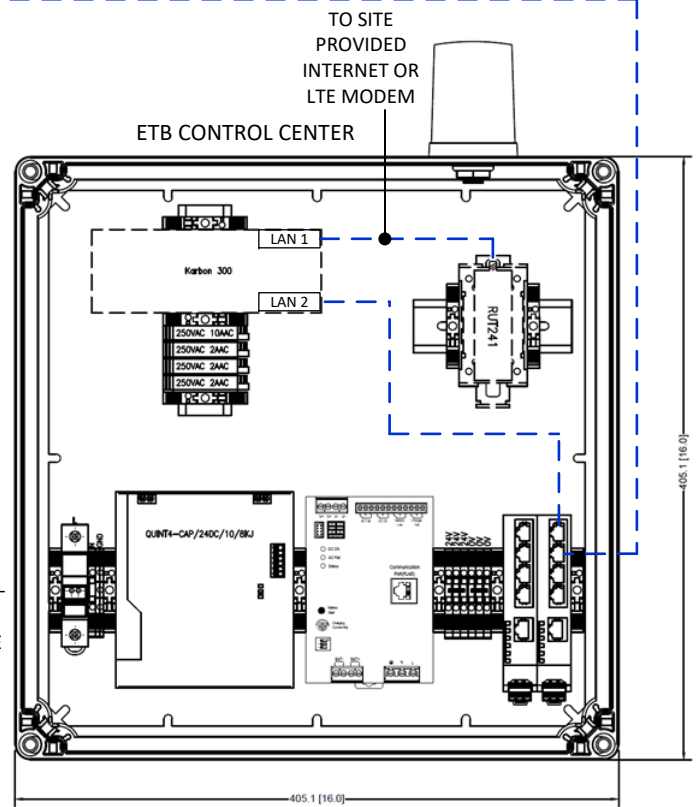
Follow these installation steps and then contact Energy Toolbase Software, Inc. (866-415-1445) for further commissioning activities. The steps below represent a typical installation, unique site features might warrant adjustment or additional steps. For more detailed instructions please reference the ETB Controller installation manual.

### 1. Connect internet to ESS

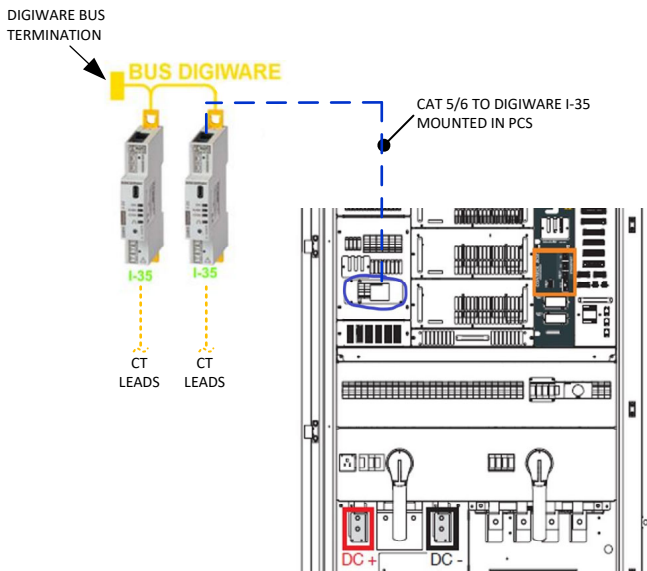


AUTOMATION BOX SECTION

NOTE:  
EXTERNAL 90-305VAC L-N POWER SOURCE.  
CONDUCTORS MUST BE MIN. 14 GAUGE AND MAX. 12 GAUGE.  
ENCLOSURE REQUIRES MAX. 100 WATTS.

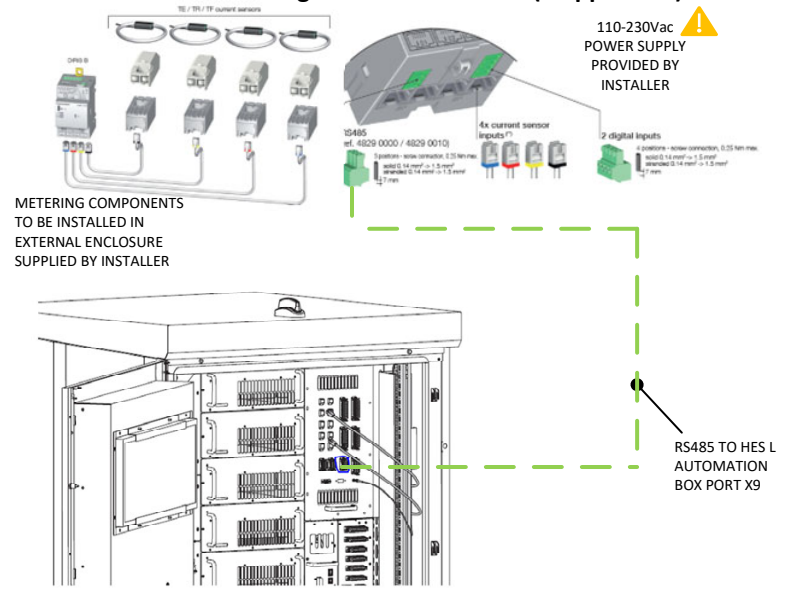


### 3. Connect standard metering to Digiware bus



**⚠** METERING COMPONENTS TO BE INSTALLED IN EXTERNAL ENCLOSURE SUPPLIED BY INSTALLER

### 4. Connect RS485 metering to Automation box (if applicable)



**⚠** VOLTAGE TAPS **MUST** BE TAKEN AT THE SAME REFERENCE VOLTAGE (LOAD) THE CTS ARE MEASURING. IDEALLY THIS WOULD BE WITHIN THE SAME PANELBOARD THAT THE CTS ARE LOCATED.