



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



Scan QR for  
ETB Controller  
Installation  
Manuals

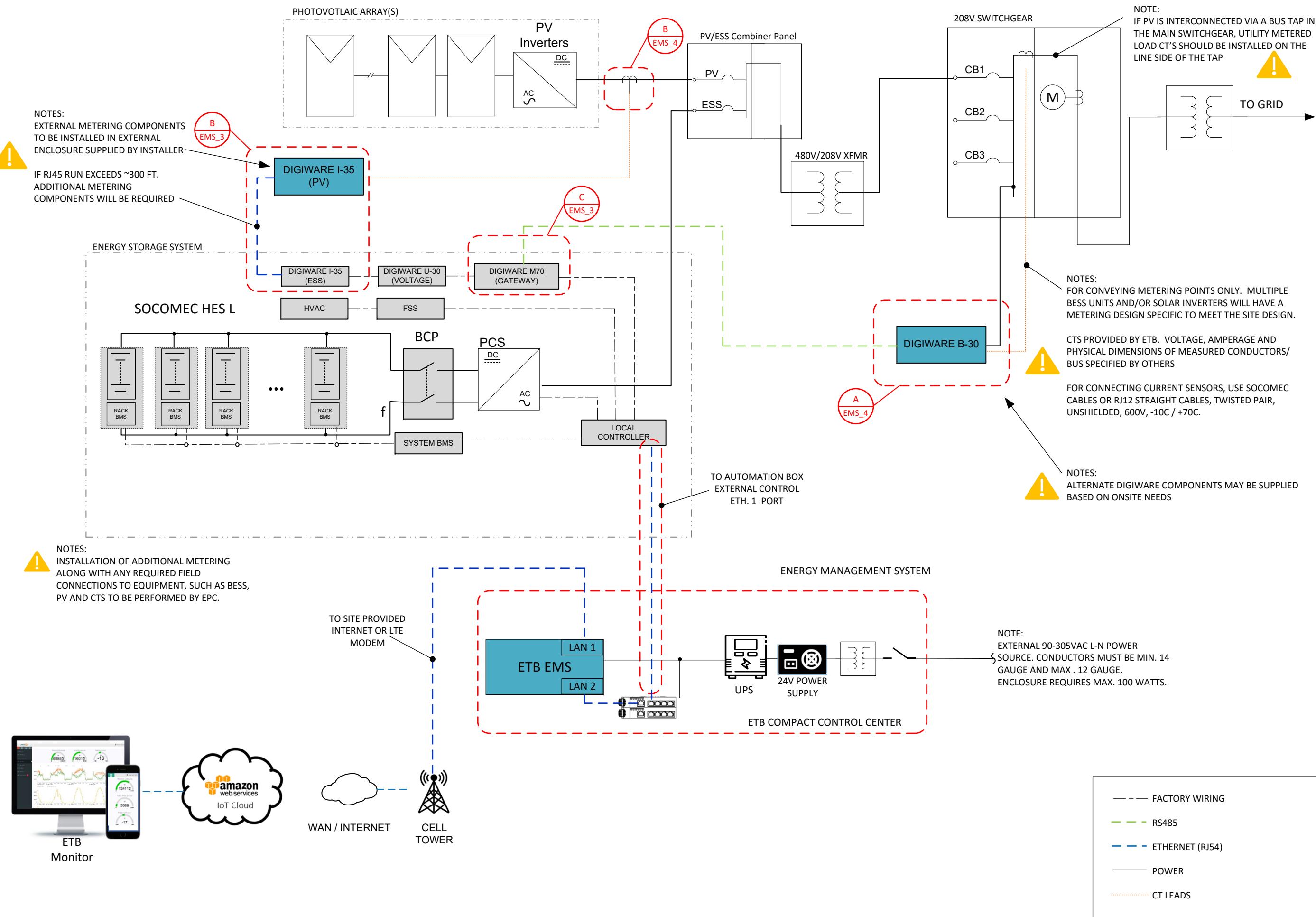
TITLE:  
ETB CONTROLLER  
SINGLE LINE

DRAWING NUMBER:  
EMS\_2

SCALE:  
NS

SHEET:  
2 OF 4

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



DESCRIPTION:	
EXTERNAL COMPONENT CONNECTION DETAILS	
SYSTEM TYPE:	
SOCOMECH HES L	
REV.	DATE
1	05.10.22
2	10.11.22
3	07.16.24
4	07.15.25



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Manuals

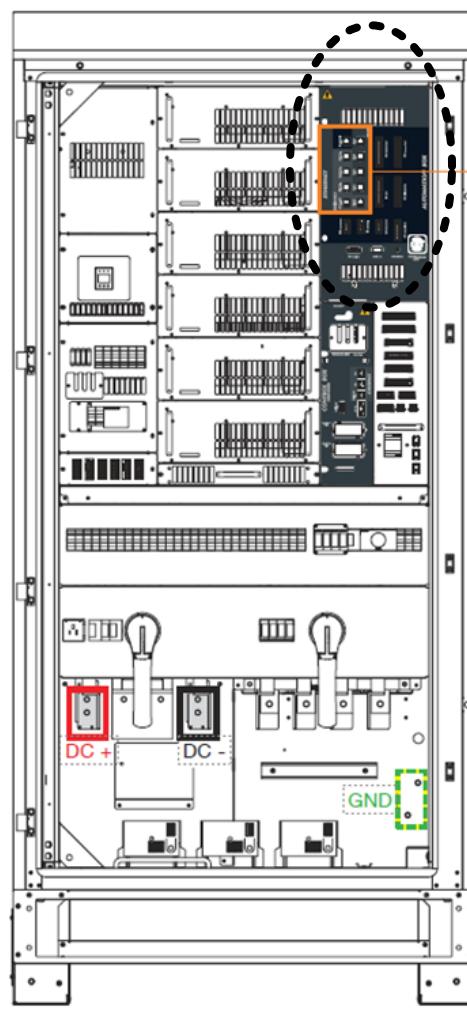
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ETB CONTROLLER  
SINGLE LINE

DRAWING NUMBER:  
EMS\_3

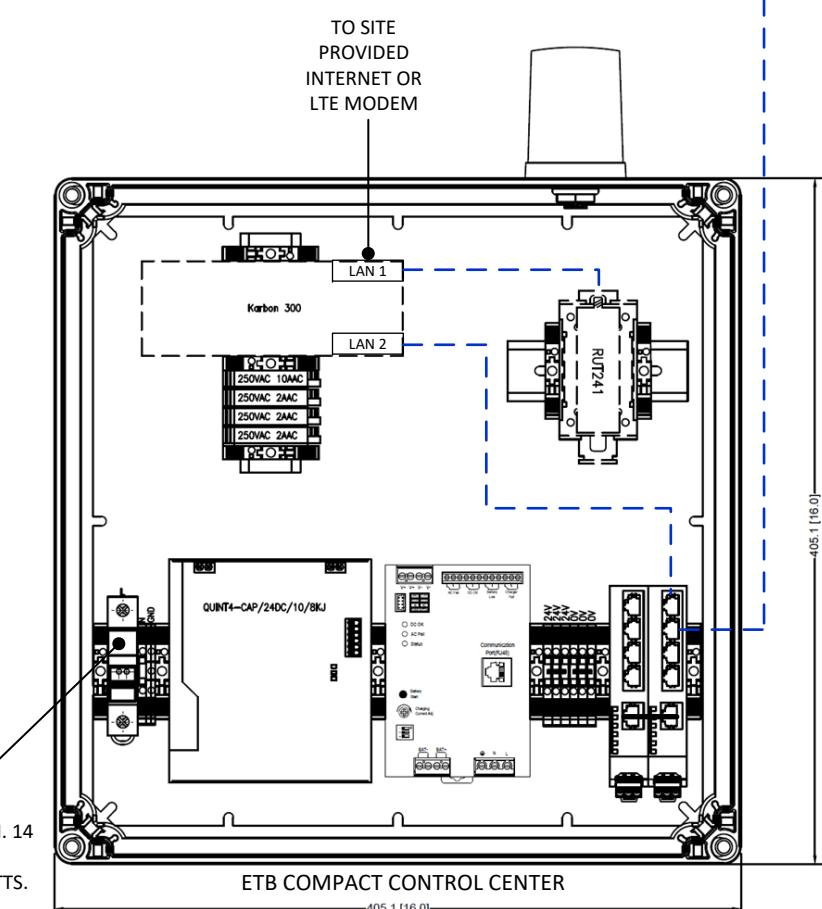
SCALE:  
NS

SHEET:  
3 OF 4

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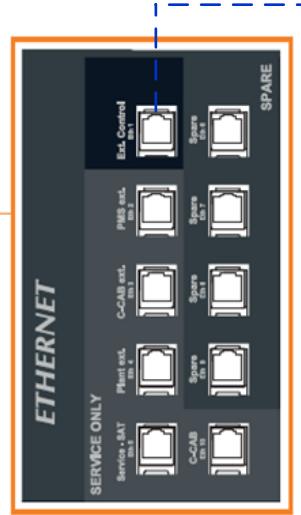


SOCOMECH HESL C-CAB



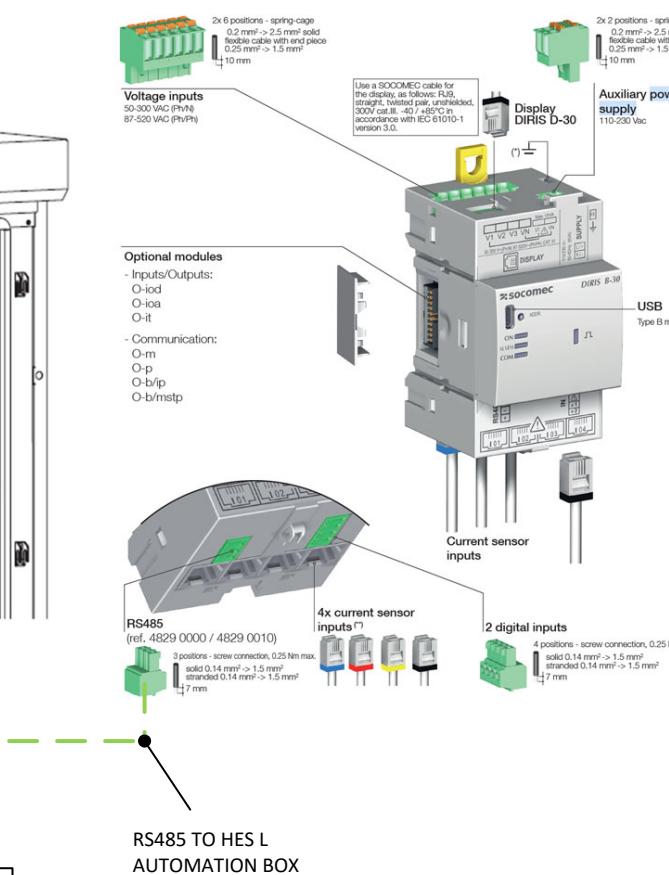
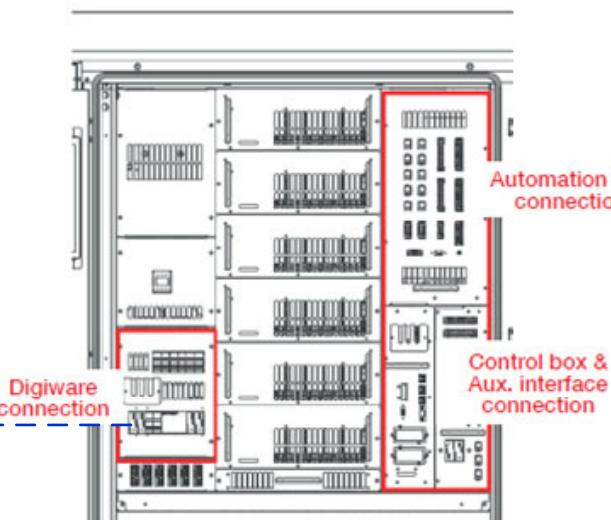
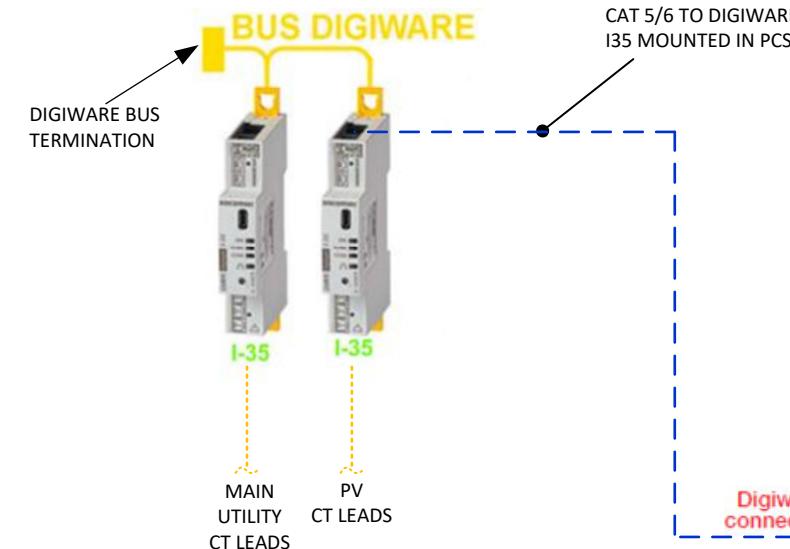
NOTE:  
EXTERNAL 90-305VAC L-N POWER  
SOURCE. CONDUCTORS MUST BE MIN. 14  
GAUGE AND MAX. 12 GAUGE.  
ENCLOSURE REQUIRES MAX. 100 WATTS.

A ETB CONTROLLER CONNECTION  
TO PMS



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

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



C B30 METER CONNECTION

**⚠ ALTERNATE DIGIWARE COMPONENTS MAY BE SUPPLIED  
BASED ON ONSITE NEEDS**

RS485  
(ref. 4829.0000 / 4829.0010)  
3 positions - screw connector, 0.25 Nm max.  
solid 0.14 mm<sup>2</sup> > 1.5 mm<sup>2</sup>  
stranded 0.14 mm<sup>2</sup> > 1.5 mm<sup>2</sup>  
7 mm

RS485  
TO HES L  
AUTOMATION BOX

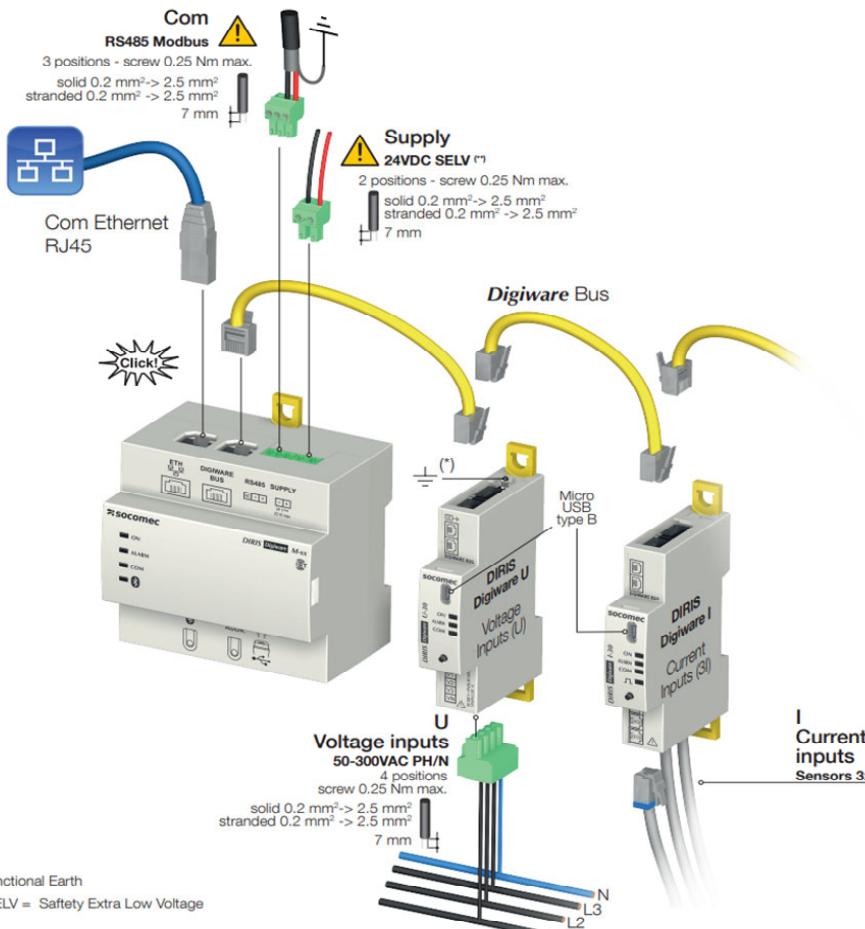
DESCRIPTION:	
METER DETAILS	
SYSTEM TYPE:	
BY	KM
DATE	05.10.22
REV.	1
DESCRIPTION	DETAILS PUBLISHED
	QR CODE ADDED
DATE	10.11.22
REV.	2
DESCRIPTION	ETB CONTROLLER UPDATE
	ETB ENCLOSURE UPDATE
DATE	07.16.24
REV.	3
DESCRIPTION	07.15.25
	4

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

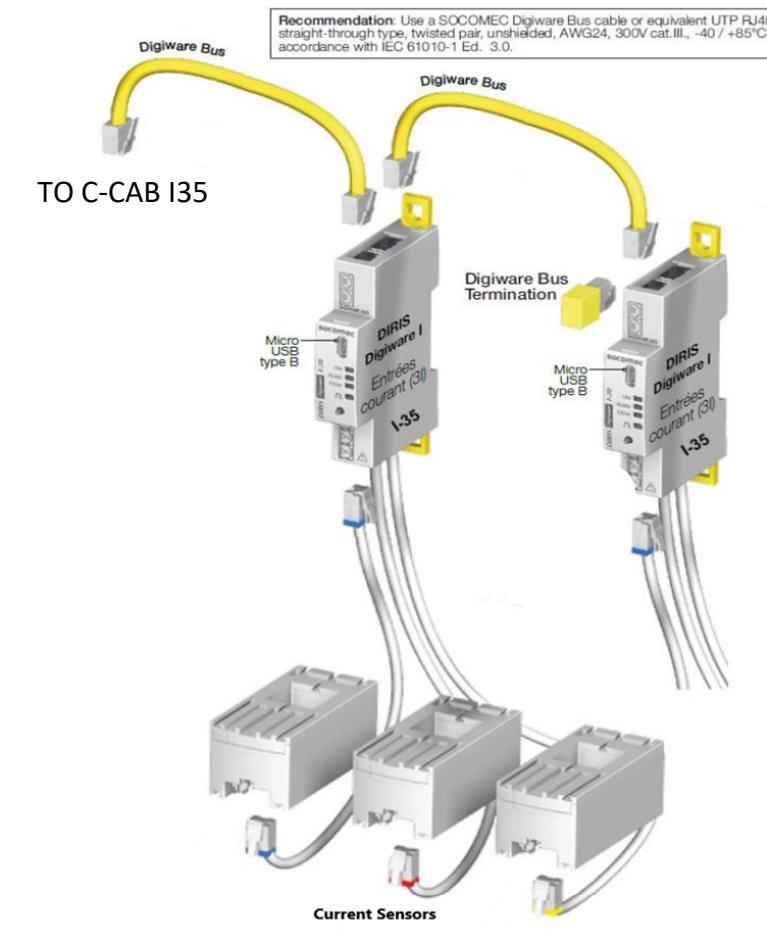
VOLTAGE TAPS **MUST** BE TAKEN AT THE SAME REFERENCE  
 VOLTAGE (LOAD) THE CTS ARE MEASURING. IDEALLY THIS  
 WOULD BE WITHIN THE SAME PANELBOARD THAT THE CTS  
 ARE LOCATED.

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

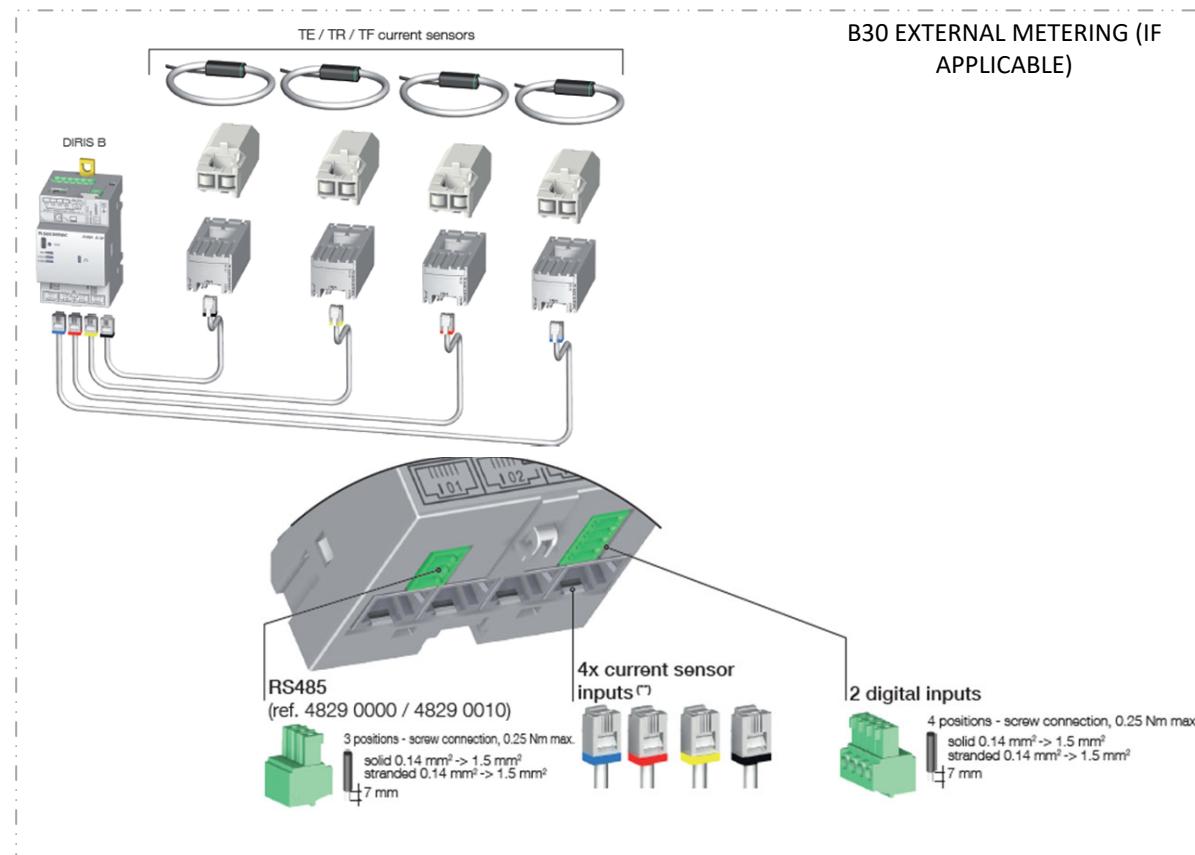
ALTERNATE DIGIWARE METERING COMPONENTS MAY BE  
 SUPPLIED BASED ON ONSITE NEEDS



#### SOCOMECH C-CAB PRE-INSTALLED METERING



#### I-35 EXTERNAL METERING

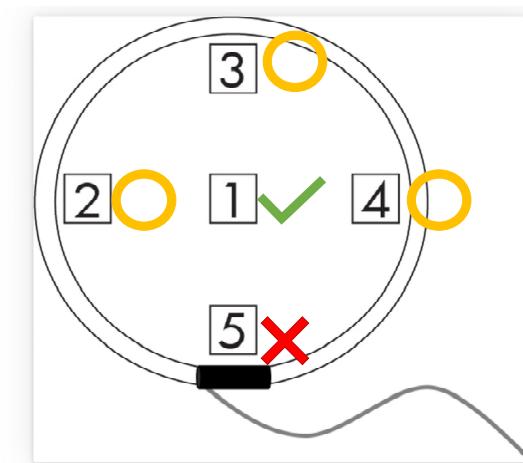


A

#### METER DETAILS

#### 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.

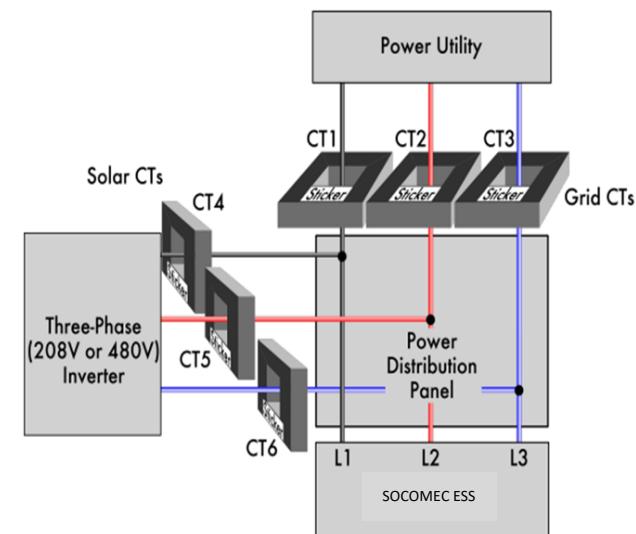


Position Number	Position Description	Error
1	Centered	< 0.4%
2, 3, 4	Near outer edge	< 2.0%
5	Near connector	< 4.0%

B

#### CT INSTALLATION INFORMATION

#### SOLID & SPLIT CORE CT INSTALLATION



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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 4 OF 4

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# Quick Start Guide – ETB Controller

## For Integration with SOCOMEC HES L

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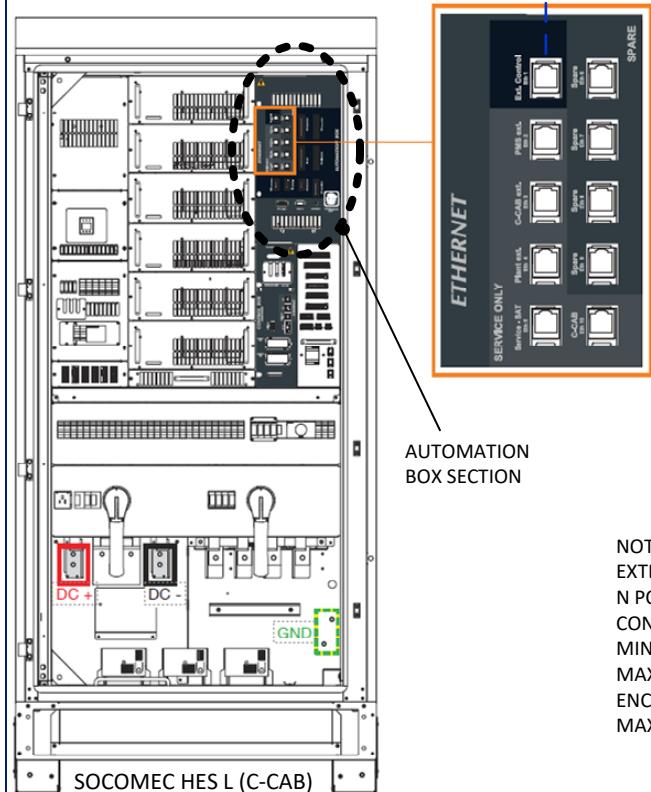


### TOOLS AND EQUIPMENT YOU MAY NEED:

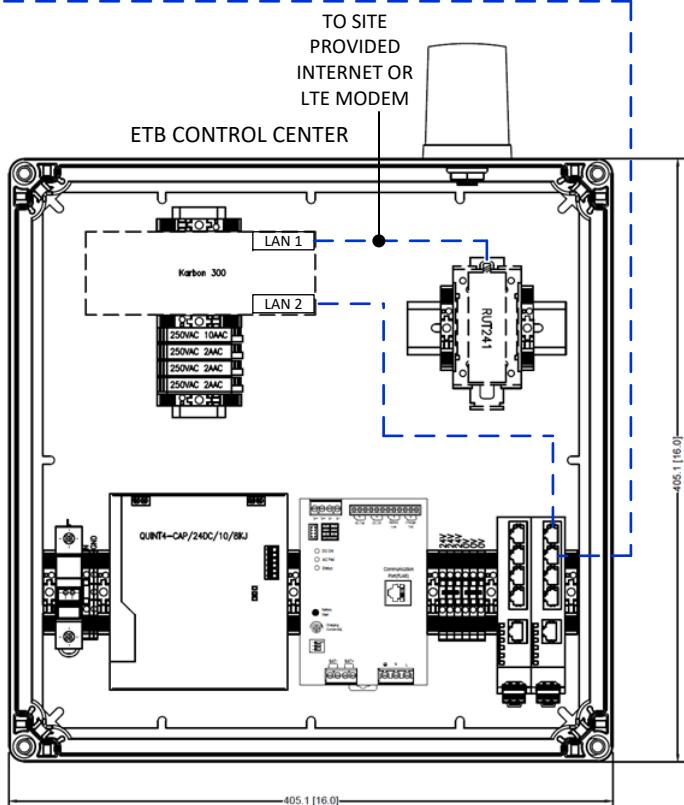
- Flat-head Screwdriver
- Philips-head Screwdriver
- Drill and Bits
- Adjustable Wrench
- Wire Cutters
- Wire Strippers
- Volt-meter
- DIN rail, self tapping screws
- Comms cabling

### INSTALLATION STEPS:

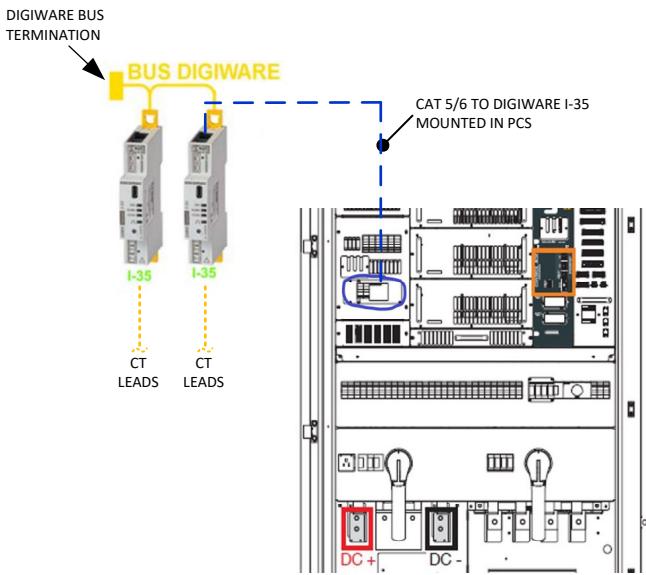
#### 1. Connect internet to ESS



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

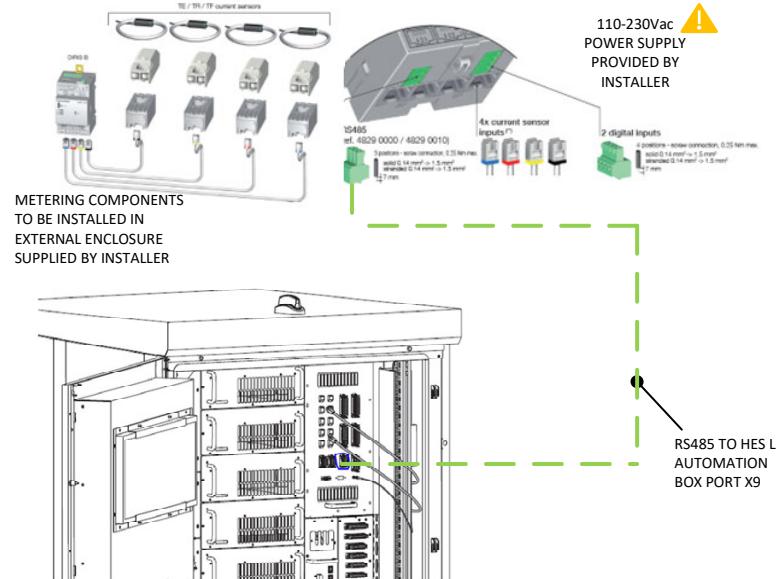


#### 3. Connect standard metering to Digiware bus



**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.**