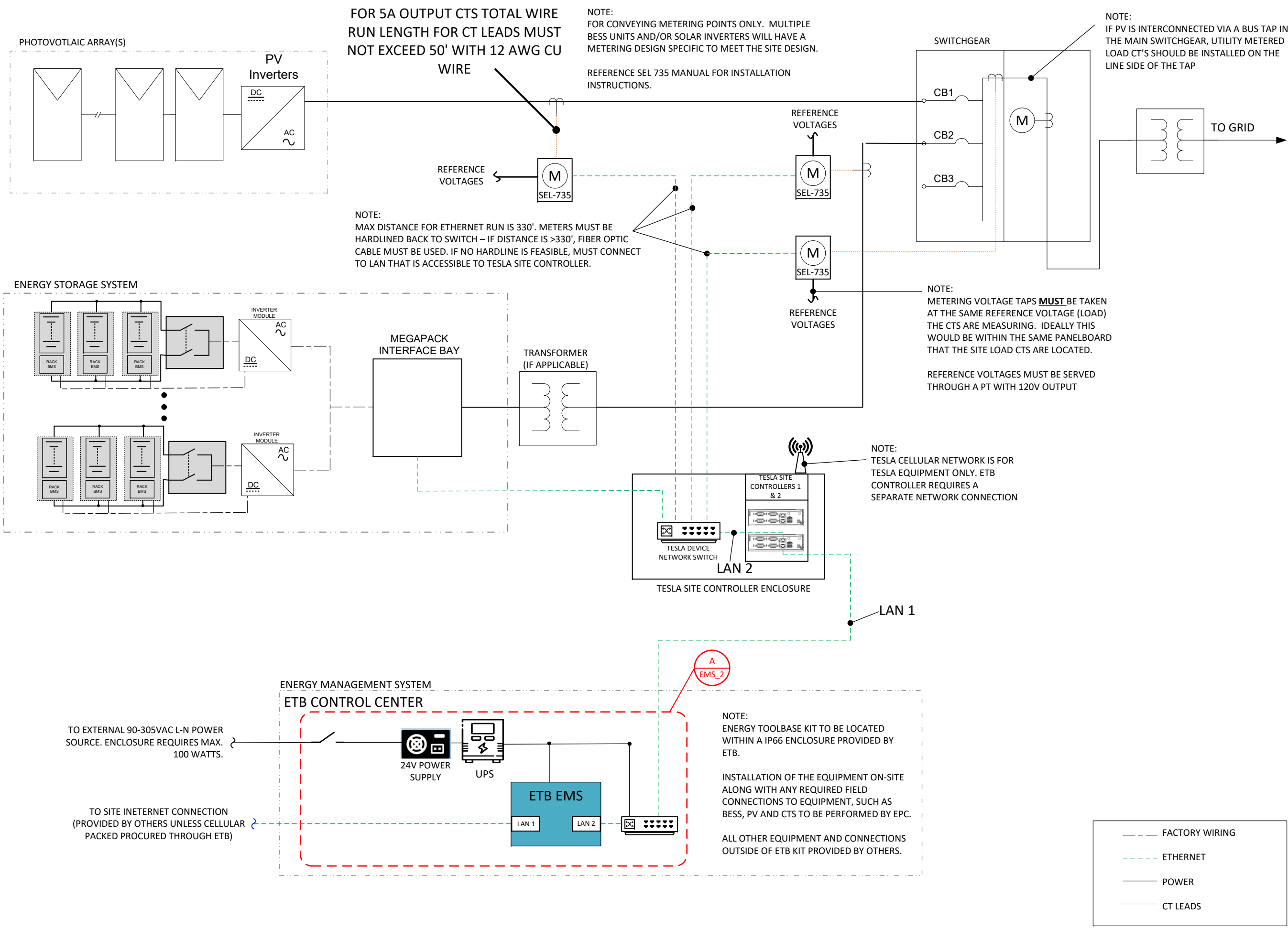




FOR 5A OUTPUT CTS TOTAL WIRE RUN LENGTH FOR CT LEADS MUST NOT EXCEED 50' WITH 12 AWG CU WIRE

NOTE: FOR CONVEYING METERING POINTS ONLY. MULTIPLE BESS UNITS AND/OR SOLAR INVERTERS WILL HAVE A METERING DESIGN SPECIFIC TO MEET THE SITE DESIGN. REFERENCE SEL 735 MANUAL FOR INSTALLATION INSTRUCTIONS.

NOTE: IF PV IS INTERCONNECTED VIA A BUS TAP IN THE MAIN SWITCHGEAR, UTILITY METERED LOAD CT'S SHOULD BE INSTALLED ON THE LINE SIDE OF THE TAP

NOTE: MAX DISTANCE FOR ETHERNET RUN IS 330'. METERS MUST BE HARDLINED BACK TO SWITCH – IF DISTANCE IS >330', FIBER OPTIC CABLE MUST BE USED. IF NO HARDLINE IS FEASIBLE, MUST CONNECT TO LAN THAT IS ACCESSIBLE TO TESLA SITE CONTROLLER.

NOTE: METERING 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 SITE LOAD CTS ARE LOCATED. REFERENCE VOLTAGES MUST BE SERVED THROUGH A PT WITH 120V OUTPUT

NOTE: TESLA CELLULAR NETWORK IS FOR TESLA EQUIPMENT ONLY. ETB CONTROLLER REQUIRES A SEPARATE NETWORK CONNECTION

NOTE: ENERGY TOOLBASE KIT TO BE LOCATED WITHIN A IP66 ENCLOSURE PROVIDED BY ETB. INSTALLATION OF THE EQUIPMENT ON-SITE ALONG WITH ANY REQUIRED FIELD CONNECTIONS TO EQUIPMENT, SUCH AS BESS, PV AND CTS TO BE PERFORMED BY EPC. ALL OTHER EQUIPMENT AND CONNECTIONS OUTSIDE OF ETB KIT PROVIDED BY OTHERS.

— — —

FACTORY WIRING

- - - - -

ETHERNET

—————

POWER

- - - - -

CT LEADS



energy
toolbase

A pason Company

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

DESCRIPTION:
COMMS SINGLE LINE

SYSTEM TYPE:
TESLA

BY	DATE	DESCRIPTION	REV.
KM	01.04.24	SINGLE LINE PUBLISHED	1
LL	07.16.24	ETB CONTROLLER UPDATE	2
LL	09.24.24	CONTROL CENTER UPDATE	3
LL	04.02.25	TSC UPDATE	4



Scan QR for
ETB Controller
Installation
Manuals

TITLE:
ETB CONTROLLER
SINGLE LINE

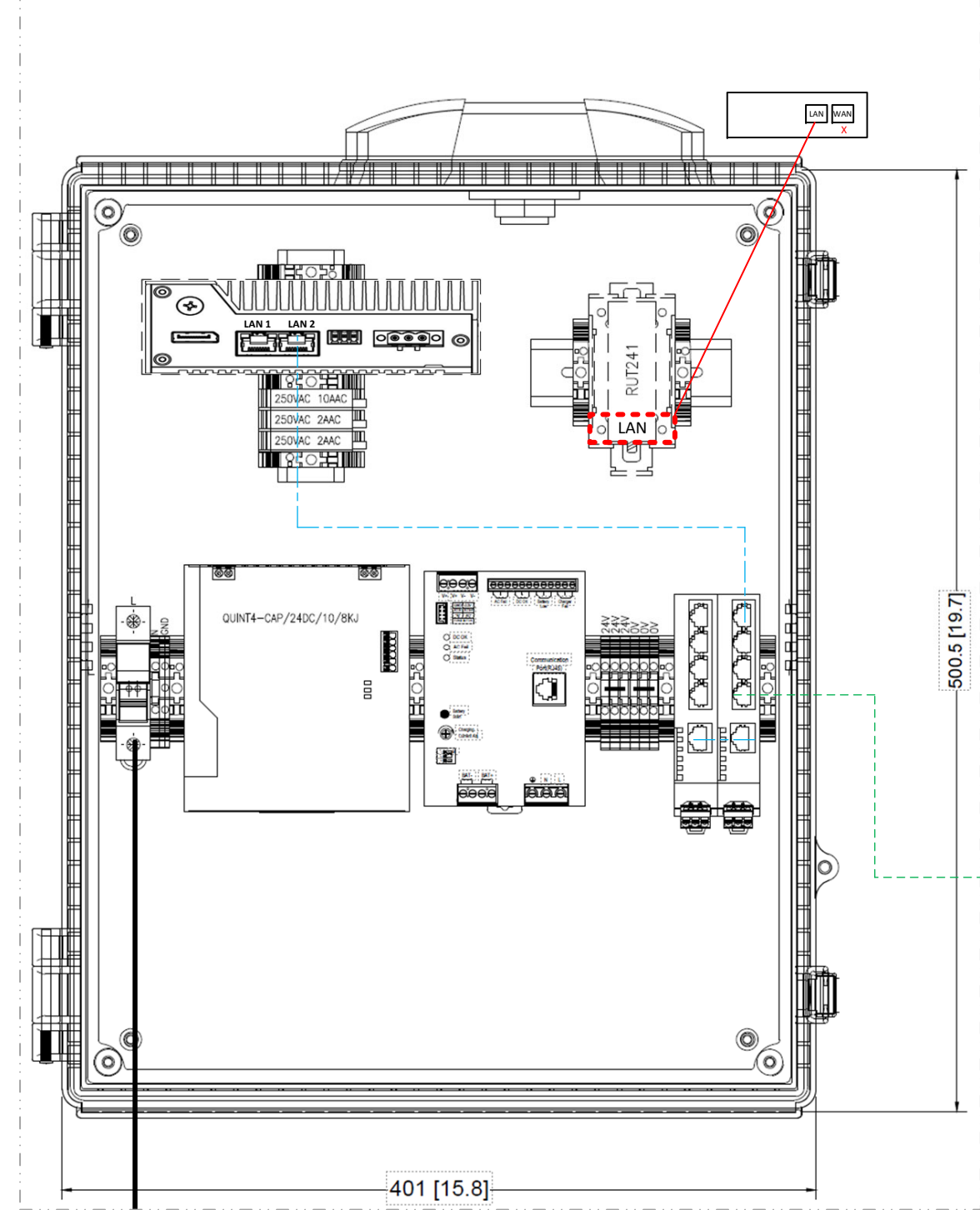
DRAWING NUMBER:
EMS_1

SCALE:
NS

SHEET:
1 OF 5

©COPYRIGHT ENERGY TOOLBASE
THIS DIAGRAM IS PROVIDED
FOR REFERENCE ONLY AND IS
SUBJECT TO CHANGE BASED
ON USE CASE, ACTUAL
CONDITIONS ELECTRICAL
CODES, UTILITY
REQUIREMENTS AND LOCAL
CODE ENFORCEMENT.

ETB CONTROL CENTER + LTE



INPUT POWER:
90-305VAC L-N
100W MAX. OPERATING
POWER

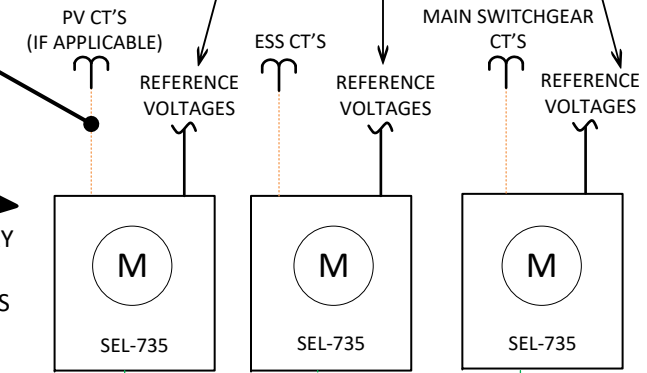
ENERGY STORAGE
SYSTEM MODBUS/TCP
DATA CONNECTION
ETHERNET (CAT5/6) TO
NETWORK SWITCH
MAX LENGTH: 330'

FOR 5A OUTPUT CTS TOTAL WIRE
RUN LENGTH FOR CT LEADS MUST
NOT EXCEED 50' WITH 12 AWG CU
WIRE

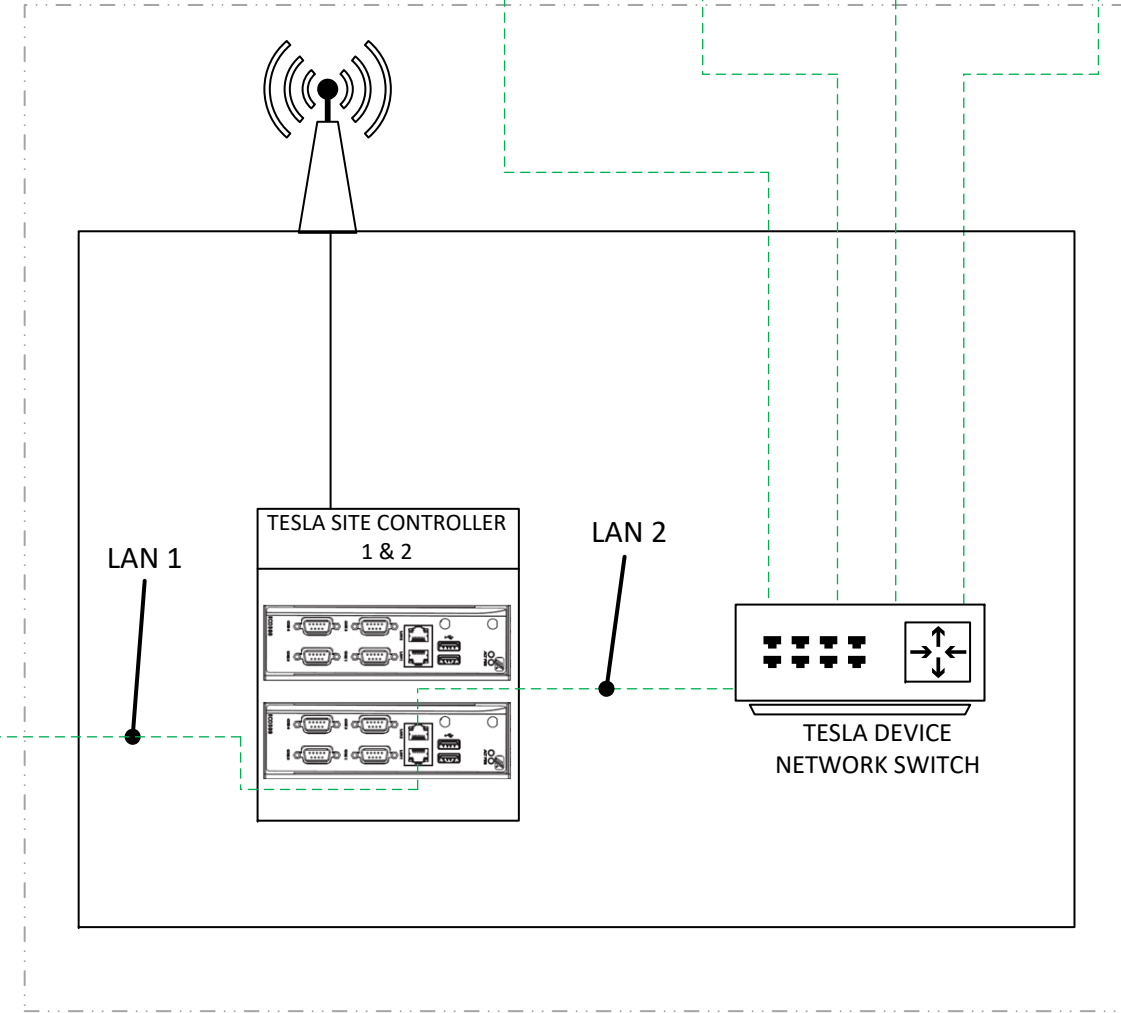
REFERENCE SEL 735 MANUAL
FOR INSTALLATION. SCAN QR
CODE FOR ETB INSTALL
GUIDES.

TESLA BATTERY
MODBUS
CONNECTIONS

REFERENCE VOLTAGES MUST BE SERVED
THROUGH A PT WITH 120V OUTPUT*



TESLA SITE CONTROLLER ENCLOSURE



*TO POWER THE SEL-735 FROM THE PT CIRCUIT,
CONNECT TERMINALS **Z07** TO **A01** AND **Z10** TO **A02** BY
USING 12-24 AWG WIRE*

- FACTORY WIRING
- ETHERNET
- POWER
- CT LEADS

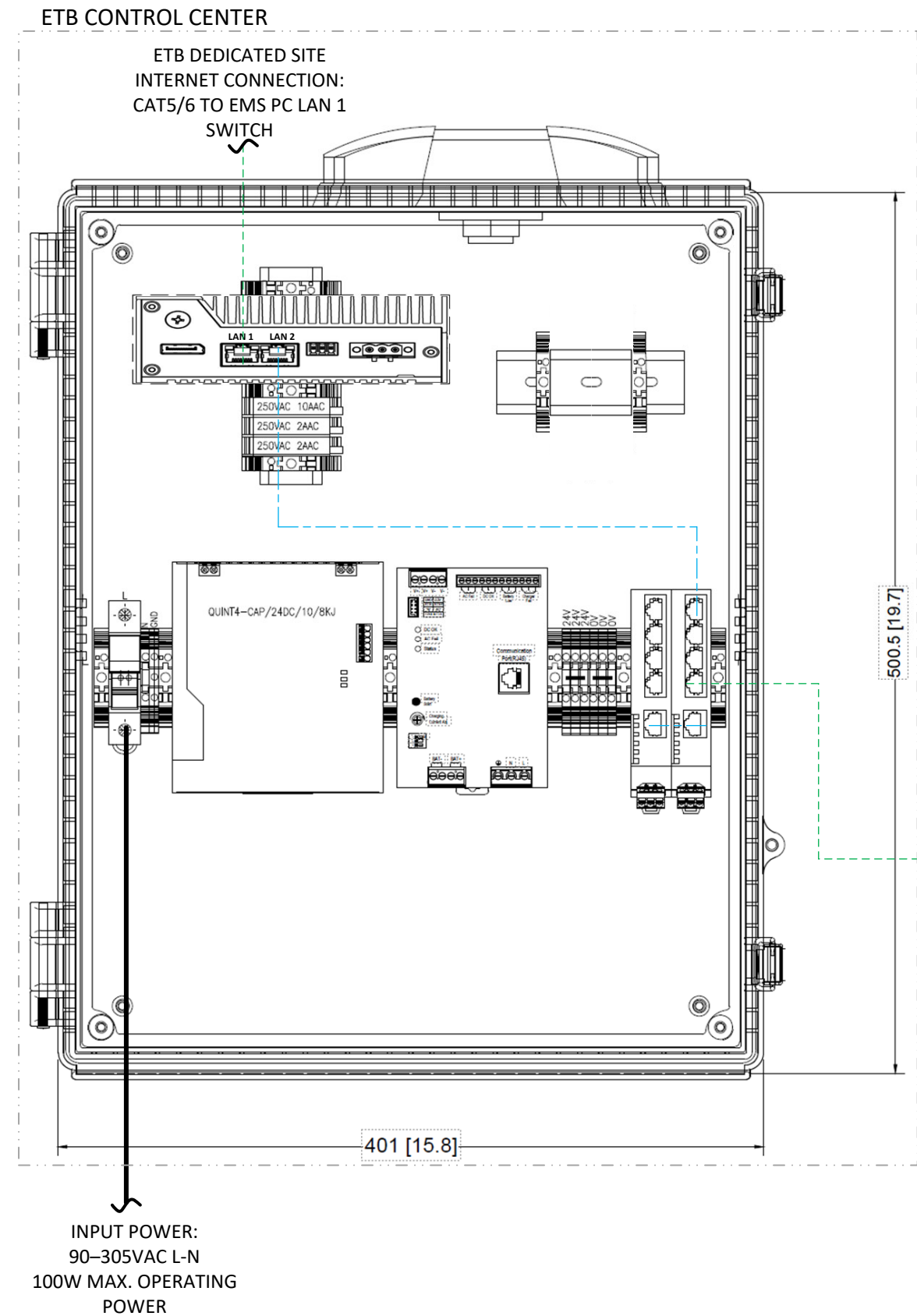
DESCRIPTION: NETWORKING DIAGRAM W/ LTE					
SYSTEM TYPE: TESLA					
BY	KM	LL	LL	LL	
DATE	02.15.23	07.16.24	09.24.24	04.02.25	
DESCRIPTION	DETAILS PUBLISHED	ETB CONTROLLER UPDATE	CONTROL CENTER UPDATE	TSC UPDATE	
	1	2	3	4	



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Manuals

TITLE: ETB CONTROLLER SINGLE LINE
DRAWING NUMBER: EMS_2
SCALE: NS
SHEET: 2 OF 5

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REQUIREMENTS AND LOCAL
CODE ENFORCEMENT.



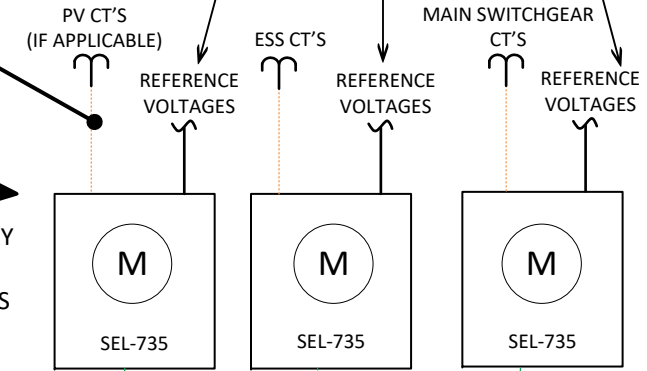
ENERGY STORAGE
SYSTEM MODBUS/TCP
DATA CONNECTION
ETHERNET (CAT5/6) TO
NETWORK SWITCH
MAX LENGTH: 330'

FOR 5A OUTPUT CTS TOTAL WIRE
RUN LENGTH FOR CT LEADS MUST
NOT EXCEED 50' WITH 12 AWG CU
WIRE

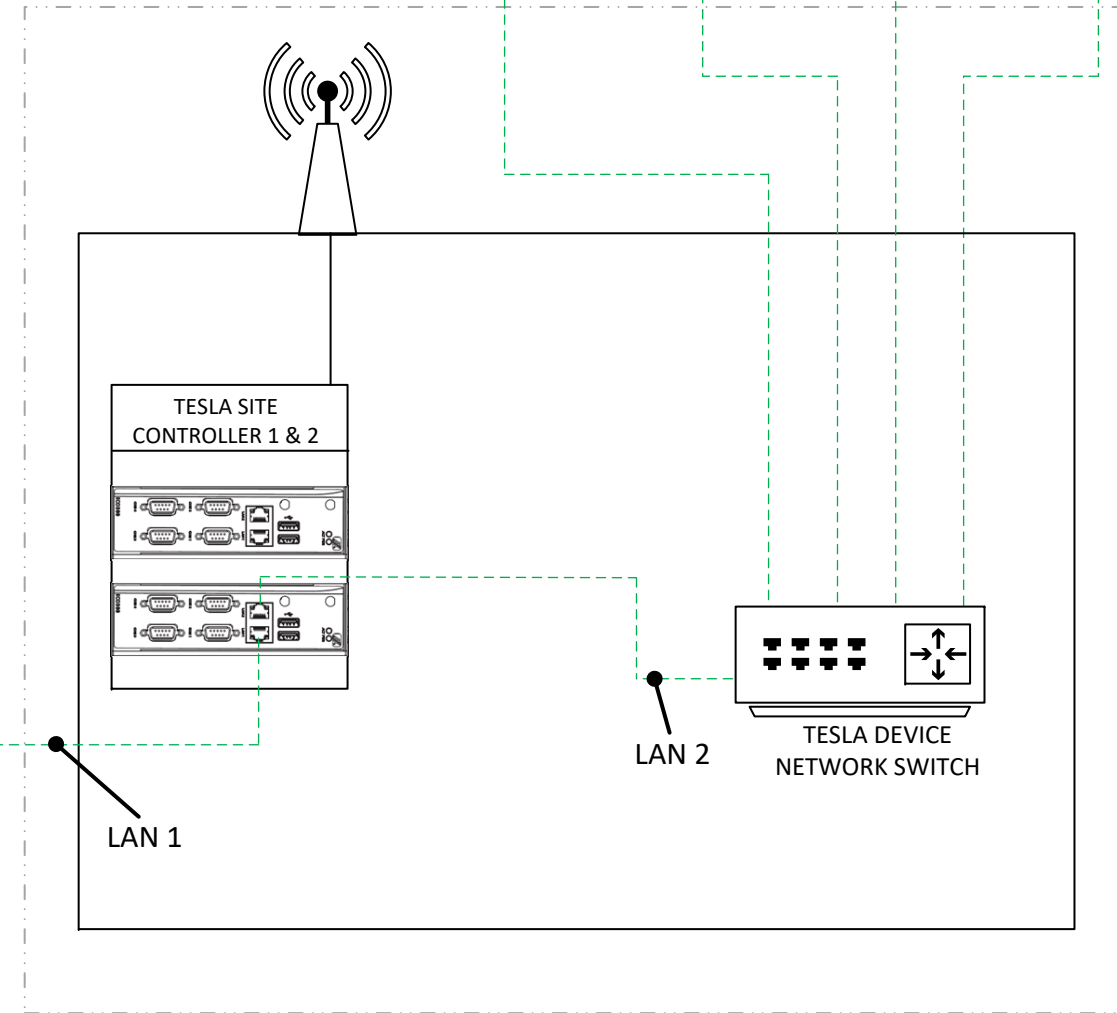
REFERENCE SEL 735 MANUAL
FOR INSTALLATION. SCAN QR
CODE FOR ETB INSTALL
GUIDES.

TESLA BATTERY
MODBUS
CONNECTIONS

REFERENCE VOLTAGES MUST BE SERVED
THROUGH A PT WITH 120V OUTPUT*



TESLA SITE CONTROLLER ENCLOSURE



*TO POWER THE SEL-735 FROM THE PT CIRCUIT,
CONNECT TERMINALS **Z07** TO **A01** AND **Z10** TO **A02** BY
USING 12-24 AWG WIRE*

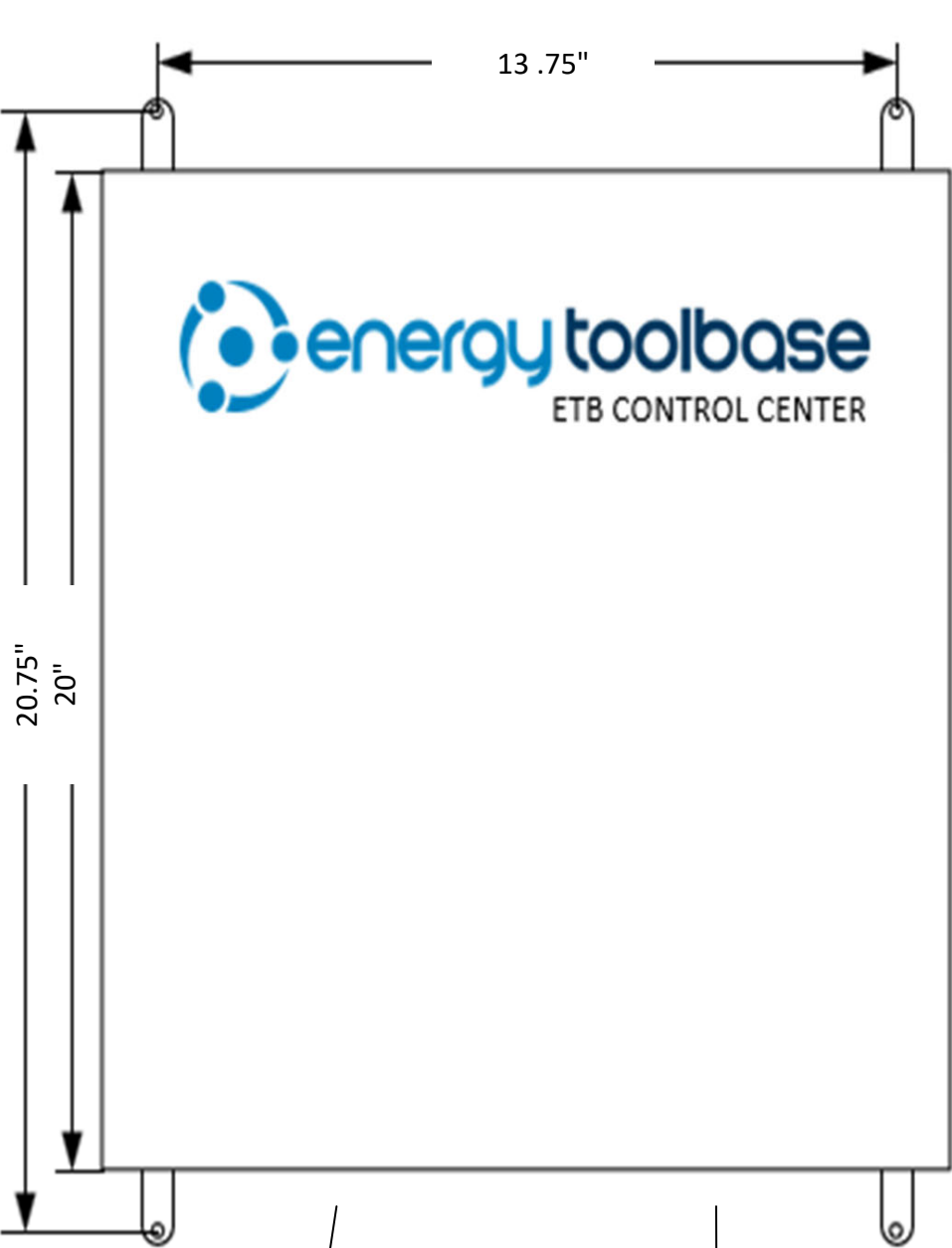
--- FACTORY WIRING
--- ETHERNET
--- POWER
--- CT LEADS

BY	DATE	DESCRIPTION	REV.
KM	02.15.23	DETAILS PUBLISHED	1
LL	07.16.24	ETB CONTROLLER UPDATE	2
LL	09.24.24	CONTROL CENTER UPDATE	3
LL	04.02.25	TSC UPDATE	4



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ETB Controller
Installation
Manuals

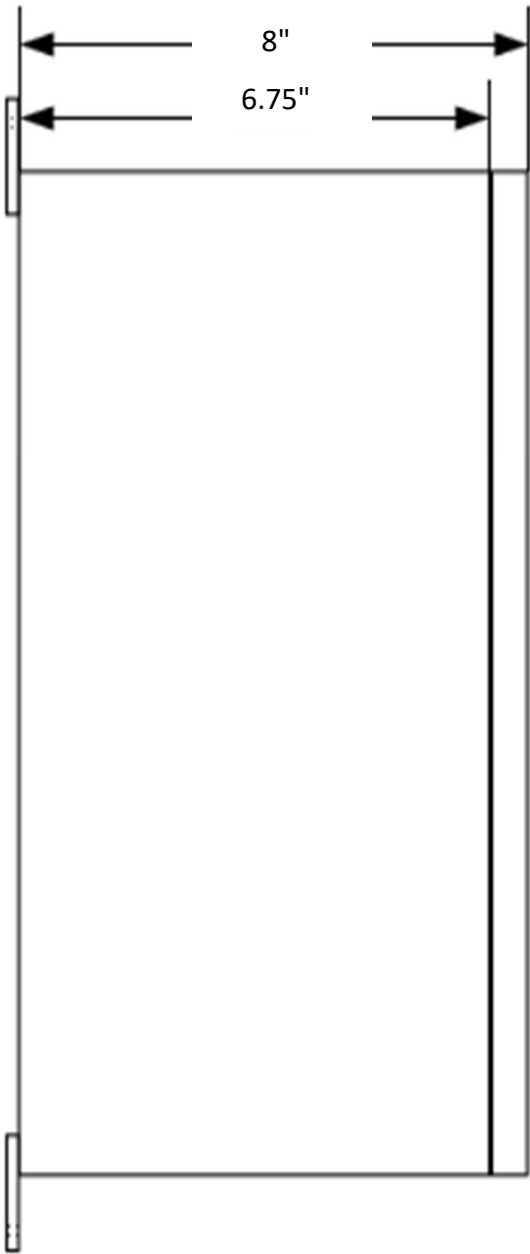
ETB CONTROL CENTER



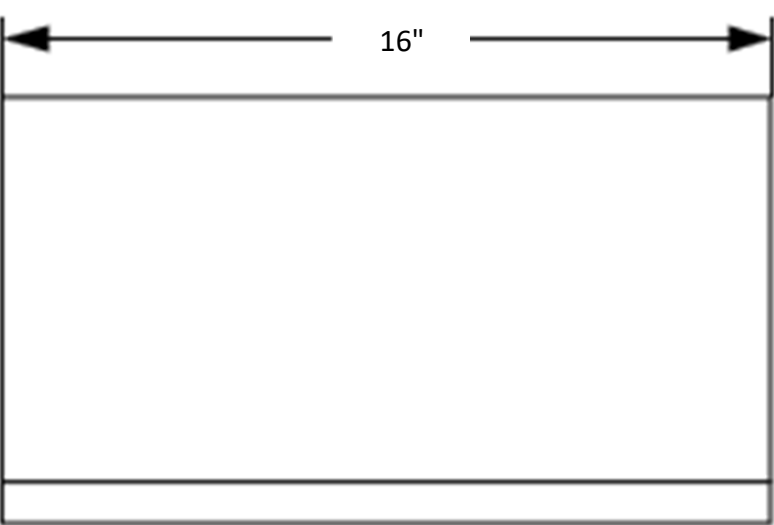
FRONT

ENTRY POINT
FOR POWER
CONNECTIONS

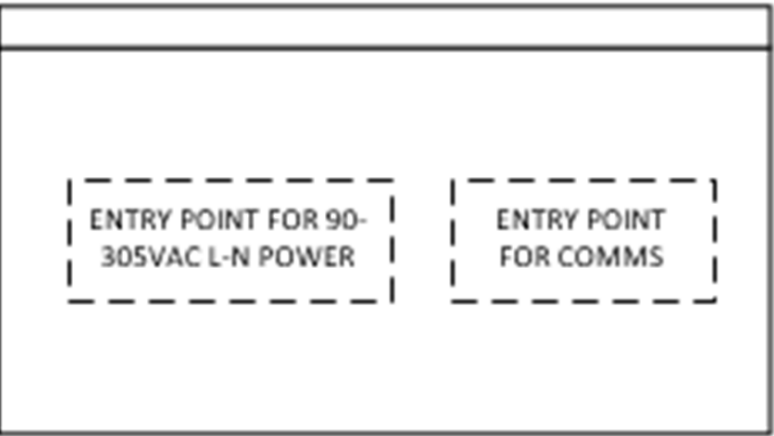
ENTRY POINT
FOR COMMS



SIDE

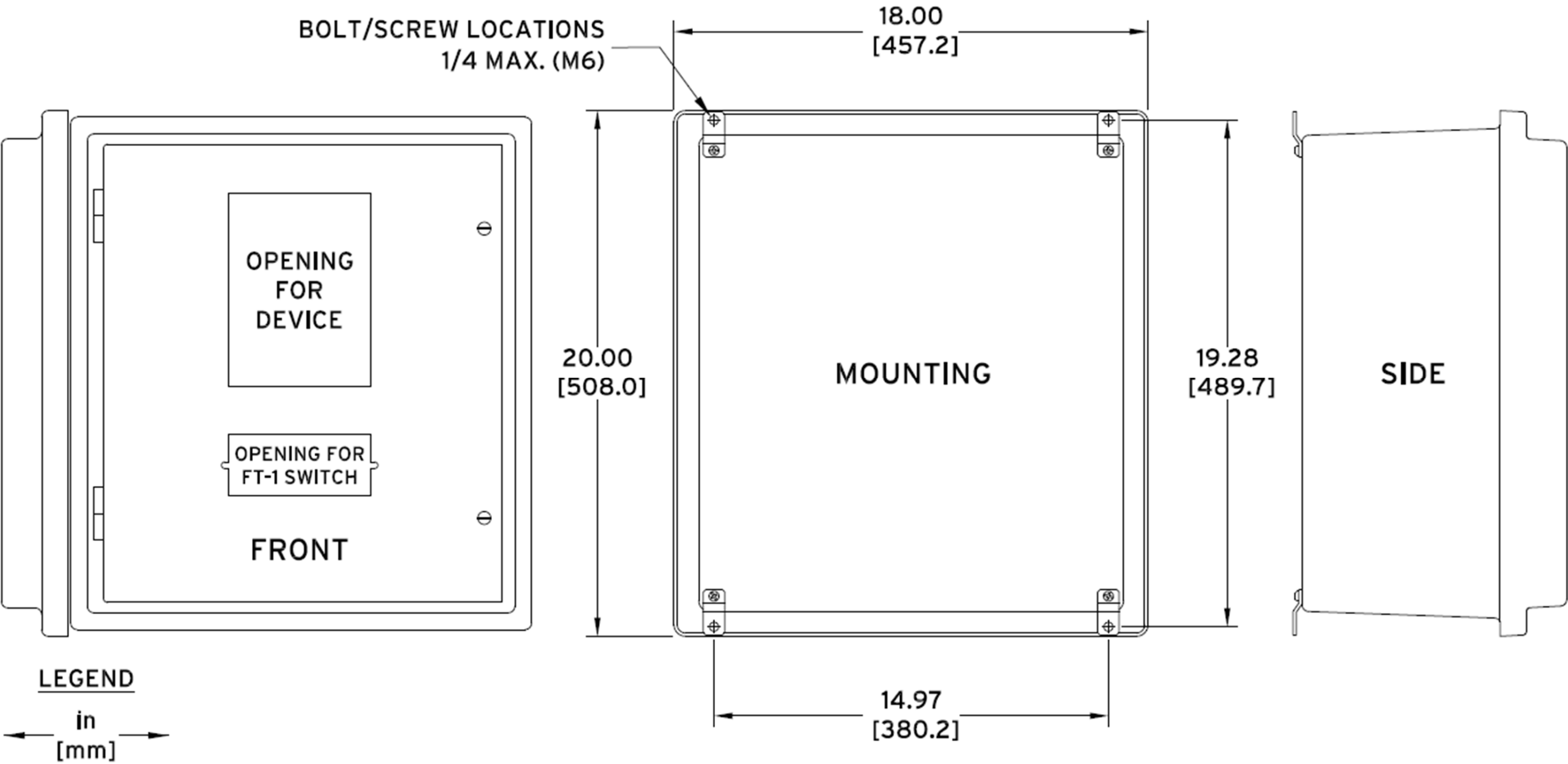


TOP



BOTTOM

NOTE 1: REFERENCE SECTION 2 OF SEL 735
INSTALLATION MANUAL FOR DETAILED
INSTALLATION INSTRUCTIONS



NOTE 2: FOR CT/PT INSTALLATION & WIRING -
REFERENCE SECTION 2.10 THROUGH 2.15 OF SEL
735 INSTALLATION MANUAL FOR DETAILED
WIRING INSTRUCTIONS



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toolbase

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

DESCRIPTION:
SEL-735 ENCLOSURE DETAILS

SYSTEM TYPE:
TESLA

BY	KM	LL	LL	LL	
DATE	02.15.23	07.16.24	09.24.24	04.02.25	
DESCRIPTION	DETAILS PUBLISHED	ETB CONTROLLER UPDATE	CONTROL CENTER UPDATE	TSC UPDATE	
REV.	1	2	3	4	



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Manuals

TITLE:
ETB CONTROLLER
SINGLE LINE

DRAWING NUMBER:
EMS_5

SCALE:
NS

SHEET:
5 OF 5

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CODE ENFORCEMENT.