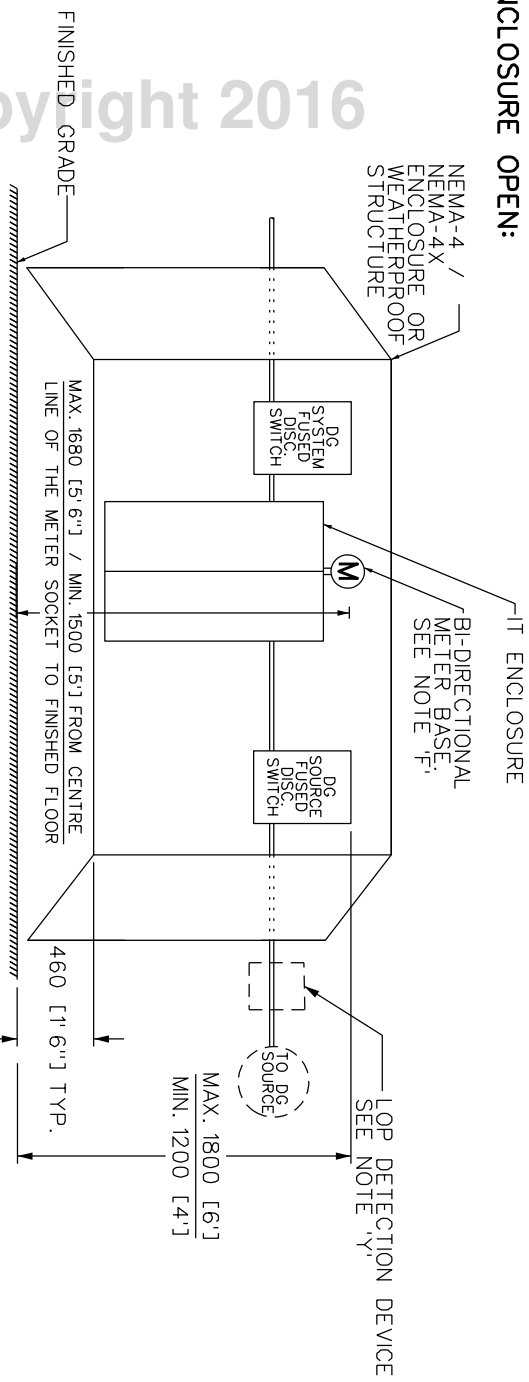
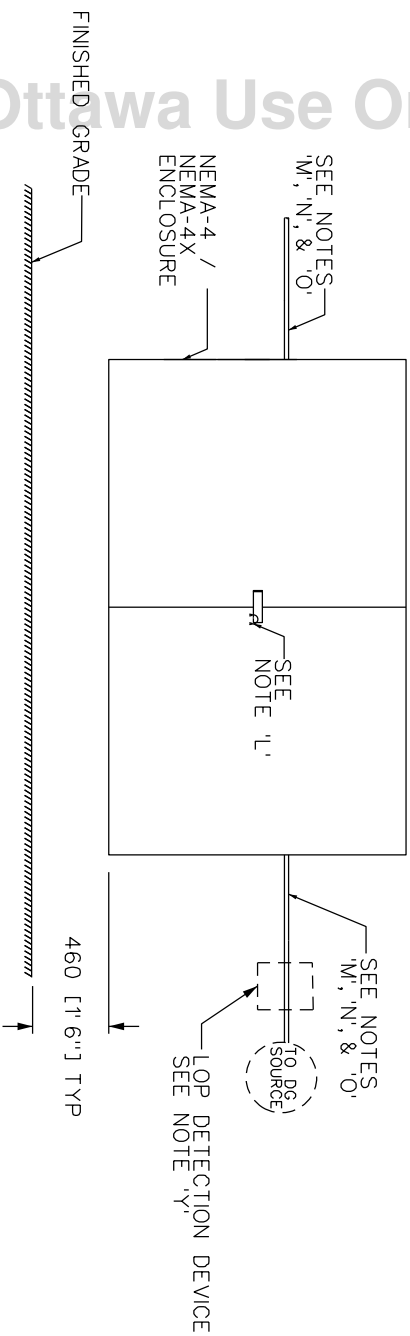


**ENCLOSURE OPEN:**



**ENCLOSURE CLOSED:**



**NOTES:**

- A. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.
- B. MINIMUM OF 1500 (5'1) OF CLEARANCE REQUIRED IN FRONT OF EDGE OF ENCLOSURES DOORS WHILE IN ITS OPEN POSITION.
- C. MINIMUM OF 460 (1'6") OF CLEARANCE BETWEEN BOTTOM OF OUTER ENCLOSURE OR CUSTOMER BUILT STRUCTURE DOOR AND FINISHED GRADE REQUIRED.
- D. MULLIONS (IF USED) SHALL NOT OBSTRUCT OR REDUCE SERVICEABILITY OF ENCLOSURE CONTENTS.
- E. LOSS OF PHASE PROTECTIVE EQUIPMENT INSTALLED AS PER ONTARIO ELECTRICAL SAFETY CODE (OESC) AND HYDRO OTTAWA REQUIREMENTS.
- F. REFER TO HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008 FOR ENCLOSURE, METER SOCKET, AND CONDUIT REQUIREMENTS.
- G. METER SOCKET SHALL BE MINIMUM NEMA-3R RATED.
- H. ALL NEMA RATED ENCLOSURES SHALL BE EQUIPPED WITH FACTORY INSTALLED MOUNTING PLATES AND LOCKING HARDWARE AS PER HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008.
- I. ALL DISCONNECTS AND METER SOCKET SHALL BE INSTALLED WITHIN A SINGLE NEMA-4/NEMA-4X (OR CSA EQUIVALENT) OR BETTER, RATED ENCLOSURE OR WITHIN A PERMANENT CUSTOMER BUILT WEATHERPROOF STRUCTURE THAT MEETS ONTARIO BUILDING CODE REQUIREMENTS.
- J. ALL ENCLOSURES USED TO HOUSE INSTRUMENTATION TRANSFORMERS, IF APPLICABLE, SHALL HAVE PROVISIONS FOR A SINGLE STANDARD HYDRO OTTAWA PADLOCK WITH (3/8") SHACKLE AND METER SEAL.
- K. ENCLOSURE MOUNTED TO EXTERIOR WALL SUCH THAT IT DOES NOT DE-RATE ITS NEMA RATING. ALL EQUIPMENT MOUNTED INSIDE ENCLOSURE SUCH THAT IT DOES NOT DE-RATE ITS NEMA RATING.
- L. ENCLOSURES OR CUSTOMER BUILT STRUCTURE SHALL HAVE DUAL-LOCKING PROVISIONS THAT ALLOW FOR TWO PADLOCKS WITH (3/8") SHACKLE WITH BAR FOR DUAL ACCESS FOR BOTH THE CUSTOMER AND HYDRO OTTAWA.
- M. CONDUIT INSTALLED OUTDOORS (TO AND FROM ENCLOSURE OR CUSTOMER BUILT STRUCTURE) SHALL BE MINIMUM SCHEDULE 80 PVC. CONDUIT INSTALLED INSIDE ENCLOSURE OR CUSTOMER BUILT STRUCTURE SHALL BE EMT. PVC EXPANSION COUPLERS USED AS PER OESC.
- N. ALL CONDUIT SIZED AS PER OESC AND HYDRO OTTAWA REQUIREMENTS.
- O. ALL ENCLOSURES AND EMT CONDUIT SHALL BE GROUNDED AS PER OESC AND HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008 REQUIREMENTS.
- P. ALL DISCONNECTS SHALL HAVE PROVISIONS TO ALLOW THEM TO BE LOCKED IN THE "OPEN" POSITION WITH A STANDARD HYDRO OTTAWA PADLOCK WITH A (3/8") SHACKLE AND HYDRO OTTAWA METER SEAL.
- Q. ALL DISCONNECTS SHALL HAVE INTERLOCKS PREVENTING THE DISCONNECT ENCLOSURE BEING OPENED WHILE IN THE "CLOSED" POSITION.
- R. ALL DISCONNECTS SHALL HAVE OBVIOUS MEANS TO VERIFY "OPEN" OR "CLOSED" STATE.
- S. IF CUSTOMER INSTALLS CUSTOMER OWNED METERING EQUIPMENT BETWEEN THE DG SOURCE FUSED DISCONNECT SWITCH AND DG SOURCE, THE DG SOURCE FUSED DISCONNECT SWITCH SHALL BE EQUIPPED WITH FACTORY INSTALLED OVER-CURRENT PROTECTION.
- T. METER SOCKET BASES:
  - i. FOR 1-PHASE, >200A TRANSFORMER RATED INSTALLATION USE HYDRO OTTAWA APPROVED 5-JAW METER SOCKET BASE.
  - ii. FOR 3-PHASE, >200A TRANSFORMER RATED INSTALLATION USE HYDRO OTTAWA APPROVED 13-JAW METER SOCKET BASE.
- SEE HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008, TABLE 4 AND TABLE 5A FOR DETAILS.
- U. FOR WIRING DETAIL, SEE HYDRO OTTAWA SPECIFICATION MCS0079.
- V. FOR SINGLE LINE DIAGRAM AND ADDITIONAL REQUIREMENTS, SEE HYDRO OTTAWA SPECIFICATION ECG0015.
- W. TO CONTACT HYDRO OTTAWA COMPLETE A HYDRO OTTAWA SERVICE REQUEST FORM AT [www.hydroottawa.com](http://www.hydroottawa.com) OR CALL REQUEST A SERVICE LAYOUT, REFER TO HYDRO OTTAWA CONDITIONS OF SERVICE, EGS00012, FOR CONTACT INFORMATION.
- X. TO ENERGIZE SERVICE, HYDRO OTTAWA REQUIRES ALL OF THE FOLLOWING:
  - i. COMPLETED SERVICE LAYOUT.
  - ii. NOTIFICATION AND COPY OF COMPLETED ESA CONNECTION AUTHORIZATION.
  - iii. SERVICES WITH AN ACCURATE ESA CONNECTION AUTHORIZATION SHALL NOT BE ENERGIZED.
  - iv. POSTING OF LAMACOD LABELS AS PER HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008.
- Y. LOSS OF PHASE (LOP) DETECTION DEVICES, IF REQUIRED, SHALL BE CONNECTED BESIDE THE DG SOURCE FUSED DISCONNECT SWITCH.
- Z. DG SOURCE FUSED DISCONNECT SHALL HAVE FACTORY INSTALLED OVER-CURRENT PROTECTION AS PER HYDRO OTTAWA SPECIFICATION GCS0008.

**DEFINITIONS:**

**"DG SYSTEM FUSED DISCONNECT"** MEANS AN ELECTRICAL SAFETY AUTHORITY (ESA) APPROVED DEVICE WITH FACTORY INSTALLED OVER-CURRENT PROTECTION RATED AT EITHER 100% FULL-LOAD AMPS (FLA) OR 80% OF THE AVAILABLE FAULT AMPS FROM THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICH EVER IS GREATER. FAULT AMPS OF THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICHEVER IS GREATER. MOULDED CASE BREAKERS ARE NOT ACCEPTABLE. IT SHALL PROVIDE AN OBVIOUS VISIBLE OPEN POINT. THIS DEVICE IS USED TO ISOLATE THE CUSTOMER'S DISTRIBUTED GENERATION (DG) EQUIPMENT, OR ENERGY RESOURCE FACILITY (ERF) EQUIPMENT, FROM THE UTILITY DISTRIBUTION SYSTEM.

**"DG SOURCE FUSED DISCONNECT"** MEANS AN ELECTRICAL SAFETY AUTHORITY (ESA) APPROVED DEVICE WITH FACTORY INSTALLED OVER-CURRENT PROTECTION RATED AT EITHER 100% FULL-LOAD AMPS (FLA) OR 80% OF THE AVAILABLE FAULT AMPS FROM THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICH EVER IS GREATER. MOULDED CASE BREAKERS ARE NOT ACCEPTABLE. IT SHALL PROVIDE AN OBVIOUS VISIBLE OPEN POINT. THIS DEVICE IS USED TO ISOLATE THE CUSTOMER'S DISTRIBUTION GENERATION (DG) EQUIPMENT, OR ENERGY RESOURCE FACILITY (ERF) EQUIPMENT, FROM THE EQUIPMENT THAT IT SUPPLIES.

REV:	DATE:	DESCRIPTION:	PREP:	CHKD:	APPD:	TITLE:
REV: 1	DATE: 2016-01-13	CHANGE: UPDATE NOTES	JD	SMC	CSM	<b>ENGINEERING SPECIFICATION</b> <b>ERF 1PH OR 3PH &gt; 200A TO 600A</b> <b>OUTDOOR ENCLOSURE METERING</b> <b>INSTALLATION WITH SEPARATE</b> <b>INSTRUMENT TRANSFORMER CABINET</b> <b>CONSTRUCTION DETAIL</b>
CHANGE:	DATE: YYYY-MM-DD	UPDATE TITLE				
REV: 1	DATE: 2014-09-03	CHANGE:				

<p>REVISIONS</p> <p>DATE: 2016-01-13</p> <p>DATE: YYYY-MM-DD</p> <p>DATE: YYYY-MM-DD</p>	<p>PREP: M. MALONEY</p> <p>CHKD: S. McNALLY</p> <p>APPD: C. MALONE</p> <p>DATE: 2014-09-03</p> <p>SCALE: N.T.S. @ ANSIB</p>	<p>WWW.HYDROOTTAWA.COM</p> <p>HydroOttawa</p>	<p>NO:</p> <p><b>MCS0076</b></p>	<p>REV: 1</p> <p>OF 1</p>
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