



**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 OF THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICHEVER IS GREATER. MOULDED CASE BREAKERS ARE NOT ACCEPTABLE. IT SHALL PROVIDE AN OBVIOUSLY 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.

OUTDOOR LOCATION

INDOOR LOCATION

OUTDOOR LOCATION

**NOTES:**

- A. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- B. INSTALLATION OF NET METERED SERVICE SUBJECT TO HYDRO OTTAWA APPROVAL.
- C. REFER TO HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008 FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- D. ENGINEERING ELECTRICAL SINGLE LINE DIAGRAM (SLD) SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER FOR THE FOLLOWING FACILITIES:
  - i. MULTI-RESIDENTIAL (THAT HAVE TWO OR MORE UNITS) PREMISES.
  - ii. INSTALLATIONS THAT USE HYDRO OTTAWA NET-METERING.
- E. THE PROPOSED INSTALLATION SHALL COMPLY WITH THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND IS SUBJECT TO THE ELECTRICAL SAFETY AUTHORITY (ESA) INSPECTION AND APPROVAL.
- F. 120V/240V, 1-PHASE, 2-WIRE, 10A TRANSFORMER RATED BI-DIRECTIONAL SMART METER.
- G. FOR 120V/240V, 1-PHASE, 3-WIRE, 400A SERVICES, REFER TO HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008, TABLE 3 FOR LIST OF APPROVED METER SOCKET BASES."
- H. OUTDOOR CONDUIT SHALL BE MINIMUM RIGID SCHEDULE 80 PVC, WITH EXPANSION COUPLING, SIZED AS APPROPRIATE.
- I. DG SYSTEM FUSED DISCONNECT RATED, INSTALLED, AND LABELED AS PER HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008.
- J. MINIMUM 1000 (3' 4") OF CLEARANCE REQUIRED IN FRONT OF METER AND THE DG SYSTEM FUSED DISCONNECT TO THE CUSTOMERS PROPERTY LINE.
- K. METER SOCKET BASE AND DG SYSTEM FUSED DISCONNECT SWITCH SHALL BE INSTALLED IN AN ACCESSIBLE EXTERIOR LOCATION ONLY AND APPROVED BY HYDRO OTTAWA.
- L. DG SYSTEM FUSED DISCONNECT SWITCH SHALL BE SUITABLE FOR SERVICE ENTRANCE EQUIPMENT AND SHALL PROVIDE VISIBLE ISOLATION: MOLDED CASE BREAKERS ARE NOT ACCEPTABLE.
- M. CUSTOMER/CONTRACTOR RESPONSIBLE TO ATTACH A LAMACOID PLATED ELECTRICAL SINGLE LINE DIAGRAM (SLD) AT THE DG SYSTEM FUSED DISCONNECT SWITCH. THE SLD MUST BE PLAINLY AND PERMANENTLY MARKED, SHOWING THE SWITCHING ARRANGEMENTS, THE LOCATIONS OF THE DISCONNECT, AND THE TYPE AND NAME/PLATE RATING OF THE DISTRIBUTED GENERATOR.
- N. A PERMANENT LABEL INDICATING THE CURRENT AND VOLTAGE RATING OF THE INVERTER SHALL BE ATTACHED TO THE DG SYSTEM FUSED DISCONNECT.
- O. THE DG SYSTEM FUSED DISCONNECT SWITCH SHALL BE EQUIPPED WITH AT MINIMUM:
  - i. COVER/DOOR INTERLOCK MECHANISM PREVENTING OPENING OF THE COVER WHILE THE DISCONNECT SWITCH IS IN THE "ON" POSITION.
  - ii. PROVISION FOR DISCONNECT HANDLE TO BE LOCKED IN THE "OFF" POSITION WITH STANDARD HYDRO OTTAWA PADLOCK.
  - iii. PADLOCKING PROVISION FOR DISCONNECT SWITCH COVER TO ALLOW FOR INSTALLATION OF TAMPER PREVENTION SEAL.
- P. THE DG SYSTEM FUSED DISCONNECT SWITCH SHALL BE INSTALLED WITHIN THE FOLLOWING MINIMUM AND MAXIMUM HEIGHTS ABOVE FINISHED GRADE:
  - i. MINIMUM - 1200 [4']
  - ii. MAXIMUM - 1800 [6']
- Q. THE CUSTOMER/CONTRACTOR IS RESPONSIBLE TO ATTACH WARNING LABELS INDICATING "WARNING: POWER FED FROM MORE THAN ONE SOURCE" MUST BE POSTED AT THE METER SOCKET BASE, CUSTOMER OWNED SERVICE PANEL, AND DG SYSTEM FUSED DISCONNECT SWITCH.
- R. THE DG SYSTEM FUSED DISCONNECT SWITCH TO BE LOCATED OUTSIDE AND INSTALLED AT A MAXIMUM DISTANCE OF 1800 [6'] FROM THE UNDERGROUND RATED 1-PHASE, 400A, 120/240V METER SOCKET BASE. THE OUTDOOR MOUNTED DISCONNECT SHALL BE MINIMUM NEMA-4 AND/OR NEMA-4X RATED.
- S. LOSS OF PHASE (LOP) DETECTION DEVICES, IF REQUIRED, SHALL BE CONNECTED BESIDE THE DG SYSTEM FUSED DISCONNECT SWITCH.

REVISIONS		PREP	CHKD	APPD	TITLE
REV: 1 CHANGE: UPDATE NOTES, UPDATE TITLE	DATE: 2016-02-05	JD	SMC	CSM	ENGINEERING SPECIFICATION ERF/RES 120V/240V, 1PH, 3W, 400A TRANSFORMER RATED SERVICE USING LOAD DISPLACEMENT (NET-METERING) WITH COMBINATION METER SOCKET BASE CONSTRUCTION DETAIL
REV: 2 CHANGE: REVISED LAYOUT & NOTES	DATE: 2016-12-07	GM	BP	CSM	
REV: CHANGE:	DATE:				
PREP: S. KUMARASAMY	CHKD: S. McNALLY	APPD: C. MALONE		NO:	
DATE: 2014-09-03	P. Eng				
SCALE: N.T.S. @ ANSI B					
					1
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