REFERENCE DRAWING

This document is to be used as a reference conceptual document and is

based on the applicable standards in effect at time of issue. Use of this

design for a specific location must be verified and adapted by a local professional engineer to meet site specific conditions, equipment selection,

codes, standards and requirements from the authority having jurisdiction

WARNING

THERE IS A HIGH RISK OF INJURY FROM DANGEROUS ARC FLASH LEVEL AND HIGH SHORT CIRCUIT DUE TO THE SHORT CONNECTION TO THE TRANSFORMER WITH THE SECTION OF THE CIRCUIT THAT IS NOT PROTECTED BY THE FUSES. OPENING THIS BOX TO ACCESS THE FUSE HOLDERS TO REMOVE OR REPLACE THE FUSES SHALL BE DONE BY A QUALIFIED WORKER WEARING APPROPRIATE ARC FLASH PROTECTION AND GLOVES.

DO NOT OPEN THE FUSE BOX WITHOUT APPROPRIATE PPE.
FUSE HOLDER IS NOT RATED TO INTERRUPT THE POWER.
OPEN DISCONNECT FIRST.

NOTES:

- ALL DIMENSION IN mm UNLESS NOTED.
- ALL WORK SHALL BE ACCORDING TO APPLICABLE CODES AND STANDARDS AND SHALL BE SUBJECT TO APPROVAL BY AUTHORITY HAVING JURISDICTION ON THE WORK. ALL MATERIAL SHALL BE APPROVED BY THE APPLICABLE STANDARDS AUTHORITY.
- 3. PART NUMBER IS AN INDICATION OF THE QUALITY OF THE MATERIAL. EQUIVALENT MATERIAL WILL BE CONSIDERED. CHANGE OF MATERIAL SHALL BE APPROVED BY THE DER PROGRAM MANAGER.
- 4. THE CONTRACTOR IS RESPONSIBLE TO COMPLETE THE BILL OF MATERIAL FOR ALL SMALL HARDWARE.
- QUANTITY AND MATERIAL PART NUMBER TO BE VALIDATED BY CONTRACTOR.
- 6. CONDUCTOR TO BE SIS OR TEW.

WARNING LABEL FOR FUSE BOX

		BILL OF MATERIALS		
ITEM QTY		DESCRIPTION	MANUFACTURER / MODEL	PART NUMBER
1	1	METAL ENCLOSURE, NEMA 3R, PADLOCKABLE DOOR, 30" HIGH, 20" WIDE, 8" DEEP, ANSI/ASA 61 GREY + DRIP HOOD	BELL	R302008 + ADSR20
2	1	TRANSFORMER / CUSTOMER AGENT - CUSTOM MOLDED CASE: 3D PRINTING URETHANE RESIN - SINGLE BOARD COMPUTER WITH WIRELESS LAN, BLUETOOTH, ETHERNET, PoE, 5V / 2.5 A DC - MEMORY CARD, 16GB	BY SYSTEM INTEGRATOR	Smooth Cast ONYX Raspberry Pi3 Model B- microSD
11	1	BATTERY PACK, INPUT: 19.5VAC, 4.62A, OUTPUT: 5VDC USB PORT, 2.1A, 65W	DELL	PW7015M
12	1	POWER ADAPTER, Input:AC100-240V Output: DC 19.5V 4.62A 90W	DELL	6C3W2
14	1	WIRELESS N USB ADAPTER W/ HIGH GAIN ANTENNA, 300Mbps, 802.11n STANDARD	PANDA WIRELESS	PAU06
15	1	4G/LTE CROSS-POLARIZEDd MIMO 7-10 dBi	PROXICAST	ANT-129-001
16	1	DUAL BAND 2.4 / 5.8 GHz Wi-fl, OMNI DIRECTIONAL, 3-5 dBi, SCREW MOUNT ANTENNA	PROXICAST	ANT-131-002
19	1	REVENUE GRADE METROLOGY UNIT. IEEE 2030.5 OR SUNPEC ALLIANCE COMPLIANT	MEASURELOGIC	DTS310-52-EM-N-2
22	3	SPLIT CORE CURRENT TRANSFORMER, 5A SECONDARY. PART NUMBER PROVIDED FOR INFORMATION. INTEGRATOR TO VALIDATE AMPACITY, BURDEN AND ACCURACY ACCORDING TO THE APPLICATION.	ACCUENERGY CORP.	AcuCT3135R-600:5 INDOOR ONLY
25	1	4 POLE ISOLATION SHORTING SWITCH WITH COVER	STATES TERMINALS	C3-204-C
27	2	PROGRAMMABLE RESOLUTION 1 WIRE DIGITAL THERMOMETER	MAXIM INTEGRATGED	DS18B20
30	2	SILICONE RUBBER ENCLOSURE HEATERS, 50W, 120VAC, SELF REGULATED, OFF: 16°C, ON: 4°C	OMEGA	EHR00005
37	1	3 POLE LOAD BREAK SWITCH, 240VAC, 20 A	SCHNEIDER	VLS3P025R1
40	As Required	TERMINAL BLOCK, 6 mm2, 600V, 50A, AWG 22 TO 8	WEIDMULLER / WDU6	1020200000
41	As Required	TERMINAL BLOCK, END PLATE	WEIDMULLER / WAP 2.5-10, WM, BG	1050000000
42	As Required	TERMINAL BLOCK, END BRACKET	WEIDMULLER / WEW 35/2	1061200000
43	As Required	TERMINAL BLOCK, GROUP MARKER	WEIDMULLER / WAD 8 MC NE WS	1112940000
44	As Required	GROUNDING TERMINAL BLOCK,	WEIDMULLER / WPE 6	1010200000
55	1	EMI FILTER, 6A, 250VAC	TYCO ELECTRONIC	PS0SXSS60
58	As Required	SYMMETRICAL DIN3 MOUNTING RAIL, TS 35 x 7.5, STEEL, GALVANIZED WITH SLOTTED HOLE	WEIDMULLER TS 35X7.5/LL 1M/ST/ZN	0514510000
61	2	3 POLE, FINGER SAFE FUSE HOLDER WITH 15A FUSE REJECTION TYPE CLASS CC, 100kA S.C., 600VAC MERSEN		USCC3
65	3	15A FUSE REJECTION TYPE CLASS CC, 200kA S.C., 600VAC	MERSEN	ATMR15
66	3	2A FUSE REJECTION TYPE CLASS CC, 200kA S.C., 600VAC	MERSEN	ATMR2
111	1	THERMOSTAT, CONTROL COOLING, 120VAC, 5A RESISTIVE MINIMUM	HOFFMAN	ATEMNO
112	1	SIDE MOUNTED FILTER FAN, NEMA 3R, 120VAC, 5A, AIRFLOW: 5 m ³ / hr. MINIMUM	HOFFMAN	HF0516414 + HH05GS61001
113	1	SIDE MOUNTED EXHAUST GRILLE WITH FILTER, NEMA 3R	HOFFMAN	HG0500404 + HH05GS61001
114	1	HEATER, 120VAC, 30W,	HOFFMAN	DAH301
115	1	DUAL RECEPTACLE, 120VAC, 15A, GFCI	WEIDMULLER	DRAC GF 15 67200054
117	1	GROUND BAR ASSEMBLY: 2 x 3/8" HOLES, 6 x #10 - 32 HOLES	ERICO	EGBA14112EE
130	As Required	GROMMET EDGING, SLOTTED , FOR PANEL THICKNESS OF 0.036"	PANDUIT	GEE36F-C
131	1	STEEL BOX WITH BOLTED COVER, GRAY PAINT FINISH 6" X 6" X 6"	HAMMOND	1415D
132	1	TECK CABLE FITTINGS, JACKET 0.88" TO 1.075", HUB 3/4"	THOMAS & BETTS	10467
134	1	CABLE FITTING, LIQUIDTIGHT SIZED FOR TECK CABLE OUTER JACKET	THOMAS & BETTS	2562
135	As Required	CORRUGATED NON-METALLIC FLEXIBLE CONDUIT (ENT), 1/2" DIAMETER, IN SECTION OF 10 FEET	IPEX / COR-LINE	012005
136	1	ENT CONNECTOR, SUPPLY WITH LOCK NUT, 1/2" DIAMETER	IPEX / KWIKON	KTA10 / 089006

MiGen Transactive Grid is a smart grid technology field demonstration project led by Hydro Ottawa and partially funded by the Ontario Ministry of Energy, Northern Development and Mines' Smart Grid Fund and the LDC Tomorrow Fund, with great support from the IEEE Standards Association and seven collaborating partners: Carleton University, CIMA+, Panasonic Eco Solutions Canada, Quadra Power, Tantalus

(formerly Energate), Thorium Technologies, and University of Ottawa

https://github.com/MigenTransactiveGrid/MiGen1.0/blob/master/LICENSE

Unless required by applicable law or agreed to in writing, all software, drawings, and any other material contributed by Contributor, and distributed by Licensor, under the License are contributed or distributed, as applicable, on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY

KIND, either express or implied, including NO WARRANTY with respect to

use or fitness of this file FOR any purpose, including NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, COMPLIANCE WITH PRIVACY

LEGISLATION, PROTECTION FROM SECURITY VULNERABILITIES, or

COMPLIANCE WITH ANY GOVERNMENT STANDARD.

See the License for the specific language governing permissions, disclaimer

of warranty, limitation of liability and other limitations under the License



BE TAMPER RESISTANT

SIDE VIEW - CONNECTION TO PADMOUNT TRANSFORMER

Stamp

				CIMA+	HYDRO OTTAWA
				T 613-860-2462, F 613-860-1870 110–240 Catherine Street, Ottawa, ON K2P 2G8 CANADA	MiGen TRANSACTIVE GRID REFERENCE DRAWING
					Drawing title: THREE PHASE SYSTEM
0	ISSUE AS REFERENCE DRAWING	01/13/2020	R.L. / A.L.		TA CABINET
No	Revision	Date	Init. eng./ cad	Project Manager: E. Cantin, tech.	MECHANICAL LAYOUT

Project number:

A000597B

R.Langlois

A. Teranun

E.Cantin

REF-EGN-04

rawing N°: