## 2017 Grid-Tie Solar Catalogue

## Switch Energyinc.

Distributor of Renewable Energy Products

www.switchenergy.ca



## Switch Energy Today!

## A New Approach



When solar electricity is produced, it displaces electricity that would have been produced at power plants from a mix of hydropower, renewable sources, and non-renewable sources like coal and natural gas.

Electricity produced from coal and natural gas produces 2.10 and 1.32 pounds of carbon emissions per kilowatthour respectively; however, hydro power and solar generation release zero carbon emissions.

At Switch Energy, we strive to provide the best products available in the industry. We are continually researching new products to discover new and innovative ways to provide our customers with the best power solutions.

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## **SolarEdge Grid-Tie Systems**

The following systems include:

- SolarEdge Power Optimizers with a 25 year warranty
- SolarEdge PV Inverters with a 12-25 year warranty
- **SolarEdge Web Portal** for module-level monitoring and fault detection.
- These are 240/120 volt systems unless otherwise noted.

#### The SE 5000 GT9110

- 5800 watt Solar Array
- 1 Solar Edge 5000 watt Inverter

#### The SE 7600 GT9112

- 8300 watt Solar Array
- 1 Solar Edge 7600 watt Inverter

### The SE 10,000 GT9116

- 11,200 watt Solar Array
- 1 Solar Edge 10000 watt Inverter



All systems include flush mount roof racking

## **Magnum Grid-Tie Systems**

## Leading the Industry in Solar Micro-inverter Technology

The Magnum Energy Micro-inverter Solution integrates grid-tied micro-inverters with intelligent networking and monitoring systems to ensure maximum efficiency of your solar array and to optimize solar harvest.

This system combines ME Micro-inverters with a state-of-the-art communications unit, the MagWeb GT, to bring you the most powerful, economical, reliable, intelligent and safe solar solution on the market today.

#### The ME-MGT 3500 GT9119

- 3920 watt Solar Array
- 7 ME-MGT 500 watt Micro-inverters
- 1 MagWeb GT Communicator

#### The ME-MGT 7000 GT9121

- 7840 watt Solar Array
- 14 ME-MGT 500 watt Micro-inverters
- 1 MagWeb GT Communicator

## The Freedom of Adaptability

These systems are adaptable for expansion and/or battery backup.

#### ME-MGT 10500

GT9123

- 11,760 watt Solar Array
- 21 ME-MGT 500 watt Micro-inverters
- 1 MagWeb GT Communicator



## Magnum MicroGT 500 Inverter

The grid-tie MicroGT Inverter is ideal for use with battery backup systems. Optimized to communicate with a Magnum battery-based system, particularly the MS-PAE Series Inverter/Charger, the MicroGT allows the addition of battery storage to a more traditional microinverter installation.

### **Feature Highlights**

- Supports two modules per inverter, reducing installation labor time.
- Handles up to 310W modules with negligible clipping, delivering 250W AC per module.
- Individual MPPT for each module.
- Module-level electronics mitigates shading issues and increases system output and reliability.
- Using seven MicroGT 500 inverters, string up to 14 solar modules with a 20A breaker.
- Ready for install in your area: UL1741 and NEC690.12 compliant.
- Storage-ready: Optimized to regulate AC coupled Magnum battery-based inverters, increasing battery life.

#### **Specifications**

Output Power 500W Warranty 10 years Output Voltage 120 / 240 VAC Output Peak 2amps Output Waveform Pure Sine 60 Hz **Output Frequency** 12, 24 Input Voltage Operating Temp -40°F to +149°F (-40°C to +65°C) Efficiency 95.5% Weight 5.5 lbs (2.5kg) 8.75" x 6.5" x 1.1" (221mm x 167mm x 29mm) Dimensions **UL** Certified Yes Phase Single Input Voltage Range 22-45V

# Mobility Matters





The web-based SolarEdge monitoring portal provides enhanced PV performance monitoring and yield assurance through immediate fault detection and alerts at module level, string level and system level.

No hardware or wiring is required to transmit data from the power optimizers to the inverter: the monitoring sensors and transmitters are built into the SolarEdge power optimizer and solar inverter, and measurement data is transmitted over the regular power lines.

The SolarEdge monitoring application enables PV installers and system owners to perform remote monitoring on the go using their mobile device, thus maximizing solar energy harvesting and uptime of the system.

The application enables users to view the most updated data and be up to speed with their site's performance while mobile

## **Three Phase Solar Inverters**

The SolarEdge PV inverter combines sophisticated digital control technology with efficient power conversion architecture to achieve superior solar power harvesting and best-in-class reliability.

The fixed-voltage technology ensures the solar inverter is always working at its optimal input voltage over a wider range of string lengths and regardless of environmental conditions.

A proprietary data monitoring receiver has been integrated into the inverter and aggregates the power optimizer performance data from each PV module. This data can be transmitted to the web and accessed via the SolarEdge Monitoring Platform for performance analysis, fault detection and troubleshooting of PV systems.

#### Feature Highlights

- Inverters specifically designed to work with power optimizers
- Excellent reliability with standard 12 year warranty (extendable to 20 or 25 years)
- Superior efficiency
- Small, lightweight and easy to install
- Built-in module-level monitoring receiver
- Communication to internet via broadband or wireless ZigBee
- IP65 / NEMA 3R Outdoor and indoor installation
- Integrated arc fault protection (Type 1) for NEC 2011 690.11 compliance
- Optional Rapid Shutdown functionality for NEC 2014 690.12
- Horizontal mounting capable
- The stand alone version of the AGS (ME-AGS-S) works well for installation and operation without an inverter
- The network version of the AGS (ME-AGS-N) allows operation of the AGS via the ME-RC or ME-ARC

## **SolarEdge Power Optimizers**

#### Feature highlights

- Module level Maximum Power Point Tracking (MPPT)
- Superior efficiency (99.5% peak efficiency, up to 98.8% weighted efficiency)
- Mitigates all types of modules mismatch-loss, from manufacturing tolerance to partial shading. Designed for extreme environmental conditions
- 25 year reliability and warranty
- Advanced, real-time performance measurement
- Automatic module DC voltage shut-down for installer and firefighter safety
- Embedded by module manufacturers, or connected by installers to c-Si and thin-film modules



## Switch Energyinc.

City, Province	Summer Average	Winter Average	Year round Average
Edmonton, Alberta	4.95	2.13	3.75
Suffield, Alberta	5.19	2.75	4.10
Kamloops, British Columbia	4.48	1.46	3.29
Prince George, British Columbia	4.13	1.33	3.14
Vancouver, British Columbia	4.23	1.33	3.14
The Pas, Manitoba	5.02	2.02	3.56
Winnepeg, Manitoba	5.23	2.77	4.02
Fredericton, New Brunswick	4.23	2.54	3.56
Goose Bay, Newfoundland	4.65	2.02	3.33
St. Johns, Newfoundland	3.89	1.83	3.15
Fort Smith, Northwest Territory	5.16	0.88	3.29
Norman Wells, Northwest Territory	5.04	0.06	2.89
Halifax, Nova Scotia	4.02	2.16	3.38
Ottawa, Ontario	4.63	2.35	3.70
Toronto, Ontario	3.98	2.13	3.44
Charlottetown, P.E.I.	4.31	2.29	3.56
Montreal, Quebec	4.21	2.29	3.50
Sept - Isles, Quebec	4.29	2.33	3.50
Swift Current, Saskatchewan	5.25	2.77	4.23
Yukon, Whitehorse	4.81	0.69	3.10