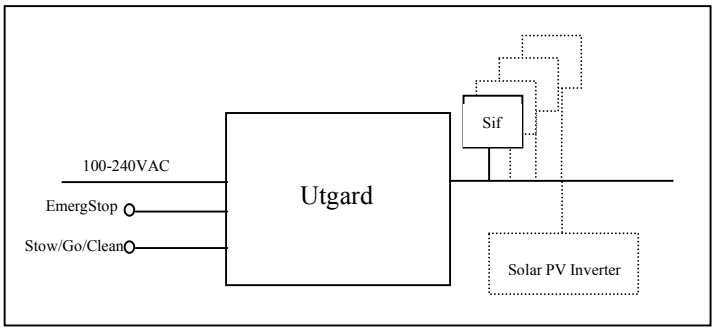
Lauritzen Inc.
Bringing new ideas to renewable energy

Utgard™ *(Utgard - An outdoor stronghold of the giants- Norse Mythology)*

Solar Tracker Field Controller

Utgard™ is a networked field controller for a collection of single or dual axis solar trackers controlled by Sif™ motor controllers.

Features



- Calculates Solar Position using NREL's published ephemeral equation.
- Includes dual power supplies, one for Sif Control Power, and the other for Sif Motor Power.
- RS-485 tracker interface using Modbus protocol.
- Sif management, including software updates, limits controls, back-tracking, and motor parameters.
- Sif monitoring such as operational details and fault monitoring.
- Solar PV Inverter interface.
- Ethernet 10-Base-T network interface.
- Support to time multiplex tracker move commands.
- Ability to issue local Stow, Clean and Operate commands.
- Motor power supply rating 100W or 240W.
- Available in Nema-4x Fiberglass or Aluminum enclosure.

Description

Utgard is a controller for either a column of single axis controllers or a field of dual axis controllers. It provides synchronization and an uplink, interface to weather stations, and remote management host.

Utgard tracks the sun throughout the day and commands its field of synchronized or independent single or dual axis controllers to harvest the sun.

Utgard operates a multi-protocol RS485 bus capable of interfacing the *Sif* Motor Controllers while at the same time providing an inverter interface. Both *Sif* and Inverter data is recorded and transmitted for subsequent processing to the *Valhalla*™ server.

An ***Utgard*** controller can register with an *Idun*™ Weather station to receive extreme weather condition alert messages. If an extreme weather message is received, the controller will initiate a safe shutdown of the trackers in your solar field.

Electrical Ratings

Parameter	Min	Typ	Max	Units
Power Supply	100	120-240	265	VAC
Controller Power Consumption		0.25	0.40	W
Sif Motor Voltage Supply	20	24	30	V
Sif Motor Current Supply (100W)			2.4	A
Sif Motor Current Supply(240W)			10.0	A
Sif Control Voltage Supply	20	24	30	V
Sif Control Voltage Current			2.4	A

Thermal Characteristics

Parameter	Min	Typical	Max	Units
Storage Temperature	-40		120	^{o}C
Operating Temperature	-10		60	^{o}C

Mechanical (100W Model)

Parameter	Value	Units
Weight	10	Kg (Aluminum
Dimensions	23x34x11	Cm
Enclosure	NEMA4x	Fiberglass

Mechanical (240W Model)

Parameter	Value	Units
Weight	25	Kg (Fiberglass)
Dimensions	60x60x20	Cm
Enclosure	NEMA4x	Fiberglass

Ordering Information

For further information related to ordering, quantity discounts, and other products or optional accessories, please visit www.lauritzen.biz and fill out the online submission form

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