

# ETHERNET NETWORK CARD

## RELIABLE AND CONVENIENT REMOTE COMMUNICATIONS AND TROUBLESHOOTING



### FEATURES

- Installed in wiring box: no additional equipment needed
- Modbus communications input (up to 32 inverters per card)
- Modbus RTU Complete controls functionality via Modbus (per inverter or broadcast command)
- Flexible outbound communications
- Programmable IP address for customer direct data
- Remote firmware solutions
- WiFi for local smart device access to YConnect Pro embedded. No extra WiFi dongle required.
- DIN rail enclosure provided for use in third-party communications enclosures
- Cellular communications options for up to 10 inverters or up to 32 inverters

The Yaskawa Solectria Solar Ethernet Network Card is a power monitoring and controls solution for the PVI 25TL-208, PVI25TL-480-R, PVI-36TL-480-V2, PVI 50TL-480, PVI 60TL-480, and the PVI-100TL-480 inverters.

This network card acts as a Modbus master data logger and communications device with the added optional benefit of Cellular Accessibility to Solrenview. On top of these new capabilities, the ENC-G6 offers, seamless compatibility through Ethernet-based communications to the SolrenView monitoring portal along with local pass-through Modbus data to third-party solutions. The ENC-G6 gateway card unlocks the ability to receive remote firmware upgrades and enhanced customer service. Cellular accessibility with the ENC-C510 and ENC-C532 SIM card options cover the data requirements for up to 10 or 32 inverters, respectively, communicating with SolrenView, Yaskawa Solectria Solar's web-based monitoring solution. These cellular options require AT&T, Verizon, or T-Mobile cellular coverage on site.

# ETHERNET NETWORK CARD TECHNICAL DATA

## SPECIFICATIONS

Ethernet Network Card		ENC-G6
Hardware	Includes Sixth Generation Ethernet Network Card (ENC-G6) and DIN Rail Enclosure	<input checked="" type="checkbox"/>
	4G SIM Card	Not included
Remote Capabilities	Firmware Upgrade (Remote)	Via Solectria Technical Support Team
	On/Off Reset (Remote)	Via Modbus
	Active Power Setting (Remote)	Via Modbus
	PF Setting (Remote)	Via Modbus
Communications	Inverter to ENC-G6	RS485
	Native Internet Access	Ethernet
	Inverter Connections per Item	32
	Protocol	SunSpec XML, HTTPS, DHCP, DNS Resolution, Solectria Proprietary RTU
Data Logging Specifications	Data sampling rate	Programmable data sampling (1 to 20 minute sample rate)
	Local Data Storage	30 days based on 20 minute intervals <sup>1</sup>
	Data parameters	Modbus ID, Inverter S/N's, Model, TYield/DYield (kWh), RunT (min), Mode, Upv (V),Ipv (A), Pac (kW), PF, Freq (Hz), Uabc (V), Iabc (A)
Power Supply	DC Input Voltage	5 - 24 Vdc
	Power Consumption	2.5 - 5 W
Environment	Ambient Temperature Range	-22°F to 140°F (-30°C to +60°C)
	Relative Humidity	5 to 85%, Non-condensing
Warranty	Standard Limited Warranty	2 Years
Mechanical Parameters	Ethernet Network Card (H x W x D)	3.9 in x 2.72 in x 0.83 in (99 mm x 69 mm x 21 mm)
	ENC-G6 in Enclosure (H x W x D)	4.25 in x 3.62 in x 1/26 in (108 mm x 92 mm x 32 mm)
	Environmental Protection	Installed in NEMA 4X inverter wire box or 3rd party enclosure <sup>2</sup>
	Weight (Card / With Enclosure)	0.14 lb ( 65 g) / 0.42 lb (190 g)

4G SIM Card Options	ENC-C510	ENC-C532
Number of Inverters	Up to 10 Inverters	Up to 32 Inverters
Data Provider	ATT, T-Mobile, Verizon <sup>3</sup>	

<sup>1</sup> ENC-G6 only stores data when the ENC-G6 gateway card is continuously powered.

<sup>2</sup> Legacy PVI 36TL-480 inverters: use included DIN rail enclosure & install in third-party weatherproof box.

<sup>3</sup> SIM card automatically picks provider based on signal strength in US and Canada.



1. Push in the direction shown to unlock the flap.



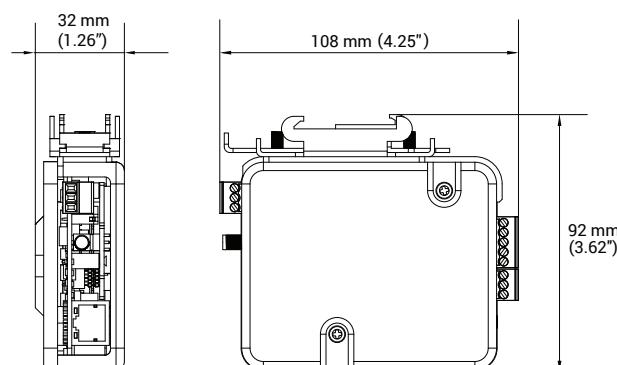
2. Open the flap. Push in the direction shown to lock the flap.



3. Then insert the ENC-C510 or ENC-C532 SIM card into the flap. Close the flap with the SIM card back onto the holder. Please note that the use of this SIM card reader is only for the SIM cards offered by Yaskawa Solectria Solar.

## DIN RAIL ENCLOSURE

(included for use with Third Party Enclosure)



IT'S PERSONAL