mlt INVERTERS

THE TRUSTED
POWER SOLUTION
FOR AFRICA.
SINCE 1986.

Nomad

MAXIMUM POWERPOINT TRACKER

The Nomad MPPT was designed to help minimise total photo-voltaic system capital and lifetime operational costs, through a variety of innovations:

- Dual high DC voltage MPPTs
- Integrated protection
- Easy installation & configuration
- High reliability
- Compatible with various battery types

Features

Two Independent MPPTs

The Nomad contains two fully independent MPPTs, perfect for residential applications where PV arrays often face in a variety of directions. Connecting such PV strings to separate MPPTs can increase energy yields significantly compared to combining all strings into one MPPT.

Wide PV String Voltage Range

Each of the two MPPTs can accept PV string DC voltages between 65 and 375V. This wide range means a single PV string per MPPT is possible, instead of being forced to parallel PV strings. This allows for thinner DC cables, no string junction boxes and easier & lower cost installations.

Integrated Protection

The Nomad includes as standard a variety of protection designs, ensuring safe operation and easy & cost effective compliance to applicable regulations. These include Ground Fault Detect and Interrupt, which is becoming a regulatory requirement in most countries.

Compatible With Various Battery Technologies

Unlike many MPPTs, the Nomad is compatible with a variety of battery technologies. For example, in the event of a Li-ion battery trip, the Nomad will immediately disconnect, thereby protecting against rapid battery DC bus rises which typically destroy slower MPPTs and connected inverters. The Nomad's charging voltage and current are fully adjustable, and it can communicate via CAN bus (optional).

Specifications

SYSTEM RATINGS

	Nomad
Maximum Output Current	80A @ 40°C with adjustable current limit (40A per PV input)
Nominal Photovoltaic Power (24/36/48V)	1000 W / 1500 W / 2000 W (per port)
Maximum Photovoltaic Power (24/36/48V)	1500 W / 2250 W / 3000 W (per port)
PV Open Circuit Voltage (VOC)	400Vdc absolute maximum / 375Vdc operating maximum
Charging Regulation	Bulk, absorption, float, and equalization
Voltage Regulation Setpoints	20 to 63Vdc user adjustable with password protection
Programmable Auxiliary Control Output	30Vdc / 277Vac / 5A relay
Protection	GFDI, Reverse Polarity PV & Battery, Overvoltage Battery

BATTERY INPUT

Nominal Battery Voltages	24, 36 and 48 Vdc (configurable at start-up)
Battery Temperature Compensation	Configurable with optional Remote Temperature Sensor (RTS) installed

EFFICIENCY

Peak Efficiency	65Vdc PV input / 48V battery at 53Vdc (est. 95%)
Power Conversion Efficiency	Est. 95% @ 80Adc in a 48Vdc System (typical)
Standby Power Consumption	Less than 2.5W typical

GENERAL SPECIFICATIONS

Mounting	Wall mounted (bracket & fasteners included)
Dimensions H x W x D (mm)	Unit: 380 x 210 x 147, Shipping: 440x275x215
Weight	Unit: 6 kg, Shipping: 6.2kg
Input cable sizes	2 x PV: 4-10mm2, 1 x Battery: 10-25mm2
Environmental Rating	IP20/NEMA1
Colour	RAL 9002/ RAL 9011
Warranty	3 years, extendable to 10 years
Compliance	IEC62109-1

CLIMATIC CONDITIONS

Operating Temperature Range	-10 to 60°C (current automatically de-rated above 40°C)

OPERATOR PANEL

Status Display	Full colour touch screen 4.3 inch LCD
Communications	UART TTL, USB, RS485 (optional), CAN (optional)
Remote Display and Controller	Full remote monitoring, control & notification with optional Bridge
Graphs	24 hour history display of solar power production (both ports) & battery voltage SOC, and most recent PV voltage / power sweeps (both ports)
Data logging	150 days daily kWh production and peak kW, 64 events, lifetime kWh production

DESIGNED & MADE IN SOUTH AFRICA

Accessories

- **Remote Temperature Sensor**
  Measures battery temperature, allowing automatic MPPT charging compensation
- **Bridge**
  Enables full remote monitoring, control & notification through internet-based MLT Portal
- **Communications plug-in**
  Enables RS485 and CAN, and allows settings to be synchronised across paralleled MPPTs & MLT inverters, configured as master / slaves. Available 1st quarter 2017

Distributor / Installer

Contact Details

mlt INVERTERS

info@mltinverters.com

+27 (0)21 201 1335

www.mltinverters.com

103 Garfield Road, Kenilworth 7708,
Cape Town, SOUTH AFRICA