

THE SIMPLEST, MOST COST-EFFECTIVE  
AND MOST CONVENIENT WAY TO  
**MEET SANS 10400-XA REQUIREMENTS**



POWEROPTIMAL  
ELON



**PowerOptimal's Elon®** enables direct connection of solar PV (photovoltaic) panels to a standard electric water heater (geyser) with optimised solar power use in a single compact unit. The system requires no inverter or battery and can be connected to standard AC geyser heating elements and thermostats. It can be grid-connected or run fully off-grid. The control switch can be set to **electricity mains only** to instantaneously boost the water heating, to **solar only** for maximum savings, or to a combination of electricity and solar to use solar energy in daytime and grid energy at night.

## TYPICAL SCHEMATIC INSTALLATION



## SOLAR PV MODULE AND AC HEATING ELEMENT MATCHING GUIDE

No. of cells	Module STC power rating (Wp)	Module NOCT mpp* voltage (V)	Module NOCT mpp* current (A)	Best element size match (rated power in kW @ 230AC) for an array of:						
				3 modules	4 modules	5 modules	6 modules	8(2X4) modules	10(2X5) modules	12(2X6) modules
60	250-305	28-29.5	6.5-7.6	4kW	3kW	2kW	2kW	NR	4kW	4kW
72	295-355	33-35	6.5-7.6	3kW	2kW	2kW	NA	4kW	4kW	NA

- mpp\* = maximum power point
- STC = Standard Test Conditions (irradiance 1000 W/m<sup>2</sup>, spectrum AM 1.5, cell temperature 25 °C)
- NOCT = Nominal Operating Cell Temperature (800 W/m<sup>2</sup>, spectrum AM 1.5, cell temperature ~ 43 - 45 °C)
- NA = Not Allowed (exceeds maximum rated Elon voltage)
- NR = Not Recommended (poor array-heating element matching efficiency)

The complete **Elon** system comprises of a control switch, a connection box, a cable to connect the control switch to the connection box and a wiring kit for the geyser thermostat and element. All these items can also be purchased individually.

PRODUCT CODE	DESCRIPTION
SOL-PVE-SYSTEM	Complete Elon System
SOL-PVE-CNTRLBOX	Control & Connection Box
SOL-PVE-CNTRL	In-house Control Switch
SOL-PVE-CABLE	Controller Cable
SOL-PVE-WIRE	Element & Thermostat Wiring Kit



## WARRANTY

The **Elon** has a one-year warranty period from date of purchase on presentation of a proof of purchase receipt, against any manufacturing defect, whereby the unit will be either repaired or replaced. The warranty does not include abuse, misuse, improper use and testing, negligence, altering or tampering of the unit and the repair by a third party, nor the installation of the product. The unit must only be installed by an electrical contractor registered with the South African Department of Labour and installed in accordance with supplied manual.

**Electrolux South Africa (Pty) Ltd** is the sole supplier of the PowerOptimal Elon and can be purchased from any one of Electrolux's branches.

Electrolux SA (Pty) Ltd

[www.electrolux.co.za](http://www.electrolux.co.za)

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