

SOLAR

DEFCON 5

SOLAR / UPS BACK-UP POWER | LOAD SHEDDING SOLUTIONS:
INSTALLATION & MAINTENANCE

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BUSINESS PROFILE

SOLAR PANELS • BATTERY BACK-UP • UPS SYSTEMS • LOAD SHEDDING

Defcon 5 is an owner managed business that was established August 2000. During this period the company's primary function was Electronic Gaming Repair, IT, Network Installations and Support. Since then we have applied our expertise in electronics and IT to the ever growing Electronic Security and Solar Power Industry. Being able to supply not only turnkey electronic security, network infrastructure and solar power solutions but also offering maintenance and repair services in the same field. Our highly skilled management have over 20 years' experience in the electronic installation and design field, giving us not only an edge in workmanship but also in the very important design stages of any installation. Being skilled in the industry allows for quicker diagnostics which in turn leads to less down time. Our installation, service quality and technical support is unrivaled by any in the industry.

In this brochure you will find info on our SOLAR POWER, UPS & LOAD SHEDDING solutions and related products & services and how we seamlessly integrate them into local and existing power solutions. With installation examples and references.

WERNICH WESSELS (082 803 0244)
MANAGING MEMBER - DEFCON 5



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SOLAR PANEL & INVERTER INSTALLATION EXAMPLES:

we only make use of skilled labour for our installations, no corners are cut. A solar installation is an investment with equipment that should last 15 to 25 years. At Defcon 5 we believe that the installation must outlast the equipment.



To the left our truss mounting and sealing system. The complete solar panel bracket system is supported on the roof trusses inside the roof and not on the tile. This is done without removing any tiles. The system is then properly sealed for a leak free installation.



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Top Middle: A Fully customised installation comprising of 1x Inverter, 2x MPPT Charge Controllers, 2x Battery Sensors with Programmable Relays, 2x Comms Modules, 1x Battery Monitor. The Solar Panel String Combiner Box has 6x 7-Segment LED Display volt meters to display each Solar String's individual voltage. A Change Over switch allows switching between Grid and Generator as a Back-Up solution. Furthermore the DB has been wired with three individual Isolated and Protected circuits each manageable via the Battery Sensor's Programmable Relays or a Smart Phone APP. Allowing non crucial circuits to be switched off Automatically, Manually or Remotely when battery power runs low.



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At Defcon 5 we very strongly believe in quality over quantity, we also believe in supporting our own local businesses, manufacturers and developers. Microcare is the only manufacturer in South Africa of high quality MPPT charge controllers and Bi-Directional Pure Sine Wave inverters. Inverters and MPPT controllers can be linked allowing easy upgrade or expansion to any pre-installed site.

- **MPPT Solar Charge Controllers** – These are maximum efficiency charge controllers that can extract the maximum amount of power from a solar panel where normal charge controllers lack far behind. Allowing for great power yields and faster battery charging times. Available in 10A, 20A, 40A, 60A & 100A
- **PURE Sine Wave Bi-Directional Inverters** – Highly efficient with no harmonic distortion, suitable for all electrical appliances and medical equipment. These inverters are able to operate in UPS and Off Grid solar modes with built in battery chargers. Available in 1KW, 2KW, 3KW, 5KW 8KW, 10KW & 15KW

Applications & Communications – The Microcare WiFi module allows simple and economic communication and logging via the powermonitor.co.za website. With customizable graphs, charts & bars.



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Victron is one of the largest suppliers of high quality solar energy products in the world, with offices and support centers on all continents. With a vast product range servicing all solar needs. Victron caters for all power markets including Industrial, Domestic, Office, Automotive, Camping, Marine etc. All inverters and MPPT charge controllers are scalable meaning that upgrading or increasing any installation size can be done relatively easily. Available product ranges:

- MPPT Charge controllers – 10A to 100A
- Inverters & UPS – 3000VA to 15000VA
- Battery Chargers – Domestic and Industrial
- Batteries – Flooded Cell & Lithium
- Battery Protection Systems
- Isolation Transformers
- Transfer Switching
- Solar System Monitoring & Panels
- DC Distribution Systems



For over 35 years, SMA has been setting technological trends and driving the development of renewable energies. With our groundbreaking inverter technology, we have made significant contributions in seeing that renewable energies leave the pioneer phase behind and increasingly become the norm worldwide.

This multi award winning German company leads the field in Solar power solutions. Maybe a bit out of range price wise for most home owners in South Africa but definitely worth every cent.



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 **CanadianSolar**

THE NEXT GENERATION MODULE



- 16.16% efficiency
- High Performance
- Positive Tolerance
- PTC Rating up to 91.96%
- Anti-glare surface
- Weather endurance
- Heavy snow and wind load
- Heavy snow and wind load

25 YEARS
Warranty Insurance

