

Info Sheet

Solar Control & Solar Systems

Harness the sun. Power the future.

1. Overview

IPU SA delivers end-to-end **Solar Power Solutions** for commercial, industrial, and infrastructure-scale applications — integrating control, storage, and grid support into one seamless system. From solar PV panels to inverters and smart controllers, our solar systems are engineered to reduce operational costs and carbon emissions without compromising reliability.

Whether standalone, grid-tied, or hybrid, each system is designed by our engineering team to meet the unique performance, compliance, and ROI targets of every project.

2. Key Features

- Grid-tied, off-grid, and hybrid system configurations
- Intelligent solar charge controllers with MPPT algorithms
- String inverters, central inverters, or microinverter options
- Solar-compatible SCADA and energy monitoring
- Battery storage and diesel generator hybrid integration
- Modular design for scalable system expansion
- Remote performance tracking and fault diagnostics
- Built-in protection against surge, overload, and reverse polarity

3. Applications

- Warehouses and industrial rooftops
- Hospitals, schools, and public facilities
- Water pumping and desalination systems
- Utility-scale solar farms
- Government and Vision 2030 sustainability projects

4. Integration Capabilities

- Interfacing with battery banks and UPS systems
- SCADA/BMS compatibility for system-wide energy tracking
- Synchronization with diesel or grid input for hybrid systems
- Integrated export control and anti-islanding features
- Options for net metering or load-following logic

5. Certifications & Standards

- System design per **IEC 61727**, **IEC 62116**, and **IEC 62548**
- Components from Tier 1 OEMs (Huawei, Schneider, SMA, etc.)
- Saudi Grid Code-compliant for grid-connected applications
- Commissioned and tested with full documentation