

ENERGY GENERATION MODULE

REDAVIA FAST TRACK SOLAR 80 GROUND MOUNT (FTS-80GM)

At REDAVIA, we are committed to making solar energy accessible to energy challenged regions. Our model provides a pre-configured solar plant, that helps form a cost-efficient hybrid energy solution, while our flexible lease contracts allow clients to grow on their own terms. By leasing the REDAVIA FTS-80GM system, clients get cost-effective energy to power their operations and development.

The FTS-80GM is REDAVIA's premier solar farm solution. The system is completely pre-assembled by REDAVIA with all components when delivered to site. The FTS-80GM is then installed on unobstructed level ground by REDAVIA's trained installation team and connected to the client's grid for immediate operation.

UNIT STRUCTURE

300 Solar Panels

Each Unit is organized in 16 rows of up to 19 panels, with 8 strings connected to each inverter

Ground space requirements

Per Unit:
~40 x 30 m, orientation to suit site

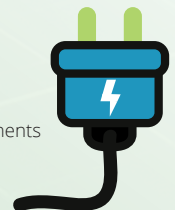
Per MW:
80 x 180 m

Inverter Stand

Purpose built roofed inverter stand with 2 inverters, factory-mounted and cabled, with electrical and communication distribution boards and fully integrated cable management

Additional components included

- DC wiring
- Grounding and lightning protection components
- Data collection and monitoring equipment
- Concrete ballast blocks
- Deployment tools



QUALITY ASSURED.

As a fully standardized, manufactured and product-certified solar farm product, REDAVIA's FTS-80GM reaches consistent quality standards unmatched by traditionally constructed solar farms. Product compliance with all relevant international standards has been certified by a recognized independent quality control institute. The original certificate is available upon request. In combination with an energy storage system, REDAVIA's tried-and-tested system controllers and grid and/or diesel generator back-up if required, the FTS-80GM forms a 24/7 reliable electricity supply system, delivering clean and highly affordable electricity anywhere.

SYSTEM DETAILS

DC peak power	Minimum 84 kWp
AC nominal power	80 kW
Installation plan area (L x W)	40 x 30 m
No. of module rows	16
Module inclination and orientation	10° inclination, orientation site dependent
Module frame configuration	Ground-mount, ballasted modular support structure
AC/DC transformation	2 x 40 nom. kW 3 phase inverters
Monitoring	GSM connection for 24/7 monitoring

ENERGY GENERATION MODULE

REDAVIA FAST TRACK SOLAR 80 GROUND MOUNT (FTS-80GM)

HIGH QUALITY SOLUTION AND SUPPORT STANDARD.

Manufacturing

REDAVIA is driven by energy accessibility and energy quality. Every FTS-80GM Unit uses top quality materials and components, is assembled and packed in factory conditions, then inspected by an independent agency and certified for shipping. All items receive serial numbers and are entered into our tracking system.

Installation

REDAVIA's system is designed for a simple and standardized installation, commissioning and decommissioning process, preserving the performance of the Units at all times. On site, the module frames are installed by a REDAVIA-trained installation team. One FTS-80GM Unit is set out in 16 rows of photovoltaic (PV) modules with each row comprising up to 19 PV modules. The REDAVIA-designed inverter stand arrives pre-assembled and includes two inverters, AC combiner box, grounding and lightning protection, and data monitoring equipment. Multiple Units are connected with AC and comms, cabling, AC distribution boards and PV curtailment control to suit each customer's site and electricity grid.

Operation & Maintenance

During the lease agreement period, REDAVIA works closely with every client to ensure quality of commissioning and operational reliability. We provide regular maintenance and emergency support. Our technology monitors weather conditions and controls energy output levels for complete optimization 24/7.

COMPONENT DETAILS

PV Module	Risen SYP280P*
Nominal voltage	31.8 V
Nominal current	8.82 A
Open circuit voltage	38.6 V
Short-circuit current	9.36 A
Nominal power	280 Wp
Number of modules per string	19
String voltage	604.2 V
String current	8.82 A
Number of strings per inverter	8

Inverters	Huawei SUN2000-36KTL*
Min. MPP input voltage	200 V
Max. MPP input voltage	1000 V
Max. input voltage	1100 V
Max. input current DC	22 A
DC-nominal power (max.)	40.8 kW
AC-nominal power (max.)	40 kW

AC Combiner	Rittal stainless steel external grade junction box*
Rated input current	63 A per input
No. of inputs	2 x 3 P+N
Protection	3 pole 63 A MCB's (Schneider or similar)
Output rating	160 A
Circuit breaker	MCCB Chint NXM-16OS/4P 160 A
Overvoltage protection	Type II on 3 P+N

Module racking	
Material	Aluminium AL 6005-T5 factory prepared framing, assembled with modules and ballast on site
Structural strength	Installed frames designed to withstand wind-loading of up to 32 ms ⁻¹ in accordance with DIN 1055/JIS 8955/ ASCE 7-05
Dimensions	25 x 32 m with 300 panels installed

*or equivalent