

**ENERGY GENERATION MODULE**

**REDAVIA FAST TRACK SOLAR 60 ROOF MOUNT (FTS-60RM)**

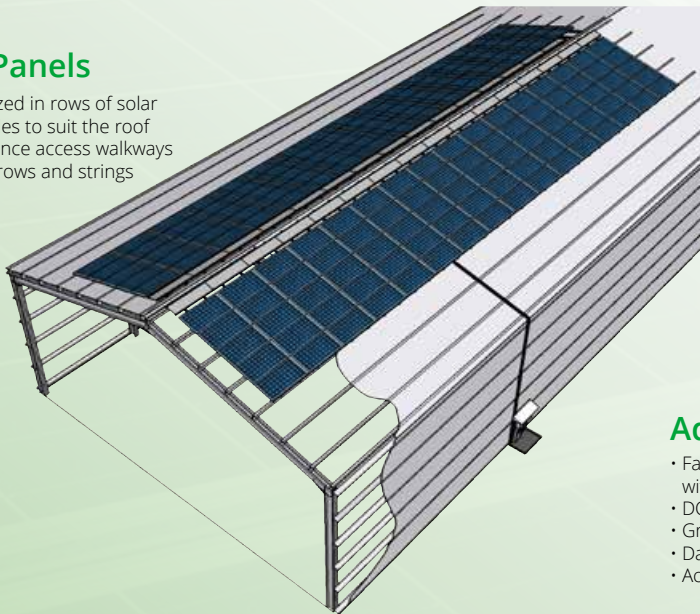
*At REDAVIA, we are committed to delivering cost-effective, reliable, clean energy. The REDAVIA FTS-60RM model provides a pre-configured roof-mounted solar plant that helps form a cost-efficient hybrid energy solution, while our flexible lease contracts allow clients to grow on their own terms. By leasing the REDAVIA FTS-60RM system, clients get cost-effective energy to power their operations and development.*

The FTS-60RM is a full-service rooftop solar solution. The system is completely pre-assembled by REDAVIA with all components when delivered to site. The FTS-60RM is then installed on the client’s roof by REDAVIA’s trained installation team and connected to the client’s power system for immediate operation.

**UNIT STRUCTURE**

**160 Solar Panels**

Each Unit is organized in rows of solar photovoltaic modules to suit the roof area with maintenance access walkways integrated every 5 rows and strings configured by row.



**Roof space requirements**

**Per Unit:**  
Typical formats: 6.6m x 67.2m, 9.9m x 48.3m, 13.2m x 33.6m

**Per MW:**  
14 Units supply 1 MWp

**Roof mount structure**

Purpose-made high-quality aluminum module support framing system designed to resist wind-loading up to 50ms-1 and fixed to roof structure with self-tapping hanger bolts complete with roof sealing washers. Modules aluminum-framed 144-cell Mono PERC technology from tier 1 supplier.

**Additional components included**

- Factory-assembled power conversion stand with inverter, protection and monitoring equipment
- DC wiring and cable management basket
- Grounding and lightning protection
- Data collection and 24/7 monitoring equipment
- Access walkway for safest cleaning and maintenance



**QUALITY ASSURED.**

As a fully standardized, manufactured and product-certified solar farm product, REDAVIA’s FTS-60RM reaches consistent quality standards unmatched by traditionally constructed solar farms. The product complies with all relevant international standards. Certification is obtained by a recognized independent quality control institute. 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-60RM forms a 24/7 reliable electricity supply system, delivering clean and highly affordable electricity anywhere.

**SYSTEM DETAILS**

<b>DC peak power</b>	Minimum 70.4 kWp
<b>AC nominal power</b>	60 kVA
<b>Installation plan area</b>	6.6m x 67.2m, 9.9m x 48.3m, 13.2m x 33.6m
<b>No. of module rows</b>	Min. 3, Max. 10
<b>Module inclination and orientation</b>	5° to 35° inclination, orientation to suit roof. For flat roofs, see our FTS-80GM product
<b>Module frame configuration</b>	Modules arranged in landscape layout, support rails parallel to roof slope
<b>AC/DC transformation</b>	1 x 60kW nom. 3 phase inverter
<b>Monitoring</b>	LTE (2G, 3G, 4G) based 24/7 monitoring

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## HIGH QUALITY SOLUTION AND SUPPORT STANDARD.

### Manufacturing

REDAVIA is driven by energy accessibility and energy quality. Every FTS-60RM 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 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. The FTS-60RM is installed on-site and commissioned by a REDAVIA-trained installation team adhering strictly to safe working procedures. The purpose-made roof mount hanger bolts are installed into the roof support members with sealing washers to ensure the integrity of the roof is maintained. The frame and modules are then installed together with integral roof access walkways protecting the roof surface. The inverter and communications cabinet are mounted on a purpose-built, covered stand suitably located. Grounding, lightning protection, over-voltage protection, and data monitoring equipment are also included.

### Design Benefits

The FTS-60RM design allows clients to make efficient use of their roofs by turning them into an instrument for energy generation. Additionally, our premium aluminum roof mount system is designed for fast-track installation, minimal impact on the existing building, and easy maintenance.

### 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.

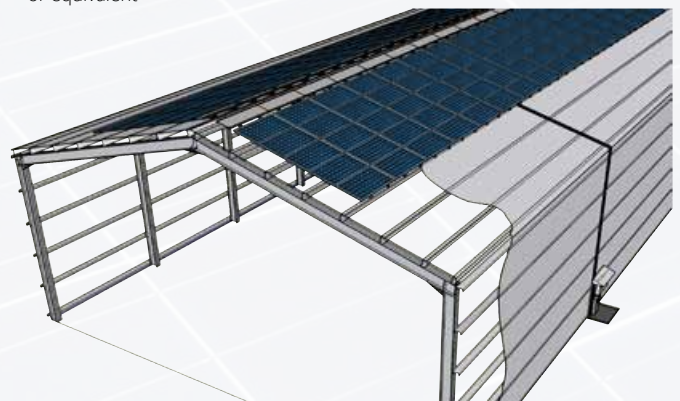
## COMPONENT DETAILS

PV Module	Risen 144 cell Mono PERC modules*
Nominal voltage	41.13 V
Open circuit voltage	49.50 V
Short-circuit current	11.30 A
Nominal power	440 Wp
Number of modules per string	16
String voltage	792 V
String current	11.3 A
Number of strings per inverter	10

Inverters	Huawei SUN2000-60KTL-M0*
Min. MPP input voltage	200 V
Max. MPP input voltage	1000 V
Max. input voltage	1100 V
Max. input current DC	30 A
AC-nominal power (max.)	66 kVA

Roof mount framing	Yanglin Tech Co. Ltd.*
Material	Aluminum AL6005-T5 factory-prepared framing, assembled with hanger bolts and modules on site
Structural strength	Installed system designed to withstand wind-loading of up to 50ms-1 in accordance with DIN 1055/JIS 8955/ ASCE 7-05
Dimensions	34m x 12m with 160 modules installed and 2 longitudinal walkways

\*or equivalent



Version: July 2020