

**ENERGY GENERATION MODULE**

**REDAVIA FAST TRACK SOLAR 40 CARPORT (FTS-40CP)**

*At REDAVIA, we know that a solar plant can be more than just a cost-efficient energy solution - by leasing the REDAVIA FTS-40CP system, clients get affordable energy to power their operations and development and also a premium aluminum carport to provide shading and protection of vehicles. This model provides a pre-configured carport solar plant that adds a level of leisure to client parking lots, while our flexible lease contracts allow clients to grow on their own terms.*

The FTS-40CP is a full-service solar farm solution. The system is completely pre-assembled by REDAVIA with all components when delivered to site. The FTS-40CP is then installed in the client’s parking lot by REDAVIA’s trained installation team and connected to the client’s grid for immediate operation.

**UNIT STRUCTURE**

**120 Solar Panels**

Each Unit is organized in 5 rows of up to 24 panels, with 6 strings connected to each inverter

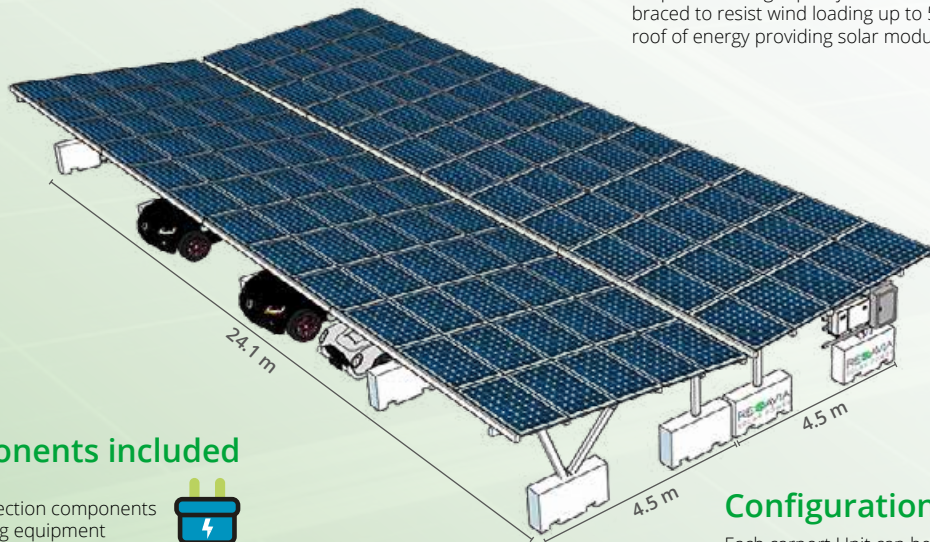
**Ground space requirements**

**Per Unit:**  
24.1 x 9.0 m or 48.2 x 4.5 m, orientation to suit site

**Per MW:**  
19 Units supply 1MW

**Additional components included**

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



**Carport Frames**

Purpose built high quality aluminum framing fully braced to resist wind loading up to 50m/s supporting a roof of energy providing solar modules

**Configuration**

Each carport Unit can be configured in either in one row of 16 or two rows of 8 spaces

**QUALITY ASSURED.**

As a fully standardized, manufactured and product-certified solar farm product, REDAVIA’s FTS-40CP 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-40CP forms a 24/7 reliable electricity supply system, delivering clean and highly affordable electricity anywhere.

**SYSTEM DETAILS**

**Solar Generation**

<b>DC peak power</b>	Minimum 52.8 kWp
<b>AC nominal power</b>	44.0 kVA
<b>Roof plan area (L x W)</b>	25.41 x 11.1 m or 50.92 x 5.55 m
<b>No. of module rows</b>	5
<b>Module inclination and orientation</b>	5° inclination, orientation site dependent
<b>Module frame configuration</b>	Ground-mount, ballasted modular support structure
<b>AC/DC transformation</b>	2 x 20 kW nom. 3 phase inverters
<b>Monitoring</b>	GSM connection for 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-40CP 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. On site, the carport frames are installed by a REDAVIA-trained installation team. One FTS-40CP Unit is set out in a single 16 space or 2 x 8 space configuration to suit the customers requirements. The inverter and comms cabinet are mounted on the carport frame and factory prepared cabling installed in concealed cable routes. Grounding, lightning protection, overvoltage protection and data monitoring equipment are also included. 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.

### Design Benefits

The FTS-40CP design allows clients to make efficient use of the land they already own by turning their parking lot into an instrument for energy generation. Additionally, REDAVIA's premium aluminum carport provides shading and protection for vehicles, for an upscale parking experience.

### 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 RSM144-7-440M*
Nominal voltage	14.13 V
Nominal current	10.70 A
Open circuit voltage	49.50 V
Short-circuit current	11.30 A
Nominal power	440 Wp
Number of modules per string	15
String voltage	743 V
String current	11.30 A
Number of strings per inverter	4

Inverters	Huawei SUN2000-20KTL*
Min. MPP input voltage	200 V
Max. MPP input voltage	950 V
Max. input voltage	1080 V
Max. input current DC	22 A
DC-nominal power (max.)	20.2 kW
AC-nominal power (max.)	20 kW

Parking spaces	
Number of spaces	16
Space width	3000 mm
Space min headroom	2000 mm
Space length	5290 mm

Carport framing	
Material	Aluminum 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 50 ms-1 in accordance with DIN 1055/JIS 8955/ ASCE 7-05
Dimensions	5.6 x 51.0 x 2.6m max height with 120 solar modules installed

\*or equivalent