

**PROJECT DESCRIPTION:**

SYSTEM SIZE	3.05KW DC STC
MODULE TYPE	(07) LONGI SOLAR LR5-54HTH-435M 435W

**INDEX SHEET**

A.00	SITE PLAN
A.01	LAYOUT PLAN
S.00	FRAMING DETAILS
D.00-D01	SPECIFICATION SHEETS



C6 SPECTRUM  
BUSINESS ESTATE  
ANTHONY'S WAY,  
ROCHESTER, KENT  
ME2 4NP

PRO. DATE	16/09/2024
DESIGN BY	DR
CHECKED BY	JD

**PROJECT NAME**

WHITEHALL ROAD  
(THE ARUNDEL)

**SHEET NAME**

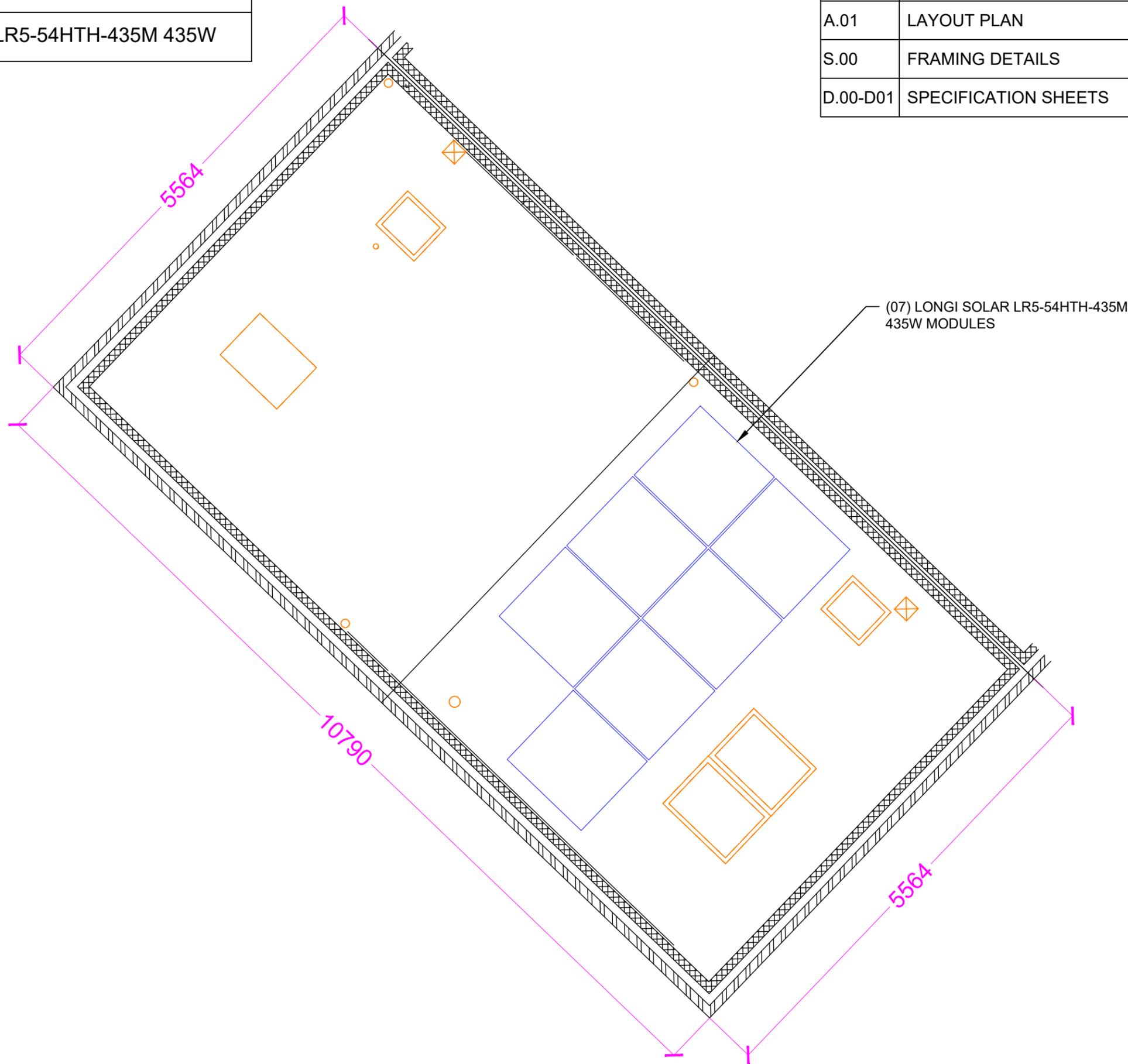
SITE PLAN

**SHEET SIZE**

ANSI B  
279 X 432

**SHEET NUMBER**

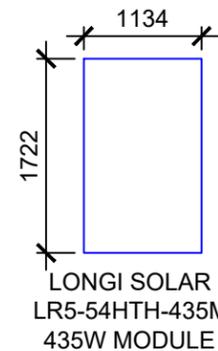
A.00



**1** SITE PLAN  
SCALE: 1:50

# MODULES AREA & ROOF AREA CALC'S

# OF MODULES	MODULES AREA (Sq. Meter)	ROOF AREA (Sq. Meter)	ROOF AREA COVERED BY MODULES (%)
07	13.65	60	22.75



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ORIENTATION: 134°  
INCLINATION: 45°



**1** LAYOUT PLAN  
SCALE: 1:50

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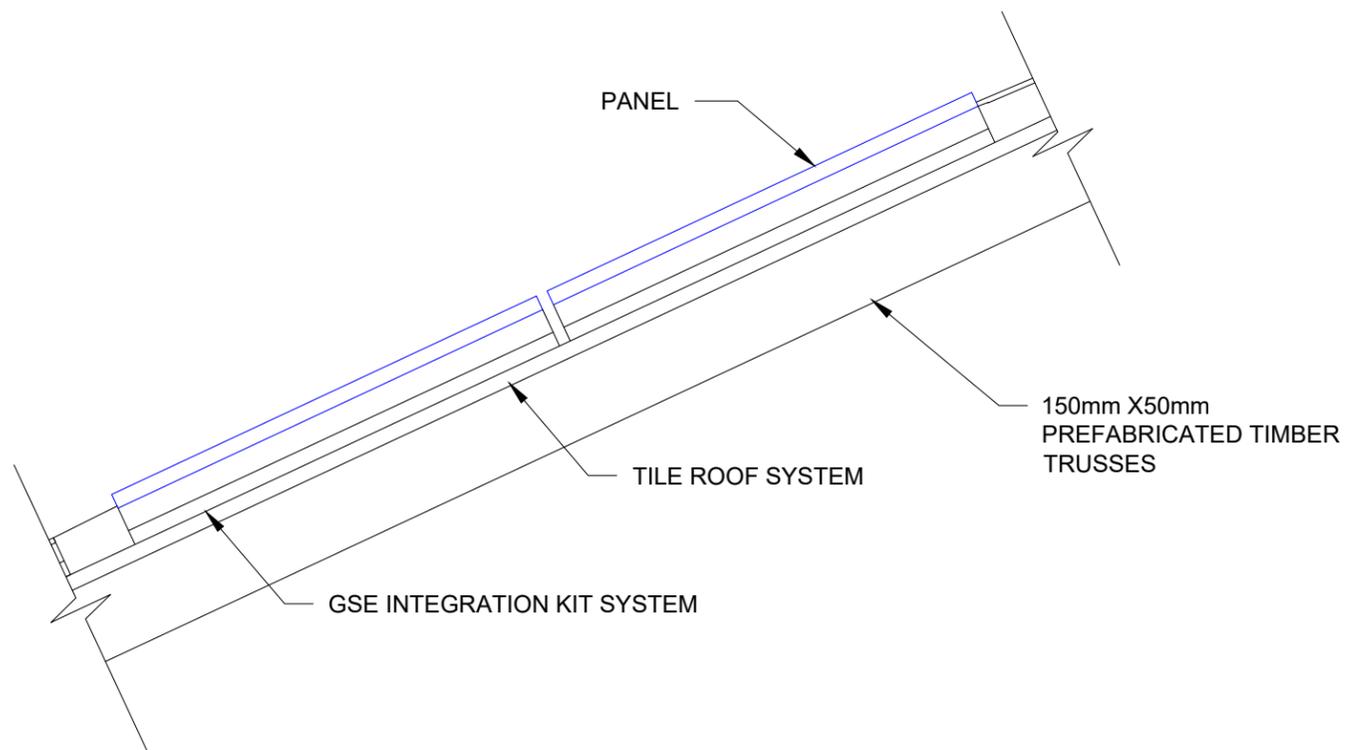
FRAMING  
DETAILS

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S.00



**1 ATTACHMENT DETAILS**  
SCALE: NTS



**2 ENLARGED VIEW**  
SCALE: NTS

**Hi-MO 6**  
Scientists

# LR5-54HTH 435~450M

- Suitable for distributed projects
- Excellent outdoor power generation performance
- High module quality ensures long-term reliability

**25** 25-year Warranty for Materials and Processing

**25** 25-year Warranty for Extra Linear Power Output

### Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730  
ISO9001:2015: ISO Quality Management System  
ISO14001: 2015: ISO Environment Management System  
ISO45001: 2018: Occupational Health and Safety  
IEC62941: Guideline for module design qualification and type approval

**LONGI**



## Hi-MO 6

## LR5-54HTH 435~450M

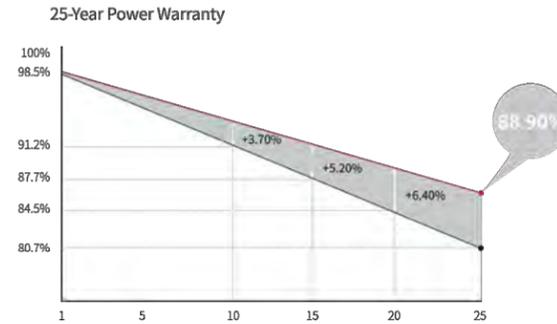
**23.0%**  
MAX MODULE  
EFFICIENCY

**0~3%**  
POWER  
TOLERANCE

**<1.5%**  
FIRST YEAR  
POWER DEGRADATION

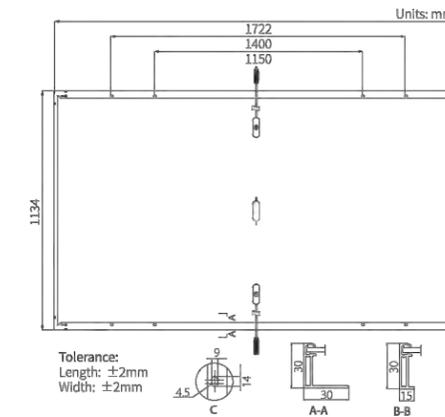
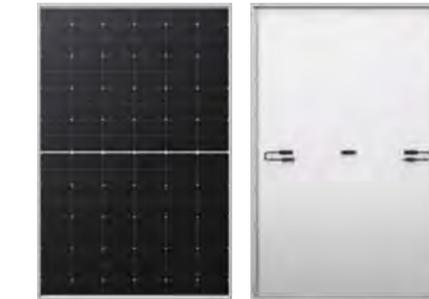
**0.40%**  
YEAR 2-25  
POWER DEGRADATION

### Additional Value



### Mechanical Parameters

Cell Orientation	108 (6×18)
Junction Box	IP68, three diodes
Output Cable	4mm <sup>2</sup> , ±1200mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	20.8kg
Dimension	1722×1134×30mm
Packaging	36pcs per pallet / 216pcs per 20' GP / 936pcs per 40' HC



Electrical Characteristics	STC: AM1.5 1000W/m <sup>2</sup> 25°C		NOCT: AM1.5 800W/m <sup>2</sup> 20°C 1m/s		Test uncertainty for Pmax: ±3%			
	LR5-54HTH-435M	LR5-54HTH-440M	LR5-54HTH-445M	LR5-54HTH-450M	STC	NOCT	STC	NOCT
Module Type	LR5-54HTH-435M	LR5-54HTH-440M	LR5-54HTH-445M	LR5-54HTH-450M				
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	435	325	440	329	445	332	450	336
Open Circuit Voltage (Voc/V)	39.33	36.93	39.53	37.11	39.73	37.30	39.93	37.49
Short Circuit Current (Isc/A)	14.22	11.49	14.30	11.55	14.37	11.61	14.45	11.67
Voltage at Maximum Power (Vmp/V)	33.04	30.15	33.24	30.33	33.44	30.51	33.64	30.70
Current at Maximum Power (Imp/A)	13.17	10.78	13.24	10.85	13.31	10.90	13.38	10.95
Module Efficiency(%)	22.3		22.5		22.8		23.0	

### Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	UL type 1 or 2 IEC Class C

### Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

### Temperature Ratings (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.230%/°C
Temperature Coefficient of Pmax	-0.290%/°C

**LONGI**

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Web: www.longi.com

Specifications included in this datasheet are subject to change without notice. LONGI reserves the right of final interpretation. (20221020DraftV03) DG



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# GSE INTEGRATION KIT

In-Roof Integrated PV system for traditional Photovoltaic Panels

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In-Roof Integrated PV system for traditional Photovoltaic Panels



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**"Fits 95%  
of the PV Modules  
on the Market"**

## Simple, Quick, Aesthetic, Lightweight, Waterproof and Inexpensive

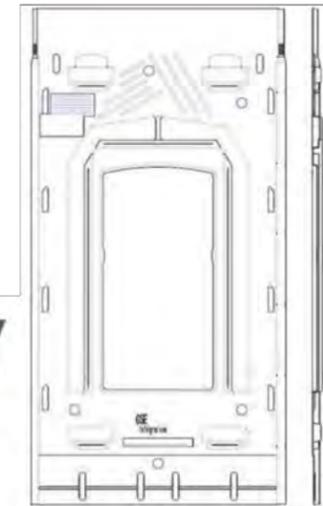
Developed by installers for installers, the GSE Integration Kit offers sizeable advantages :

- Easy to install
- Quick to mount : installation time is very valuable to professional installers and we kept that in mind when designing our kit (a 3kW System installed in 3 hours)
- Lightweight and easy to transport
- Completely Waterproof : ensures a complete watertightness of the PV System
- Flexible : achieve any desired configuration type (landscape, portrait, U-Shape, Pyramid etc), on any roof type
- Shock Resistant
- Climate Resistant (from -20C to 100C)
- Fits most existing PV modules
- 100% Recyclable
- Inexpensive : GSE integration kit is to date the most cost efficient In-Roof PV System on the market, making it ideal for roof retrofits and new construction.



### Technical Specs

Available Sizes : (in mm)	From 1635 to 1680 / 982 to 993 (Portrait / Landscape) From 1635 to 1680 / 994 to 1002 (Portrait / Landscape) 1580 / 808 (Portrait / Landscape) 1575 / 1082 (Portrait / Landscape) 1559 / 1046 (Portrait / Landscape) 1575 / 1069 (Portrait / Landscape)
Color	SILVER / BLACK (100% Recyclable)
Material	PP – Aluminum – Stainless Steel (100% Recyclable)
Temperature Range	-20°C to 100°C (Vicat Softening Point: 148°C)
Slope	10° to 50°
Weight	2 to 3 kg / m <sup>2</sup>
Warranty	10 Years



### Our Certifications



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