

(A)	Ø 2" x 3.2 mm.
(B)	Ø 4" x 3.2 mm.
(C)	Ø 4" x 3.2 mm.
(D)	<input type="checkbox"/> 100x50x3.2 mm.
(E)	<input type="checkbox"/> อลูมิเนียมตัดขอบแผง
(F)	Solar cell
(G)	แผ่นเสริมทรงท่อขนาด 10 mm.
(H)	<input type="checkbox"/> อลูมิเนียม

REVISIONS		DATE
REV.	DESCRIPTION	
00	เริ่มโครงการ	

CLIENT :

PROJECT NAME :
Grid Connect System KW

LOCATION :

DRAWING TITLE :

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REQUESTED NO. :

DRAWN BY :

CHECKED BY :

APPROVED BY :

SCALE :
N/S

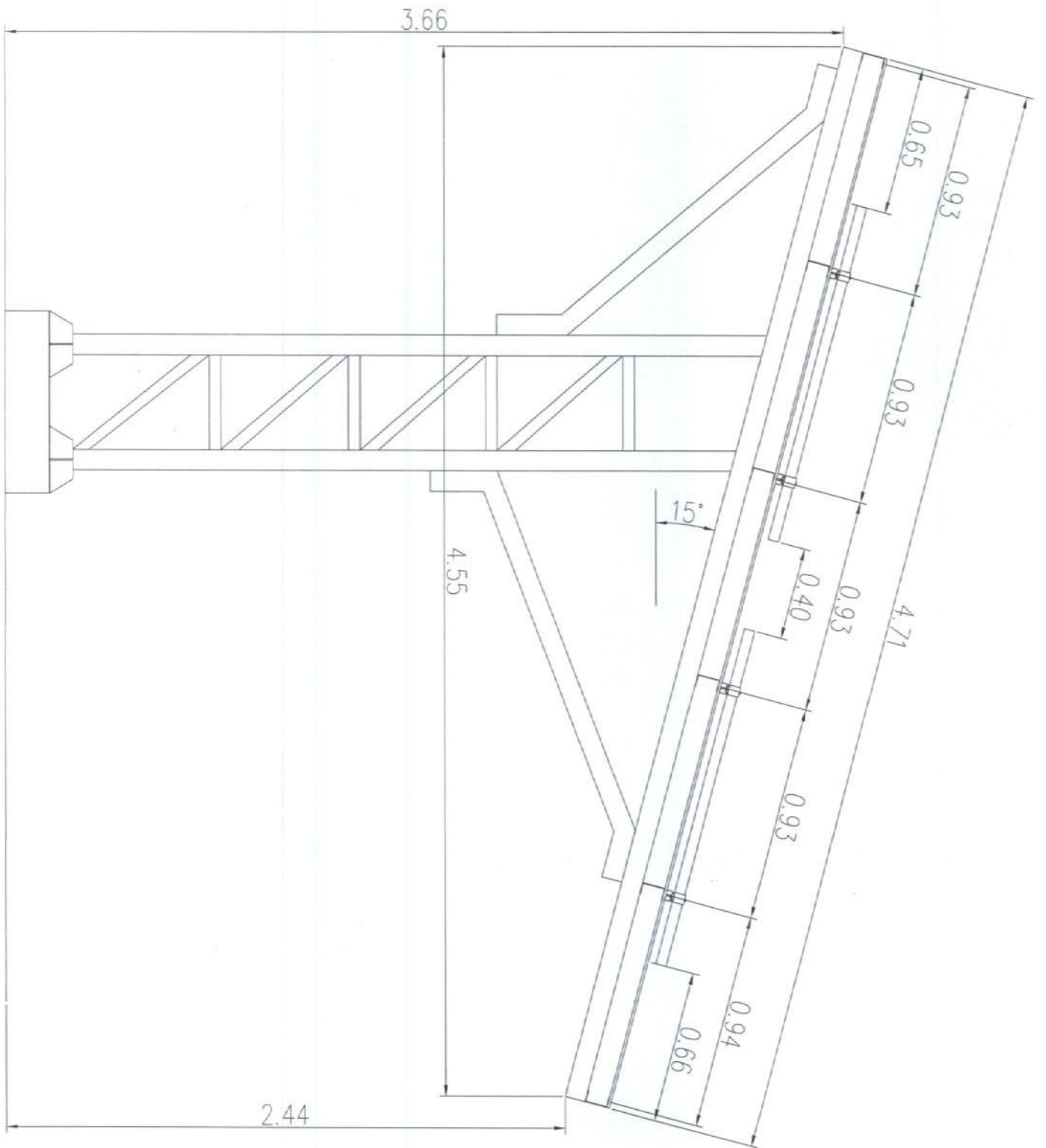
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CLIENT :

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Grid Connect System kW

LOCATION :

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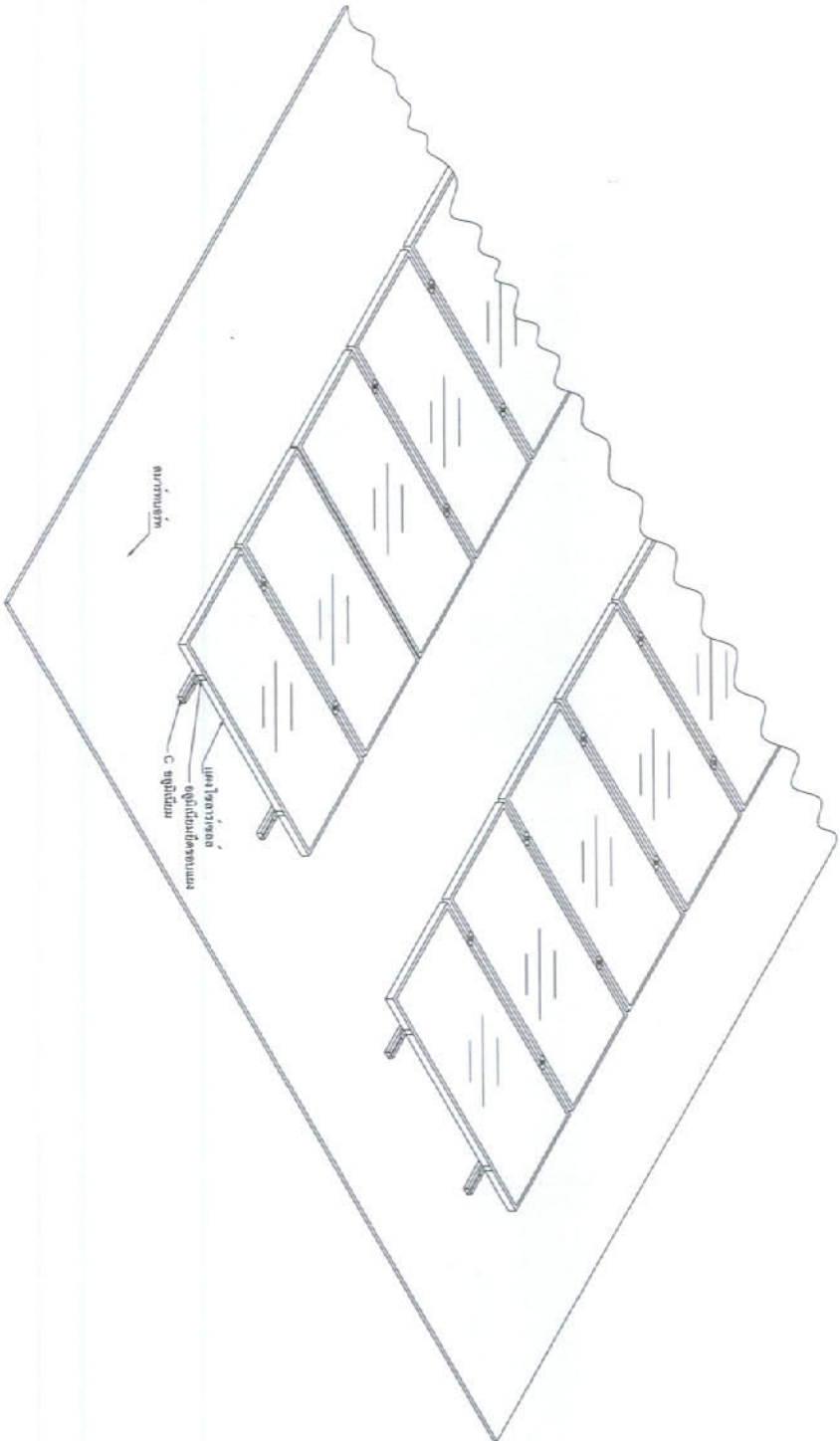
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รูปแบบอาคารวางแผน ใต้ถุนอาคารแบบแผนอาคารพอสรุป

REV.	DESCRIPTION	DATE
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CLIENT :

PROJECT NAME :
Grid Connect System kW

LOCATION :

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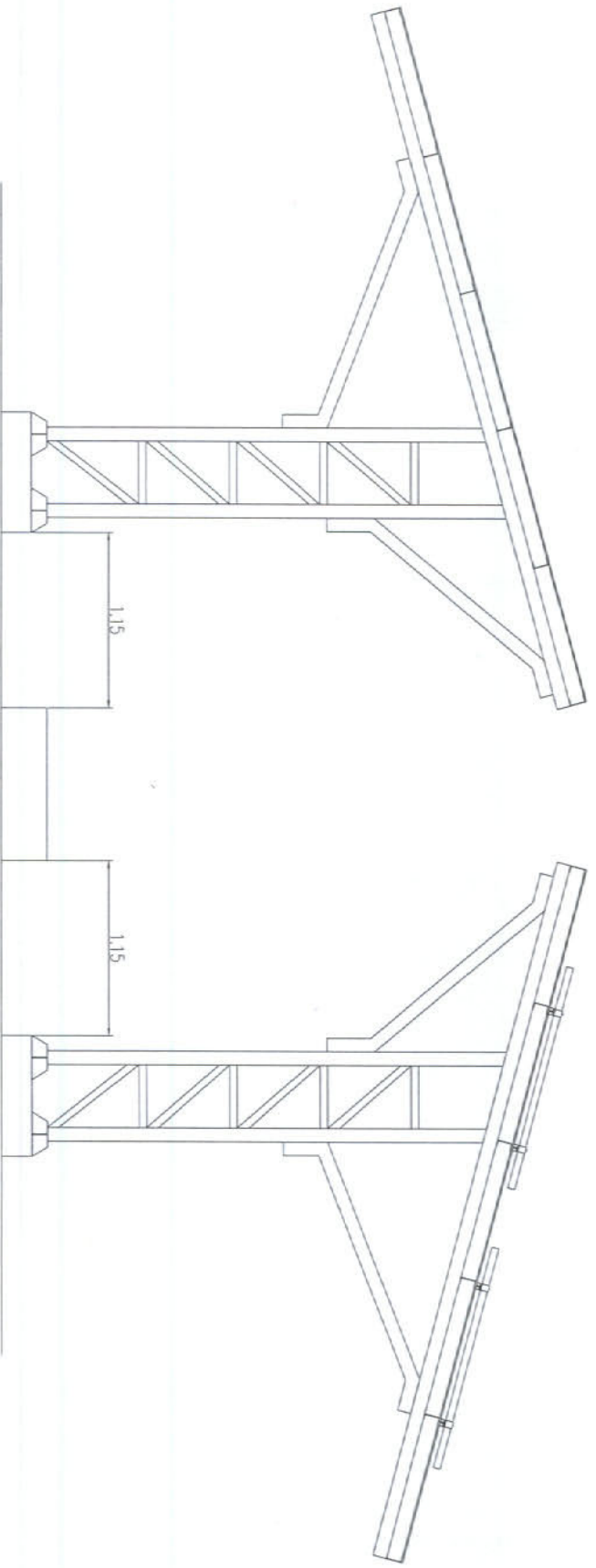
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PAGE : 00



ภาพตัด B

REVISION	DESCRIPTION	DATE
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CLIENT :

PROJECT NAME :
Grid Connect System kW

LOCATION :

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REQUESTED NO. :

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CHECKED BY :

APPROVED BY :

SCALE :
N/S

DWG NO. :

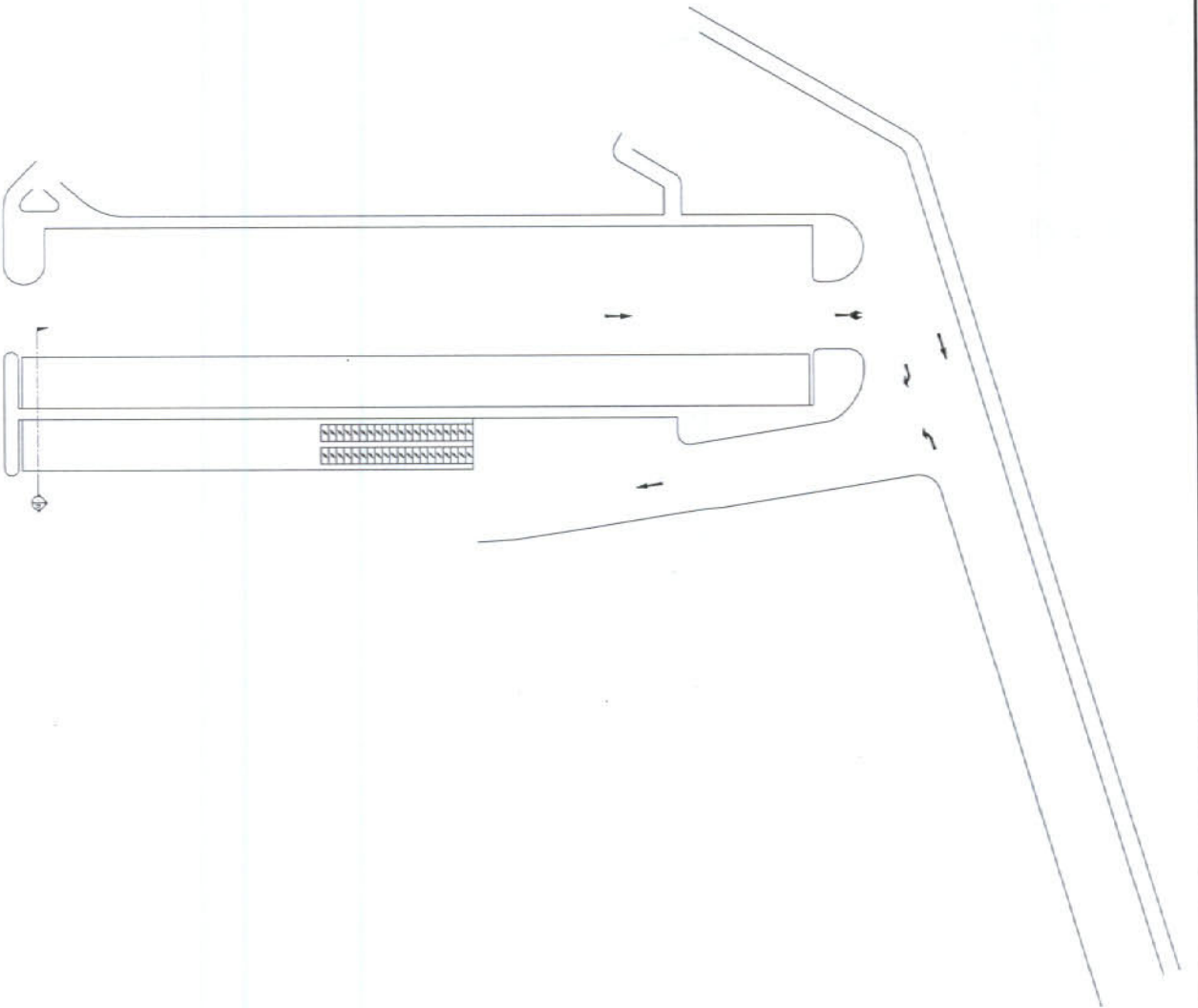
EFF. DATE : *

REV. NO. : *

DATE :

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PAGE :
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รูปแบบการวางแผง โซลาร์เซลล์ 5.2 kw.

REV.	DESCRIPTION	DATE
00	ติดตั้งใหม่	

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PROJECT NAME :
Grid Connect System kW

LOCATION :

DRAWING TITLE :

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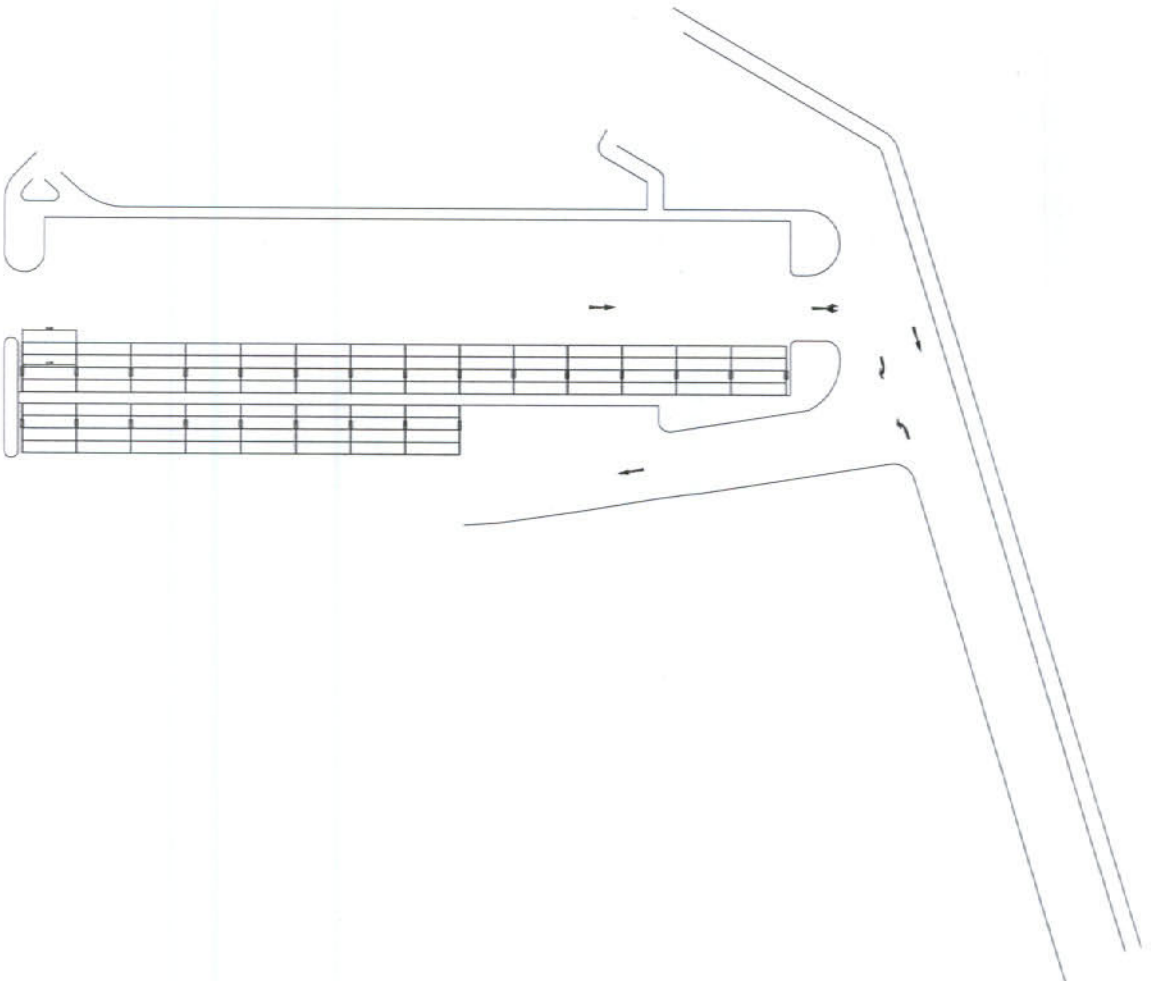
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PAGE : 00



โครงการสร้างสถานีวิทยุ

REV.	REVISIONS DESCRIPTION	DATE
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intermittent

CLIENT :

PROJECT NAME :

Grid Connect System kW

LOCATION :

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THE NEW VALUE FRONTIER



KC130GT

HIGH EFFICIENCY MULTICRYSTAL PHOTOVOLTAIC MODULE



LISTED

HIGHLIGHTS OF KYOCERA PHOTOVOLTAIC MODULES

Kyocera's advanced cell processing technology and automated production facilities produce a highly efficient multicrystal photovoltaic module.

The conversion efficiency of the Kyocera solar cell is over 16%. These cells are encapsulated between a tempered glass cover and a pottant with back sheet to provide efficient protection from the severest environmental conditions.

The entire laminate is installed in an anodized aluminum frame to provide structural strength and ease of installation. Equipped with plug-in connectors.



APPLICATIONS

KC130GT is ideal for grid tie system applications.

- Residential roof top systems
- Large commercial grid tie systems
- Water Pumping systems
- High Voltage stand alone systems
- etc.

QUALIFICATIONS

- **MODULE** : UL1703 certified
- **FACTORY** : ISO9001 and ISO 14001

QUALITY ASSURANCE

Kyocera multicrystal photovoltaic modules have passed the following tests.

- Thermal cycling test
- Thermal shock test
- Thermal / Freezing and high humidity cycling test
- Electrical isolation test
- Hail impact test
- Mechanical, wind and twist loading test
- Salt mist test
- Light and water-exposure test
- Field exposure test

LIMITED WARRANTY

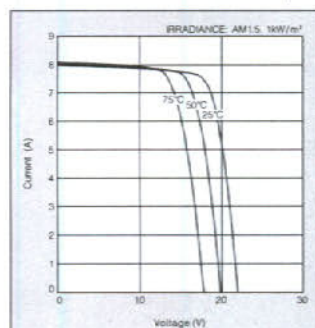
※ 1 year limited warranty on material and workmanship

※ 20 years limited warranty on power output: For detail, please refer to "category IV" in Warranty issued by Kyocera

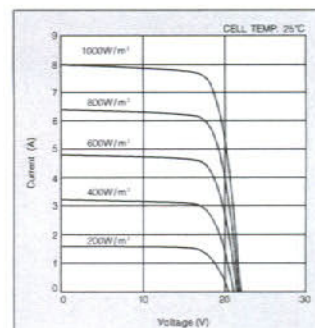
(Long term output warranty shall warrant if PV Module(s) exhibits power output of less than 90% of the original minimum rated power specified at the time of sale within 10 years and less than 80% within 20 years after the date of sale to the Customer. The power output values shall be those measured under Kyocera's standard measurement conditions. Regarding the warranty conditions in detail, please refer to Warranty issued by Kyocera)

ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics of Photovoltaic Module KC130GT at various cell temperatures



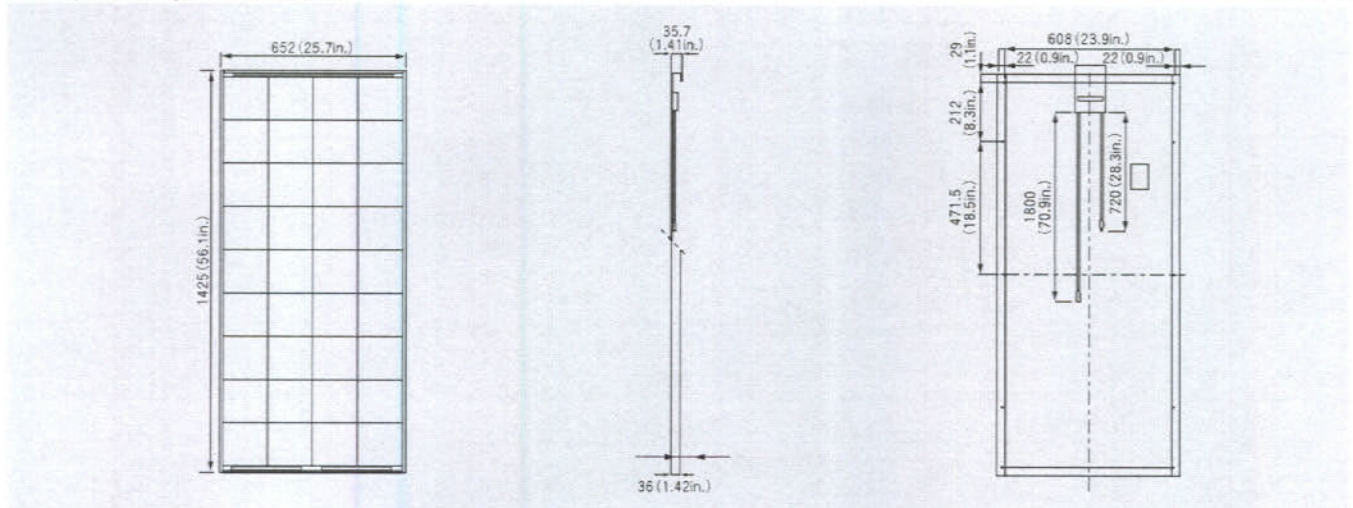
Current-Voltage characteristics of Photovoltaic Module KC130GT at various irradiance levels



MODEL
KC130GT

Physical Specifications

Unit : mm (in.)



Specifications

Electrical Performance under Standard Test Conditions (*STC)	
Maximum Power (P _{max})	130W (+10%/ -5%)
Maximum Power Voltage (V _{mpp})	17.6V
Maximum Power Current (I _{mpp})	7.39A
Open Circuit Voltage (V _{oc})	21.9V
Short Circuit Current (I _{sc})	8.02A
Max System Voltage	600V
Temperature Coefficient of V _{oc}	-8.21×10 ⁻² V/°C
Temperature Coefficient of I _{sc}	3.18×10 ⁻³ A/°C

*STC : Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C

Electrical Performance at 800W/m ² , NOCT, AM1.5	
Maximum Power (P _{max})	92W
Maximum Power Voltage (V _{mpp})	15.5V
Maximum Power Current (I _{mpp})	5.94A
Open Circuit Voltage (V _{oc})	19.9V
Short Circuit Current (I _{sc})	6.47A

NOCT (Nominal Operating Cell Temperature) : 47°C

Cells	
Number per Module	36

Module Characteristics	
Length × Width × Depth	1425mm(56.1in)×652mm(25.7in)×36mm(1.4in)
Weight	12.2kg(26.8lbs.)
Cable	(+)720mm(28.3in.), (-)1800mm(70.9in)

Junction Box Characteristics	
Length × Width × Depth	113.6mm(4.5in)×76mm(3.0in)×9mm(0.4in)
IP Code	IP65

Reduction of Efficiency under Low Irradiance	
Reduction	4.3%

Reduction of efficiency from an irradiance of 1000W/m² to 200W/m² (module temperature 25°C)

Please contact our office for further information



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http://www.kyocerasolar.com

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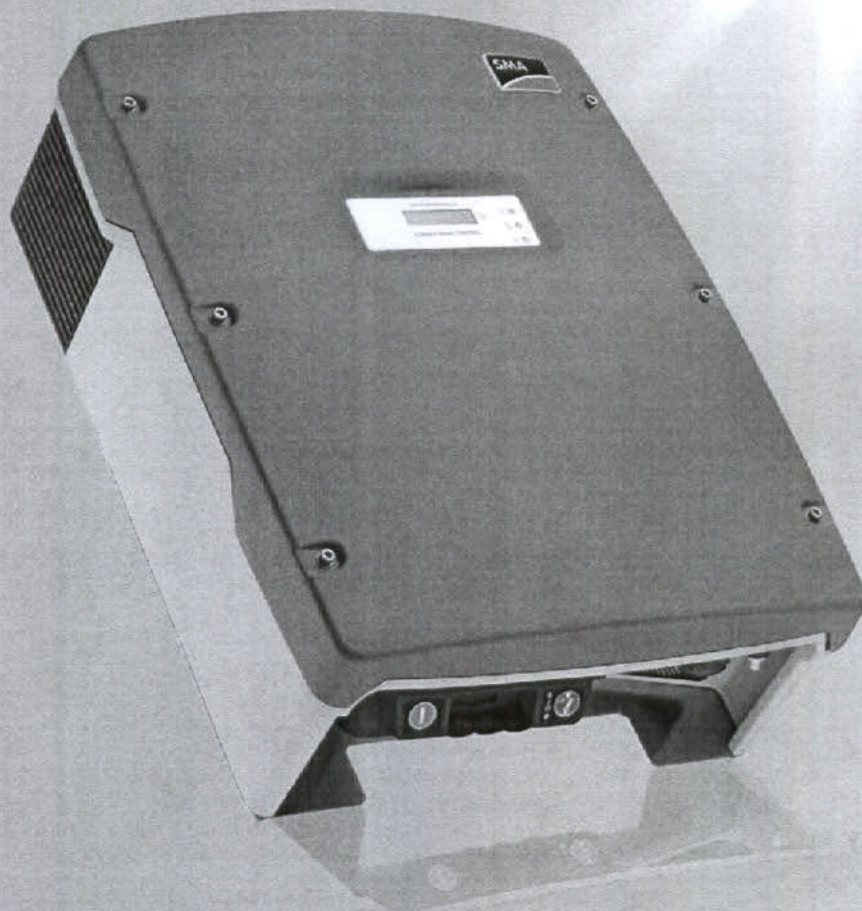
SMC 4600A / SMC 5000A / SMC 6000A

Safe

- > Highly efficient OptiCool ventilation system
- > Electric separation
- > Integrated ESS DC load disconnecting unit

Reliable

- > Worldwide SMA service and SMA Service Line
- > Comprehensive SMA warranty program



SUNNY MINI CENTRAL

The Little Giants

The most impressive aspect of the Sunny Mini Centrals 4600A, 5000A and 6000A is their first-class efficiency: they reliably and consistently feed maximum energy yields into the public grid, while their graduated power classes guarantee maximum flexibility in system planning. They are suitable for implementation in smaller systems, as well as in the realization of solar parks with capacities of several hundred kilowatts.

Due to the robust aluminum die-cast housing, and the proven ventilation system OptiCool, these devices provide perfect temperature management. Thus, they achieve maximum yields, even at high ambient temperatures. The electric separation results in high flexibility: these Sunny Mini Centrals can be used with crystalline cells as well as with thin film modules.

Technical Data

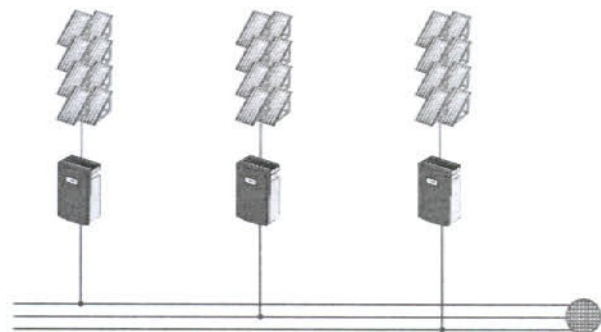
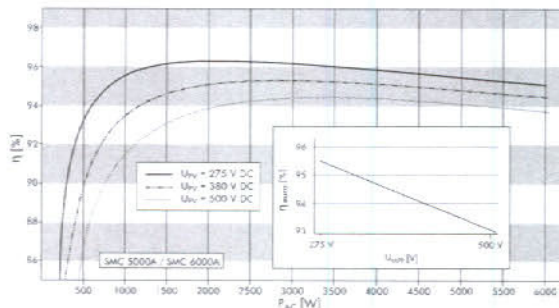
SUNNY MINI CENTRAL 4600A / 5000A / 6000A

	SMC 4600A	SMC 5000A	SMC 6000A
Input (DC)			
Max. DC power	5250 W	5750 W	6300 W
Max. DC voltage	600 V	600 V	600 V
PV voltage range, MPPT	246 V - 480 V	246 V - 480 V	246 V - 480 V
Max. input current	26 A	26 A	26 A
Number of MPP trackers	1	1	1
Max. number of strings (parallel)	4	4	4
Output (AC)			
Nominal AC output	4600 W	5000 W	6000 W
Max. AC power	5000 W	5500 W	6000 W
Max. output current	26 A	26 A	26 A
Nominal AC voltage / range	220V - 240V / 180V - 260V	220V - 240V / 180V - 260V	220V - 240V / 180V - 260V
AC grid frequency (self-adjusting) / range	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz	50 Hz / 60 Hz / ± 4.5 Hz
Power factor (cos ϕ)	1	1	1
AC Connection	single-phase	single-phase	single-phase
Efficiency			
Max. efficiency	96.1 %	96.1 %	96.1 %
Euro ETA	95.2 %	95.2 %	95.2 %
Protective equipment			
DC reverse polarity protection	●	●	●
DC load disconnecting switch ESS	●	●	●
AC short circuit protection	●	●	●
Ground fault monitoring	●	●	●
Grid monitoring (SMA grid guard)	●	●	●
Electric separation	●	●	●
General Data			
Dimensions (W / H / D) in mm	468 / 613 / 242	468 / 613 / 242	468 / 613 / 242
Weight	62 kg	62 kg	63 kg
Operating temperature range	-25 °C ... +60 °C	-25 °C ... +60 °C	-25 °C ... +60 °C
Consumption: operating (standby) / night	< 7 W / 0.25 W	< 7 W / 0.25 W	< 7 W / 0.25 W
Topology	low frequency transformer	low frequency transformer	low frequency transformer
Cooling concept	OptiCool	OptiCool	OptiCool
Installation: Indoor / Outdoor (electronics IP 65)	● / ●	● / ●	● / ●
Features			
DC connection: MC3 / MC4 / Tyco	○ / ● / ○	○ / ● / ○	○ / ● / ○
AC connection: screw terminal	●	●	●
LCD display	●	●	●
Interfaces: RS485 / radio	○ / ○	○ / ○	○ / ○
Warranty: 5 years / 10 years	● / ○	● / ○	● / ○
Certificates and approvals	www.SMA.de	www.SMA.de	www.SMA.de

● Standard ○ Optional

Values apply for nominal conditions

Efficiency curve



www.SMA.de
 Freecall 0800 SUNNYBOY
 Freecall 0800 78669269

SMA Solar Technology AG