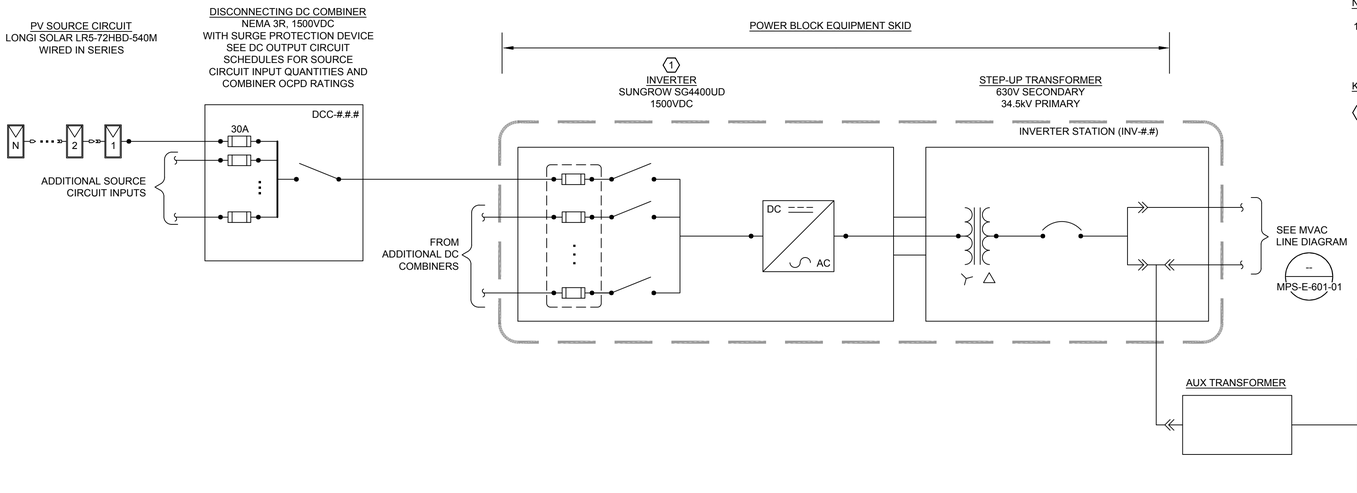


NOTES:

1. KEY REPRESENTATIVE COMPONENTS SHOWN IN THIS PRELIMINARY SINGLE LINE DIAGRAM.

KEYED NOTES:

1 SOME INVERTERS ARE SG3300UD UNITS, SET TO 3150 KW-AC. SEE SUMMARY TABLE ON OVERALL SITE PLAN, SHEET MPS-E-400-01.

PRELIMINARY
NOT FOR CONSTRUCTION

TRC 670 NORTH COMMERCIAL STREET SUITE 203
MANCHESTER, NH 03101

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	C	ISSUED FOR 94-C	01/15/24	JAK	JTG	DVL
	B	ISSUED FOR REVIEW	09/01/23	JAK	JTG	DVL
	A	ISSUED FOR REVIEW	08/11/23	JAK	JTG	DVL

STATE OF NEW YORK
JAIME TOLEDO GRILLA
090650
LICENSED PROFESSIONAL ENGINEER
DATE: 01-12-2024
LIC. EXP.: 09-30-2026

JAK DESIGNED
JAK DRAWN
JTG CHECKED
DVL APPROVED
REVIEW 1
REVIEW 2

MILL POINT SOLAR I PROJECT
CONNECTGEN MONTGOMERY COUNTY LLC
TYPICAL DC SINGLE LINE DIAGRAM

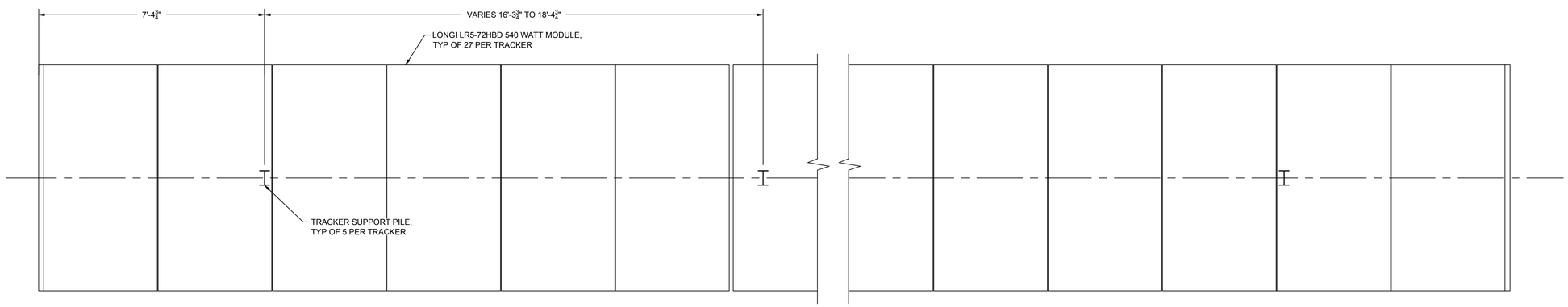
GLEN NEW YORK

01/15/24 DATE
AS NOTED SCALE

TRC

MPS-E-402-01

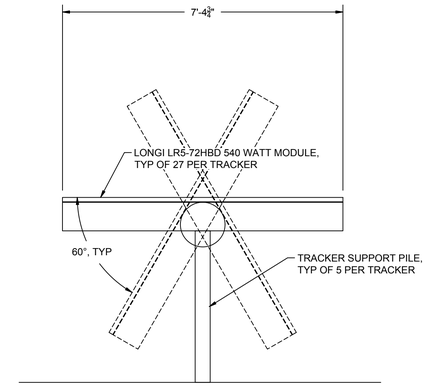
REV. C



APPROX. NORTH

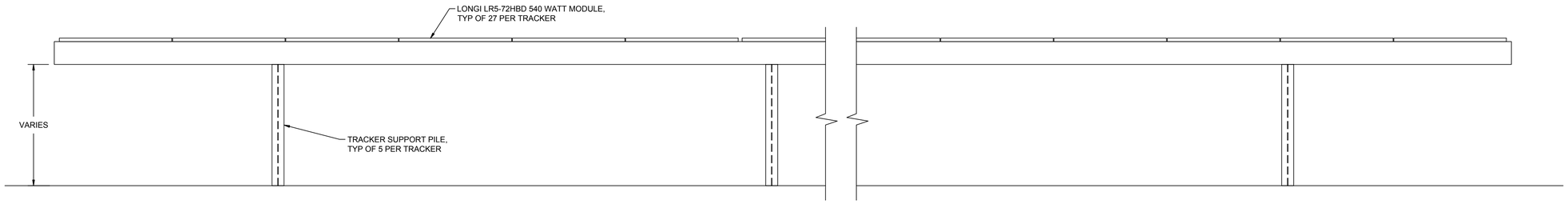
A PLAN - SINGLE-AXIS TRACKER

SCALE: 1/2"=1'-0" 0 1' 2' 4'



C END VIEW - SINGLE-AXIS TRACKER

SCALE: 1/2"=1'-0" 0 1' 2' 4'



B ELEVATION - SINGLE-AXIS TRACKER

SCALE: 1/2"=1'-0" 0 1' 2' 4'

PRELIMINARY
NOT FOR CONSTRUCTION

TRC 670 NORTH COMMERCIAL STREET SUITE 203 MANCHESTER, NH 03101

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
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	B	ISSUED FOR REVIEW	09/01/23	JAK	JTG	DVL
	A	ISSUED FOR REVIEW	08/11/23	JAK	JTG	DVL

STATE OF NEW YORK JAIME TOLEDO GALLA 090656 LICENSED PROFESSIONAL ENGINEER
DATE: 01-12-2024
LIC. EXP.: 09-30-2026

JAK	DESIGNED
JAK	DRAWN
JTG	CHECKED
DVL	APPROVED
	REVIEW 1
	REVIEW 2

MILL POINT SOLAR I PROJECT
CONNECTGEN MONTGOMERY COUNTY LLC
SINGLE-AXIS TRACKER DETAILS

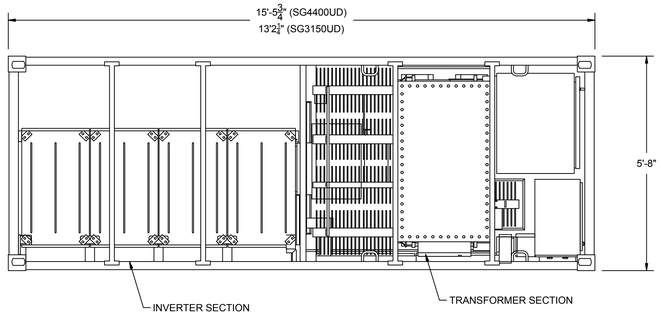
GLEN NEW YORK

01/15/24 DATE
AS NOTED SCALE

TRC

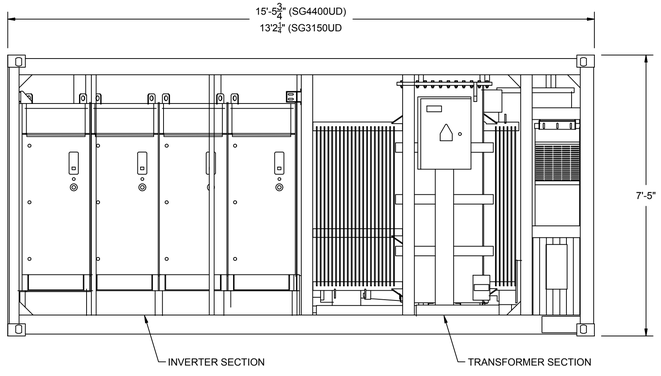
MPS-E-403-01

REV. C



A PLAN - SUNGROW SG4400UD

SCALE: 1/2"=1'-0" 0 1' 2' 4'



B ELEVATION - SUNGROW SG4400UD

SCALE: 1/2"=1'-0" 0 1' 2' 4'

NOTES:

1. SUNGROW SG4400UD SHOWN, SG3300UD SIMILAR.

PRELIMINARY
NOT FOR CONSTRUCTION

TRC 670 NORTH COMMERCIAL STREET SUITE 203
MANCHESTER, NH 03101

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
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	B	ISSUED FOR REVIEW	09/01/23	JAK	JTG	DVL
	A	ISSUED FOR REVIEW	08/11/23	JAK	JTG	DVL

STATE OF NEW YORK JAIME TOLEDO GRILLA 090656 LICENSED PROFESSIONAL ENGINEER
DATE: 01-12-2024
LIC. EXP.: 09-30-2026

JAK DESIGNED
JAK DRAWN
JTG CHECKED
DVL APPROVED
REVIEW 1
REVIEW 2

MILL POINT SOLAR I PROJECT
CONNECTGEN MONTGOMERY COUNTY LLC
INVERTER SKID PLAN AND ELEVATION

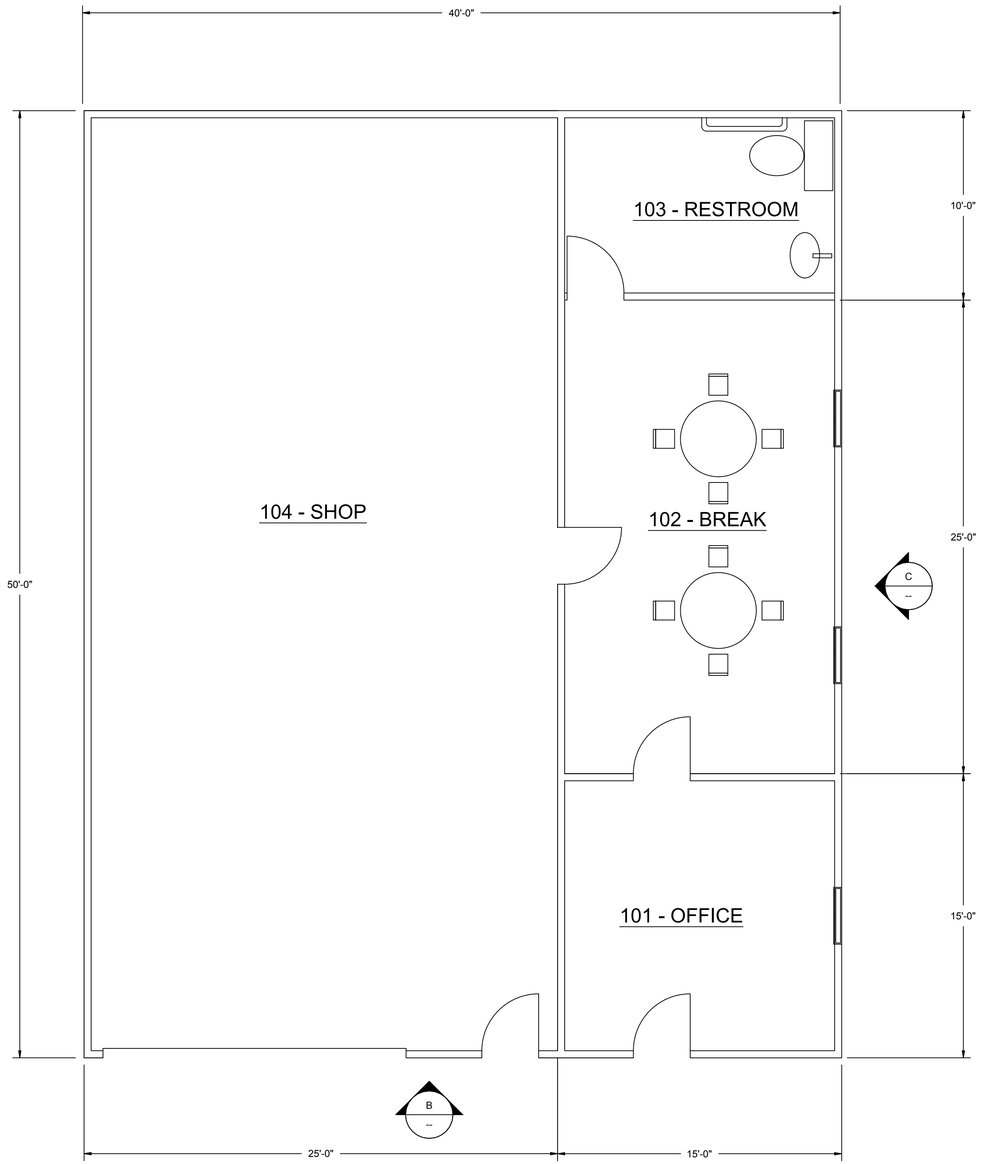
GLEN NEW YORK

01/15/24 DATE
AS NOTED SCALE

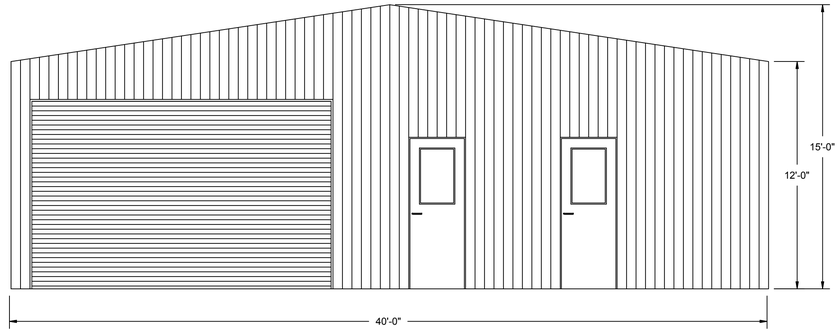
TRC

MPS-E-404-01

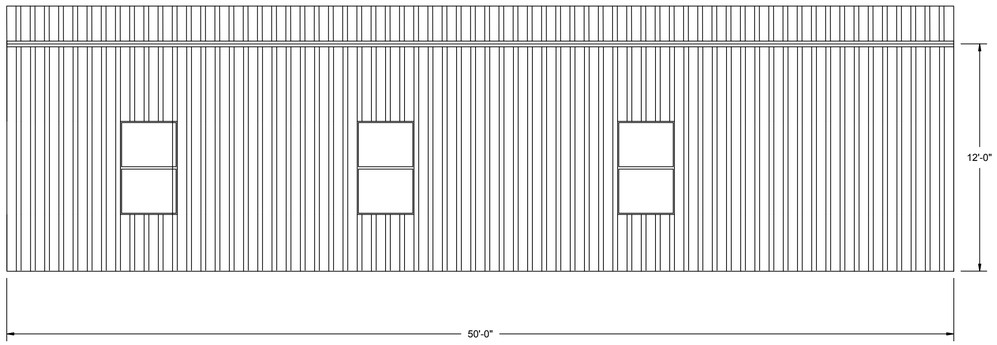
REV. C



A PLAN - O & M BUILDING
SCALE: 1/4"=1'-0" 0 2' 4' 8'



B ELEVATION - O & M BUILDING
SCALE: 1/4"=1'-0" 0 2' 4' 8'



C ELEVATION - O & M BUILDING
SCALE: 1/4"=1'-0" 0 2' 4' 8'

PRELIMINARY
NOT FOR CONSTRUCTION

NOTES:

1. FACILITY SCHEMATIC IS PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL DETAILED DESIGN.
2. CONTRACTOR SHALL DESIGN, PROCURE, AND CONSTRUCT O&M FACILITY IN ACCORDANCE WITH LOCAL, COUNTY, AND/OR STATE BUILDING CODE.
3. CONTRACTOR SHALL APPLY AND PROCURE ALL PERMITS REQUIRED TO PROCURE, TRANSPORT, ERECT AND INSTALL THE O&M BUILDING AND ALL ITS EXTERNAL AND INTERNAL FACILITIES.

TRC 670 NORTH COMMERCIAL STREET SUITE 203 MANCHESTER, NH 03101

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	C	ISSUED FOR 94-C	01/15/24	JAK	JTG	DVL
	B	ISSUED FOR REVIEW	09/01/23	JAK	JTG	DVL
	A	ISSUED FOR REVIEW	08/11/23	JAK	JTG	DVL

STATE OF NEW YORK — JAIME TOLEDO GARCIA — LICENSED PROFESSIONAL ENGINEER — 090650

DATE: 01-12-2024
LIC. EXP.: 09-30-2026

JAK	DESIGNED
JAK	DRAWN
JTG	CHECKED
DVL	APPROVED
	REVIEW 1
	REVIEW 2

MILL POINT SOLAR I PROJECT
CONNECTGEN MONTGOMERY COUNTY LLC
O & M BUILDING PLAN AND ELEVATIONS

GLEN NEW YORK

01/15/24 DATE
AS NOTED SCALE

TRC

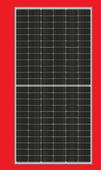
MPS-E-405-01

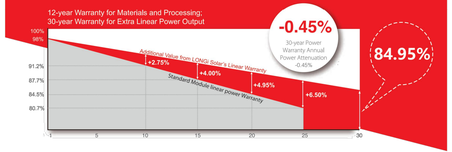
REV. C

LR5-72HBD 520~540M

Hi-MO 5

High Efficiency
Low LID Bifacial PERC with
Half-cut Technology





Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO 9001:2008: ISO Quality Management System

ISO 14001: 2004: ISO Environment Management System

TS62941: Guideline for module design qualification and type approval

OHSAS 18001: 2007 Occupational Health and Safety

Front side performance equivalent to conventional low LID mono PERC:
- High module conversion efficiency (up to 21.1%)
- Better energy yield with excellent low irradiance performance and temperature coefficient
- First year power degradation <2%

Bifacial technology enables additional energy harvesting from rear side (up to 25%)

Glass/glass lamination ensures 30 year product lifetime, with annual power degradation < 0.45%, 1500V compatible to reduce BOS cost

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current

* Specifications subject to technical changes and tests. LONGi Solar reserves the right of interpretation.

Room 801, Tower 3, Lujiazui Financial Plaza, No.826 Century Avenue, Pudong Shanghai, 200120, China
Tel: +86-21-80162606 E-mail: module@longi-silicon.com Facebook: www.facebook.com/LONGI Solar

20200708-Draft V03

SG3300/4400UD

Outdoor Inverter for 1500 Vdc System

Preliminary

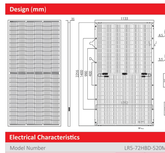
LOW LCOE
- Effective cooling, full power operation at 40 ℃
- Wireless communication in block, "0" cost networking cost
- Q at night function (optional), saving investment

SMART O&M
- Modular equipment, 1.1 – 8.8 MW block flexible design
- Modular system, flexible PV DC/AC ratio and ESS capacity
- Modular component, plug and play, no need professional

SAFETY & RELIABLE
- DC arc fault protection, 200 ms cut off fault
- 24h real-time AC insulation monitoring
- IP65 protection, adapt to harsh environment

GRID SUPPORT
- SCR ≥ 1.02, stable operation in extremely weak grid
- Reactive power response time < 20 ms
- Compliant with grid code

LR5-72HBD 520~540M

Design (mm)	Mechanical Parameters	Operating Parameters
	**Cell Orientation:** 144 (6x24) **Junction Box:** IP68, three diodes **Output Cable:** 4mm², 300mm in length, length can be customized **Glass:** Dual glass 2.0mm coated tempered glass **Frame:** Anodized aluminium alloy frame **Weight:** 32.3kg **Dimension:** 2256×1133×35mm **Packaging:** 31pcs per pallet 155pcs per 20'GP 620pcs per 40'HC	**Operational Temperature:** -40℃ ~+85℃ **Power Output Tolerance:** 0~+5 W **Voc and Isc Tolerance:** ±3% **Maximum System Voltage:** DC1500V (IEC/UL) **Maximum Series Fuse Rating:** 30A **Nominal Operating Cell Temperature:** 45±2 ℃ **Safety Protection Class:** Class II **Fire Rating:** UL type 3 **Bifaciality:** 70±5%

Electrical Characteristics — Test uncertainty for Pmax: ±3%

Model Number	LR5-72HBD-520M		LR5-72HBD-525M		LR5-72HBD-530M		LR5-72HBD-535M		LR5-72HBD-540M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	520	388.3	525	392.1	530	395.8	535	399.5	540	403.1
Open Circuit Voltage (Voc/V)	48.90	45.75	49.05	45.89	49.20	46.03	49.35	46.17	49.50	46.31
Short Circuit Current (Isc/A)	13.57	10.97	13.65	11.03	13.71	11.08	13.78	11.14	13.85	11.19
Voltage at Maximum Power (Vmp/V)	41.05	38.27	41.20	38.41	41.35	38.55	41.50	38.69	41.65	38.83
Current at Maximum Power (Imp/A)	12.67	10.15	12.75	10.21	12.82	10.27	12.90	10.33	12.97	10.39
Module Efficiency(%)	20.3		20.5		20.7		20.9		21.1	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25 C , Spectra at AM1.5

NOCT: (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20 C , Spectra at AM1.5, Wind at 1m/S

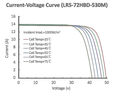
Electrical characteristics with different rear side power gain (reference to 530W front)

Pmax /W	Vmp/V	Isc /A	Vmp/V	Imp /A	Pmax gain
557	49.20	14.40	41.35	13.46	5%
583	49.20	15.08	41.35	14.10	10%
610	49.30	15.77	41.45	14.74	15%
636	49.30	16.46	41.45	15.38	20%
663	49.30	17.14	41.45	16.02	25%

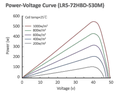
Temperature Ratings (STC)		Mechanical Loading	
Temperature Coefficient of Isc	+0.050%/℃	**Front Side Maximum Static Loading**	5400Pa
Temperature Coefficient of Voc	-0.284%/℃	**Rear Side Maximum Static Loading**	2400Pa
Temperature Coefficient of Pmax	-0.350%/℃	**Hailstone Test**	25mm Hailstone at the speed of 23m/s

I-V Curve

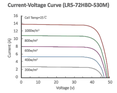
Current-Voltage Curve (LR5-72HBD-530M)



Power-Voltage Curve (LR5-72HBD-530M)



Current-Voltage Curve (LR5-72HBD-530M)



Room 801, Tower 3, Lujiazui Financial Plaza, No.826 Century Avenue, Pudong Shanghai, 200120, China
Tel: +86-21-80162606 E-mail: module@longi-silicon.com Facebook: www.facebook.com/LONGI Solar

20200708-Draft V03

SUNGROW
Clean power for all

Type designation	SG3300UD	SG4400UD
Input (DC)		
Max. PV input voltage	1500 V	
Min. PV input voltage / Startup input voltage	905 V / 945 V	
MPP voltage range	905 – 1300 V	
No. of independent MPP inputs	3	4
No. of DC inputs	15 (optional: 18/21 inputs negative grounding)	20 (optional: 24/28 inputs negative grounding)
Max. PV input current	3 * 1400 A	4 * 1400 A
Max. DC short-circuit current	3 * 5000 A	4 * 5000 A
PV array configuration	Negative grounding or floating	
Output (AC)		
AC output power	3300 kVA @ 40 ℃ (104 °F), 3795 kVA @ 20 ℃ (68 °F)	4400 kVA @ 40 ℃ (104 °F), 5060 kVA @ 20 ℃ (68 °F)
Max. AC output current	3 * 1760 A	4 * 1760 A
Nominal AC voltage	630 V	
AC voltage range	536 – 693 V	
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz	
Harmonic (THD)	< 3 % (at nominal power)	
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / AC connection	3 / 3-PE	
Efficiency		
Max. efficiency	99.0 %	
European efficiency	98.7 %	
Protection & Function		
DC input protection	Load break switch + fuse	
AC output protection	Circuit breaker	
Surge protection	DC Type II / AC Type II	
Grid monitoring / Ground fault monitoring	Yes / Yes	
Insulation monitoring	Yes	
Overheat protection	Yes	
Q at night function	Optional	
General Data		
Dimensions (W*H*D)	2160*2260*1700 mm (85"*89"*66.9")	2860*2260*1700 mm (112.6"*89"*66.9")
Weight	≤ 2500 kg (≤ 5512 lbs)	≤ 3300 kg (≤ 7275 lbs)
Topology	Transformerless	
Degree of protection	IP55 (optional: IP65) / NEMA 3R (optional: NEMA 4X)	
Night power consumption	< 200 W	
Operating ambient temperature range	-35 to 60 ℃ (> 40 ℃ derating) / -31 to 140 °F (> 104 °F derating)	
Allowable relative humidity range	0 – 100 %	
Cooling method	Temperature controlled forced air cooling	
Max. operating altitude	4000 m (> 3000 m derating) / 13123 ft (> 9843 ft derating)	
Display	LED indicators, WLAN+Web/HMI	
Communication	Standard: RS485, Ethernet; Optional: optical fiber	
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-1/2 , UNE 206007-1:2013, P.O.12.3, UTE C15-712-1:2013, UL1741, UL1741SA, IEEE1547, IEEE1547.1, CSA C22.2 107.1-01-2001, California Rule 21	
Grid support	Q at night function (optional), LVRT, active & reactive power control and power ramp rate control, Q-U control, P-f control	

PRELIMINARY
NOT FOR CONSTRUCTION

TRC 670 NORTH COMMERCIAL STREET SUITE 203
MANCHESTER, NH 03101

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
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	A	ISSUED FOR REVIEW	08/11/23	JAK	JTG	DVL

STATE OF NEW YORK — JAMES TOLEDO GARCIA — LICENSED PROFESSIONAL ENGINEER — 090650

DATE: 01-12-2024
LIC. EXP.: 09-30-2026

JAK	DESIGNED
JAK	DRAWN
JTG	CHECKED
DVL	APPROVED
	REVIEW 1
	REVIEW 2

MILL POINT SOLAR I PROJECT
CONNECTGEN MONTGOMERY COUNTY LLC
EQUIPMENT DATA SHEETS

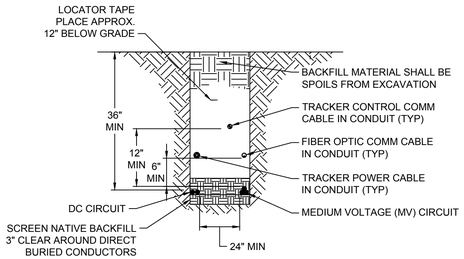
GLEN NEW YORK

01/15/24 DATE
AS NOTED SCALE

TRC

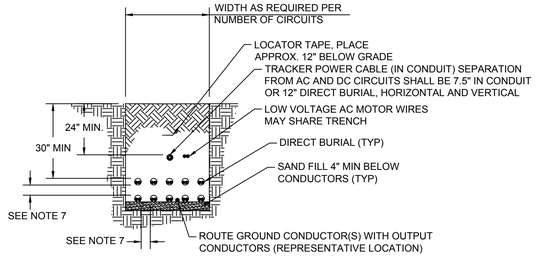
MPS-E-406-01

REV. C



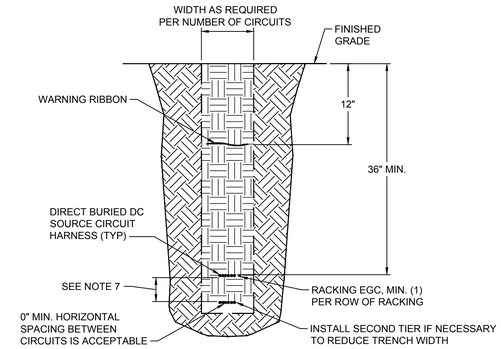
A DC, AC, MV CIRCUITS AND TRACKER MOTOR AND CONTROL TRENCH DETAIL

SCALE: NTS



B LOW VOLTAGE (1500V AND UNDER) AC & DC TRENCH DETAIL

SCALE: NTS

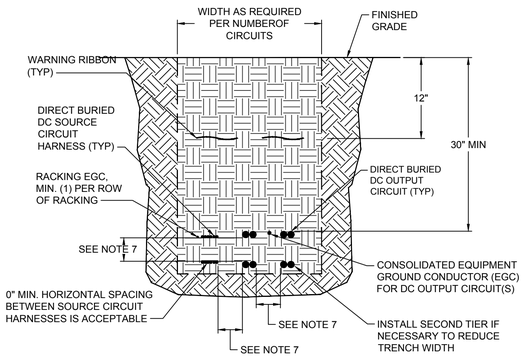


C DC SOURCE CIRCUIT TRENCH SECTION

SCALE: NTS

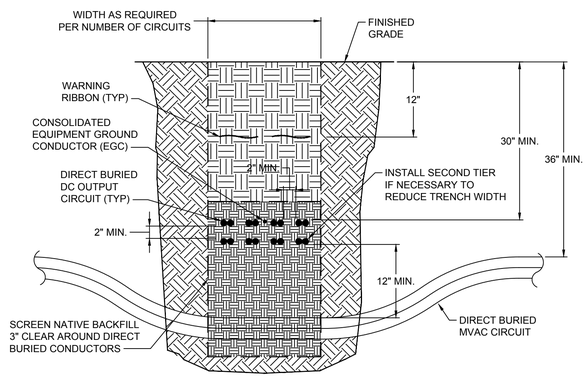
TRENCHING NOTES:

1. VEHICLE ACTIVITY AND SURFACE LOADING OVER THE BURIED CABLE SHALL NOT EXCEED THE RATED CRUSH TEST CAPACITY OF THE CABLE.
2. THE DISTANCE BETWEEN TRENCHING AND A GIVEN PILE SHALL BE EQUAL TO AT LEAST 5 TIMES THE DIAMETER OF THAT PILE (TYP)
3. BACKFILL UP TO 6" ABOVE DIRECT BURIAL CONDUCTORS SHALL BE IMPORTED SAND OR SCREENED LOCAL NATIVE SOIL. UNSCREENED NATIVE BACKFILL SHALL ONLY BE USED WITH WRITTEN APPROVAL OF ENGINEER OF RECORD. UNSCREENED NATIVE SOIL IS ACCEPTABLE FOR THE TOP 18" OF FILL.
4. BACKFILL THAT CONTAINS LARGE ROCKS, PAVING MATERIALS, CINDERS, LARGE OR SHARPLY ANGULAR SUBSTANCES, OR CORROSIVE MATERIAL SHALL NOT BE PLACED IN AN EXCAVATION WHERE MATERIALS MAY DAMAGE RACEWAYS, CABLES, OR OTHER SUBSTRUCTURES OR PREVENT ADEQUATE COMPACTION OF FILL OR CONTRIBUTE TO CORROSION OF RACEWAYS , CABLES, OR OTHER SUBSTRUCTURES.
5. COMPACTION OF TRENCHING SHALL OCCUR AFTER A MAXIMUM OF 9" OF BACKFILL HAS BEEN APPLIED. COMPACT BACKFILL BEFORE PLACING A DIFFERENT TYPE OF BACKFILL (E.G., FROM SAND TO NATIVE). COMPACTION VALUE SHALL BE PER GEOTECHNICAL RECOMMENDATIONS.
6. EQUIPMENT GROUNDING CONDUCTORS SHARING THE SAME TRENCH MAY BE COMBINED USING EXOTHERMIC WELDING AND/OR APPROVED COMPRESSION CONNECTORS.
7. MIN. CLEARANCES SHALL BE MAINTAINED BETWEEN CIRCUITS / CONDUITS AS SHOWN IN TRENCH DETAIL(S).
8. NECESSARY COMPACTION OF TRENCH SOIL BACKFILL SHALL OCCUR PER GEOTECHNICAL REQUIREMENTS.
9. DIRECT BURIED EQUIPMENT GROUNDING CONDUCTORS SHARING THE SAME TRENCH MAY BE COMBINED USING EXOTHERMIC WELDING, OR APPROVED EQUIVALENT IRREVERSIBLE CRIMP.
10. EACH HORIZONTAL TIER OF CABLE SHALL BE COVERED WITH BACKFILL MATERIAL AND COMPACTED PRIOR TO INSTALLATION OF THE NEXT TIER IN ORDER TO MAINTAIN THE REQUIRED VERTICAL SPACING BETWEEN CIRCUITS.
11. THE NUMBER OF CONDUITS / CIRCUITS SHOWN IS REPRESENTATIVE AND WILL VARY PER PLANS.
12. FINISHED SURFACE SHALL BE RESTORED TO ORIGINAL CONDITION AND APPEARANCE.
13. [ ]" VERTICAL SEPARATION; [ ]" HORIZONTAL SEPARATION. *[EDITORIAL NOTE: TRC ENGINEER TO DETERMINE MINIMUM SEPARATION DURING DETAILED DESIGN. INSERT VALUES AND REMOVE THIS EDITORIAL NOTE WHEN DONE.]*



D DC OUTPUT & DC SOURCE CIRCUIT TRENCH SECTION

SCALE: NTS



E DC OUTPUT CIRCUIT & MVAC CIRCUIT CROSSING

SCALE: NTS

PRELIMINARY
NOT FOR CONSTRUCTION

TRC 670 NORTH COMMERCIAL STREET SUITE 203
MANCHESTER, NH 03101

PROJECT NO: 443269

REFERENCE ITEMS	REV	DESCRIPTION	DATE	DES	CHK	APP
	C	ISSUED FOR 94-C	01/15/24	JAK	JTG	DVL
	B	ISSUED FOR REVIEW	09/01/23	JAK	JTG	DVL
	A	ISSUED FOR REVIEW	08/11/23	JAK	JTG	DVL

STATE OF NEW YORK
JAIME TOLEDO GARCIA
090655
LICENSED PROFESSIONAL ENGINEER
DATE: 01-12-2024
LIC. EXP.: 09-30-2026

JAK	DESIGNED
JAK	DRAWN
JTG	CHECKED
DVL	APPROVED
	REVIEW 1
	REVIEW 2

MILL POINT SOLAR I PROJECT
CONNECTGEN MONTGOMERY COUNTY LLC
DC TRENCH DETAILS

GLEN NEW YORK

01/15/24 DATE
AS NOTED SCALE

TRC

MPS-E-407-01

REV. C