

Roof Level

33 x Trina 275Wp PV Panels mounted using K2 S-Dome system

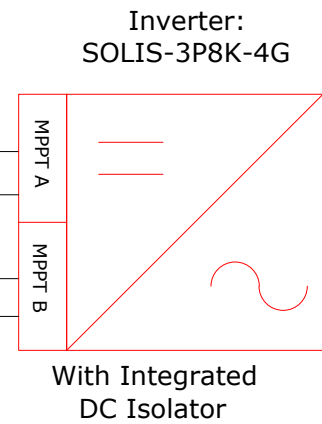
String A: 1 String of 18 Modules



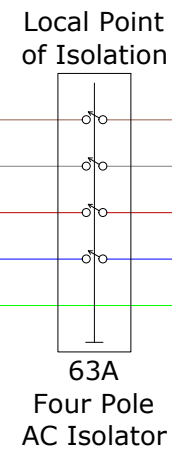
String B: 1 String of 15 Modules



4mm² DC Cable

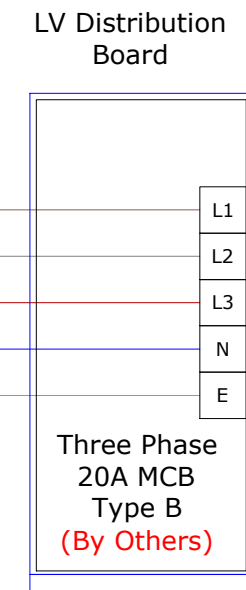
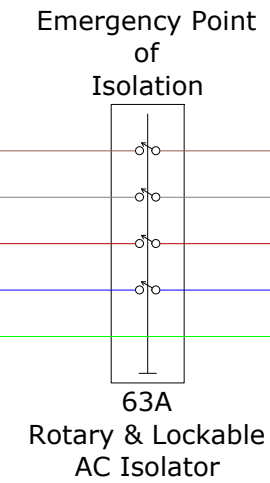
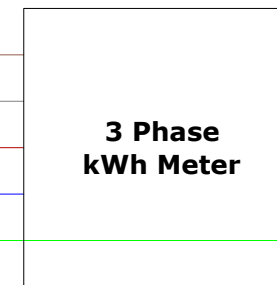


10mm² 5 Core Flex AC Cable



10mm² 4C XLPE/SWA/LSF Cable
(By Others)
(Max 50m cable run)


Top Floor LV Board



Notes

- 8 kW PV System (Inverter capacity) No of modules = 33 x Trina TSM-275 PD05 Inverter = 1 x Solis-3P8K-4G
- The PV array must be connected to the roof LPS by others
- The PV array is connected to the distribution network under G98 Engineering Recommendation
- Inverter is EA approved for connection to UK grid. It includes
 - Over voltage protection stage 1: 262.2 V (1s) stage 2 : 273.7 (0.5s)
 - Under voltage protection stage 1: 184 V (2.5s)
 - Over frequency protection stage 1: 52 Hz(0.5s)
 - Under frequency protection stage 1: 47.50 Hz (20s) stage 2 : 47 Hz (0.5s)
 - Loss of mains protection (by means of Rate of Change of Frequency)
 - 20s delay from return of mains after fault to start of self initialize procedure.
- Start-up / shut down procedure - it is recommended that the main rotary isolator is used to shut down the system, and is the last switch closed when the system is restarted. Any of the switches can be used at any time to isolate the relevant part of the system, but it is not recommended to operate the DC Isolators is under load.

Note 1 : Recommended AC Voltage Drop is 1% for solar installations to avoid nuisance tripping from the G98 protection integrated in the inverter. The maximum limit is 3%. At 2-3% Voltage Drop on the AC side if grid voltage is high there may be nuisance tripping of the G98 protection integrated into the inverter. If there is a long cable run, AC cables can be sized for 2% Voltage Drop.

Rev	Description	Dwn	Chck	Date
 PHOTON ENERGY				
© Photon Energy Ltd 8 Windsor Square Silver Street Reading, RG1 2TH		Tel +44 118 997 7470 info@photonenergy.co.uk www.photonenergy.co.uk All rights reserved		
Project Number: I1730				
Project Name: Great Ormond Street Hospital				
Drawing By: Jack Melly			Scale: NTS	
Checked By: Abu Luswata			Date: 22/11/2019	
Drawing Name: PV Electrical Schematic				
Drawing No: I1730-200-01			Rev: -	