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072204T4SPV

SOLAR PHOTOVOLTAIC INSTALLATION LEVEL 4

ENG/OS/PVI/CR/03/4

Install DC Solar Photovoltaic System

July/August 2025

TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

easyexit.com

PRACTICAL ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE:

1. Figure 1 shows a schematic diagram of DC lighting wiring system. You are required to perform the following tasks:

   TASK 1: Draw the wiring diagram such that Lamps L1 and L2 are controlled from two independent positions by switches S_1 and S_2.

   TASK 2: Connect DC solar PV components in the correct sequence.

   TASK 3: Using PVC mini Trunking wiring system, install and wire the final circuits on the installation board provided.

   TASK 4: Carry out the following test

   i. Continuity test

   ii. Functionality test

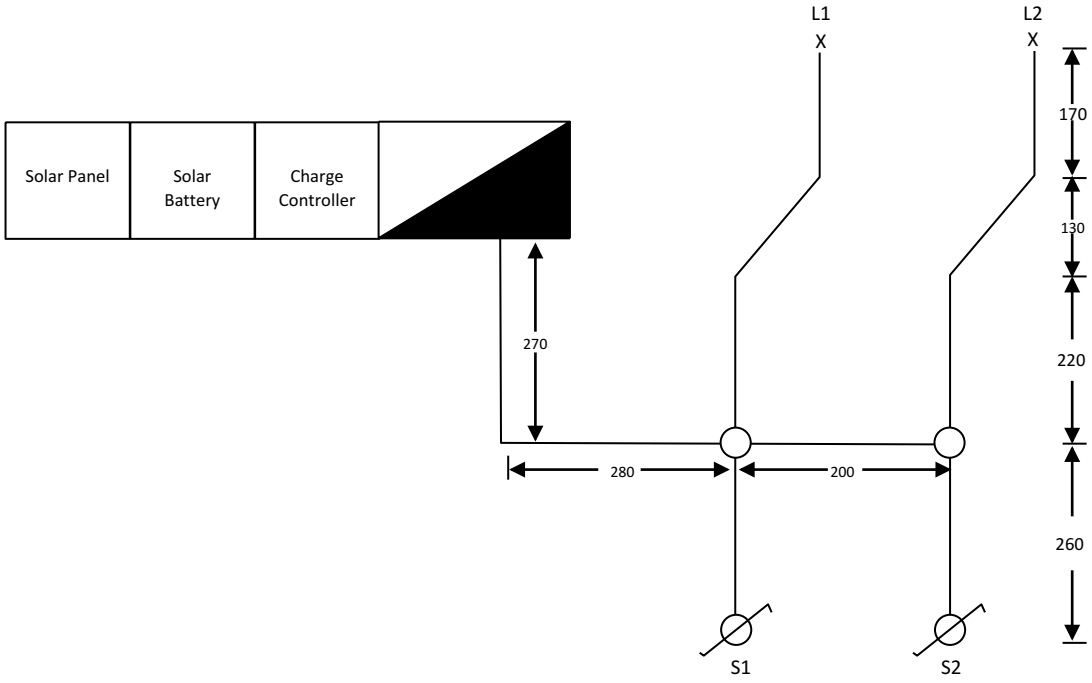


Figure 1: schematic diagram

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2. You are provided with the following resources to perform the tasks**:**
   - i. 4.0 mm^2 PVC single core cable (Red, Black, Yellow/Green)
   - ii. 1.5 mm^2 PVC single core cable (Red, Black)
   - iii. Charge controller
   - iv. 12V 50AH solar battery
   - v. Consumer Control Unit
   - vi. 6/10A Single pole Circuit breaker
   - vii. One gang two-way Switches
   - viii. Shallow pattress boxes
   - ix. Junction boxes
   - x. Straight Lamp holders
   - xi. DC Bulbs
   - xii. Metal clips
   - xiii. 19 x 25 mm screw (enough)
   - xiv. Multimeter
   - xv. Masking tape

xvi. Installation board

xvii. Appropriate tools

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