

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)**

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PRACTICAL ASSESSMENT

INSTRUCTIONS TO ASSESSOR

1. Assess the candidate as the practical progresses observing the critical areas
2. You are required to mark the practical as the candidate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: <i>Please award marks as appropriate. Give a brief comment on your observation.</i>	Marks Available	Marks Obtained	Comments
Wore Personal Protective Equipment			
i. Dustcoat/Overall (<i>Award 1</i>)	1		
ii. Safety (<i>Award 1 mark</i>)	1		
Housekeeping practice			
i. Ensured clean working area before beginning working (<i>Award 2 marks</i>).	2		
ii. Proper disposal waste material (<i>Award 2 marks</i>)	2		
Used tools			
i. Multi-meter (<i>Award 1 or 0</i>)	1		
ii. Phase tester (<i>Award 1 or 0</i>)	1		
iii. Plier (<i>Award 1 or 0</i>)	1		
iv. Screw drivers (<i>Award 1 or 0</i>)	1		
SubTotal 1	10		
TASK 1			
4. Drew wiring diagram	3		
i. Charge controller (<i>Award 3 or 0</i>)			
ii. Consumer control unit (<i>Award 2 or 0</i>)	2		
	2		

iii. Lighting (Award 2 or 0)			
Sub Total 2	07		
TASK 2			
5. Connected DC solar PV components (check for correct termination)			
i. Charge controller (Award 3 or 0)			
ii. Battery (Award 2 or 0)	3		
iii. inverter (Award 2 v or 0)	2		
iv. solar module(Award 2 v or 0)	2		
6. DC lighting system	2		
i. Consumer control unit(Award 2 or 0)	2		
ii. Junction box (Award 2 or 0)	2		
iii. Two way switching(Award 2 or 0)	2		
iv. Lighting points (Award 2 or 0)	2		
	2		
Sub Total 3	17		
TASK 3			
7. Fixed components			
i. Level (Award any 4 x ½)	2		
ii. Firmness (Award any 4 x ½)	2		
8. Correct bends			
i. 45 degrees (Award any 2 x1)	2		
ii. 90 degrees (Award 2 or 0)	2		
9. Utilized installation board	2		
i. Layout (Award 2 or 0)	2		
ii. Measurements,	2		

(Award any $4 \times \frac{1}{2}$)			
10. Neatness (award 5)	5		
Sub-Total 3	17		
TASK 4			
Carried out tests			
11. continuity test (Award 5 or 0)	5		
12. Correct functionality(Award 10 or 0)	10		
Sub-Total 4	15		
GRAND TOTAL	66		
$\frac{x}{66} \times 100$			
ASSESSMENT OUTCOME			
<p>The candidate was found to be:</p> <p style="text-align: center;">Competent <input type="checkbox"/> Not yet Competent <input type="checkbox"/></p> <p><i>(Please tick as appropriate)</i></p> <p><i>(The candidate is competent if the candidate obtains at least 50%)</i></p>			
Feedback from the Candidate:			
Feedback to the Candidate:			

Candidate Signature _____	Date: _____
Assessor's Signature _____	Date _____

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Appendix: Print for the assessor only

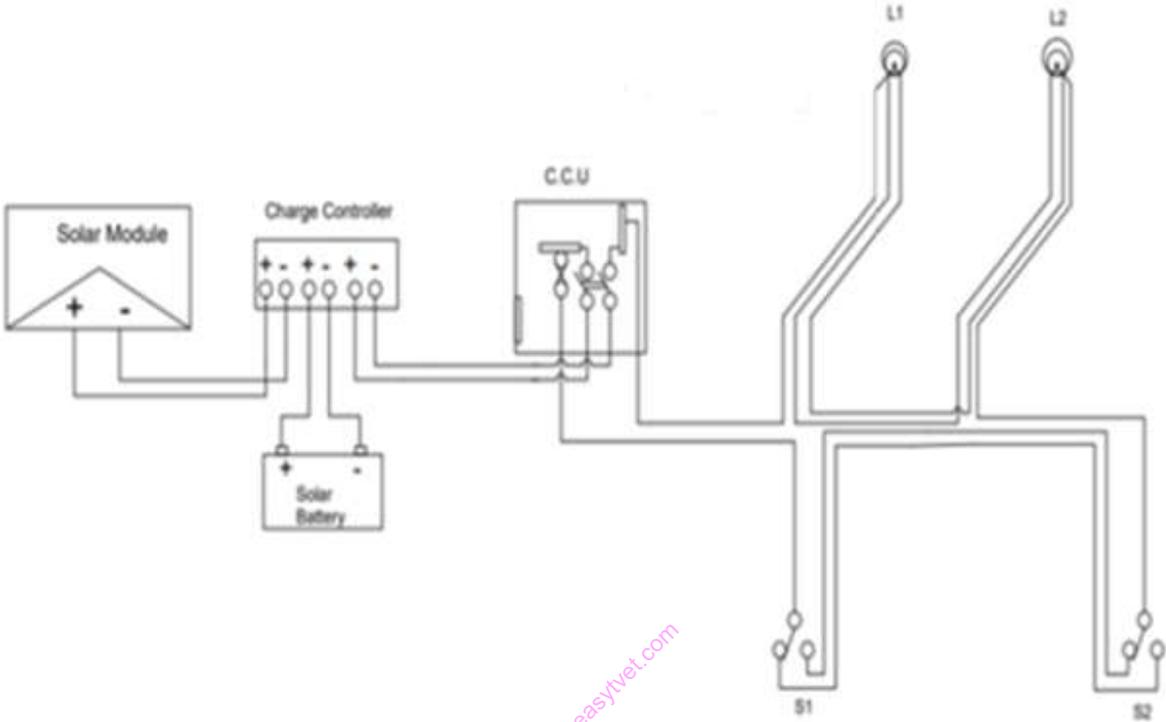


Figure 1: wiring diagram