

TITLE: OPEN_CANVERTER		AUTHOR: DATE:	LUIZ VILLA 30/07/2021
<b>Object under Investigation (Oul)</b> LibreSolar MPPT charge controller and Micro-grid charge controller. OwnTech reprogrammable power conveter.	<b>Test Objectives</b> LibreSolar: - Test the charge controller under nominal load - Test the CAN connectivity with other devices - Test the ergonomics of the CAN code for other users OwnTech: - Test the low-level control of the reprogrammable power converter - Test the communication between power converters - Test the capacity of the OwnTech converter to coordinate with the LibreSolar technology	<b>System under Test (SuT)</b> LibreSolar MPPT charge controller and Micro-grid charge controller. OwnTech reprogrammable power conveter.	
<b>Function(s) under Investigation (Ful)</b> For LibreSolar: - The MPPT function - The Droop control - The CAN subscribe function - CAN to wifi gateway For OwnTech: - The Low-Level Control algorithm - The CAN publish and subscribe - Remote power control using CAN	<b>Purpose of Investigation (Pol)</b> <i>Validate that the LibreSolar CAN based technology can be adopted by the OwnTech team and used to create a micro-grid</i>	<b>Functions under Test (FuT)</b> For LibreSolar: - The MPPT function - The Droop control - The CAN subscribe function - CAN to wifi gateway For OwnTech: - The Low-Level Control algorithm - The CAN publish and subscribe - Remote power control using CAN	
<b>Domain under Investigation (Dul):</b> Droop control and CAN communication			
<b>Target metrics (TM)</b> Stable system operation (response under step response) Data package reception without package losses Parameter reception on the system side without package losses	<b>Test criteria (TCR)</b> System operation without fault. Current flows from batteries into loads without spikes	<b>Variability attributes (VA)</b> System protection.	
	<b>Quality attributes (QA)</b> No diversion on the low-level control No loss on data packages		