



**5A. MICRO-GENERATION PROPOSED FOR INSTALLATION AFTER JANUARY 28TH, 2022. – EN 50549**

(see Table 1 for Protection Settings). Please attach Type Test Cert

Microgenerator Manufacturer:  Model No: 

Corresponding Type Test Certificate Referencing above Unit:

Single/Three Phase: Single:  Three: The Protection Settings listed should be set on the unit either **prior to installation** or **on installation**, and should be as confirmed by the Safe Electric Installer.**TABLE 1: PROTECTION SETTINGS FOR EN 50549 POST JANUARY 28TH, 2022.**

Parameter	Trip setting	Clearance time	Confirm Settings Applied (Y/N)
<b>Over Voltage</b>			
Pre I.S EN 50549-1 Single Stage Voltage Setting	269 V / 468 V	0.7 s	
I.S. EN 50549-1 Two Stage Voltage Settings	Stage 1	269 V / 468 V	70 s
	Stage 2	281 V / 488 V	0.7 s
Under voltage	191 V / 332 V	0.7 s	
Over frequency*	52 Hz	0.5 s	
Under frequency*	47 Hz	0.5 s	
An explicit Loss of Mains functionality shall be included. Established methods such as, but not limited to, Rate of Change of Frequency, or Source Impedance Measurement may be used. Where Source Impedance is measured, this shall be achieved by purely passive means. Any implementation which involves the injection of pulses onto the DSO network, shall not be permitted.			
ROCOF (**)	1.0 Hz/s	0.6 s	
Vector Shift	Not permitted		

(\*) For relays that have a setting step of 0.1Hz then the frequency should be set to 52.1Hz and 46.9Hz receptively.

(\*\*) reset interval should be set to &gt;0.6 seconds to detect step changes

**Important Note:**> **No deviations from the protection settings in the above Table shall be allowed without permission in writing from ESB Networks.**> **If a deviation exists, please provide correspondence from ESB Networks confirming acceptance of this deviation to [networkservicesbureau@esb.ie](mailto:networkservicesbureau@esb.ie)**

Details of the Generator interface protection settings installed are as per those applicable in the Conditions Governing the Connection and Operation of Micro-Generation (DTIS-230206-BRL) current at date of application, and the actual settings installed on the Micro-Generator are as listed above.

**If a deviation exists for which no permission from ESB Networks had been granted, the installation shall be disconnected immediately, and contact made with ESB Networks to regularise the situation.****INSTALLER DETAILS****I confirm that the above information is accurate:**

<b>Installer Name:</b>	<b>Installer SafeElectric No.</b>
<b>Installer Mobile No.</b>	<b>Installer email:</b>
<b>Installer Address [inc. Eircode]:</b>	
<b>Signature:</b>	
<b>Date:</b>	

**5B. MICRO-GENERATION INSTALLED PRE JANUARY 28TH 2022 - EN 50549.**

Protection Settings set by Installer in compliance with applicable ESNB “Conditions Governing the Connection and Operation of Micro-Generation (See Table 2 for applicable Protection Settings) Please attach Type Test Cert.

Microgenerator Manufacturer:	<input type="text"/>	Model No.	<input type="text"/>
Corresponding Type Test Certificate Referencing above Unit:	<input type="text"/>		
Single/Three Phase:	Single: <input type="checkbox"/>	Three:	<input type="checkbox"/>

**I confirm that the Micro-Generator installed at the above address was installed in compliance with applicable ESNB “Conditions Governing the Connections and Operation of Micro-Generation”, wired in accordance with applicable NSAI Wiring Regulations by Safe Electric Installer, has the above Serial Number, has been Type Tested as per the attached Type Test Cert and that I have verified that the Protection Settings installed on the Unit are as per the settings for pre -2022 installations detailed in Table 2 below.**

Installer Name:	Installer SafeElectric No.
Installer Mobile No.	Installer email:
Installer Address [inc. Eircode]:	
Signature:	
Date:	

**5C. MICRO-GENERATION INSTALLED PRE JANUARY 28TH 2022 - EN 50438.**

Protection Settings installed by Manufacturer. (See Table 2 below for applicable Protection Settings) Please attach Type Test Cert.

Microgenerator Manufacturer:	<input type="text"/>	Model No.	<input type="text"/>
Corresponding Type Test Certificate Referencing above Unit:	<input type="text"/>		
Single/Three Phase:	Single: <input type="checkbox"/>	Three:	<input type="checkbox"/>

**I confirm that the Micro-Generator installed at the above address was installed in compliance with applicable ESB ‘Conditions Governing the Connection and Operation of Micro-Generation’, wired in accordance with applicable NSAI Wiring Regulations by Safe Electric Installer, has the above Serial Number, has been Type Tested as per attached Type Test Cert and that I have verified that the Type Test for the Model installed confirms it was programmed with the Irish Settings Protection Settings as detailed in Table 2 below.**

Installer Name:	Installer SafeElectric No.
Installer Mobile No.	Installer email:
Installer Address [inc. Eircode]:	
Signature:	
Date:	

**TABLE 2: PROTECTION SETTINGS FOR EN 50549 PRE JANUARY 28TH 2022 (SET BY INSTALLER) AND EN 50438 (PRE-SET BY MANUFACTURER)**

Parameter	Trip setting	Clearance time
Over voltage	230 V + 10%	0.5 s
Under voltage	230V - 10%	0.5 s
Over frequency (*)	52 Hz	0.5 s
Under frequency (*)	47 Hz	20 s
An explicit Loss of Mains functionality must be included. Established methods such as, but not limited to, Rate of Change of Frequency (ROCOF), Vector Shift or Source Impedance Measurement may be used. Where Source Impedance is measured, this must be achieved by purely passive means. Any implementation which involves the injection of pulses onto the DSO network, shall not be permitted.		
ROCOF (where used) (**)	1.0 Hz/s	0.6 s
Vector Shift (where used)	6 degrees	0.5 s

Where available

(\*) For relays that have a setting step of 0.1Hz then the frequency should be set to 52.1Hz and 46.9Hz respectively.

(\*\*) Reset interval should be set to >0.6 seconds to detect step change

**Important Note:**

> **No deviations from the protection settings in the above Table shall be allowed without permission in writing from ESB Networks.**

> **If a deviation exists, please provide correspondence from ESB Networks confirming acceptance of this deviation to [networkservicesbureau@esb.ie](mailto:networkservicesbureau@esb.ie)**

Details of the Generator interface protection settings installed are as per those applicable in the Conditions Governing the Connection and Operation of Micro-Generation (DTIS-230206-BRL) current at date of application, and the actual settings installed on the Micro-Generator are as listed above.

**6. DATA PROTECTION**

ESB Networks DAC may use your personal data to the extent necessary (a) to set up and manage your connection agreement (b) for compliance with its licence and other legal obligations; and/or (c) for its legitimate interests (provided those interests do not conflict with your fundamental rights and freedoms) Personal data provided by you in this application form may be disclosed to other parties in the following circumstances:

- In performing its functions, ESB Networks DAC may utilise the services of contractors or other suppliers. ESB Networks DAC may disclose your data to these parties to the extent necessary to perform their functions and provided they are only permitted to use your data as instructed by ESB Networks DAC. They are also required to keep your data safe and secure.
- ESB Networks DAC may make available the existence, location and/or technical aspects of your connection to licensed electricity supply companies and other parties involved in your electricity supply. In the case of new connections, ESB Networks DAC will make available your telephone contact number to licensed electricity supply companies in order to facilitate energisation of the connection.
- ESB Networks DAC may be required by law, or our license obligations, to provide data that ESB Networks DAC holds about you, your electricity supply or connection, to government agencies or departments, the Commission for Regulation of Utilities or other third parties.
- Contact details may also be provided to a professional third party market research company for the purposes of researching your satisfaction with the services provided by ESB Networks DAC. This information may also be used to enhance our services as the Distribution System Operator.

**PLEASE RETURN FORM TO**

**[networkservicesbureau@esb.ie](mailto:networkservicesbureau@esb.ie) or  
ESB Networks DAC, NC6 Microgen Notifications,  
New Connections, Sarsfield Road, Wilton,  
Cork T12E 367**

**PLEASE REMEMBER!**  
DON'T BUILD UNDER OR NEAR ELECTRICITY WIRES  
**STAY SAFE STAY CLEAR  
OF ELECTRICITY WIRES**  
ESB NETWORKS DAC



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