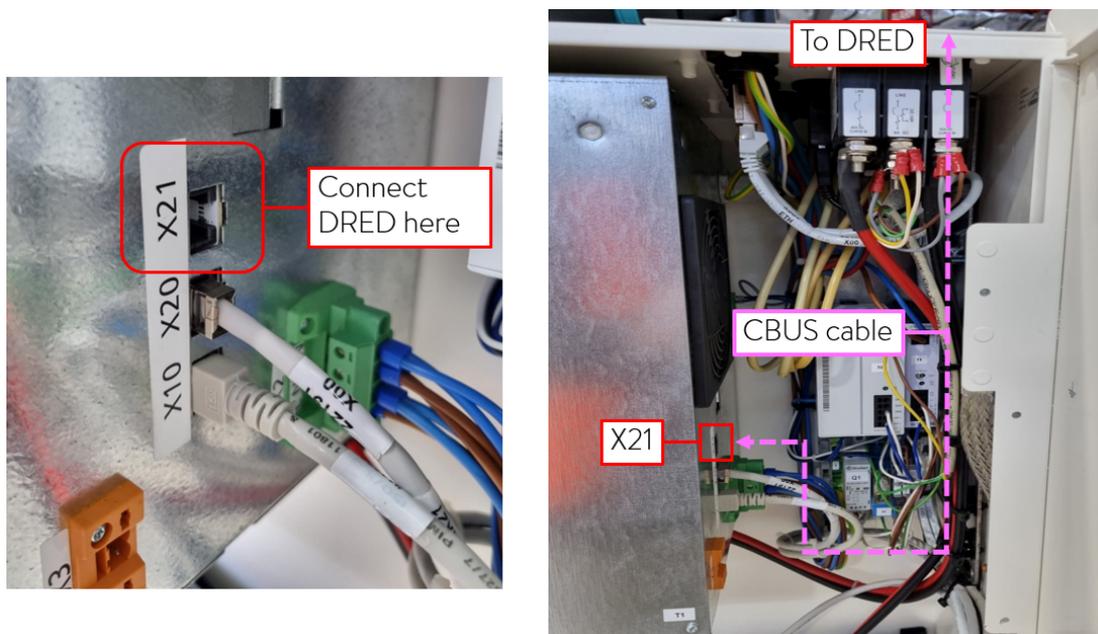


Dynamic Response Enabling Device (DRED) connection to sonnenBatterie Hybrid 9.53

According to AS4777:2020, clause 3.2.1, all grid connected inverters shall support Dynamic Response Mode (DRM) 0 at a minimum. For the sonnenBatterie Hybrid 9.53 to be compliant with this, a DRED must be connected at the X21 RJ45 coupler located on the side of the inverter, inside the sonnenBatterie Hybrid 9.53 cabinet as shown in the photo below. As the path from the top plate to X21 will pass near low voltage circuitry, sonnen recommend using CBUS cable as it is suitably rated for this application.



To achieve this, a data cable must be passed through from the DRED to X21 via the top plate of the sonnenBatterie Hybrid 9.53, preferably through a 20mm gland fitted to the blind grommeted hole labelled "S1" as per the image below.



When connecting a DRED, always be sure to follow the manufacturer’s instructions and terminate as per tables 3.3 and 3.4 from AS4777:2020 shown below –

Table 3.3 — Method of asserting demand response modes

Mode	RJ45 socket		Terminal block	
	Asserted by shorting pins:		Asserted by shorting terminals marked:	
DRM 0	5	6	“REF GEN/0” or “RG/0”	“COM LOAD/0” or “CL/0”
DRM 1	1	6	“DRM1/5” or “1/5”	“COM LOAD/0” or “CL/0”
DRM 2	2	6	“DRM2/6” or “2/6”	“COM LOAD/0” or “CL/0”
DRM 3	3	6	“DRM3/7” or “3/7”	“COM LOAD/0” or “CL/0”
DRM 4	4	6	“DRM4/8” or “4/8”	“COM LOAD/0” or “CL/0”
DRM 5	1	5	“DRM1/5” or “1/5”	“REF GEN/0” or “RG/0”
DRM 6	2	5	“DRM2/6” or “2/6”	“REF GEN/0” or “RG/0”
DRM 7	3	5	“DRM3/7” or “3/7”	“REF GEN/0” or “RG/0”
DRM 8	4	5	“DRM4/8” or “4/8”	“REF GEN/0” or “RG/0”

Table 3.4 — RJ45 socket pin assignment

Pin	Assignment for inverters capable of both charging and discharging
1	DRM 1/5
2	DRM 2/6
3	DRM 3/7
4	DRM 4/8
5	REF GEN/0
6	COM LOAD/0
7	V+
8	V-

In addition to the installation of a DRED, DRM0 must also be activated during the commissioning process of the sonnenBatterie Hybrid 9.53, which can be found on the Inverter Setting page, under the General Information heading as per the screenshot below.

Please note, before activating DRM0 during the commissioning process, a DRED must first be connected to the sonnenBatterie Hybrid 9.53. Activating DRM0 during the commissioning process BEFORE a DRED is connected will cause the inverter to disconnect from the grid.



Inverter Setting

Please set the country code of the inverter to assure a correct grid operation.

AS/NZS 4777.2:2020 Australia A

✓ Country code is set correctly

General Information

50

Nominal Frequency (Hz)

230

Nominal Voltage (VAC)

±4

RoCoF (Hz/s)

250

RoCoF Minimum Measurement Time (ms)



DRM0 Activation / Deactivation

(Rapid Shutdown - DRM0 is off as default, if activated a DRED compatible device must be installed.)

Kind Regards,

Adam Gray

Technical Sales Engineer