ENcombi

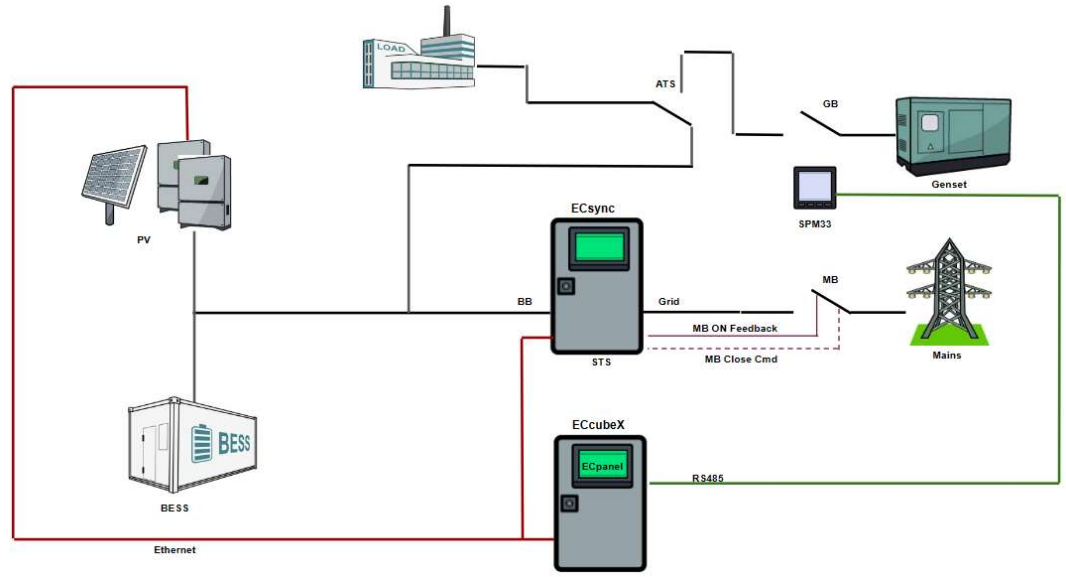


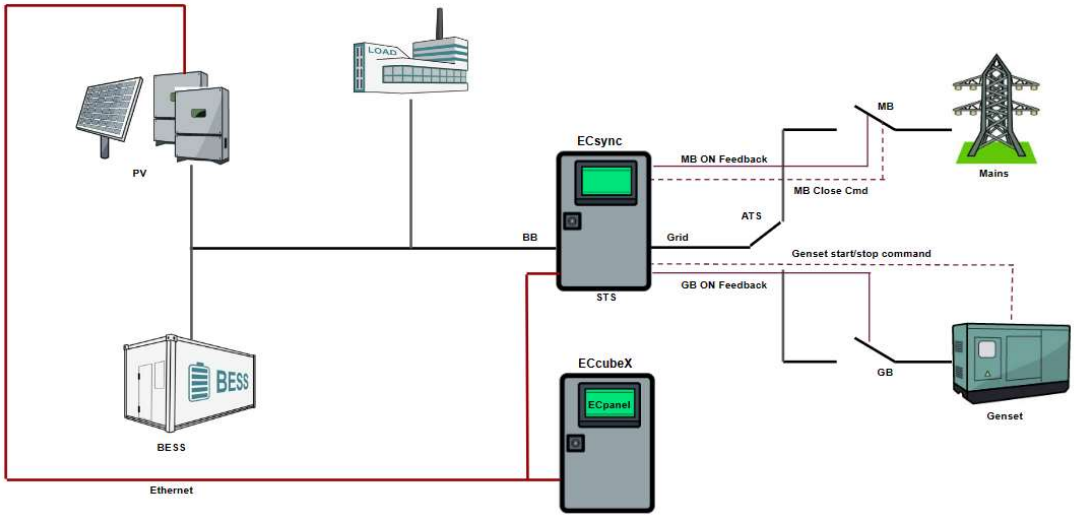
ECsync

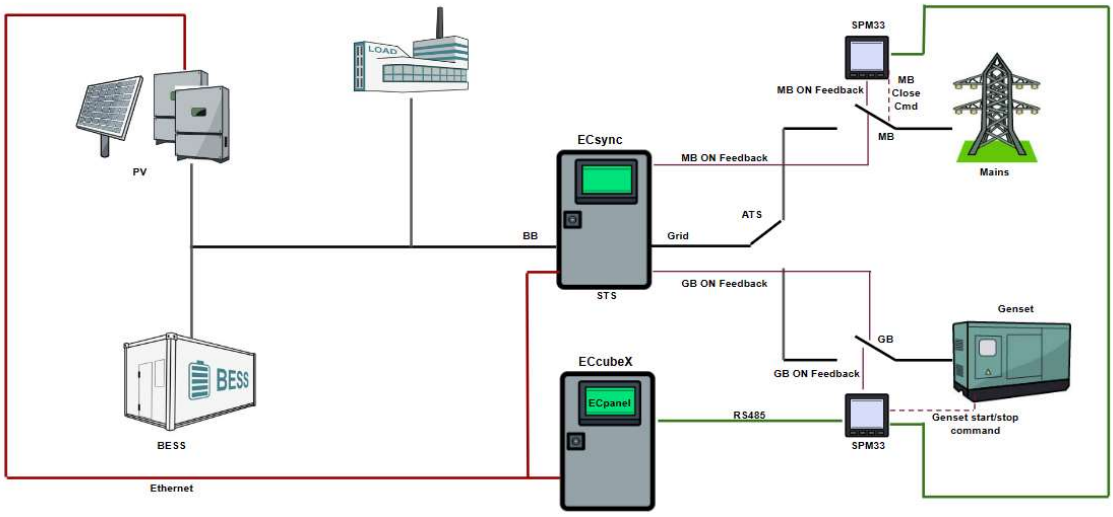
Datasheet

Overview

ECsync is the **EN**combi plug and play cabinet for providing seamless transfer between on-grid and off-grid operation in BESS applications where the BESS itself does not feature seamless transfer by means of STS or otherwise. The grid can in this context be the public utility grid or a grid provided by genset(s).







The ECsync cabinet's main components are a mechanical breaker and a synchronization relay. The ENcombi EMS ,ECpvX/ECcubeX, can communicate with and control the synchronization relay.

The ECsync cabinet can be operated in Manual mode and in Automatic mode. In Manual mode the mechanical breaker can be operated directly on the synchronization relay's display. The ECpvX/ECcubeX will acknowledge the manual commands made and control the plant accordingly. In Auto mode, the ECsync cabinet is commanded to work in either on-grid mode or in off-grid mode by the user from the ECpvX/ECcubeX. This is easily done both via the ECpvX built-in webserver, ECweb, or via the ECpanel HMI.

In on-grid mode, the ECsync cabinet will always reconnect the grid with the BESS when the grid is available. In off-grid mode, the ECsync cabinet will unload the mechanical breaker by adjusting the BESS and PV output before opening it.

Variants

The **ECsync** comes in the following four variants.

AC

Function \ Variant	200	400	600	800
Voltage system	3P-N	3P-N	3P-N	3P-N
Grounding system	TN-S	TN-S	TN-S	TN-S
Rated voltage phase-phase [V]	400	400	400	400
Rated voltage phase-neutral [V]	230	230	230	230
Max current [A]	320	640	1000	1280
Rated power [kW]	200	400	600	800
Max power [kVA]	220	440	690	880
Rated frequency [Hz]	50	50	50	50
Max short circuit Icw [kA]	36	50	50	50
Short circuit protection in panel: micrologic 2.3 400A or schneider NS micrologic 2.0	NSX2.3	NS 2.0	NS 2.0	NS 2.0
Fault protection against electrical shock in supply	●	●	●	●
Under voltage coil in breaker	●	●	●	●
Other protections: -ROCOF -Vectorjump -Low/high voltage protection (multiple levels) -High current protection (multiple levels) -Low/high power protection (multiple levels) -Positive, negative & zero sequence -Unbalanced voltage -Unbalanced current (multiple levels)	*	*	*	*

*All protections are available but not all are enabled per default

General information

Function \ Variant	200	400	600	800
Dimensions [mm]	h:1000 w: 800 d: 400	h:1464 w: 1008 d: 432	h:1464 w: 1008 d: 432	h:1464 w: 1008 d: 432
Weight [kg]	90	170	170	170
Installation place	indoor	indoor	indoor	indoor
panel type	Wall mounted	Floor standing	Floor standing	Floor standing
Color	RAL 7035 light gray	RAL 7035 light gray	RAL 7035 light gray	RAL 7035 light gray
Protection degree	IP54	IP54	IP54	IP54
Forced air cooling	●	●	●	●
Max altitude [m]	2000	2000	2000	2000
Minimum temperature [celsius]	5	5	5	5
Maximum temperature [celsius]	40	40	40	40
Maximum daily average temperature [celsius]	35	35	35	35
Maximum daily average humidity [%]	90	90	90	90
AC Inlet/outlet	bottom/ top	bottom/ top	bottom/ top	bottom/ top
Communication and control signals	bottom	bottom	bottom	bottom
standard IEC/EN 61439-1	●	●	●	●

Communication & Control

Function \ Variant	200	400	600	800
ECpvX/ECcubeX via Modbus TCP	●	●	●	●
ECpvX/ECcubeX via Modbus RTU	●	●	●	●
Display - synchronization relay	●	●	●	●
10A relay outputs controllable from EClogic	8	8	8	8
Auxiliary contact indicating the breaker position	1	1	1	1
24VDC inputs readable in EClogic	8*	8*	8*	8*

*2 reserved for closed position feedback of the external grid and genset breaker.

Extras

The ECsync can be equipped with the ECpvX built in and the same extras as are available in the ECcubeX.

For more information visit:

www.encombi.com