



# Your Home EV Supercharger

Featuring blackout power and solar charging.  
For North America



- **Blackout Power:** Use your EV's battery to sail through multi-day utility grid outages
- **Solar Charging:** Charge your EV with the unlimited, free power of the sun
- **Power Boost:** One mile of range per minute of charge
- **Orchestrate™:** Smart charging algorithm minimizes your energy costs and carbon footprint
- **Dual Charge:** Charge two EVs at once
- **Easy Outdoor or Indoor Installation:** Installed by a single technician

## A single dcbel replaces the following equipment:

- Level 2 electric vehicle charger
- Fast DC bi-directional electric vehicle charger
- Solar inverter
- Electric vehicle inverter
- Stationary battery charger / inverter



DC Fast EV Charger	
Connectors	CHAdeMO / CCS
AC Inputs	
Nominal Voltage (V)	240 Single Phase or +120/-120 Split Phase
Voltage Range (V)	208-254
Nominal Current (A)	65
Frequency (Hz)	60 (50 capable)
DC Outputs	
Nominal Power @400V (W)	15 200
Nominal Voltage (V)	400
Voltage Range <sup>1</sup> (V)	150-500
Nominal Current (A)	38
Max Efficiency (%)	96.3
Voltage Ripple (%)	< 2.5

Solar Inverter	
DC Inputs	
Max PV Power (Wp)	20 000
Open Circuit Voltage (Voc)	600
MPPT operating range (V)	240-500
Short Circuit Current (A)	28 per MPPT
Max Current (A)	19 per MPPT
Number of MPPT Channels	2
Max Strings per MPPT	1
AC Outputs	
Nominal Power (W)	15 200
Nominal Voltage (V)	240 Single Phase or +120/-120 Split Phase
Voltage Range (V)	208-254
Nominal Current (A)	63
Nominal Frequency (Hz)	60 (50 capable)
Max Efficiency (%)	98.4
Power factor (%)	> 99
THD (%)	< 3



EV Inverter (V2H / V2G <sup>2</sup> )	
Connectors	CHAdeMO / CCS
DC Inputs	
Nominal Voltage (V)	400
Voltage Range <sup>1</sup> (V)	150-500
Nominal Current (A)	19
AC Outputs	
Nominal Power (W)	7 600 / 15 200 <sup>3</sup>
Nominal Voltage (V)	240 Single Phase or +120/-120 Split Phase
Voltage Range (V)	208-254
Nominal Current (A)	32
Frequency (Hz)	60 (50 capable)
Max Efficiency (%)	98.4
Power factor (%)	> 99
THD (%)	< 3
Grid Forming	True Sine Wave

AC Level 2 EV Charger	
Connector	SAE J1772
Nominal Output Power (W)	7 200
Nominal Voltage (V)	240 Single Phase or +120/-120 Split Phase
Voltage Range (V)	208-254
Nominal Current (A)	30

<sup>1</sup> Varies based on AC grid input.

<sup>2</sup> V2G-ready. Functionality may vary based on local utility regulations and V2G protocols.

<sup>3</sup> Available with upcoming software update. Functionality may be limited by EV's capabilities.

Stationary Battery (ESS) <sup>4</sup>	
Communication	RS485 / CAN Bus
Charging	
AC Inputs	
Nominal Voltage (V)	240 Single Phase or +120/-120 Split Phase
Voltage Range (V)	208-254
Nominal Current (A)	32
Frequency (Hz)	60 (50 capable)
DC Outputs	
Nominal Power (W)	7 600
Nominal Voltage (V)	400
Voltage Range (V)	240-500
Nominal Current (A)	19
Max Efficiency (%)	96.3
Voltage Ripple (%)	< 2.5
Discharging	
DC Inputs	
Nominal Voltage (V)	400
Voltage Range (V)	240-500
Nominal Current (A)	19
AC Outputs	
Nominal Power (W)	7 600
Nominal Voltage (V)	240 Single Phase or +120/-120 Split Phase
Voltage Range (V)	208-254
Nominal Current (A)	32
Frequency (Hz)	60 (50 capable)
Max Efficiency (%)	98.4
Power factor (%)	> 99
THD (%)	< 3
Grid Forming	True Sine Wave

Tempo™	
Disconnect Current (A)	200
AC Sensor	CT Clamp

AC UPS	
Nominal Output Voltage (V)	120V
Nominal Output Current (A)	6
Frequency (Hz)	60 (50 capable)

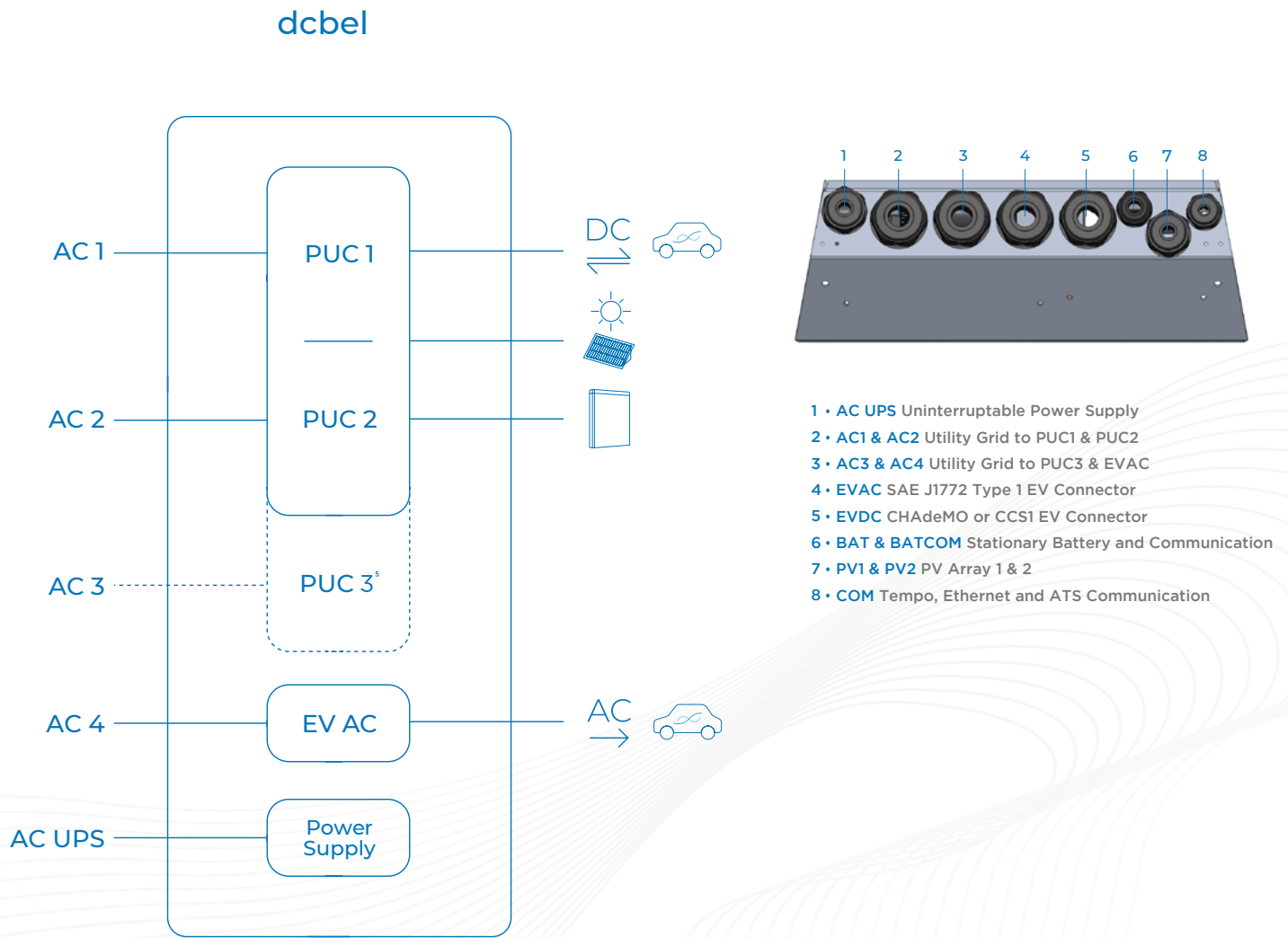
General	
Dimensions	
Height (inch / mm)	31.5 / 800
Width (inch / mm)	19.7 / 500
Depth (inch / mm)	9.1 / 230
Total Weight (lbs / kg)	<90 / <42
Max Component Module Weight (lbs / kg)	55 / 25
Standby Monitoring Power Consumption (W)	<30
Communication	RJ45 - TCP/IP ready
Operating Temperature (°F/°C)	-40 to 104 / -40 to 40
Enclosure	NEMA 3R, IP54, UL94 5VB
Certification	UL 2202, 2594, 2231-1, 2231-2, 1741 SA, IEEE 1547.1, FCC Part 15 (pending)
Security Certification	CC Certified (TPM 2.0 at EAL4+) & FIPS 140-2 Level 1 & 2

AC Connection: Breaker Size Recommendation	
Installation with Blackout Power	
DC Charger, Solar Inverter, V2H/V2G, ESS (A) (Double-pole breaker in main panel)	125 (including critical load panel)
EV AC Charger (A) (Double-pole breaker in main panel)	40
UPS connected to wall socket (A) (Single-pole breaker in critical load panel)	15
Installation without Blackout Power	
DC Charger, Solar Inverter, V2H/V2G, ESS (A) (Double-pole breaker in main panel)	2 x 40
EV AC Charger (A) (Double-pole breaker in main panel)	40
Power Supply (A) (Single-pole breaker in main panel)	15

AC Output (dcbel™ to Home)	
Nominal Output Power (W)	15 200
Nominal Output Voltage (V)	240 Single Phase or +120/-120 Split Phase
Output Voltage Range (V)	208-254
Nominal Output Current (A)	63
Frequency (Hz)	60 (50 capable)

<sup>4</sup> Stationary battery management available with upcoming software update.

# Power Distribution Diagram



<sup>5</sup> Upgrade your dcbel by adding a third PUC power module. Available in 2021.



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