

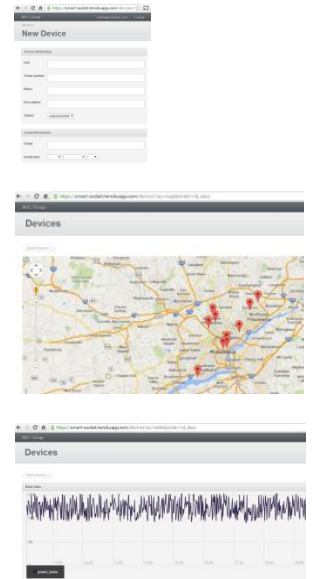
# The SMART ConnectDER™

*Plug-&-Play Installation for Residential Distributed Energy Resources*

The SMART ConnectDER™ is a meter collar for rapid connection of grid-ready energy assets.

It is a UL listed, standardized, low-cost alternative to traditional wiring methods.

Onboard metering, communications, & controls unlock alternate tariff models and grid management capabilities.



## BENEFITS

- Drives down wiring costs, logistics headaches, & site inspection time
- Decreases BoS costs by eliminating components and reducing need for premises wiring upgrades
- Integrated circuit breaker provides PV equipment protection & safe field connection to terminal block
- Onboard revenue grade telemetry and communications track system production
- Track mixed model inverter fleet operations through ConnectDER Cloud™ (GUI or API)

## TECHNICAL INFORMATION

- Supports solar PV installations up to 15kW AC
- Grounding and bonding compliant with NEC Article 250
- For use with grid-interactive PV systems with UL 1741-compliant string- or micro-inverters



*The ConnectDER is one of these potential “game-changers” that has really caught my attention. ...the main distribution panels in the home are notoriously small, outdated, maxed out, recessed into the wall, not listed for a supply-side interconnection or a combination of the above – making interconnection costly and complex. Utilizing the ConnectDER however can greatly simplify the process – bypassing the existing distribution panel all together and tying directly in at the meter in both a code-compliant and utility-sanctioned manner.*

-15 year veteran solar installer

## MECHANICAL SPECIFICATIONS

Enclosure rating	NEMA 3R
Enclosure type	Injection molded polycarbonate, UL 94 V0 flame rating
Cooling	Natural convection
Dimensions (H x W x D)	6.7 x 6.7 x 5.25in (170 x 170 x 133mm) collar only 8.7 x 6.7 x 5.25in (246 x 170 x 133mm) with junction box
Weight	4lb (1.8kg)
Shipping weight	5.5lb (2.5kg)
Mounting system	Blade interface with 4-jaw meter socket
Electric meter compatibility	Type 2S
Meter socket compatibility	Ringless and ring-type meter sockets
Circuit interface point	Line-side or load-site circuit interface (factory configured)
Conduit connections	Template provided for ½", ¾", or 1" trade size opening

## SAFETY INFORMATION

Applicable safety standard	UL2745: Meter Socket Communications Equipment
File Number	E361188



## UTILITY INTERACTIVE SOURCE RATINGS

Maximum power	15000 W
Maximum voltage	240 V
Maximum continuous PV current	64 A
Continuous combined current, PV/grid	160 A
Inverter wiring termination	Box lugs, maximum wire size 3AWG
Grid connection type	Split-Ø/3W
Grid wiring termination	Blade interface with meter socket for L1/L2, pigtail for neutral and equipment ground

## OVERCURRENT PROTECTION

Type	Eaton BR, 120/240V, externally resettable
Overcurrent ratings available	15-45A in 5A increments, 50A-80A in 10A increments
Current interrupting rating	10k and 22k AIC ratings available

## ENVIRONMENTAL

Ambient air operating temperature range	-22°F to 158°F (-30°C to 70°C)
Ambient air storage temperature range	-40°F to 176°F (-40°C to 80°C)

## WARRANTY

Standard warranty	10 years
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## METERING SPECIFICATIONS

Processor	Texas Instruments MSP430F6736 metering system-on-chip (SoC) 25-MHz CPU with MSP430CPUX architecture. 24-bit $\Sigma\Delta$ analog-to-digital converters (ADC) A 32-bit x 32-bit hardware multiplier
Form	2S
Class	100
Accuracy	0.5%
Frequency	60Hz +-5%
Burden	<3W
Standards	ANSI C12.1, ANSI C12.20, UL Subject 2745
Operational Temperature Range	-40°F to 185°F (-40°C to 85°C)

Humidity 0% to 100% (non-condensing)

## INTERFACES

Serial Modular RS-485 serial  
LCD Watt hours and status

## CELLULAR SPECIFICATIONS

Penta-Band HSPA+ GSM Quad Band 850, 900, 1800, 1900 MHz  
UMTS/HSPA Penta Band 850, 900, 1700, 1900, 2100 MHz  
EGPRS/WCDMA/HSDPA/HSUPA Protocol Stack 3GPP Release 7  
UDP/TCP/FTP/SMTP Stack

Output Power Class 4 (2W, 33 dBm) @ GSM 850 / 900  
Class 1 (1W, 30 dBm) @ GSM 1800 / 1900  
Class 3 (0.25W, 24 dBm) @ UMTS  
Class E2 (0.5W, 27 dBm) @ EDGE 850 / 900  
Class E2 (0.4W, 26 dBm) @ EDGE 1800 / 1900

Sensitivity -109.5 dBm @ 850/1900 MHz  
-109 dBm @ 900 MHz  
-110 dBm @ 1800 MHz  
-111 dBm @ WCDMA B1/B4/B5  
-110 dBm @ WCDMA B2/B8

Coding Scheme 1 to 4 (GPRS) & Modulation Coding scheme  
1 to 9 (EDGE) EDGE Class 33, MS Class B

Data HSPA: DL: Up to 21.0Mbps, UL: Up to 5.76Mbps  
WCDMA: DL: Up to 384kbps, UL: Up to 384kbps  
EDGE: DL: Up to 296kbps, UL: Up to 236.8kbps  
GPRS: DL: Up to 107kbps, UL: Up to 85.6kbps  
Asynchronous non transparent CSD up to 9.6 kbps

## CONTACT

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