

Contact:
Drew Vermillion
drewvermillion@rebossinc.com
919.641.0941

2025

# Product Portfolio Solar & EV Charging

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## 480-600VAC BoS Family

Compact in Size, Powerful in Action



- Switchboard 800–4000A (AC combiner or recombiner)
- Main breaker, LSIG, AERMS, main lug option (up to 100kAIC @480 / 65kAIC @600)
- Direct bus or cable connection to MV transformer
- · Compact, 90"×60"×36"
- · New 48" depth available for ease of of cabling
- No nuisance tripping, electronic trip breakers on main & all feeders
- Reduce cable sizing, 100% rated MCCBs
- · NEMA 3R (thermally engineered)
- · UL891 Certified

#### 400-1000A

- MLO output with up to 8 (150A/250A) feeders
- NEMA 3R or NEMA 4 (rooftop)
- UL891 construction / UL508A certified





## 480-600VAC BoS Family

Compact in Size, Powerful in Action



#### 400-1200A Rackmount Combiner

- Main breaker, LSIG, AERMS option (up to 50kAIC @480 / 50kAIC @600)
- No nuisance tripping, electronic trip breakers on main & all feeders
- Reduce cable sizing, 100% rated MCCBs
- Compact, 60"×36"×18" (rackmount)
- Cable connection to MV transformer
- · NEMA 3R
- UL891 construction / UL508A certified





## 660-800VAC BoS Family

#### **Industry First Solar Solutions**



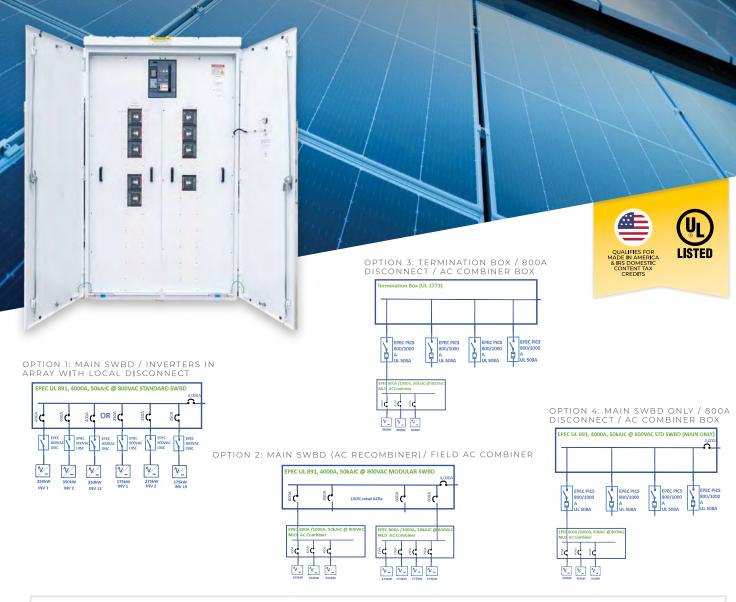
#### Local AC Inverter Disconnects

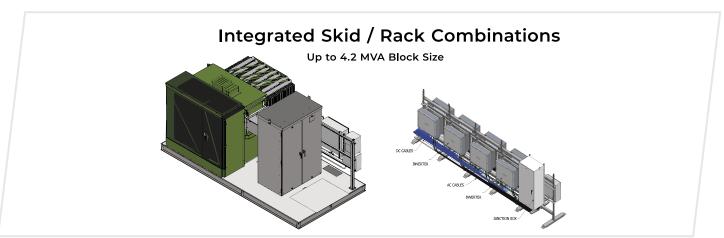
- Designed for local disconnect of inverters feeding switchboard
- · NEMA 3R
- · UL508A certified



# 660-800VAC BoS Equipment

Most Comprehensive Offering in the Industry





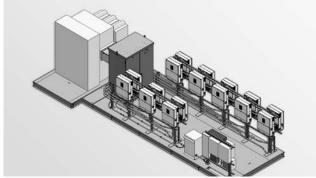
# Custom Integrated Skids for Solar, BESS, and EV

**Fully-Engineered Power Solutions** 



- Fully factory integrated: medium voltage transformer, switchboard, inverters, aux power, SCADA
- · Customer specific or standard designs

PV UNIT SUBTATION



VIRTUAL CENTRAL 3D MODEL

- · Full 3D design
- Structural calculations (wind, snow, reaction loads) PE stamp available



CENTRAL INVERTER STATION



VIRTUAL CENTRAL CONSTRUCTION PHASE

## Solar String Inverter Racks

An Integrated, Modular Solution for Sustainable Power



- · Modular building block designed, matched to your specific quantity and inverter brand requirements
- · Engineered and certified for worst case North American wind & snow loads
- · Powder coated carbon steel for long-term performance
- · Complies with IRS domestic content requirements, all USA steel and manufacturing

#### Options:

- · Sunshade
- Custom brackets as required for inverter mounting
- · Cable tray
- · Flexible installation
- · Foot plate mounting (for grave) or concrete base)
- · Pile mounting adaptor

#### **Fully Integrated** Inverters mounted, cabled



#### Flexible Integration Options





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## **EV** Charging

Switchboards, Racks, and Skid Solutions



#### **Switchboards**

1200A-4000A	400A-1200A	
NEMA 3R, UL 891 SWBD for EV Charging		
Compact 90"x60"36" footprint	Compact 80"x42"24" footprint	
Main breaker, LSIG, AERMS, metering & control options		
100kAIC @ 480VAC	65kAIC @ 480VAC	
All electronic trip MCCBs		
Thermally engineered switchboard		
Cable or bus connection to MV Transformer	Cable connection to MV Transformer	
Available feeder frame sizes: 150/250/400/600/800/1000	Available feeder frame sizes: 150/250/400/600	

#### **Integrated Charging Skid**

- · Packaged LV substation for EV Charging
- MV transformer + SWBD + metering / communications all factory integrated
- Advantages of factory integration:
  - •Quality: skids are engineered, assembled and inspected in a factory environment
  - •Efficiency: pre-build equipment in a environmentally controlled environment
  - •Speed: less field construction time means more projects completed each year



# Auxiliary Power and Grounding Transformers

Complete the Package



LV	3kVA-300kVA	MV
Primary voltages: 480 / 600 / 800VAC single or three phase Primary voltages: up to 34.5kV single or three phase		
Secondary voltages: 120/240 single phase; 208/480 three phase		
Dual secondary options		
NEMA 3R, rack or padmount		NEMA 3R, padmount
Secondary panelboard / load centers		





#### LV & MV Grounding Transformers and Reactors

- ·480VAC up to 34.5kV
- ·Single phase & three phase, 1kVA up to 4500kVA
- ·Full 3D design
- ·NEMA 3R padmount





NGR: 6.25 KVAR, 10 OHMS



NGR: 30 KVAR, 15KV CLASS

#### **NEW PRODUCT**

#### Modular SWBD

(estimated to ship 4Q 2024)

- ·Designed from ground up for BESS / Solar / EV Charging Applications
- ·Multiple main sections (M-T-M, GenSET), 5000A (6000A air cooled)
- · Direct bus connection or cable connection to MVT

- · Multiple feeder sections with feeder sizes up to 2500A
- ·NEMA 3R, multi-section design
- ·Seismic ratings

ASK OUR SALES TEAM FOR DETAILS







### AC LV SWBD - 1200-1600A, 480-800VAC

#### UL 891 Certified SWBD's for Solar / BESS Applications

Multi-section SWBD platform designed for AC collection of Solar or distribution / integration of BESS projects. Thermally engineered for demanding outdoor applications, features up to 6000A bus and 5000A (6000A air cooled) main breaker. Other features include: Multiple mains, feeder sizes from 15A to 2500A, M-T-M control sections, generator quick connect options.

#### **Product Details**

- 480VAC, 600VAC, 800VAC, 3P3W or 3P4W
- UL / NEMA 1 or 3R
- Main breaker ranges: 1200A 5000A (6000A air cooled), MLO up to 6000A, fixed or draw out
- Single ended or double ended (M-M or M-T-M)
- Feeder ranges ACB: 1200A, 1600A, 2000A, 2500A, fixed or draw out
- Feeder ranges MCCB: 150AF, 250AF,
   400AF, 600AF, 800AF, 1000AF
- Feeder trip type: Thermal Mag or Electronic Trip
- Interrupt Ratings:
  - 100kAIC @ 480VAC
  - 65kAIC @ 600VAC
  - 50kAIC @ 800VAC
- Full front access, incoming / outgoing bottom or top entry
- Direct bus / busway option (side) for main / ACB feeder
- Control section M-T-M control schemes

### Intelligence for Diagnostics, Metering, & Switching

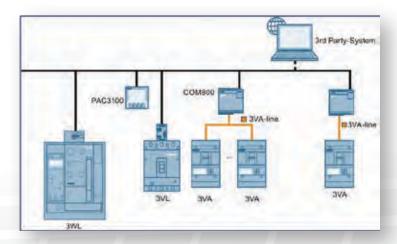
Our SWBD's utilize Siemens' state-of-the-art power (3WA) and molded case (3VA6) circuit breakers. Full metering and diagnostics for each circuit is available from advanced trip units. Information is easily made available to via Modbus TCP or other ethernet / PLC protocol. If advanced communication is not required standard trip units are available.



Pictured above: UL 891 / NEMA 3R, 480 / 800VAC, 6000A SWBD, single ended, with: cable input section, 5000A main, ACB feeder section, MCCB feeder section & SEL control section

#### **Ample Power Capacity**

Our 6000A Switchboard delivers the power capacity required, for Solar / BESS requirement. With fault current ratings of 100/65kAIC at 480/600V (supports 4500/3500kVA sized MV Transformers at 480/600VAC, respectively.)









### AC LV SWBD - 1200-1600A, 480-800VAC

#### UL 891 Certified SWBD's for Solar / BESS Applications



Pictured above: UL 891 / NEMA 3R, 480 / 800VAC, 6000A SWBD, double ended, with: cable input section, 5000A main, ACB feeder section, MCCB feeder, 2nd 5000A main, 2nd cable input section & SEL control section.

Future-Proof Your Solar / BESS Application Our 6000A SWBD is not just a product, it's long-term investment. Its scalable design allows for easy upgrades and expansions, ensuring it can meet the needs of your plant both now and in the future. Designed on the newest version of Siemens' circuit breaker technology, your equipment will stand up to the test of time with ease.



#### **Enhanced Safety Features**

Safety is our top priority. Our 6000A SWBD comes with state-of-the-art safety features, including advanced circuit protection (AERMS per NEC 240.87) and fault detection capabilities. This ensures your equipment and personal are both safe.

#### **Superior Reliability**

EPEC is a proven leader in the design and build of LV AC SWBD's in the demanding solar, energy storage, and EV charging industries. We understand that downtime is not an option for your facility. That's why our 6000A Switchboard is designed for maximum reliability. It's robust construction and advanced engineering ensure consistent performance and minimal maintenance.





Pictured above: EPEC N3R "solar specific" SWBD. EPEC SWBD's are utilized in over 1 gigawatt of solar installations.







Contact: Drew Vermillion drewvermillion@rebossinc.com 919.641.0941

info@epecsolutionsinc.com epecsolutionsinc.com