

Products and solutions for the industrial market

Power distribution

Medium power transformers: ≤ 250 MVA, ≤ 300 kV

- Generator step-up
- System interconnecting transformers
- Special transformers (electric arc furnace transformers, rectifier transformers, converter transformers for large drives)



Distribution transformers: ≤ 30 MVA, ≤ 72.5 kV

- Unit auxiliary transformers
- Windfarm padmount transformers
- Solar (PV) pad mount transformers
- Battery Energy Storage Systems (BESS) transformers
- Data center transformers
- Distribution network transformers
- Voltage regulators



Cast resin transformers: ≤ 50 MVA, ≤ 46 kV

- Applications: within any sort of building (indoor), in wind turbines, on ships; wherever special fire security or constructive regulations



HV circuit breaker

- FA spring-spring mechanism requiring no adjustments or maintenance
- Extra creep bushings (porcelain or composite)
- Gang or IPO on a common frame
- Operation to -40° C without tank heaters
- Complete product range of Circuit breakers from 72-550kV
- Dead and Live tank customizable
- Blue circuit breakers utilizing clean air technology helping customers reach their environmental carbon neutral goals.



HV Gas-insulated switchgear

- Rated voltages from 72.5 kV up to 550 kV
- Over 45 years of experience with SF6 technology guarantees demand-oriented technology and the highest possible quality and cost-effectiveness.
- compact design allows their use in the most confined spaces



Substations

- 5–27.6 kV primary unit substations
- Secondary unit substations
- Low-voltage substations



Medium-voltage switchgear

Air-insulated:

- Metal-clad 5 kV- 38 kV
- Metal-enclosed, load-interrupter 5 kV-15 kV
- Improve operator safety with arc-resistant, Sm@rtGear, remote-racking, SIERS, and/or OMARS options as available per product type



Gas-insulated:

- Metal-enclosed, arc-resistant, compact, single or double bus 5 kV-38 kV
- Metal-enclosed, load-interrupter, arc-resistant, compact, modular construction 38 kV

Medium-voltage transformers

- Cast-coil
- Liquid-filled
- Unit substations
- Vacuum Pressure Encapsulated (VPE)
- Vacuum Pressure Impregnated (VPI)



Medium-voltage components

Full line of OEM components and accessories for GM-SG and GM38-3AH3 medium-voltage circuit breakers, including circuit breaker cell kits and skeletons



Medium-voltage, vacuum, roll-in, replacement circuit breakers

- 5 kV to 38 kV
- Direct interchangeability
- Pre-engineered designs for most brands and models



Siemens Industrial Products

Russelectric

- Paralleling switchgear/power control systems
 - o Low-voltage and medium-voltage systems
 - Emergency power systems
 - Utility paralleling systems
 - Prime power systems
 - Cogeneration systems
- Low-voltage and medium-voltage transfer and bypass switches
- Advanced microgrid controls



Low-voltage switchgear

- Rear-connected, low-voltage switchgear
- Front-connected, low-voltage switchgear
- Optional arc resistant construction
- Optional Sm@rtGear system
- Optional 4-pole WL circuit breakers
- Arc flash hazard mitigation solutions



Low-voltage circuit breaker retrofit solutions

- Direct-rack design allows breaker to rack directly to original primary bus
- Modular accessories including communication, measurement, and enhanced protection functions
- Pre-engineered designs available for most brands and models



Switchboards

- Distribution switchboards
- Integrated power systems switchboards
- Commercial multi-metering switchboards
- Generator-ready switchboards
- Rear-connected switchboards



Panelboards

- Lighting panels
- Lighting control panels
- Power panels
- Column-type panels
- Coordination panels
- Telephone and equipment cabinets



Motor control centers / controllers

- Low-voltage motor control centers
- Medium-voltage motor controllers including solid-state reduced-voltage starters and reduced-voltage autotransformers
- Improve operator safety with arc-resistant, Sm@rtGear and/or SIERS options as available per product type



Low-voltage, dry-type transformers

- Buck-boost
- General purpose
- Motor drive isolation
- Harmonic mitigating
- Power centers
- Super energy efficient NEMA premium
- Meets DOE 2016 efficiency requirements



Busway / bus duct

- Non-segregated bus duct up to 15 kV
- Sentron busway
- XL-U busway
- Power II Fit program
- Power II Measure service



Circuit breakers

- Molded-case circuit breakers
- Insulated-case circuit breakers
- Residential circuit breakers
- IEC miniature circuit breakers



Safety switches

- General duty
- Heavy duty
- Double throw
- Rotary switches
- AC disconnects



Surge protection

- Commercial 50 kA – 1,000 kA
- Residential 35 kA – 140 kA
- Telcom and coax



NEMA and general purpose control

- Starters and overload relays
- Duplex controllers
- Pump control panels
- Reduced-voltage control
- Lighting contactors
- Control power transformers
- Manual control starters and switches



Packaged solutions

- Simplify your procurement process and save project management time and money with Siemens' packaged solutions.
- Siemens' experienced project managers can help:
 - o Execute your project from award through completion.
 - o Coordinate your power equipment center (PEC) components:
 - An array of low- and/or medium-voltage power distribution equipment like switchgear, motor controllers and control centers, and variable-frequency drives.
 - Auxiliary equipment like HVAC and pressurization systems, UPS and battery systems, fire detection/suppression, DCS and controls, indoor and outdoor lighting, insulation, and work spaces.
 - o Arrange for coordination studies, factory-authorized testing, commissioning, field services, and maintenance and repair.



Energy automation and smart grid

Energy Automation

- EMP
- SDFA
- Digital Substation
- Protection Relays
- PMS/Power SCADA
- SIPROTEC 5
- Data Concentrator



Siemens Industrial Products

Grid control

- SpectrumPower upgrade
- Microgrids
- ADMS
- DERMS
- EMS
- Grid consulting for Developers
- PSS E
- PSS CAPE
- PSS SINCAL



Software and consulting

- Integrated resource planning
- Energy-efficiency analytics
- MDM-SaaS
- Computer-aided protection simulation
- Digital Twin
- Simulation software for analysis
- Transmission planning and analysis
- SCUC



Digital power and thermal monitoring

- Power and power quality meters
- Digital energy management software
- Energy management engineering services
- SEM3™ embedded micro metering module
- SEM3™ Thermal monitoring in electrical apparatus
- Branch circuit monitoring

Solar and e-vehicle

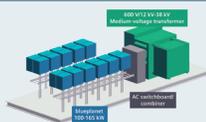
Solar photovoltaic (PV) disconnects and meter combinations

- 600 V dc solar PV disconnects (30 – 200 A)
- Fully equipped solar meter combinations



Solar inverters

- Commercial on-site solar central and string inverters
- Solar photovoltaic skid solutions



Electric-vehicle charging solutions

- Level 2 AC residential and commercial charging stations - wall or post mounted
- DC fast-charging solutions for all vehicle types
- Commercial fleet/eBus charging solutions - light to heavy-duty vehicles
- Make-ready solutions
- Managed cloud service solutions with billing and load management

Electrical services and solutions

- Installation, start-up and commissioning
- Custom turnkey solutions
- Power system engineering services
- Arc flash hazard analysis and mitigation solutions
- Repair, maintenance and testing services
- Modernization and upgrade solutions, retrofit and replacements



Building information modeling (BIM)

- Unit substations
- Low-voltage switchgear
- Switchboards
- Dry-type distribution transformers
- Panelboards
- Busway
- Safety switches



Learn more

High-voltage power distribution

www.siemens-energy.com

Medium-voltage power distribution

usa.siemens.com/medium-voltage

Low-voltage power distribution

usa.siemens.com/powerdistribution

Electric-vehicle charging solutions

usa.siemens.com/emobility

Solar inverters

usa.siemens.com/solarphotovoltaics

Medium-voltage vacuum roll-in replacement circuit breakers

usa.siemens.com/mvreplacements

Low-voltage replacement circuit breakers

usa.siemens.com/lvretrofit

Electrical Services

usa.siemens.com/electricalservices

Digital Power and Thermal Monitoring

<https://new.siemens.com/us/en/products/energy/low-voltage/digital-power-monitoring.html>

Resources for the Consulting Engineer

<https://new.siemens.com/us/en/products/energy/low-voltage/consulting-engineers.html>

**Published by
Siemens 2021**

Siemens Industry, Inc.
3617 Parkway Ln
Peachtree Corners, GA 30092

Siemens Technical Support: 1-800-333-7421
info.us@siemens.com

Printed in USA-CP
Order No. PDFL-INDLC-0221
All Rights Reserved
© 2021, Siemens Industry, Inc.
usa.siemens.com

The technical data presented in this document is based on an actual case or on as-designed parameters, and therefore should not be relied upon for any specific application and does not constitute a performance guarantee for any projects. Actual results are dependent on variable conditions. Accordingly, Siemens does not make representations, warranties, or assurances as to the accuracy, currency or completeness of the content contained herein. If requested, we will provide specific technical data or specifications with respect to any customer's particular applications. Our company is constantly involved in engineering and development. For that reason, we reserve the right to modify, at any time, the technology and product specifications contained herein.