• Revised •
10/9/16

Contents

Siemens recognizes that high performance facilities make for high performance business. Energy is the lifeline of your business, and better efficiency and sustainability can have a large positive impact on your bottom line.

Energy Management and Control Systems from Siemens are complete enterprise solutions that help you manage the energy costs and availability of your business. With our advanced meters and controls, you can be sure to use only the energy you need, when you need it.

Siemens Power Distribution Solutions contribute toward achieving LEED® certification and provides the needed energy metering data for federal/local government energy reductions programs.

Features and Benefits of Siemens Power Distribution Solutions:

- Power Quality Reliability & Analysis
- Utilities Cost Allocation & Billing
- Utilities Usage Aggregation
- Load Preservation
- Equipment Monitoring
- Facility Monitoring & Automation
- Sequence of Event Recording
- Preventative Maintenance
- Electrical Asset Management

Additional Products/Services Available:

- Branch Circuit Monitoring
- Sub-Billing and Cost Allocation
- Application Engineering
- Services Agreements
- Network/Communication Components
- Integration with Existing
- SCADA/BAS Systems
- Incorporation of Third Party Devices

WinPM.Net


Powermanager Software


Assembled Meter Enclosure

Power Meters

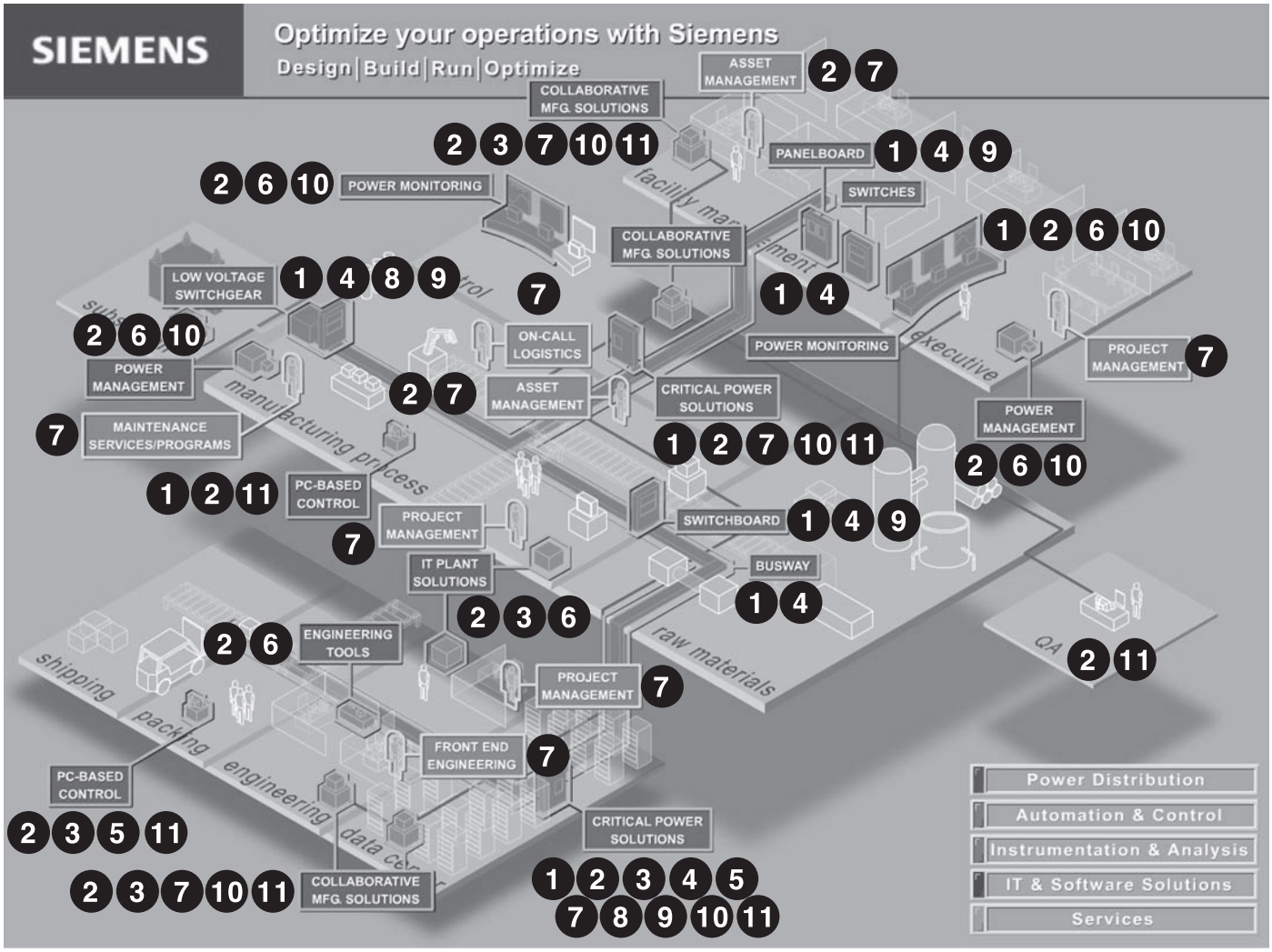
For Technical Assistance Contact:
1-800-333-7421

Create Support Ticket Online:
https://support.industry.siemens.com/my/WW/en/requests#createRequest

PDS Request for Information / Request for Quote:
www.usa.siemens.com/pds-request

Totally Integrated Power

System Overview



1. **Power Meters**
   Siemens power monitors combine the best of new technologies and proven practices. Monitor critical loads, power quality, and demand via the web directly from the meters.
2. **Power Monitoring Software**
   WinPM.Net and Powermanager web-enabled software facilitates easy, enterprise-wide connection to power monitoring equipment, circuit breakers, and other devices from Siemens and third parties. Access information via the web with unlimited no-cost clients using built-in Web Client via your web browser.
3. **Communications Networks**
   Utilize existing Ethernet or RS-485 communications networks to extract the information you need and get it where it needs to go.
4. **Components**
   Current Transformers (CTs), Voltage/Potential Transformers (PTs), Power Supplies, Ethernet Switches, Protocol Converters. Siemens can provide everything required for your system.
5. **Intelligent I/O**
   Our S7 I/O enables plug-n-play communications with Modbus devices and expands digital and analog input and output functionality of Siemens Systems.
6. **Billing and Load Allocation Software**
   Powermanager is the simplified solution for cost allocation, billing & load/demand analysis using your web browser.
7. **Engineering Services**
   PDS Application Engineers can help from design through commissioning of even the most demanding power quality and monitoring systems.
8. **Motor Control Centers**
   Monitor mains and feeders for critical or power-intensive loads. Communicate with WL, VL and 3VA breakers, SIMOCODE, I/O and devices from other manufacturers. Use Siemens power meters to web-enable new as well as existing MCCs.
9. **Low & Medium Voltage Switchgear**
   Web-enable switchgear by having Siemens power monitoring as well as breaker status and upload the information to a corporate Intranet or to the Internet. Use MeterMail™ directly from meters for alarm conditions or simple reporting.
10. **Facility Management Systems**
    Tie into building automation systems to provide the required power and energy information. Many communications options are available ranging from legacy protocols to XML directly from the power monitors.
11. **Distributed Control Systems, Automation, and SCADA/Human Machine Interface**
    Siemens power monitors and/or software can talk to all major vendors' systems.

Power Distribution Solutions

Intelligent Metering and Control Devices









	PAC3100	MDMeter	SEM3	PAC3200	PAC4200	9410	9510 ADR	9510	9610/9610H
Power, energy and demand									
Voltage/current: per phase, average	■	■	■	■	■	■		■	■
Voltage/current: unbalance	■			■	■	■		■	■
Power: real, reactive, apparent, power factor, frequency kW/kWh	■	■	■	■	■	■		■	■
Energy: bi-directional, import, export	■		■	■	■	■		■	■
Energy: total, net	■	■	■	■	■	■		■	■
Demand: block, sliding window	■	■	■	■	■	■		■	■
Demand: thermal predicted						■		■	■
Power quality analysis									
Sag/swell monitoring						■		■	■
Voltage disturbance direction detection						■			■
Transient detection, microseconds									17 µs @ 60 Hz/ 20 µs @ 50 Hz
Harmonics (individual, even, odd, total) up to				THD only	31st	63rd		63rd	127th/255th
Sampling rate, maximum samples/cycle	64		166	64	204	256		256	512/1024
Flicker, harmonics to EN50160, IEC 6100-4-7 / 4-15									■
Configurable for IEEE 519-1992, IEEE 1159, SEMI/ITIC									■
Data and wave form logs									
Triggered by setpoint, schedule, or external signal						■	■	■	■
Sequence-of-event logs, variable log depth					■	■		■	■
Minimum/maximum logs				■	■	■		■	■
Historical logs / maximum # of channels			■			800	800	800	800
Waveform recording						■		■	■
Time-stamps, resolution in seconds				1.0	0.1	0.001	0.001	0.001	0.001
Event log			1.0			■	■	■	■
GPS time synchronization			■			■	■	■	■
Waveform in COMTRADE format with FTP					SNTP	■		■	■
Communication Ports, Protocols and I/O									
( ) = Optional									
RS-232/485 ports							1	1	1
RS-485-only ports	1	1	1	(1)	(1)	1	2	2	2
Ethernet ports		1	1	1	1	2	(1)	(1)	(1)
Infrared optical ports							1	1	1
PROFIBUS ports				(1)	(1)				
PROFINET ports				(2)	(2)				
Built-in modems							(1)	(1)	(1)
Modbus RTU Slave on serial, modem or infrared ports (If equipped with modem or infrared port)	1	■	■	(1)	(1)	■		■	■
Modbus RTU Master on serial ports						■	■	■	■
Modbus/TCP on Ethernet ports		■	■	■	■	■	■	■	■
Modbus TCP Master over Ethernet						■	■	■	■
BACnet MS/TP		■							
BACnet IP on Ethernet ports		■							
SNMP			■			■		■	■
DNP 3						■	■	■	■
MV-90 on serial; Ethernet ports							■	■	■
IEC 61850						■		■	■
Ethernet Gateway: 31 other meters accessible via RS-485					■	■	■	■	■
Concurrent Connections over Ethernet		2	4		3	8	(2)	4	4
Email alarming			■			■	■	■	■
On-board web server		■	■			■	■	■	■
XML			■(JSON)			■	■	■	■
Analog inputs						(16)	■	■	(4)
Analog outputs						(8)	(4)	(4)	(4)
Digital status/counter inputs (standard/optional add-ons)	2	2	2/(44 PLC DI)	1	2/(4)	3/(24)	8/8	8/8	8/8
Digital relay outputs (control/pulse)	2	1	1	1	2/(8)	1/(8)	7	7	7
Setpoints, alarming and control									
Setpoints, minimum response time		■	■	■	■	½ cycle	½ cycle	½ cycle	½ cycle
Math, logic, trig, log, linearization formulas				and/or, > <	and/or, > <	■	■	■	■
Single- and multi-condition alarms	■	■	■	■	■	■	■	■	■
Call-out on alarm			■	■	■	■	■	■	■
Revenue metering									
ANSI C12.16 accuracy compliant	1S					■		■	■
ANSI C12.20		0.2	0.2	0.5	0.2	0.2*		0.2	0.2
EN50160 Compliance Reporting						■		■	■
IEC 61000-4-30 Class A/S						■(S)		■(A)	■(A)
IEC 62053-22 replaces IEC 60687 0.2S compliant				■	■	■		■	■
IEC 62053-24 0.5S compliant for Reactive Energy						■		■	■
IEC 60687 0.2S compliant				■	■	■		■	■
IEC 60687 accuracy class 0.5S compliant	■			■	■	■		■	■
ANSI class 2, IEC 1/10 (1A nominal, 10A max)						■		■	■
ANSI class 20, IEC 5/20 (5A nominal, 20A max)						■		■	■
Time-of-use				■	■	■		■	■
Transformer/line loss compensation								■	■

Some features are optional. Refer to datasheets for allowable port configurations. Products meet or exceed the accuracy requirements of the standards listed; due to form factors, not all ANSI/IEC compliance tests may apply. Some products certified by third-party laboratory.

Power Distribution Solutions

PAC3100 Power Meter

Basic Monitoring of Electrical Power Systems

The **PAC3100** is a powerful compact power monitoring device that is suitable for use in industrial, government and commercial applications, where basic metering and energy monitoring is required. The meter may be used as a stand alone device monitoring over 25 parameters or as part of an industrial control, building automation or global power monitoring system. Metering and monitoring applications range from simple analog volt and amp meter replacements to stand-alone sub-billing or cost allocation installations.

The PAC3100 has many features not usually found in this price class of meters. A large graphical display supports multiple languages and easy to use menus that can be used to set up the meter. The meter also has built in Modbus RTU communications via a RS485 interface. The meter comes standard with two digital inputs and outputs. One output is suitable for pulse output for export/import real and reactive energy. The other output is controllable from an outside source by way of a Modbus register.

Precision

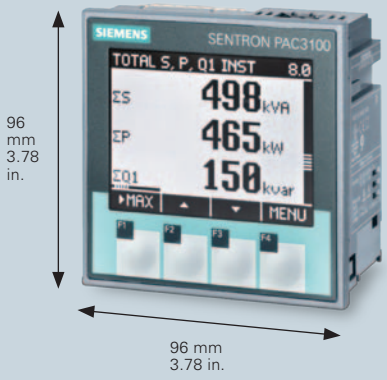
- ANSI C12.16 Class1s
- Energy Measurement
  - Voltage +/- 1%
  - Current +/- 1%
  - Power Factor +/- 1%
  - Sampling Rate 64/per cycle
- Revenue Accurate
  - Sub Billing
  - Cost Allocation
- Cost Effective

Energy Management

- Energy Consumption
- Demand Control
- Automation Integration
- Solution for LEED® credit
- Monitors Critical Equipment
- Sub Metering

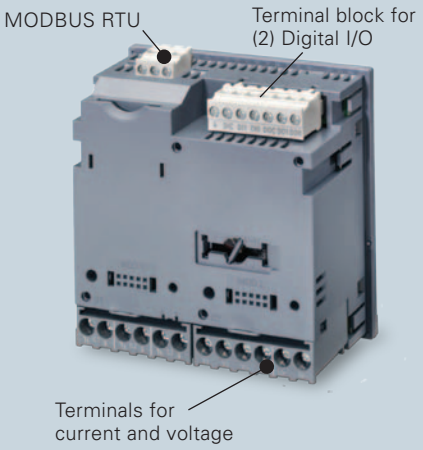
Reliability

- Economical Measurement
  - Commercial
  - Industrial
  - Residential
- Degree of Protection
  - Front – IP65
  - Rear – IP20
- 480V Connected Voltage
- Simple Retrofit Installation
- Integration with Existing Systems



Full Graphic LCD Display to indicate:
- Display title or designation of the displayed measurements
- Phase
- Measured value
- Unit
- Labeling of function keys

Example of operating menu
With an easy-to-read adjustable back lit LCD display, the PAC3100 can be commissioned in only two steps. After selecting the language and setting two parameters (voltage and current inputs), the meter is ready for use.①



Order information

Product	Catalog Number
PAC3100 compression terminals AC/DC	**7KM3133-0BA00-3AA0**
Adapter Plate for 4700/4720 meter cutout	**93-47ADAPTER**
PAC32/4200 Meter DIN Rail adapter – Meter display will not be seen	**7KM9900-0YA00-0AA0**
PAC32/4200 Meter DIN Rail 2-adapter – Meter display will not be seen	**7KM9900-0XA00-0AA0**

① Languages included as standard in the meter are English, German, French, Spanish, Italian, Portuguese, Turkish, Russian and Chinese.

Power Distribution Solutions

PAC3200 Power Meter

Reliable and Precise Monitoring of Electrical Power Systems

The **PAC3200** is a powerful compact power monitoring device that is suitable for use in industrial, government and commercial applications where basic metering and energy monitoring is required. The meter may be used as a stand alone device monitoring over 50 parameters or as part of an industrial control, building automation or global power monitoring system. Metering and monitoring applications range from simple analog volt and amp meter replacements to stand-alone sub billing or cost allocation installations with multiple tariffs.

The PAC3200 provides open communications using Modbus RTU/TCP, PROFIBUS-DP, and PROFINET protocols for easy integration into any local or remote monitoring system. Simple configuration of the meter can be done from the front display.

Precision

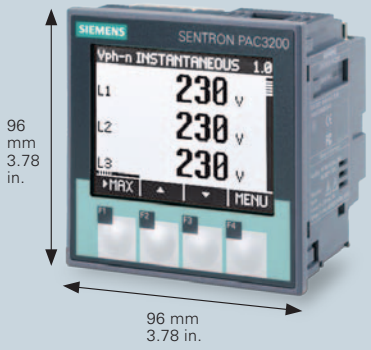
- ANSI C12.20 Class 0.5s
- Energy Measurement
  - Voltage +/- .3%
  - Current +/- .3%
  - Power Factor +/- .5%
  - Sampling Rate 64/per cycle
  - Total Harmonic Distortion (THD)
- Revenue Accurate
  - Sub Billing
  - Cost Allocation
- Cost Effective

Energy Management

- Energy Consumption
- Automation Integration
- Solution for LEED® credit
- Monitors Critical Equipment
- Modbus TCP/RTU
- Industrial Systems
  - PROFIBUS
  - PROFINET

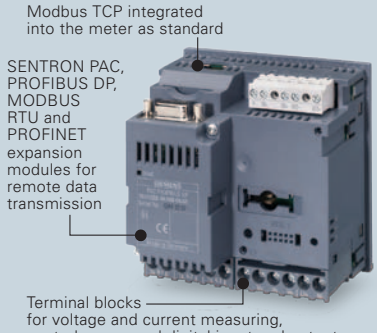
Reliability

- Economical Measurement
  - Commercial
  - Industrial
  - Residential
- Degree of Protection
  - Front – IP65
  - Rear – IP20
- 600V Connected Voltage
- Simple Retrofit Installation
- Integration with Existing Systems



Full Graphic LCD Display to indicate:
- Display title or designation of the displayed measurements
- Phase
- Measured value
- Unit
- Labeling of function keys

Example of operating menu:
The texts can be displayed in several languages, which can be selected directly on the device.① The large graphic LCD display facilitates reading even from a distance. For optimum visability even in poor light conditions the PAC3200 comes with a gradually adjustable background illumination.



Order information

Product	Catalog Number
PAC3200 compression terminals (not suitable for use with ring tongue terminals), AC/DC	**7KM21120BA003AA0**
PAC3200 compression terminals (not suitable for use with ring tongue terminals), DC only	**7KM21111BA003AA0**
PAC PROFIBUS DP expansion module	**7KM93000AB000AA0**
PAC PROFINET expansion module	**7KM93000AE010AA0**
PAC MODBUS RTU expansion module	**7KM93000AM000AA0**
PAC3200/4200 Meter DIN Rail adapter – Meter display will not be seen	**7KM99000YA000AA0**
PAC3200/4200 Meter DIN Rail 2-Tier adapter – Meter display will not be seen	**7KM99000XA000AA0**
Power Supply. Input: 120-230V AC / 110-300V DC Output: 24 V DC 4 Amps. DIN Rail mounted.	**US2:PWRSP4A**
Adapter Plate for 4700/4720 meter cutout	**93-47ADAPTER**

① Languages included as standard in the meter are English, German, French, Spanish, Italian, Portuguese, Turkish, Russian and Chinese.

Power Distribution Solutions

PAC4200 Power Meter

Reliable and Precise Monitoring of Electrical Power Systems

The **PAC4200** is a feature packed power monitoring device that is suitable for use in industrial, government and commercial applications where basic to advanced metering, logging, and I/O is required. The meter may be used as a stand alone device monitoring over 200 parameters or as part of an industrial control, building automation or global enterprise wide monitoring system.

Advanced power quality monitoring and logging applications range from single low voltage breaker / building metering to sub-station main feeder monitoring, sub-billing or cost allocation installations with multiple tariffs. Whether your goal is to reduce operation cost, reduce your carbon footprint or to maintain your power assets, the PAC4200 meter should be an important part of your power monitoring system.

The PAC4200 provides open communication using the standard built-in Ethernet Modbus TCP and has the capability of communicating through Optional Modbus RTU, PROFIBUS-DP, and PROFINET protocol modules simultaneously. This allows for easy integration into any local or remote monitoring system. The gateway functionality of this device reduces installation cost by replacing other gateway devices and simplifying wiring.

Precision

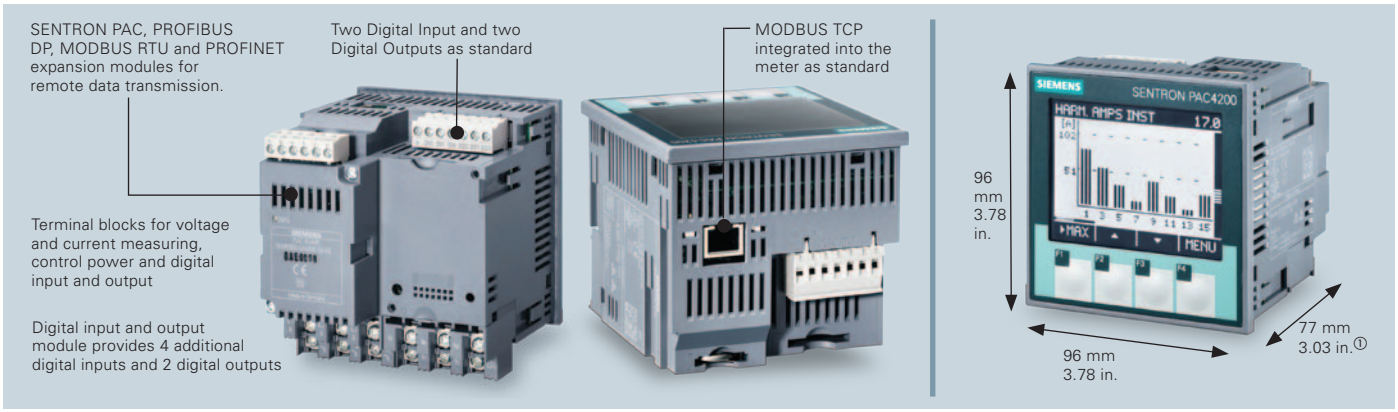
- ANSI C12.20 Class .2s
- Energy Measurement
  - Voltage +/- .2%
  - Current +/- .2%
  - Power Factor +/- .5%
  - Sampling Rate 170/per cycle
  - Individual Harmonics up to 31st
- Power Quality
- Revenue Accurate
  - Sub Billing
  - Cost Allocation
- Cost Effective

Energy Management

- Serves two masters via the TCP connection
- Energy Consumption
- Min/Max and Event Logs
  - Storage Capacity 40 days at 15 min intervals
  - Event Logging 4000 events
- Demand Control
- Automation Integration
- Modbus Gateway
- Modbus TCP/RTU
- Industrial Systems
  - PROFIBUS
  - PROFINET

Reliability

- Monitors Critical Equipment
- Economical Measurement
  - Commercial
  - Industrial
- Degree of Protection
  - Front – IP65
  - Rear – IP20
- 600V Connected Voltage
- Customizable Displays
- Simple Retrofit Installation
- Integration with Existing Systems
- Solution for LEED® credit



Order information

Product	Catalog Number
PAC4200 compression terminals (not suitable for use with ring tongue terminals), AC/DC	**7KM42120BA003AA0**
PAC4200 compression terminals (not suitable for use with ring tongue terminals), DC only	**7KM42111BA003AA0**
PAC PROFIBUS DP expansion module	**7KM93000AB000AA0**
PAC PROFINET expansion module	**7KM93000AE010AA0**
PAC I/O expansion module	**7KM92000AB000AA0**
PAC MODBUS RTU expansion module	**7KM93000AM000AA0**
PAC3200/4200 Meter DIN Rail adapter – Meter display will not be seen	**7KM99000YA000AA0**
PAC3200/4200 Meter DIN Rail 2-Tier adapter – Meter display will not be seen	**7KM99000XA000AA0**
Power Supply. Input: 120-230V AC / 110-300V DC Output: 24 V DC 4 Amps. DIN Rail mounted.	**US2:PWRSP4A**
Adapter Plate for 4700/4720 meter cutout	**93-47ADAPTER**

① 99mm, 3.90 in., with expansion module

Power Distribution Solutions

9410 Web-Enabled Power Quality & Analysis Meter

Reliable and Precise Monitoring of Electrical Power Systems

The 9410 series meters are ideally suited to local and remote monitoring of low or high voltage electrical installations in industrial facilities, commercial buildings, utility networks or critical power environments. Facility and operations personnel will benefit in energy-related costs while avoiding power quality conditions that can reduce equipment life and productivity.

The 9410 series meter is easy to install and use, offering integrated or remote high-visibility displays. A range of expansion modules help match features to the application and support field-upgrading of meters as required. Serial and Ethernet communication enable the meter to be used within a WinPM.Net power management system or with third-party management systems.

Precision

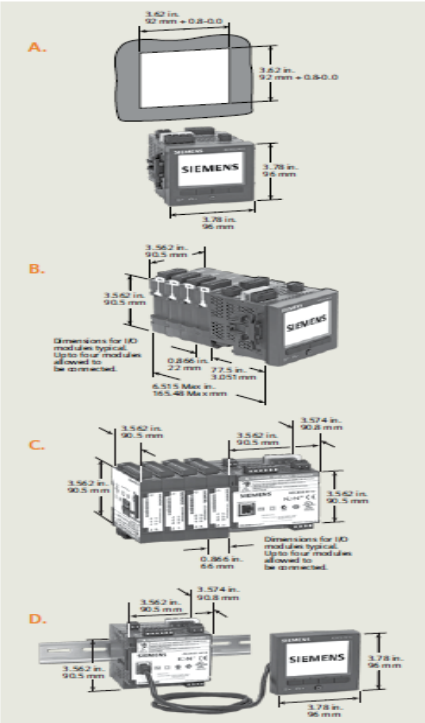
- ANSI C12.20 Class 0.2s
  - Energy Measurement
  - Voltage +/- .1%
  - Current +/- .1%
  - Power Factor +/- .5%
  - Sampling Rate 256/ per cycle
  - Individual Harmonics up to 63rd
  - Sags / Swells Detection
  - Programmable Math / Logic Function
- Revenue Accurate
  - Sub Billing
  - Cost Allocation

Energy Management

- Energy Consumption
- 9410 Waveform Capture
- Customizable Webpages
- Min/Max and Event Logs
- Demand Control
- Automation Integration
- Solution for LEED® credit
- Monitors Critical Equipment
- Modbus Gateway
- Modbus TCP/RTU
- Modbus Master
- Industrial Systems
- IEC 61850 Protocol

Reliability

- Economical Measurement
  - Commercial
  - Industrial
- Degree of Protection
  - Front – IP54, UL type 12
  - Rear – IP30
- 600V Connected Voltage
- Customizable Displays
- Email Alarms through Ethernet
- Field Addable Modules
- Simple Retrofit Installation
- Integration with Existing Systems



Dimensions:
A. Meter with integrated display panel mount into a square cutout
B. Meter with integrated display with up to (4) I/O module
C. Din Rail mounted meter with up to (4) I/O modules
D. Din Rail Mounted meter with remote display

Order information

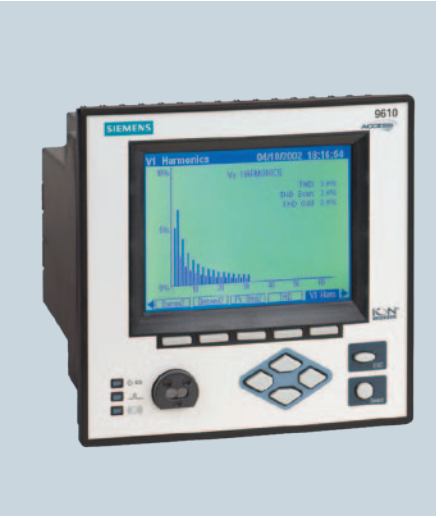
Product	Catalog Number
9410 Panel meter with integrated color display, 1 DO, 3 DI, dual port Ethernet	**US2:9410DC**
9410 DIN transducer meter packaged with remote display (includes 3m cable)	**US2:9410RC**
9410 Meter without display (DIN rail mount transducer version) with 1 DO, 3 DI, dual port Ethernet	**US2:9410TC**
Accessories	**Catalog Number**
9410 Remote color LCD display, 96 mm x 96 mm, with 3 m cable	**US2:948DISP96**
9410 I/O Module with 2 relay outputs, and 6 digital inputs (wetted)	**US2:948M2DO6DI**
9410 I/O Module, 2 analog outputs (4 - 20 mA, 0- 10 VDC), and 4 analog inputs (4 - 20 mA, 0 - 30 VDC)	**US2:948M2AO4AI**
9410 Voltage and Current Sealing Kit (included with base meter)	**US2:9410SK**
9410 Remote display cable, 10 meters	**US2:948DCAB10**
9410 Remote Display Mounting Adapter kit for 4" round hole - requires 9410RC	**US2:94PMAK**
9410 Replacement hardware kit for 9410 meter	**US2:94PMHWK**
9410 Replacement hardware kit for remote display	**US2:94PMRDHWK**

Power Quality Meter with Web Server Technology

These high power quality meters are packed with features such as the ability to determine the location of a disturbance quickly and accurately and determine the direction of the disturbance relative to the meter. Analysis results are captured in the event log, along with a time-stamp and confidence level indicating level of certainty. The 9510/9610 base meter includes 8 digital inputs capable of providing 1 millisecond time stamping and 7 digital outputs. The 9510/9610 meters support numerous protocols including IEC61850 and Comtrade.

Fast sampling rates and extensive memory make this the perfect choice for critical power systems making analysis of issues possible for correction and prevention. As a data accumulator, the 9510 and 9610 meters can also save money and time by simplifying wiring and networking. Information from the meter and downstream devices can be displayed on the large LCD display, on customizable web pages in reports and screens.

Applications for the 9510 and 9610 meters range from critical power applications such as data centers to industrial, commercial and government power and power quality monitoring systems. The 9510 and 9610 meters are offered in a number of forms from single meter enclosures integrated into Siemens switchgear, switchboard and panelboards. Place these high end power quality meters throughout the power distribution system where critical information is desired. Know what is happening in your facility and get maximum efficiency.



Precision

- ANSI C12.20 Class .2s
- Energy Measurement
  - Voltage +/- .01%
  - Current +/- .01%
  - Power Factor +/- .5%
  - 9510 Sampling Rate 256/per cycle
  - 9610 Sampling Rate 512/per cycle
  - 9610 XH Sampling Rate 1024/per cycle
  - 9510 Individual Harmonics up to 127th
  - 9610 Individual Harmonics up to 256th
  - Sags / Swells Detection
  - Programmable Math / Logic Function
- Revenue Accurate
  - Sub Billing
  - Cost Allocation

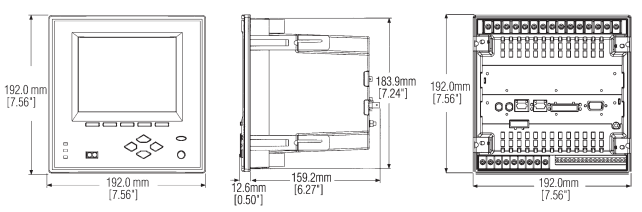
Energy Management

- Energy Consumption
- Waveform Capture
- Transient Capture 17 µs @ 60 Hz
- Disturbance Direction Detection (DDD)
- Customizable Webpages
- Min/Max and Event Logs
  - Storage Capacity up to 3.3 years at
  - 15 min intervals
  - Event Logging up to 20,000
  - Waveform Captures up to 390
- Demand Control
- Automation Integration
- Monitors Critical Equipment
- Modbus Master / Gateway
- Supports Multiple Protocols
- Supports Multiple Master via Ethernet

Reliability

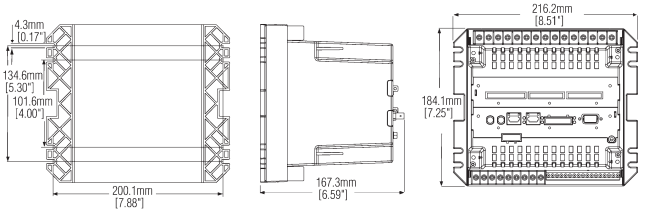
- Economical Measurement
  - Commercial
  - Industrial
- 600V Connected Voltage
- Transformer Line Loss Compensation
- Email Alarms
- Customizable Displays
  - Event / Alarm Log
  - Trending
  - Phasor Diagrams
- Password Protected
- Hardware Lockable
- Supports Copper or Fiber Ethernet
- Integration with Existing Systems

Meter with integral display dimensions



Front view | Side view | Front view, TRAN model

Meter transducer unit (w/o display) dimensions



Back View | Side view, TRAN model | Rear view, TRAN model

Order Information for 95/9610 Power Meters

Catalog Number

9	X	1	0	D	C	1	1	5	6	C	Z	Z	A

Description

Meter base unit and display options

• Meter with integrated display and 5MB logging memory	D
• Meter with integrated display and 10MB logging memory	E
• Meter without display (Tran version) and 5MB logging memory	T
• Meter without display (Tran version) and 10MB logging memory	U

Sampling rate

• Standard sampling (256 for 9510) (512 for 9610) per cycle maximum	C
• 1024 Samples per cycle (9610 only)	H

Power Supply

• 85-240 Vac / 110-300 Vdc	1
• 20-60 Vdc	2

Input Voltage

• 120 to 347 L-N / 208 to 600 L-L V AC	1

Input Current

• 1A Nominal (10 Amp full scale)	1
• 5A Nominal (20 Amp full scale)	5

Frequency

• 50 Hz	5
• 60 Hz	6

Communication Cards

RS232/RS485 (Selectable)	RS485	Infrared (Note 1)	Modem (Notes 1 & 2)	10/100 Base-T	10/100 Base-FX	
•	•	•				A
•	•	•	•			C
•	•	•		•		G
•	•	•	•	•		H
•	•	•		•	•	J
•	•	•	•	•	•	K

Auxiliary I/O Cards

• None (base meter includes 8 digital in and 7 digital out)	Z
• 8 Binary Inputs; 4 Analog Inputs 0 to 20 mA and 4 Analog Outputs 0 to 20 mA	F
• 8 Binary Inputs; 4 Analog Inputs 0 to 1 mA and 4 Analog Outputs -1 to 1 mA	G

Tropicalization Option

• None	Z
• Yes	T

Specials

• None	A
• Password protected and hardware lockable (lock enabled/disabled via jumper on comm card)	B
• EN50160 Compliance Monitoring (available on 9610 only)	C
• EN50160 Compliance Monitoring with password protected and hardware lockable (lock enabled/disabled via jumper on comm) (available on 9610 only)	D

Note 1 – The infrared and modem connections cannot be operated simultaneously. The connection type is configurable.
Note 2 – The listed modems are not suitable for European applications. Contact Siemens for special versions.

Power Distribution Solutions

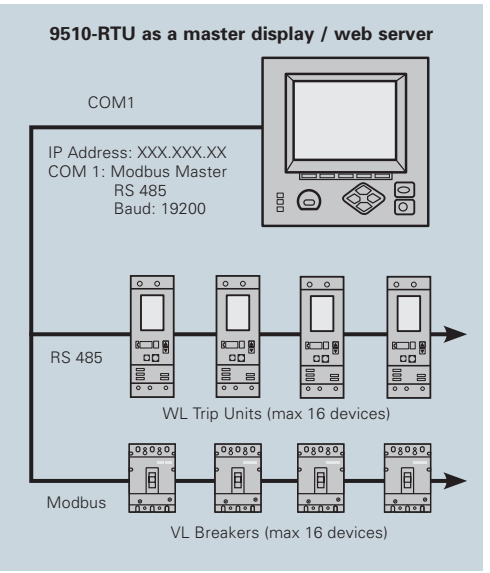
9510 RTU Data Concentrator

Siemens Advanced Data Recorder and Central Display

The **9510-RTU** unit can serve many uses through out a facility. This low-cost central display - data recorder can provide HTML web pages and customizable displays to allow easy access to the data and provide E-mail alarming for critical information. This multi-functional unit supports communications to any Modbus RTU device and digital / analog I/O, allowing the 9510-RTU to provide solutions for many different applications.

Features

- Monitor breaker status changes with 1ms resolution
- Collect, log, and scale pulse inputs from water, air, gas, electricity, or steam meters
- Act as an Ethernet gateway for serial devices
- Display Modbus slave information and make available as a web page
- Log and e-mail down stream Modbus device date
- Display trip unit data from WL, VL, Static Trip III① and SB-EC devices①
- Trigger and email alarms based on setpoint conditions
- Display feeder energy information for LEED certification
- Engineering service required to setup the 9510-RTU features



Catalog Number

9	5	1	0	E	C	1	R	T	U	G	Z	Z	A

Description

Meter base unit and display options

Option #1 – Meter with integrated display and 5MB logging memory	D
Option #2 – Meter with integrated display and 10MB logging memory	E
Option #3 – Meter without display, with a 5MB logging memory (TRAN version)	T
Option #4 – Meter without display with a 10MB logging memory (TRAN version)	U

Communications

ION / Modbus RTU - Factory configured for ION	C

Power Supply

85-240 Vac / Vdc	1
20-60 Vdc	2

No Display Option

Remote transducer option	R T U

Communication Cards

RS232/RS485 (Selectable)	RS485	Infrared (Note 1)	Modem (Notes 1 & 2)	10/100 Base-T	10/100 Base-FX	
•	•	•				A
•	•	•	•			C
•	•	•		•		G
•	•	•	•	•		H
•	•	•		•	•	J
•	•	•	•	•	•	K

Auxiliary I/O Cards

None (base meter includes 8 digital in and 7 digital out)	Z
8 binary inputs; 4 Analog Inputs 0 to 20 mA and 4 Analog Outputs 0 to 20 mA	F
8 binary inputs; 4 Analog Inputs 0 to 1 mA and 4 Analog Outputs -1 to 1 mA	G

Tropicalization Option

None	Z
Yes	T

Specials

Standard (password protected, no locking or sealing)	A

Note 1 – The infrared and modem connections cannot be operated simultaneously. The connection type is configurable.
Note 2 – The listed modems are not suitable for European applications. Contact Siemens for special versions.

Convenience and Reliability with Siemens Meter Enclosures

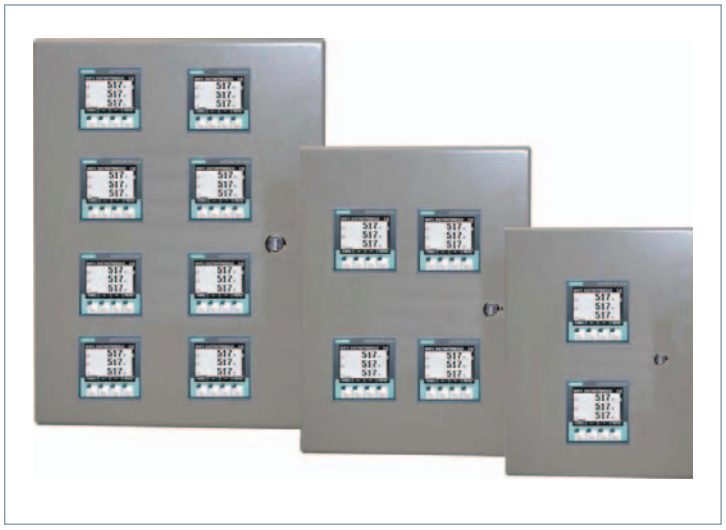
The Siemens meter enclosure offering is available to order with the SENTRON PAC series meters, the ACCESS series meters, and a combination of both power meter product offerings. The enclosed meter offering provides the required energy and basic metering information needed for a typical sub-billing / cost allocation application, as well as providing a simple retrofit solution for any project.

With Safety being paramount, Siemens has designed the meter enclosure product offering with many safety and convenience features in mind. These include a single circuit breaker for both the control voltage & voltage taps to protect internal wiring and the power meters from damage and allowing a "single source" disconnect from outside power, separate CT shorting blocks for each meter, a grounding lug, and the Modbus serial communications will be terminated to one location for ease of network installation.

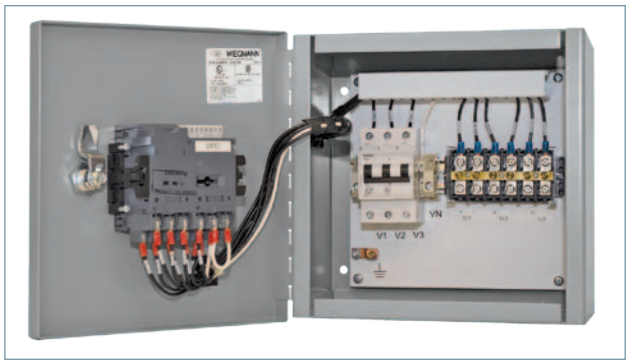
The Siemens meter enclosure solutions are delivered with all the required components pre-installed prior to shipment. All components will be mounted to a back plate in the enclosure and for applications above 240 volts, a CPT will be provided for control.

For low cost and simple tenant monitoring, sub-billing or industrial cost allocation, turn to Siemens metering units. Installed in rugged NEMA 1 or NEMA 12 enclosures, these metering units are ideal for:

- Property Management Firms
- Government Applications
- Universities
- Corporate Campus Facilities
- Malls
- Food Courts
- Building Retrofits



① PAC3100 standard is Modbus RTU.
② PAC3200 and PAC4200 Standard is Modbus TCP.
③ Modules not available on PAC3100.



Features:

- Rugged design and small footprint for easy installation
- Bright, easy-to-read LCD display
- Multiple configurations
- Packaged by voltage and current ratings to accommodate any installation
- Utilizes 5A secondary current input for improved accuracy and increased compatibility

Benefits:

- Replace multiple utility meters with one enclosure, saves wall space
- Consolidate utility bills for sub-billing and energy management, bill tenants on actual usage
- Improve energy efficiency
- Aggregate energy purchases for reduced rates
- Improve productivity when coupled with Siemens software solutions or third party billing software

Catalog Logic:

E N C L X X X X X X X X X

Meter
31 PAC3100 Series Meter①
32 PAC3200 Series Meter②
42 PAC4200 Series Meter②

Voltage
240 240V
480 480V

Type
01 NEMA 1 Enclosure
12 NEMA 12 Enclosure

Module
TC Standard
RT Modbus RTU③
PD PROFIBUS③
PN PROFINET③

Options
X Standard

Meter Enclosure Without Meter	
Catalog Number	**Description**
US2:ENCL3124001TCX	PAC3100,240V, NEMA1
US2:ENCL3148012TCX	PAC3100,480V, NEMA12
US2:ENCL3224001TCX	PAC3200,240V, NEMA 1
US2:ENCL3248012TCX	PAC3200,480V, NEMA12

Space Savings, Convenience, and Reliability with Siemens Branch Circuit Monitoring

In a world where tenant square footage is a premium in commercial building designs, the area for electrical metering is being drastically reduced, and critical power is being relied upon in data centers applications, Siemens Branch Circuit Monitoring provides the solution.

The Siemens Branch Circuit Monitoring Solution utilizes the metering and monitoring technology integrated into the space saving panelboards from Siemens. When compared to the typical external wall mounted metering installations, considerable savings in space, installation costs, and data collection are realized with the Siemens Branch Circuit Monitoring Solution.

In addition, contractor labor costs for installation of sub-metering systems continues to increase. Still, building owners and property management companies must face the challenges of how to cost effectively provide tenant sub-metering in the constrained spaces.

To meet the sub-metering challenges of designers, contractors and property management companies, Siemens offers a proven cost-effective solution for Branch Circuit Monitoring/Embedded Metering .This solution combines a fully integrated metering system factory installed into the Siemens Panelboards, Switchboards, Bus Plug and remote external wall mount enclosures, which along with the required local or remote sub-billing software, provides a "Total" sub-metering system.

Siemens Branch Circuit Monitoring / Embedded Metering Solution

- Saves you money – A tenant billing system improves cash flow, allows immediate pass-on of electric rate increases and helps building owners control costs. Tenants are confident they are paying their fair share for energy use and are saving money through energy conservation.
- Fast, low-cost installation – The embedded Siemens solution provides a faster and lower cost installation compared to other external systems.
- Lower space requirements – The embedded panelboard construction design requires no additional wall space to provide tenant metering. Conventional metering requires an external metering enclosure and possibly a current transformer transition cabinet.
- Reliable and accurate – Many Siemens systems are already in operation in large commercial and residential buildings around the country. Their accuracy exceeds utility industry and government standards for revenue grade meters.
- LEED certification – Provides the energy monitoring and logging required to achieve additional LEED points.
- Automated billing – With automated billing services the responsibility to acquire the data, store the data and bill the tenants is removed from the property management company, thus saving manpower and time.
- Responsive service – With remote monitoring, continuous 24/7 monitoring can be done by the property management company or tenants. The service can also relay consumption changes to the owners for immediate investigation.

Designer and contractor benefits include:

- Much smaller footprint versus the traditional socket meter combo units
- Factory pre-wired – less installation time
- Drastically less installation wiring
- No CT installation required in the field
- All equipment fits into the standard Siemens panel design
- Additional utilities like water, air and gas can be easily integrated into the system for a comprehensive monitoring system
- Hardwire and wireless communication options
- All components factory calibrated to meet revenue metering requirements
- Additional meters can be added in the field
- UL and CSA-us listed
- NY & CA State Approved Meter.
- Embedded web-server for on-site configuration and real time data view.
- Monitor 1 to 45 branch circuits.

Branch Circuit Monitoring applications include:

- Mixed Tenant & Retail
- Industrial Manufacturing
- Higher Ed
- Strip Malls
- Critical Power
- Goverment
- LEEDS buildings
- Airports

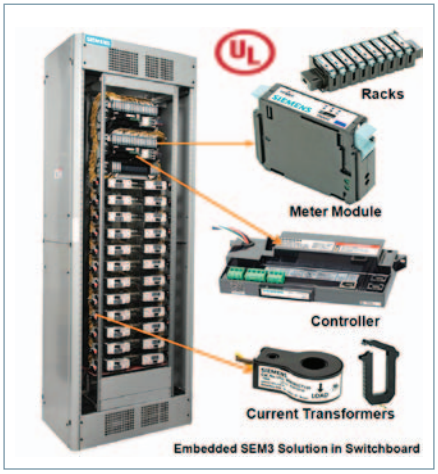
Please Contact Your Siemens Sales Engineer for additional information regarding Branch Circuit Monitoring / Embedded Metering

• Revised •
10/9/16

Powerful embedded metering at the source of consumption!

The new Siemens Embedded Micro Metering Module (SEM3) is a modular metering solution for energy monitoring, data analysis, and sub billing applications. The flexible design allows for low, medium, and high density metering requirements to be met efficiently and economically using only a few standardized components integrated into Siemens Panelboard and Switchboard products. SEM3 is pre-engineered to integrate into new Siemens Panelboards and Switchboards but has also been designed to be implemented in OEM and retrofit applications as well.

The SEM3 provides an innovative and cost effective metering solution that can be incorporated into existing applications such as power monitoring, building automation, and sub-billing systems. SEM3 also has the flexibility to be installed as a standalone solution with real time data available from the controller's standard built-in web pages. This metering product has two levels of accuracy to meet the market's differing requirements and price points. This versatile system allows you to meter just the loads you need without the excess hardware and space requirements of traditional or competing solutions.



Features & Benefits:

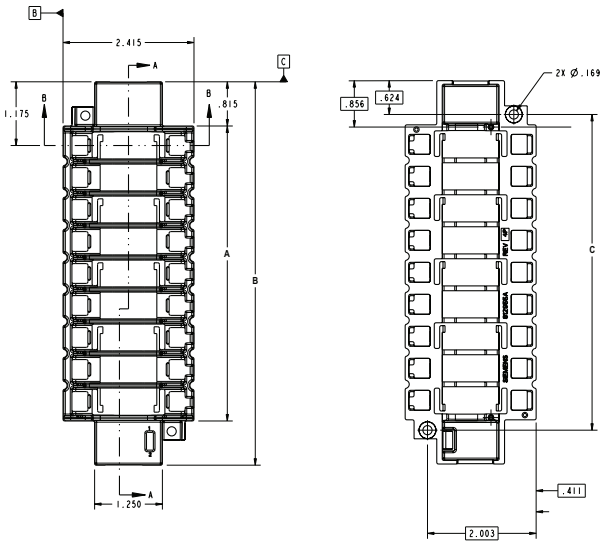
- System designed to meter up to 45 metering points
- Easy retrofit and plug-n-play expansion features
- High metering accuracy up to 0.2%; standard 1.0%
- Installed and configured in SIEMENS engineered Panel boards and Switchboards at Siemens plants. SIEMENS ONE SOLUTION!
- Built-in HTML web pages for easy configuration & real-time data monitoring for Voltage, Current, Power, Energy, Water, and, Gas
- Modbus RTU, Modbus TCP, SNMP, NTP, BACnet IP & MSTP protocols
- Utilizes milliamp CT's reducing hardware and increasing safety■ Built-in H
- Solid core CT's for high accuracy and split core CT's for easy retrofit.
- Emailing, Alarming, Trending, Totalizing, Event Logging & Data Logging
- Offline Configuration for improving Field and Factory engineering time
- 4 Language support includes English, German, French, and Spanish

Order Information

Controller	Catalog Number	
Main Controller	**US2:SEM3CONTROLLER**	
Meter Modules		
Meter - Standard Accuracy 1%	**US2:SEM3LAMETER**	
Meter - High Accuracy 0.2%	**US2:SEM3HAMETER**	
Meter - Standard Accuracy 1% with Pulse Output	**US2:SEM3PLAMETER**	
Meter - High Accuracy 0.2% with Pulse Output	**US2:SEM3PHAMETER**	
Meter Modules		
Meter Rack 3 Position	**US2:SEM3RACK3**	
Meter Rack 9 Position	**US2:SEM3RACK9**	
Meter Rack 15 Position	**US2:SEM3RACK15**	
Meter Rack 21 Position	**US2:SEM3RACK21**	
Cables		
Controller to Rack Cable - 6 Inch	**US2:SEM3CAB6INCH**	
Controller to Rack Cable - 12 Inch	**US2:SEM3CAB12INCH**	
Controller to Rack Cable - 24 Inch	**US2:SEM3CAB24INCH**	
Controller to Rack Cable - 36 Inch	**US2:SEM3CAB36INCH**	
Solid Core CT's		
Solid Core CT 50:0.1	**US2:SEM3SCCT50**	
Solid Core CT 125:0.1	**US2:SEM3SCCT125**	
Solid Core CT 250:0.1	**US2:SEM3SCCT250**	
Solid Core CT 400:0.1	**US2:SEM3SCCT400**	
Solid Core CT 600:0.1	**US2:SEM3SCCT600**	
Solid Core CT 800:0.1	**US2:SEM3SCCT800**	
Solid Core CT 1200:0.1	**US2:SEM3SCCT1200**	
Solid Core CT 1600:0.1①	**US2:SEM3SCCT1600**	
Solid Core CT 2000:0.1①	**US2:SEM3SCCT2000**	
Split Core CT's		
Split Core CT 50:0.1	**US2:4LSF0050**	
Split Core CT 125:0.1	**US2:4LSF0125**	
Split Core CT 250:0.1	**US2:4LSF0250**	
Split Core CT 400:0.1	**US2:4LSF0400**	
Split Core CT 600:0.1	**US2:4LSF0600**	
Split Core CT 800:0.1	**US2:4LSF0800**	
Split Core CT 1200:0.1	**US2:4LSF1200**	
Split Core CT 1600:0.1①	**US2:4LSF1600**	
Split Core CT 2000:0.1①	**US2:4LSF2000**	

① 1600 & 2000 Amp CT's may not currently be available. Please contact sales for availability.

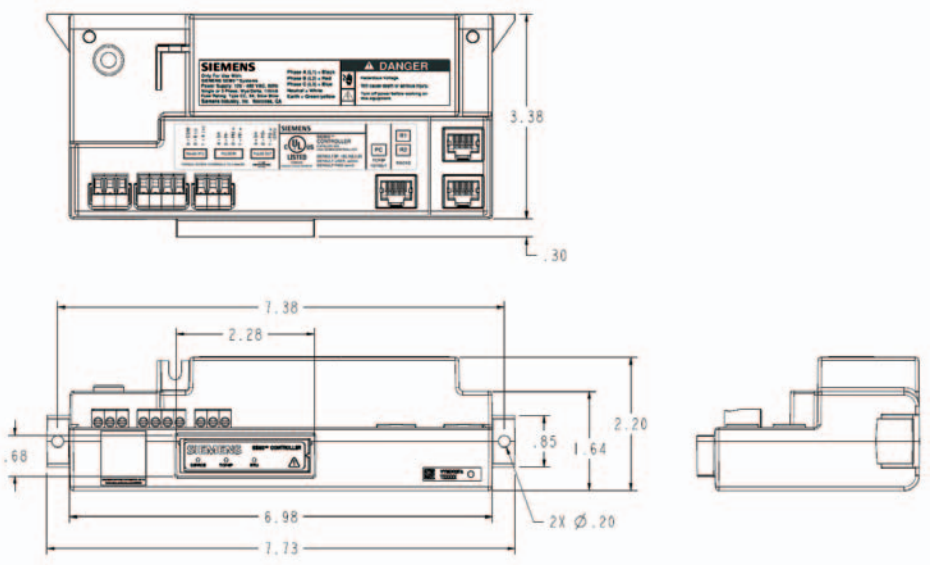
Meter Rack
(3, 9, 15, 21)



Meter Rack
(3, 9, 15, 21)

Catalog Number	Description	Variable Dimensions (inches)		
		A	B	C
US2:SEM3RACK3	3 position rack	1.900	3.570	2.282
US2:SEM3RACK6	6 position rack	3.670	5.340	4.050
US2:SEM3RACK9	9 position rack	5.440	7.070	5.822
US2:SEM3RACK15	15 position rack	8.980	10.610	9.362
US2:SEM3RACK21	21 position rack	12.520	14.150	12.902

Controller Dimensions



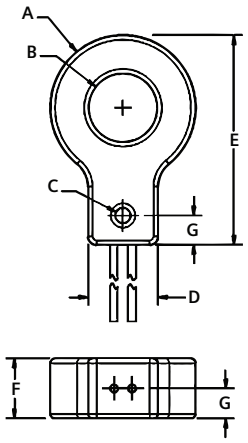
Controller

Catalog no.
US2:SEM3CONTROLLER

Current Transformer – Solid Core

Description	Catalog Number	Dimensions (Inches)						
		A	B	C	D	E	F	G
Solid Core CT 50:0.1	**US2:SEM3SCCT50**	1.4	0.38	0.2	0.92	2.12	0.74	0.37
Solid Core CT 125:0.1	**US2:SEM3SCCT125**	1.4	0.66	0.2	0.92	2.16	0.74	0.37
Solid Core CT 250:0.1	**US2:SEM3SCCT250**	1.9	0.93	0.2	0.92	2.75	0.78	0.39
Solid Core CT 400:0.1	**US2:SEM3SCCT400**	2.62	1.6	0.2	0.92	3.62	0.78	0.39
Solid Core CT 600:0.1	**US2:SEM3SCCT600**	3.74	2.30	0.24	0.92	4.66	0.78	0.39
Solid Core CT 800:0.1	**US2:SEM3SCCT800**	4.05	2.60	0.24	0.92	5.05	.0.98	0.49
Solid Core CT 1200:0.1	**US2:SEM3SCCT1200**	4.56	2.80	0.24	0.92	5.57	0.98	0.49
Solid Core CT 1600:0.1	**US2:SEM3SCCT1600**①	4.50	4.5	6.65	7.05	1.13	—	—
Solid Core CT 2000:0.1	**US2:SEM3SCCT2000**①	4.50	4.50	6.65	7.05	1.13	—	—

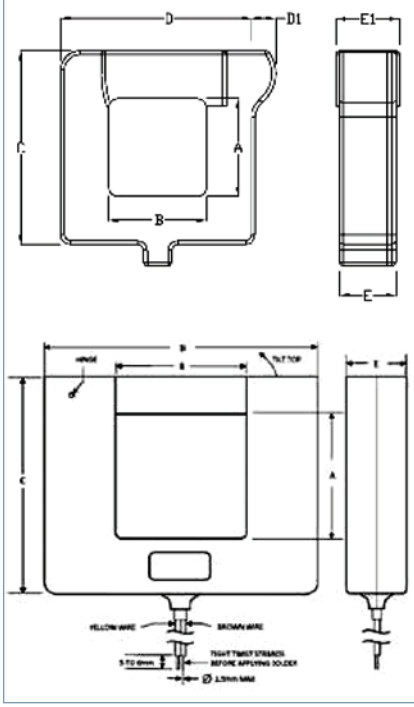
Current Transformer – Solid Core



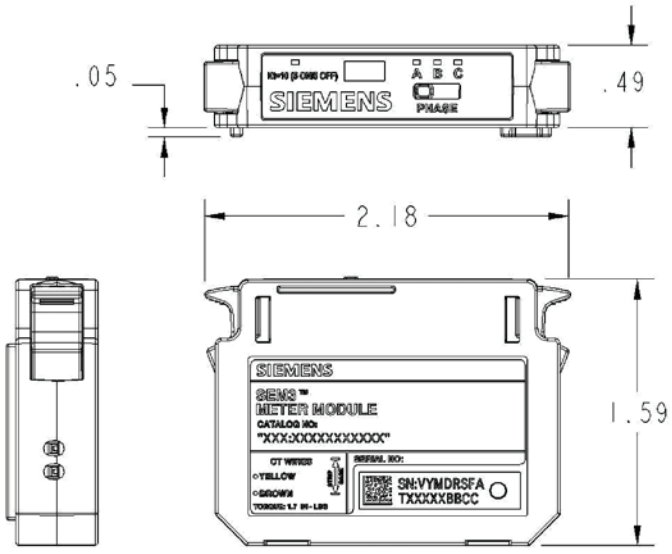
Current Transformer – Split Core

Description	Catalog Number	A	B	C	D	E
50A Split Core CT	**US2:4LSF0050**	0.69	0.5	2.32	2.59	0.97
125A Split Core CT	**US2:4LSF0125**	0.83	0.73	2.38	2.58	0.93
250A Split Core CT	**US2:4LSF0250**	1.18	1.01	2.87	3.25	1.14
400A Split Core CT	**US2:4LSF0400**	1.57	1.48	3.66	3.75	1.14
600A Split Core CT	**US2:4LSF0600**	2.17	2.14	4.32	4.72	1.15
800A Split Core CT	**US2:4LSF0800**	3.14	3	5.27	5.56	1.16
1200A Split Core CT	**US2:4LSF1200**	3.02	3.27	5.69	6.48	1.48
1600A Split Core CT	**US2:4LSF1600**①	4.50	4.50	6.65	7.05	1.13
2000A Split Core CT	**US2:4LSF2000**①	4.50	4.50	6.65	7.05	1.13

Current Transformer – Split Core



Meter Module



Meter Module

Description	Catalog No.
Meter - Standard Accuracy 1%	US2:SEM3LAMETER
Meter - High Accuracy 0.2%	US2:SEM3HAMETER
Meter - Standard Accuracy 1% with Pulse Output	US2:SEM3PLAMETER②
Meter - High Accuracy 0.2% with Pulse Output	US2:SEM3PHAMETER②

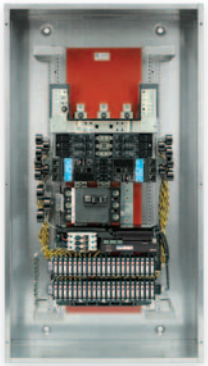
1600 & 2000 Amp CT's may not currently be available. Please contact sales for availability.
For Pulse output meter modules, please contact Sales for availability.

SEM3 System configured in Panelboards

The Siemens SEM3 system can be configured for factory installation in branch circuit monitoring applications using the Siemens COMPAS configuration tool. This option can lower the installation time of the system for the installer while providing a factory warrantied solution.

The SEM3 system can be factory installed in unit space in type P2, P4, & P5 Siemens panel boards and SB1, SB2, & SB3 type Siemens switchboards. Please note P1 and P3 configurations are not available at this time and the amount of unit space needed varies depending upon the application. Please note that lead time adders will apply and may vary depending upon the configuration of the system.

SEM3 for use in Siemens Panelboards

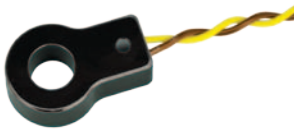


Type P2: Enclosure

- Available in a NEMA 1, 3R, or 12 rated enclosure.
- Minimum width & depth: 24" width x 5.75" depth
- Height: Up to 74" depending on branch breaker selection
  - – Addition of monitoring on some mains (primary and subfeed) may require additional box length. In these cases the box will be increased to the next size available as a standard design.
  - – In cases where enclosure size is increased all multi-section panels will be increased to match the largest section.

Controller

SEM3 controller is mounted in unit space opposite of the feed location specified in COMPAS (i.e., bottom mount for top feed) and will require 3" of unit space. Each controller will be powered by direct tap connection to the panel section bus. Each controller can monitor up to 45 circuits. Applications that require monitoring more than 45 circuits will require additional controllers.



Current Transformers (CTs)

Five sizes of CTs are available for use in the P2 panel: 50, 125, 250, 400 & 600 amp. All CTs are pre-mounted to a support bracket that attaches to the base rail of the interior of the panel board. Each bracket supports a maximum of 3 CTs and is designed for the breaker selected (brackets are not interchangeable between breaker frames). Each CT will be attached to a data module that is placed in the meter racks.

Meter Racks

Each meter rack requires 3" of unit space. All meter racks will be installed next to the SEM3 controller in unit space. The COMPAS configuration tool will select the appropriate meter rack configuration according to the user's application and will use the 21 space meter rack as a default option where possible. Only one meter rack (regardless of number of positions) can be installed in 3" of unit space.

NOTE: Monitoring of 45 circuits will require 9" of unit space: two 21 position racks and one 3 position rack

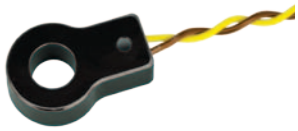
SEM3 System configured in Distribution Panels and Switchboards

The information below pertains to panelboard types P4, P5 and switchboard types SB2, and SB3. Please note SEM3 is not available for P3 panelboards or SB1 switchboards. SEM3 is available in NEMA type 1, 3R, and 12 enclosures. SEM3 specifics to P4, P4, SB2, and SB3 are:

SEM3 for use in Siemens Switchboards

Controller

SEM3 controller is mounted in unit space. For P4 and P5 panels it will be mounted opposite of the feed location specified in COMPAS (i.e., bottom mount for top feed). The controller will require 3.75" of unit space in P4/5 and SB2/3. Each controller will be powered by direct tap connection to the section bus and can monitor up to 45 circuits. Applications that require monitoring more than 45 circuits will require additional controllers. For multi-section applications each controller will only be connected to meter racks in the same section as the controller.



Current Transformers (CTs)

Six sizes of CTs are available for use in P4/5 & SB2/3 applications: 50, 125, 250, 400, 600, and 1200 amp. All CTs are pre-mounted to a support bracket that attaches to the interior. Each bracket supports a maximum of 3 CTs and is designed for the breaker selected (brackets are not interchangeable between breaker frames). Each CT will be attached to a data module that is placed in the meter racks.

Meter Racks

Each meter rack requires 3.75" of unit space. All meter racks will be installed next to the SEM3 controller in unit space. The COMPAS configuration tool will select the appropriate meter rack configuration according to the user's application and will use the 21 space meter rack as a default option where possible. Only one meter rack (regardless of number of positions) can be installed in 3.75" of unit space. For multi-section applications each rack will only be connected to data modules from CTs in that section. Racks will not be setup to monitor CTs from adjacent sections.

NOTE: Monitoring of 45 circuits will require 9" of unit space: two 21 position racks and one 3 position rack

Other Considerations

Configuration: Data modules from CTs monitoring a circuit breaker must be mounted adjacent to one another in the meter rack. Any field changes to the factory configuration must take this into account.

Start-up & Commissioning: Siemens can provide these services. Contact your local SIEMENS PDS Power Solutions Business Developer for more details.

Billing Services for sub billing applications: Billing services are available. Contact your local SIEMENS PDS Power Solutions Business Developer for more details.

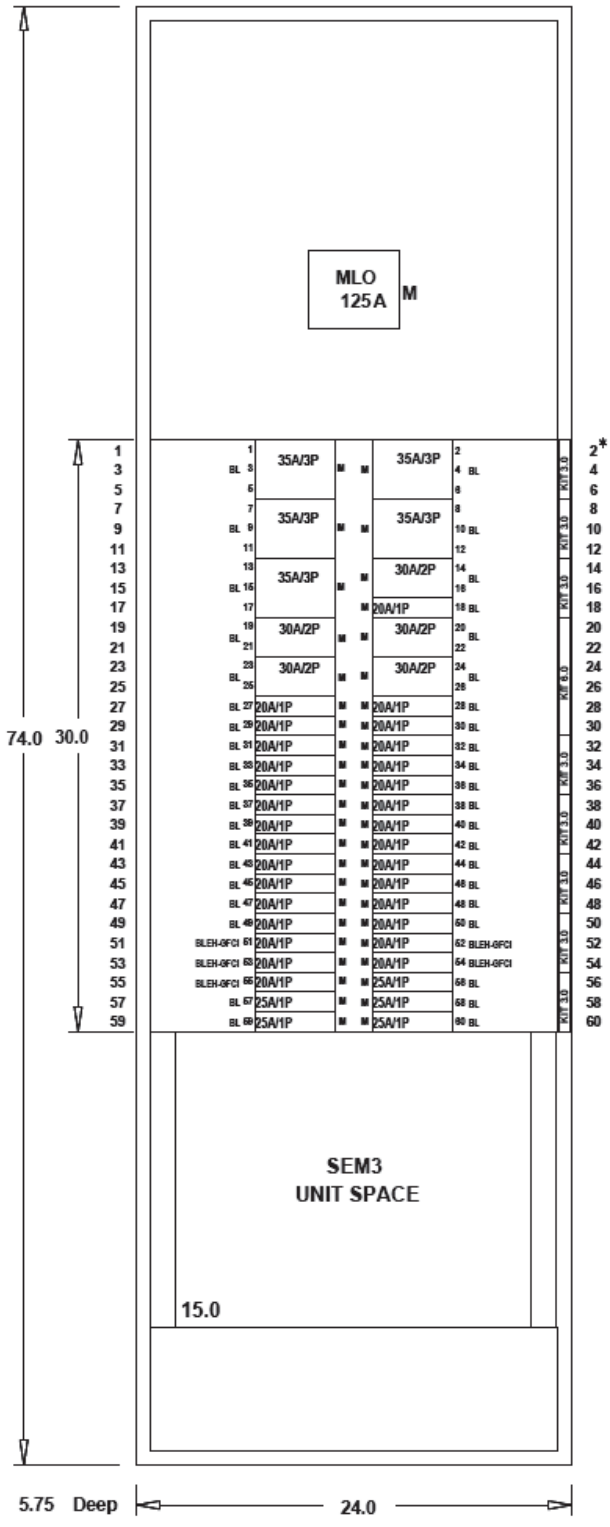
• Revised •
11/17/16

P2 Devices
Enclosure sizes

Example P2 Panel with SEM3 Type 1 Enclosure (24" Wide x 5.75" Deep)

Enclosure heights are in 6" increments from 26" thru 74".
Enclosure heights: 26", 32", 38", 44", 50", 56", 62", 68", 74"

The COMPAS configuration tool can provide actual dimensions based on the configuration.
Example below is largest standard P2 enclosure for factory assembled panel
with all small (1") branch breakers installed.



24" std. width

Main Breaker / Main Lug space varies based on selected options

Unit space varies based on selected options

Note: All circuits do not have to be monitored by SEM3 - user can select any circuits in this space to be monitored.

Based on smallest branch breakers and a 3-phase main being monitored.
There is a maximum of 63 circuits that can be monitored with the configuration shown.
Some selections of main breakers and other subfeed options could limit this further.

In this situation there is 30" of unit space available - so 60 branch circuits could be monitored.
If monitoring the main three additional circuits could be monitored with a total of 63 circuits.

This requires two controllers and three 21 position racks using 15" of unit space.
- see below -

SEM3 space varies by number of circuits monitored - this uses unit space.

== > 6" of space for up to 21 circuits monitored
one controller and one 21-pos rack

== > 9" of space for up to 42 circuits monitored
one controller and two 21-pos racks

== > 12" of space for up to 45 circuits monitored
one controller and two 21-pos racks plus one 3-pos rack

== > 15" of space for up to 63 circuits monitored
two controllers and three 21-pos racks

Note: If subfeed space is needed - it will take away from available unit space.

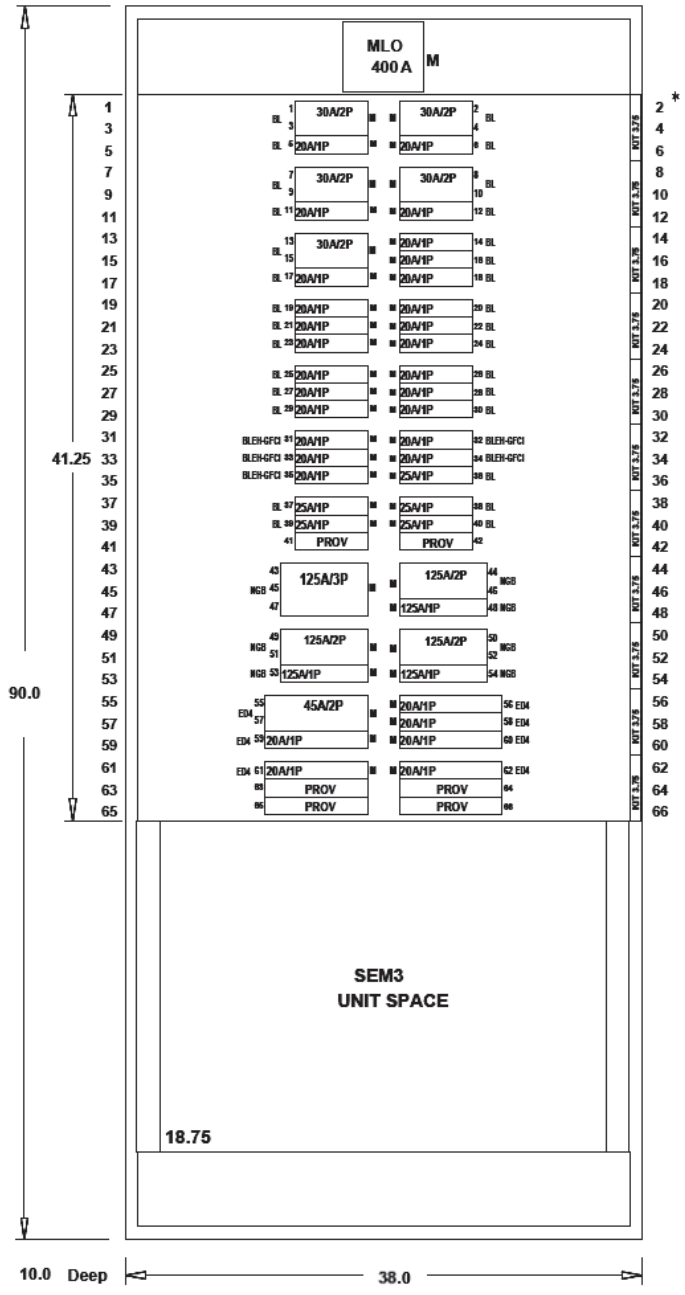
• Revised •
11/17/16

P4 and P5 Devices
Enclosure sizes

Example P4 and P5 Panel with SEM3 Type 1 Enclosure
P4 = (32" Wide x 10" Deep)
P5 = (38" or 46" Wide x 10" Deep)

Enclosure heights are in 15" increments from 60" thru 90".
Enclosure heights: 60", 75", 90" (there are optional depths also)

The COMPAS configuration tool can provide actual dimensions based on the configuration. Example below is largest standard P4 enclosure for factory assembled panel - unit space is in 3.75" increments - up to 6 circuits can occupy each 3.75" of unit space.



32" std. width for P4

Main Breaker / Main Lug space varies based on selected options

Unit space varies based on selected options

Note: All circuits do not have to be monitored by SEM3 - user can select any circuits in this space to be monitored.

Based on smallest branch breakers and a 3-phase main being monitored. There is a maximum of 63 circuits that can be monitored with the configuration shown. Some selections of main breakers and other subfeed options could limit this further.

In this situation there is 37.5" of unit space available - so 60 branch circuits could be monitored.
If monitoring the main three additional circuits could be monitored with a total of 63 circuits.

This requires two controllers and three 21 position racks using 18.75" of unit space.
- see below -

SEM3 space varies by number of circuits monitored - this uses unit space.

== > 7.5" of space for up to 21 circuits monitored
one controller and one 21-pos rack

== > 11.25" of space for up to 42 circuits monitored
one controller and two 21-pos racks

== > 15" of space for up to 45 circuits monitored
one controller and two 21-pos racks plus one 3-pos rack

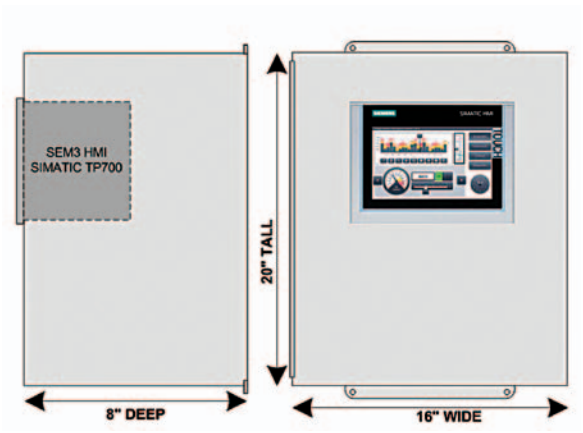
== > 18.75" of space for up to 63 circuits monitored
two controllers and three 21-pos racks

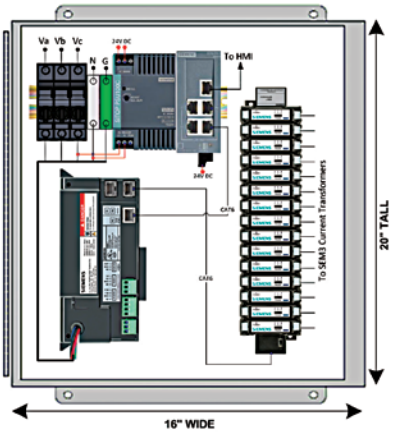
Note: If subfeed space is needed - it will take away from available unit space.

• Revised •
11/17/16

Standard Enclosures for External Applications

Typical SEM3™ with display example





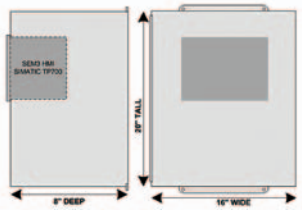
The SEM3 standalone enclosure is ideal for retrofit/external wall mount applications, as it requires minimal modification of existing systems while gaining full functionality of the SEM3 branch circuit monitoring solution. Installation of the required milliamp current transformers (CT) is minimized by utilizing the Siemens Split Core CTs ranging from 50 to 1200 amps. See "Split Core CT" section.

SEM3 standard enclosures are available with NEMA 1, 4 and 12 r atings. The SEM3 meter enclosure is shipped with all the required components installed. The control voltage is wired to a fusible disconnect switch to protect the system and to provide a disconnect from outside power to the meter. SEM3 CTs are self shorting, not requiring a shorting block in the enclosure/panel. The enclosure has a ground lug for equipment grounding. When the control voltage is greater than 480 volts, a CPT is provided between the disconnect switch and SEM3 controller. The enclosure is pre-drilled to make mounting quick and easy.

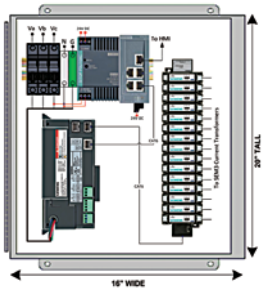
The standard enclosure comes with the controller, power supply, disconnect, meter racks, communication cables, and shor ting blocks. Meter modules and CTs are added separately. As mentioned previously, the display is available as an option.

No Display Standard Enclosure for External Application – HMI, SEM3 Meter Modules, and CT's are not included

Description	Catalog Numbers
SEM3 3M ENCL Type 1 16T x 12W X 6D	US2:SEM303ENCL1
SEM3 3M ENCL Type 12 16T x 12W X 6D	US2:SEM303ENCL12
SEM3 3M ENCL Type 4 16T x 12W X 6D	US2:SEM303ENCL4
SEM3 9M ENCL Type 1 16DT x 12W X 6D	US2:SEM309ENCL1
SEM3 9M ENCL Type 12W 16DT x 12W X 6D	US2:SEM309ENCL12
SEM3 9M ENCL Type 4 16DT x 12W X 6D	US2:SEM309ENCL4
SEM3 15M ENCL Type 1 16DT x 12W X 6D	US2:SEM315ENCL1
SEM3 15M ENCL Type 12W 16DT x 12W X 6D	US2:SEM315ENCL12
SEM3 15M ENCL Type 4 16DT x 12W X 6D	US2:SEM315ENCL4
SEM3 18M ENCL Type 1 20T x 12W x 6D	US2:SEM318ENCL1
SEM3 18M ENCL Type 12W 20T x 12W x 6D	US2:SEM318ENCL12
SEM3 18M ENCL Type 4 20T x 12W x 6D	US2:SEM318ENCL4
SEM3 21M ENCL Type 1 20T x 12W x 6D	US2:SEM321ENCL1
SEM3 21M ENCL Type 12W 20T x 12W x 6D	US2:SEM321ENCL12
SEM3 21M ENCL Type 4 20T x 12W x 6D	US2:SEM321ENCL4
SEM3 30M ENCL Type 1 20T x 16W x 6.62D	US2:SEM330ENCL1
SEM3 30M ENCL Type 12W 20T x 16W x 6.62D	US2:SEM330ENCL12
SEM3 30M ENCL Type 4 20T x 16W x 6.62D	US2:SEM330ENCL4
SEM3 42M ENCL Type 1 20T x 16W x 6.62D	US2:SEM342ENCL1
SEM3 42M ENCL Type 12W 20T x 16W x 6.62D	US2:SEM342ENCL12
SEM3 42M ENCL Type 4 20T x 16W x 6.62D	US2:SEM342ENCL4
SEM3 45M ENCL Type 1 20T x 16W x 6.62D	US2:SEM345ENCL1
SEM3 45M ENCL Type 12W 20T x 16W x 6.62D	US2:SEM345ENCL12
SEM3 45M ENCL Type 4 20T x 16W x 6.62D	US2:SEM345ENCL4



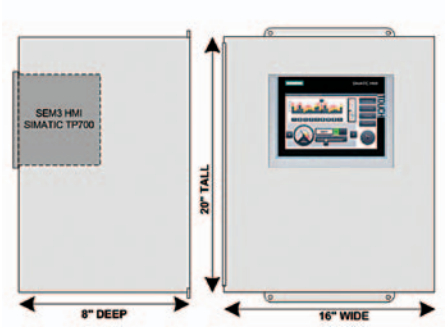
SEM3 Enclosure without display



SEM3 Enclosure without meter modules installed

Standard Enclosure with HMI Display & Switch for External Application – SEM3 Meter Modules, and CT's are not included

Description	Catalog Numbers
SEM3 3M w/display/switch 16 x 16 x 6.5	US2:SEM303ENCL1DS
SEM3 3M w/display 16 x 16 x 6.5	US2:SEM303ENCL1D
SEM3 9M w/display/switch 16 x 16 x 6.5	US2:SEM309ENCL1DS
SEM3 9M w/display 16 x 16 x 6.5	US2:SEM309ENCL1D
SEM3 15M w/display/switch 20 x 16 x 8	US2:SEM315ENCL1DS
SEM3 15M w/display 20 x 16 x 8	US2:SEM315ENCL1D
SEM3 18M w/display/switch 20 x 16 x 8	US2:SEM318ENCL1DS
SEM3 18M w/display 20 x 16 x 8	US2:SEM318ENCL1D
SEM3 21M w/display/switch 20 x 16 x 8	US2:SEM321ENCL1DS
SEM3 21M w/display 20 x 16 x 8	US2:SEM321ENCL1D
SEM3 30M w/display/switch 20 x 20 x 8	US2:SEM330ENCL1DS
SEM3 30M w/display 20 x 20 x 8	US2:SEM3301ENCL1D
SEM3 42M w/display/switch 20 x 20 x 8	US2:SEM342ENCL1DS
SEM3 42M w/display 20 x 20 x 8	US2:SEM342ENCL1D
SEM3 45M w/display/switch 20 x 20 x 8	US2:SEM345ENCL1DS
SEM3 45M w/display 20 x 20 x 8	US2:SEM345ENCL1D



Remote Touch Display Enclosure Package - No SEM3 parts included

Description	Catalog Numbers
SEM3 ENCL 7" Touch Display 24 VDC/1.3 Amp Power Supply	US2:SEM3TP7SEN
SEM3 ENCL 7" Touch Display 24 VDC/1.3 Amp PS UL Listed	US2:SEM3TP7SENUL
SEM3 ENCL 7" Touch Display 24 VDC/1.3 Amp PS + 8 Port Switch	US2:SEM3TP7AEN
SEM3 ENCL 7" Touch Display 24 VDC/1.3 Amp PS + 8 Port Switch UL Listed	US2:SEM3TP7AENUL
SEM3 ENCL 9" Touch Display 24 VDC/1.3 Amp Power Supply	US2:SEM3TP9SEN
SEM3 ENCL 9" Touch Display 24 VDC/1.3 Amp PS UL Listed	US2:SEM3TP9SENUL
SEM3 ENCL 9" Touch Display 24 VDC/1.3 Amp PS + 8 Port Switch	US2:SEM3TP9AEN
SEM3 ENCL 9" Touch Display 24 VDC/1.3 Amp PS + 8 Port Switch UL Listed	US2:SEM3TP9AENUL
SEM3 ENCL 12" Touch Display 24 VDC/1.3 Amp Power Supply	US2:SEM3TP12SEN
SEM3 ENCL 12" Touch Display 24 VDC/1.3 Amp PS UL Listed	US2:SEM3TP12SENUL
SEM3 ENCL 12" Touch Display 24 VDC/1.3 Amp PS + 8 Port Switch	US2:SEM3TP12AEN
SEM3 ENCL 12" Touch Display 24 VDC/1.3 Amp PS + 8 Port Switch UL Listed	US2:SEM3TP12AENUL

Optional Loose Remote Touch Display and Power Supply

Description	Catalog Numbers
SEM3 7" TD 100-240VAC + SITOP PS 24VDC	US2:SEM3TOUCHP7
SEM3 9" TD 100-240VAC + SITOP PS 24VDC	US2:SEM3TOUCHP9
SEM3 12" TD 100-240VAC + SITOP PS 24VDC	US2:SEM3TOUCHP12
SEM3 15" TD 100-240VAC + SITOP PS 24VDC	US2:SEM3TOUCHP15
SEM3 19" TD 100-240VAC + SITOP PS 24VDC	US2:SEM3TOUCHP19

MD BM and MD BMD Model Power Meters

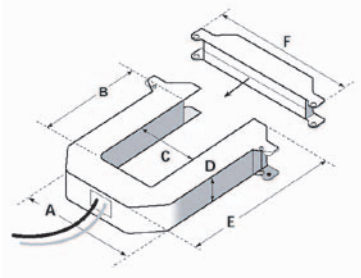
Siemens Industry's MD BM and MD BMD Model Power Meters are sub metering devices designed to provide real time, accurate electricity metering to enable proper control over energy costs. The meter can capture kWh/kW energy and demand data, as well as virtually all relevant energy parameters for diagnostics and monitoring on three-phase or single- phase circuit installations. The meters' flexibility, size, and ease-of-use make them ideal tools for gathering detailed consumption information in commercial, industrial, governmental, and retail environments. The meters use direct connections to each phase of the voltage and various interchangeable current transformer (CT) options such as split-core CTs or flexible Rogowski Coils (for large loads or large cables and buss bars) to monitor current on each phase. All of Siemens' current transformers are internally shunted for intrinsically safe operation on energized conductors.

The power meters make over 75 total electrical measurements which are derived from the voltage and current inputs. Electrical load diagnostic parameters such as power factor and line frequency are captured in addition to energy and demand values. The Siemens MD BM and MD BMD Power Meters require no external power and the power supplies can accommodate service voltages ranging from 80 to 600V (phase-to-phase). The simple installation is accomplished by connecting the color-coded voltage leads and clearly labeled CTs. A three-LED indicator display confirms proper CT-to-phase installation. The meters automatically adjust for CT orientation—greatly reducing set-up time and all but eliminating installation errors.

Product Description	Catalog Number
MD Meter BACnet-Modbus	**US2:MDBM**
MD Meter Modbus-BACnet IP	**US2:MDBMIP**
MD Meter BACnet-Modbus w/display	**US2:MDBMD**
MD Meter Modbus-BACnet IP w/display	**US2:MDBMIPD**
Mini SplitCore 0.4 Opening 50A	**US2:SCTHSC0050U**
Mini SplitCore 0.4 Opening 100A	**US2:SCTHMC0100U**
Mini SplitCore 0.4 Opening 200A	**US2:SCTHMC0200U**
Small SplitCore 0.75 Opening 50A	**US2:SCTSCS0050U**
Small SplitCore 0.75 Opening 100A	**US2:SCTSCS0100U**
Medium SplitCore 1.25 Opening 100A	**US2:SCTSCM0100U**
Medium SplitCore 1.25 Opening 200A	**US2:SCTSCM0200U**
Medium SplitCore 1.25 Opening 400A	**US2:SCTSCM0400U**
Medium SplitCore 1.25 Opening 600A	**US2:SCTSCM0600U**
Large SplitCore 2.00 Opening 600A	**US2:SCTSCL0600U**
Large SplitCore 2.00 Opening 1000A	**US2:SCTSCL1000U**
Rogowski Coil Current Transformer, 16" (40 cm); 4.5" (11.5 cm) opening; 4000A	**US2:SCTR161310U**
Rogowski Coil Current Transformer, 24" (60 cm); 7.0" (18 cm) opening; 4000A	**US2:SCTR241310U**
Rogowski Coil Current Transformer, 36" (90 cm); 10.8 (28 cm) opening; 4000A	**US2:SCTR361310U**

Comprehensive metering grade CT offering spilt-core, flexible and solid core designs

Split core – Rectangular Window

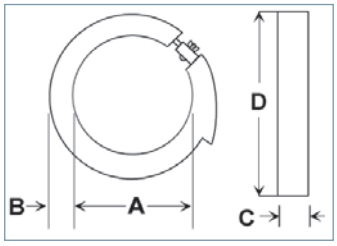


Siemens Instrument Grade Current Transformers (CT) have a split-core construction and provide a safe 5A secondary output. These split-core current transformers allow for easy installation, retrofit, and service. CT's come with 4' leads (18 gauge). Use on low voltage applications of 600V or less.
Accuracy 0.5%.

200A – 300A	400A – 800A	1000A – 1200A
A = 3.75″ (95mm)	A = 4.90″ (124mm)	A = 4.90″ (124mm)
B = 1.51″ (38mm)	B = 2.89″ (73mm)	B = 5.50″ (140mm)
C = 1.25″ (32mm)	C = 2.45″ (62mm)	C = 2.45″ (62mm)
D = 1.13″ (29mm)	D = 1.13″ (29mm)	D = 1.13″ (29mm)
E = 4.20″ (107mm)	E = 5.57″ (141mm)	E = 8.13″ (207mm)
F = 4.75″ (121mm)	F = 5.91″ (150mm)	F = 5.92″ (150mm)

Amps	Window (C x B)	Catalog Number
100A	1.25″x1.15″	**PDS-CTSC-011**
200A	1.25″x1.51″	**PDS-CTSC-021**
300A	1.25″x1.51″	**PDS-CTSC-031**
400A	2.45″x2.89″	**PDC-CTSC-042**
600A	2.45″x2.89″	**PDS-CTSC-062**
800A	2.45″x2.89″	**PDS-CTSC-083**
1000A	2.45″x5.50″	**PDS-CTSC-013**
1200A	2.45″x5.50″	**PDS-CTSC-123**
1600A	2.45″x5.50″	**PDS-CTSC-163**
2000A	2.45″x5.50″	**PDS-CTSC-200**
3000A	2.75″x6.625″	**PDS-CTSC-03R**

Split-core – Round Window



Split-core round rubber insulated flexible CT's with 12' heavy duty leads (18 AWG) and 5A secondary output for use on low voltage applications of 600V.
Accuracy is 4% for 200/400A, 3% for 400A, and 2% for 600A and above.

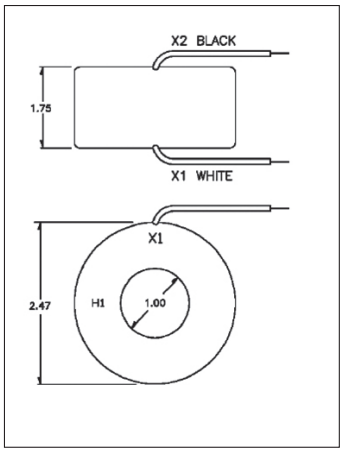
200A – 1200A	3000A – 4000A
A = 4.00″	A = 6.00″
B = 1.25″	B = 1.25″
C = 1.50″	C = 1.50″
D = 6.50″	D = 8.50″

Amps	Window (A)	Catalog Number
200A	4.00″	**PDS-CTHC-024**
300A	4.00″	**PDS-CTHC-034**
400A	4.00″	**PDC-CTHC-044**
600A	4.00″	**PDS-CTHC-064**
800A	4.00″	**PDS-CTHC-084**
1200A	4.00″	**PDS-CTSC-123**
2000A	6.00″	**PDS-CTHC-206**
3000A	6.00″	**PDS-CTHC-306**
4000A	6.00″	**PDS-CTHC-406**

Comprehensive metering grade CT offering spilt-core, flexible and solid core designs

Solid-core – Round with Round Window

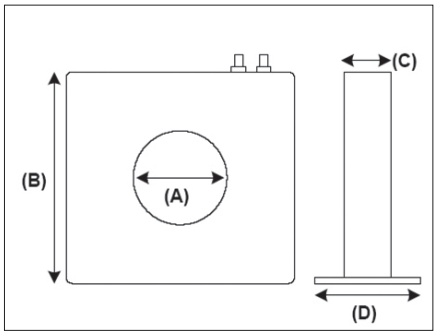
The small size solid core Current Transformer (CT) are designed for tight locations and new installations providing a safe 5 amp secondary for use on voltage applications of 600V or less.
Accuracy is 0.3%.



Solid core – Round metering grade, 600V		
Catalog Number	**Primary**	**Size**
SMU-CT-011	100A	1.75″ x 2.47″, 1″ Window
SMU-CT-021	200A	1.75″ x 2.47″, 1″ Window
SMU-CT-025	250A	1.75″ x 2.47″, 1″ Window
SMU-CT-031	300A	1.75″ x 2.47″, 1″ Window
SMU-CT-041	400A	1.1″ x 3.56″, 1.56″ Window
SMU-CT-061	600A	1.1″ x 3.56″, 1.56″ Window
SMU-CT-081	800A	1.1″ x 3.56″, 1.56″ Window
SMU-CT-123	1000A	1.1″ x 3.56″, 1.56″ Window
SMU-CT-02R	2000A	1.15″ x 5.73″, 3.25″ Window

Solid-core – Square with Round Window

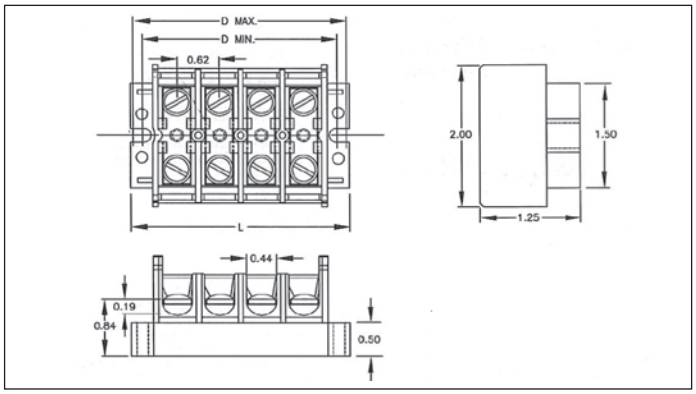
Siemens Instrument Grade Current Transformers (CT) are designed as solid-core construction and provide a safe 5A secondary output. Solid-core CT's come with terminals for attaching leads. Use on low voltage applications of 600V or less.
Accuracy is 0.3%.



Amps	Dimension (A x B x C x D)	Catalog Number
200:5	1.25″ x 4.88″ x 2.19″ x 4.68″	**PDS-CTRC-021**
300:5	1.25″ x 4.88″ x 2.19″ x 4.68″	**PDS-CTSC-031**
400:5	1.25″ x 4.88″ x 2.19″ x 4.68″	**PDS-CTRC-041**
500:5	1.25″ x 5.10″ x 3.00″ x 5.50″	**PDC-CTRC-051**
600:5	1.25″ x 5.10″ x 3.00″ x 5.50″	**PDS-CTRC-061**
800:5	1.25″ x 5.10″ x 3.00″ x 5.50″	**PDS-CTRC-081**
1000:5	1.25″ x 5.10″ x 3.00″ x 5.50″	**PDS-CTRC-101**
100:5	2.25″ x 6.31″ x 3.00″ x 5.82″	**PDS-CTRC-012**
200:5	2.25″ x 6.31″ x 3.00″ x 5.82″	**PDS-CTRC-022**
300:5	2.25″ x 6.31″ x 3.00″ x 5.82″	**PDS-CTRC-032**
400:5	2.25″ x 6.31″ x 3.00″ x 5.82″	**PDS-CTRC-042**
800:5	4.00″ x 6.44″ x 3.25″ x 3.25″	**PDS-CTRC-084**
1000:5	4.00″ x 6.44″ x 3.25″ x 3.25″	**PDS-CTRC-104**
1200:5	4.00″ x 6.44″ x 3.25″ x 3.25″	**PDS-CTRC-124**
1600:5	4.00″ x 6.44″ x 3.25″ x 3.25″	**PDS-CTRC-164**
2000:5	4.00″ x 6.44″ x 3.25″ x 3.25″	**PDS-CTRC-204**
3200:5	6.50″ x 9.88″ x 7.00″ x 7.00″	**PDS-CTRC-326**
4000:5	6.50″ x 9.88″ x 7.00″ x 7.00″	**PDS-CTRC-426**

Shorting Block

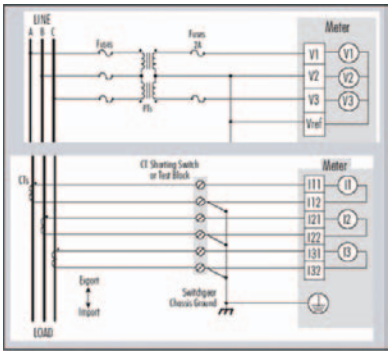
All low voltage current transformers should be installed with a shorting block to allow for easy removal of the metering unit and to provide a safe method for disconnecting the CT signal. One shorting block is required per meter. Various size shorting blocks are available; 4, 6, and 8 pole configurations are available with four slotted shorting screws and cover. Wire size is 18-10 AWG.



Catalog Number		Mounting		
	Ckts.	L	D min.	D max.
IKU4SC	4	3.25	2.88	3.00
IKU6SC	6	4.50	4.12	4.25
IKU8SC	8	5.75	5.38	5.50
IKU12SC	12	8.25	7.88	8.00

Typical electrical meter CT and shorting block installation

This example shows a common three phase, three wire installation where three CT's and one shorting block are used.

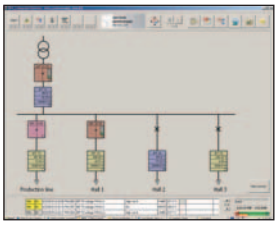


Power Distribution Solutions

Powermanager

A power management system that can be customized to your needs. View and control your facilities' infrastructure condition from anywhere.





SENTRON Powermanager software, combined with Siemens power meters and low voltage protective devices, provides a complete energy management solution for your business. It allows you to measure, process, analyze, store and share energy usage and status information across your entire enterprise. It offers control capabilities, comprehensive energy usage and reliability, and detailed reporting that will help you reduce energy related costs.

Cost allocation and Sub-billing Reports

Cost allocation and sub-billing functionality in the Powermanager software allows the user to track energy related costs by building, floor, tenant, feeder or location. Match virtually any fixed rate billing structure and use comprehensive multi-year scheduling and time-of-use features to manage the energy costs.

Load Studies and Asset Management

Trend power usage data to take full advantage of your electrical distribution system capacity and avoid over-design. Create usage profiles that will allow you to distribute loads and avoid demand peak which helps to identify energy leaks such as equipment running during down time.

Equipment Monitoring and Control

Powermanager allows you to meter all your utilities including gas, steam, air and water and set up general condition alarming and pre-event alarms for impending or imminent conditions. Interface with other energy management and SCADA systems through multiple communication channels and protocols like OPC.

Reports

Standard reports provide models of daily electricity usage so you can distribute loads and avoid demand peaks. This enables you to allocate energy consumption and/or costs to individual areas and identify expensive processes that need attention. The historic trending report compiles data from load circuits over a users predefined period. This enables the user to fully utilize the power distribution system and run at near rated tolerances.

Benefits

- Visibility and control of power flows
- Exact knowledge of the consumption profile
- Increase of energy efficiency
- Optimization of power supply contracts
- Compliance with contractual terms or regulations
- Allocation of costs to individual cost centers
- Optimization of plant maintenance
- Identification of critical systems conditions

The Powermanager software:

- Is available in a stand-alone or LAN/WAN based configuration that can also exchange information with other supervisory systems like building automation software
- Can utilize any Ethernet or serial based connections
- Is expandable from the basic monitoring application to a fully customized enterprise management system
- Is fully scalable with regard to the connected devices and to the software's function to meet current and future needs
- Ensures the seamless integration of power monitoring devices from the Siemens SENTRON PAC Series Meter, SEM3, and SENTRON WL/VL/3VA circuit breakers as well as other Modbus communicating devices
- Is designed to collect, archive, monitor, display and evaluate any kind of energy related device data
- Provides web based reporting and detailed graphics construction utilities as standard

Ordering information

Powermanager Software and Device License	Catalog Number
POWERMANAGER BASIC 10 DEVICES	**3ZS27110CC300YA0**
POWERMANAGER 10 DEVICES with Expert MODE	**3ZS27118CC300YA0**
POWERMANAGER 20 ADTNL.DEVICES	**3ZS27110CC300YD0**
POWERMANAGER 50 ADTNL.DEVICES	**3ZS27120CC300YD0**
POWERMANAGER 100 ADTNL.DEVICES	**3ZS27130CC300YD0**
POWERMANAGER 200 ADTNL.DEVICES	**3ZS27140CC300YD0**
POWERMANAGER 500 ADTNL.DEVICES	**3ZS27150CC300YD0**
POWERMANAGER 1000 ADTNL.DEVICES	**3ZS27160CC300YD0**
Powermanager Add Ons and Upgrades	**Catalog Number**
POWERMANAGER OPT PACKAGE EXPERT	**3ZS27102CC200YH0**
POWERMANAGER OPT PACKAGE CLIENT5	**3ZS27103CC000YD0**
POWERMANAGER OPT PACKAGE 2 x DISTRIBUTION SYS	**3ZS27181CC000YH0**
POWERMANAGER OPT PACKAGE 5 x DISTRIBUTION SYS	**3ZS27182CC000YH0**
POWERMANAGER OPT PACKAGE 10 x DISTRIBUTION SYS	**3ZS27183CC000YH0**

Contact Siemens for upgrade information

Power Distribution Solutions

WinPM.Net Enhanced Web-Enabled Energy Management Software

WinPM.Net is a complete energy information management solution for your business allowing you to process, analyze, store and share energy usage and power quality data across your entire enterprise. It offers control capabilities, comprehensive power quality and reliability analysis and can help you reduce energy-related costs. WinPM.net allows you to manage intelligent metering and protective devices, analyze data, and decide on new courses of action to help you save money and keep your business up and running.

Its cutting-edge flexibility and compatibility means you can add one piece at a time, at your own pace, while still maintaining your original investments. Interface to your existing systems through industry-standard protocols and choose newer components as they become available.

The WinPM.Net software:

- Provides detailed analysis of the power quality and overlays waveforms to correlate phase-to-phase relationships between voltages and currents and cascading failures
- Pinpoints the sources of transients, harmonics, or sags, whether external or internal to your facility, allowing you to decide on the right corrective actions. By monitoring circuits 24 hours a day, you can develop strategies to avoid interruptions
- Provides a comprehensive graphics utility as standard to build and edit any graphical screen whether it is a standard screen or a customized one. These custom screens can display real-time and historical data, alarms, status indications, meter, relay and third party equipment information
- Supports Modbus RTU, Modbus TCP, ION, XML, OPC, FTP, and PQDIF compliant systems, so you can unify your diverse operations into one system. Interface to other energy management software, or include transducers, PLCs, and RTUs in a WinPM.net network. OPC can extract values from other software databases then combine these values with up-to-date readings from WinPM.net to perform real time calculations
- Offers easy, cost effective and fast system expansion. The system grows as your needs grow. Add one piece at a time, at your own pace, within your own budget

Cost allocation and sub-billing

Track energy-related costs by building, feeder, or tool. Match virtually any billing structure and use comprehensive multi-year scheduling and time-of-use activity profiles.

Load studies and asset management

Trend power usage data to take full advantage of your electrical distribution system capacity and avoid over-design. Create usage profiles so you can distribute loads and avoid demand peak.

Demand and power factor control

Eliminate penalties through automated power factor correction, load shedding, or peak shaving.

Equipment monitoring and control

Meter all your utilities including gas, steam, air and water. Set up alarms for pending problems, pre-alarm on impending or imminent conditions. Interface with other energy management and SCADA systems through multiple communication channels and protocols.

Ordering information

Software	Catalog Number
WinPM.NET V7.0 DVD New (includes 5 meter device licenses, 1 Eng Client, 2 Web Clients, & PQDIF)	**3ZS67100CC700BA0**
WinPM.NET V7.0 DVD Replacement	**3ZS67100CC700BC0**
Device License	
WinPM.Net V7.0 9xxx Meter Device License Limit 6 to 50	**3ZS68120CC700BA2**
WinPM.Net V7.0 9xxx Meter Device License Limit 51 to 100	**3ZS68130CC700BA2**
WinPM.Net V7.0 9xxx Meter Device License Limit 101 to1000	**3ZS68140CC700BA2**
WinPM.Net V7.0 3rd Party device/Modbus/SeaBus Dev. Lic. Limit 1 to 50	**3ZS68220CC700BA2**
WinPM.Net V7.0 3rd Party device/Modbus/SeaBus Dev. Lic. Limit 51 to 100	**3ZS68230CC700BA2**
WinPM.Net V7.0 3rd Party device/Modbus/SeaBus Dev. Lic. Limit 101 to 1000	**3ZS68240CC700BA2**
Options	
WinPM.Net V7.0 Engineering Client License Limit 1 to 50	**3ZS67220CC700BA2**
WinPM.Net V7.0 Engineering Client License Limit 51 to 100	**3ZS67230CC700BA2**
WinPM.Net V7.0 Web Client License	**3ZS67420CC700BA2**
WinPM.Net V7.0 OPC Server License	**3ZS67520CC700BA2**
WinPM.NetSQL Server 2012 -2 CORE License increment (***Minimum of 4 cores per server is required (2 x 3ZS67312CC700BA0 minimum)	**3ZS67308CC700BA0**
WinPM.NetSQL Server 2014 -2 CORE License increment (***Minimum of 4 cores per server is required (2 x 3ZS67314CC700BA0 minimum)	**3ZS67308CC700BA0**
Dashboard solutions and Software upgrade	
Contact your local Siemens PDS Power Solutions Business Developer for ordering information and upgrade	

Power Distribution Solutions

Application Engineering

Application Engineering capabilities

Provides:

- Power Quality Reliability & Analysis
- Utilities Cost Allocation & Billing
- Utilities Usage Aggregation
- Load Preservation
- Equipment Monitoring
- Facility Monitoring & Automation
- Sequence of Event Recording
- Preventative Maintenance
- Electrical Asset Management

The Siemens Power Distribution Solutions Application Engineering team provides the required experience and knowledge to implement any system regardless of the size or complexity. Siemens Application Engineers are highly skilled professionals who understand how to combine the best PMC software and hardware to create solutions that exceed our customer's expectations.

Key Market Expertise:

- Commercial Construction:
  - New / Retrofit
  - Tenant / Sub Billing
- Critical Power:
  - Data Centers
  - Hospitals
  - JCAHO
- Government:
  - Local, State & Federal Government EPACT projects
  - Universities
  - Airports
- Industrial Applications:
  - Petro - Chem., Cement, Food & Beverage, Waste water, Automotive

PDS Custom Solutions:

- LAN – WAN based solutions using our WinPM.Net web-based software
- Custom power metering logic
- Custom billing, energy usage or load profile reports
- Integration of other utilities like gas, water, steam, air and more
- Custom interactive one-line, elevation or floor plan graphics
- Third party hardware and software Integration
- Extensive alarm configuration and implementation
- Custom data logging and data retrieval.
- Siemens or others plant factory witness testing
- On-site and remote hands-on system training
- Overall PMC project management

Application Engineers Capabilities:

- Communication network topology approval drawings
- Project management plan for the PMC system
- Interface to Siemens APOGEE building management system
- Power monitoring workstations and server configuration
- Final as-built operation and maintenance manuals
- Integrate with Siemens medium voltage, low voltage Switchgear & motor control centers
- Integration with Siemens Industrial Automation components & Software WinCC / PCS 7
- System communication troubleshooting
- Site Acceptance Test procedure (SAT), Method of Procedures (MOP), Factory Acceptance Test Procedure (FAT)
- On-site startup & commissioning

Reliable Power Quality

Whether you are designing a fault tolerant mission critical infrastructure or you want to intelligently balance workloads to optimize energy usage and control costs, you need a reliable and industry proven monitoring solution. You will gain a visible look into the actual power consumption to understand the average and peak power utilization, monitor and manage UPS's and power distribution units, or even a complete IT support infrastructure, including generators, environmental systems and detection devices, as well as other components from multiple vendors. A Siemens designed solution using WinPM.Net or Powermanager, coupled with high quality Siemens meters will result in a powerful tool, helping to analyze, identify and correct power issues before they become critical. Instant notification by email or alarm when power quality issues such as sag/swell or voltage disturbance occur.

Flexible

Easily integrate with any vendor's equipment using standard communication protocols to combine critical alerts and realtime data. Monitor and manage critical power devices from a single uninterruptible power system (UPS), an enterprise-wide network of many UPS's and power distribution devices, or a complete IT support infrastructure, including generators, environmental systems and detection devices, and other components from multiple vendors.

Informative

Siemens Power Distribution and Solutions provide an energy monitoring solution that can provide you with the reports and the data you need for your operation. Complete power analysis from the incoming utility power to individual branch circuits.

Power Distribution Solutions

Services

Advantages to You...

- Technical experts
- Single source supplier
- Available 24/7, 365 days a year
- Reduced total cost of ownership (TCO)
- Avoid unscheduled downtime with preventive maintenance

Service Products

Modular service products enable you to customize a technical service agreement to meet your organization's maintenance needs over the entire life cycle of your installation. Including Service products in your TSA will provide the following benefits:

- Substantial savings versus "on demand" purchases
- Optimized scaling of your maintenance organization
- Assurance that your installation is operating at maximum performance and availability

Telephone and Internet

Priority support
When you need help right now, choose the support coverage that fits your business:
24 hours x 7 days a week
8 hours x 5 days a week

Extended support

With extended support, you can request blocks of support hours for specific projects and tasks. We can customize this support service to meet your individual needs.

Remote service

Remote service provides support and diagnostics via data line to save you time and money. Technical support specialists directly access your system for real-time troubleshooting to provide maximum uptime.

Technical account liaison

A technical account liaison provides consulting and guidance on all aspects of support through familiarity with the application, your business goals and processes, and your maintenance and engineering staff.

In addition to a site visit to assess your installation and support requirements, the technical account liaison will conduct monthly reviews with your staff to ensure you are receiving maximum payback on your investment.

Field services

Block of hours
Purchase field service hours in 40 hour increments for preventative, predictive or emergency services.

Maintenance programs

Packaged maintenance programs available for:

- System performance checks
- Run diagnostics
- Analyze power quality
- Visual inspections of key system components
- Database trim and backup

Training

Operation and maintenance
Siemens training offers a broad range of educational services, providing quality and excellence to the automation industry. Targeted product and system training provides the student with practical, hands-on experience.

Customized on-site training

On-site training is excellent for large groups or when individual, one-on-one instruction is needed. When the trainer visits your facility, product training will be conducted on your specific installation. Classroom lectures, and trouble-shooting techniques specific to your installation are covered in detail during the training session.

Software update service

The software update service enables you to take advantage of enhancements to the most current software versions. A site evaluation is conducted to determine necessary upgrade requirements prior to the Software Update Service.