

Power Monitor and Management Solution



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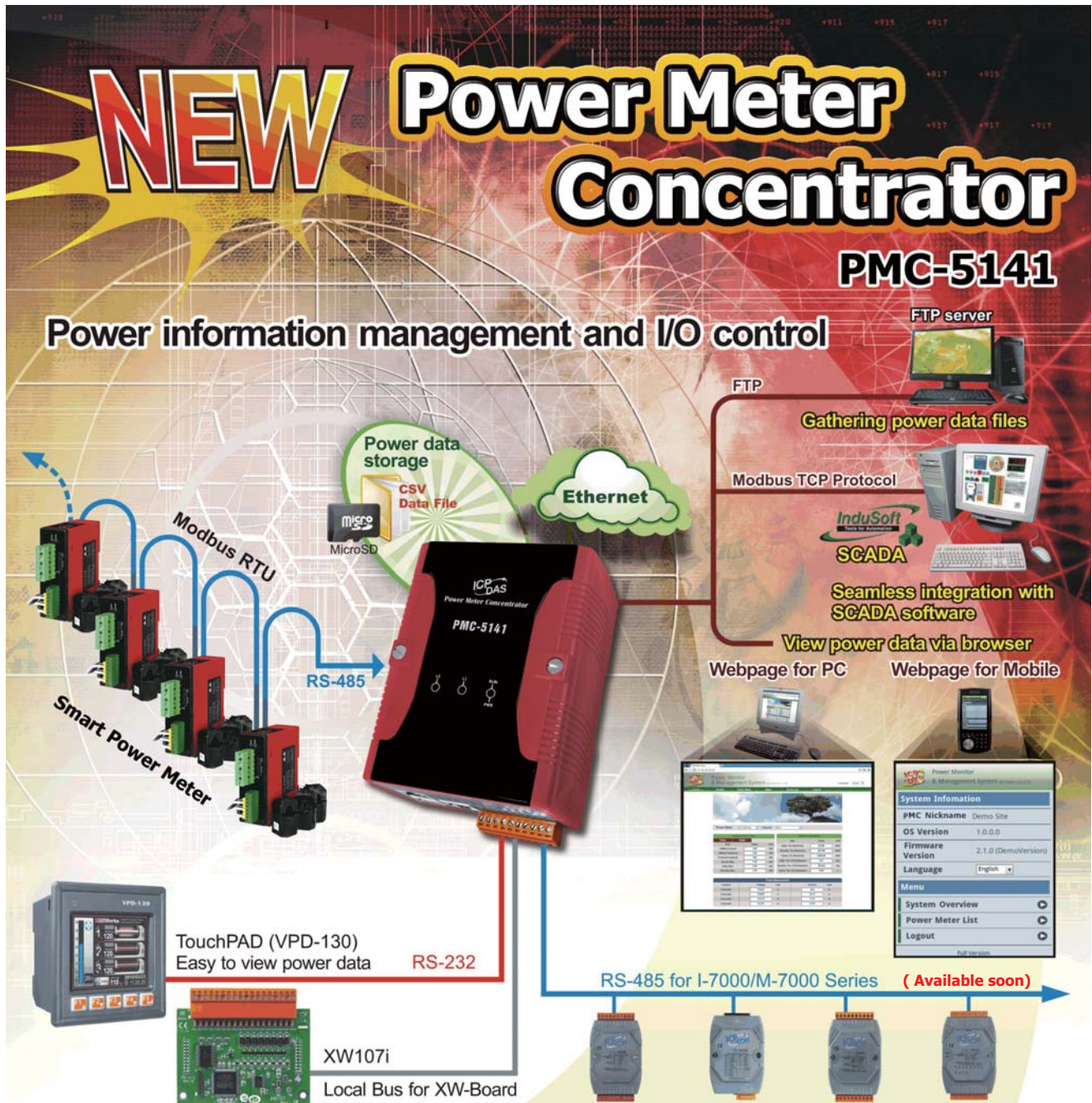


8.1. Overview

For the resources of the earth are getting depleted faster in recent years, countries around the world and all walks of life all set off a wave of energy saving and carbon reduction in order to avoid the waste of resources and pursue living a sustainable life to extend earth's resources. Under the trend of energy saving and carbon reduction, power monitoring gradually becomes an important project for maximizing energy efficiency by power monitoring always contributing to significant energy savings no matter on the individual, corporate or national level. For a long time, ICP DAS has been engaged in the field of automation control and developed a series of PAC (programmable automation controller) and I/O modules. We intend to provide most cost-effective total solutions for industrial automation. With cumulative experience of years, the PMMS (Power Monitor & Management Solution) developed by ICP DAS integrates core technologies such as: PAC industrial controller, digital power meter, web server and database; it enables to easily build a fully-functioned power monitoring system and furthermore fulfill the aim to cut off energy consumption.

During the whole process of system development, no programming is required; it takes a few clicks on web page to complete settings and store the power data of the devices in the database for further analysis.

PMMS (Power Monitor & Management Solution) mainly consists of two parts: PMC-5141 (Power Meter Concentrator) and ICP DAS Smart Power Meters.



• Features

1. Built-in Web Server



2. Support data storage



3. Support FTP Server and FTP Client for easy file management

4. Offer Modbus TCP Slave function that allows seamless integration with SCADA software

5. Allow to integrate with an internal I/O module (XW107i)

6. Support Remote I/O modules for I/O expansion (Available Soon)

7. Immediately display power data in real-time trend or historical trend



8. Offer Flash HMI Tools on Webpage



8.2. Power Meter Concentrator



Features

- Built-in Web Server allows to view power data via browser
- No extra software tool is required to perform configurations and operations of the power meters
- Immediately display in real-time trend or historical trend and power data storage
- Support FTP Server and FTP Client for easy file management
- Allow to recover Data Log files when the network is resumed after temporary network disconnection
- Offer power demand management and alarm notification functions
- Offer Modbus TCP Slave function that allows seamless integration with SCADA software
- Allow to integrate with ICP DAS I/O modules (XW107i)
- Offer Flash HMI Tools for easy HMI interface design
- Support PoE for PMC-5141P



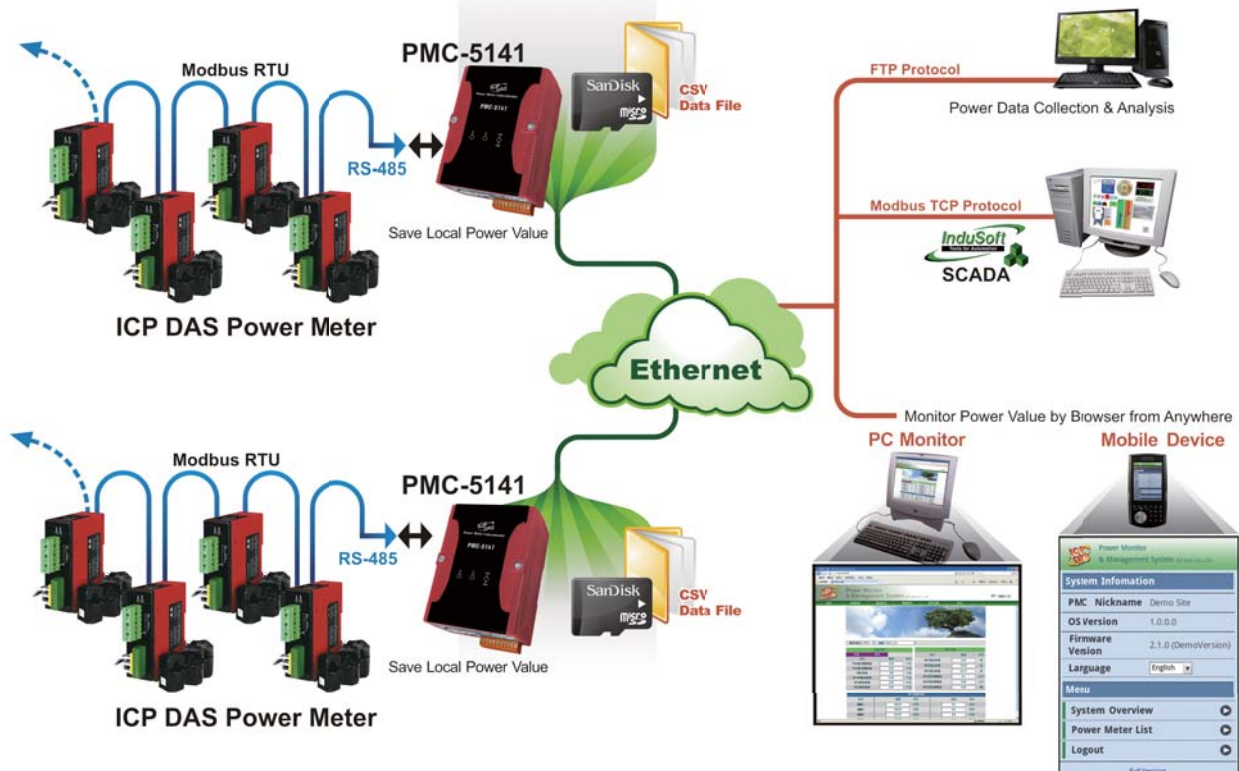
Introduction

PMMS (Power Monitor & Management Solution) is a power monitor & management solution developed by ICP DAS. PMMS solution consists of Power Meter Concentrator (PMC-5141), and Smart Power Meters (PM-XXXX).

PMC-5141 connects to ICP DAS smart power meters via Modbus RTU to read the power data of the devices; enables power monitoring and management functions. The power data can be saved in the microSD card and then being sent to the back-end FTP Server for further data integration or analysis.

PMC-5141 is equipped with built-in Web Server. It allows users to connect to the PMMS web page on PMC-5141 via browser to set up the parameters of the power meters. The users could view power data of the devices in real-time or in historical trend, and the power daily report or monthly report function also provides a quick review for power consumption analysis. In addition, PMC-5141 is equipped with built-in Modbus TCP Slave function that enables SCADA software to connect to PMC-5141 for data communication and interaction. PMC-5141 also provides alarm notification functions, it could send out email or SMS to notify the related personnel for real-time information of the power devices or the system status. During the whole process of system development, no programming is required; it takes only a few clicks on PMMS web page to complete settings and to display, store and manage the power data of the devices.

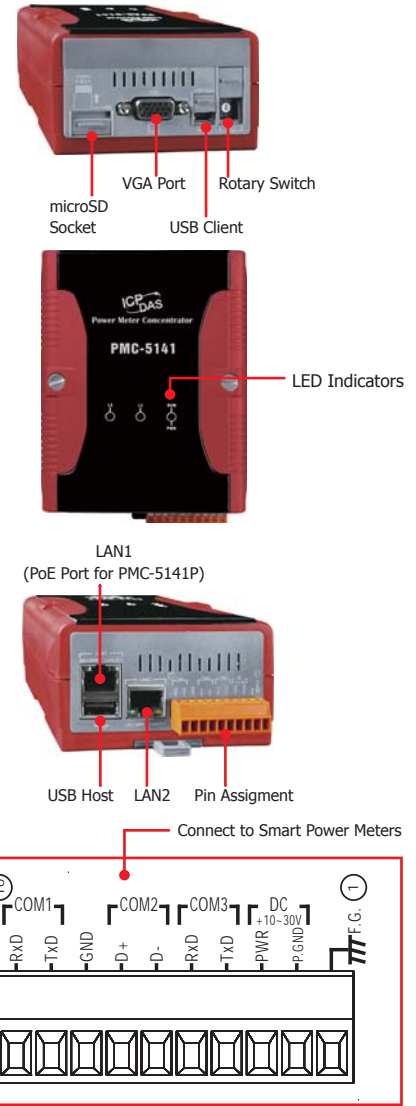
Applications



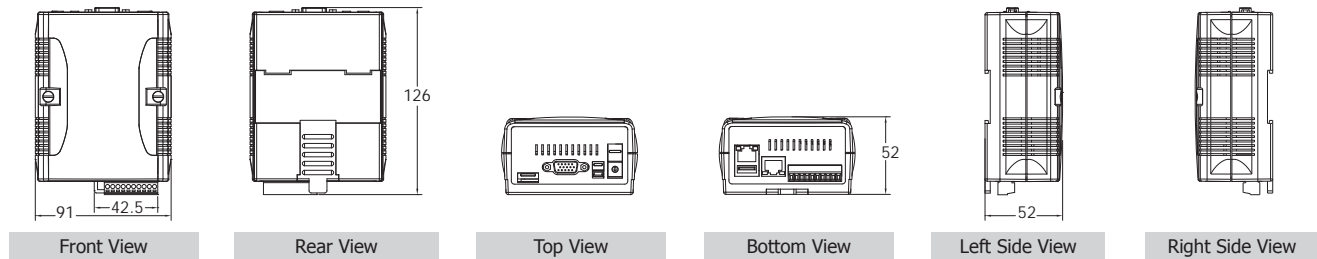
Specifications

Model	PMC-5141	PMC-5141P
System Software		
OS	Windows CE 5.0 Core	
.Net Compact Framework	3.5	
Embedded Service	Web server, FTP server	
CPU Module		
CPU	PXA270 CPU (32-bit and 520 MHz)	
SDRAM	128 MB	
Flash	64 MB	
EEPROM	16 KB Data Retention: 40 years; 1,000,000 erase/write cycles	
Expansion Flash Memory	microSD socket with one 2 GB microSD card (support up to 16 GB microSDHC card)	
RTC (Real Time Clock)	Provide second, minute, hour, date, day of week, month, year	
LED Indicator	1 LED for Power and Running	
Rotary Switch	Yes (0 ~ 9)	
VGA & Communication Ports		
VGA	Yes, Resolutions: 640 x 480/800 x 600	
Ethernet	RJ-45 x 2, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators) *Note: LAN1 is reserved for PMC-5141	
USB 1.1 (client)	1	
USB 1.1 (host)	1 *Note: Connect to GTM-201-USB for SMS Function	
COM 1	RS-232 (RxD, TxD and GND); non-isolated	
COM 2	RS-485 (D2+, D2-); 2500 Vdc; isolated; *Note: Allow to connect to up to 16 Smart Power Meters (Modbus RTU Interface)	
COM 3	RS-232 (RxD, TxD and GND); non-isolated	
Mechanical		
Dimensions (W x L x H)	91 mm x 126 mm x 52 mm	
Installation	DIN-Rail Mounting	
Environmental		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +80 °C	
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)	
Power		
Input Range	+10 ~ +30 Vdc	+12 ~ +48 Vdc
Isolation	1 kV	-
Consumption	4.8 W (0.2 A @ 24 Vdc)	4.3 W (0.18 A @ 24 Vdc)

Appearance



Dimensions (Units: mm)



Ordering Information

PMC-5141-EN CR	Power Meter Concentrator (English) (RoHS)	PMC-5141P-EN CR	PMC-5141 with PoE (English) (RoHS) (Available soon)
PMC-5141-TC CR	Power Meter Concentrator (Traditional Chinese) (RoHS)	PMC-5141P-TC CR	PMC-5141 with PoE (Traditional Chinese) (RoHS) (Available soon)
PMC-5141-SC CR	Power Meter Concentrator (Simplified Chinese) (RoHS)	PMC-5141P-SC CR	PMC-5141 with PoE (Simplified Chinese) (RoHS) (Available soon)

Accessories

Smart Power Meter	Currently support PM-2133-100, PM-2133-160, PM-2133-240, PM-311x-100, PM-311x-160, & PM-311x-240 (with RS-485 Interface)
DP-660	24 Vdc/2.5 A, 60 W and 5 Vdc/0.5 A, 2.5 W Power Supply with DIN-Rail Mounting
DP-1200 CR	24 Vdc/5.0 A, 120 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-20-24 CR	24 Vdc/1.0 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-60-24 CR	24 Vdc/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)
GTM-201-USB	Industrial Quad-band GPRS/GSM Modem with USB Interface (RoHS)
XW107i	Add-on I/O Expansion Board (8 DI and 8 DO)

8.3. Smart Power Meter



Features

- True RMS Power Measurements
- Energy Analysis for 3P4W, 3P3W
- Current Measurements Up to 200 A with Different CT Ratio
- Voltage Measurements Up to 500 V
- Clip-on CT for Easy Installation
- kWh Accuracy Better than 1% (PF=1)
- RS-485, Ethernet or CAN Bus Communication Interface
- Modbus RTU, Modbus TCP or CANopen Protocol



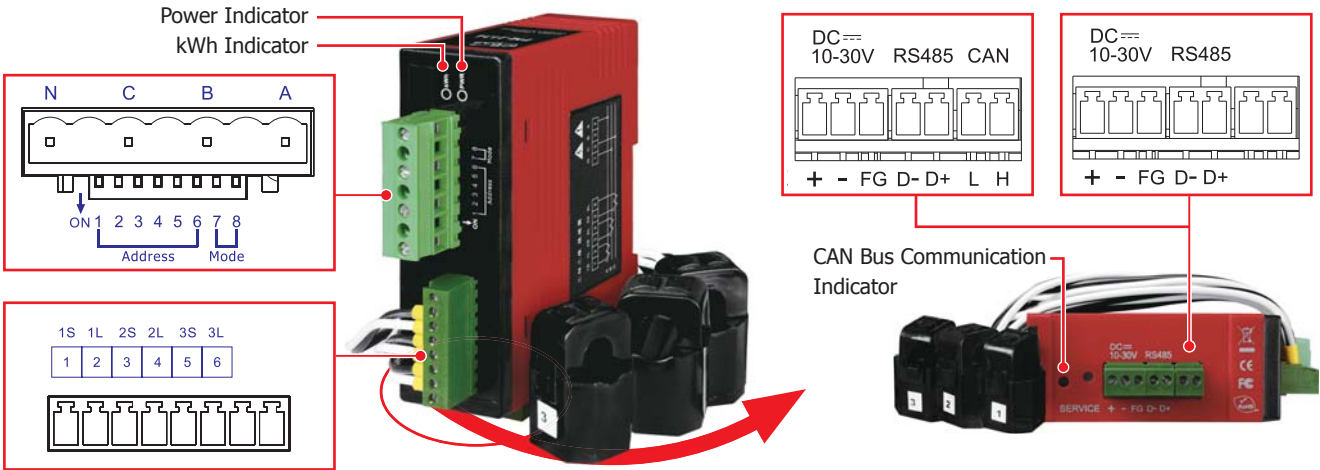
Introduction

It's always difficult but crucial to the supervisors to figure out how much energy is consumed. ICP DAS brings the most powerful, cost effective, advanced Compact Power Meters, PM-2133, to the markets. With its high accuracy (1%, PF=1), the PM-2133 can be applied both on low voltage primary side and/or medium/high voltage secondary side and enable the users to obtain in real time the reliable and accurate energy consumption readings from the monitored equipments while in operation. These compact size and cost effective power meters are equipped with revolutionary wired clip-on CT (various types support input current up to 200A). It supports Modbus RTU, Modbus TCP or CANopen protocols for easy integration. It works with input voltages ranging 10 ~ 500 VAC, supports a wide range of applications.

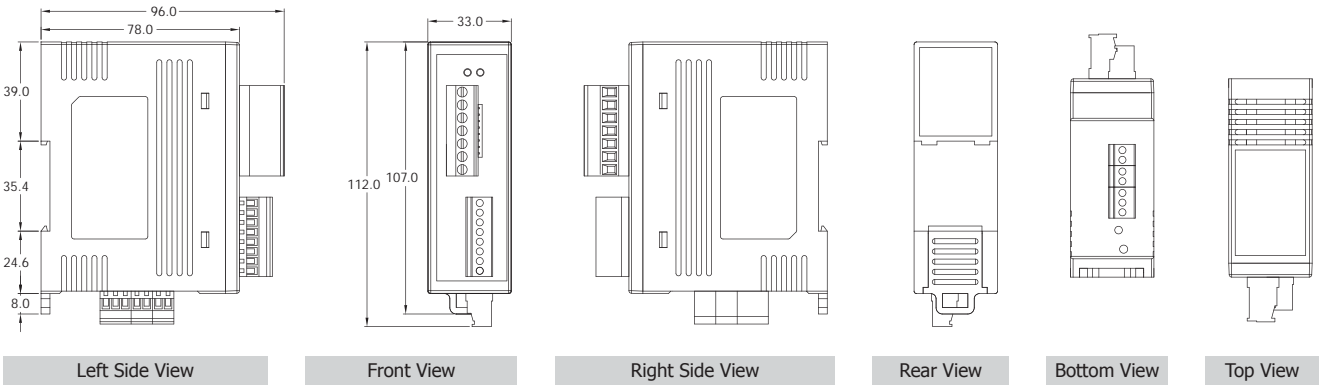
Specifications

Models	PM-2133	PM-2133-MTCP	PM-2133-CAN PM-2133-CPS
AC Power Measurement			
Wiring	3P4W-3CT, 3P3W-3CT		
Input Voltage	10 ~ 500 Vac		
Input Current	60 A, 100 A, 200 A; with different CT ratio		
Input Frequency	50/60 Hz		
kWh Accuracy	Better than 1% (PF=1)		
Starting Current	0.025A		
Power Parameter Measurement	True RMS voltage (Vrms), True RMS current (Irms), Active Power (kW), Active Energy (kWh), Apparent Power (kVA), Apparent Energy (kVAh), Reactive Power (kVAR), Reactive Energy (kVARh), Power Factor (PF)		
Data Update Rate	1 Second		
Communication			
RS-485	Protocol	Modbus RTU	-
	Baudrate	9600, 19200 (Default), 38400	-
	Data format	N,8,1	-
	Isolation	1000 Vrms	-
Ethernet	Protocol	-	Modbus TCP
	Default IP	-	192.168.255.1
CAN Bus	Protocol	-	CAN or CANopen
	Baudrate	-	125K (Default), 250K, 500K
Power			
Input Range	+10 ~ 30 Vdc		
Power Consumption	2.4 W		
Mechanical			
Casing	Plastic		
Flammability	UL 94V-0 materials		
Dimensions (W x L x H)	33 mm x 96 mm x 112 mm		
Module Installation	DIN-Rail Mounting		
CT Installation	Clip-On		
Environment			
Operating Temperature	-10 ~ +70 °C		
Storage Temperature	-25 ~ +85 °C		
Ambient Relative Humidity	10% ~ 90% RH, Non-condensing		

Appearance



Dimensions (Units: mm)



Selection Guide

PM-2133 -

XXX

CT size (measurement)
 100: CTΦ10 mm (0 ~ 60 A)
 160: CTΦ16 mm (0 ~ 100 A)
 240: CTΦ24 mm (0 ~ 200 A)

XXX

Communication
 □: RS-485
 CAN: CAN Bus
 CPS: CANopen
 MTCP: Modbus TCP

Ordering Information

RS-485 Interface	
PM-2133-100	RS-485 with Modbus RTU protocol; 1 loop 3-phase Smart Power Meter with 3 CTs (60 A)
PM-2133-160	RS-485 with Modbus RTU protocol; 1 loop 3-phase Smart Power Meter with 3 CTs (100 A)
PM-2133-240	RS-485 with Modbus RTU protocol; 1 loop 3-phase Smart Power Meter with 3 CTs (200 A)
CAN Bus Interface	
PM-2133-100-CAN	CAN Bus; 1 loop 3-phase Smart Power Meter with 3 CTs (60 A)
PM-2133-160-CAN	CAN Bus; 1 loop 3-phase Smart Power Meter with 3 CTs (100 A)
PM-2133-240-CAN	CAN Bus; 1 loop 3-phase Smart Power Meter with 3 CTs (200 A)

CANopen Interface (Available soon)	
PM-2133-100-CPS	CANopen; 1 loop 3-phase Smart Power Meter with 3 CTs (60 A)
PM-2133-160-CPS	CANopen; 1 loop 3-phase Smart Power Meter with 3 CTs (100 A)
PM-2133-240-CPS	CANopen; 1 loop 3-phase Smart Power Meter with 3 CTs (200 A)
Ethernet Interface (Available soon)	
PM-2133-100-MTCP	Ethernet with Modbus TCP protocol; 1 loop 3-phase Smart Power Meter with 3 CTs (60 A)
PM-2133-160-MTCP	Ethernet with Modbus TCP protocol; 1 loop 3-phase Smart Power Meter with 3 CTs (100 A)
PM-2133-240-MTCP	Ethernet with Modbus TCP protocol; 1 loop 3-phase Smart Power Meter with 3 CTs (200 A)

8
3

Power Monitor and Management Solution



PM-3112/PM-3114

2/4 Loops single-phase Smart Power Meter

Features

- True RMS Power Measurements
- Energy Analysis for 1P2W, 1P4W
- Current Measurements Up to 200 A with Different CT Ratio
- Voltage Measurements Up to 300 V
- Clip-on CT for Easy Installation
- kWh Accuracy Better than 1% (PF=1)
- Supports RS-485, Ethernet or CAN bus/CANopen Interface
- Supports Modbus RTU, Modbus TCP or CAN Protocol
- Supports 2 Power Relay Output (Form A)
- Supports PoE (IEEE 802.3af, Class 1)



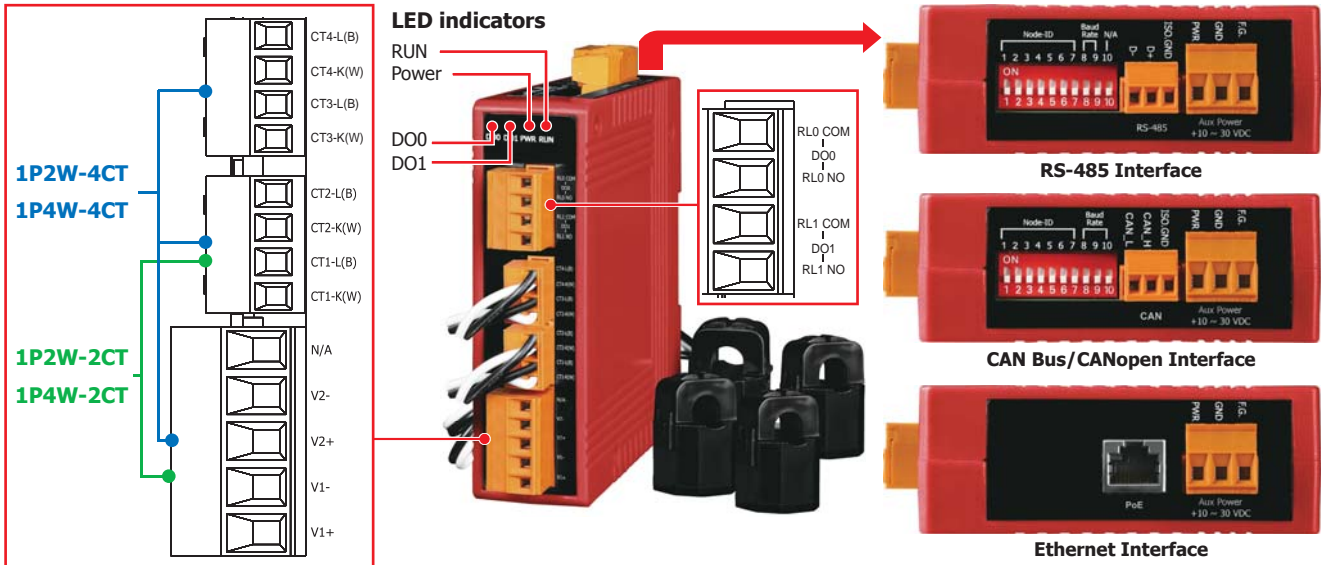
Introduction

ICP DAS brings the most powerful, cost-effective, advanced Smart Power Meters PM-3000 series that gives you access to real-time electric usage for single-phase power measurement. With its high accuracy (<1%, PF=1), the PM-3000 series can be applied to both low voltage primary side and/or medium/high voltage secondary side and enables the users to obtain reliable and accurate energy consumption readings from the monitored equipments in real time under operation. These compact size and cost-effective power meters are equipped with revolutionary wired clip-on CT (various types, support input current up to 200 A). It operates over a wide input voltages range 10 ~ 300 VAC which allows worldwide compatibility. And with 2 channels relay outputs, it can be linked with sirens or lightings for alarm messages. It also supports Modbus RTU, Modbus TCP or CAN bus protocols for easy integration.

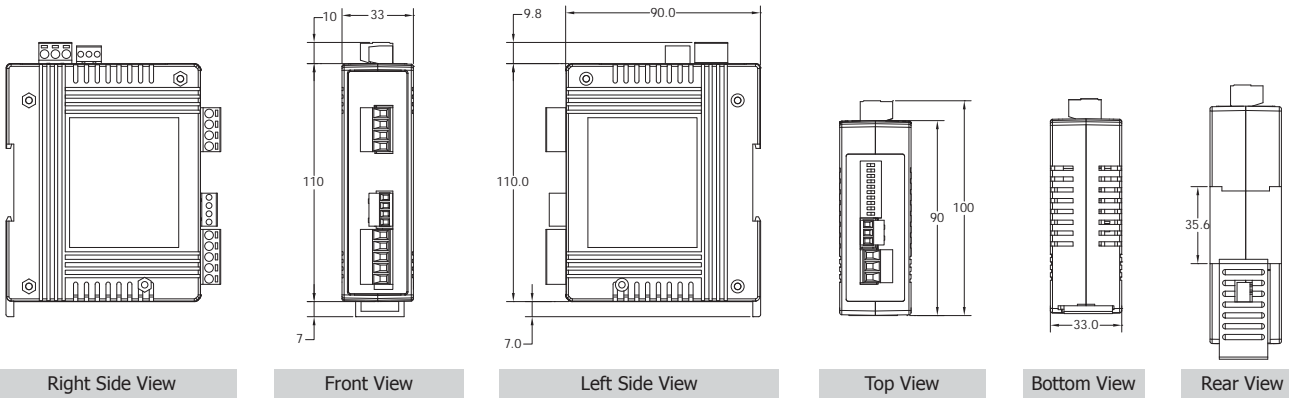
Specifications

Models	PM-3112	PM-3114	PM-3112-MTCP	PM-3114-MTCP	PM-3112-CAN PM-3112-CPS	PM-3114-CAN PM-3114-CPS
AC Power Measurement						
Wiring	1P2W/1P4W-2CT	1P2W/1P4W-4CT	1P2W/1P4W-2CT	1P2W/1P4W-4CT	1P2W/1P4W-2CT	1P2W/1P4W-4CT
Input Voltage	10 ~ 300 V					
Input Current	CTØ10 mm (60 A); CTØ16 mm (100 A); CTØ24 mm (200 A)					
Input Frequency	50/60 Hz					
kWh Accuracy	Better than 1% (PF=1)					
Starting Current	0.08A					
Power Parameter Measurement	True RMS voltage (Vrms), True RMS current (Irms), Active Power (kW), Active Energy (kWh), Apparent Power (kVA), Apparent Energy (kVAh), Reactive Power (kVAR), Reactive Energy (kVARh), Power Factor (PF)					
Data Update Rate	1 Second					
Communication						
RS-485	Protocol	Modbus-RTU	-	-	-	-
	Baud rate	9600,19200 (default), 38400, 115200; DIP Switch Selectable	-	-	-	-
	Data format	N,8,1	-	-	-	-
	Isolation	2500 Vdc	-	-	-	-
Ethernet	Protocol	-	Modbus TCP	-	-	-
	PoE	-	Yes, IEEE 802.3af	-	-	-
CAN Bus	Protocol	-	-	-	CAN Bus and CANopen	
	Baud rate	-	-	-	125 k (default), 250 k, 500 k, 1 M; DIP Switch Selectable	
Alarm Output						
Power Relay	Form A (Normal Open) x 2; Relay Contact Voltage Range: 5 A @ 250 Vac (47 ~ 63Hz), 5 A @ 30 Vdc					
Power						
Input Range	+10 ~ 30 Vdc		+12 ~ 48 Vdc		+10 ~ 30 Vdc	
Power Consumption	2 W					
Mechanical						
Casing	Plastic (Flammability UL 94V-0)					
Dimensions (W x L x H)	127 mm x 105 mm x 33 mm					
Module Installation	DIN-Rail Mounting					
CT Installation	Clip-On					
Environment						
Operating Temperature	-10 ~ +70 °C					
Storage Temperature	-25 ~ +80 °C					
Ambient Relative Humidity	10% ~ 90% RH, Non-condensing					

Appearance



Dimensions (Units: mm)



Selection Guide

PM-311 **X** **X X X** - **X X X**

Channel
 2: 2 Loops
 4: 4 Loops

CT size (measurement)
 100: CTΦ10 mm (0 ~ 60 A)
 160: CTΦ16 mm (0 ~ 100 A)
 240: CTΦ24 mm (0 ~ 200 A)

Communication
 □: RS-485
 CAN: CAN Bus
 CPS: CANopen
 MTCP: Modbus TCP

Ordering Information

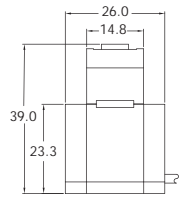
RS-485 Interface	
PM-3112-100	Modbus RTU; 2 loops single-phase Power Meter with 2 CTs (60 A)
PM-3112-160	Modbus RTU; 2 loops single-phase Power Meter with 2 CTs (100 A)
PM-3112-240	Modbus RTU; 2 loops single-phase Power Meter with 2 CTs (200 A)
Ethernet Interface (Available soon)	
PM-3112-100-MTCP	Modbus TCP; 2 loops single-phase Power Meter with 2 CTs (60 A)
PM-3112-160-MTCP	Modbus TCP; 2 loops single-phase Power Meter with 2 CTs (100 A)
PM-3112-240-MTCP	Modbus TCP; 2 loops single-phase Power Meter with 2 CTs (200 A)
CAN Bus Interface	
PM-3112-100-CAN	CAN Bus; 2 loops single-phase Power Meter with 2 CTs (60 A)
PM-3112-160-CAN	CAN Bus; 2 loops single-phase Power Meter with 2 CTs (100 A)
PM-3112-240-CAN	CAN Bus; 2 loops single-phase Power Meter with 2 CTs (200 A)
CANopen Interface (Available soon)	
PM-3112-100-CPS	CANopen; 2 loops single-phase Power Meter with 2 CTs (60 A)
PM-3112-160-CPS	CANopen; 2 loops single-phase Power Meter with 2 CTs (100 A)
PM-3112-240-CPS	CANopen; 2 loops single-phase Power Meter with 2 CTs (200 A)

RS-485 Interface (Available soon)	
PM-3114-100	Modbus RTU, 4 loops single-phase power meter (60 A)
PM-3114-160	Modbus RTU, 4 loops single-phase power meter (100 A)
PM-3114-240	Modbus RTU, 4 loops single-phase power meter (200 A)
Ethernet Interface (Available soon)	
PM-3114-100-MTCP	Modbus TCP, 4 loops single-phase power meter (60 A)
PM-3114-160-MTCP	Modbus TCP, 4 loops single-phase power meter (100 A)
PM-3114-240-MTCP	Modbus TCP, 4 loops single-phase power meter (200 A)
CAN Bus Interface (Available soon)	
PM-3114-100-CAN	CAN Bus, 4 loops single-phase power meter (60 A)
PM-3114-160-CAN	CAN Bus, 4 loops single-phase power meter (100 A)
PM-3114-240-CAN	CAN Bus, 4 loops single-phase power meter (200 A)
CANopen Interface (Available soon)	
PM-3114-100-CPS	CANopen, 4 loops single-phase power meter (60 A)
PM-3114-160-CPS	CANopen, 4 loops single-phase power meter (100 A)
PM-3114-240-CPS	CANopen, 4 loops single-phase power meter (200 A)

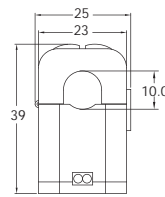
• CT for Smart Power Meter

■ Dimensions (Units: mm)

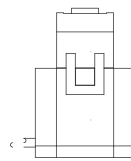
100: CTΦ10mm (0~60A)



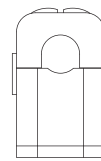
Left View



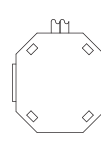
Front View



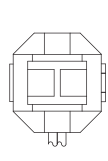
Right View



Rear View

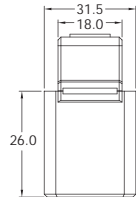


Bottom View

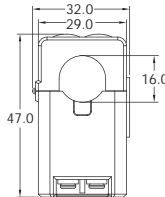


Top View

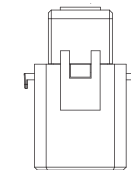
160: CTΦ16mm (0~100A)



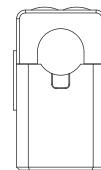
Left View



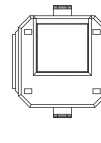
Front View



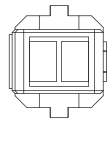
Right View



Rear View

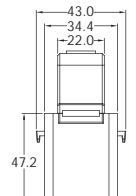


Bottom View

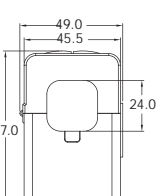


Top View

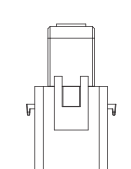
240: CTΦ24mm (0~200A)



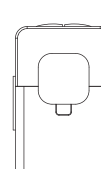
Left View



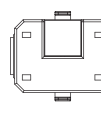
Front View



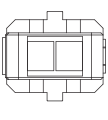
Right View



Rear View

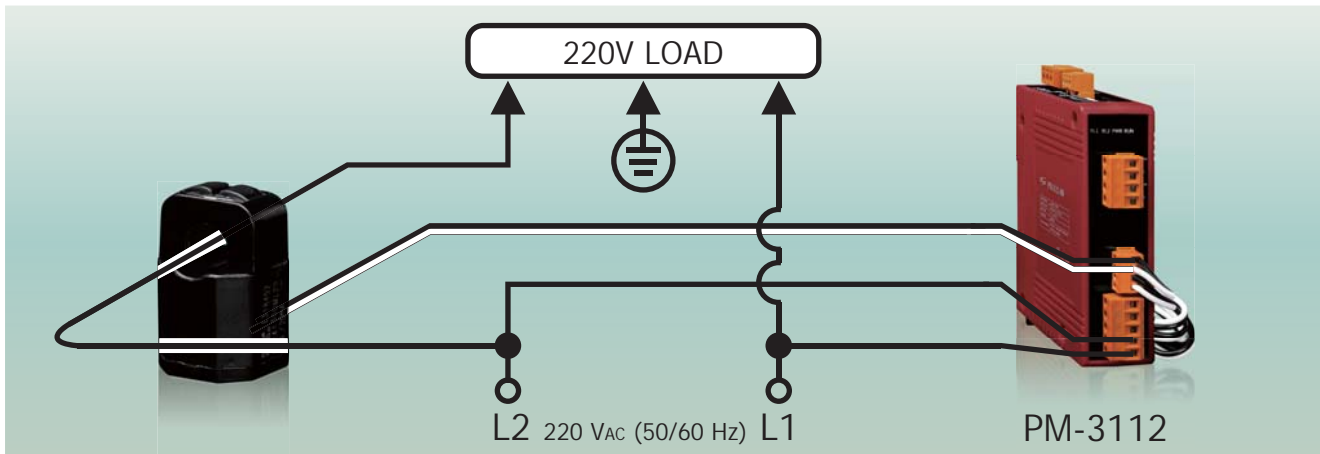


Bottom View



Top View

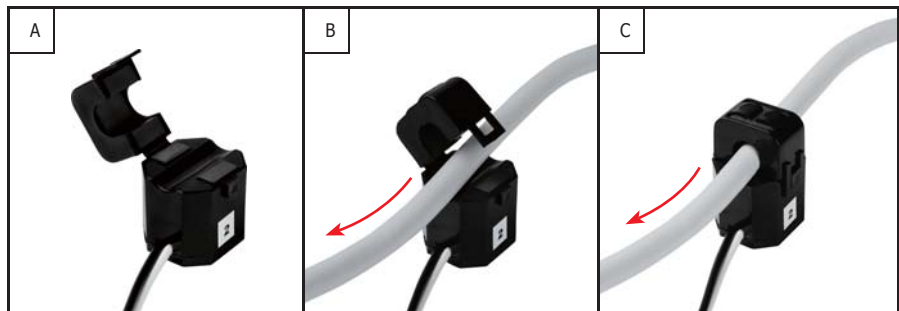
■ Wiring for 220V with no neutral



■ Installation



DIN-Rail Mounting



Clip-on CT Installation

8.4. Voltage Attenuator



Features

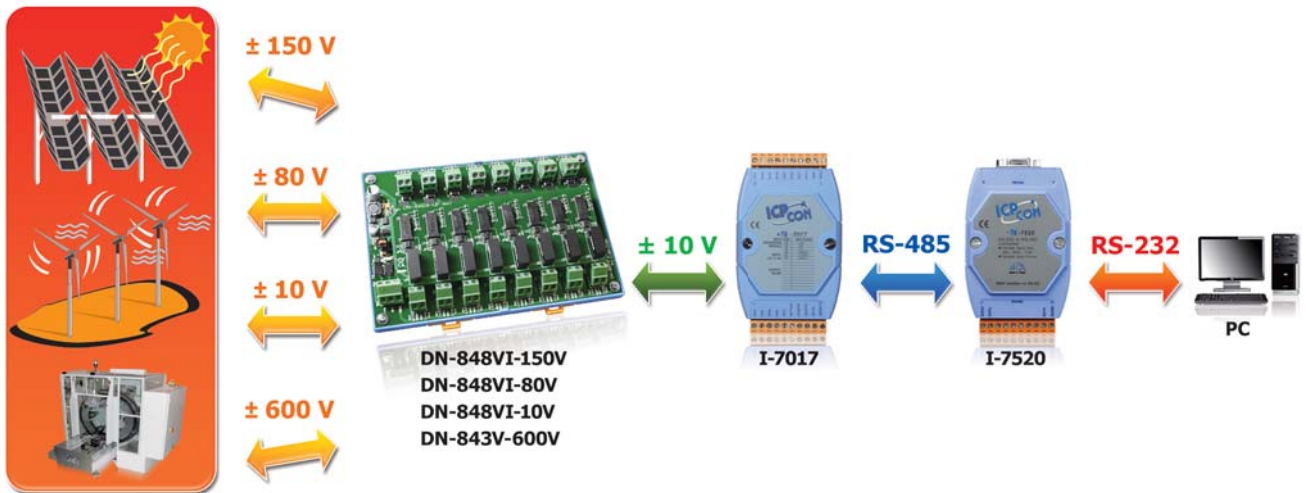
- AC/DC Source Input
- High Voltage Input Measurement
- Linear Attenuation Ratio
- High Input Impedance
- Channel to Channel Isolation for DN-848VI-10V, DN-848VI-80V and DN-848VI-150V
- 4 kV ESD Protection
- 3 kV Surge Protection
- RoHS Compliance
- Operating Temperature: -25 ~ +75°C
- Easily Wire Connection



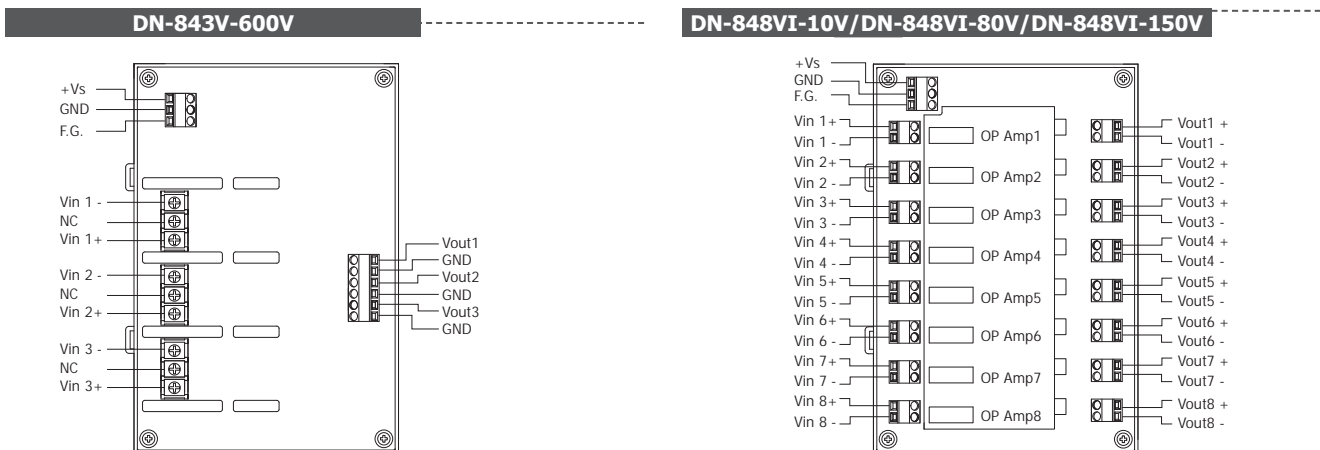
Introduction

The DN-800V series are voltage input attenuator. The maximum input range is from ± 80 V to ± 600 V and can be attenuated to ± 10 V. The "I" version provide 3000 Vdc intra-modules isolation and 3000 Vdc channel to channel isolation to avoid the noise interference from inputs to outputs or channel to channel. It can be used with the analog input modules such as I-7017 and I-87017 etc. to measure the high voltage.

Applications



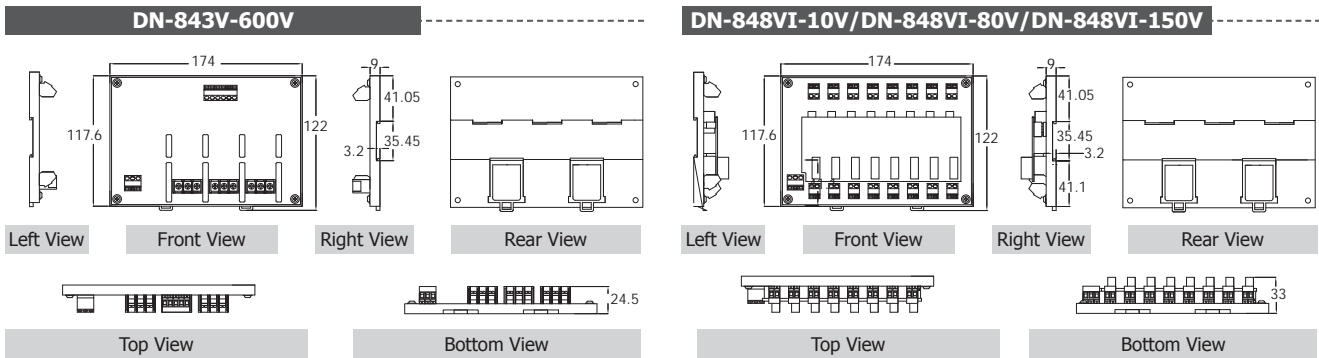
Appearance



Specifications

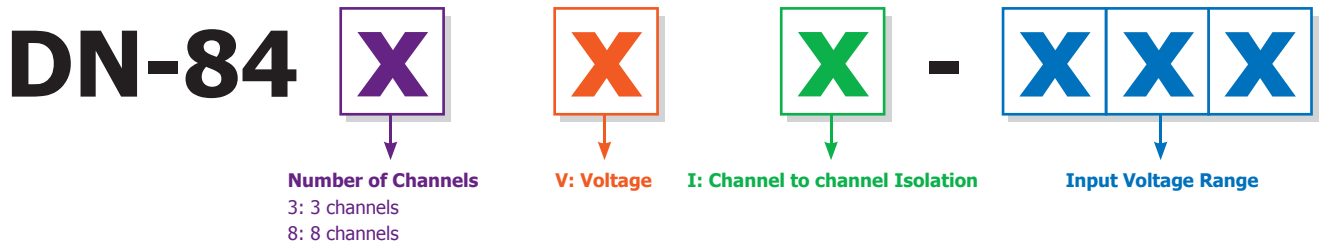
Models	DN-848VI-10V	DN-848VI-80V	DN-848VI-150V	DN-843V-600V
General				
Channels	8	8	8	3
Input Type	AC/DC Voltage			
Input Range	+/-10 Vpp	+/-80 Vpp	+/-150 Vpp	+/-600 Vpp
Output Range	+/-10 Vpp			
Accuracy	1% of FSR			
Chanel to Channel Isolation	Yes, 3000 Vdc			-
Bandwidth	30 KHz			100 KHz
Input Impedance	> 1 MΩ			
Intra-module Isolation, Input to Output	3000 Vdc			-
EMS Protection				
ESD (IEC 61000-4-2)	+/-4 kV contact for power line, input and output channels , +/-8 kV air for random point			
Surge (IEC 61000-4-5)	+/-3 kV for power liner			
Power Input				
Input Range	+10 ~ +30 Vdc			
Power Consumption	9.2 W	9.2 W	9.2 W	0.56 W
Mechanical				
Dimensions (W x L x H)	122 mm x 174 mm x 33 mm			122 mm x 174 mm x 24.5 mm
Installation	DIN-Rail Mounting			
Environment				
Operating Temperature	-25 ~ +75°C			
Storage Temperature	-30 ~ +75°C			
Humidity	10 ~ 90% RH (non-condensing)			

Dimensions (Units: mm)



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Selection Guide



Ordering Information

DN-848VI-10V CR	8-channel 10 V Voltage Attenuator (RoHS)
DN-848VI-80V CR	8-channel 80 V Voltage Attenuator (RoHS)
DN-848VI-150V CR	8-channel 150 V Voltage Attenuator (RoHS)
DN-843V-600V CR	3-channel 600 V Voltage Attenuator (RoHS)

Accessories

MDR-20-24 CR	24 V/1 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
I-7017-G CR	8-channel Analog Input Module (RoHS)
I-87017-G CR	8-channel Analog Input Module (RoHS)

8.5. Current Transformer



Features

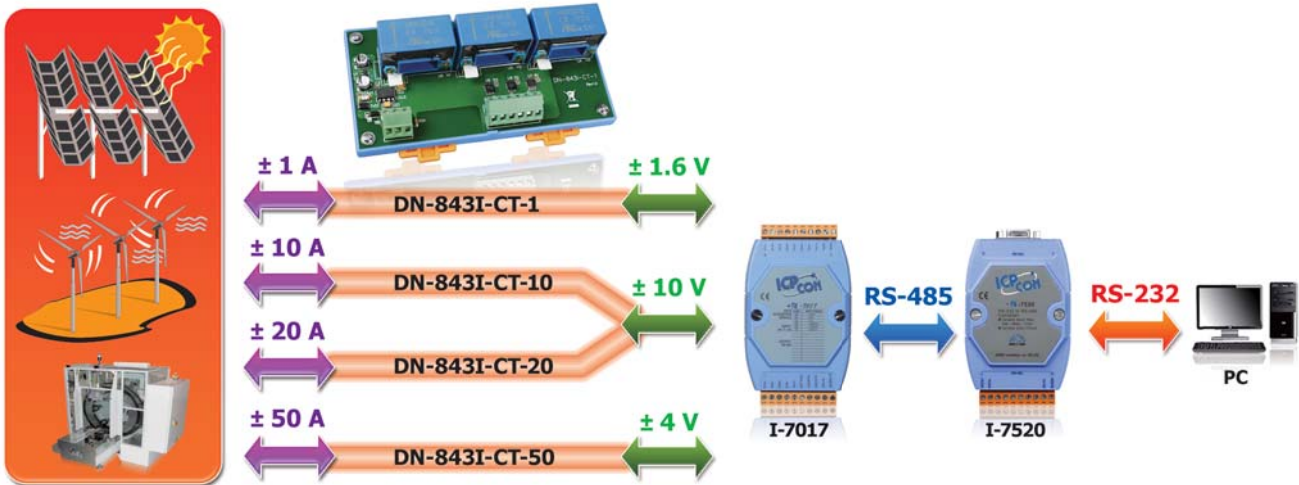
- AC/DC Source Input
- Linear Attenuation Ratio
- High Current Input Measurement
- Isolation Input
- Channel to Channel Isolation
- 4 kV ESD Protection
- RoHS Compliance
- Operating Temperature: -25 ~ +75°C
- Easily Wire Connection



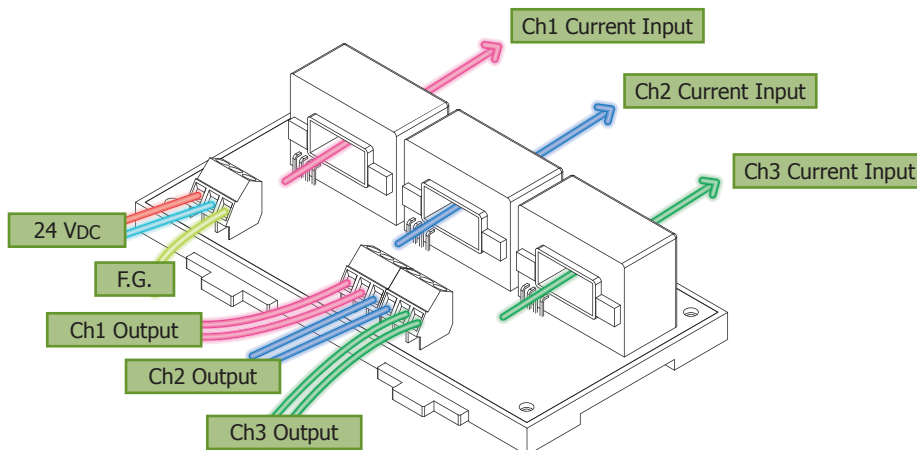
Introduction

The maximum input range is from ± 1 A to ± 50 A and can be attenuated to from ± 1.6 V to ± 10 V. The "I" version provide 3000 Vdc intra-modules isolation and 3000 Vdc channel to channel isolation to avoid the noise interference from inputs to outputs or channel to channel. It can be used with the analog input modules such as I-7017 and I-87017 etc. to measure the high current.

Applications



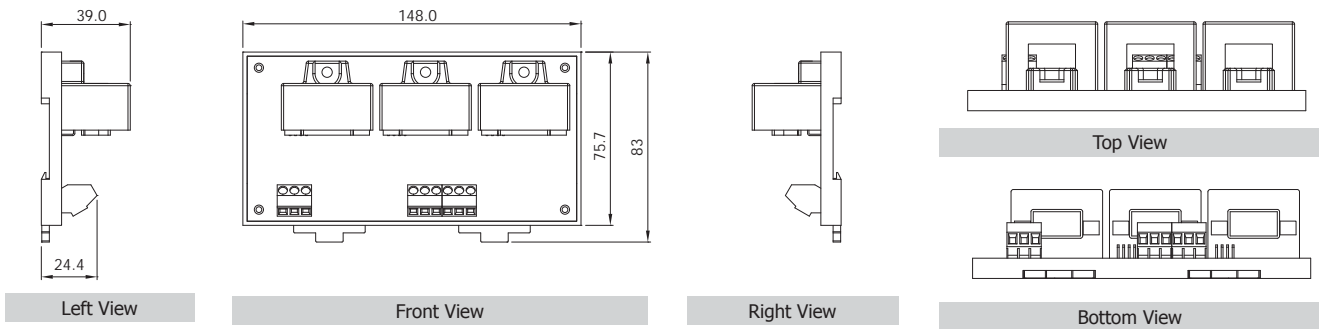
Installation



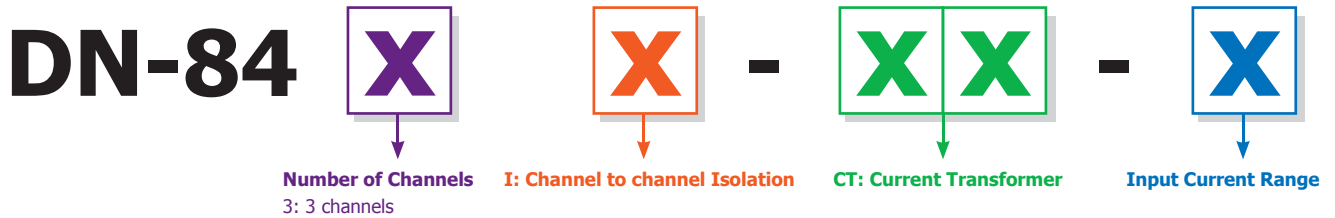
Specifications

Models	DN-843I-CT-1	DN-843I-CT-10	DN-843I-CT-20	DN-843I-CT-50
General				
Channels	3			
Input Type	AC/DC Current			
Input Range	+/-1 A	+/-10 A	+/-20 A	+/-50 A
Output Type	AC/DC Voltage			
Output Range	+/-1.6 Vpp	+/-10 Vpp	+/-10 Vpp	+/-4 Vpp
CT Type	Solid Core (closed)			
Accuracy	1% of FSR			
Chanel to Channel Isolation	Yes, 3000 Vrms			
Intra-module Isolation, Input to Output	3000 Vdc			
Bandwidth	50 KHz			
Input Impedance	> 1 MΩ			
EMS Protection				
ESD (IEC 61000-4-2)	+/-4 kV contact for power line, input and output channels, +/-8 kV air for random point			
Power Input				
Input Range	+10 ~ +24 VDC			
Power Consumption	1.2 W			
Mechanical				
Dimensions (W x L x H)	148 mm x 83 mm x 39 mm			
Installation	DIN-Rail Mounting			
Environment				
Operating Temperature	-25 ~ + 75°C			
Storage Temperature	-30 ~ +75°C			
Humidity	10 ~ 90% RH (non-condensing)			

Dimensions (Units: mm)



Selection Guide



Ordering Information

DN-843I-CT-1 CR	3-channel 1 A Current Transformer (RoHS)
DN-843I-CT-10 CR	3-channel 10 A Current Transformer (RoHS)
DN-843I-CT-20 CR	3-channel 20 A Current Transformer (RoHS)
DN-843I-CT-50 CR	3-channel 50 A Current Transformer (RoHS)

Accessories

MDR-20-24 CR	24 V/1 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
I-7017-G CR	8-channel Analog Input Module (RoHS)
I-87017-G CR	8-channel Analog Input Module (RoHS)