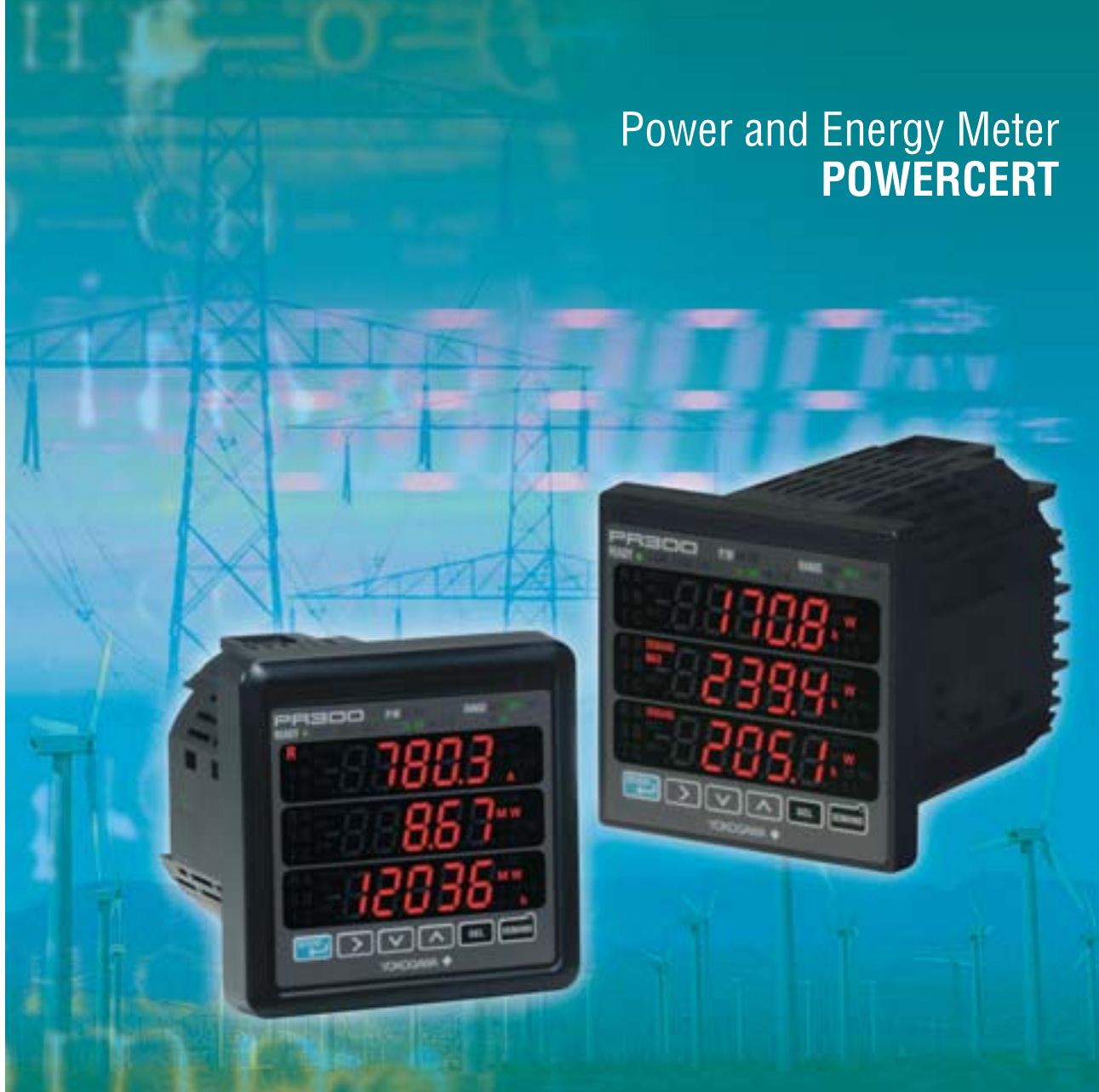


Power and Energy Meter **POWERCERT**



Power and Energy Meter

POWERCERT PR300

Bulletin 77C01A02-E

www.yokogawa.com/ns/pr300/

Envision a plant...

vigilantplant.TM

The clear path to operational excellence

VigilantPlant excels at bringing out the best in your plant and your people - keeping them fully aware, well informed, and ready to face the next challenge. **POWERCERT** is a core building block of Yokogawa's VigilantPlant solutions that promise to bring operational excellence to visionary plants.

High-quality Power Monitoring Underpinned by
Yokogawa's Power Measurement Technologies

POWERCERT

PR300

Power and
Energy Meter



Panel-mounted PR300 for Power Facilities

& Monitoring Energy Consumption



Models and Suffix Codes

Model	PR300	-□	□	□	□	□	-6	□	-0
Phase and wire system	Universal three-phase three-wire system (single-phase two-wire, single-phase three-wire, and three-phase three-wire systems)	-3							
	Universal three-phase four-wire system (single-phase two-wire, single-phase three-wire, three-phase three-wire, and three-phase four-wire systems)	-4							
	Three-phase four-wire system (2.5 element)	-5							
			1						
Input voltage/input current	Universal voltage input (150 V, 300 V, 600 V) / 1 A AC		2						
Additional input and output function	Universal voltage input (150 V, 300 V, 600 V) / 5 A AC								
	1 digital input			0					
	1 digital input, 1 analog output			1					
	1 digital input, 1 pulse output			2					
Communication function	1 digital input, 1 analog output, 1 pulse output			3					
	RS-485 communication			0					
	RS-485 communication, Ethernet communication			3					
Optional measuring function	None				0				
	Demand measurement (1 demand alarm output)				3				
Power supply	100 – 240 V AC $\pm 10\%$ (50/60 Hz) or 130 – 300 V DC $\pm 15\%$						-6		
Phase indication format	A, B and C indications								A
	R, S and T indications								R

PR300 NEW



PR300 is a panel-mounted meter designed to meet two user needs: a power facility meter and a meter for monitoring energy consumption.

Outstanding Readability

Large Triple Display

Meter and Converter

Multifunction

General Power Monitoring

Network

Flexible Specification Changes

Universal Design

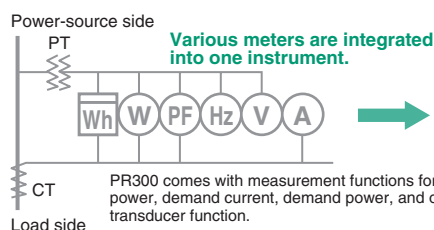


The demand alarm and network access make your power monitoring even more efficient.



Large Triple Display and Multimeter Function

Combine three desired measurement items and show them all at once on the large LED display. Just one PR300 unit can take the place of two or more meters, dramatically contributing to savings in cost, space and wiring.



SET/ENT The user can optionally select an item to be displayed for each line of the display. Even during measurement, the display parameter can be changed with one touch using the SET/ENT key.

Examples of Display Item Combinations

Display	Display Pattern-1	Display Pattern-2	Display Pattern-3	Display Pattern-4	Display Pattern-5	Display Pattern-6	Display Pattern-7	Display Pattern-8
Upper display	Current*	Active power	Active energy	Current 1	Voltage 1	Current*	Current*	Active power
Middle display	Voltage*	Reactive power	LEAD reactive energy	Current 2	Voltage 2	Voltage*	Active power	Maximum demand value
Lower display	Active power	Power factor	Apparent energy	Current 3	Voltage 3	Frequency	Power factor	Demand value

* Use SEL key to view phase Amps and Volts.

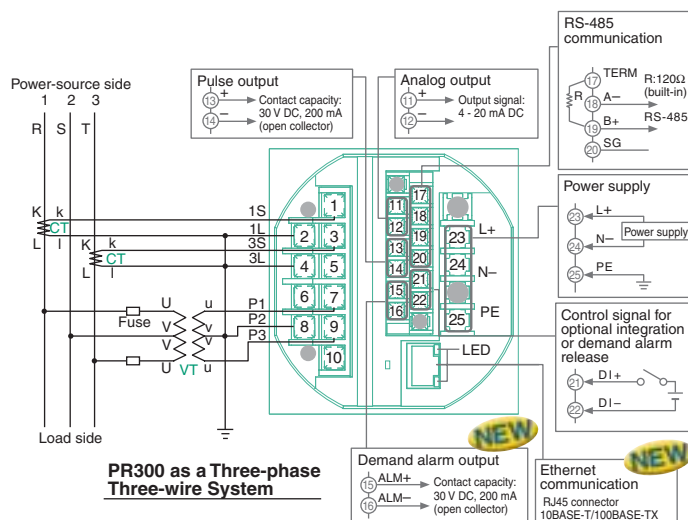


Wide Choice of Measurement Items

Voltage	Instantaneous value		Max. value		Min. value	
Current	Instantaneous value		Max. value		—	
Active power	Instantaneous value		Max. value		Min. value	
Reactive power	Instantaneous value		Max. value		Min. value	
Apparent power	Instantaneous value		Max. value		Min. value	
Electric energy	Active	Re-generative	Reactive (LEAD)	Reactive (LAG)	Apparent	Optional
Power factor	Instantaneous value		Max. value		Min. value	
Frequency	Instantaneous value		Max. value		Min. value	
Demand current*	Demand value		Max. value		—	
Demand power*	Demand value		Max. value		—	

* denotes optional.

PR300 comes complete with functions necessary for efficient power monitoring, including power integration over a desired period, a transducer function (4 - 20 mA DC output), an integrated pulse output of electric energy, demand current/power alarm output functions, RS-485 communication (Modbus/PC link), and Ethernet communication.



Other RS-485 devices can be connected to the network using Ethernet-serial gateway function.



Universal Design

PR300 versatilely supports a wide range of phases and wire systems, from a single-phase two-wire system to a three-phase four-wire system. The phase and/or wire system, including CT/VT ratios, can be selected or changed on site using the panel keys. For panel mounting, PR300 supports various standards with different shapes and sizes.



DIN96 square shape



Adaptable to three sizes using the mounting kit



ANSI 4-inch round shape JIS110 square shape



Other

Accuracy Rating	Voltage, Current: $\pm 0.25\%$ of F.S.
	Active power: $\pm 0.5\%$ of F.S.
	Active energy, optional active energy: $\pm 0.5\%$
External Dimensions (H×W×D mm) (including a terminal cover)	ANSI 4-inch round form size: 110 × 110 × 128
	DIN 96-square instrument size: 96 × 96 × 126
Power Consumption	AC drive: 10 VA maximum, DC drive: 5 W maximum

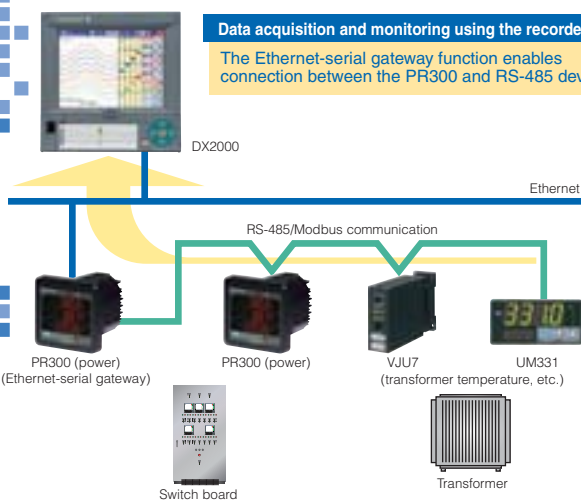


POWERGERT PR300

Integrated power monitoring by **Daqstation**

Data acquisition and monitoring using the recorder

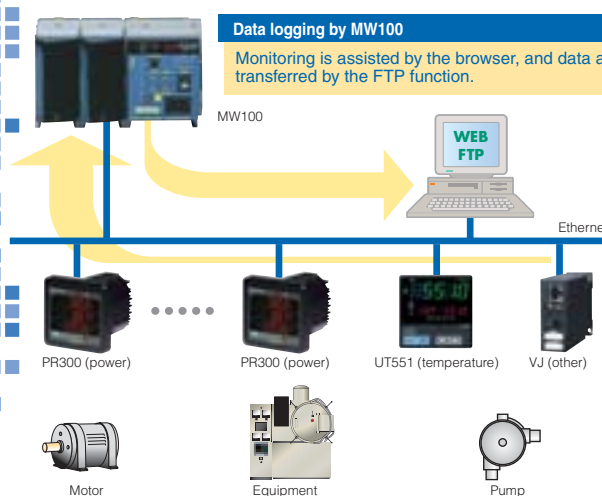
The Ethernet-serial gateway function enables connection between the PR300 and RS-485 devices.



Browser-assisted monitoring by **DAQMASTER**

Data logging by MW100

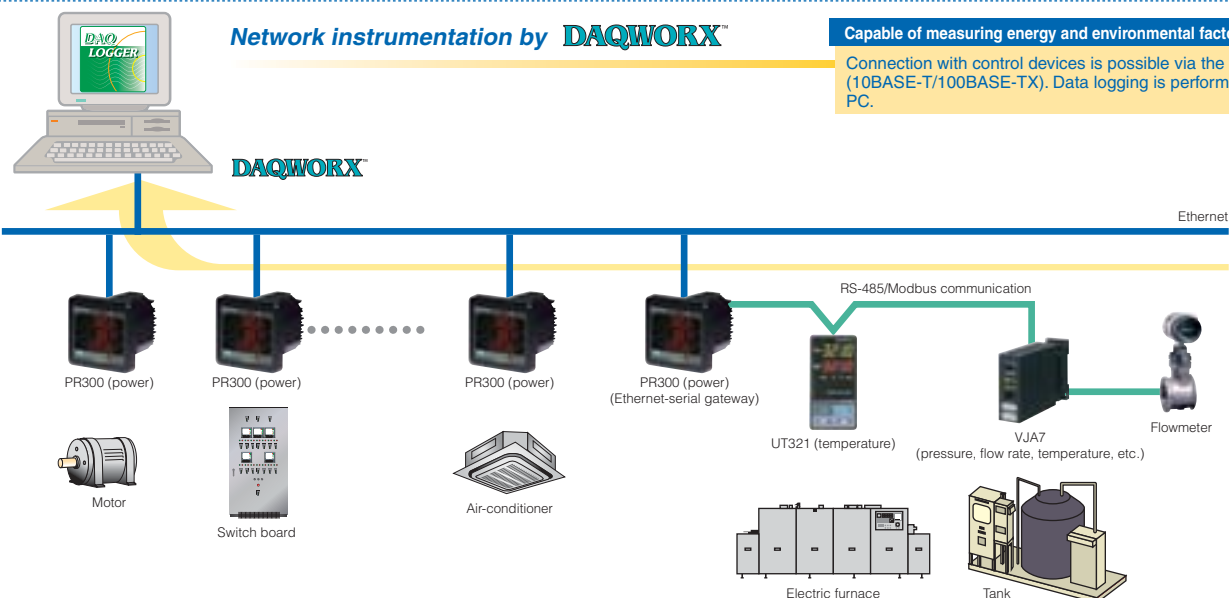
Monitoring is assisted by the browser, and data are transferred by the FTP function.



Network instrumentation by **DAQWORX**

Capable of measuring energy and environmental factors

Connection with control devices is possible via the network (10BASE-T/100BASE-TX). Data logging is performed by PC.



A Yokogawa Commitment to Industry

vigilance®

quality

innovation

foresight

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