

General Specifications

Model NT366AJ Power Monitor Driver



GS 34P02H06-01E

GENERAL

The optional Power Monitor Driver provides Versatile Data Server Software (VDS) and an ASTMAG (*1) system with the functionality to connect to power monitors from Yokogawa M&C Corporation.

*1: ASTMAG is Japanese domestic market only (Not sales for overseas).

SYSTEM REQUIREMENTS

The system requirements follow those required for VDS specified in VDS Versatile Database Server Software, GS 34P02A02-01E, or for the ASTMAG base type specified in ASTMAG Overview, GS 34P02A03-01E.

Note that the runtime version of Power Monitor Driver does not allow the user to make or modify settings and only allows the monitoring.

FUNCTION SPECIFICATIONS

Interface

RS-485 (*1)

*1: RS-232-C/RS-485 converter is necessary for the connection, but RS-232-C/RS-485 converter which has the echo back function is unusable as an adapter.

Power Monitor Models Supported

UPM01, UPM02, UPM03, UZ005, PR201

Functions

UPM01/UPM02/UPM03

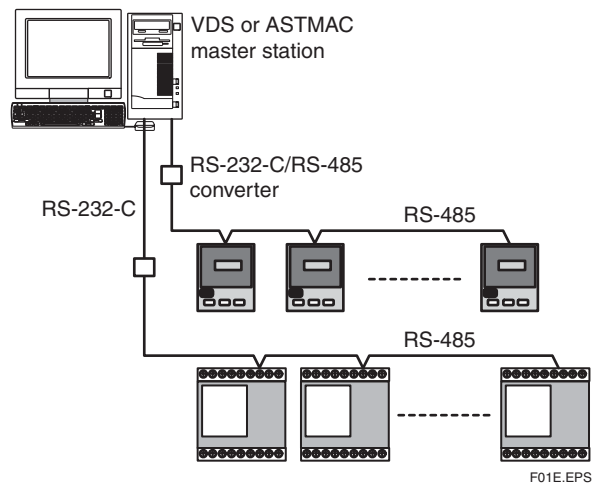
- Reading measured values: powers, voltages, currents, reactive powers, total harmonic distortions (THDs), watt-hours
- Reading statistic data: average, minimum and maximum powers/voltages/currents
- Reading of settings: PT ratios, CT ratios, pulse widths, pulse rates
- Reading/writing user information
- Reading/writing user control statuses

UZ005/PR201

- Reading measured values: Watt-hours, specified watt-hours, instantaneous powers, instantaneous voltages (V12 or V10), instantaneous currents (I1), optional data values (instantaneous power factors, instantaneous currents, etc.)

System Configuration

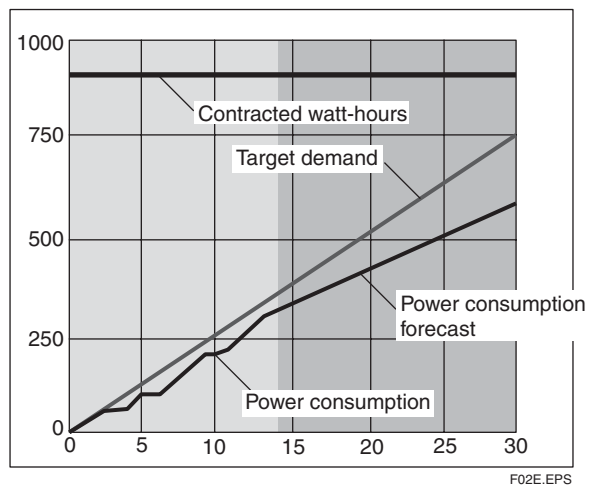
Number of power monitors that can be connected:
Up to 31 per port



A UPM01, UPM02, or UPM03 cannot be connected on the same train as a UZ005 or PR201, and vice versa.

Power Demand Control

VDS or the ASTMAG base type is capable of displaying a trend graph of power consumption forecasts for grasping the past and future of power consumption trend. Make settings so as to acquire the contracted watt-hours, target demand, demand forecast, elapsed time, and trend of demand up to the elapsed time at 1-minute intervals. Then a power demand graph will be displayed as shown below.



● Correspondences between Devices in Power Monitor and Tag Objects

Table Devices in UPM01/UPM02/UPM03 (1/2)

Device	Read/Write Access	Description	Corresponding Tag Object	Remarks
A0	R	All measured data	XAR	Always set 6 as the number of I/O points. All data values are treated as Float values. (*2) The watt-hours, power, voltage, current, reactive power, and THD will be read in order.
A1	R	Watt-hours	XAI, XAR (*1)	Treated as a Long value. (*3)
A2	R	Power	XAI, XAR (*1)	Treated as a Float value. (*2)
A3	R	Voltage	XAI, XAR (*1)	Treated as a Float value. (*2)
A4	R	Current	XAI, XAR (*1)	Treated as a Float value. (*2)
A5	R	Reactive power	XAI, XAR (*1)	Treated as a Float value. (*2)
A8	R	THD	XAI, XAR (*1)	Treated as a Float value. (*2)
A9	R	Power and reactive power	XAR	Always set 2 as the number of I/O points. Both data values are treated as Float values. (*2) The power and reactive power will be read in order.
B0	R	Average power, voltage, and current	XAR	Always set 6 as the number of I/O points. All data and time values are treated as Float values. (*2) The time (T), average power (P), time (T), average voltage (V), time (T), and average current (I) will be read in order.
B1	R	Minimum power, voltage, and current	XAR	Always set 6 as the number of I/O points. All data and time values are treated as Float values. (*2) The time (Tp), minimum power (P), time (Tv), minimum voltage (V), time (Ti), and minimum current (I) will be read in order.
B2	R	Maximum power, voltage, and current	XAR	Always set 6 as the number of I/O points. All data and time values are treated as Float values. (*2) The time (Tp), maximum power (P), time (Tv), maximum voltage (V), time (Ti), and maximum current (I) will be read in order.
C0	RW	PT ratio	AI, AO, AR (*1)	
C1	RW	CT ratio	AI, AO, AR (*1)	
C2	RW	Pulse width	AI, AO, AR (*1)	
C3	RW	Pulse rate	AI, AO, AR (*1), XAI, XAO, XAR (*1)	Use an XA□ tag object when handling values equal to or larger than 32768. The data value is treated as a Long value. (*3)
CX	RW	All settings	XAR	Always set 4 as the number of I/O points. All data values are treated as Long values. The PT ratio, CT ratio, pulse width, and pulse rate will be read in order. To write, set them in the same order.

- *1: Always set 1 as the number of I/O points.
- *2: Select Single for the analog data type.
- *3: Select Long for the analog data type.

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Devices in UPM01/UPM02/UPM03 (2/2)

Device	Read/Write Access	Description	Corresponding Tag Object	Remarks
D0	RW	User information	TXT	Up to 8 characters (*1)
D1	RW	User information	TXT	Up to 8 characters (*1)
D2	RW	User information	TXT	Up to 8 characters (*1)
D3	RW	User information	TXT	Up to 8 characters (*1)
D4	RW	User information	TXT	Up to 8 characters (*1)
D5	RW	User information	TXT	Up to 8 characters (*1)
D6	RW	User information	TXT	Up to 8 characters (*1)
D7	RW	User information	TXT	Up to 8 characters (*1)
D8	RW	User information	TXT	Up to 8 characters (*1)
D9	RW	User information	TXT	Up to 8 characters (*1)
E0	RW	Integration start	AI, AO, AR (*2)	
E1	RW	Statistics reset	AI, AO, AR (*2)	
E2	RW	Remote reset	AI, AO, AR (*2)	
E3	RW	W-h reset	AI, AO, AR (*2)	
E4	RW	Error status 1	AI, AO, AR (*2)	
E5	RW	Error status 2	AI, AO, AR (*2)	
E6	RW	Error count 2	AI, AO, AR (*2)	
EX	RW	All user control statuses	AR	Always set 4 as the number of I/O points. The integration start, statistics reset, remote reset, and W-h reset statuses will be read in order. To write, set them in the same order.

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*1: Always set 4 as the number of I/O points.

*2: Always set 1 as the number of I/O points.

Table Devices in UZ005 and PR201

Device	Read/Write Access	Description	Corresponding Tag Object	Remarks
A0	R	All-data transfer (excluding options)	XAR	Always set 6 as the number of I/O points. All data values including the power consumption are treated as Float values. (*2) The watt-hours, specified watt-hours (previous), specified watt-hours (current), instantaneous power, instantaneous voltage (V12 or V10), and instantaneous current (I1) will be read in order.
A1	R	All-data transfer (including power factor as option)	XAR	Always set 7 as the number of I/O points. All data values including the power consumption are treated as Float values. (*2) The watt-hours, specified watt-hours (previous), specified watt-hours (current), instantaneous power, instantaneous voltage (V12 or V10), instantaneous current (I1), and instantaneous power factor (option) will be read in order.
A2	R	All-data transfer (including current as option)	XAR	Always set 7 as the number of I/O points. All data values including the power consumption are treated as Float values. (*2) The watt-hours, specified watt-hours (previous), specified watt-hours (current), instantaneous power, instantaneous voltage (V12 or V10), instantaneous current (I1), and instantaneous current (option) will be read in order.
A3	R	Watt-hours	XAI, XAR (*1)	Treated as a Long value. (*3)
A4	R	Specified watt-hours (previous and current values)	XAR	Always set 2 as the number of I/O points. Both data values are treated as Long values. (*3) The previous and current watt-hours for the specified item will be read in order.
A5	R	Instantaneous power	XAI, XAR (*1)	Treated as a Float value. (*2)
A6	R	Instantaneous voltage (V12 or V10)	XAI, XAR (*1)	Treated as a Float value. (*2)
A7	R	Current	XAI, XAR (*1)	Treated as a Float value. (*2)
A8	R	Optional instantaneous power factor (with power factor measurement set as an option)	XAI, XAR (*1)	Treated as a Float value. (*2)
A9	R	Optional instantaneous current (with current measurement set as an option)	XAI, XAR (*1)	Treated as a Float value. (*2)

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- *1: Always set 1 as the number of I/O points
- *2: Select Single for the analog data type.
- *3: Select Long for the analog data type.

MODEL AND SUFFIX CODES

Model	Suffix Code	Description
NT366AJ	-LW11A	Power Monitor Driver

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ORDERING PROCEDURE

Specify the model and suffix codes.

RELATED DOCUMENTS

- VDS, GS 34P02A02-01E
- ASTMAC Overview, GS 34P02A03-01E

TRADEMARKS

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