BACnet Protocol Implementation Conformance Statement

Date: Aug 06, 2024
Vendor Name: VERIS Industries LLC
Product Name: VERIS E71 Series Energy Meter
Product Model Number:

Model	Coil & Power supply
E71E3	DIN Ethernet meter-LVCT-600VAC PS-Veris
E71E3A	DIN Ethernet meter-RCoil-600VAC PS-Veris
E71E3X	DIN Ethernet meter-LVCT-24VDC PS-Veris
E71E3AX	DIN Ethernet meter-RCoil-24VDC PS-Veris

Application Software Version: 111.241.298
Firmware Revision: 1.9.0
BACnet Protocol Revision: 15

Product Description: 3-Phase Electrical Energy Meter

The E71 Series is a compact DIN mounted meter that combines performance with affordability. The E71E3 is compatible with Veris LVCTs and includes a 24Vdc power supply supporting up to 600Vac. The meter provides accurate three phase electrical monitoring to meet 0.5S accuracy standards.

BACnet/IP, Modbus TCP/IP and SNMP come native on all models, with BTL certification and industry standard Modbus registers. Dual Ethernet ports allow Ethernet daisy chains, adding flexibility for simplified installations. Two digital inputs support status monitoring, pulse counting, multi tariff and partial resets, along with one relay output for alarm notification.

BACnet Standardized Device Profiles Supported (Annex L):

☑ BACnet Application Specific Controller (B-ASC)

BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-B, DS-RPM-B, DS-WP-B, DS-COV-B, T-VMT-I-B, DM-DDB-B, DM-DOB-B, DM-DCC-B, DM-TS-B

Segmentation Capability:

☐ Able to transmit segmented messages Window Size N/A
☐ Able to receive segmented messages Window Size N/A

Standard Object Types Supported:

Dynamic creation and deletion of objects are not supported for any object type.

Device Object:

Optional Properties Supported: Description, Location, Active_COV_Subscriptions, Local_Date, Local_Time

Writable Properties: Object_Identifier, Object_Name, Location

Analog Input:

Optional Properties Supported: Description, Reliability

Writable Properties: Out_Of_Service, COV_Increment

Object Identifier	Object Name
ANALOG_INPUT,1	KWh_Net
ANALOG_INPUT,2	KWh_Import
ANALOG_INPUT,3	KWh_Export
ANALOG_INPUT,4	KVARh_Q1
ANALOG_INPUT,5	KVARh_Q2
ANALOG_INPUT,6	KVARh_Q3
ANALOG_INPUT,7	KVARh_Q4
ANALOG_INPUT,8	Net_KVAh
ANALOG_INPUT,9	KVAh_Import
ANALOG_INPUT,10	KVAh_Export
ANALOG_INPUT,11	KW_Total
ANALOG_INPUT,12	KVAR_Total
ANALOG_INPUT,13	KVA_Total
ANALOG_INPUT,14	PF_Total
ANALOG_INPUT,15	Volts_LL_Avg
ANALOG_INPUT,16	Volts_LN_Avg
ANALOG_INPUT,17	Current_Average
ANALOG_INPUT,18	Frequency
ANALOG_INPUT,19	KW_Present_Demand
ANALOG_INPUT,20	KVAR_Present_Demand
ANALOG_INPUT,21	KVA_Present_Demand
ANALOG_INPUT,22	KW_Max_Demand_Import
ANALOG_INPUT,23	KVAR_Max_Demand_Import
ANALOG_INPUT,24	KVA_Max_Demand_Import
ANALOG_INPUT,25	Reserved_AI25
ANALOG_INPUT,26	Reserved_AI26
ANALOG_INPUT,27	Reserved_AI27
ANALOG_INPUT,28	Reserved_AI28
ANALOG_INPUT,29	Pulse_Count_1
ANALOG_INPUT,30	Pulse_Count_2
ANALOG_INPUT,31	KWh_Import_A
ANALOG_INPUT,32	KWh_Import_B
ANALOG_INPUT,33	KWh_Import_C
ANALOG_INPUT,34	KWh_Export_A
ANALOG_INPUT,35	KWh_Export_B
ANALOG_INPUT,36	KWh_Export_C
ANALOG_INPUT,37	KVARh_Q1_A
ANALOG_INPUT,38	KVARh_Q1_B
ANALOG_INPUT,39	KVARh_Q1_C
ANALOG_INPUT,40	KVARh_Q2_A
ANALOG_INPUT,41	KVARh_Q2_B

ANALOG_INPUT,42	KVARh_Q2_C
ANALOG_INPUT,43	KVARh_Q3_A
ANALOG_INPUT,44	KVARh_Q3_B
ANALOG_INPUT,45	KVARh_Q3_C
ANALOG_INPUT,46	KVARh_Q4_A
ANALOG_INPUT,47	KVARh_Q4_B
ANALOG_INPUT,48	KVARh_Q4_C
ANALOG_INPUT,49	KVAh_Import_A
ANALOG_INPUT,50	KVAh_Import_B
ANALOG_INPUT,51	KVAh_Import_C
ANALOG_INPUT,52	KVAh_Export_A
ANALOG_INPUT,53	KVAh_Export_B
ANALOG_INPUT,54	KVAh_Export_C
ANALOG_INPUT,55	KW_A
ANALOG_INPUT,56	KW_B
ANALOG_INPUT,57	KW_C
ANALOG_INPUT,58	KVAR_A
ANALOG_INPUT,59	KVAR_B
ANALOG_INPUT,60	KVAR_C
ANALOG_INPUT,61	KVA_A
ANALOG_INPUT,62	KVA_B
ANALOG_INPUT,63	KVA_C
ANALOG_INPUT,64	PF_A
ANALOG_INPUT,65	PF_B
ANALOG_INPUT,66	PF_C
ANALOG_INPUT,67	Volts_AB
ANALOG_INPUT,68	Volts_BC
ANALOG_INPUT,69	Volts_AC
ANALOG_INPUT,70	Volts_AN
ANALOG_INPUT,71	Volts_BN
ANALOG_INPUT,72	Volts_CN
ANALOG_INPUT,73	Current_A
ANALOG_INPUT,74	Current_B
ANALOG_INPUT,75	Current_C
ANALOG_INPUT,76	Max_Power
ANALOG_INPUT,77	Reserved_AI77
ANALOG_INPUT,78	Energy_Resets
ANALOG_INPUT,79	Reserved_AI79
ANALOG_INPUT,80	Reserved_AI80
ANALOG_INPUT,81	Power_Up_Count
ANALOG_INPUT,82	Reserved_AI82
ANALOG_INPUT,83	Alarm_Bitmap
ANALOG_INPUT,84	S1_Status

ANALOG_INPUT,85	S2_Status
ANALOG_INPUT,86	Relay_Counter
ANALOG_INPUT,87	Relay_Status
ANALOG_INPUT,88	Real_Energy_Import_Tariff1
ANALOG_INPUT,89	Real_Energy_Import_Tariff2
ANALOG_INPUT,90	Real_Energy_Import_Tariff3
ANALOG_INPUT,91	Real_Energy_Import_Tariff4

Analog Value:

Optional Properties Supported: Description**,** Reliability

Writable Properties: Present_Value, Out_Of_Service

Object Identifier	**Object Name**
ANALOG_VALUE,1	Config
ANALOG_VALUE,2	System_Type
ANALOG_VALUE,3	CT_Ratio_Primary
ANALOG_VALUE,4	CT_Ratio_Secondary
ANALOG_VALUE,5	PT_Ratio
ANALOG_VALUE,6	System_Voltage
ANALOG_VALUE,7	Display_Units
ANALOG_VALUE,8	Phase_Loss_Voltage_Threshold
ANALOG_VALUE,9	Phase_Loss_Imbalance_Threshold
ANALOG_VALUE,10	Subintervals
ANALOG_VALUE,11	Subinterval_Length
ANALOG_VALUE,12	S1_Control_mode
ANALOG_VALUE,13	S2_Control_mode
ANALOG_VALUE,14	Relay_control_mode
ANALOG_VALUE,15	Relay_Behavior_mode
ANALOG_VALUE,16	Relay_Output_Enable_Disable
ANALOG_VALUE,17	Applicable_Multi_Tariff
ANALOG_VALUE,18	Mode_of_LED
ANALOG_VALUE,19	Channel
ANALOG_VALUE,20	Pulse_weight
ANALOG_VALUE,21	PT_Primary
ANALOG_VALUE,22	PT_Secondary
ANALOG_VALUE,23	Demand_Method
ANALOG_VALUE,24	Demand_Interval_Duration
ANALOG_VALUE,25	Sub_Interval_Duration
ANALOG_VALUE,26	Relay_TimedMode_Time
ANALOG_VALUE,27	Input_Metering_Ch1_PulseWeight
ANALOG_VALUE,28	Input_Metering_Ch2_PulseWeight
ANALOG_VALUE,29	Nominal_Frequency
ANALOG_VALUE,30	VT_Number

ANALOG_VALUE,31	CT_Number
ANALOG_VALUE,32	VT_Connection_Type
ANALOG_VALUE,33	Multi_Tarrif_Control_Mode

Binary Input:

Optional Properties Supported: Description**,** Reliability

Writable Properties: Out_Of_Service

Object Identifier	Object Name
BINARY_INPUT,1	Volts_Error_A
BINARY_INPUT,2	Volts_Error_B
BINARY_INPUT,3	Volts_Error_C
BINARY_INPUT,4	Current_Error_A
BINARY_INPUT,5	Current_Error_B
BINARY_INPUT,6	Current_Error_C
BINARY_INPUT,7	Frequency_Error
BINARY_INPUT,8	Reserved_BI8
BINARY_INPUT,9	Phase_Loss_A
BINARY_INPUT,10	Phase_Loss_B
BINARY_INPUT,11	Phase_Loss_C
BINARY_INPUT,12	Low_PF_A
BINARY_INPUT,13	Low_PF_B
BINARY_INPUT,14	Low_PF_C
BINARY_INPUT,15	Energy_OverRun
BINARY_INPUT,16	Energy_Config_Err
BINARY_INPUT,17	Reserved_BI17

Treed Log:

Optional Properties Supported: Description

Writable Properties: Enable, Start_Time, Stop_Time, Log_DeviceObjectProperty, Log_Interval,

Stop_when_Full, Record_Count, Align_Interval

BACnet Data Link Layer Options:

☑BACnet IP, (Annex J)

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) ☐ Yes ☑ No

Networking Options:

☐ Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.

☐ Annex H, BACnet Tunneling Router over IP

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

☑ ISO 10646 (UTF-8)	☐ IBM™/Microsoft™ DBCS	☐ ISO 8859-1
☐ ISO 10646 (UCS-2)	☐ ISO 10646 (UCS-4)	☐ JIS X 0208

Gateway Options:

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:

N/A