

RI-A5IPBAC

(Bacnet module - TCP-IP)

Communication Manual



 **Rayleigh
Instruments**

It is recommended to use this module as a reference to the following content.

RI-F500 series User Manuals

BACnet Standard 135-2008

1. Safety instruction

Please read this user manual carefully before using this module. This module must be installed and serviced only by professional personnel. Manufacturer shall not be held responsible for failure to comply with the instructions in this manual.

2. Overview

RI-A5IPBAC----BACnet/IP communication module is used to extend the bus communication function of RI-F500 Series.

- . Based on Ethernet communication method
- . Relevant parameters can be configured through RI-F500 Series

3. Object list

Analog input object

No.	Data type	Name	Unit	Attribute
AI0	Int	X1-AI1 (4-20mA)	0.001mA	R
AI1	Int	X1-AI2 (4-20mA)	0.001mA	R
AI2	Int	X2-AI1 (4-20mA)	0.001mA	R
AI3	Int	X2-AI2 (4-20mA)	0.001mA	R
AI4	Int	X3-AI1 (4-20mA)	0.001mA	R
AI5	Int	X3-AI2 (4-20mA)	0.001mA	R
AI6	Int	X4-AI1 (4-20mA)	0.001mA	R
AI7	Int	X4-AI2 (4-20mA)	0.001mA	R
AI8	Int	X1-AI1 (PT100)	1°C	R
AI9	Int	X1-AI2 (PT100)	1°C	R
AI10	Int	X2-AI1 (PT100)	1°C	R
AI11	Int	X2-AI2 (PT100)	1°C	R
AI12	Int	X3-AI1 (PT100)	1°C	R

AI13	Int	X3-AI2 (PT100)	1°C	R
AI14	Int	X4-AI1 (PT100)	1°C	R
AI15	Int	X4-AI2 (PT100)	1°C	R

Analog output object

No.	Data type	Name	Unit	Attribute
AO0	Int	X1-AO1 (4-20mA)	0.001mA	R/W
AO1	Int	X1-AO2 (4-20mA)	0.001mA	R/W
AO2	Int	X2-AO1 (4-20mA)	0.001mA	R/W
AO3	Int	X2-AO2 (4-20mA)	0.001mA	R/W
AO4	Int	X3-AO1 (4-20mA)	0.001mA	R/W
AO5	Int	X3-AO2 (4-20mA)	0.001mA	R/W
AO6	Int	X4-AO1 (4-20mA)	0.001mA	R/W
AO7	Int	X4-AO2 (4-20mA)	0.001mA	R/W

Analog value object

No.	Data type	Description	Unit	Attribute
AV0	Float	Phase voltage-V1	V	R
AV1	Float	Phase voltage-V2	V	R
AV2	Float	Phase voltage-V3	V	R
AV3	Float	Line voltage-V12	V	R
AV4	Float	Line voltage-V23	V	R
AV5	Float	Line voltage-V31	V	R
AV6	Float	Phase current-I1	A	R
AV7	Float	Phase current-I1	A	R
AV8	Float	Phase current-I3	A	R
AV9	Float	Current-In	A	R
AV10	Float	Active power-P1	kW	R

AV11	Float	Active power-P2	kW	R
AV12	Float	Active power-P3	kW	R
AV13	Float	Total active power-P	kW	R
AV14	Float	Reactive power-Q1	kvar	R
AV15	Float	Reactive power-Q2	kvar	R
AV16	Float	Reactive power-Q3	kvar	R
AV17	Float	Total reactive power-Q	kvar	R
AV18	Float	Apparent power-S1	kVA	R
AV19	Float	Apparent power-S2	kVA	R
AV20	Float	Apparent power-S3	kVA	R
AV21	Float	Total apparent power-S	kVA	R
AV22	Float	Power factor-PF1		R
AV23	Float	Power factor-PF2		R
AV24	Float	Power factor-PF3		R
AV25	Float	Total power factor-PF		R
AV26	Float	Grid frequency-F	Hz	R
AV27	Float	Import Active Energy EP+	kWh	R
AV28	Float	Export Active Energy EP-	kWh	R
AV29	Float	Import Reactive Energy EQ+	kvarh	R
AV30	Float	Export Reactive Energy EQ-	kvarh	R
AV31	Float	Apparent Energy	kVAh	R
AV32	Float	1st Quadrant Reactive Energy	kvarh	R
AV33	Float	2nd Quadrant Reactive Energy	kvarh	R
AV34	Float	3rd Quadrant Reactive Energy	kvarh	R

AV35	Float	4th Quadrant Reactive Energy	kvarh	R
AV36	Float	Fundamental Import Active Energy	kWh	R
AV37	Float	Fundamental Export Active Energy	kWh	R
AV38	Float	Fundamental Import Reactive Energy	kvarh	R
AV39	Float	Fundamental Export Reactive Energy	kvarh	R
AV40	Float	Import Active Energy-L1	kWh	R
AV41	Float	Import Active Energy-L2	kWh	R
AV42	Float	Import Active Energy-L3	kWh	R
AV43	Float	Export Active Energy- L1	kWh	R
AV44	Float	Export Active Energy - L2	kWh	R
AV45	Float	Export Active Energy - L3	kWh	R
AV46	Float	Import Reactive Energy- L1	kvarh	R
AV47	Float	Import Reactive Energy- L2	kvarh	R
AV48	Float	Import Reactive Energy- L3	kvarh	R
AV49	Float	Export Reactive Energy - L1	kvarh	R
AV50	Float	Export Reactive Energy - L2	kvarh	R
AV51	Float	Export Reactive Energy - L3	kvarh	R
AV52	Float	Total import tariff energy	kWh	R
AV53	Float	Tariff T1 import energy	kWh	R
AV54	Float	Tariff T2 import energy	kWh	R
AV55	Float	Tariff T3 import energy	kWh	R
AV56	Float	Tariff T4 import energy	kWh	R
AV57	Float	this month Total tariff import energy	kWh	R

AV58	Float	this month Tariff T1 import energy	kWh	R
AV59	Float	this month Tariff T2 import energy	kWh	R
AV60	Float	this month Tariff T3 import energy	kWh	R
AV61	Float	this month Tariff T4 import energy	kWh	R
AV62	Float	One month before Total tariff import energy	kWh	R
AV63	Float	One month before Tariff T1 import energy	kWh	R
AV64	Float	One month before Tariff T2 import energy	kWh	R
AV65	Float	One month before Tariff T3 import energy	kWh	R
AV66	Float	One month before Tariff T4 import energy	kWh	R
AV67	Float	two month before Total tariff import energy	kWh	R
AV68	Float	two month before Tariff T1 import energy	kWh	R
AV69	Float	two month before Tariff T2 import energy	kWh	R
AV70	Float	two month before Tariff T3 import energy	kWh	R
AV71	Float	two month before Tariff T4 import energy	kWh	R
AV72	Float	three month before Total tariff import energy	kWh	R

AV73	Float	three month before Tariff T1 import energy	kWh	R
AV74	Float	three month before Tariff T2 import energy	kWh	R
AV75	Float	three month before Tariff T3 import energy	kWh	R
AV76	Float	three month before Tariff T4 import energy	kWh	R
AV77	Float	four month before Total tariff import energy	kWh	R
AV78	Float	four month before Tariff T1 import energy	kWh	R
AV79	Float	four month before Tariff T2 import energy	kWh	R
AV80	Float	four month before Tariff T3 import energy	kWh	R
AV81	Float	four month before Tariff T4 import energy	kWh	R
AV82	Float	five month before Total tariff import energy	kWh	R
AV83	Float	five month before Tariff T1 import energy	kWh	R
AV84	Float	five month before Tariff T2 import energy	kWh	R
AV85	Float	five month before Tariff T3 import energy	kWh	R
AV86	Float	five month before Tariff T4 import energy	kWh	R
AV87	Float	six month before Total tariff import energy	kWh	R

AV88	Float	six month before Tariff T1 import energy	kWh	R
AV89	Float	six month before Tariff T2 import energy	kWh	R
AV90	Float	six month before Tariff T3 import energy	kWh	R
AV91	Float	six month before Tariff T4 import energy	kWh	R
AV92	Float	seven month before Total tariff import energy	kWh	R
AV93	Float	seven month before Tariff T1 import energy	kWh	R
AV94	Float	seven month before Tariff T2 import energy	kWh	R
AV95	Float	seven month before Tariff T3 import energy	kWh	R
AV96	Float	seven month before Tariff T4 import energy	kWh	R
AV97	Float	eight month before Total tariff import energy	kWh	R
AV98	Float	eight month before Tariff T1 import energy	kWh	R
AV99	Float	eight month before Tariff T2 import energy	kWh	R
AV100	Float	eight month before Tariff T3 import energy	kWh	R
AV101	Float	eight month before Tariff T4 import energy	kWh	R
AV102	Float	nine month before Total tariff import energy	kWh	R

AV103	Float	nine month before Tariff T1 import energy	kWh	R
AV104	Float	nine month before Tariff T2 import energy	kWh	R
AV105	Float	nine month before Tariff T3 import energy	kWh	R
AV106	Float	nine month before Tariff T4 import energy	kWh	R
AV107	Float	ten month before Total tariff import energy	kWh	R
AV108	Float	ten month before Tariff T1 import energy	kWh	R
AV109	Float	ten month before Tariff T2 import energy	kWh	R
AV110	Float	ten month before Tariff T3 import energy	kWh	R
AV111	Float	ten month before Tariff T4 import energy	kWh	R
AV112	Float	eleven month before Total tariff import energy	kWh	R
AV113	Float	eleven month before Tariff T1 import energy	kWh	R
AV114	Float	eleven month before Tariff T2 import energy	kWh	R
AV115	Float	eleven month before Tariff T3 import energy	kWh	R
AV116	Float	eleven month before Tariff T4 import energy	kWh	R
AV117	char	High byte: year, Low byte: month		R

AV118	char	High byte: day, Low byte: hour		R
AV119	char	High byte: minute, Low byte: second		R
AV120	char	High byte:week, Low byte: ----		R
AV121	Int	High byte: X1 Extended Module Low byte: X2 Extended Module		R
AV122	Int	High byte: X3 Extended Module Low byte: X4 Extended Module		R
AV123	Float	Max. historical value-V1	V	R
AV124	Float	Max. historical value-V2	V	R
AV125	Float	Max. historical value-V3	V	R
AV126	Float	Max. historical value-V12	V	R
AV127	Float	Max. historical value-V23	V	R
AV128	Float	Max. historical value-V31	V	R
AV129	Float	Max. historical value-I1	A	R
AV130	Float	Max. historical value-I2	A	R
AV131	Float	Max. historical value-I3	A	R
AV132	Float	Max. historical value-In	A	R
AV133	Float	Max. historical value-P	kW	R
AV134	Float	Max. historical value-Q	kvar	R
AV135	Float	Max. historical value-S	kVA	R
AV136	Float	Max. historical value-PF	-	R
AV137	Float	Max. historical value-F	Hz	R
AV138	Float	Min. value-V1	V	R

AV139	Float	Min. value-V2	V	R
AV140	Float	Min. value-V3	V	R
AV141	Float	Min. value-V12	V	R
AV142	Float	Min. value-V23	V	R
AV143	Float	Min. value-V31	V	R
AV144	Float	Min. value-I1	A	R
AV145	Float	Min. value-I2	A	R
AV146	Float	Min. value-I3	A	R
AV147	Float	Min. value-In	A	R
AV148	Float	Min. value-P	kW	R
AV149	Float	Min. value-Q	kvar	R
AV150	Float	Min. value-S	kVAh	R
AV151	Float	Min. value-PF	-	R
AV152	Float	Min. value-F	Hz	R
AV153	Float	this month Max. historical value-V1	V	R
AV154	Float	this month Max. historical value-V2	V	R
AV155	Float	this month Max. historical value-V3	V	R
AV156	Float	this month Max. historical value-V12	V	R
AV157	Float	this month Max. historical value-V23	V	R
AV158	Float	this month Max. historical value-V31	V	R
AV159	Float	this month Max. historical value-I1	A	R
AV160	Float	this month Max. historical value-I2	A	R

AV161	Float	this month Max. historical value-I3	A	R
AV162	Float	this month Max. historical value-In	A	R
AV163	Float	this month Max. historical value-P	kW	R
AV164	Float	this month Max. historical value-Q	kvar	R
AV165	Float	this month Max. historical value-S	kVA	R
AV166	Float	this month Max. historical value-PF	-	R
AV167	Float	this month Max. historical value-F	Hz	R
AV168	Float	this month Min. value-V1	V	R
AV169	Float	this month Min. value-V2	V	R
AV170	Float	this month Min. value-V3	V	R
AV171	Float	this month Min. value-V12	V	R
AV172	Float	this month Min. value-V23	V	R
AV173	Float	this month Min. value-V31	V	R
AV174	Float	this month Min. value-I1	A	R
AV175	Float	this month Min. value-I2	A	R
AV176	Float	this month Min. value-I3	A	R
AV177	Float	this month Min. value-In	A	R
AV178	Float	this month Min. value-P	kW	R
AV179	Float	this month Min. value-Q	kvar	R
AV180	Float	this month Min. value-S	kVA	R
AV181	Float	this month Min. value-PF	-	R
AV182	Float	this month Min. value-F	Hz	R
AV183	Float	last month Max. historical	V	R

		value-V1		
AV184	Float	last month Max. historical value-V2	V	R
AV185	Float	last month Max. historical value-V3	V	R
AV186	Float	last month Max. historical value-V12	V	R
AV187	Float	last month Max. historical value-V23	V	R
AV188	Float	last month Max. historical value-V31	V	R
AV189	Float	last month Max. historical value-I1	A	R
AV190	Float	last month Max. historical value-I2	A	R
AV191	Float	last month Max. historical value-I3	A	R
AV192	Float	last month Max. historical value-In	A	R
AV193	Float	last month Max. historical value-P	kW	R
AV194	Float	last month Max. historical value-Q	kvar	R
AV195	Float	last month Max. historical value-S	kVA	R
AV196	Float	last month Max. historical value-PF	-	R
AV197	Float	last month Max. historical value-F	Hz	R
AV198	Float	last month Min. value-V1	V	R

AV199	Float	last month Min. value-V2	V	R
AV200	Float	last month Min. value-V3	V	R
AV201	Float	last month Min. value-V12	V	R
AV202	Float	last month Min. value-V23	V	R
AV203	Float	last month Min. value-V31	V	R
AV204	Float	last month Min. value-I1	A	R
AV205	Float	last month Min. value-I2	A	R
AV206	Float	last month Min. value-I3	A	R
AV207	Float	last month Min. value-In	A	R
AV208	Float	last month Min. value-P	kW	R
AV209	Float	last month Min. value-Q	kvar	R
AV210	Float	last month Min. value-S	kVA	R
AV211	Float	last month Min. value-PF	-	R
AV212	Float	last month Min. value-F	Hz	R
AV213	Float	two months before Max. historical value-V1	V	R
AV214	Float	two months before Max. historical value-V2	V	R
AV215	Float	two months before Max. historical value-V3	V	R
AV216	Float	two months before Max. historical value-V12	V	R
AV217	Float	two months before Max. historical value-V23	V	R
AV218	Float	two months before Max. historical value-V31	V	R
AV219	Float	two months before Max. historical value-I1	A	R
AV220	Float	two months before Max. historical value-I2	A	R

AV221	Float	two months before Max. historical value-I3	A	R
AV222	Float	two months before Max. historical value-In	A	R
AV223	Float	two months before Max. historical value-P	kW	R
AV224	Float	two months before Max. historical value-Q	kvar	R
AV225	Float	two months before Max. historical value-S	kVA	R
AV226	Float	two months before Max. historical value-PF	-	R
AV227	Float	two months before Max. historical value-F	Hz	R
AV228	Float	two months before Min. value-V1	V	R
AV229	Float	two months before Min. value-V2	V	R
AV230	Float	two months before Min. value-V3	V	R
AV231	Float	two months before Min. value-V12	V	R
AV232	Float	two months before Min. value-V23	V	R
AV233	Float	two months before Min. value-V31	V	R
AV234	Float	two months before Min. value-I1	A	R
AV235	Float	two months before Min. value-I2	A	R

AV236	Float	two months before Min. value-I3	A	R
AV237	Float	two months before Min. value-In	A	R
AV238	Float	two months before Min. value-P	kW	R
AV239	Float	two months before Min. value-Q	kvar	R
AV240	Float	two months before Min. value-S	kVA	R
AV241	Float	two months before Min. value-PF	-	R
AV242	Float	two months before Min. value-F	Hz	R
AV243	Float	Positive-sequence component of voltage	V	R
AV244	Float	Negative-sequence component of voltage	V	R
AV245	Float	Zero-sequence component of voltage	V	R
AV246	Float	Unbalance factor of voltage		R
AV247	Float	Positive-sequence component of current	A	R
AV248	Float	Negative-sequence component of current	A	R
AV249	Float	Zero-sequence component of current	A	R
AV250	Float	Unbalance factor of current		R

AV251	Float	Avg-VIn	V	R
AV252	Float	Avg-VII	V	R
AV253	Float	Avg-I	A	R
AV254	Float	Avg-P	kW	R
AV255	Float	Avg-Q	kvar	R
AV256	Float	Avg-S	kVA	R
AV257	Float	Deviation-V1	V	R
AV258	Float	Deviation-V2	V	R
AV259	Float	Deviation-V3	V	R
AV260	Float	Deviation-V12	V	R
AV261	Float	Deviation-V23	V	R
AV262	Float	Deviation-V31	V	R
AV263	Float	Deviation-F	Hz	R
AV264	Float	Fundamental value -V1	V	R
AV265	Float	Fundamental value -V2	V	R
AV266	Float	Fundamental value -V3	V	R
AV267	Float	Fundamental value -I1	A	R
AV268	Float	Fundamental value -I2	A	R
AV269	Float	Fundamental value -I3	A	R
AV270	Float	Harmonic content -V1	V	R
AV271	Float	Harmonic content -V2	V	R
AV272	Float	Harmonic content -V3	V	R
AV273	Float	Harmonic content -I1	A	R
AV274	Float	Harmonic content -I2	A	R
AV275	Float	Harmonic content -I3	A	R
AV276	Float	Fundamental value -P1	kW	R
AV277	Float	Fundamental value -P2	kW	R
AV278	Float	Fundamental value -P3	kW	R
AV279	Float	Fundamental value -P1	kW	R

AV280	Float	Fundamental value -Q1	kvar	R
AV281	Float	Fundamental value -Q2	kvar	R
AV282	Float	Fundamental value -Q3	kvar	R
AV283	Float	Fundamental value -Q	kvar	R
AV284	Float	Fundamental value -S1	kVA	R
AV285	Float	Fundamental value -S2	kVA	R
AV286	Float	Fundamental value -S3	kVA	R
AV287	Float	Fundamental value -S	kVA	R
AV288	Float	Fundamental value -PF1		R
AV289	Float	Fundamental value -PF2		R
AV290	Float	Fundamental value -PF3		R
AV291	Float	Fundamental value -PF		R
AV292	Float	Meter running time	s	R
AV293	Float	On-load running time	s	R
AV294	Float	V1-Short term severity		R
AV295	Float	V2-Short term severity		R
AV296	Float	V3-Short term severity		R
AV297	Float	V1-Long term severity		R
AV298	Float	V2-Long term severity		R
AV299	Float	V3-Long term severity		R
AV300	Float	V1-Voltage fluctuation	V	R
AV301	Float	V2-Voltage fluctuation	V	R
AV302	Float	V3-Voltage fluctuation	V	R
AV303	Float	Phase angle of V1(default 0°)	0.1°	R
AV304	Float	Phase angle of V2	0.1°	R
AV305	Float	Phase angle of V3	0.1°	R
AV306	Float	Phase angle of I1	0.1°	R
AV307	Float	Phase angle of I2	0.1°	R

AV308	Float	Phase angle of I3	0.1°	R
AV309	Float	Crest factor V1	0.001	R
AV310	Float	Crest factor V2	0.001	R
AV311	Float	Crest factor V3	0.001	R
AV312	Float	K-factor I1	0.001	R
AV313	Float	K-factor I2	0.001	R
AV314	Float	K-factor I3	0.001	R
AV315	Float	Derating factor of transformer	0.10%	R
AV316	Float	Load percentage I1	0.10%	R
AV317	Float	Load percentage I2	0.10%	R
AV318	Float	Load percentage I3	0.10%	R
AV319	Float	Load percentage P	0.10%	R
AV320	Float	Voltage qualification rate	0.10%	R
AV321	Float	Frequency qualification rate	0.10%	R
AV322	Float	THD-V1	0.01%	R
AV323	Float	THD-V2	0.01%	R
AV324	Float	THD-V3	0.01%	R
AV325	Float	THD-I1	0.01%	R
AV326	Float	THD-I2	0.01%	R
AV327	Float	THD-I3	0.01%	R
AV328	Float	2 nd harmonic ratio-V1	0.01%	R
AV329	Float	2 nd harmonic ratio-V2	0.01%	R
AV330	Float	2 nd harmonic ratio-V3	0.01%	R
AV331	Float	2 nd harmonic ratio-I1	0.01%	R
AV332	Float	2 nd harmonic ratio-I2	0.01%	R
AV333	Float	2 nd harmonic ratio-I3	0.01%	R
AV334	Float	3rd harmonic ratio-V1	0.01%	R

AV335	Float	3rd harmonic ratio-V2		0.01%	R
AV336	Float	3rd harmonic ratio-V3		0.01%	R
AV337	Float	3rd harmonic ratio-I1		0.01%	R
AV338	Float	3rd harmonic ratio-I2		0.01%	R
AV339	Float	3rd harmonic ratio-I3		0.01%	R
AV340	Float	4th harmonic ratio-V1		0.01%	R
AV341	Float	4th harmonic ratio-V2		0.01%	R
AV342	Float	4th harmonic ratio-V3		0.01%	R
AV343	Float	4th harmonic ratio-I1		0.01%	R
AV344	Float	4th harmonic ratio-I2		0.01%	R
AV345	Float	4th harmonic ratio-I3		0.01%	R
AV346	Float	5th harmonic ratio-V1		0.01%	R
AV347	Float	5th harmonic ratio-V2		0.01%	R
AV348	Float	5th harmonic ratio-V3		0.01%	R
AV349	Float	5th harmonic ratio-I1		0.01%	R
AV350	Float	5th harmonic ratio-I2		0.01%	R
AV351	Float	5th harmonic ratio-I3		0.01%	R
AV352	Float	6th harmonic ratio-V1		0.01%	R
AV353	Float	6th harmonic ratio-V2		0.01%	R
AV354	Float	6th harmonic ratio-V3		0.01%	R
AV355	Float	6th harmonic ratio-I1		0.01%	R
AV356	Float	6th harmonic ratio-I2		0.01%	R
AV357	Float	6th harmonic ratio-I3		0.01%	R
AV358	Float	7th harmonic ratio-V1		0.01%	R
AV359	Float	7th harmonic ratio-V2		0.01%	R
AV360	Float	7th harmonic ratio-V3		0.01%	R
AV361	Float	7th harmonic ratio-I1		0.01%	R
AV362	Float	7th harmonic ratio-I2		0.01%	R
AV363	Float	7th harmonic ratio-I3		0.01%	R

AV364	Float	8th harmonic ratio-V1		0.01%	R
AV365	Float	8th harmonic ratio-V2		0.01%	R
AV366	Float	8th harmonic ratio-V3		0.01%	R
AV367	Float	8th harmonic ratio-I1		0.01%	R
AV368	Float	8th harmonic ratio-I2		0.01%	R
AV369	Float	8th harmonic ratio-I3		0.01%	R
AV370	Float	9th harmonic ratio-V1		0.01%	R
AV371	Float	9th harmonic ratio-V2		0.01%	R
AV372	Float	9th harmonic ratio-V3		0.01%	R
AV373	Float	9th harmonic ratio-I1		0.01%	R
AV374	Float	9th harmonic ratio-I2		0.01%	R
AV375	Float	9th harmonic ratio-I3		0.01%	R
AV376	Float	10th harmonic ratio-V1		0.01%	R
AV377	Float	10th harmonic ratio-V2		0.01%	R
AV378	Float	10th harmonic ratio-V3		0.01%	R
AV379	Float	10th harmonic ratio-I1		0.01%	R
AV380	Float	10th harmonic ratio-I2		0.01%	R
AV381	Float	10th harmonic ratio-I3		0.01%	R
AV382	Float	11th harmonic ratio-V1		0.01%	R
AV383	Float	11th harmonic ratio-V2		0.01%	R
AV384	Float	11th harmonic ratio-V3		0.01%	R
AV385	Float	11th harmonic ratio-I1		0.01%	R
AV386	Float	11th harmonic ratio-I2		0.01%	R
AV387	Float	11th harmonic ratio-I3		0.01%	R
AV388	Float	12th harmonic ratio-V1		0.01%	R
AV389	Float	12th harmonic ratio-V2		0.01%	R
AV390	Float	12th harmonic ratio-V3		0.01%	R
AV391	Float	12th harmonic ratio-I1		0.01%	R
AV392	Float	12th harmonic ratio-I2		0.01%	R

AV393	Float	12th harmonic ratio-I3		0.01%	R
AV394	Float	13th harmonic ratio-V1		0.01%	R
AV395	Float	13th harmonic ratio-V2		0.01%	R
AV396	Float	13th harmonic ratio-V3		0.01%	R
AV397	Float	13th harmonic ratio-I1		0.01%	R
AV398	Float	13th harmonic ratio-I2		0.01%	R
AV399	Float	13th harmonic ratio-I3		0.01%	R
AV400	Float	14th harmonic ratio-V1		0.01%	R
AV401	Float	14th harmonic ratio-V2		0.01%	R
AV402	Float	14th harmonic ratio-V3		0.01%	R
AV403	Float	14th harmonic ratio-I1		0.01%	R
AV404	Float	14th harmonic ratio-I2		0.01%	R
AV405	Float	14th harmonic ratio-I3		0.01%	R
AV406	Float	15th harmonic ratio-V1		0.01%	R
AV407	Float	15th harmonic ratio-V2		0.01%	R
AV408	Float	15th harmonic ratio-V3		0.01%	R
AV409	Float	15th harmonic ratio-I1		0.01%	R
AV410	Float	15th harmonic ratio-I2		0.01%	R
AV411	Float	15th harmonic ratio-I3		0.01%	R
AV412	Float	16th harmonic ratio-V1		0.01%	R
AV413	Float	16th harmonic ratio-V2		0.01%	R
AV414	Float	16th harmonic ratio-V3		0.01%	R
AV415	Float	16th harmonic ratio-I1		0.01%	R
AV416	Float	16th harmonic ratio-I2		0.01%	R
AV417	Float	16th harmonic ratio-I3		0.01%	R
AV418	Float	17th harmonic ratio-V1		0.01%	R
AV419	Float	17th harmonic ratio-V2		0.01%	R
AV420	Float	17th harmonic ratio-V3		0.01%	R
AV421	Float	17th harmonic ratio-I1		0.01%	R

AV422	Float	17th harmonic ratio-I2		0.01%	R
AV423	Float	17th harmonic ratio-I3		0.01%	R
AV424	Float	18th harmonic ratio-V1		0.01%	R
AV425	Float	18th harmonic ratio-V2		0.01%	R
AV426	Float	18th harmonic ratio-V3		0.01%	R
AV427	Float	18th harmonic ratio-I1		0.01%	R
AV428	Float	18th harmonic ratio-I2		0.01%	R
AV429	Float	18th harmonic ratio-I3		0.01%	R
AV430	Float	19th harmonic ratio-V1		0.01%	R
AV431	Float	19th harmonic ratio-V2		0.01%	R
AV432	Float	19th harmonic ratio-V3		0.01%	R
AV433	Float	19th harmonic ratio-I1		0.01%	R
AV434	Float	19th harmonic ratio-I2		0.01%	R
AV435	Float	19th harmonic ratio-I3		0.01%	R
AV436	Float	20th harmonic ratio-V1		0.01%	R
AV437	Float	20th harmonic ratio-V2		0.01%	R
AV438	Float	20th harmonic ratio-V3		0.01%	R
AV439	Float	20th harmonic ratio-I1		0.01%	R
AV440	Float	20th harmonic ratio-I2		0.01%	R
AV441	Float	20th harmonic ratio-I3		0.01%	R
AV442	Float	21th harmonic ratio-V1		0.01%	R
AV443	Float	21th harmonic ratio-V2		0.01%	R
AV444	Float	21th harmonic ratio-V3		0.01%	R
AV445	Float	21th harmonic ratio-I1		0.01%	R
AV446	Float	21th harmonic ratio-I2		0.01%	R
AV447	Float	21th harmonic ratio-I3		0.01%	R
AV448	Float	22th harmonic ratio-V1		0.01%	R
AV449	Float	22th harmonic ratio-V2		0.01%	R
AV450	Float	22th harmonic ratio-V3		0.01%	R

AV451	Float	22th harmonic ratio-I1		0.01%	R
AV452	Float	22th harmonic ratio-I2		0.01%	R
AV453	Float	22th harmonic ratio-I3		0.01%	R
AV454	Float	23th harmonic ratio-V1		0.01%	R
AV455	Float	23th harmonic ratio-V2		0.01%	R
AV456	Float	23th harmonic ratio-V3		0.01%	R
AV457	Float	23th harmonic ratio-I1		0.01%	R
AV458	Float	23th harmonic ratio-I2		0.01%	R
AV459	Float	23th harmonic ratio-I3		0.01%	R
AV460	Float	24th harmonic ratio-V1		0.01%	R
AV461	Float	24th harmonic ratio-V2		0.01%	R
AV462	Float	24th harmonic ratio-V3		0.01%	R
AV463	Float	24th harmonic ratio-I1		0.01%	R
AV464	Float	24th harmonic ratio-I2		0.01%	R
AV465	Float	24th harmonic ratio-I3		0.01%	R
AV466	Float	25th harmonic ratio-V1		0.01%	R
AV467	Float	25th harmonic ratio-V2		0.01%	R
AV468	Float	25th harmonic ratio-V3		0.01%	R
AV469	Float	25th harmonic ratio-I1		0.01%	R
AV470	Float	25th harmonic ratio-I2		0.01%	R
AV471	Float	25th harmonic ratio-I3		0.01%	R
AV472	Float	26th harmonic ratio-V1		0.01%	R
AV473	Float	26th harmonic ratio-V2		0.01%	R
AV474	Float	26th harmonic ratio-V3		0.01%	R
AV475	Float	26th harmonic ratio-I1		0.01%	R
AV476	Float	26th harmonic ratio-I2		0.01%	R
AV477	Float	26th harmonic ratio-I3		0.01%	R
AV478	Float	27th harmonic ratio-V1		0.01%	R
AV479	Float	27th harmonic ratio-V2		0.01%	R

AV480	Float	27th harmonic ratio-V3		0.01%	R
AV481	Float	27th harmonic ratio-I1		0.01%	R
AV482	Float	27th harmonic ratio-I2		0.01%	R
AV483	Float	27th harmonic ratio-I3		0.01%	R
AV484	Float	28th harmonic ratio-V1		0.01%	R
AV485	Float	28th harmonic ratio-V2		0.01%	R
AV486	Float	28th harmonic ratio-V3		0.01%	R
AV487	Float	28th harmonic ratio-I1		0.01%	R
AV488	Float	28th harmonic ratio-I2		0.01%	R
AV489	Float	28th harmonic ratio-I3		0.01%	R
AV490	Float	29th harmonic ratio-V1		0.01%	R
AV491	Float	29th harmonic ratio-V2		0.01%	R
AV492	Float	29th harmonic ratio-V3		0.01%	R
AV493	Float	29th harmonic ratio-I1		0.01%	R
AV494	Float	29th harmonic ratio-I2		0.01%	R
AV495	Float	29th harmonic ratio-I3		0.01%	R
AV496	Float	30th harmonic ratio-V1		0.01%	R
AV497	Float	30th harmonic ratio-V2		0.01%	R
AV498	Float	30th harmonic ratio-V3		0.01%	R
AV499	Float	30th harmonic ratio-I1		0.01%	R
AV500	Float	30th harmonic ratio-I2		0.01%	R
AV501	Float	30th harmonic ratio-I3		0.01%	R
AV502	Float	31th harmonic ratio-V1		0.01%	R
AV503	Float	31th harmonic ratio-V2		0.01%	R
AV504	Float	31th harmonic ratio-V3		0.01%	R
AV505	Float	31th harmonic ratio-I1		0.01%	R
AV506	Float	31th harmonic ratio-I2		0.01%	R
AV507	Float	31th harmonic ratio-I3		0.01%	R
AV508	Float	32th harmonic ratio-V1		0.01%	R

AV509	Float	32th harmonic ratio-V2		0.01%	R
AV510	Float	32th harmonic ratio-V3		0.01%	R
AV511	Float	32th harmonic ratio-I1		0.01%	R
AV512	Float	32th harmonic ratio-I2		0.01%	R
AV513	Float	32th harmonic ratio-I3		0.01%	R
AV514	Float	33th harmonic ratio-V1		0.01%	R
AV515	Float	33th harmonic ratio-V2		0.01%	R
AV516	Float	33th harmonic ratio-V3		0.01%	R
AV517	Float	33th harmonic ratio-I1		0.01%	R
AV518	Float	33th harmonic ratio-I2		0.01%	R
AV519	Float	33th harmonic ratio-I3		0.01%	R
AV520	Float	34th harmonic ratio-V1		0.01%	R
AV521	Float	34th harmonic ratio-V2		0.01%	R
AV522	Float	34th harmonic ratio-V3		0.01%	R
AV523	Float	34th harmonic ratio-I1		0.01%	R
AV524	Float	34th harmonic ratio-I2		0.01%	R
AV525	Float	34th harmonic ratio-I3		0.01%	R
AV526	Float	35th harmonic ratio-V1		0.01%	R
AV527	Float	35th harmonic ratio-V2		0.01%	R
AV528	Float	35th harmonic ratio-V3		0.01%	R
AV529	Float	35th harmonic ratio-I1		0.01%	R
AV530	Float	35th harmonic ratio-I2		0.01%	R
AV531	Float	35th harmonic ratio-I3		0.01%	R
AV532	Float	36th harmonic ratio-V1		0.01%	R
AV533	Float	36th harmonic ratio-V2		0.01%	R
AV534	Float	36th harmonic ratio-V3		0.01%	R
AV535	Float	36th harmonic ratio-I1		0.01%	R
AV536	Float	36th harmonic ratio-I2		0.01%	R
AV537	Float	36th harmonic ratio-I3		0.01%	R

AV538	Float	37th	harmonic ratio-V1		0.01%	R
AV539	Float	37th	harmonic ratio-V2		0.01%	R
AV540	Float	37th	harmonic ratio-V3		0.01%	R
AV541	Float	37th	harmonic ratio-I1		0.01%	R
AV542	Float	37th	harmonic ratio-I2		0.01%	R
AV543	Float	37th	harmonic ratio-I3		0.01%	R
AV544	Float	38th	harmonic ratio-V1		0.01%	R
AV545	Float	38th	harmonic ratio-V2		0.01%	R
AV546	Float	38th	harmonic ratio-V3		0.01%	R
AV547	Float	38th	harmonic ratio-I1		0.01%	R
AV548	Float	38th	harmonic ratio-I2		0.01%	R
AV549	Float	38th	harmonic ratio-I3		0.01%	R
AV550	Float	39th	harmonic ratio-V1		0.01%	R
AV551	Float	39th	harmonic ratio-V2		0.01%	R
AV552	Float	39th	harmonic ratio-V3		0.01%	R
AV553	Float	39th	harmonic ratio-I1		0.01%	R
AV554	Float	39th	harmonic ratio-I2		0.01%	R
AV555	Float	39th	harmonic ratio-I3		0.01%	R
AV556	Float	40th	harmonic ratio-V1		0.01%	R
AV557	Float	40th	harmonic ratio-V2		0.01%	R
AV558	Float	40th	harmonic ratio-V3		0.01%	R
AV559	Float	40th	harmonic ratio-I1		0.01%	R
AV560	Float	40th	harmonic ratio-I2		0.01%	R
AV561	Float	40th	harmonic ratio-I3		0.01%	R
AV562	Float	41th	harmonic ratio-V1		0.01%	R
AV563	Float	41th	harmonic ratio-V2		0.01%	R
AV564	Float	41th	harmonic ratio-V3		0.01%	R
AV565	Float	41th	harmonic ratio-I1		0.01%	R
AV566	Float	41th	harmonic ratio-I2		0.01%	R

AV567	Float	41th	harmonic ratio-I3		0.01%	R
AV568	Float	42th	harmonic ratio-V1		0.01%	R
AV569	Float	42th	harmonic ratio-V2		0.01%	R
AV570	Float	42th	harmonic ratio-V3		0.01%	R
AV571	Float	42th	harmonic ratio-I1		0.01%	R
AV572	Float	42th	harmonic ratio-I2		0.01%	R
AV573	Float	42th	harmonic ratio-I3		0.01%	R
AV574	Float	43th	harmonic ratio-V1		0.01%	R
AV575	Float	43th	harmonic ratio-V2		0.01%	R
AV576	Float	43th	harmonic ratio-V3		0.01%	R
AV577	Float	43th	harmonic ratio-I1		0.01%	R
AV578	Float	43th	harmonic ratio-I2		0.01%	R
AV579	Float	43th	harmonic ratio-I3		0.01%	R
AV580	Float	44th	harmonic ratio-V1		0.01%	R
AV581	Float	44th	harmonic ratio-V2		0.01%	R
AV582	Float	44th	harmonic ratio-V3		0.01%	R
AV583	Float	44th	harmonic ratio-I1		0.01%	R
AV584	Float	44th	harmonic ratio-I2		0.01%	R
AV585	Float	44th	harmonic ratio-I3		0.01%	R
AV586	Float	45th	harmonic ratio-V1		0.01%	R
AV587	Float	45th	harmonic ratio-V2		0.01%	R
AV588	Float	45th	harmonic ratio-V3		0.01%	R
AV589	Float	45th	harmonic ratio-I1		0.01%	R
AV590	Float	45th	harmonic ratio-I2		0.01%	R
AV591	Float	45th	harmonic ratio-I3		0.01%	R
AV592	Float	46th	harmonic ratio-V1		0.01%	R
AV593	Float	46th	harmonic ratio-V2		0.01%	R
AV594	Float	46th	harmonic ratio-V3		0.01%	R
AV595	Float	46th	harmonic ratio-I1		0.01%	R

AV596	Float	46th	harmonic ratio-I2		0.01%	R
AV597	Float	46th	harmonic ratio-I3		0.01%	R
AV598	Float	47th	harmonic ratio-V1		0.01%	R
AV599	Float	47th	harmonic ratio-V2		0.01%	R
AV600	Float	47th	harmonic ratio-V3		0.01%	R
AV601	Float	47th	harmonic ratio-I1		0.01%	R
AV602	Float	47th	harmonic ratio-I2		0.01%	R
AV603	Float	47th	harmonic ratio-I3		0.01%	R
AV604	Float	48th	harmonic ratio-V1		0.01%	R
AV605	Float	48th	harmonic ratio-V2		0.01%	R
AV606	Float	48th	harmonic ratio-V3		0.01%	R
AV607	Float	48th	harmonic ratio-I1		0.01%	R
AV608	Float	48th	harmonic ratio-I2		0.01%	R
AV609	Float	48th	harmonic ratio-I3		0.01%	R
AV610	Float	49th	harmonic ratio-V1		0.01%	R
AV611	Float	49th	harmonic ratio-V2		0.01%	R
AV612	Float	49th	harmonic ratio-V3		0.01%	R
AV613	Float	49th	harmonic ratio-I1		0.01%	R
AV614	Float	49th	harmonic ratio-I2		0.01%	R
AV615	Float	49th	harmonic ratio-I3		0.01%	R
AV616	Float	50th	harmonic ratio-V1		0.01%	R
AV617	Float	50th	harmonic ratio-V2		0.01%	R
AV618	Float	50th	harmonic ratio-V3		0.01%	R
AV619	Float	50th	harmonic ratio-I1		0.01%	R
AV620	Float	50th	harmonic ratio-I2		0.01%	R
AV621	Float	50th	harmonic ratio-I3		0.01%	R
AV622	Float	51th	harmonic ratio-V1		0.01%	R
AV623	Float	51th	harmonic ratio-V2		0.01%	R
AV624	Float	51th	harmonic ratio-V3		0.01%	R

AV625	Float	51th	harmonic ratio-I1		0.01%	R
AV626	Float	51th	harmonic ratio-I2		0.01%	R
AV627	Float	51th	harmonic ratio-I3		0.01%	R
AV628	Float	52th	harmonic ratio-V1		0.01%	R
AV629	Float	52th	harmonic ratio-V2		0.01%	R
AV630	Float	52th	harmonic ratio-V3		0.01%	R
AV631	Float	52th	harmonic ratio-I1		0.01%	R
AV632	Float	52th	harmonic ratio-I2		0.01%	R
AV633	Float	52th	harmonic ratio-I3		0.01%	R
AV634	Float	53th	harmonic ratio-V1		0.01%	R
AV635	Float	53th	harmonic ratio-V2		0.01%	R
AV636	Float	53th	harmonic ratio-V3		0.01%	R
AV637	Float	53th	harmonic ratio-I1		0.01%	R
AV638	Float	53th	harmonic ratio-I2		0.01%	R
AV639	Float	53th	harmonic ratio-I3		0.01%	R
AV640	Float	54th	harmonic ratio-V1		0.01%	R
AV641	Float	54th	harmonic ratio-V2		0.01%	R
AV642	Float	54th	harmonic ratio-V3		0.01%	R
AV643	Float	54th	harmonic ratio-I1		0.01%	R
AV644	Float	54th	harmonic ratio-I2		0.01%	R
AV645	Float	54th	harmonic ratio-I3		0.01%	R
AV646	Float	55th	harmonic ratio-V1		0.01%	R
AV647	Float	55th	harmonic ratio-V2		0.01%	R
AV648	Float	55th	harmonic ratio-V3		0.01%	R
AV649	Float	55th	harmonic ratio-I1		0.01%	R
AV650	Float	55th	harmonic ratio-I2		0.01%	R
AV651	Float	55th	harmonic ratio-I3		0.01%	R
AV652	Float	56th	harmonic ratio-V1		0.01%	R
AV653	Float	56th	harmonic ratio-V2		0.01%	R

AV654	Float	56th	harmonic ratio-V3		0.01%	R
AV655	Float	56th	harmonic ratio-I1		0.01%	R
AV656	Float	56th	harmonic ratio-I2		0.01%	R
AV657	Float	56th	harmonic ratio-I3		0.01%	R
AV658	Float	57th	harmonic ratio-V1		0.01%	R
AV659	Float	57th	harmonic ratio-V2		0.01%	R
AV660	Float	57th	harmonic ratio-V3		0.01%	R
AV661	Float	57th	harmonic ratio-I1		0.01%	R
AV662	Float	57th	harmonic ratio-I2		0.01%	R
AV663	Float	57th	harmonic ratio-I3		0.01%	R
AV664	Float	58th	harmonic ratio-V1		0.01%	R
AV665	Float	58th	harmonic ratio-V2		0.01%	R
AV666	Float	58th	harmonic ratio-V3		0.01%	R
AV667	Float	58th	harmonic ratio-I1		0.01%	R
AV668	Float	58th	harmonic ratio-I2		0.01%	R
AV669	Float	58th	harmonic ratio-I3		0.01%	R
AV670	Float	59th	harmonic ratio-V1		0.01%	R
AV671	Float	59th	harmonic ratio-V2		0.01%	R
AV672	Float	59th	harmonic ratio-V3		0.01%	R
AV673	Float	59th	harmonic ratio-I1		0.01%	R
AV674	Float	59th	harmonic ratio-I2		0.01%	R
AV675	Float	59th	harmonic ratio-I3		0.01%	R
AV676	Float	60th	harmonic ratio-V1		0.01%	R
AV677	Float	60th	harmonic ratio-V2		0.01%	R
AV678	Float	60th	harmonic ratio-V3		0.01%	R
AV679	Float	60th	harmonic ratio-I1		0.01%	R
AV680	Float	60th	harmonic ratio-I2		0.01%	R
AV681	Float	60th	harmonic ratio-I3		0.01%	R
AV682	Float	61th	harmonic ratio-V1		0.01%	R

AV683	Float	61th harmonic ratio-V2		0.01%	R
AV684	Float	61th harmonic ratio-V3		0.01%	R
AV685	Float	61th harmonic ratio-I1		0.01%	R
AV686	Float	61th harmonic ratio-I2		0.01%	R
AV687	Float	61th harmonic ratio-I3		0.01%	R
AV688	Float	62th harmonic ratio-V1		0.01%	R
AV689	Float	62th harmonic ratio-V2		0.01%	R
AV690	Float	62th harmonic ratio-V3		0.01%	R
AV691	Float	62th harmonic ratio-I1		0.01%	R
AV692	Float	62th harmonic ratio-I2		0.01%	R
AV693	Float	62th harmonic ratio-I3		0.01%	R
AV694	Float	63th harmonic ratio-V1		0.01%	R
AV695	Float	63th harmonic ratio-V2		0.01%	R
AV696	Float	63th harmonic ratio-V3		0.01%	R
AV697	Float	63th harmonic ratio-I1		0.01%	R
AV698	Float	63th harmonic ratio-I2		0.01%	R
AV699	Float	63th harmonic ratio-I3		0.01%	R
AV700	Int	X1-channel1 pulse counter			R
AV701	Int	X1-channel2 pulse counter			R
AV702	Int	X1-channel3 pulse counter			R
AV703	Int	X1-channel4 pulse counter			R
AV704	Int	X2-channel1 pulse counter			R
AV705	Int	X2-channel2 pulse counter			R
AV706	Int	X2-channel3 pulse counter			R
AV707	Int	X2-channel4 pulse counter			R
AV708	Int	X3-channel1 pulse counter			R
AV709	Int	X3-channel2 pulse counter			R
AV710	Int	X3-channel3 pulse counter			R
AV711	Int	X3-channel4 pulse counter			R

AV712	int	X4-channel1 pulse counter		R
AV713	int	X4-channel2 pulse counter		R
AV714	int	X4-channel3 pulse counter		R
AV715	int	X4-channel4 pulse counter		R
AV716	int	Main boby-channel1 pulse counter		R
AV717	int	Main boby-channel2 pulse counter		R
AV718	float	Present demand value -I1	1A	R
AV719	float	Present demand value -I2	A	R
AV720	float	Present demand value -I3	A	R
AV721	float	Present demand value -P	kW	R
AV722	float	Present demand value -Q	kvar	R
AV723	float	Present demand value -S	kVA	R
AV724	float	Previous demand value -I1	1A	R
AV725	float	Previous demand value -I2	A	R
AV726	float	Previous demand value -I3	A	R
AV727	float	Previous demand value -P	kW	R
AV728	float	Previous demand value -Q	kvar	R
AV729	float	Previous demand value -S	kVA	R
AV730	float	Max. demand value -I1	A	R
AV731	float	Max. demand value -I2	A	R
AV732	float	Max. demand value -I3	A	R
AV733	float	Max. demand value -P	kW	R
AV734	float	Max. demand value -Q	kvar	R
AV735	float	Max. demand value -S	kVA	R
AV736	float	this month Max. demand value -I1	A	R
AV737	float	this month Max. demand value -I2	A	R

AV738	float	this month Max. demand value -I3	A	R
AV739	float	this month Max. demand value -P	kW	R
AV740	float	this month Max. demand value -Q	kvar	R
AV741	float	this month Max. demand value -S	kVA	R
AV742	float	last month Max. demand value -I1	A	R
AV743	float	last month Max. demand value -I2	A	R
AV744	float	last month Max. demand value -I3	A	R
AV745	float	last month Max. demand value -P	kW	R
AV746	float	last month Max. demand value -Q	kvar	R
AV747	float	last month Max. demand value -S	kVA	R
AV748	float	two months before Max. demand value -I1	A	R
AV749	float	two months before Max. demand value -I2	A	R
AV750	float	two months before Max. demand value -I3	A	R
AV751	float	two months before Max. demand value -P	kW	R
AV752	float	two months before Max. demand value -Q	kvar	R

AV753	float	two months before Max. demand value -S	kVA	R
AV754	Int	Record: Power On High byte: year, Low byte: month		R
AV755	Int	High byte: day, Low byte: hour		R
AV756	Int	High byte: minute, Low byte: second		R
AV757	Int	Power On Number		R
AV758	Int	Record: Power Off High byte: year, Low byte: month		R
AV759	Int	High byte: day, Low byte: hour		R
AV760	Int	High byte: minute, Low byte: second		R
AV761	Int	Power Off Number		R
AV762	Int	Record: Setup parameter High byte: year, Low byte: month		R
AV763	Int	High byte: day, Low byte: hour		R
AV764	Int	High byte: minute, Low byte: second		R
AV765	Int	Setup parameter Number		R
AV766	Int	Record: Clear demand High byte: year, Low byte: month		R
AV767	Int	High byte: day,		R

		Low byte: hour		
AV768	Int	High byte: minute, Low byte: second		R
AV769	Int	Clear demand resetting times		R
AV770	Int	Record: Clear energy High byte: year, Low byte: month		R
AV771	Int	High byte: day, Low byte: hour		R
AV772	Int	High byte: minute, Low byte: second		R
AV773	Int	High byte: minute, Low byte: second		R
AV774	Int	High byte: Over voltage record number Low byte: ----		R
AV775	Int	High byte: under voltage record number Low byte: ----		R
AV776	Int	High byte: Over current record number Low byte: ----		R
AV777	Int	High byte: under current record number Low byte: ----		R
AV778	Int	High byte: Over active power record number Low byte: ----		R
AV779	Int	High byte: under active		R

		power record number Low byte: ----		
AV780	Int	High byte: SOE event record number Low byte: ----		R
AV781	Int	High byte: Voltage swell record number Low byte: ----		R
AV782	Int	High byte: Voltage dip record number Low byte: ----		R
AV783	Int	High byte: Voltage interrupt record number Low byte: ----		R

The following are writable objects

No.	Type of data	Description 1	Description 2	Attributes
AV784	Int	Main boby:Slave address	1-247	R/W
AV785	Int	Main boby:baudrate		R/W
AV786	Int	Main boby:Data format		R/W
AV787	Int	High byte:Wiring Low byte: Grid frequency		R/W
AV788	Int	PT secondary	1~660V	R/W
AV789	Int	CT secondary	1~6A	R/W
AV790	Int	Secondary side neutral current rating	1~6A	R/W
AV791	Long	PT primary	1~999999V	R/W
AV792	Long	CT primary	1~999999A	R/W
AV793	Long	Primary side neutral	1~999999A	R/W

		current rating		
AV794	Int	Demand item	Defaulted as I1/I2/I3/P/Q/S	R/W
AV795	Int	Mode of demand	0: slip block mode 1: fixed block mode	R/W
AV796	Int	Slip time(t)	1~9999s	R/W
AV797	Int	Demand period(T)	1~30t	R/W
AV798	Int	Voltage qualification rate upper limit	Secondary grid data	R/W
AV799	Int	Voltage qualification rate lower limit	Secondary grid data	R/W
AV800	Int	Frequency qualification rate upper limit	0.01Hz	R/W
AV801	Int	Frequency qualification rate lower limit	0.01Hz	R/W
AV802	Int	Relay output Main body-DO1 mode		R/W
AV803	Int	Relay output Main body-DO1 Pulse width		R/W
AV804	Int	Relay output Main body-DO1 Alarm item select		R/W
AV805	Int	Relay output Main unit-DO1 limit value		R/W
AV806	Int	Relay output Main unit-DO1 hysteresis		R/W
AV807	Int	Relay output Main body-DO1 Alarm delay time		R/W
AV808	Int	Relay output		R/W

		Main body-DO2 mode		
AV809	Int	Relay output Main body-DO2 Pulse width		R/W
AV810	Int	Relay output Main body-DO2 Alarm item select		R/W
AV811	Int	Relay output Main unit-DO2 limit value		R/W
AV812	Int	Relay output Main unit-DO2 hysteresis		R/W
AV813	Int	Relay output Main body-DO2 Alarm delay time		R/W
AV814	Int	High byte: Main body DI1 mode Low byte: Main body DI2 mode		R/W
AV815	Int	Voltage upper limit value	Secondary grid data: 0.1V	R/W
AV816	Int	Voltage upper limit hysteresis value	Secondary grid data: 0.1V	R/W
AV817	Int	Voltage lower limit value	Secondary grid data: 0.1V	R/W
AV818	Int	Voltage lower limit hysteresis value	Secondary grid data: 0.1V	R/W
AV819	Int	Current upper limit value	Secondary grid data: 0.001A	R/W
AV820	Int	Current upper limit hysteresis value	Secondary grid data: 0.001A	R/W
AV821	Int	Current lower limit value	Secondary grid data: 0.001A	R/W
AV822	Int	Current lower limit hysteresis value	Secondary grid data: 0.001A	R/W
AV823	Int	Active power upper limit	Secondary grid data:	R/W

		value	1W/var/VA	
AV824	Int	Active power upper limit hysteresis value	Secondary grid data: 1W/var/VA	R/W
AV825	Int	Active power lower limit value	Secondary grid data: 1W/var/VA	R/W
AV826	Int	Active power lower limit hysteresis value	Secondary grid data: 1W/var/VA	R/W
AV827	In	Voltage qualification rate upper limit value	Secondary grid data: 0.1V	R/W
AV828	In	Voltage qualification rate lower limit value	Secondary grid data: 0.1V	R/W
AV829	In	frequency qualification rate upper limit value	Secondary grid data: 0.01Hz	R/W
AV830	In	Frequency qualification rate lower limit value	Secondary grid data: 0.01Hz	R/W
AV831	Int	Voltage sag limit value	Secondary grid data: 0.1V	R/W
AV832	Int	Voltage sag hysteresis value	Secondary grid data: 0.1V	R/W
AV833	Int	Voltage swell limit value	Secondary grid data: 0.1V	R/W
AV834	Int	Voltage swell hysteresis value	Secondary grid data: 0.1V	R/W
AV835	Int	Voltage interruption Limit value	Secondary grid data: 0.1V	R/W
AV836	Int	Voltage interruption hysteresis value	Secondary grid data: 0.1V	R/W
AV837	Int	Overshoot start value of fault recording	Secondary grid data: 0.1V	R/W
AV838	Int	Overshoot hysteresis value of fault recording	Secondary grid data: 0.1V	R/W
AV839	Int	undervoltage start value of	Secondary grid data: 0.1V	R/W

		fault recording		
AV840	Int	undervoltage hysteresis value of fault recording	Secondary grid data: 0.1V	R/W
AV841	Int	overcurrent start value of fault recording	Secondary grid data: 0.001A	R/W
AV842	Int	overcurrent hysteresis value of fault recording	Secondary grid data: 0.001A	R/W
AV843	Int	Voltage sag and Voltage swell enable	0: Close, 1: enabled	R/W
AV844	Int	fault recording enable	0: Close, 1: enabled	R/W
AV845	Int	X1-AO1: Item	0: Off 1: V1 2: V2 3: V3 4: V12 5: V23 6: V31 7: I1 8: I2 9: I3 10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1	R/W

			20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	
AV846	Int	X1-AO1: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV847	Int	X1-AO1: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV848	Int	X1-AO1: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV849	Int	X1-AO2: Item	0: Off 1: V1 2: V2 3: V3 4: V12 5: V23 6: V31 7: I1 8: I2	R/W

			9: I3 10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	
AV850	Int	X1-AO2: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV851	Int	X1-AO2: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV852	Int	X1-AO2: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA	R/W

			PF: 0.001 F: 0.01Hz	
AV853	Int	X2-AO1: Item	0: Off 1: V1 2: V2 3: V3 4: V12 5: V23 6: V31 7: I1 8: I2 9: I3 10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	R/W

AV854	Int	X2-AO1: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV855	Int	X2-AO1: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV856	Int	X2-AO1: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV857	Int	X2-AO2: Item	0: Off 1: Off 2: V1 3: V2 4: V3 5: V12 6: V23 7: V31 8: I1 9: I2 10: I3 11: In 12: P1 13: P2 14: P3 15: P	R/W

			16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	
AV858	Int	X2-AO2: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV859	Int	X2-AO2: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV860	Int	X2-AO2: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz	R/W
AV861	Int	X3-AO1: Item	0: Off 0: Off 1: V1 2: V2 3: V3	R/W

			4: V12 5: V23 6: V31 7: I1 8: I2 9: I3 10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	
AV862	Int	X3-AO1: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV863	Int	X3-AO1: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power: 1W/var/VA,	R/W

			PF: 0.001 F: 0.01Hz	
AV864	Int	X3-AO1: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power: 1W/var/VA, PF: 0.001 F: 0.01Hz	R/W
AV865	Int	X3-AO2: Item	0: Off 0: Off 1: V1 2: V2 3: V3 4: V12 5: V23 6: V31 7: I1 8: I2 9: I3 10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3	R/W

			22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	
AV866	Int	X3-AO2: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV867	Int	X3-AO2: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power:1W/var/VA, PF: 0.001, F: 0.01Hz	R/W
AV868	Int	X3-AO2: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power:1W/var/VA, PF: 0.001, F: 0.01Hz	R/W
AV869	Int	X4-AO1: Item	0: Off 0: Off 1: V1 2: V2 3: V3 4: V12 5: V23 6: V31 7: I1 8: I2 9: I3	R/W

			10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	
AV870	Int	X4-AO1: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV871	Int	X4-AO1: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power:1W/var/VA, PF: 0.001, F: 0.01Hz	R/W
AV872	Int	X4-AO1: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power:1W/var/VA, PF: 0.001,	R/W

			F: 0.01Hz	
AV873	Int	X4-AO2: Item	0: Off 0: Off 1: V1 2: V2 3: V3 4: V12 5: V23 6: V31 7: I1 8: I2 9: I3 10: In 11: P1 12: P2 13: P3 14: P 15: Q1 16: Q2 17: Q3 18: Q 19: S1 20: S2 21: S3 22: S 23: PF1 24: PF2 25: PF3 26: PF 27: F	R/W

AV874	Int	X4-AO2: Mode	0: 4~20 mA 1: 0~20 mA 2: 4~12~20 mA	R/W
AV875	Int	X4-AO2: Down scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power:1W/var/VA, PF: 0.001, F: 0.01Hz	R/W
AV876	Int	X4-AO2: Full scale	Secondary grid data ratio Voltage: 0.1V, Current: 0.001A, Power:1W/var/VA, PF: 0.001, F: 0.01Hz	R/W
AV877	Int	Switch input High byte: X1-DI1: Mode Low byte: X1-DI2: Mode	0: state monitor 1: pulse counter	R/W
AV878	Int	Switch input High byte: X1-DI3: Mode Low byte: X1-DI4: Mode	0: state monitor 1: pulse counter	R/W
AV879	Int	Switch input High byte: X2-DI1: Mode Low byte: X2-DI2: Mode	0: state monitor 1: pulse counter	R/W
AV880	Int	Switch input High byte: X2-DI3: Mode Low byte: X2-DI4: Mode	0: state monitor 1: pulse counter	R/W
AV881	Int	Switch input High byte: X3-DI1: Mode Low byte: X3-DI2: Mode	0: state monitor 1: pulse counter	R/W
AV882	Int	Switch input High byte: X3-DI3: Mode Low byte: X3-DI4: Mode	0: state monitor 1: pulse counter	R/W
AV883	Int	Switch input High byte: X4-DI1: Mode	0: state monitor 1: pulse counter	R/W

		Low byte: X4-DI2: Mode		
AV884	Int	Switch input High byte: X4-DI3: Mode Low byte: X4-DI4: Mode	0: state monitor 1: pulse counter	R/W
AV885	Int	Relay output X1-DO1 mode	0: OFF 1: remote control 2: alarm	R/W
AV886	Int	Relay output X1-DO1 pulse width	0.0: no pulse Pulse width : 0.1~99.99s	R/W
AV887	Int	Relay output X1-DO1 alarm select	Alarm Item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 > 11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI < 16: Vnavg > 17: Vnavg < 18: Vlavg > 19: Vlavg < 20: I1 > 21: I1 < 22: I2 > 23: I2 < 24: I3 > 25: I3 <	R/W

		26: I > 27: I < 24: Iavg > 29: Iavg < 30: In > 31: In < 32: P > 33: P < 34: Q > 35: Q < 36: S > 37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Uunb > 43: Uunb < 44: lunb > 45: lunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1 < 52: Present demand I2 > 53: Present demand I2 < 54: Present demand I3 > 55: Present demand I3 < 56: Present demand I > 57: Present demand I < 58: Present demand P > 59: Present demand P < 60: Present demand Q > 61: Present demand Q <	
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			62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV888	Int	Relay output X1-DO1 limit value	Data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Uunb/lunb: 0.1% THD: 0.1% Uunb /lunb /THDu /THDi: 0.01% Setting parameter value should be smaller than two times of rated value. If it is switch linkage, this value corresponds to the No. of digital input. 0:Main body-DI1 1:Main body-DI2 2:X1-DI1 3:X1-DI2 4:X1-DI3 5:X1-DI4 6:X2-DI1 7:X2-DI2 8:X2-DI3 9:X2-DI4 10:X3-DI1 11:X3-DI2 12:X3-DI3 13:X3-DI4 14:X4-DI1 15:X4-DI2 16:X4-DI3 17:X4-DI4	R/W
AV889	Int	Relay output X1-DO1 hysteresis	The ratio is the same as above. Item is switch linkage: 0: When the digital input is closed, the relay output is closed, When the digital input is	R/W

			open, the relay output is open. 1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.	
AV890	Int	Relay output X1-DO1 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV891	Int	Relay output X1-DO2 mode	0: OFF 1: remote control 2: alarm	R/W
AV892	Int	Relay output X1-DO2 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV893	Int	Relay output X1-DO2 alarm select	Alarm Item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 > 11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI < 16: Vnavg > 17: Vnavg < 18: Vlavg > 19: Vlavg < 20: I1 > 21: I1 < 22: I2 >	R/W

			23: I2 < 24: I3 > 25: I3 < 26: I > 27: I < 28: Iavg > 29: Iavg < 30: In > 31: In < 32: P > 33: P < 34: Q > 35: Q < 36: S > 37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Unb > 43: Unb < 44: lunb > 45: lunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1 < 52: Present demand I2 > 53: Present demand I2 < 54: Present demand I3 > 55: Present demand I3 < 56: Present demand I > 57: Present demand I < 58: Present demand P > 59: Present demand P < 60: Present demand Q >	
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			61: Present demand Q < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV894	Int	Relay output X1-DO2 limit value	Data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Uunb/lunb: 0.1% THD: 0.1% Uunb /lunb /THDu /THDi: 0.01% Setting parameter value should be smaller than two times of rated value. If it is switch linkage, this value corresponds to the No. of digital input. 0:Main body-DI1 1:Main body-DI2 2:X1-DI1 3:X1-DI2 4:X1-DI3 5:X1-DI4 6:X2-DI1 7:X2-DI2 8:X2-DI3 9:X2-DI4 10:X3-DI1 11:X3-DI2 12:X3-DI3 13:X3-DI4 14:X4-DI1 15:X4-DI2 16:X4-DI3 17:X4-DI4	R/W
AV895	Int	Relay output X1-DO2 hysteresis	The ratio is the same as above. Item is switch linkage:	R/W

			0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open. 1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.	
AV896	Int	Relay output X1-DO2 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV897	Int	Relay output X2-DO1 mode	0: OFF 1: remote control 2: alarm	R/W
AV898	Int	Relay output X2-DO1 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV899	Int	Relay output X2-DO1 alarm select	Alarm Item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 > 11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI < 16: Vnavg > 17: Vnavg < 18: Vlavg > 19: Vlavg < 20: I1 >	R/W

		21: I1 < 22: I2 > 23: I2 < 24: I3 > 25: I3 < 26: I > 27: I < 28: Iavg > 29: Iavg < 30: In > 31: In < 32: P > 33: P < 34: Q > 35: Q < 36: S > 37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Uunb > 43: Uunb < 44: lunb > 45: lunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1 < 52: Present demand I2 > 53: Present demand I2 < 54: Present demand I3 > 55: Present demand I3 < 56: Present demand I >	
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			57: Present demand I < 58: Present demand P > 59: Present demand P < 60: Present demand Q > 61: Present demand Q < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV900	Int	Relay output X2-DO1 limit value	<p>Data ratio, Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Uunb/lunb: 0.1% THD: 0.1% Uunb /lunb /THDu /THDi: 0.01%</p> <p>Setting parameter value should be smaller than two times of rated value.</p> <p>If it is switch linkage, this value corresponds to the No. of digital input.</p> <p>0:Main body-DI1 1:Main body-DI2 2:X1-DI1 3:X1-DI2 4:X1-DI3 5:X1-DI4 6:X2-DI1 7:X2-DI2 8:X2-DI3 9:X2-DI4 10:X3-DI1 11:X3-DI2 12:X3-DI3 13:X3-DI4 14:X4-DI1</p>	R/W

			15:X4-DI2 16:X4-DI3 17:X4-DI4	
AV901	Int	Relay output X2-DO1 hysteresis	The ratio is the same as above. Item is switch linkage: 0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open. 1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.	R/W
AV902	Int	Relay output X2-DO1 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV903	Int	Relay output X2-DO2 mode	0: OFF 1: remote control 2: alarm	R/W
AV904	Int	Relay output X2-DO2 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV905	Int	Relay output X2-DO2 alarm select	Alarm Item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 > 11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI <	R/W

		16:Vnavg > 17:Vnavg < 18:Vlavg > 19:Vlavg < 20: I1 > 21: I1 < 22: I2 > 23: I2 < 24: I3 > 25: I3 < 26: I > 27: I < 24: lavg > 29: lavg < 30: In > 31: In < 32: P > 33: P < 34: Q > 35: Q < 36: S > 37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Uunb > 43: Uunb < 44: lunb > 45: lunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1<	
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			52: Present demand I2 > 53: Present demand I2< 54: Present demand I3 > 55: Present demand I3 < 56: Present demand I > 57: Present demand I < 58: Present demand P > 59: Present demand P < 60: Present demand Q > 61: Present demand Q < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV906	Int	Relay output X2-DO2 limit value	Data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Uunb/lunb: 0.1% THD: 0.1% Uunb /lunb /THDu /THDi: 0.01% Setting parameter value should be smaller than two times of rated value. If it is switch linkage, this value corresponds to the No. of digital input. 0:Main body-DI1 1:Main body-DI2 2:X1-DI1 3:X1-DI2 4:X1-DI3 5:X1-DI4 6:X2-DI1 7:X2-DI2 8:X2-DI3 9:X2-DI4	R/W

			10:X3-DI1 11:X3-DI2 12:X3-DI3 13:X3-DI4 14:X4-DI1 15:X4-DI2 16:X4-DI3 17:X4-DI4	
AV907	Int	Relay output X2-DO2 hysteresis	The ratio is the same as above. Item is switch linkage: 0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open. 1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.	R/W
AV908	Int	Relay output X2-DO2 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV909	Int	Relay output X3-DO1 mode	0: OFF 1: remote control 2: alarm	R/W
AV910	Int	Relay output X3-DO1 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV911	Int	Relay output X3-DO1 alarm select	Alarm item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 >	R/W

			11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI < 16: Vnavg > 17: Vnavg < 18: Vlavg > 19: Vlavg < 20: I1 > 21: I1 < 22: I2 > 23: I2 < 24: I3 > 25: I3 < 26: I > 27: I < 28: lavg > 29: lavg < 30: In > 31: In < 32: P > 33: P < 34: Q > 35: Q < 36: S > 37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Uunb > 43: Uunb < 44: lunb > 45: lunb < 46: THDu >	
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			47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1< 52: Present demand I2 > 53: Present demand I2< 54: Present demand I3 > 55: Present demand I3 < 56: Present demand P > 57: Present demand P < 58: Present demand P > 59: Present demand P < 60: Present demand Q > 61: Present demand Q < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV912	Int	Relay output X3-DO1 limit value	Data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Unb/lunb: 0.1% THD: 0.1% Unb /lunb /THDu /THDi: 0.01% Setting parameter value should be smaller than two times of rated value. If it is switch linkage, this value corresponds to the No. of digital input. 0:Main body-DI1 1:Main body-DI2 2:X1-DI1 3:X1-DI2 4:X1-DI3	R/W

			5:X1-DI4 6:X2-DI1 7:X2-DI2 8:X2-DI3 9:X2-DI4 10:X3-DI1 11:X3-DI2 12:X3-DI3 13:X3-DI4 14:X4-DI1 15:X4-DI2 16:X4-DI3 17:X4-DI4	
AV913	Int	Relay output X3-DO1 hysteresis	The ratio is the same as above. Item is switch linkage: 0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open. 1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.	R/W
AV914	Int	Relay output X3-DO1 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV915	Int	Relay output X3-DO2 mode	0: OFF 1: remote control 2: alarm	R/W
AV916	Int	Relay output X3-DO2 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV917	Int	Relay output X3-DO2 alarm select	Alarm Item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 <	R/W

		<p>6: Vn ></p> <p>7: Vn <</p> <p>8: V12 ></p> <p>9: V12 <</p> <p>10: V23 ></p> <p>11: V23 <</p> <p>12: V31 ></p> <p>13: V31 <</p> <p>14: VI ></p> <p>15: VI <</p> <p>16: Vnavg ></p> <p>17: Vnavg <</p> <p>18: Vlavg ></p> <p>19: Vlavg <</p> <p>20: I1 ></p> <p>21: I1 <</p> <p>22: I2 ></p> <p>23: I2 <</p> <p>24: I3 ></p> <p>25: I3 <</p> <p>26: I ></p> <p>27: I <</p> <p>28: lavg ></p> <p>29: lavg <</p> <p>30: In ></p> <p>31: In <</p> <p>32: P ></p> <p>33: P <</p> <p>34: Q ></p> <p>35: Q <</p> <p>36: S ></p> <p>37: S <</p> <p>38: PF></p> <p>39: PF<</p> <p>40: F ></p> <p>41: F <</p>	
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			42: Uunb > 43: Uunb < 44: Iunb > 45: Iunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1 < 52: Present demand I2 > 53: Present demand I2 < 54: Present demand I3 > 55: Present demand I3 < 56: Present demand I > 57: Present demand I < 58: Present demand P > 59: Present demand P < 60: Present demand Q > 61: Present demand Q < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV918	Int	Relay output X3-DO2 limit value	Data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Uunb/Iunb: 0.1% THD: 0.1% Uunb /Iunb /THDu /THDi: 0.01% Setting parameter value should be smaller than two times of rated value. If it is switch linkage, this value corresponds to the No. of digital input.	R/W

			0:Main body-DI1 1:Main body-DI2 2:X1-DI1 3:X1-DI2 4:X1-DI3 5:X1-DI4 6:X2-DI1 7:X2-DI2 8:X2-DI3 9:X2-DI4 10:X3-DI1 11:X3-DI2 12:X3-DI3 13:X3-DI4 14:X4-DI1 15:X4-DI2 16:X4-DI3 17:X4-DI4	
AV919	Int	Relay output X3-DO2 hysteresis	The ratio is the same as above. Item is switch linkage: 0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open. 1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.	R/W
AV920	Int	Relay output X3-DO2 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV921	Int	Relay output X4-DO1 mode	0: OFF 1: remote control 2: alarm	R/W
AV922	Int	Relay output X4-DO1 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV923	Int	Relay output X4-DO1 alarm select	Alarm item: 0: V1 >	R/W

			1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 > 11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI < 16: Vnavg > 17: Vnavg < 18: Vlavg > 19: Vlavg < 20: I1 > 21: I1 < 22: I2 > 23: I2 < 24: I3 > 25: I3 < 26: I > 27: I < 28: lavg > 29: lavg < 30: In > 31: In < 32: P > 33: P < 34: Q > 35: Q < 36: S >	
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			37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Uunb > 43: Uunb < 44: Iunb > 45: Iunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1 < 52: Present demand I2 > 53: Present demand I2 < 54: Present demand I3 > 55: Present demand I3 < 56: Present demand P > 57: Present demand P < 58: Present demand Q > 59: Present demand Q < 60: Present demand S > 61: Present demand S < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV924	Int	Relay output X4-DO1 limit value	Data ratio Voltage: 0.1V, Current: 0.001A Power: 1W/var/VA PF: 0.001 F: 0.01Hz Uunb/Iunb: 0.1% THD: 0.1%	R/W

			<p>Uunb /lunb /THDu /THDi: 0.01%</p> <p>Setting parameter value should be smaller than two times of rated value.</p> <p>If it is switch linkage, this value corresponds to the No. of digital input.</p> <p>0:Main body-DI1</p> <p>1:Main body-DI2</p> <p>2:X1-DI1</p> <p>3:X1-DI2</p> <p>4:X1-DI3</p> <p>5:X1-DI4</p> <p>6:X2-DI1</p> <p>7:X2-DI2</p> <p>8:X2-DI3</p> <p>9:X2-DI4</p> <p>10:X3-DI1</p> <p>11:X3-DI2</p> <p>12:X3-DI3</p> <p>13:X3-DI4</p> <p>14:X4-DI1</p> <p>15:X4-DI2</p> <p>16:X4-DI3</p> <p>17:X4-DI4</p>	
AV925	Int	Relay output X4-DO1 hysteresis	<p>The ratio is the same as above.</p> <p>Item is switch linkage:</p> <p>0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open.</p> <p>1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.</p>	R/W
AV926	Int	Relay output X4-DO1 pulse width	0.0: no pulse 0.1~99.99s	R/W
AV927	Int	Relay output X4-DO2 mode	0: OFF 1: remote control	R/W

			2: alarm	
AV928	Int	Relay output X4-DO2 pulse width	0.0: no pulse pulse width : 0.1~99.99s	R/W
AV929	Int	Relay output X4-DO2 alarm select	Alarm Item: 0: V1 > 1: V1 < 2: V2 > 3: V2 < 4: V3 > 5: V3 < 6: Vn > 7: Vn < 8: V12 > 9: V12 < 10: V23 > 11: V23 < 12: V31 > 13: V31 < 14: VI > 15: VI < 16: Vnavg > 17: Vnavg < 18: Vlavg > 19: Vlavg < 20: I1 > 21: I1 < 22: I2 > 23: I2 < 24: I3 > 25: I3 < 26: I > 27: I < 28: lavg > 29: lavg < 30: In > 31: In <	R/W

			32: P > 33: P < 34: Q > 35: Q < 36: S > 37: S < 38: PF> 39: PF< 40: F > 41: F < 42: Uunb > 43: Uunb < 44: Iunb > 45: Iunb < 46: THDu > 47: THDu < 48: THDi > 49: THDi < 50: Present demand I1 > 51: Present demand I1 < 52: Present demand I2 > 53: Present demand I2 < 54: Present demand I3 > 55: Present demand I3 < 56: Present demand I > 57: Present demand I < 58: Present demand P > 59: Present demand P < 60: Present demand Q > 61: Present demand Q < 62: Present demand S > 63: Present demand S < 64: #1 DI linkage action - DI close, DO act;	
AV930	Int	Relay output X4-DO2 limit value	Data ratio Voltage: 0.1V, Current: 0.001A	R/W

			<p>Power: 1W/var/VA</p> <p>PF: 0.001</p> <p>F: 0.01Hz</p> <p>Uunb/lunb: 0.1%</p> <p>THD: 0.1%</p> <p>Uunb /lunb /THDu /THDi: 0.01%</p> <p>Setting parameter value should be smaller than two times of rated value.</p> <p>If it is switch linkage, this value corresponds to the No. of digital input.</p> <p>0:Main body-DI1</p> <p>1:Main body-DI2</p> <p>2:X1-DI1</p> <p>3:X1-DI2</p> <p>4:X1-DI3</p> <p>5:X1-DI4</p> <p>6:X2-DI1</p> <p>7:X2-DI2</p> <p>8:X2-DI3</p> <p>9:X2-DI4</p> <p>10:X3-DI1</p> <p>11:X3-DI2</p> <p>12:X3-DI3</p> <p>13:X3-DI4</p> <p>14:X4-DI1</p> <p>15:X4-DI2</p> <p>16:X4-DI3</p> <p>17:X4-DI4</p>	
AV931	Int	Relay output X4-DO2 hysteresis	<p>The ratio is the same as above.</p> <p>Item is switch linkage:</p> <p>0: When the digital input is closed, the relay output is closed, When the digital input is open, the relay output is open.</p> <p>1: When the digital input is closed, the relay output is opened, When the digital input is opened, the relay output is closed.</p>	R/W

AV932	Int	Relay output X4-DO2 pulse width	0.0: no pulse 0.1~99.99s	R/W
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Note: Because the BACnet standard does not define the apparent energy unit kWh, it is replaced by kWh. Units not in the other standards, such as 0.1%, 0.01%, 0.1°, etc., are expressed in no units. The units and other descriptions of all objects are subject to this table.

Binary input objects

Serial number	Type of data	Name	Attributes
BI0	Bool	Subject-DO1	R/W
BI1	Bool	Subject-DO2	R/W
BI2	Bool	X1-DI1	R/W
BI3	Bool	X1-DI2	R/W
BI4	Bool	X1-DI3	R/W
BI5	Bool	X1-DI4	R/W
BI6	Bool	X2-DI1	R/W
BI7	Bool	X2-DI2	R/W
BI8	Bool	X2-DI3	R/W
BI9	Bool	X2-DI4	R/W
BI10	Bool	X3-DI1	R/W
BI11	Bool	X3-DI2	R/W
BI12	Bool	X3-DI3	R/W
BI13	Bool	X3-DI4	R/W
BI14	Bool	X4-DI1	R/W
BI15	Bool	X4-DI2	R/W
BI16	Bool	X4-DI3	R/W
BI17	Bool	X4-DI4	R/W

Binary output objects

Serial number	Type of data	Name	Attributes
BO0	Bool	Subject-DO1	R
BO1	Bool	Subject-DO2	R
BO2	Bool	X1-DO1	R
BO3	Bool	X1-DO2	R
BO4	Bool	X2-DO1	R
BO5	Bool	X2-DO2	R
BO6	Bool	X3-DO1	R
BO7	Bool	X3-DO2	R
BO8	Bool	X4-DO1	R
BO9	Bool	X4-DO2	R

Binary value objects:

Serial number	Type of data	Description	Attributes
BV0	Bool	Phase Sequence, 0: normal,1: abnormal	R
BV1	Bool	frequency status, 0: normal,1: abnormal	R
BV2	Bool	Voltage qualification state, 0: normal,1: abnormal	R
BV3	Bool	High voltage alarm, 0: no alarm occurs, 1: alarm occurs	R
BV4	Bool	Low voltage alarm, 0: no alarm occurs, 1: alarm occurs	R
BV5	Bool	High current alarm, 0: no alarm occurs, 1: alarm occurs	R
BV6	Bool	Low current alarm, 0: no alarm occurs, 1: alarm occurs	R
BV7	Bool	High active power alarm, 0: no alarm occurs, 1: alarm occurs	R
BV8	Bool	Low active power alarm, 0: no alarm occurs, 1: alarm occurs	R
BV9	Bool	X1 Extended status, 0: no, 1: yes	R
BV10	Bool	X2 Extended status, 0: no, 1: yes	R
BV11	Bool	X3 Extended status, 0: no, 1: yes	R
BV12	Bool	X4 Extended status, 0: no, 1: yes	R

4. Technical Parameters

Communication Interface	RJ45
Communication Protocol	Bacnet/IP
Operating temperature	-25 ~ 75°C
Storage environment	-40 ~ 85°C / 0 ~ 95%RH

The information in this document is subject to change without notice.