

Annex - Premeir MODBUS protocol Ver no - Rev no (0306)				
MODBUS - reg	Internal			
Registers for Fixed (Scaling) Information				
MODBUS Register		Parameter	Description	Format
42001	42000	VX (Low)	Voltage scaling (NA)	Unsigned 16 bits
		VX (High) & DI	Voltage scaling (Exponent)	
42002	42001	IX (High)	Current scaling (Exponent.)	Unsigned 16 bits
		IX (Low)	Current scaling (Divisor)	
42003	42002	PX (High)	Power scaling (Exponent)	Unsigned 16 bits
		PX (Low)	Power scaling (Divisor)	
42004	42003	MF(High)	Energy Multiplier (Exponent)	Unsigned 16 bits
		MF (Low)	Demand divisor	
Registers for Fixed (Meter) Information				
MODBUS		Parameter	Description	Format
42005 to 42008	42004	SrN	Meter Serial Number	ASCII (8 bytes)
42009 to 42012	42008	SfN	Meter Software Name	ASCII (8 bytes)
42013 to 42014	42012	RT	Time	Unsigned 32 bits
42015 to 42018	42014	FwmName	Firmware - Name	ASCII (8 bytes)
42019	42018	Modbus Protocol Version & Revision	It is also mapped to MODBUS Reg. 40019 The MS byte is fixed 03 for Premier and LS byte is the Revision number (00 to FF).	Unsigned 16 bits
42020 - 42100	42019 - 42099			
Standard registers for instantaneous parameters				
MODBUS		Parameter	Description	Format
42101	42100	V1	Voltage (nominal mV)	Unsigned 32 bits
42103	42102	V2	Voltage (nominal mV)	Unsigned 32 bits
42105	42104	V3	Voltage (nominal mV)	Unsigned 32 bits
42107	42106	L1	Line current (nom. mA)	Unsigned 32 bits
42109	42108	L2	Line current (nom. mA)	Unsigned 32 bits
42111	42110	L3	Line current (nom. mA)	Unsigned 32 bits
42113	42112	LN	Neutral current (mA)	Unsigned 32 bits
42115	42114	KW	Resistive power(0.1 W)	Signed 32 bits
42117	42116	KT	Resistive power(0.1 W)	Signed 32 bits
42119	42118	KV	Reactive power (0.1 var)	Signed 32 bits
42121	42120	KA	Resistive power (0.1 VA)	Signed 32 bits
42123	42122	Q1	Power factor (X 1000)	Signed 16 bits
42124	42123	Q2	Power factor (X 1000)	Signed 16 bits
42125	42124	Q3	Power factor (X 1000)	Signed 16 bits
42126	42125	QA	Avg power fact (X1000)	Signed 16 bits
42127	42126	A12	RY ph ang (360/65536)	Unsigned 16bits
42128	42127	A23	YB ph ang (360/65536)	Unsigned 16bits
42129	42128	A31	BR ph ang (360/65536)	Unsigned 16bits
42130	42129	FQ	Frequency Hz (X 1000)	Unsigned 16bits
42131	42130	BR	Baudrate	Unsigned 16bits
42132	42131	* flTampN	Tamper status	Unsigned 32bits
42134 - 42300	42133 - 42299	For future use only		
Standard registers for Miscellaneous parameters				
42301	42300	Cumulative Power ON Minutes	4 bytes size elemnt in Array	Unsigned 32 bits
42303	42302	Cumulative Power OFF Minutes	4 bytes size elemnt in Array	Unsigned 32 bits
42305	42304	Last IP demand for Active - import	4 bytes size elemnt in Array	Unsigned 32 bits
42307	42306	Last IP demand for Active - export	4 bytes size elemnt in Array	Unsigned 32 bits
42309	42308	Last IP demand for kVARHI_WI	4 bytes size elemnt in Array	Unsigned 32 bits
42311	42310	Last IP demand for kVARHE_WI	4 bytes size elemnt in Array	Unsigned 32 bits
42313	42312	Last IP demand for kVARHI_WE	4 bytes size elemnt in Array	Unsigned 32 bits
42315	42314	Last IP demand for kVARHE_WE	4 bytes size elemnt in Array	Unsigned 32 bits
42317	42316	Last IP demand for Apparent imp	4 bytes size elemnt in Array	Unsigned 32 bits
42319	42318	Last IP demand for Apparent Exp	4 bytes size elemnt in Array	Unsigned 32 bits
42321	42320	Last IP frequency linked with PT interruption value	4 bytes size elemnt in Array	Unsigned 32 bits
42323	42322	Last IP net Active energy	4 bytes size elemnt in Array	Signed 32 bits
42325	42324	Last IP net Reactive High energy	4 bytes size elemnt in Array	Signed 32 bits
42327	42326	Last IP net Reactive Low energy	4 bytes size elemnt in Array	Signed 32 bits
42329	42328 -42399	For future use only		
Cumulative energy parameters (set - 1)				

42401	42400		kWHT_IMP	Active Total - Import	
42403	42402		kWHT_EXP	Active Total - Export	Unsigned 32 bits
42405	42404		kWH_IMP	Active Fundamental - Import	Unsigned 32 bits
42407	42406		kWH_EXP	Active Fundamental - Export	Unsigned 32 bits
42409	42408		kVARHI_WI	Reactive - Import While Active Import	Unsigned 32 bits
42411	42410		kVARHE_WI	Reactive - Export While Active Import	Unsigned 32 bits
42413	42412		kVARHI_WE	Reactive - Import While Active Export	Unsigned 32 bits
42415	42414		kVARHE_WE	Reactive - Export While Active Export	Unsigned 32 bits
42417	42416		kVAH_WI	Apparent - Import	Unsigned 32 bits
42419	42418		kVAH_WE	Apparent - Export	Unsigned 32 bits
42421	42420		ReactH_NET	Reactive high net	Unsigned 32 bits
42423	42422		ReactL_NET	Reactive low net	Unsigned 32 bits
42425	42424		kWH_DFRAUD	Active Dfrauded	Unsigned 32 bits
					Unsigned 32 bits
42427 - 42600	42426 - 42599		For future use only		
42601 - 43000	42600 - 42999		For future use only		
* Tamper status details					
Bit number	Format				
0	bit		R-Phase CT reverse		
1	bit		Y-Phase CT reverse		
2	bit		B-Phase CT reverse		
3	bit		CT open		
4	bit		CT Bypass		
5	bit		Current Imbalance		
6	bit		Over current		
7	bit		Not used		
8	bit		R-Phase Voltage missing		
9	bit		Y-Phase Voltage missing		
10	bit		B-Phase Voltage missing		
11	bit		Voltage unbalance		
12	bit		Volatge Invalid		
13	bit		Not used		
14	bit		Not used		
15	bit		Cover open		
16	bit		Neutral Disturbance		
17	bit		High Neutral Current		
18	bit		Low power factor		
19	bit		Magnet interference		
20	bit		R-Phase current missing		
21	bit		Y-Phase current missing		
22	bit		B-Phase current missing		
23	bit		Not used		
24	bit		Not used		
25	bit		Not used		
26	bit		Not used		
27	bit		Not used		
28	bit		Not used		
29	bit		Not used		
30	bit		Not used		
31	bit		Power fail		