

MODBUS Register
S6XM50A100VM (2800210)
S6XM50A1000VM (2800200)
S9XM300A100VM (2800230)
S9XM300A1000VM (2800220)



Register Name	Description	Register Type	R/W	Default Value	Modbus Address
Machine ID	Machine ID: S6XM50A1000VM (7), S6XM50A100VM (19), S9XM300A1000VM (18), S9XM300A100VM (22)	Unsigned short	R		40001
FW version	Firmware version	Unsigned short	R	0	40002
Address	Modbus address	Unsigned short	R/W	1	40003
Delay	Machine answer delay (in characters) (Range 0...1000)	Unsigned short	R/W	1	40004
Baudrate	0= 1200, 1= 2400, 2= 4800, 3= 9600, 4= 19200, 5= 38400, 6= 57600, 7= 115200	Unsigned short	R/W	1	40005
Parity	0= NO, 1= ODD, 2= EVEN	Unsigned short	R/W	0	40006
DC Filter	Number of tenths of second (1/10) for all RMS calculation in DC (Range 1...65535)	Unsigned short	R/W	10	40007
Flag Measurement	bit 0 : 0= TRMS value (without sign); 1 = DC measurement (with sign); bit 1 : 0= Energy storing disable; 1= Energy storing enable; bit 2 : 0= Frequency detect on Voltage channel; 1= Frequency detect on Current channel].	Unsigned short	R/W	0x10	40008
TV_Ratio	Voltage transformer ratio	Float (LSW first)	R/W	1.0	40009 40010
TA_Ratio	Current transformer ratio	Float (LSW first)	R/W	1.0	40011 40012
Current and Power CUT OFF	LSB: Current in mA (250) for S6XM50A1000VM and S6XM50A100VM, in 10mA (1500) for S9XM300A1000VM and S9XM300A100VM; MSB: Power in W (1) for S6XM50A1000VM and S6XM50A100VM, in 10xW (10) for S9XM300A1000VM and S9XM300A100VM	Unsigned short	R/W		40013
# of ZX for VI measurement	Number of ZX for AC Meas Number of line cycle Zero Crossings for AC measurement RMS (Range 1...65535)	Unsigned short	R/W	50	40014
STATUS	bit 0 : flash settings error; bit 1 : flash calibration error; bit 2 : Voltage Over Range; bit 3 : Voltage Under Range; bit [4:5] don't care; bit 6 : Zero crossing detecting; bit [7:9] don't care; bit 10 : Energy storing error; bit 11 : Energy initialization error; bit 12 : don't care; bit 13 : Current Over Range; bit 14 : Current Under Range; bit 15 : don't care.	Unsigned short	R	0	40072
V RMS	Voltage RMS Measurement (V)	Float (LSW first)	R		40073 40074
I RMS	Current RMS Measurement (mA)	Float (LSW first)	R		40075 40076
P	Active Power Measurement (W)	Float (LSW first)	R		40077 40078
Q	Reactive Power Measurement (VAR)	Float (LSW first)	R		40079 40080
S	Apparent Power Measurement (VA)	Float (LSW first)	R		40081 40082
Cos	Cos Measurement	Float (LSW first)	R		40083 40084
Frequency	Frequency Measurement (Hz)	Float (LSW first)	R		40085 40086
THD	THD Measurement	Float (LSW first)	R		40087 40088
Energy	Totale Energy Measurement (KWh)	Float (LSW first)	R		40089 40090
Energy positive	Only positive Energy Measurement (KWh)	Float (LSW first)	R		40091 40092
Energy negative	Only negative Energy Measurement (KWh)	Float (LSW first)	R		40093 40094
V peak	Instantaneous Voltage Peak (V)	Float (LSW first)	R/W		40095 40096
I peak	Instantaneous Current Peak (mA)	Float (LSW first)	R/W		40097 40098
V MAX	Max RMS Voltage (V)	Float (LSW first)	R/W		40099 40100
V min	Min RMS Voltage (V)	Float (LSW first)	R/W		40101 40102
I MAX	Max RMS Current (mA)	Float (LSW first)	R/W		40103 40104
I min	Min RMS Current (mA)	Float (LSW first)	R/W		40105 40106
P MAX	Max RMS Power (W)	Float (LSW first)	R/W		40107 40108
P min	Min RMS Power (W)	Float (LSW first)	R/W		40109 40110
Q MAX	Max Reactive Power (VAR)	Float (LSW first)	R/W		40111 40112
Q min	Min Reactive Power (VAR)	Float (LSW first)	R/W		40113 40114
S MAX	Max Apparent Power (VA)	Float (LSW first)	R/W		40115 40116
S min	Min Apparent Power (VA)	Float (LSW first)	R/W		40117 40118
Cosφ MAX	Max Cosφ	Float (LSW first)	R/W		40119 40120
Cosφ min	Min Cosφ	Float (LSW first)	R/W		40121 40122
Frequency MAX	Max Frequency (Hz)	Float (LSW first)	R/W		40123 40124
Frequency min	Min Frequency (Hz)	Float (LSW first)	R/W		40125 40126
THD MAX	Max THD	Float (LSW first)	R/W		40127 40128
THD min	Min THD	Float (LSW first)	R/W		40129 40130
STATUS SW	bit 0 : flash settings error; bit1 : flash calibration error; bit 2 : Voltage Over Range; bit 3 : Voltage Under Range; bit [4:5] don't care; bit 6 : Zero crossing detecting; bit [7:9] don't care; bit 10 : Energy storing error; bit 11 : Energy initialization error; bit 12 : don't care; bit 13 : Current Over Range; bit 14 : Current Under Range; bit 15 : don't care.	Unsigned short	R		40132
V RMS SW	Voltage RMS measurement (V) swapped	Float (MSW first)	R		40133 40134
I RMS SW	Current RMS measurement (mA) swapped	Float (MSW first)	R		40135 40136
P SW	Power measurement (W) swapped	Float (MSW first)	R		40137 40138
Q SW	Reactive Power measurement Q (VAR) swapped	Float (MSW first)	R		40139 40140

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S SW	Apparent Power measurement S (VA) swapped	Float (MSW first)	R		40141
					40142
Cosφ SW	Cosφ measurement swapped	Float (MSW first)	R		40143
					40144
Frequency SW	Frequency measurement (Hz) swapped	Float (MSW first)	R		40145
					40146
THD SW	THD swapped	Float (MSW first)	R		40147
					40148
Energy SW	Total Energy measurement (KWh) swapped	Float (MSW first)	R		40149
					40150
Energy positive SW	Only positive Energy Measurement (KWh) swapped	Float (MSW first)	R		40151
					40152
Energy negative SW	Only negative Energy Measurement (KWh) swapped	Float (MSW first)	R		40153
					40154
V peak SW	Instantaneous Voltage Peak (V) swapped	Float (MSW first)	R/W		40155
					40156
I peak SW	Instantaneous Current Peak (mA) swapped	Float (MSW first)	R/W		40157
					40158
V MAX SW	Max RMS Voltage (V) swapped	Float (MSW first)	R/W		40159
					40160
V min SW	Min RMS Voltage (V) swapped	Float (MSW first)	R/W		40161
					40162
I MAX SW	Max RMS Current (mA) swapped	Float (MSW first)	R/W		40163
					40164
I min SW	Min RMS Current (mA) swapped	Float (MSW first)	R/W		40165
					40166
P MAX SW	Max RMS Power (W) swapped	Float (MSW first)	R/W		40167
					40168
P min SW	Min RMS Power (W) swapped	Float (MSW first)	R/W		40169
					40170
Q MAX SW	Max Reactive Power (VAR) swapped	Float (MSW first)	R/W		40171
					40172
Q min SW	Min Reactive Power (VAR) swapped	Float (MSW first)	R/W		40173
					40174
S MAX SW	Max Apparent Power (VA) swapped	Float (MSW first)	R/W		40175
					40176
S min SW	Min Apparent Power (VA) swapped	Float (MSW first)	R/W		40177
					40178
Cosφ MAX SW	Max Cosφ swapped	Float (MSW first)	R/W		40179
					40180
Cosφ min SW	Min Cosφ swapped	Float (MSW first)	R/W		40181
					40182
Frequency MAX SW	Max Frequency (Hz) swapped	Float (MSW first)	R/W		40183
					40184
Frequency min SW	Min Frequency (Hz) swapped	Float (MSW first)	R/W		40185
					40186
THD MAX SW	Max THD swapped	Float (MSW first)	R/W		40187
					40188
THD min SW	min THD swapped	Float (MSW first)	R/W		40189
					40190
STATUS 100	bit 0: flash settings error; bit 1: flash calibration error; bit 2: Voltage Over Range; bit 3: Voltage Under Range; bit [4:5] don't care; bit 6: Zero crossing detecting; bit[7:9] don't care; bit 10: Energy storing error; bit11: Energy initialization error; bit 12: don't care; bit 13: Current Over Range; bit 14: Current Under Range;	Unsigned short	R		40192
V RMS 100	Voltage RMS measurement (V/100) in hundredths	Signed long (LSW first)	R		40193
					40194
I RMS 100	Current RMS measurement (mA/100) in hundredths	Signed long (LSW first)	R		40195
					40196
P 100	Power measurement (W/100) in hundredths	Signed long (LSW first)	R		40197
					40198
Q 100	Reactive Power measurement (VAR/100) in hundredths	Signed long (LSW first)	R		40199
					40200
S 100	Apparent Power measurement (VA/100) in hundredths	Signed long (LSW first)	R		40201
					40202
Cosφ 100	Cosφ measurement in hundredths	Signed long (LSW first)	R		40203
					40204
Frequency 100	Frequency measurement (Hz/100) in hundredths	Signed long (LSW first)	R		40205
					40206
THD 100	THD in hundredths	Signed long (LSW first)	R		40207
					40208
Energy 100	Total Energy measurement (KWh/100) in hundredths	Signed long (LSW first)	R		40209
					40210
Energy positive 100	Only positive Energy Measurement (KWh/100) in hundredths	Signed long (LSW first)	R		40211
					40212
Energy negative 100	Only negative Energy Measurement (KWh/100) in hundredths	Signed long (LSW first)	R		40213
					40214
V peak 100	Instantaneous Voltage Peak (V/100) in hundredths	Signed long (LSW first)	R/W		40215
					40216
I peak 100	Instantaneous Current Peak (mA/100) in hundredths	Signed long (LSW first)	R/W		40217
					40218
V MAX 100	Max RMS Voltage (V/100) in hundredths	Signed long (LSW first)	R/W		40219
					40220
V min 100	Min RMS Voltage (V/100) in hundredths	Signed long (LSW first)	R/W		40221
					40222
I MAX 100	Max RMS Current (mA/100) in hundredths	Signed long (LSW first)	R/W		40223
					40224
I min 100	Min RMS Current (mA/100) in hundredths	Signed long (LSW first)	R/W		40225
					40226
P MAX 100	Max RMS Power (W/100) in hundredths	Signed long (LSW first)	R/W		40227
					40228
P min 100	Min RMS Power (W/100) in hundredths	Signed long (LSW first)	R/W		40229
					40230
Q MAX 100	Max Reactive Power (VAR/100) in hundredths	Signed long (LSW first)	R/W		40231
					40232
Q min 100	Min Reactive Power (VAR/100) in hundredths	Signed long (LSW first)	R/W		40233
					40234
S MAX 100	Max Apparent Power (VA/100) in hundredths	Signed long (LSW first)	R/W		40235
					40236

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S min 100	Min Apparent Power (VA/100) in hundredths	Signed long (LSW first)	R/W		40237
					40238
Cosφ MAX 100	Max Cosφ in hundredths	Signed long (LSW first)	R/W		40239
					40240
Cosφ min 100	Min Cosφ in hundredths	Signed long (LSW first)	R/W		40241
					40242
Frequency MAX 100	Max Frequency (Hz/100) in hundredths	Signed long (LSW first)	R/W		40243
					40244
Frequency min 100	Min Frequency (Hz/100) in hundredths	Signed long (LSW first)	R/W		40245
					40246
THD MAX 100	Max THD in hundredths	Signed long (LSW first)	R/W		40247
					40248
THD min 100	min THD in hundredths	Signed long (LSW first)	R/W		40249
					40250
Command	Flash settings save command = 0xC1C0; Reset command = 0xC1A0; Load Energy command = 0xBABA (energy to load must be written in Command_aux); Load Positive Energy command = 0xBABB (positive energy to load must be written in Command_aux); Load Negative Energy command = 0xBABC (negative energy to load must be written in Command_aux);	Unsigned short	R/W	0	40252
Command aux	Auxiliary Register for Energy Command (see command register)	Float (LSW first)	R/W	0	40253
					40254