

Revision History

Date	Description	Version	F/W version
2020-06-01	First release	1.0	
2020-07-16	Add PowerMeter Info model	1.1	
2021-01-27	Adjust base address of each models	1.2	10.05.7213 r1246
2021-04-30	Add PV Energy	1.3	10.05.7230 R1330

Supported Model

Model #	Title	modbus base address
	Sunspec Identifire 'SunS'	000
1	Common	2
103	Inverter (3 Phase Inverter model) scaled	70
113	Inverter (3 Phase Inverter model) float	122
120	Inverter nameplate ratings	184
123	Immediate Inverter Controls	212
802	Battery Based model	238
64256	Sharing Power Meter Info(s)	302

modbus TCP port # : 6502 (0x1966)

Base Addr : 2

AddrOffset	Size	Name	Label	Type	Units	SF	R/W
0	1	ID	Common	uint16			R
1	1	Length		uint16			R
2	16	Mn	Manufacturer	string			R
18	16	Md	Model	string			R
42	8	Vr	Version	string			R
50	16	SN	Serial Number	string			R
67	1	Pad		pad			R

Base Addr : 70

AddrOffset	Size	Name	Label	Type	Units	SF	R/W
0	1	ID	Inverter (Three Phase)	uint16			R
1	1	Length		uint16			R
2	1	A	Amps	uint16	A	A_SF	R
3	1	AphA	Amps PhaseA	uint16	A	A_SF	R
4	1	AphB	Amps PhaseB	uint16	A	A_SF	R
5	1	AphC	Amps PhaseC	uint16	A	A_SF	R
6	1	A_SF		sunssf			R
10	1	PhVphA	Phase Voltage AN	uint16	V	V_SF	R
11	1	PhVphB	Phase Voltage BN	uint16	V	V_SF	R
12	1	PhVphC	Phase Voltage CN	uint16	V	V_SF	R
13	1	V_SF		sunssf			R
14	1	W	Watts	int16	W	W_SF	R
15	1	W_SF		sunssf			R
16	1	Hz	Hz	uint16	Hz	Hz_SF	R
17	1	Hz_SF		sunssf			R
18	1	VA	VA	int16	VA	VA_SF	R
19	1	VA_SF		sunssf			R
24	2	WH	WattHours	acc32	Wh	WH_SF	R
26	1	WH_SF		sunssf			R
27	1	DCA	DC Amps	uint16	A	DCA_SF	R
28	1	DCA_SF		sunssf			R
29	1	DCV	DC Voltage	uint16	V	DCV_SF	R
30	1	DCV_SF		sunssf			R
31	1	DCW	DC Watts	int16	W	DCW_SF	R
32	1	DCW_SF		sunssf			R
33	1	TmpCab	Cabinet Temperature	int16	C	Tmp_SF	R
35	1	TmpTrns	Transformer Temperature	int16	C	Tmp_SF	R
37	1	Tmp_SF		sunssf			R
38	1	St	Operating State	enum16			R
40	2	Evt1	Event1	bitfield32			R

Base Addr : 122

AddrOffset	Size	Name	Label	Type	Units	SF	R/W
0	1	ID	Inverter (Three Phase) FLOAT	uint16			R
1	1	L		uint16			R
2	2	A	Amps	float32	A		R
4	2	AphA	Amps PhaseA	float32	A		R
6	2	AphB	Amps PhaseB	float32	A		R
8	2	AphC	Amps PhaseC	float32	A		R
16	2	PhVphA	Phase Voltage AN	float32	V		R
18	2	PhVphB	Phase Voltage BN	float32	V		R
20	2	PhVphC	Phase Voltage CN	float32	V		R
22	2	W	Watts	float32	W		R
24	2	Hz	Hz	float32	Hz		R
26	2	VA	VA	float32	VA		R
32	2	WH	WattHours	float32	Wh		R
34	2	DCA	DC Amps	float32	A		R
36	2	DCV	DC Voltage	float32	V		R
38	2	DCW	DC Watts	float32	W		R
40	2	TmpCab	Cabinet Temperature	float32	C		R
44	2	TmpTrns	Transformer Temperature	float32	C		R
48	1	St	Operating State	enum16			R
50	2	Evt1	Event1	bitfield32			R

Base Addr :184

AddrOffset	Size	Name	Label	Type	Units	SF	R/W
0	1	ID	Nameplate	uint16			R
1	1	L		uint16			R
2	1	DErTyp	DErTyp	enum16			R
3	1	WRtg	WRtg	uint16	W	WRtg_SF	R
4	1	WRtg_SF	WRtg_SF	sunssf			R
5	1	VARtg	VARtg	uint16	VA	VARtg_SF	R
6	1	VARtg_SF	VARtg_SF	sunssf			R
7	1	VArRtgQ1	VArRtgQ1	int16	var	VArRtg_SF	R
8	1	VArRtgQ2	VArRtgQ2	int16	var	VArRtg_SF	R
9	1	VArRtgQ3	VArRtgQ3	int16	var	VArRtg_SF	R
10	1	VArRtgQ4	VArRtgQ4	int16	var	VArRtg_SF	R
11	1	VArRtg_SF	VArRtg_SF	sunssf			R
12	1	ARtg	ARtg	uint16	A	ARtg_SF	R
13	1	ARtg_SF	ARtg_SF	sunssf			R
14	1	PFRtgQ1	PFRtgQ1	int16	cos()	PFRtg_SF	R
15	1	PFRtgQ2	PFRtgQ2	int16	cos()	PFRtg_SF	R
16	1	PFRtgQ3	PFRtgQ3	int16	cos()	PFRtg_SF	R
17	1	PFRtgQ4	PFRtgQ4	int16	cos()	PFRtg_SF	R
18	1	PFRtg_SF	PFRtg_SF	sunssf			R
19	1	WHRtg	WHRtg	uint16	Wh	WHRtg_SF	R
20	1	WHRtg_SF	WHRtg_SF	sunssf			R
23	1	MaxChaRte	MaxChaRte	uint16	W	MaxChaRte_SF	R
24	1	MaxChaRte_SF	MaxChaRte_SF	sunssf			R
25	1	MaxDisChaRte	MaxDisChaRte	uint16	W	MaxDisChaRte_SF	R
26	1	MaxDisChaRte_SF	MaxDisChaRte_SF	sunssf			R

Base Addr : 212

AddrOffset	Size	Name	Label	Type	Units	SF	R/W
0	1	ID	Immediate Controls	uint16			R
1	1	L		uint16			R
4	1	Conn	Conn	enum16			RW
5	1	WMaxLimPct	WMaxLimPct	uint16	% WMax	WMaxLimPct_SF	RW
9	1	WMaxLim_Ena	WMaxLim_Ena	enum16			RW
10	1	OutPFSet	OutPFSet	int16	cos()	OutPFSet_SF	RW
14	1	OutPFSet_Ena	OutPFSet_Ena	enum16			RW
21	1	VArPct_Mod	VArPct_Mod	enum16			RW
22	1	VArPct_Ena	VArPct_Ena	enum16			RW
23	1	WMaxLimPct_SF	WMaxLimPct_SF	sunssf			R
24	1	OutPFSet_SF	OutPFSet_SF	sunssf			R

Base Addr : 238

AddrOffset	Size	Name	Label	Type	Units	SF	R/W
0	1	ID	Battery Base Model	uint16			R
1	1	L		uint16			R
2	1	AHRtg	Nameplate Charge Capacity	uint16	Ah	AHRtg_SF	R
3	1	WHRtg	Nameplate Energy Capacity	uint16	Wh		R
4	1	WChaRteMax	Nameplate Max Charge Rate	uint16	W	WChaDisChaMax_SF	R
5	1	WDisChaRteMax	Nameplate Max Discharge Rate	uint16	W	WChaDisChaMax_SF	R
11	1	SoC	State of Charge	uint16	%WHRtg	x 10	R
12	1	DoD	Depth of Discharge	uint16	%	x 10	R
16	1	ChaSt	Charge Status	enum16			R
17	1	LocRemCtl	Control Mode	enum16			R
20	1	AlmRst	Alarm Reset	uint16			RW
21	1	Typ	Battery Type	enum16			R
22	1	State	State of the Battery Bank	enum16			R
26	2	Evt1	Battery Event 1 Bitfield	bitfield32			R
28	2	Evt2	Battery Event 2 Bitfield	bitfield32			R
30	2	EvtVnd1	Vendor Event Bitfield 1	bitfield32			R
32	2	EvtVnd2	Vendor Event Bitfield 2	bitfield32			R
34	1	V	External Battery Voltage	uint16	V	V_SF	R
44	1	A	Total DC Current	int16	A	A_SF	R
45	1	AChaMax	Max Charge Current	uint16	A	AMax_SF	R
46	1	ADisChaMax	Max Discharge Current	uint16	A	AMax_SF	R
47	1	W	Total Power	int16	W	W_SF	R
50	1	SetOp	Set Operation	enum16			RW
51	1	SetInvState	Set Inverter State	enum16			RW
52	1	AHRtg_SF		sunssf			R
53	1	WHRtg_SF		sunssf			R
54	1	WChaDisChaMax_SF		sunssf			R
56	1	SoC_SF		sunssf			R
57	1	DoD_SF		sunssf			R
59	1	V_SF		sunssf			R
60	1	CellV_SF		sunssf			R
61	1	A_SF		sunssf			R
62	1	AMax_SF		sunssf			R

Base Addr : 302

AddrOffset	Size	Name	Label	Type	Units	SF	R/W	Description
0	1	ID	Power Meter status	uint16			R	
1	1	L	18	uint16			R	Model Length
2	2	ActPower	AC Active Power	sint32	W	ActPower_SF	R	>0 : Purchase Power
3								<0 : Feed-in Power
4	1	ActPower_SF	Scale Factor of Active Power	sint16	sunsf	0	R	x 1
5	1	Vol_AN	AC Voltage AN	uint16	V	Vol_SF	R	
6	1	Vol_BN	AC Voltage BN	uint16	V	Vol_SF	R	
7	1	Vol_CN	AC Voltage CN	uint16	V	Vol_SF	R	
8	1	Vol_SF	Scale Factor of Voltage XN	sint16	sunsf	1	R	x10
9	1	AC_Freq	AC Freq.	uint16	Hz		R	
10	1	ACFreq_SF	Scale Factor of AC Freq	sint16	sunsf	1	R	x10
11	4	AC_PurchaseEnergy	Purchase Energy	sint64	Wh	Energie_SF	R	
12								
13								
14								
15	4	AC_FeedInEnergy	Feed-in Energy	sint64	Wh	Energie_SF	R	
16								
17								
18								
19	1	Energy_SF	Scale Factor of Energy	sint16	sunsf	0	R	x1
20	2	PV_Generation_Energy	PV Generation Energy	uint32	Wh	Energy_SF	R	20 : Upper 16bit 21 : Lower 16bit