

Aus : "Solar Inverter Modbus Interface Definitions" in der Version "Issue 04" vom "date 2022-03-29"

RO ist der Zugriffstyp, hier im Modbus als „03“ verwendet.

Adresse ist selbsterklärend und setzt den Startpunkt für Register-Auslese-Operationen.

Typ legt fest, welche Zahlkodierung verwendet wird, inbesondere auch , wenn zwei 16-Bit-Register als ein 32-Bit-Wert geliefert werden sollen.

Quantity beschreibt, wieviele 16-Bit Register gelesen werden sollen. Bei 32 Bit also 2.

Unterhalb der Tabelle einige Aufruf-Konfigurationen in NodeRead in einem F-Knoten, der den Flex-Getter-Knoten aufruft...

Kapitel		Page	No.	Signal Name	Read/ Write RO=03	Type	Unit	Gain Skalierung	Adress	Quantity (16Bit- Werte)	Scope
3.1	Inverter Equipment Register	10	1	Model	RO	STR	na	1	30000	15	Modellbezeichnung als String
3.1	Inverter Equipment Register	10	2	SN	RO	STR	na	1	30015	10	Seriennummer
3.2	Battery Equipment Register	23	2	[Energie Storage Unit1] charge and dischage power	RO	I32	W	1	37001	2	>0 charging, <0 discharging
3.1	Inverter Equipment Register	10	3	PN	RO	STR	na	1	30025	10	
3.1	Inverter Equipment Register	10	4	Model ID	RO	U16	na	1	30070	1	SUN200 8KTL-M1 = 428
3.2	Battery Equipment Register	23	4	[Energie Storage Unit1] state of charge (SOC)	RO	U16	%	10	37004	1	Bateries state of charge, z.B. 990 = 99,0%
3.1	Inverter Equipment Register	10	5	Number of PV-Strings	RO	U16	na	1	30071	1	Hier : 2
3.1	Inverter Equipment Register	10	6	Number of MPP-Tracker	RO	U16	na	1	30072	1	Hier: 2
3.1	Inverter Equipment Register	10	7	Rated Power	RO	U32	kW	1000	30073	2	Hier : 8000 = 8 kW
3.1	Inverter Equipment Register	10	8	Max active Power	RO	U32	kW	1000	30075	2	Hier: 8800 = 8,8 kW
3.3	Meter Equipment Register	48	8	Active Power	RO	I32	W	1	37113	2	
3.2	Battery Equipment Register	24	9	[Energie Storage Unit1] Current day charge capacity	RO	U32	kWh	100	37015	2	
3.2	Battery Equipment Register	24	10	[Energie Storage Unit1] Current day discharge capacity	RO	U32	kWh	100	37017	2	
3.2	Battery Equipment Register	24	12	[Energie Storage Unit1] Battery Temperature	RO	I16	°C	10	37022	1	
3.3	Meter Equipment Register	48	12	positive active electricity / power ?	RO	I32	kWh	100	37119	2	
3.3	Meter Equipment Register	48	13	reverse aktive power	RO	I32	kWh	100	37121	2	
3.1	Inverter Equipment Register	12	18	PV1 voltage	RO	I16	V	10	32016	1	z.B. 3526 = 352,6 V
3.1	Inverter Equipment Register	12	19	PV1 current	RO	I16	A	100	32017	1	z.B. 1097 = 10,97 A

3.1	Inverter Equipment Register	12	20	PV2 voltage	RO	I16	V	10	32018	1	
3.1	Inverter Equipment Register	12	21	PV2 current	RO	I16	A	100	32019	1	
3.2	Battery Equipment Register	26	22	[Energie Storage Unit2] state of charge (SOC)	RO	U16	%	10	37738	1	Bateries state of charge, z.B. 990 = 99,0%
3.2	Battery Equipment Register	26	24	[Energie Storage Unit2] charge and dischage power	RO	I32	W	1	37743	2	>0 charging, <0 discharging
3.2	Battery Equipment Register	26	25	[Energie Storage Unit2] Current day charge capacity	RO	U32	kWh	100	37746	2	
3.1	Inverter Equipment Register	13	26	(PV-) Input power	RO	I32	kW	1000	32064	2	z.B. 6343 = 6,343 kW
3.2	Battery Equipment Register	26	26	[Energie Storage Unit2] Current ay discharge capacity	RO	U32	kWh	100	37748	2	
3.2	Battery Equipment Register	26	29	[Energie Storage Unit2] Battery Temperature	RO	I16	°C	10	37752	1	
3.1	Inverter Equipment Register	13	33	Phase A voltage	RO	U16	V	1000	32072	2	z.B. 9986 = 9,986 A
3.1	Inverter Equipment Register	14	33	Phase A current	RO	I32	A	1000	32072	2	z.B. 9986 = 9,986 A
3.2	Battery Equipment Register	27	33	[Ernergie Storage] SOC (state of charge)	RO	U16	%	10	37760	1	
3.1	Inverter Equipment Register	13	34	Phase B voltage	RO	U16	V	1000	32074	2	z.B. 9986 = 9,986 A
3.1	Inverter Equipment Register	14	34	Phase B current	RO	I32	A	1000	32074	2	z.B. 9986 = 9,986 A
3.1	Inverter Equipment Register	13	35	Phase C voltage	RO	U16	V	1000	32076	2	z.B. 9986 = 9,986 A
3.1	Inverter Equipment Register	14	35	Phase C current	RO	I32	A	1000	32076	2	z.B. 9986 = 9,986 A
3.1	Inverter Equipment Register	14	36	Peakt Active Power of the day	RO	I32	kW	1000	32078	2	z.B. 7196 = 7,196 kW
3.1	Inverter Equipment Register	14	37	Active Power	RO	I32	kW	1000	32080	2	aktuelle PV-Leistung !!
3.2	Battery Equipment Register	27	37	[Ernergie Storage] charge and dischage power	RO	I32	W	1	37765	2	
3.2	Battery Equipment Register	28	40	[Ernergie Storage] Current-day charge capacity	RO	U32	kWh	100	37784	2	
3.2	Battery Equipment Register	28	41	[Ernergie Storage] Current-day discharge capacity	RO	U32	kWh	100	37786	2	
3.2	Battery Equipment Register	28	47	[Energie Storage Unit1][Battery pack1] state of charge	RO	U16	%	10	38229	1	
3.1	Inverter Equipment Register	17	48	acumulated energie yield	RO	U32	kW	100	32106	2	
3.1	Inverter Equipment Register	17	49	daily ernegy yield	RO	U32	kW	100	32114	2	
3.1	Inverter Equipment Register	19	56	[Power Meter collection] active Power	RO	I32	W	1	37113	2	>0 = Einspeisung, <0 = Leistungsentnahme aus dem Netz
3.2	Battery Equipment Register	30	56	[Energie Storage Unit1][Battery pack2] state of charge	RO	U16	%	10	38271	1	
3.2	Battery Equipment Register	31	65	[Energie Storage Unit1][Battery pack3] state of charge	RO	U16	%	10	38313	1	

3.2	Battery Equipment Register	32	74	[Energie Storage Unit2][Battery pack1] state of charge	RO	U16	%	10	38355	1	
3.2	Battery Equipment Register	33	83	[Energie Storage Unit2][Battery pack2] state of charge	RO	U16	%	10	38397	1	
3.2	Battery Equipment Register	34	92	[Energie Storage Unit2][Battery pack3] state of charge	RO	U16	%	10	38439	1	

Beispiele aus dem NodeRed

1) Abfrage der aktuellen Solar-Erträge

- `msg.payload = { 'fc': 3, 'address': 32064, 'quantity': 2 };`
- `msg.topic = "Solar input power";`
- `return msg;`

2) Abfrage des Smart Power Meter

- `msg.payload = { 'fc': 3, 'address': 37113, 'quantity': 2 };`
- `msg.topic = "Grid energie meter";`
- `return msg;`

3) Abfrage der Lade und Endladeleistung aller Batterien (Energy Storage Unit = ESU)

- `msg.payload = { 'fc': 3, 'address': 37765, 'quantity': 2 };`
- `msg.topic = "ESU Charge-discharge power";`
- `return msg;`