SDM630MV-2L Modbus Protocol V1.1

Input Registers，Funciton code 04

Address (Register)	Input Register Parameter				Modbus Protocol Start Address Hex		3 Ø	1 Ø
	Description	Length (bytes)	Data Format	Units	Hi Byte	Lo Byte	4 W	2 W
30001	Phase 1 line to neutral volts.	4	Float	V	00	00	√	√
30003	Phase 2 line to neutral volts.	4	Float	V	00	02	√	X
30005	Phase 3 line to neutral volts.	4	Float	V	00	04	√	X
30007	Phase 1 current.	4	Float	A	00	06	√	√
30009	Phase 2 current.	4	Float	A	00	08	√	X
30011	Phase 3 current.	4	Float	A	00	0A	√	X
30013	Phase 1 active power.	4	Float	W	00	0C	√	√
30015	Phase 2 active power.	4	Float	W	00	0E	√	X
30017	Phase 3 active power.	4	Float	W	00	10	√	X
30019	Phase 1 apparent power.	4	Float	VA	00	12	√	√
30021	Phase 2 apparent power.	4	Float	VA	00	14	√	X
30023	Phase 3 apparent power.	4	Float	VA	00	16	√	X
30025	Phase 1 reactive power.	4	Float	VAr	00	18	√	√
30027	Phase 2 reactive power.	4	Float	VAr	00	1A	√	X
30029	Phase 3 reactive power.	4	Float	VAr	00	1C	√	X
30031	Phase 1 power factor (1).	4	Float	None	00	1E	√	√
30033	Phase 2 power factor (1).	4	Float	None	00	20	√	X
30035	Phase 3 power factor (1).	4	Float	None	00	22	√	X
30037	Phase 1 phase angle.	4	Float	Degrees	00	24	√	√
30039	Phase 2 phase angle.	4	Float	Degrees	00	26	√	X
30041	Phase 3 phase angle.	4	Float	Degrees	00	28	√	X
30043	Average line to neutral volts.	4	Float	V	00	2A	√	X
30047	Average line current.	4	Float	A	00	2E	√	√
30049	Sum of line currents.	4	Float	A	00	30	√	√
30053	Total system power.	4	Float	W	00	34	√	√
30057	Total system volt amps.	4	Float	VA	00	38	√	√
30061	Total system VAr.	4	Float	VAr	00	3C	√	√
30063	Total system power factor (1).	4	Float	None	00	3E	√	√
30067	Total system phase angle.	4	Float	Degrees	00	42	√	√
30071	Frequency of supply voltages.	4	Float	Hz	00	46	√	√
30073	Total import active energy .	4	Float	kWh	00	48	√	√
30075	Total export active energy .	4	Float	kWH	00	4A	√	√

30077	Total import reactive energy .	4	Float	kVArh	00	4C	√	√
30079	Total export reactive energy .	4	Float	kVArh	00	4E	√	√
30081	Total apparent energy .	4	Float	kVAh	00	50	√	√
30085	Total system power demand (2).	4	Float	W	00	54	√	√
30087	Maximum total system power demand (2).	4	Float	W	00	56	√	√
30101	Total system VA demand.	4	Float	VA	00	64	√	√
30103	Maximum total system VA demand.	4	Float	VA	00	66	√	√
30105	Neutral current demand.	4	Float	Amps	00	68	√	X
30107	Maximum neutral current demand.	4	Float	Amps	00	6A	√	X
30109	Total system reactive power demand. (2)	4	Float	VAr	00	6C	√	√
30111	Maximum total system reactive power demand(2)	4	Float	VAr	00	6E	√	√
30201	Line 1 to Line 2 volts.	4	Float	V	00	C8	√	X
30203	Line 2 to Line 3 volts.	4	Float	V	00	CA	√	X
30205	Line 3 to Line 1 volts.	4	Float	V	00	CC	√	X
30207	Average line to line volts.	4	Float	V	00	CE	√	X
30225	Neutral current.	4	Float	A	00	E0	√	X
30235	Phase 1 L/N volts THD	4	Float	%	00	EA	√	√
30237	Phase 2 L/N volts THD	4	Float	%	00	EC	√	√
30239	Phase 3 L/N volts THD	4	Float	%	00	EE	√	√
30241	Phase 1 Current THD	4	Float	%	00	F0	√	√
30243	Phase 2 Current THD	4	Float	%	00	F2	√	√
30245	Phase 3 Current THD	4	Float	%	00	F4	√	√
30249	Average line to neutral volts THD.	4	Float	%	00	F8	√	√
30251	Average line current THD.	4	Float	%	00	FA	√	√
30259	Phase 1 current demand.	4	Float	A	01	02	√	√
30261	Phase 2 current demand.	4	Float	A	01	04	√	X
30263	Phase 3 current demand.	4	Float	A	01	06	√	X
30265	Maximum phase 1 current demand.	4	Float	A	01	08	√	√
30267	Maximum phase 2 current demand.	4	Float	A	01	0A	√	X
30269	Maximum phase 3 current demand.	4	Float	A	01	0C	√	X
30343	Total active energy .	4	Float	kWh	01	56	√	√
30345	Total reactive energy .	4	Float	kVArh	01	58	√	√
30347	L1 import kwh	4	Float	kWh	01	5A	√	√
30349	L2 import kwh	4	Float	kWh	01	5C	√	X
30351	L3 import kWh	4	Float	kWh	01	5E	√	X
30353	L1 export kWh	4	Float	kWh	01	60	√	√
30355	L2 export kwh	4	Float	kWh	01	62	√	X
30357	L3 export kWh	4	Float	kWh	01	64	√	X
30359	L1 total kwh	4	Float	kWh	01	66	√	√
30361	L2 total kWh	4	Float	kWh	01	68	√	X
30363	L3 total kwh	4	Float	kWh	01	6A	√	X
30365	L1 import kvarh	4	Float	kVArh	01	6C	√	√

30367	L2 import kvarh	4	Float	kVArh	01	6E	√	X
30369	L3 import kvarh	4	Float	kVArh	01	70	√	X
30371	L1 export kvarh	4	Float	kVArh	01	72	√	√
30373	L2 export kvarh	4	Float	kVArh	01	74	√	X
30375	L3 export kvarh	4	Float	kVArh	01	76	√	X
30377	L1 total kvarh	4	Float	kVArh	01	78	√	√
30379	L2 total kvarh	4	Float	kVArh	01	7A	√	X
30381	L3 total kvarh	4	Float	kVArh	01	7C	√	X

Notes:

1. The power factor has its sign adjusted to indicate the direction of the current. Positive refers to forward current, negative refers to reverse current.
2. The power sum demand calculation is for import – export.
3. Total kWh / kVarh equals to Import + export.

Holding Register，Funciton code 03 / 10

Address Register	Parameter Number	Parameter	Modbus Protocol Start Address Hex		Valid range	Mode
			High Byte	Low Byte		
40001	1	Demand Time	00	00	Read minutes into first demand calculation. When the Demand Time reaches the Demand Period then the demand values are valid. **Length : 4 byte** **Data Format : Float**	ro
40003	2	Demand Period	00	02	Write demand period: 0~60 minutes, Default 60. Range: 0~60, 0 means function closed **Length : 4 byte** **Data Format : Float**	r/w
40005	3	Slide time	00	04	Default 1, min. Range ： 1 ~ (Demand Period -1). **Length : 4 byte** **Data Format : Float**	r/w
40011	6	System Type	00	0A	Write system type: 1p2w= 1，3p4w=3,(default)	r/w

					Length : 4 byte **Data Format : Float** (KPPA is asked)	
40015	8	Key Parameter Programming Authorization (KPPA)	00	0E	Read: to get the status of the KPPA 0 = not authorized；1 = authorized Write the correct password to get KPPA, enable to program key parameters. **Length : 4 byte** **Data Format : Float**	r/w
40019	10	Parity and stop bit	00	12	Write the network port parity/stop bits for MODBUS Protocol, where: 0 = One stop bit and no parity, default. 1 = One stop bit and even parity. 2 = One stop bit and odd parity.3 = Two stop bits and no parity. **Length : 4 byte** **Data Format : Float**	r/w
40021	11	Modbus address	00	14	Write the network port node address: 1 to 247 for MODBUS Protocol, default 1. **Length : 4 byte** **Data Format : Float**	r/w
40025	13	Password	00	18	Read: to get the password of the meter Write: to program the new password of the meter Default 1000 **Length : 4 byte** **Data Format : Float**	r/w
40029	15	Baud Rate	00	1C	Write the network port baud rate for MODBUS Protocol, where: 0 = 2400 baud. 1 = 4800 baud. 2 = 9600 baud, default. 3 = 19200 baud. 4 = 38400 baud **Length : 4 byte** **Data Format : Float**	r/w
40051	26	CT1	00	32	CT1 Range 5-9999A，Default 5， **Length : 4 byte** **Data Format : Float** (KPPA is asked)	r/w
40053	27	CT2	00	34	CT2 = 100mA **Length : 4 byte** **Data Format : Float**	ro
40061	31	Backlit time	00	3C	Default 0, min Range 0~120，0 means backlit always on **Length : 4byte**	r/w

					Data Format : Float	
40065	33	PT ratio	00	40	PT Ratio range:1~2000，default 1 PT ratio= primary voltage /secondary voltage **Length : 4 byte** **Data Format : Float** (KPPA is asked)	r/w
461457	30729	Reset	F0	10	00 00 ： reset the Maximum demand **Length : 2 byte** **Data Format:Hex**	wo