

**DZS300**  
**MODBUS REGISTER MAP**

Address	Parameter Name	Length (byte)	Read /Write	Remark
0000H	current total combined active energy	4	R	INTEGER 0.01kWh
0002H	current total combined active energy in Sharp-period	4	R	
0004H	current total combined active energy in Peak-period	4	R	
0006H	current total combined active energy in Off-peak-period	4	R	
0008H	current total combined active energy in Shoulder-period	4	R	
000AH	current import total active energy	4	R	
000CH	current import active energy in Sharp-period	4	R	
000EH	current import active energy in Peak-period	4	R	
0010H	current import active energy in Off-peak-period	4	R	
0012H	current import active energy in Shoulder-period	4	R	
0014H	current export total active energy	4	R	
0016H	current export active energy in Sharp-period	4	R	
0018H	current export active energy in Peak-period	4	R	
001AH	current export active energy in Off-peak-period	4	R	
001CH	current export active energy in Shoulder-period	4	R	
001EH	current total combined reactive energy	4	R	INTEGER 0.01kVarh
0020H	current total combined reactive energy in Sharp-period	4	R	
0022H	current total combined reactive energy in Peak-period	4	R	
0024H	current total combined reactive energy in Off-peak-period	4	R	
0026H	current total combined reactive energy in Shoulder-period	4	R	
0028H	current import total reactive energy	4	R	
002AH	current import reactive energy in Sharp-period	4	R	
002CH	current import reactive energy in Peak-period	4	R	
002EH	current import reactive energy in Off-peak-period	4	R	
0030H	current import reactive energy in	4	R	

	Shoulder-period			
0032H	current export total reactive energy	4	R	
0034H	current export reactive energy in Sharp-period	4	R	
0036H	current export reactive energy in Peak-period	4	R	
0038H	current export reactive energy in Off-peak-period	4	R	
003AH	current export reactive energy in Shoulder-period	4	R	
003CH	time: second, minute	2	R/W	
003DH	time: hour, date	2	R/W	
003EH	time: month, year	2	R/W	
003FH	The 1 <sup>st</sup> RS485 communication: Communication address (high 8bit) baud rate (low 8 bit)	2	R/W	Baud rate: 0: 1200 1: 2400 2: 4800 3: 9600 4: 19200
0040H	Pulse constant	2	R	
0041H	The 1 <sup>st</sup> time zone No. Start date of the 1 <sup>st</sup> time zone: date	2	R/W	No.: 1: 1 <sup>st</sup> time table 2: 2 <sup>nd</sup> time table (generally, only use the 1 <sup>st</sup> time table)
0042H	Start date of the 1 <sup>st</sup> time zone: month The 2 <sup>nd</sup> time zone No.	2	R/W	
0043H	Start date of the 2 <sup>nd</sup> time zone: date Start date of the 2 <sup>nd</sup> time zone: month	2	R/W	
0044H	The 3 <sup>rd</sup> time zone No. Start date of the 3 <sup>rd</sup> time zone: date	2	R/W	
0045H	Start date of the 3 <sup>rd</sup> time zone: month The 4 <sup>th</sup> time zone No.	2	R/W	
0046H	Start date of the 4 <sup>th</sup> time zone: date Start date of the 4 <sup>th</sup> time zone: month	2	R/W	
0047H	Rate No. of the 1 <sup>st</sup> period /Start time of the 1 <sup>st</sup> period:minute	2	R/W	
0048H	Start time of the 1 <sup>st</sup> period:hour /Rate No. of the 2 <sup>nd</sup> period	2	R/W	The 1 <sup>st</sup> time table Tariff Rate No. : 1: sharp 2: peak 3: off-peak 4: shoulder 0: no tariff
0049H	Start time of the 2 <sup>nd</sup> period:minute /Start time of the 2 <sup>nd</sup> period:hour	2	R/W	
004AH	Rate No. of the 3 <sup>rd</sup> period /Start time of the 3 <sup>rd</sup> period:minute	2	R/W	
004BH	Start time of the 3 <sup>rd</sup> period:hour /Rate No. of the 4 <sup>th</sup> period	2	R/W	
004CH	Start time of the 4 <sup>th</sup> period:minute /Start time of the 4 <sup>th</sup> period:hour	2	R/W	

004DH	Rate No. of the 5 <sup>th</sup> period /Start time of the 5 <sup>th</sup> period:minute	2	R/W		
004EH	Start time of the 5 <sup>th</sup> period:hour /Rate No. of the 6 <sup>th</sup> period	2	R/W		
004FH	Start time of the 6 <sup>th</sup> period:minute /Start time of the 6 <sup>th</sup> period:hour	2	R/W		
0050H	Rate No. of the 7 <sup>th</sup> period /Start time of the 7 <sup>th</sup> period:minute	2	R/W		
0051H	Start time of the 7 <sup>th</sup> period:hour /Rate No. of the 8 <sup>th</sup> period	2	R/W		
0052H	Start time of the 8 <sup>th</sup> period:minute /Start time of the 8 <sup>th</sup> period:hour	2	R/W		
0053H	Rate No. of the 1 <sup>st</sup> period /Start time of the 1 <sup>st</sup> period:minute	2	R/W	<p>The 2<sup>nd</sup> time table:  Tariff Rate No. :</p> <p>1: sharp  2: peak  3: off-peak  4: shoulder  0: no tariff</p>	
0054H	Start time of the 1 <sup>st</sup> period:hour /Rate No. of the 2 <sup>nd</sup> period	2	R/W		
0055H	Start time of the 2 <sup>nd</sup> period:minute /Start time of the 2 <sup>nd</sup> period:hour	2	R/W		
0056H	Rate No. of the 3 <sup>rd</sup> period /Start time of the 3 <sup>rd</sup> period:minute	2	R/W		
0057H	Start time of the 3 <sup>rd</sup> period:hour /Rate No. of the 4 <sup>th</sup> period	2	R/W		
0058H	Start time of the 4 <sup>th</sup> period:minute /Start time of the 4 <sup>th</sup> period:hour	2	R/W		
0059H	Rate No. of the 5 <sup>th</sup> period /Start time of the 5 <sup>th</sup> period:minute	2	R/W		
005AH	Start time of the 5 <sup>th</sup> period:hour /Rate No. of the 6 <sup>th</sup> period	2	R/W		
005BH	Start time of the 6 <sup>th</sup> period:minute /Start time of the 6 <sup>th</sup> period:hour	2	R/W		
005CH	Rate No. of the 7 <sup>th</sup> period /Start time of the 7 <sup>th</sup> period:minute	2	R/W		
005DH	Start time of the 7 <sup>th</sup> period:hour /Rate No. of the 8 <sup>th</sup> period	2	R/W		
005EH	Start time of the 8 <sup>th</sup> period:minute /Start time of the 8 <sup>th</sup> period:hour	2	R/W		
005FH	Rate No. of the 9 <sup>th</sup> period /Start time of the 9 <sup>th</sup> period:minute	2	R/W		
0060H	Start time of the 9 <sup>th</sup> period:hour	2	R/W		
0061H	Phase A voltage	2	R		0.1V;
0062H	Phase B voltage	2	R		
0063H	Phase C voltage	2	R		
0064H	Phase A current	2	R	0.01A;	

0065H	Phase B current	2	R	
0066H	Phase C current	2	R	
0067H-0 076H	/			
0077H	Frequency	2	R	
0078H	A-B Line voltage	2	R	
0079H	C-B Line voltage	2	R	
007AH	A-C Line voltage	2	R	
007BH	Import active maximum demand	2	R	0.001; sequence: Minute/hour/date/month
007CH	occurrence time: minute hour	2	R	
007DH	occurrence time: date month	2	R	
007EH	Export active maximum demand	2	R	
007FH	occurrence time: minute hour	2	R	
0080H	occurrence time: date month	2	R	
0081H	Import reactive maximum demand	2	R	
0082H	occurrence time: minute hour	2	R	
0083H	occurrence time: date month	2	R	
0084H	Export reactive maximum demand	2	R	
0085H	occurrence time: minute hour	2	R	
0086H	occurrence time: date month	2	R	
0087H	Phase A import active energy	4	R	
0089H	Phase B import active energy	4	R	
008BH	Phase C import active energy	4	R	
008DH	PT	2	R/W	
008EH	CT	2	R/W	
008FH	DIDO status, loss voltage status	2	R	Bit0:Phase A over voltage; Bit1:Phase B over voltage; Bit2:Phase C over voltage; Bit3:Phase A voltage loss; Bit4:Phase B voltage loss; Bit5:Phase C voltage loss; Bit6:Phase A reverse; Bit7:Phase B reverse; Bit8:Phase C reverse; Bit9:DI status; Bit10:DO status;
0090H	/	2	R	

0091H	running status 1 (high 8 bits) running status 2 (low 8 bits)	2	R/W	
0092H	Zero sequence current	2	R	
0093H	Voltage unbalance	2	R	INTEGER
0094H	Current unbalance	2	R	Unit:0.1%
0095H	1 <sup>st</sup> RS485 communication: parity bit (high 8 bits) Stop bit (low 8 bits)	2	R/W	parity bit: 0: none 2: Even Stop bit: 0: 1 Stop bit 1: 2 Stop bits
0096H	2 <sup>nd</sup> RS485 communication: Communication Address (high 8 bits) Baud Rate (low 8 bits)	2	R/W	Same with the 1 <sup>st</sup> RS485 setting
0097H	2 <sup>nd</sup> RS485 communication: parity bit (high 8 bits) Stop bit (low 8 bits)	2	R/W	Same with the 1 <sup>st</sup> RS485 setting
0098H-0 0B1	/			
00B2H	Rate No. of the 9 <sup>th</sup> period /Start time of the 9 <sup>th</sup> period:minute	2		The 1 <sup>st</sup> time table Tariff Rate No. : 1: sharp 2: peak 3: off-peak 4: shoulder 0: no tariff
00B3H	Start time of the 9 <sup>th</sup> period:hour /Rate No. of the 10 <sup>th</sup> period	2		
00B4H	Start time of the 10 <sup>th</sup> period:minute /Start time of the 10 <sup>th</sup> period:hour	2		
00B5H	Rate No. of the 11 <sup>th</sup> period /Start time of the 11 <sup>th</sup> period:minute	2		
00B6H	Start time of the 11 <sup>th</sup> period:hour /Rate No. of the 12 <sup>th</sup> period	2		
00B7H	Start time of the 12 <sup>th</sup> period:minute /Start time of the 12 <sup>th</sup> period:hour	2		
00B8H	Rate No. of the 13 <sup>th</sup> period /Start time of the 13 <sup>th</sup> period:minute	2		
00B9H	Start time of the 13 <sup>th</sup> period:hour /Rate No. of the 14 <sup>th</sup> period	2		
00BAH	Start time of the 14 <sup>th</sup> period:minute /Start time of the 14 <sup>th</sup> period:hour	2		
00BBH	Rate No. of the 9 <sup>th</sup> period /Start time of the 9 <sup>th</sup> period:minute	2		
00BCH	Start time of the 9 <sup>th</sup> period:hour /Rate No. of the 10 <sup>th</sup> period	2		
00BDH	Start time of the 10 <sup>th</sup> period:minute /Start time of the 10 <sup>th</sup> period:hour	2		
00BEH	Rate No. of the 11 <sup>th</sup> period	2		

	/Start time of the 11 <sup>th</sup> period:minute			
00BFH	Start time of the 11 <sup>th</sup> period:hour /Rate No. of the 12 <sup>th</sup> period	2		
00C0H	Start time of the 12 <sup>th</sup> period:minute /Start time of the 12 <sup>th</sup> period:hour	2		
00C1H	Rate No. of the 13 <sup>th</sup> period /Start time of the 13 <sup>th</sup> period:minute	2		
00C2H	Start time of the 13 <sup>th</sup> period:hour /Rate No. of the 14 <sup>th</sup> period	2		
00C3H	Start time of the 14 <sup>th</sup> period:minute /Start time of the 14 <sup>th</sup> period:hour	2		
00C4H- 0163H	/			
0164H	Phase A Active Power	4	R	0.001KW
0166H	Phase B Active Power	4	R	
0168H	Phase B Active Power	4	R	
016AH	Total Active Power	4	R	
016CH	Phase A Reactive Power	4	R	0.001KVar
016EH	Phase B Reactive Power	4	R	
0170H	Phase B Reactive Power	4	R	
0172H	Total Reactive Power	4	R	
0174H	Phase A Apparent Power	4	R	0.001KVA
0176H	Phase B Apparent Power	4	R	
0178H	Phase B Apparent Power	4	R	
017AH	Total Apparent Power	4	R	
017CH	Phase A Power Factor	2	R	0.001
017DH	Phase B Power Factor	2	R	
017EH	Phase B Power Factor	2	R	
017FH	Total Power Factor	2	R	
0180H	the day's import active maximum demand	2	R	Daily demand:0.001
0181H	occurrence time: minute hour	2	R	
0182H	the day's export active maximum demand	2	R	
0183H	occurrence time: minute hour	2	R	
0184H	the day's import reactive maximum demand	2	R	
0185H	occurrence time: minute hour	2	R	
0186H	the day's export reactive maximum demand	2	R	
0187H	occurrence time: minute hour	2	R	
0188H	the last 1 <sup>st</sup> day's import active maximum demand	2	R	
0189H	occurrence time: minute hour	2	R	
018AH	the last 1 <sup>st</sup> day's export active maximum demand	2	R	
018BH	occurrence time: minute hour	2	R	

018CH	the last 1 <sup>st</sup> day's import active maximum demand	2	R
018DH	occurrence time: minute hour	2	R
018EH	the last 1 <sup>st</sup> day's export active maximum demand	2	R
018FH	occurrence time: minute hour	2	R
0190H	the last 2 <sup>nd</sup> day's import active maximum demand	2	R
0191H	occurrence time: minute hour	2	R
0192H	the last 2 <sup>nd</sup> day's export active maximum demand	2	R
0193H	occurrence time: minute hour	2	R
0194H	the last 2 <sup>nd</sup> day's import active maximum demand	2	R
0195H	occurrence time: minute hour	2	R
0196H	the last 2 <sup>nd</sup> day's export active maximum demand	2	R
0197H	occurrence time: minute hour	2	R
0198H	current import active demand	2	R
0199H	current export active demand	2	R
019AH	current import reactive demand	2	R
019BH	current export reactive demand	2	R
019BH-01FFH	/		
0200H	Phase A Maximum voltage	2	R
0201H	occurrence time: month date	2	R
0202H	occurrence time: hour minute	2	R
0203H	Phase B Maximum voltage & occurrence time	6	R
0206H	Phase C Maximum voltage & occurrence time	6	R
0209H	Phase A Maximum current & occurrence time	6	R
020CH	Phase B Maximum current & occurrence time	6	R
020FH	Phase C Maximum current & occurrence time	6	R
0212H	Phase A Maximum active power	4	R
0214H	occurrence time: month date	2	R
0215H	occurrence time: hour minute	2	R
0216H	Phase B Maximum active power & occurrence time	8	R
021AH	Phase C Maximum active power	8	R

	&occurrence time		
021EH	Total Active power Maximum &occurrence time	8	R
0222H	Phase A Maximum reactive power &occurrence time	8	R
0226H	Phase B Maximum reactive power &occurrence time	8	R
022AH	Phase C Maximum reactive power &occurrence time	8	R
022EH	Total Reactive power Maximum &occurrence time	8	R
0232H	Phase A Maximum Apparent power &occurrence time	8	R
0236H	Phase B Maximum Apparent power &occurrence time	8	R
023AH	Phase C Maximum Apparent power &occurrence time	8	R
023EH	Total Apparent power Maximum &occurrence time	8	R
0242H	Phase A Minimum voltage &occurrence time	6	R
0245H	Phase B Minimum voltage &occurrence time	6	R
0248H	Phase C Minimum voltage &occurrence time	6	R
024BH	Phase A Minimum current &occurrence time	6	R
024EH	Phase B Minimum current &occurrence time	6	R
0251H	Phase C Minimum current &occurrence time	6	R
0254H	Phase A Minimum active power &occurrence time	8	R
0258H	Phase B Minimum active power &occurrence time	8	R
025CH	Phase C Minimum active power &occurrence time	8	R
0260H	Total Active power Minimum &occurrence time	8	R
0264H	Phase A Minimum reactive power &occurrence time	8	R
0268H	Phase B Minimum reactive power &occurrence time	8	R



026CH	Phase C Maximum reactive power & occurrence time	8	R
0270H	Total Reactive power Minimum & occurrence time	8	R
0274H	Phase A Minimum Apparent power & occurrence time	8	R
0278H	Phase B Minimum Apparent power & occurrence time	8	R
027EH	Phase C Minimum Apparent power & occurrence time	8	R
0280H	Total Apparent power Minimum & occurrence time	8	R

### historical electric energy freezing time setting and historical electric energy data

Address	Name	Read/Write	remark
0121H	Daily freezing time	R/W	invalid (high byte) Meter reading Hour (low byte)
0122H	Monthly freezing time	R/W	Meter reading Date (low byte) Meter reading Hour (low byte)

DZS300 can count the historical energy of last 48 months(different rate energy) ;  
DZS300 can count the historical energy of last 90days(different rate energy);  
Historical energy can only be read through blocks, length is 120bytes(60 registers).

### Historical Energy

Address	Name	Data Sequence	Name
1001H	Last 1 <sup>st</sup> month energy&demand block	0000H	freezing time: Year-Month
1002H	Last 2 <sup>nd</sup> month energy&demand block	0001H	freezing time: Date-Hour
...	...	0002H	Import Total Active Energy
1030H	Last 48 <sup>th</sup> month energy&demand block	0004H	Import Active Energy in Sharp-period
/	/	0006H	Import Active Energy in Peak-period
1101H	Last 1 <sup>st</sup> day energy&demand block	0008H	Import Active Energy in Off-peak-period
1102H	Last 2 <sup>nd</sup> day energy&demand block	000AH	Import Active Energy in Shoulder-period
...	...	000CH	Export Total Active Energy
115AH	Last 90 <sup>th</sup> month energy&demand block	000EH	Export Active Energy in Sharp-period
		0010H	Export Active Energy in Peak-period
		0012H	Export Active Energy in Off-peak-period

0014H	Export Active Energy in Shoulder-period
0016H	Import Total Reactive Energy
0018H	Import Reactive Energy in Sharp-period
001AH	Import Reactive Energy in Peak-period
001CH	Import Reactive Energy in Off-peak-period
001EH	Import Reactive Energy in Shoulder-period
0020H	Export Total Reactive Energy
0022H	Export Reactive Energy in Sharp-period
0024H	Export Reactive Energy in Peak-period
0026H	Export Reactive Energy in Off-peak-period
0028H	Export Reactive Energy in Shoulder-period
002AH	Phase A Active Energy
002CH	Phase B Active Energy
002EH	Phase C Active Energy
0030H	Import Active Maximum Demand
0031H	occurrence time: minute, hour
0032H	occurrence time: date, month
0033H	Export Active Maximum Demand
0034H	occurrence time: minute, hour
0035H	occurrence time: date, month
0036H	Import Reactive Maximum Demand
0037H	occurrence time: minute, hour
0038H	occurrence time: date, month
0039H	Export Reactive Maximum Demand
003AH	occurrence time: minute, hour
003BH	occurrence time: date, month

### 9.3 Sub harmonic data

Address	Name	Length(byte)	Read/Write	Remark
05DDH	THDUa	2	R	INTEGER 0.01
05DEH	THDUb	2	R	
05DFH	THDUc	2	R	
05E0H	THDIa	2	R	
05E1H	THDIb	2	R	
05E2H	THDIc	2	R	
05E3H	THUa	2×30		INTEGER 0.01
0601H	THUb	2×30		
061FH	THUc	2×30		
063DH	THIa	2×30		INTEGER 0.01
065BH	THIb	2×30		
0679H	THIc	2×30		
0697H	phase A Vfund	2		INTEGER
0698H	phase B Vfund	2		0.1

0699H	phase C Vfund	2		
069AH	phase A Harmonic voltage	2		
069BH	phase B Harmonic voltage	2		
069CH	phase C Harmonic voltage	2		
069DH	phase A a fund	2		
069EH	phase B a fund	2		
069FH	phase C a fund	2		
06A0H	phase A Harmonic current	2		INTEGER 0.01
06A1H	phase B Harmonic current	2		
06A2H	phase C Harmonic current	2		
06A3H	phase A fundamental active power	2		
06A4H	phase B fundamental active power	2		
06A5H	phase C fundamental active power	2		
06A6H	Total fundamental active power	2		
06A7H	phase A fundamental reactive power	2		
06A8H	phase B fundamental reactive power	2		
06A9H	phase C fundamental reactive power	2		
06AAH	Total fundamental reactive power	2		INTEGER 0.001
06ABH	phase A Harmonic active power	2		
06ACH	phase B Harmonic active power	2		
06ADH	phase C Harmonic active power	2		
06AEH	Total harmonic active power	2		
06AFH	phase A Harmonic reactive power	2		
06B0H	phase B Harmonic reactive power	2		
06B1H	phase C Harmonic reactive power	2		
06B2H	Total harmonic reactive power	2		

### 9.3 SOE Record

Address	Name	Data Sequence	Name
3001H	Last 1st event record	0000H	occurrence time: Year-Month
3002H	Last 2 <sup>nd</sup> event record	0001H	occurrence time: date-hour
...	...	0002H	occurrence time: minute-second
3064H	Last 100 <sup>th</sup> event record	0004H	Event No.
		0005H	Event details
		0006H	/

Event No.	Name	Event No.	remark
0100/0101	Power on/off event		
0200	Clear	0001	Clear the current energy value
		0002	Clear flash historical energy
		0003	Clear Maximum demand reset
		0004	Clear historical energy value
		0005	Clear extremum value

0300	DO action record
0400	UI event record
0700	time calibration

0006	Clear all value
0000	DO disconnection
0001	DO connection
UI status	Bit0:Phase A over voltage; Bit1:Phase B over voltage; Bit2:Phase C over voltage; Bit3:Phase A voltage loss; Bit4:Phase B voltage loss; Bit5:Phase C voltage loss; Bit6:Phase A reverse; Bit7:Phase B reverse; Bit8:Phase C reverse; Bit9:Phase A current is too high; Bit10:Phase B current is too high; Bit11:Phase C current is too high; Bit12:Phase A current is too low; Bit13:Phase B current is too low; Bit14:Phase C current is too low;