D.15 EE@Industry measurement data profile E2 (W# 16# E2)

EE@Industry measurement data profile E2 (ID 226 or $E2_H$)

You can use this structure when using the module on single-phase system L3.

Table D- 14 EE@Industry measurement data profile E2 Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	226 ($E2_H$)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 5	Total active power L1L2L3	REAL	1 W	-3.0×10^9 ... $+ 3.0 \times 10^9$	34
6 ... 9	Total active energy inflow L1L2L3	REAL	1 W	3.0×10^9	220
10 ...13	Total active energy outflow L1L2L3	REAL	1 W	3.0×10^9	221

D.16 EE@Industry measurement data profile E1 (W# 16# E1)

EE@Industry measurement data profile E1 (ID 225 or $E1_H$)

You can use this structure when using the module on single-phase system L3.

Table D- 15 EE@Industry measurement data profile E1 Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	225 ($E1_H$)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 5	Total active power L1L2L3	REAL	1 W	-3.0×10^9 ... $+ 3.0 \times 10^9$	34

D.17 EE@Industry measurement data profile E0 (W# 16# E0)

EE@Industry measurement data profile E0 (ID 224 or $E0_H$)

You can use this structure when using the module on single-phase system L3.

Table D- 16 EE@Industry measurement data profile E0 Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	224 ($E0_H$)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 5	Current L1	REAL	1 A	0.0 … 100000.0	7
6 ... 9	Current L2	REAL	1 A	0.0 … 100000.0	8
10 ...13	Current L3	REAL	1 A	0.0 … 100000.0	9

D.18 Basic values single phase measurement L1 (W# 16# 9F)

Basic values single phase measurement L1 (ID 159 or $9F_H$)

Table D- 17 Basic values single phase measurement L1 Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	159 (9FH)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 3	Current L1	UINT	1 mA	0 … 65535	66007
4 ... 5	Voltage UL1-N	UINT	0.01 V	0 … 65535	66001
6 ... 7	Active power L1	INT	1 W	-27648 … 27648	66013
8 ... 9	Reactive power L1	INT	1 var	-27648 … 27648	66016
10 ... 11	Apparent power L1	INT	1 VA	-27648 … 27648	66010
12 ... 15	Active energy L1 total (inflow - outflow)	DINT	1 Wh	±2147483647	62115
16 ... 19	Reactive energy L1 total (inflow - outflow)	DINT	1 varh	±2147483647	62116
20 ... 23	Apparent energy L1	UDINT	1 VAh	0 … 2147483647	62114
24	Scaling current L1	USINT	-	0 ... 255	-
25	Scaling active power L1	USINT	-	0 ... 255	-
26	Scaling reactive power L1	USINT	-	0 ... 255	-
27	Scaling apparent power L1	USINT	-	0 ... 255	-

Byte	Allocation	Data type	Unit	Value range	Measured value ID
28	Scaling active energy L1 total (inflow - outflow)	USINT	-	0 ... 255	-
29	Scaling reactive energy L1 total (inflow - outflow)	USINT	-	0 ... 255	-
30	Scaling apparent energy L1	USINT	-	0 ... 255	-
31	Power factor L1	USINT	0.01	0 … 100	66019

D.19 Basic values single phase measurement L1a (W# 16# 9E)

Basic values single phase measurement L1a (ID 158 or $9E_H$)

Table D- 18 Basic values single phase measurement L1a Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	158 (9EH)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 3	Current L1	UINT	1 mA	0 … 65535	66007
4 ... 5	Voltage UL1-N	UINT	0.01 V	0 … 65535	66001
6 ... 7	Active power L1	INT	1 W	-27648 … 27648	66013
8 ... 9	Reactive power L1	INT	1 var	-27648 … 27648	66016
10 ... 11	Apparent power L1	INT	1 VA	-27648 … 27648	66010
12 ... 15	Active energy L1 total (inflow - outflow)	DINT	1 Wh	±2147483647	62115
16 ... 19	Reactive energy L1 total (inflow - outflow)	DINT	1 varh	±2147483647	62116
20 ... 23	Apparent energy L1	UDINT	1 VAh	0 … 2147483647	62114
24	Scaling current L1	USINT	-	0 ... 255	-
25	Scaling active power L1	USINT	-	0 ... 255	-
26	Scaling reactive power L1	USINT	-	0 ... 255	-
27	Scaling apparent power L1	USINT	-	0 ... 255	-
28	Scaling active energy L1 total (inflow - outflow)	USINT	-	0 ... 255	-
29	Scaling reactive energy L1 total (inflow - outflow)	USINT	-	0 ... 255	-
30	Scaling apparent energy L1	USINT	-	0 ... 255	-
31	Scaling voltage UL1-N	USINT	-	0 ... 255	-

D.20 Basic values single phase measurement L2 (W# 16# 9D)

Basic values single phase measurement L2 (ID 157 or $9D_H$)

Table D- 19 Basic values single phase measurement L2 Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	157 ($9D_H$)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 3	Current L2	UINT	1 mA	0 … 65535	66008
4 ... 5	Voltage UL2-N	UINT	0.01 V	0 … 65535	66002
6 ... 7	Active power L2	INT	1 W	-27648 … 27648	66014
8 ... 9	Reactive power L2	INT	1 var	-27648 … 27648	66017
10 ... 11	Apparent power L2	INT	1 VA	-27648 … 27648	66011
12 ... 15	Active energy L2 total (inflow - outflow)	DINT	1 Wh	±2147483647	62215
16 ... 19	Reactive energy L2 total (inflow - outflow)	DINT	1 varh	±2147483647	62216
20 ... 23	Apparent energy L2	UDINT	1 VAh	0 … 2147483647	62214
24	Scaling current L2	USINT	-	0 ... 255	-
25	Scaling active power L2	USINT	-	0 ... 255	-
26	Scaling reactive power L2	USINT	-	0 ... 255	-
27	Scaling apparent power L2	USINT	-	0 ... 255	-
28	Scaling active energy L2 total (inflow - outflow)	USINT	-	0 ... 255	-
29	Scaling reactive energy L2 total (inflow - outflow)	USINT	-	0 ... 255	-
30	Scaling apparent energy L2	USINT	-	0 ... 255	-
31	Power factor L2	USINT	0.01	0 … 100	66020

D.21 Basic values single phase measurement L2a (W# 16# 9C)

Basic values single phase measurement L2a (ID 156 or $9C_H$)

Table D- 20 Basic values single phase measurement L2a Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	156 (9CH)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 3	Current L2	UINT	1 mA	0 … 65535	66008
4 ... 5	Voltage UL2-N	UINT	0.01 V	0 … 65535	66002
6 ... 7	Active power L2	INT	1 W	-27648 … 27648	66014
8 ... 9	Reactive power L2	INT	1 var	-27648 … 27648	66017
10 ... 11	Apparent power L2	INT	1 VA	-27648 … 27648	66011
12 ... 15	Active energy L2 total (inflow - outflow)	DINT	1 Wh	±2147483647	62215
16 ... 19	Reactive energy L2 total (inflow - outflow)	DINT	1 varh	±2147483647	62216
20 ... 23	Apparent energy L2	UDINT	1 VAh	0 … 2147483647	62214
24	Scaling current L2	USINT	-	0 ... 255	-
25	Scaling active power L2	USINT	-	0 ... 255	-
26	Scaling reactive power L2	USINT	-	0 ... 255	-
27	Scaling apparent power L2	USINT	-	0 ... 255	-
28	Scaling active energy L2 total (inflow - outflow)	USINT	-	0 ... 255	-
29	Scaling reactive energy L2 total (inflow - outflow)	USINT	-	0 ... 255	-
30	Scaling apparent energy L2	USINT	-	0 ... 255	-
31	Scaling voltage UL2-N	USINT	-	0 ... 255	-

D.22 Basic values single phase measurement L3 (W# 16# 9B)

Basic values single phase measurement L3 (ID 155 or $9B_H$)

Table D- 21 Basic values single phase measurement L3 Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	155 ($9B_H$)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 3	Current L3	UINT	1 mA	0 … 65535	66009
4 ... 5	Voltage UL3-N	UINT	0.01 V	0 … 65535	66003
6 ... 7	Active power L3	INT	1 W	-27648 … 27648	66015
8 ... 9	Reactive power L3	INT	1 var	-27648 … 27648	66018
10 ... 11	Apparent power L3	INT	1 VA	-27648 … 27648	66012
12 ... 15	Active energy L3 total (inflow - outflow)	DINT	1 Wh	±2147483647	62315
16 ... 19	Reactive energy L3 total (inflow - outflow)	DINT	1 varh	±2147483647	62316
20 ... 23	Apparent energy L3	UDINT	1 VAh	0 … 2147483647	62314
24	Scaling current L3	USINT	-	0 ... 255	-
25	Scaling active power L3	USINT	-	0 ... 255	-
26	Scaling reactive power L3	USINT	-	0 ... 255	-
27	Scaling apparent power L3	USINT	-	0 ... 255	-
28	Scaling active energy L3 total (inflow - outflow)	USINT	-	0 ... 255	-
29	Scaling reactive energy L3 total (inflow - outflow)	USINT	-	0 ... 255	-
30	Scaling apparent energy L3	USINT	-	0 ... 255	-
31	Power factor L3	USINT	0.01	0 … 100	66021

D.23 Basic values single phase measurement L3a (W# 16# 9A)

Basic values single phase measurement L3a (ID 154 or $9A_H$)

Table D- 22 Basic values single phase measurement L3a Process data variant

Byte	Allocation	Data type	Unit	Value range	Measured value ID
0	Process data variant indicator	BYTE	-	154 ($9A_H$)	-
1	Quality information = QQ_1 I_3 U_3 I_2 U_2 I_1 U_1	BYTE	Bit string	qq xx xx xx	-
2 ... 3	Current L3	UINT	1 mA	0 … 65535	66009
4 ... 5	Voltage UL3-N	UINT	0.01 V	0 … 65535	66003
6 ... 7	Active power L3	INT	1 W	-27648 … 27648	66015
8 ... 9	Reactive power L3	INT	1 var	-27648 … 27648	66018
10 ... 11	Apparent power L3	INT	1 VA	-27648 … 27648	66012
12 ... 15	Active energy L3 total (inflow - outflow)	DINT	1 Wh	±2147483647	62315
16 ... 19	Reactive energy L3 total (inflow - outflow)	DINT	1 varh	±2147483647	62316
20 ... 23	Apparent energy L3	UDINT	1 VAh	0 … 2147483647	62314
24	Scaling current L3	USINT	-	0 ... 255	-
25	Scaling active power L3	USINT	-	0 ... 255	-
26	Scaling reactive power L3	USINT	-	0 ... 255	-
27	Scaling apparent power L3	USINT	-	0 ... 255	-
28	Scaling active energy L3 total (inflow - outflow)	USINT	-	0 ... 255	-
29	Scaling reactive energy L3 total (inflow - outflow)	USINT	-	0 ... 255	-
30	Scaling apparent energy L3	USINT	-	0 ... 255	-
31	Scaling voltage UL3-N	USINT	-	0 ... 255	-

Measured value data records

E

E.1 Overview of all measured data records

The SM 1238 Energy Meter 480VAC module writes the measured values in several data records that your program can read asynchronously, using the RDREC instruction. Refer to the TIA Portal online Help for details about the RDREC program instruction.

The following tables show the structure of the individual data records.

- DS 142: Base measurements data record - read only (Page 149) 基本测量数据记录 只读
- DS 143: Energy counters data record - read and write (Page 151) 能量计数器数据记录-读和写
- DS 144: Maximum values data record - read only (Page 156) 最大值数据记录-只读
- DS 145: Minimum values data record - read only (Page 157) 最小值数据记录——只读
- DS 147: L1 phase-based values data record - read only (Page 158) L1相位值数据记录-只读
- DS 148: L2 phase-based values data record - read only (Page 159) 基于L2相位值的数据记录-只读
- DS 149: L3 phase-based values data record - read only (Page 160) 基于L3相位值的数据记录-只读
- DS 150: Advanced measurements and status values - read only (Page 162) 高级测量和状态值-只读

基本测量数据记录

E.2 Base measurements data record (DS 142)

Base measurement values

The following table provides an overview of all the measured variables that data record 142 supplies. Please note that, depending on the connection type that you use, some of the measured variables are not relevant and are deleted by the module.

A table of measured variable properties with rows ordered by the measured value identifier (Value ID) is provided in appendix B Measured variables for connection type (Page 102).

Table E- 1 Data record 142

Byte	Measured variable	Data type	Unit	Value range	Value ID
0	Version 版本	BYTE	-	2	-
1	Reserved	BYTE	-	0	-
2 ... 5	Voltage UL1-N 电压	REAL	V	0.0 ... 1000000.0	1
6 ... 9	Voltage UL2-N	REAL	V	0.0 ... 1000000.0	2
10 ... 13	Voltage UL3-N	REAL	V	0.0 ... 1000000.0	3
14 ... 17	Voltage UL1-L2	REAL	V	0.0 ... 1000000.0	4
18 ... 21	Voltage UL2-L3	REAL	V	0.0 ... 1000000.0	5
22 ... 25	Voltage UL3-L1	REAL	V	0.0 ... 1000000.0	6
26 ... 29	Current L1 电流	REAL	A	0.0 … 100000.0	7
30 ... 33	Current L2	REAL	A	0.0 … 100000.0	8
34 ... 37	Current L3	REAL	A	0.0 … 100000.0	9
38 ... 41	Power factor L1 功率因素	REAL	-	0.0 ... 1.0	19
42 ... 45	Power factor L2	REAL	-	0.0 ... 1.0	20
46 ... 49	Power factor L3	REAL	-	0.0 ... 1.0	21
50 ... 53	Total power factor L1L2L3	REAL	-	0.0 ... 1.0	37
54 ... 57	Frequency 频率	REAL	1 Hz	45.0 ... 65.0	30
58 ... 61	Amplitude unbalance for voltage 电压不平衡幅度	REAL	%	0 ... 100	38
62 ... 65	Amplitude unbalance for current 电流不平衡幅度	REAL	%	0 ... 200	39
66 ... 69	Apparent power L1 视在功率	REAL	VA	-3.0×10^9 … $+3.0 \times 10^9$	10
70 ... 73	Apparent power L2	REAL	VA	-3.0×10^9 … $+3.0 \times 10^9$	11
74 ... 77	Apparent power L3	REAL	VA	-3.0×10^9 … $+3.0 \times 10^9$	12
78 ... 81	Total apparent power L1L2L3	REAL	VA	-3.0×10^9 … $+3.0 \times 10^9$	36
82 ... 85	Reactive power L1 无功功率	REAL	var	-3.0×10^9 … $+3.0 \times 10^9$	16
86 ... 89	Reactive power L2	REAL	var	-3.0×10^9 … $+3.0 \times 10^9$	17
90 ... 93	Reactive power L3	REAL	var	-3.0×10^9 … $+3.0 \times 10^9$	18
94 ... 97	Total reactive power L1L2L3	REAL	var	-3.0×10^9 … $+3.0 \times 10^9$	35
98 ... 101	Active power L1 有功功率	REAL	W	-3.0×10^9 … $+3.0 \times 10^9$	13
102 ... 105	Active power L2	REAL	W	-3.0×10^9 … $+3.0 \times 10^9$	14
106 ... 109	Active power L3	REAL	W	-3.0×10^9 … $+3.0 \times 10^9$	15
110 ... 113	Total active power L1L2L3	REAL	W	-3.0×10^9 … $+3.0 \times 10^9$	34

Byte	Measured variable	Data type	Unit	Value range	Value ID
114 ... 117	Phase angle L1 相位角	REAL	°	0.0 ... 360.0	61178
118 ... 121	Phase angle L2	REAL	°	0.0 ... 360.0	61198
122 ... 125	Phase angle L3	REAL	°	0.0 ... 360.0	61218
126 ... 129	Total apparent energy L1L2L3 总视在能量	REAL	VAh	0.0 ... 3.4 x 10^{38}	204
130 ... 133	Total reactive energy L1L2L3 总无功能量	REAL	varh	±3.4 x 10^{38}	206
134 ... 137	Total active energy L1L2L3 总有功能量	REAL	Wh	±3.4 x 10^{38}	205
138 ... 141	Total reactive energy inflow L1L2L3 流入无功能量	REAL	varh	0.0 ... 3.4 x 10^{38}	202
142 ... 145	Total reactive energy outflow L1L2L3 流出无功能量	REAL	varh	0.0 ... 3.4 x 10^{38}	203
146 ... 149	Total active energy inflow L1L2L3	REAL	Wh	0.0 ... 3.4 x 10^{38}	200
150 ... 153	Total active energy outflow L1L2L3	REAL	Wh	0.0 ... 3.4 x 10^{38}	201
154 ... 161	Total apparent energy L1L2L3 总视在能量	LREAL	VAh	0.0 ... 1.8 x 10^{308}	214
162 ... 169	Total reactive energy L1L2L3	LREAL	varh	±1.8 x 10^{308}	216
170 ... 177	Total active energy L1L2L3	LREAL	Wh	±1.8 x 10^{308}	215
178 ... 185	Total reactive energy inflow L1L2L3	LREAL	varh	0.0 ... 1.8 x 10^{308}	212
186 ... 193	Total reactive energy outflow L1L2L3	LREAL	varh	0.0 ... 1.8 x 10^{308}	213
194 ... 201	Total active energy inflow L1L2L3	LREAL	Wh	0.0 ... 1.8 x 10^{308}	210
202 ... 209	Total active energy outflow L1L2L3	LREAL	Wh	0.0 ... 1.8 x 10^{308}	211
210 ... 213	Neutral conductor current 中性线电流	REAL	A	0.0 ... 100000.0	61149

Note

- The cumulative value in 3-phase operation is obtained from the sums of the individual values of the phases. 三相运行的累积值是由各相各值之和求得的。
- Inflow and outflow energy meters are always positive values. 流入和流出能量表总是正值。
- The diagnostics information "Overflow cumulative values" is not triggered in connection with the maximum values of the energy meters.

诊断信息“溢出累积值”在连接到电能表的最大值时不会触发。

Neutral conductor current 中性线电流

If you operate the SM 1238 Energy Meter 480VAC with connection type 3P4W, the neutral conductor current is also determined under the following conditions:

- Transfer factors of all phase currents (primary and secondary currents) are identical.
- Measured phase currents are greater than the value of the "Low limit electrical current measurement" parameter. 被测相电流大于“低限电流测量”参数的值。

  The neutral is subject to a "Low limit electrical current measurement" like all other electrical current measurements. The lowest value of all three configured low limits is used as the minimum value. 与所有其他电流测量方法一样，中性点也要接受“低限电流测量”。所有三个配置的下限的最小值都用作最小值。

If one of the conditions is not met, 0 is entered as the value for the neutral conductor current. You can read the neutral conductor current using measured value data record 142.

Reading the record

Data record 142 is located in the SM 1238 Energy Meter 480VAC module. Use the "RDREC" program instruction to read a data record from the module.

能量计数器数据记录

E.3 Energy counters data record (DS 143)

Energy meter data record 143 user actions

The energy meter data record 143 includes all energy counter values available on the module phase-by-phase. The data record can be used for different actions:

- Reset the energy counter to user-specific value (e.g. "0") 复位能源计数器到特定的值
- Read the values of the energy counters 读取能源计数器的值
- Read the overflow counters 读取溢出计数器
- Read the operating hours 读取操作小时

Energy meter data record 143

Table E- 2 Energy meter data record 143

Byte	Measured variable	Format	Unit	Value range	Value ID
0	Version	Unsigned 8	Byte	1	
1	Reserved	Unsigned 8	Byte	0	
2	Control byte 1 - L1	Unsigned 8	8 bit	-	
3	Control byte 2 - L1	Unsigned 8	8 bit		
4	Control byte 1 - L2	Unsigned 8	8 bit		
5	Control byte 2 - L2	Unsigned 8	8 bit		
6	Control byte 1 - L3	Unsigned 8	8 bit		
7	Control byte 2 - L3	Unsigned 8	8 bit		
8 ... 15	Active energy inflow (initial value) L1	LREAL	Wh	Overflow 1.8e+308	61180
16 ... 23	Active energy outflow (initial value) L1	LREAL	Wh	Overflow 1.8e+308	61181
24 ... 31	Reactive energy inflow (initial value) L1	LREAL	vahr	Overflow 1.8e+308	61182
32 ... 39	Reactive energy outflow (initial value) L1	LREAL	varh	Overflow 1.8e+308	61183
40 ... 47	Apparent energy (initial value) L1	LREAL	VAh	Overflow 1.8e+308	61184
48 ... 55	Active energy inflow (initial value) L2	LREAL	Wh	Overflow 1.8e+308	61200
56 ... 63	Active energy outflow (initial value) L2	LREAL	Wh	Overflow 1.8e+308	61201
64 ... 61	Reactive energy inflow (initial value) L2	LREAL	varh	Overflow 1.8e+308	61202
72 ... 79	Reactive energy outflow (initial value) L2	LREAL	varh	Overflow 1.8e+308	61203
80 ... 87	Apparent energy (initial value) L2	LREAL	VAh	Overflow 1.8e+308	61204
88 ... 95	Active energy inflow (initial value) L3	LREAL	Wh	Overflow 1.8e+308	61220
96 ... 103	Active energy outflow (initial value) L3	LREAL	Wh	Overflow 1.8e+308	61221

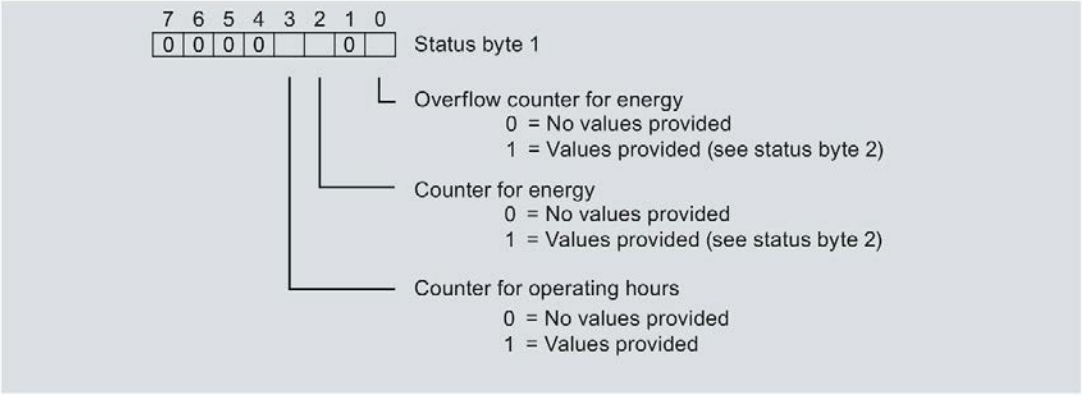
Byte	Measured variable	Format	Unit	Value range	Value ID
104 ... 111	Reactive energy inflow (initial value) L3	LREAL	varh	Overflow 1.8e+308	61222
112 ... 119	Reactive energy outflow (initial value) L3	LREAL	varh	Overflow 1.8e+308	61223
120 ... 127	Apparent energy (initial value) L3	LREAL	VAh	Overflow 1.8e+308	61224
128 ... 129	Overflow counter active energy inflow L1	Uint16	-	0 ... 65535	61190
130 ... 131	Overflow counter active energy outflow L1	Uint16	-	0 ... 65535	61191
132 ... 133	Overflow counter reactive energy inflow L1	Uint16	-	0 ... 65535	61192
134 ... 135	Overflow counter reactive energy outflow L1	Uint16	-	0 ... 65535	61193
136 ... 137	Overflow counter apparent energy L1	Uint16	-	0 ... 65535	61194
138 ... 139	Overflow counter active energy inflow L2	Uint16	-	0 ... 65535	61210
140 ... 141	Overflow counter active energy outflow L2	Uint16	-	0 ... 65535	61211
142 ... 143	Overflow counter reactive energy inflow L2	Uint16	-	0 ... 65535	61212
144 ... 145	Overflow counter reactive energy outflow L2	Uint16	-	0 ... 65535	61213
146 ... 147	Overflow counter apparent energy L2	Uint16	-	0 ... 65535	61214
148 ... 149	Overflow counter active energy inflow L3	Uint16	-	0 ... 65535	61230
150 ... 151	Overflow counter active energy outflow L3	Uint16	-	0 ... 65535	61231
152 ... 153	Overflow counter reactive energy inflow L3	Uint16	-	0 ... 65535	61232
154 ... 155	Overflow counter reactive energy outflow L3	Uint16	-	0 ... 65535	61233
156 ... 157	Overflow counter apparent energy L3	Uint16	-	0 ... 65535	61234
158 ... 161	Operating hours counter L1 (initial value)	REAL	h	0.0 ... 1.0e+9	65505
162 ... 165	Operating hours counter L2 (initial value)	REAL	h	0.0 ... 1.0e+9	65506
166 ... 169	Operating hours counter L3 (initial value)	REAL	h	0.0 ... 1.0e+9	65507

Status information

状态信息

When data record 143 is read by the RDREC instruction, bytes 2 ... 7 supply phase-specific status information for energy counters, overflow counters and operating hours counters.

The status information enables you to see which counters are returning their values in data record 143. If energy counters return their values in the status byte 1, you can determine the type of energy counter with status byte 2.



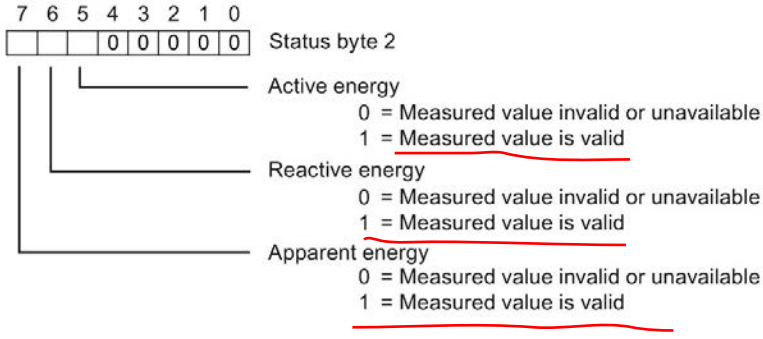


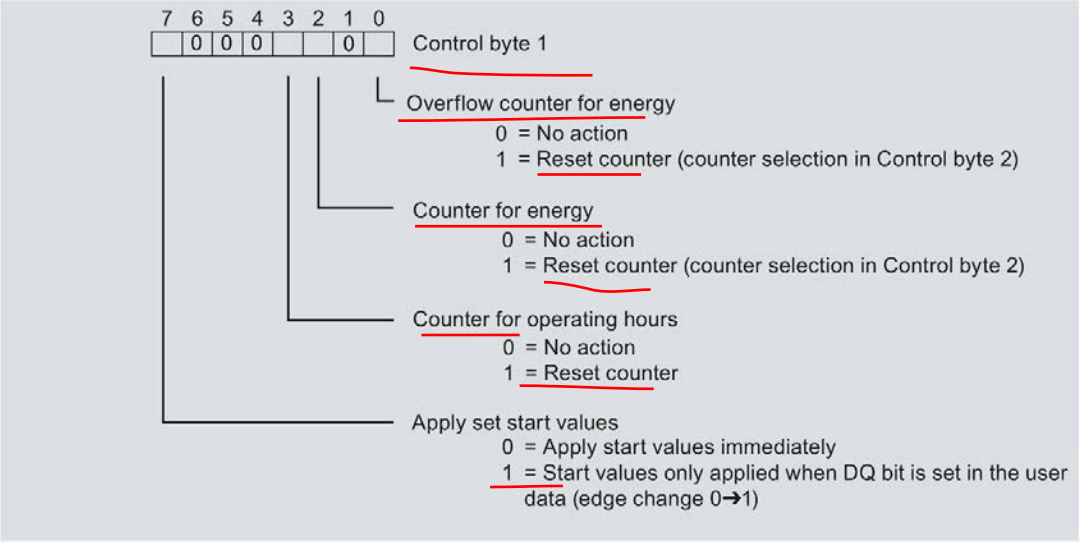
Figure E-1 Status information DS 143 (read access)

控制信息

Control information

When data record 143 is written by the WRREC instruction, bytes 2 ... 7 are used as phase-specific control information for energy counters, overflow counters and operating hours counter. The length of the control information is 2 bytes for each phase:

- In control byte 1, you determine which counter you want to reset and the time at which counters are reset.
- In Control byte 2, you determine which energy counters and which overflow counters you want to reset.



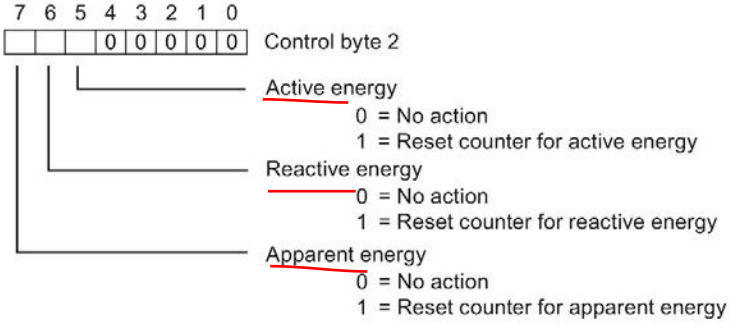


Figure E-2 Control information DS 143 (write access)