

Profibus parameters

Software version: 6.23

(inc \ab_arr.h, v 7.19)

Access codes: R = Read, W = Write, C = Clear

Length: 1 = BYTE (8 bits), 2 = WORD (16 bits), 3 = 24 bits, 4 = LONG WORD (32 bits)

Cont. mode: If "cont. mode = yes", then item can be selected to the continuous mode frame.

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE	
							40	96	210	230	245	255	257	259	260	265		
Phase current IL1	2	R -	Yes	1 A = 1	-	000	X	X	X	X	X	X	X	X	X	X	X	
Phase current IL2	2	R -	Yes	1 A = 1	-	001	X	X	X	X	X	X	X	X	X	X	X	
Phase current IL3	2	R -	Yes	1 A = 1	-	002	X	X	X	X	X	X	X	X	X	X	X	
Frequency	2	R -	Yes	50.00 Hz = 5000	Frequency scaling	003	X	X	X	X	X	X	X	X	X	X	X	
Digital inputs	3	R -	Yes	1 = 1	-	004	X	X	X	X	X	X	X	X	X	X	X	
Output relays	2	R -	Yes	1 = 1	-	005	X	X	X	X	X	X	X	X	X	X	X	
Io residual current	2	R -	Yes	1.000 pu = 1000	-	006	X		X	X	X	X	X	X			X	
Io2 residual current	2	R -	Yes	1.000 pu = 1000	-	007	X		X	X	X	X	X	X			X	
Residual voltage	2	R -	Yes	1.0 % = 10	-	008	X	X	X	X	X	X	X	X				
Alive indicator	1	R -	Yes	1 = 1	-	009	X	X	X	X	X	X	X	X	X	X	X	
Active power	2	R -	Yes	1000 kW = 1000	Power scaling	010	X	X	X	X		X	X	X	X			
Reactive power	2	R -	Yes	1000 kvar = 1000	Power scaling	011	X	X	X	X		X	X	X	X			

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE
							40	96	210	230	245	255	257	259	260	265	
Apparent power	2	R -	Yes	1000 kVA = 1000	Power scaling	012	X	X	X	X		X	X	X	X		
Events	4	R -		1 = 1	-	013	X	X	X	X	X	X	X	X	X	X	
Line voltage U12	2	R -	Yes	1000 V = 1000	Voltage scaling	014	X		X	X		X	X	X	X		
Line voltage U23	2	R -	Yes	1000 V = 1000	Voltage scaling	015			X	X		X	X	X	X		
Line voltage U31	2	R -	Yes	1000 V = 1000	Voltage scaling	016			X	X		X	X	X	X		
Exported energy	4	R W	Yes	1.000 MWh = 1000	-	017		X	X	X		X	X	X	X		
Imported energy	4	R W	Yes	1.000 MWh = 1000	-	018		X	X	X		X	X	X	X		
Exp. reactive energy	4	R W	Yes	1.000 Mvarh = 1000	-	019		X	X	X		X	X	X	X		
Imp. reactive energy	4	R W	Yes	1.000 Mvarh = 1000	-	020		X	X	X		X	X	X	X		
Power factor	1	R -	Yes	1.00 = 100	PF and cos scaling	021	X	X	X	X		X	X	X	X		
Phase voltage UL1	2	R -	Yes	1000 V = 1000	Voltage scaling	022	X	X	X	X		X	X	X	X		

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE								NOTE		
							40	96	210	230	245	255	257	259		260	265
Phase voltage UL2	2	R -	Yes	1000 V = 1000	Voltage scaling	023		X	X	X		X	X	X	X		
Phase voltage UL3	2	R -	Yes	1000 V = 1000	Voltage scaling	024		X	X	X		X	X	X	X		
Tan phii	2	R -	Yes	1.000 = 1000	Tan phii scaling	025	X	X	X	X		X	X	X	X		
Phase current IL	2	R -	Yes	1 A = 1	-	026	X	X	X	X	X	X	X	X	X	X	
Average line voltage	2	R -	Yes	1000 V = 1000	Voltage scaling	027	X	X	X	X		X	X	X	X		
Average phase voltage	2	R -	Yes	1000 V = 1000	Voltage scaling	028	X	X	X	X		X	X	X	X		
Obj1 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	029	X		X	X	X	X	X	X	X	X	
Obj2 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	030	X		X	X	X	X	X	X	X	X	
Obj3 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	031	X		X	X	X	X	X	X	X	X	
Obj4 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	032	X		X	X	X	X	X	X	X	X	
Obj5 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	033	X		X	X	X	X	X	X	X	X	

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							40	96	210	230	245	255	257	259	260		265
Obj6 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	034	X		X	X	X	X	X	X	X	X	
Remote/Local State	1	R W	Yes	REMOTE=0 LOCAL=1	-	035	X		X	X	X	X	X	X	X	X	
Open select Obj1	1	R W	Yes	1 = 1	-	036	X		X	X	X	X	X	X	X	X	
Close select Obj1	1	R W	Yes	1 = 1	-	037	X		X	X	X	X	X	X	X	X	
Execute operation Obj1	1	- W	Yes	1 = 1	-	038	X		X	X	X	X	X	X	X	X	
Cancel selected operation	1	- W	Yes	1 = 1	-	039	X		X	X	X	X	X	X	X	X	
Max ctrl pulse length of	1	R W		1.00 s = 100	-	040	X		X	X	X	X	X	X	X	X	
Open select Obj2	1	R W	Yes	1 = 1	-	041	X		X	X	X	X	X	X	X	X	
Close select Obj2	1	R W	Yes	1 = 1	-	042	X		X	X	X	X	X	X	X	X	
Execute operation Obj2	1	- W	Yes	1 = 1	-	043	X		X	X	X	X	X	X	X	X	
Max ctrl pulse length of Obj2	1	R W		1.00 s = 100	-	044	X		X	X	X	X	X	X	X	X	
OM_MB_ResetLatches	1	R W		1 = 1	-	045	X	X	X	X	X	X	X	X	X	X	
Synchronize minutes	1	R W		1 = 1	-	046	X	X	X	X	X	X	X	X	X	X	
Set time & date	4	- W		1 = 1	-	047	X	X	X	X	X	X	X	X	X	X	
Open select Obj3	1	R W	Yes	1 = 1	-	048	X		X	X	X	X	X	X	X	X	
Close select Obj3	1	R W	Yes	1 = 1	-	049	X		X	X	X	X	X	X	X	X	
Execute operation Obj3	1	- W	Yes	1 = 1	-	050	X		X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
Max ctrl pulse length of Obj3	1	R W		1.00 s = 100	-	051	X		X	X	X	X	X	X	X	X	
Open select Obj4	1	R W	Yes	1 = 1	-	052	X		X	X	X	X	X	X	X	X	
Close select Obj4	1	R W	Yes	1 = 1	-	053	X		X	X	X	X	X	X	X	X	
Execute operation Obj4	1	- W	Yes	1 = 1	-	054	X		X	X	X	X	X	X	X	X	
Max ctrl pulse length of Obj4	1	R W		1.00 s = 100	-	055	X		X	X	X	X	X	X	X	X	
Pos. sequence I1	2	R -	Yes	1 A = 1	-	056	X	X	X	X	X	X	X	X	X	X	
Neg. sequence I2	2	R -	Yes	1 A = 1	-	057	X	X	X	X	X	X	X	X	X	X	
Current -seq./+seq.	2	R -	Yes	1.0 % = 10	-	058	X	X	X	X	X	X	X	X	X	X	
Current phase seq.	1	R -	Yes	??=0,OK=1, Reverse=2	-	059	X	X	X	X	X	X	X	X	X	X	
Phase current THD	2	R -	Yes	1.0 % = 10	-	060	X	X	X	X	X	X	X	X	X	X	
IL1 THD	2	R -	Yes	1.0 % = 10	-	061	X	X	X	X	X	X	X	X	X	X	
IL2 THD	2	R -	Yes	1.0 % = 10	-	062	X	X	X	X	X	X	X	X	X	X	
IL3 THD	2	R -	Yes	1.0 % = 10	-	063	X	X	X	X	X	X	X	X	X	X	
HARMONICS of IL1	1	R -		1 % = 1	-	064	X	X	X	X	X	X	X	X	X	X	
HARMONICS of IL2	1	R -		1 % = 1	-	065	X	X	X	X	X	X	X	X	X	X	
HARMONICS of IL3	1	R -		1 % = 1	-	066	X	X	X	X	X	X	X	X	X	X	
Min. of IL1 IL2 IL3	2	R -	Yes	1 A = 1	-	067	X	X	X	X	X	X	X	X	X	X	
Max. of IL1 IL2 IL3	2	R -	Yes	1 A = 1	-	068	X	X	X	X	X	X	X	X	X	X	
Phase current ILRMS	2	R -	Yes	1 Arms = 1	-	069	X	X	X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
Phase current IL1RMS	2	R -	Yes	1 Arms = 1	-	070	X	X	X	X	X	X	X	X	X	X	
Phase current IL2RMS	2	R -	Yes	1 Arms = 1	-	071	X	X	X	X	X	X	X	X	X	X	
Phase current IL3RMS	2	R -	Yes	1 Arms = 1	-	072	X	X	X	X	X	X	X	X	X	X	
Temperature rise	2	R W	Yes	1.0 % = 10	-	073	X	X	X	X	X	X	X	X	X	X	
Ambient temperature	1	R W		1 °C = 1	-	074	X	X	X	X	X	X	X			X	MOTOR OPTION
IL1da, 15min average	2	R -	Yes	1 A = 1	-	075	X	X	X	X	X	X	X	X	X	X	
IL2da, 15min average	2	R -	Yes	1 A = 1	-	076	X	X	X	X	X	X	X	X	X	X	
IL3da, 15min average	2	R -	Yes	1 A = 1	-	077	X	X	X	X	X	X	X	X	X	X	
IoC, 15min average	2	R -	Yes	1.00 pu = 100	-	078	X	X	X	X	X	X	X	X	X	X	
Io, 15min average	2	R -	Yes	1.000 pu = 1000	-	079	X	X	X	X	X	X	X	X	X	X	
Io2, 15min average	2	R -	Yes	1.000 pu = 1000	-	080	X	X	X	X	X	X	X	X	X	X	
+seq. voltage U1	2	R -	Yes	1000 V = 1000	Voltage scaling	081	X	X	X	X		X	X	X	X		
-seq. voltage U2	2	R -	Yes	1000 V = 1000	Voltage scaling	082	X	X	X	X		X	X	X	X		
Voltage -seq./+seq.	2	R -	Yes	1.0 % = 10	-	083	X	X	X	X		X	X	X	X		
Voltage phase seq.	1	R -	Yes	??=0,OK=1, Reverse=2	-	084	X	X	X	X		X	X	X	X		
Voltage THD	2	R -	Yes	1.0 % = 10	-	085			X	X		X	X	X	X		

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE
							40	96	210	230	245	255	257	259	260	265	
Ua THD	2	R -	Yes	1.0 % = 10	-	086	X	X	X	X	X	X	X	X	X		
Ub THD	2	R -	Yes	1.0 % = 10	-	087			X	X		X	X	X	X		
Uc THD	2	R -	Yes	1.0 % = 10	-	088		X	X	X		X	X	X	X		
HARMONICS of Ua	1	R -		1 % = 1	-	089	X	X	X	X	X	X	X	X	X		
HARMONICS of Ub	1	R -		1 % = 1	-	090		X	X	X		X	X	X	X		
HARMONICS of Uc	1	R -		1 % = 1	-	091		X	X	X		X	X	X	X		
Min of line voltages	2	R -	Yes	1000 V = 1000	Voltage scaling	092	X	X	X	X		X	X	X	X		
Max of line voltages	2	R -	Yes	1000 V = 1000	Voltage scaling	093	X	X	X	X		X	X	X	X		
UL_MinOf3	2	R -	Yes	1000 V = 1000	Voltage scaling	094		X	X	X		X	X	X	X		
UL_MaxOf3	2	R -	Yes	1000 V = 1000	Voltage scaling	095		X	X	X		X	X	X	X		
Voltage mean RMS	2	R -	Yes	1000 Vrms = 1000	Voltage scaling	096		X	X	X		X	X	X	X		
Input voltage Ua RMS	2	R -	Yes	1000 Vrms = 1000	Voltage scaling	097	X	X	X	X	X	X	X	X	X		
Input voltage Ub RMS	2	R -	Yes	1000 Vrms = 1000	Voltage scaling	098		X	X	X		X	X	X	X		
Input voltage Uc RMS	2	R -	Yes	1000 Vrms = 1000	Voltage scaling	099		X	X	X		X	X	X	X		

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
U12, 15min average	2	R -	Yes	1000 V = 1000	Voltage scaling	100	X	X	X	X		X	X	X	X		
U23, 15min average	2	R -	Yes	1000 V = 1000	Voltage scaling	101		X	X	X		X	X	X	X		
U31, 15min average	2	R -	Yes	1000 V = 1000	Voltage scaling	102		X	X	X		X	X	X	X		
UL1, 15min average	2	R -	Yes	1000 V = 1000	Voltage scaling	103	X	X	X	X		X	X	X	X		
UL2, 15min average	2	R -	Yes	1000 V = 1000	Voltage scaling	104		X	X	X		X	X	X	X		
UL3, 15min average	2	R -	Yes	1000 V = 1000	Voltage scaling	105		X	X	X		X	X	X	X		
Cosine phi	1	R -	Yes	1.00 = 100	PF and cos scaling	106	X	X	X	X		X	X	X	X		
Cosine of phase L1	1	R -	Yes	1.00 = 100	PF and cos scaling	107	X	X	X	X		X	X	X	X		
Cosine of phase L2	1	R -	Yes	1.00 = 100	PF and cos scaling	108		X	X	X		X	X	X	X		
Cosine of phase L3	1	R -	Yes	1.00 = 100	PF and cos scaling	109		X	X	X		X	X	X	X		
Power angle	2	R -	Yes	1 ° = 1	-	110	X	X	X	X		X	X	X	X		
Phase L1 active power	2	R -	Yes	1000 kW = 1000	Power scaling	111	X	X	X	X		X	X	X	X		

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE								NOTE		
							40	96	210	230	245	255	257	259		260	265
Phase L2 active power	2	R -	Yes	1000 kW = 1000	Power scaling	112		X	X	X		X	X	X	X		
Phase L3 active power	2	R -	Yes	1000 kW = 1000	Power scaling	113		X	X	X		X	X	X	X		
Phase L1 reactive power	2	R -	Yes	1000 kvar = 1000	Power scaling	114	X	X	X	X		X	X	X	X		
Phase L2 reactive power	2	R -	Yes	1000 kvar = 1000	Power scaling	115		X	X	X		X	X	X	X		
Phase L3 reactive power	2	R -	Yes	1000 kvar = 1000	Power scaling	116		X	X	X		X	X	X	X		
Phase L1 apparent power	2	R -	Yes	1000 kVA = 1000	Power scaling	117	X	X	X	X		X	X	X	X		
Phase L2 apparent power	2	R -	Yes	1000 kVA = 1000	Power scaling	118		X	X	X		X	X	X	X		
Phase L3 apparent power	2	R -	Yes	1000 kVA = 1000	Power scaling	119		X	X	X		X	X	X	X		
RMS active power	2	R -	Yes	1000 kW = 1000	Power scaling	120		X	X	X		X	X	X	X		
RMS reactive power	2	R -	Yes	1000 kvar = 1000	Power scaling	121		X	X	X		X	X	X	X		
RMS apparent power	2	R -	Yes	1000 kVA = 1000	Power scaling	122		X	X	X		X	X	X	X		
Active power, 15min average	2	R -	Yes	1000 kW = 1000	Power scaling	123	X	X	X	X		X	X	X	X		

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE
							40	96	210	230	245	255	257	259	260	265	
Reactive power, 15min average	2	R -	Yes	1000 kvar = 1000	Power scaling	124	X	X	X	X		X	X	X	X		
Apparent power, 15min average	2	R -	Yes	1000 kVA = 1000	Power scaling	125	X	X	X	X		X	X	X	X		
Power factor, 15min average	2	R -	Yes	1.00 = 100	PF and cos scaling	126	X	X	X	X		X	X	X	X		
RMS active power, 15min average	2	R -	Yes	1000 kW = 1000	Power scaling	127		X	X	X		X	X	X	X		
RMS reactive power, 15min ave	2	R -	Yes	1000 kvar = 1000	Power scaling	128		X	X	X		X	X	X	X		
RMS apparent power, 15min ave	2	R -	Yes	1000 kVA = 1000	Power scaling	129		X	X	X		X	X	X	X		
Calculated Io	2	R -	Yes	1.000 pu = 1000	-	130	X	X	X	X	X	X	X	X	X	X	
Fault current of I>	2	R -	Yes	1.00 = 100	-	131	X		X	X	X	X	X	X		X	
Fault current of I>>	2	R -	Yes	1.00 = 100	-	132	X		X	X	X	X	X	X		X	
Fault current of I>>>	2	R -	Yes	1.00 = 100	-	133	X		X	X	X	X	X	X		X	
Fault reactance	2	R -	Yes	1.00 ohm = 100	-	134				X		X	X	X			
DI1 counter	2	R W	Yes	1 = 1	-	135	X	X	X	X	X	X	X	X	X	X	
DI2 counter	2	R W	Yes	1 = 1	-	136	X	X	X	X	X	X	X	X	X	X	
DI3 counter	2	R W	Yes	1 = 1	-	137		X	X	X	X	X	X	X	X	X	
DI4 counter	2	R W	Yes	1 = 1	-	138			X	X	X	X	X	X	X	X	
DI5 counter	2	R W	Yes	1 = 1	-	139			X	X	X	X	X	X	X	X	

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							40	96	210	230	245	255	257	259	260	265		
DI6 counter	2	R W	Yes	1 = 1	-	140			X	X	X	X	X	X	X	X		
DI7 counter	2	R W	Yes	1 = 1	-	141						X	X	X				
DI8 counter	2	R W	Yes	1 = 1	-	142						X	X	X				
DI9 counter	2	R W	Yes	1 = 1	-	143						X	X	X				
DI10 counter	2	R W	Yes	1 = 1	-	144						X	X	X				
DI11 counter	2	R W	Yes	1 = 1	-	145						X	X	X				
DI12 counter	2	R W	Yes	1 = 1	-	146						X	X	X				
DI13 counter	2	R W	Yes	1 = 1	-	147						X	X	X				
DI14 counter	2	R W	Yes	1 = 1	-	148						X	X	X				
DI15 counter	2	R W	Yes	1 = 1	-	149						X	X	X				
DI16 counter	2	R W	Yes	1 = 1	-	150						X	X	X				
DI17 counter	2	R W	Yes	1 = 1	-	151						X	X	X				
DI18 counter	2	R W	Yes	1 = 1	-	152						X	X	X				
DI19 counter	2	R W	Yes	1 = 1	-	153				X	X	X	X	X				requires optional DI19/DI20 card
DI20 counter	2	R W	Yes	1 = 1	-	154				X	X	X	X	X				
Shot1 start counter	2	R C	Yes	1 = 1	-	161	X			X	X	X	X	X				
Shot2 start counter	2	R C	Yes	1 = 1	-	162	X			X	X	X	X	X				
Shot3 start counter	2	R C	Yes	1 = 1	-	163	X			X	X	X	X	X				
Shot4 start counter	2	R C	Yes	1 = 1	-	164	X			X	X	X	X	X				
Shot5 start counter	2	R C	Yes	1 = 1	-	165	X			X	X	X	X	X				
AR start counter	2	R C	Yes	1 = 1	-	166	X			X	X	X	X	X				
AR fail counter	2	R C	Yes	1 = 1	-	167	X			X	X	X	X	X				

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							40	96	210	230	245	255	257	259	260	265	
Stage start state	1	R -		Start=1	-	168	X		X	X	X	X	X	X		X	Event codes doc.
Stage trip state	1	R -		Trip=1	-	169	X		X	X	X	X	X	X		X	Event codes doc.
AR shot number	1	R -	Yes	1,2,3,4,5,	-	171	X			X	X	X	X	X			
Critical AR req.	1	R -	Yes	1 = 1	-	172	X			X	X	X	X	X			
Reclose locked	1	R -	Yes	1 = 1	-	173	X			X	X	X	X	X			
Reclose running	1	R -	Yes	1 = 1	-	174	X			X	X	X	X	X			
Final trip	1	R -	Yes	1 = 1	-	175	X			X	X	X	X	X			
Autoreclose on	1	R -	Yes	1 = 1	-	176	X			X	X	X	X	X			
N> alarm	1	R -	Yes	1 = 1	-	177	X			X	X	X	X	X			MOTOR OPTION
Motor start disabled	1	R -	Yes	1 = 1	-	178	X			X	X	X	X	X			
Motor starting	1	R -	Yes	1 = 1	-	179	X			X	X	X	X	X			
Motor running	1	R -	Yes	1 = 1	-	180	X			X	X	X	X	X			
Voltage interrupt	1	R -	Yes	LOW=0,ok=1	-	181	X	X	X	X		X	X	X	X		
Timer 1 status	1	R W	Yes	0=1,1=2	-	182	X	X	X	X	X	X	X	X	X	X	
Timer 2 status	1	R W	Yes	0=1,1=2	-	183	X	X	X	X	X	X	X	X	X	X	
Timer 3 status	1	R W	Yes	0=1,1=2	-	184	X	X	X	X	X	X	X	X	X	X	
Timer 4 status	1	R W	Yes	0=1,1=2	-	185	X	X	X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
Voltage sag and swell status	1	R -	Yes	OK=0, LOW=1, HIGH=2, LOW/HIGH=3, (OK)=4, (LOW)=5, (HIGH)=6, (LOW)/HIGH= 7	-	186	X	X	X	X		X	X	X	X		
Logic output states 1...8	1	R -	Yes	1 = 1	-	187	X	X	X	X	X	X	X	X	X	X	
CBWEAR: Alarm 1	1	R -	Yes	1 = 1	-	188	X		X	X	X	X	X	X		X	
CBWEAR: Alarm 2	1	R -	Yes	1 = 1	-	189	X		X	X	X	X	X	X		X	
SetGrp common change	1	R W		GRP 1=0, GRP 2=1	-	196	X	X	X	X	X	X	X	X		X	
Open select Obj5	1	R W	Yes	1 = 1	-	199	X		X	X	X	X	X	X	X	X	
Close select Obj5	1	R W	Yes	1 = 1	-	200	X		X	X	X	X	X	X	X	X	
Execute operation Obj5	1	- W	Yes	1 = 1	-	201	X		X	X	X	X	X	X	X	X	
Max ctrl pulse length of Obj5	1	R W		1.00 s = 100	-	202	X		X	X	X	X	X	X	X	X	
Open select Obj6	1	R W	Yes	1 = 1	-	203	X		X	X	X	X	X	X	X	X	
Close select Obj6	1	R W	Yes	1 = 1	-	204	X		X	X	X	X	X	X	X	X	
Execute operation Obj6	1	- W	Yes	1 = 1	-	205	X		X	X	X	X	X	X	X	X	
Max ctrl pulse length of Obj6	1	R W		1.00 s = 100	-	206	X		X	X	X	X	X	X	X	X	
Frequency fy (sync side y)	2	R -	Yes	50.00 Hz = 5000	Frequency scaling	207				X		X	X	X			Synchrocheck
Line voltage U12y (sync side y)	2	R -	Yes	1000 V = 1000	Voltage scaling	208				X		X	X	X			Synchrocheck

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE
							40	96	210	230	245	255	257	259	260	265	
Frequency fz (sync side z)	2	R -	Yes	50.00 Hz = 5000	Frequency scaling	209				X		X	X	X			Synchrocheck
Line voltage U12z (sync side z)	2	R -	Yes	1000 V = 1000	Voltage scaling	210				X		X	X	X			Synchrocheck
Synchrocheck 1 angle difference	2	R -	Yes	1° = 1		213				X		X	X	X			Synchrocheck
Synchrocheck 1 request state	1	R -				214				X		X	X	X			Synchrocheck
Synchrocheck 1 OK state	1	R -				215				X		X	X	X			Synchrocheck
Synchrocheck 1 bypass	1	R W				216				X		X	X	X			Synchrocheck
Synchrocheck 1 fail state	1	R -				217				X		X	X	X			Synchrocheck
Synchrocheck 2 angle difference	2	R -	Yes	1° = 1		220				X		X	X	X			Synchrocheck
Synchrocheck 2 request state	1	R -				221				X		X	X	X			Synchrocheck
Synchrocheck 2 OK state	1	R -				222				X		X	X	X			Synchrocheck
Synchrocheck 2 bypass state	1	R W				223				X		X	X	X			Synchrocheck
Synchrocheck 2 fail state	1	R -				224				X		X	X	X			Synchrocheck
Direct open Obj1	1	- W	Yes	1 = 1	-	225	X		X	X	X	X	X	X	X	X	
Direct close Obj1	1	- W	Yes	1 = 1	-	226	X		X	X	X	X	X	X	X	X	
Direct open Obj2	1	- W	Yes	1 = 1	-	227	X		X	X	X	X	X	X	X	X	
Direct close Obj2	1	- W	Yes	1 = 1	-	228	X		X	X	X	X	X	X	X	X	
Direct open Obj3	1	- W	Yes	1 = 1	-	229	X		X	X	X	X	X	X	X	X	
Direct close Obj3	1	- W	Yes	1 = 1	-	230	X		X	X	X	X	X	X	X	X	
Direct open Obj4	1	- W	Yes	1 = 1	-	231	X		X	X	X	X	X	X	X	X	
Direct close Obj4	1	- W	Yes	1 = 1	-	232	X		X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE	
							40	96	210	230	245	255	257	259	260	265		
Direct open Obj5	1	- W	Yes	1 = 1	-	233	X		X	X	X	X	X	X	X	X	X	
Direct close Obj5	1	- W	Yes	1 = 1	-	234	X		X	X	X	X	X	X	X	X	X	
Direct open Obj6	1	- W	Yes	1 = 1	-	235	X		X	X	X	X	X	X	X	X	X	
Direct close Obj6	1	- W	Yes	1 = 1	-	236	X		X	X	X	X	X	X	X	X	X	
Virtual Input 1	1	R W	Yes	0, 1	-	241	X	X	X	X	X	X	X	X	X	X	X	
Virtual Input 2	1	R W	Yes	0, 1	-	242	X	X	X	X	X	X	X	X	X	X	X	
Virtual Input 3	1	R W	Yes	0, 1	-	243	X	X	X	X	X	X	X	X	X	X	X	
Virtual Input 4	1	R W	Yes	0, 1	-	244	X	X	X	X	X	X	X	X	X	X	X	
Obj7 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	245	X		X	X	X	X	X	X	X	X	X	
Obj8 state	1	R -	Yes	Open=0, Close=1, Undef=2	-	246	X		X	X	X	X	X	X	X	X	X	
Digital inputs 21 - 32	3	R -	Yes	1 = 1	-	247							X	X				
DI21 counter	2	R W	Yes	1 = 1	-	248							X	X				
DI22 counter	2	R W	Yes	1 = 1	-	249							X	X				
DI23 counter	2	R W	Yes	1 = 1	-	250							X	X				
DI24 counter	2	R W	Yes	1 = 1	-	251							X	X				
DI25 counter	2	R W	Yes	1 = 1	-	252							X	X				
DI26 counter	2	R W	Yes	1 = 1	-	253							X	X				
DI27 counter	2	R W	Yes	1 = 1	-	254							X	X				
DI28 counter	2	R W	Yes	1 = 1	-	255							X	X				
DI29 counter	2	R W	Yes	1 = 1	-	256							X	X				
DI30 counter	2	R W	Yes	1 = 1	-	257							X	X				
DI31 counter	2	R W	Yes	1 = 1	-	258							X	X				
DI32 counter	2	R W	Yes	1 = 1	-	259							X	X				
Logic output stages 9...16	1	R -	Yes	1 = 1	-	260	X	X	X	X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
Logic output stages 17...20	1	R -	Yes	1 = 1	-	261	X	X	X	X	X	X	X	X	X	X	
Virtual outputs	1	R -	Yes	1 = 1	-	264	X	X	X	X	X	X	X	X	X	X	
Phase current I'L1	3	R -	Yes	1 A = 1	-	265										X	
Phase current I'L2	2	R -	Yes	1 A = 1	-	266										X	
Phase current I'L3	2	R -	Yes	1 A = 1	-	267										X	
IL1 difference	2	R -	Yes	1 A = 1	-	268										X	
IL2 difference	2	R -	Yes	1 A = 1	-	269										X	
IL3 difference	2	R -	Yes	1 A = 1	-	270										X	
Pos. sequence I'1	2	R -	Yes	1 A = 1	-	271										X	
Neg. sequence I'2	2	R -	Yes	1 A = 1	-	272										X	
Current I' -seq./+seq.	2	R -	Yes	1.0 % = 10	-	273										X	
Current I' phase seq.	1	R -	Yes	??=0,OK=1, Reverse=2	-	274										X	
Phase current I'THD	2	R -	Yes	1.0 % = 10	-	275										X	
I'L1 THD	2	R -	Yes	1.0 % = 10	-	276										X	
I'L2 THD	2	R -	Yes	1.0 % = 10	-	277										X	
I'L3 THD	2	R -	Yes	1.0 % = 10	-	278										X	
Harmonics of I'L1	1	R -	Yes	1 % = 1	-	279										X	
Harmonics of I'L2	1	R -	Yes	1 % = 1	-	280										X	
Harmonics of I'L3	1	R -	Yes	1 % = 1	-	281										X	
Min. of I'L1 I'L2 I'L3	2	R -	Yes	1 A = 1	-	282										X	
Max. of I'L1 I'L2 I'L3	2	R -	Yes	1 A = 1	-	283										X	
Phase current I'LRMS	2	R -	Yes	1 ARMS = 1	-	284										X	
Phase current I'L1RMS	2	R -	Yes	1 ARMS = 1	-	285										X	
Phase current I'L2RMS	2	R -	Yes	1 ARMS = 1	-	286										X	
Phase current I'L3RMS	2	R -	Yes	1 ARMS = 1	-	287										X	
Diagnostic register 1	2	R -	Yes	1 = 1	-	288	X	X	X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
Diagnostic register 2	2	R -	Yes	1 = 1	-	289	X	X	X	X	X	X	X	X	X	X	
Diagnostic register 3	2	R -	Yes	1 = 1	-	290	X	X	X	X	X	X	X	X	X	X	
Diagnostic register 4	2	R -	Yes	1 = 1	-	291	X	X	X	X	X	X	X	X	X	X	
Engine running hours	4	R W	Yes	1 h = 1	-	292	X	X	X	X	X	X	X	X	X	X	
Engine running seconds	2	R W	Yes	1 s = 1	-	293	X	X	X	X	X	X	X	X	X	X	
Start counter	2	R W	Yes	1 = 1	-	294	X	X	X	X	X	X	X	X	X	X	
Reset diagnostics	1	R W	Yes	1 = 1	-	295	X	X	X	X	X	X	X	X	X	X	
Clear MinMax	1	R W	Yes	1 = 1	-	296	X	X	X	X	X	X	X	X	X	X	
Minimum frequency	2	R	Yes	50.00 Hz = 5000	Frequency scaling	297	X	X	X	X	X	X	X	X	X	X	
Minimum active power	2	R	Yes	1000 kW = 1000	Power scaling	298	X	X	X	X	X	X	X	X	X	X	
Minimum reactive power	2	R	Yes	1000 kW = 1000	Power scaling	299	X	X	X	X	X	X	X	X	X	X	
Minimum apparent power	2	R	Yes	1000 kW = 1000	Power scaling	300	X	X	X	X	X	X	X	X	X	X	
Minimum power factor	2	R	Yes	1.00 = 100	PF and cos scaling	301	X	X	X	X	X	X	X	X	X	X	
Minimum Io1	2	R	Yes	1A = 1	-	302	X	X	X	X	X	X	X	X	X	X	
Minimum Io2	2	R	Yes	1A = 1	-	303	X	X	X	X	X	X	X	X	X	X	
Minimum P 15min	2	R	Yes	1000 kW =	Power	304	X	X	X	X	X	X	X	X	X	X	
Minimum Q 15min	2	R	Yes	1000 kW =	Power	305	X	X	X	X	X	X	X	X	X	X	
Minimum S 15min	2	R	Yes	1000 kW =	Power	306	X	X	X	X	X	X	X	X	X	X	
Minimum PF15min	2	R	Yes	1.00 = 100	PF and cos	307	X	X	X	X	X	X	X	X	X	X	
Minimum Prms 15min	2	R	Yes	1000 kW =	Power	308	X	X	X	X	X	X	X	X	X	X	
Minimum Qrms 15min	2	R	Yes	1000 kW =	Power	309	X	X	X	X	X	X	X	X	X	X	
Minimum Srms 15min	2	R	Yes	1000 kW =	Power	310	X	X	X	X	X	X	X	X	X	X	
Minimum IL1	2	R	Yes	1A = 1	-	311	X	X	X	X	X	X	X	X	X	X	

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE										NOTE	
							40	96	210	230	245	255	257	259	260	265		
Minimum IL2	2	R	Yes	1A = 1	-	312	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL3	2	R	Yes	1A = 1	-	313	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL1rms	2	R	Yes	1A = 1	-	314	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL2rms	2	R	Yes	1A = 1	-	315	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL3rms	2	R	Yes	1A = 1	-	316	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL1 15min	2	R	Yes	1A = 1	-	317	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL2 15min	2	R	Yes	1A = 1	-	318	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL3 15min	2	R	Yes	1A = 1	-	319	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL1rms 15min	2	R	Yes	1A = 1	-	320	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL2rms 15min	2	R	Yes	1A = 1	-	321	X	X	X	X	X	X	X	X	X	X	X	
Minimum IL3rms 15min	2	R	Yes	1A = 1	-	322	X	X	X	X	X	X	X	X	X	X	X	
Minimum U12	2	R	Yes	1000 V = 1000	Voltage scaling	323	X	X	X	X		X	X	X	X			
Minimum U23	2	R	Yes	1000 V = 1000	Voltage scaling	324	X	X	X	X		X	X	X	X			
Minimum U31	2	R	Yes	1000 V = 1000	Voltage scaling	325	X	X	X	X		X	X	X	X			
Maximum frequency	2	R	Yes	50.00 Hz =	Frequency	338	X	X	X	X	X	X	X	X	X	X	X	
Maximum active power	2	R	Yes	1000 kW =	Power	339	X	X	X	X		X	X	X	X			
Maximum reactive power	2	R	Yes	1000 kW =	Power	340	X	X	X	X		X	X	X	X			
Maximum apparent power	2	R	Yes	1000 kW =	Power	341	X	X	X	X		X	X	X	X			
Maximum power factor	2	R	Yes	1.00 = 100	PF and cos	342	X	X	X	X		X	X	X	X			
Maximum Io1	2	R	Yes	1A = 1	-	343	X	X	X	X	X	X	X	X	X	X	X	
Maximum Io2	2	R	Yes	1A = 1	-	344	X	X	X	X	X	X	X	X	X	X	X	
Maximum P 15min	2	R	Yes	1000 kW =	Power	345	X	X	X	X		X	X	X	X			
Maximum Q 15min	2	R	Yes	1000 kW =	Power	346	X	X	X	X		X	X	X	X			
Maximum S 15min	2	R	Yes	1000 kW =	Power	347	X	X	X	X		X	X	X	X			

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE									NOTE	
							40	96	210	230	245	255	257	259	260		265
Maximum PF15min	2	R	Yes	1.00 = 100	PF and cos	348	X	X	X	X		X	X	X	X		
Maximum Prms 15min	2	R	Yes	1000 kW =	Power	349	X	X	X	X		X	X	X	X		
Maximum Qrms 15min	2	R	Yes	1000 kW =	Power	350	X	X	X	X		X	X	X	X		
Maximum Srms 15min	2	R	Yes	1000 kW =	Power	351	X	X	X	X		X	X	X	X		
Maximum IL1	2	R	Yes	1A = 1	-	352	X	X	X	X	X	X	X	X	X	X	
Maximum IL2	2	R	Yes	1A = 1	-	353	X	X	X	X	X	X	X	X	X	X	
Maximum IL3	2	R	Yes	1A = 1	-	354	X	X	X	X	X	X	X	X	X	X	
Maximum IL1rms	2	R	Yes	1A = 1	-	355	X	X	X	X	X	X	X	X	X	X	
Maximum IL2rms	2	R	Yes	1A = 1	-	356	X	X	X	X	X	X	X	X	X	X	
Maximum IL3rms	2	R	Yes	1A = 1	-	357	X	X	X	X	X	X	X	X	X	X	
Maximum IL1 15min	2	R	Yes	1A = 1	-	358	X	X	X	X	X	X	X	X	X	X	
Maximum IL2 15min	2	R	Yes	1A = 1	-	359	X	X	X	X	X	X	X	X	X	X	
Maximum IL3 15min	2	R	Yes	1A = 1	-	360	X	X	X	X	X	X	X	X	X	X	
Maximum IL1rms 15min	2	R	Yes	1A = 1	-	361	X	X	X	X	X	X	X	X	X	X	
Maximum IL2rms 15min	2	R	Yes	1A = 1	-	362	X	X	X	X	X	X	X	X	X	X	
Maximum IL3rms 15min	2	R	Yes	1A = 1	-	363	X	X	X	X	X	X	X	X	X	X	
Maximum U12	2	R	Yes	1000 V =	Voltage	364	X	X	X	X		X	X	X	X		
Maximum U23	2	R	Yes	1000 V =	Voltage	365	X	X	X	X		X	X	X	X		
Maximum U31	2	R	Yes	1000 V =	Voltage	366	X	X	X	X		X	X	X	X		
Z12 Primary	2	R	Yes	1 = 1	-	379									X		
Z23 Primary	2	R	Yes	1 = 1	-	380									X		
Z32 Primary	2	R	Yes	1 = 1	-	381									X		
Z12 Secondary	2	R	Yes	1 = 1	-	382									X		
Z23 Secondary	2	R	Yes	1 = 1	-	383									X		
Z32 Secondary	2	R	Yes	1 = 1	-	384									X		
Z12 Angle	2	R	Yes	1 = 1	-	385									X		
Z23 Angle	2	R	Yes	1 = 1	-	386									X		

Name	Length	Access	Cont. mode	Scaling	Setting for scaling	Data number	VAMP TYPE								NOTE	
							40	96	210	230	245	255	257	259		260
Z32 Angle	2	R	Yes	1 = 1	-	387							X			
Diagnostic reservation	1	R W	Yes	1 = 1	-	388	X	X	X	X	X	X	X	X	X	

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