

SPABUS_VAMP52_v10_27

Device name	FEEDER/MOTOR PROTECTION RELAY
Device type	VAMP 52
Application mode	Feeder
Program version	V10.27

Category I:

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Channel Data number Item

0	1	Phase current IL2
0	4	Frequency
0	13	Io1 residual current
0	15	Zero sequence voltage
0	16	Pos. sequence U1
0	20	DI
0	21	Digital input 1
0	22	Digital input 2
0	41	DI1 counter
0	42	DI2 counter
0	81	Trip relay 1
0	82	Trip relay 2
0	85	Trip relay 3
0	86	Trip relay 4
0	87	Signal relay 1
0	120	Pos. sequence I1
0	121	Neg. sequence I2
0	122	Current -seq./+seq.
0	123	Current phase seq.
0	124	Phase current THD
0	125	Phase current IL
0	126	Min. of IL1 IL2 IL3
0	127	Max. of IL1 IL2 IL3
0	128	Phase current ILRMS
0	131	IoCalc demand
0	132	Io1 demand
0	144	Voltage THD
0	201	Phase current IL1
0	202	Phase current IL2
0	203	Phase current IL3
0	207	Io1 residual current
0	237	Io1 residual current

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0	304	Minimum frequency
0	318	Minimum of Io
0	404	DatefMin
0	418	Datelo1min
0	504	Maximum frequency
0	518	Maximum of Io
0	604	DatefMax
0	618	Datelo1max
1	1	Phase current IL1
1	4	IL1da demand
1	9	Phase current IL1RMS
1	10	IL1 THD
1	11/25	HARMONICS of IL1
1	27	RMS minimum of IL1
1	30	Ua THD
1	31/45	HARMONICS of Ua
1	301	Minimum of IL1
1	304	Minimum of IL1
1	309	RMS minimum of IL1
1	312	RMS minimum of IL1
1	401	Datell1min
1	404	Datell1_15minMin
1	409	Datell1rmsMin
1	501	Maximum of IL1
1	504	Maximum of IL1
1	509	RMS maximum of IL1
1	601	Datell1max
1	604	Datell1_15minMax
1	609	Datell1rmsMax
2	1	Phase current IL2
2	4	IL2da demand
2	9	Phase current IL2RMS
2	10	IL2 THD
2	11/25	HARMONICS of IL2
2	27	RMS minimum of IL2
2	30	Ub THD
2	31/45	HARMONICS of Ub
2	301	Minimum of IL2
2	304	Minimum of IL2
2	309	RMS minimum of IL2
2	312	RMS minimum of IL2
2	401	Datell2min
2	404	Datell2_15minMin
2	409	Datell2rmsMin
2	501	Maximum of IL2
2	504	Maximum of IL2

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2	509	RMS maximum of IL2
2	601	Datell2max
2	604	Datell2_15minMax
2	609	Datell2rmsMax
3	1	Phase current IL3
3	4	IL3da demand
3	9	Phase current IL3RMS
3	10	IL3 THD
3	11/25	HARMONICS of IL3
3	27	RMS minimum of IL3
3	30	Uc THD
3	31/45	HARMONICS of Uc
3	301	Minimum of IL3
3	304	Minimum of IL3
3	309	RMS minimum of IL3
3	312	RMS minimum of IL3
3	401	Datell3min
3	404	Datell3_15minMin
3	409	Datell3rmsMin
3	501	Maximum of IL3
3	504	Maximum of IL3
3	509	RMS maximum of IL3
3	601	Datell3max
3	604	Datell3_15minMax
3	609	Datell3rmsMax
4	1	Io1 residual current
6	1	Zero sequence voltage
69	1	Virtual input 1
69	2	Virtual input 2
69	3	Virtual input 3
69	4	Virtual input 4
69	21	Virtual output 1
69	22	Virtual output 2
69	23	Virtual output 3
69	24	Virtual output 4
69	25	Virtual output 5
69	26	Virtual output 6
71	1	Obj1 state
72	1	Obj2 state
73	1	Obj3 state
74	1	Obj4 state
75	1	Obj5 state
76	1	Obj6 state
77	1	Obj7 state
78	1	Obj8 state
87	1	Frequency

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Category O:

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Channel Data number Item

0	10	Line 1 fault
0	11	Line 2 fault
0	12	Line 3 fault
0	20	Setting error
0	250	Running hours status
1	1	l> start
1	2	l> trip
2	1	l>> start
2	2	l>> trip
3	1	l>>> start
3	2	l>>> trip
5	1	l2> start
5	2	l2> trip
12	1	l ARC start
12	2	l ARC trip
13	1	l< start
13	2	l< trip
14	1	T> start
14	2	T> trip
17	1	2. Harm start
17	2	2. Harm trip
19	1	Overcurrent alarm
19	2	Overcurrent trip
19	10	Line 1 alarm
19	11	Line 2 alarm
19	12	Line 3 alarm
20	1	lo> start
20	2	lo> trip
21	1	lo>> start
21	2	lo>> trip
23	1	loDir> start
23	2	loDir> trip
24	1	loDir>> start
24	2	loDir>> trip
25	1	lo>>> start
25	2	lo>>> trip
26	1	lo>>>> start
26	2	lo>>>> trip

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27	1	Io1 ARC start
27	2	Io1 ARC trip
36	1	Uo> start
36	2	Uo> trip
37	1	Uo>> start
37	2	Uo>> trip
46	1	Prg1 start
46	2	Prg1 trip
47	1	Prg2 start
47	2	Prg2 trip
48	1	Prg3 start
48	2	Prg3 trip
49	1	Prg4 start
49	2	Prg4 trip
56	1	Prg5 start
56	2	Prg5 trip
57	1	Prg6 start
57	2	Prg6 trip
58	1	Prg7 start
58	2	Prg7 trip
59	1	Prg8 start
59	2	Prg8 trip
60	1	CBFP start
60	2	CBFP trip
61	1	ARReq1
61	2	ARReq2
61	3	ARReq3
61	4	ARReq4
61	5	ARReq5
61	6	ARShot1
61	7	ARShot2
61	8	ARShot3
61	9	ARShot4
61	10	ARShot5
61	11	Critical AR req.
61	12	Reclose locked
61	13	Reclose running
61	14	Final trip
61	15/19	AR final trip states
61	29	Autoreclose on
64	11	Timer 1 status
64	12	Timer 2 status
64	13	Timer 3 status
64	14	Timer 4 status
65	1	State_LogOut1
65	2	State_LogOut2

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65	3	State_LogOut3
65	4	State_LogOut4
65	5	State_LogOut5
65	6	State_LogOut6
65	7	State_LogOut7
65	8	State_LogOut8
65	9	State_LogOut9
65	10	State_LogOut10
65	11	State_LogOut11
65	12	State_LogOut12
65	13	State_LogOut13
65	14	State_LogOut14
65	15	State_LogOut15
65	16	State_LogOut16
65	17	State_LogOut17
65	18	State_LogOut18
65	19	State_LogOut19
65	20	State_LogOut20
65	21	Logic Cntr1
65	22	Logic Cntr2
65	23	Logic Cntr3
65	24	Logic Cntr4
65	25	Logic Cntr5
65	26	Logic Cntr6
66	1	CBWAlarm 1
66	2	CBWAlarm 2
67	1	Start status
67	2	CTSV_alarm status
71	1	DirectO1O
71	2	DirectO1C
72	1	DirectO2O
72	2	DirectO2C
73	1	DirectO3O
73	2	DirectO3C
74	1	DirectO4O
74	2	DirectO4C
75	1	DirectO5O
75	2	DirectO5C
76	1	DirectO6O
76	2	DirectO6C
79	1	Cold load
79	2	Inrush detection
107	1	lolnt> start
107	2	lolnt> trip

Category S:

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Channel Data number Stage Item

Channel	Data number	Stage	Item
0	1	-	Grp. 2 remote scaling
0	101	-	CT primary
0	102	-	CT secondary
0	103	-	Nominal input
0	104	-	Io1 CT primary
0	105	-	Io1 CT secondary
0	106	-	Nominal Io1 input
0	110	-	Rated voltage
0	112	-	VTo secondary
0	113	-	Motor nom current
0	250	-	Run hour DI link
1	1	I>	Enable for I>
1	2	I>	Pick-up setting
1	3	I>	Operation delay
1	4	I>	Delay type
1	5	I>	Inv. time coefficient k
1	14	I>	Delay curve family
1	20	I>	Group
1	21	I>	Set group DI control
1	22	I>	Pick-up setting
1	23	I>	Operation delay
1	24	I>	Delay type
1	25	I>	Inv. time coefficient k
1	34	I>	Delay curve family
2	1	I>>	Enable for I>>
2	2	I>>	Pick-up setting
2	3	I>>	Operation delay
2	20	I>>	Group
2	21	I>>	Set group DI control
2	22	I>>	Pick-up setting
2	23	I>>	Operation delay
3	1	I>>>	Enable for I>>>
3	2	I>>>	Pick-up setting
3	3	I>>>	Operation delay
3	20	I>>>	Group
3	21	I>>>	Set group DI control
3	22	I>>>	Pick-up setting
3	23	I>>>	Operation delay
5	1	I2>	Enable for I2>
5	2	I2>	Pick-up setting K2

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5	3	I2>	Operation delay
5	20	I2>	Group
5	21	I2>	Set group DI control
5	22	I2>	Pick-up setting K2
5	23	I2>	Operation delay
12	1	Arcl>	Enable for Arcl>
12	2	Arcl>	Pick-up setting
12	3	Arcl>	Arc inputs in use
13	1	I<	Enable for I<
13	2	I<	Pick-up setting
13	3	I<	Operation delay
13	20	I<	Group
13	21	I<	Set group DI control
13	22	I<	Pick-up setting
13	23	I<	Operation delay
14	1	T>	Enable for T>
14	2	T>	Maximum continuous current
14	3	T>	Time constant tau
14	4	T>	Alarm setting
14	5	T>	Rel. cooling time constant
14	6	T>	Max overload at +40°C
14	7	T>	Max overload at +70°C
14	8	T>	Ambient temperature
16	6	Ist>	Motor start detection current
17	1	If2>	Enable for If2>
17	2	If2>	Pick-up setting
17	3	If2>	Operation delay
20	1	Io>	Enable for Io>
20	2	Io>	Pick-up setting
20	3	Io>	Operation delay
20	4	Io>	Delay type
20	5	Io>	Inv. time coefficient k
20	14	Io>	Delay curve family
20	20	Io>	Group
20	21	Io>	Set group DI control
20	22	Io>	Pick-up setting
20	23	Io>	Operation delay
20	24	Io>	Delay type
20	25	Io>	Inv. time coefficient k
20	34	Io>	Delay curve family
21	1	Io>>	Enable for Io>>
21	2	Io>>	Pick-up setting
21	3	Io>>	Operation delay
21	20	Io>>	Group
21	21	Io>>	Set group DI control
21	22	Io>>	Pick-up setting

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21	23	lo>>	Operation delay
23	1	loφ>	Enable for loφ>
23	2	loφ>	Pick-up setting
23	3	loφ>	Operation delay
23	4	loφ>	Delay type
23	5	loφ>	Inv. time coefficient k
23	6	loφ>	Uo setting for loDir> stage
23	7	loφ>	Char ctrl. in ResCap mode
23	8	loφ>	Angle offset
23	9	loφ>	Direction mode
23	14	loφ>	Delay curve family
23	20	loφ>	Group
23	21	loφ>	Set group DI control
23	22	loφ>	Pick-up setting
23	23	loφ>	Operation delay
23	24	loφ>	Delay type
23	25	loφ>	Inv. time coefficient k
23	26	loφ>	Uo setting for loDir> stage
23	27	loφ>	Char ctrl. in ResCap mode
23	28	loφ>	Angle offset
23	29	loφ>	Direction mode
23	34	loφ>	Delay curve family
24	1	loφ>>	Enable for loφ>>
24	2	loφ>>	Pick-up setting
24	3	loφ>>	Operation delay
24	4	loφ>>	Delay type
24	5	loφ>>	Inv. time coefficient k
24	6	loφ>>	Uo setting for loDir>> stage
24	7	loφ>>	Char ctrl. in ResCap mode
24	8	loφ>>	Angle offset
24	9	loφ>>	Direction mode
24	14	loφ>>	Delay curve family
24	20	loφ>>	Group
24	21	loφ>>	Set group DI control
24	22	loφ>>	Pick-up setting
24	23	loφ>>	Operation delay
24	24	loφ>>	Delay type
24	25	loφ>>	Inv. time coefficient k
24	26	loφ>>	Uo setting for loDir>> stage
24	27	loφ>>	Char ctrl. in ResCap mode
24	28	loφ>>	Angle offset
24	29	loφ>>	Direction mode
24	34	loφ>>	Delay curve family
25	1	lo>>>	Enable for lo>>>
25	2	lo>>>	Pick-up setting
25	3	lo>>>	Operation delay

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25	20	lo>>>	Group
25	21	lo>>>	Set group DI control
25	22	lo>>>	Pick-up setting
25	23	lo>>>	Operation delay
26	1	lo>>>>	Enable for lo>>>>
26	2	lo>>>>	Pick-up setting
26	3	lo>>>>	Operation delay
26	20	lo>>>>	Group
26	21	lo>>>>	Set group DI control
26	22	lo>>>>	Pick-up setting
26	23	lo>>>>	Operation delay
27	1	Arclo1>	Enable for Arclo1>
27	2	Arclo1>	Pick-up setting
27	3	Arclo1>	Arc inputs in use
36	1	Uo>	Enable for Uo>
36	2	Uo>	Pick-up setting
36	3	Uo>	Operation delay
36	20	Uo>	Group
36	21	Uo>	Set group DI control
36	22	Uo>	Pick-up setting
36	23	Uo>	Operation delay
37	1	Uo>>	Enable for Uo>>
37	2	Uo>>	Pick-up setting
37	3	Uo>>	Operation delay
37	20	Uo>>	Group
37	21	Uo>>	Set group DI control
37	22	Uo>>	Pick-up setting
37	23	Uo>>	Operation delay
46	1	Prg1	Enable for Prg1
46	2	Prg1	Pick-up setting
46	3	Prg1	Operation delay
46	6	Prg1	No compare limit for mode <
46	7	Prg1	Coupling
46	8	Prg1	Hysteresis
46	9	Prg1	Compare condition
46	20	Prg1	Group
46	21	Prg1	Set group DI control
46	22	Prg1	Pick-up setting
46	23	Prg1	Operation delay
47	1	Prg2	Enable for Prg2
47	2	Prg2	Pick-up setting
47	3	Prg2	Operation delay
47	6	Prg2	No compare limit for mode <
47	7	Prg2	Coupling
47	8	Prg2	Hysteresis
47	9	Prg2	Compare condition

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47	20	Prg2	Group
47	21	Prg2	Set group DI control
47	22	Prg2	Pick-up setting
47	23	Prg2	Operation delay
48	1	Prg3	Enable for Prg3
48	2	Prg3	Pick-up setting
48	3	Prg3	Operation delay
48	6	Prg3	No compare limit for mode <
48	7	Prg3	Coupling
48	8	Prg3	Hysteresis
48	9	Prg3	Compare condition
48	20	Prg3	Group
48	21	Prg3	Set group DI control
48	22	Prg3	Pick-up setting
48	23	Prg3	Operation delay
49	1	Prg4	Enable for Prg4
49	2	Prg4	Pick-up setting
49	3	Prg4	Operation delay
49	6	Prg4	No compare limit for mode <
49	7	Prg4	Coupling
49	8	Prg4	Hysteresis
49	9	Prg4	Compare condition
49	20	Prg4	Group
49	21	Prg4	Set group DI control
49	22	Prg4	Pick-up setting
49	23	Prg4	Operation delay
56	1	Prg5	Enable for Prg5
56	2	Prg5	Pick-up setting
56	3	Prg5	Operation delay
56	6	Prg5	No compare limit for mode <
56	7	Prg5	Coupling
56	8	Prg5	Hysteresis
56	9	Prg5	Compare condition
56	20	Prg5	Group
56	21	Prg5	Set group DI control
56	22	Prg5	Pick-up setting
56	23	Prg5	Operation delay
57	1	Prg6	Enable for Prg6
57	2	Prg6	Pick-up setting
57	3	Prg6	Operation delay
57	6	Prg6	No compare limit for mode <
57	7	Prg6	Coupling
57	8	Prg6	Hysteresis
57	9	Prg6	Compare condition
57	20	Prg6	Group
57	21	Prg6	Set group DI control

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57	22	Prg6	Pick-up setting
57	23	Prg6	Operation delay
58	1	Prg7	Enable for Prg7
58	2	Prg7	Pick-up setting
58	3	Prg7	Operation delay
58	6	Prg7	No compare limit for mode <
58	7	Prg7	Coupling
58	8	Prg7	Hysteresis
58	9	Prg7	Compare condition
58	20	Prg7	Group
58	21	Prg7	Set group DI control
58	22	Prg7	Pick-up setting
58	23	Prg7	Operation delay
59	1	Prg8	Enable for Prg8
59	2	Prg8	Pick-up setting
59	3	Prg8	Operation delay
59	6	Prg8	No compare limit for mode <
59	7	Prg8	Coupling
59	8	Prg8	Hysteresis
59	9	Prg8	Compare condition
59	20	Prg8	Group
59	21	Prg8	Set group DI control
59	22	Prg8	Pick-up setting
59	23	Prg8	Operation delay
60	1	CBFP	Enable for CBFP
60	2	CBFP	Monitored Trip relay
60	3	CBFP	Operation delay
61	1	-	Enable autoreclosing
61	2	-	Reclaim time
61	3	-	Max ctrl pulse length
61	4	-	Completion timeout
61	5	-	DI for 'obj open'
61	6	-	DI for 'obj closed'
61	7	-	DI for 'obj ready'
61	8	-	Block by external synchrocheck
61	9	-	DI for ARon/ARoff
61	10	-	Dead time
61	11	-	AR1 start delay
61	12	-	AR2 start delay
61	13	-	AR3 start delay
61	14	-	AR4 start delay
61	15	-	AR1 discrim. time
61	16	-	AR2 discrim. time
61	17	-	AR3 discrim. time
61	18	-	AR4 discrim. time
61	19	-	Enable AR1 AR-requests

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61	20	-	Enable AR2 AR-requests
61	21	-	Enable AR3 AR-requests
61	22	-	Enable AR4 AR-requests
61	23	-	Dead time
61	24	-	Enable AR1 AR-requests
61	25	-	Enable AR2 AR-requests
61	26	-	Enable AR3 AR-requests
61	27	-	Enable AR4 AR-requests
61	28	-	AR1 discrim. time
61	29	-	AR2 discrim. time
61	30	-	AR3 discrim. time
61	31	-	AR4 discrim. time
61	32	-	Dead time
61	33	-	Enable AR1 AR-requests
61	34	-	Enable AR2 AR-requests
61	35	-	Enable AR3 AR-requests
61	36	-	Enable AR4 AR-requests
61	37	-	AR1 discrim. time
61	38	-	AR2 discrim. time
61	39	-	AR3 discrim. time
61	40	-	AR4 discrim. time
61	41	-	Dead time
61	42	-	Enable AR1 AR-requests
61	43	-	Enable AR2 AR-requests
61	44	-	Enable AR3 AR-requests
61	45	-	Enable AR4 AR-requests
61	46	-	AR1 discrim. time
61	47	-	AR2 discrim. time
61	48	-	AR3 discrim. time
61	49	-	AR4 discrim. time
61	50	-	Dead time
61	51	-	Enable AR1 AR-requests
61	52	-	Enable AR2 AR-requests
61	53	-	Enable AR3 AR-requests
61	54	-	Enable AR4 AR-requests
61	55	-	AR1 discrim. time
61	56	-	AR2 discrim. time
61	57	-	AR3 discrim. time
61	58	-	AR4 discrim. time
61	101	-	Enable AR for 2 grp.
64	11	-	Timer mode
64	12	-	Timer mode
64	13	-	Timer mode
64	14	-	Timer mode
64	15	-	Timer On
64	16	-	Timer On

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64	17	-	Timer On
64	18	-	Timer On
64	19	-	Timer Off
64	20	-	Timer Off
64	21	-	Timer Off
64	22	-	Timer Off
66	1	CBWEAR	Enable for CBWEAR
66	2	CBWEAR	Clear counters
66	11/12	CBWEAR	Alarm level
66	21/22	CBWEAR	Limit for oper. left
66	31/38	CBWEAR	Current points
66	51/58	CBWEAR	Limit for oper. left
67	1	CT alarm	Enable for CT alarm
67	2	CT alarm	Imin< setting
67	3	CT alarm	Imax> setting
67	4	CT alarm	Operation delay
79	2	-	Pickup current
79	3	-	Maximum time
79	6	-	Idle current
79	7	-	Pickup for 2nd harmonic
80	1	-	Trip relay 3
80	2	-	Trip relay 4
80	3	-	Signal relay 1
107	1	lolnt>	Enable for lolnt>
107	2	lolnt>	Pick-up setting
107	3	lolnt>	Operation delay
107	4	lolnt>	Uo pick-up
107	5	lolnt>	Intermittent time
107	6	lolnt>	Trip for remaining Uo
107	20	lolnt>	Group
107	21	lolnt>	Set group DI control
107	22	lolnt>	Pick-up setting
107	23	lolnt>	Operation delay
107	24	lolnt>	Uo pick-up

Category V:

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== Channel Data number Stage Item

0	56	-	Diagnostic register 1
0	57	-	Diagnostic register 2
0	58	-	Diagnostic register 3
0	59	-	Diagnostic register 4

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0	60	-	Reset diagnostics
0	61	-	Clear min & max
0	101	-	Release latches
0	150	-	SetGrp common change
0	154	-	EMaskAppl
0	155/158	-	Digital input events
0	160	-	Password
0	161	-	ClosePwdForSpaBus
0	200	-	SPABUS address
0	201	-	SPABUS bit rate
0	205	-	Program version
0	250	-	Engine running hours
0	251	-	Engine running seconds
0	252	-	Start counter
1	155	>	> events
1	205	-	Serial number
2	155	>>	>> events
3	155	>>>	>>> events
5	155	2>	2> events
12	155	Arcl>	Arcl> events
13	155	<	< events
14	155	T>	T> events
15	155	Arcl'>	Arcl> events
17	155	lf2>	lf2> events
19	155	-	O/C events
20	155	lo>	lo> events
21	155	lo>>	lo>> events
23	155	loφ>	loφ> events
24	155	loφ>>	loφ>> events
25	155	lo>>>	lo>>> events
26	155	lo>>>>	lo>>>> events
27	155	Arclo1>	Arcl> events
28	155	Arclo2>	Arcl> events
36	155	Uo>	Uo> events
37	155	Uo>>	Uo>> events
46	155	Prg1	Prg1 events
47	155	Prg2	Prg2 events
48	155	Prg3	Prg3 events
49	155	Prg4	Prg4 events
56	155	Prg5	Prg5 events
57	155	Prg6	Prg6 events
58	155	Prg7	Prg7 events
59	155	Prg8	Prg8 events
60	155	CBFP	CBFP events
61	155	-	EventMaskReclose
61	156	-	EMaskFinalTrips

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64	155	-	EMaskTimers
65	155	-	Log1..8
65	156	-	Log9..16
66	155		CBWEAR CBWEAR
67	155		CT alarm CT SUPERVISOR
70	1	R/L	LR_Spa
70	155	R/L	EventMaskRL
71	1	1	Open select Obj1
71	2	1	Close select Obj1
71	3	1	Execute operation Obj1
71	4	1	Cancel selected operation
71	5	1	Max ctrl pulse length
71	155	1	EventMaskObj1
72	1	2	Open select Obj2
72	2	2	Close select Obj2
72	3	2	Execute operation Obj2
72	4	2	Cancel selected operation
72	5	2	Max ctrl pulse length
72	155	2	EventMaskObj2
73	1	3	Open select Obj3
73	2	3	Close select Obj3
73	3	3	Execute operation Obj3
73	4	3	Cancel selected operation
73	5	3	Max ctrl pulse length
73	155	3	EventMaskObj3
74	1	4	Open select Obj4
74	2	4	Close select Obj4
74	3	4	Execute operation Obj4
74	4	4	Cancel selected operation
74	5	4	Max ctrl pulse length
74	155	4	EventMaskObj4
75	1	5	Open select Obj5
75	2	5	Close select Obj5
75	3	5	Execute operation Obj5
75	4	5	Cancel selected operation
75	5	5	Max ctrl pulse length
75	155	5	EventMaskObj5
76	1	6	Open select Obj6
76	2	6	Close select Obj6
76	3	6	Execute operation Obj6
76	4	6	Cancel selected operation
76	5	6	Max ctrl pulse length
76	155	6	EventMaskObj6
77	155	7	EventMaskObj7
78	155	8	EventMaskObj8
80	1	-	Control of A1

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80 2 - Control of A2
 80 3 - Control of A3
 107 155 lolnt> lolnt> events

Category M:

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Channel Data number Stage Item

Channel	Data number	Stage	Item
0	1	-	Virtual COM port
0	2	-	Virtual COM port
1	10/17	l>	Time stamp
1	20/27	l>	Fault current
1	30/37	l>	Elapsed delay
1	40/47	l>	Fault type
1	50/57	l>	Pre-fault current
1	80/87	l>	Fault type
1	90/97	l>	Group
2	10/17	l>>	Time stamp
2	20/27	l>>	Fault current
2	30/37	l>>	Elapsed delay
2	40/47	l>>	Fault type
2	50/57	l>>	Pre-fault current
2	80/87	l>>	Fault type
2	90/97	l>>	Group
3	10/17	l>>>	Time stamp
3	20/27	l>>>	Fault current
3	30/37	l>>>	Elapsed delay
3	40/47	l>>>	Fault type
3	50/57	l>>>	Pre-fault current
3	80/87	l>>>	Fault type
3	90/97	l>>>	Group
5	10/17	l2>	Time stamp
5	20/27	l2>	Fault current
5	30/37	l2>	Elapsed delay
5	90/97	l2>	Group
12	10/17	Arcl>	Time stamp
12	20/27	Arcl>	Fault current
12	40/47	Arcl>	Fault type
12	50/57	Arcl>	Pre-fault current
12	80/87	Arcl>	Fault type
13	10/17	l<	Time stamp
13	20/27	l<	Fault current
13	30/37	l<	Elapsed delay

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13	40/47	I<	Fault type
13	50/57	I<	Pre-fault current
13	80/87	I<	Fault type
13	90/97	I<	Group
14	10/17	T>	Time stamp
14	20/27	T>	Temperature rise
14	30/37	T>	Elapsed delay
14	40/47	T>	Fault current
14	50/57	T>	Pre-fault current
17	10/17	If2>	Time stamp
17	20/27	If2>	Fault current
17	30/37	If2>	Elapsed delay
19	20	-	Last fault current
20	10/17	Io>	Time stamp
20	20/27	Io>	Fault current
20	30/37	Io>	Elapsed delay
20	90/97	Io>	Group
21	10/17	Io>>	Time stamp
21	20/27	Io>>	Fault current
21	30/37	Io>>	Elapsed delay
21	90/97	Io>>	Group
23	10/17	Ioφ>	Time stamp
23	20/27	Ioφ>	Fault current
23	30/37	Ioφ>	Elapsed delay
23	40/47	Ioφ>	Fault angle
23	50/57	Ioφ>	Fault voltage
23	90/97	Ioφ>	Group
24	10/17	Ioφ>>	Time stamp
24	20/27	Ioφ>>	Fault current
24	30/37	Ioφ>>	Elapsed delay
24	40/47	Ioφ>>	Fault angle
24	50/57	Ioφ>>	Fault voltage
24	90/97	Ioφ>>	Group
25	10/17	Io>>>	Time stamp
25	20/27	Io>>>	Fault current
25	30/37	Io>>>	Elapsed delay
25	90/97	Io>>>	Group
26	10/17	Io>>>>	Time stamp
26	20/27	Io>>>>	Fault current
26	30/37	Io>>>>	Elapsed delay
26	90/97	Io>>>>	Group
27	10/17	Arcl01>	Time stamp
27	20/27	Arcl01>	Fault current
36	10/17	Uo>	Time stamp
36	20/27	Uo>	Fault voltage
36	30/37	Uo>	Elapsed delay

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36	90/97	Uo>	Group
37	10/17	Uo>>	Time stamp
37	20/27	Uo>>	Fault voltage
37	30/37	Uo>>	Elapsed delay
37	90/97	Uo>>	Group
46	10/17	Prg1	Time stamp
46	20/27	Prg1	Fault value
46	30/37	Prg1	Elapsed delay
46	90/97	Prg1	Group
47	10/17	Prg2	Time stamp
47	20/27	Prg2	Fault value
47	30/37	Prg2	Elapsed delay
47	90/97	Prg2	Group
48	10/17	Prg3	Time stamp
48	20/27	Prg3	Fault value
48	30/37	Prg3	Elapsed delay
48	90/97	Prg3	Group
49	10/17	Prg4	Time stamp
49	20/27	Prg4	Fault value
49	30/37	Prg4	Elapsed delay
49	90/97	Prg4	Group
56	10/17	Prg5	Time stamp
56	20/27	Prg5	Fault value
56	30/37	Prg5	Elapsed delay
56	90/97	Prg5	Group
57	10/17	Prg6	Time stamp
57	20/27	Prg6	Fault value
57	30/37	Prg6	Elapsed delay
57	90/97	Prg6	Group
58	10/17	Prg7	Time stamp
58	20/27	Prg7	Fault value
58	30/37	Prg7	Elapsed delay
58	90/97	Prg7	Group
59	10/17	Prg8	Time stamp
59	20/27	Prg8	Fault value
59	30/37	Prg8	Elapsed delay
59	90/97	Prg8	Group
60	10/17	CBFP	Time stamp
60	30/37	CBFP	Elapsed delay
61	10	-	Shot1 start counter
61	11	-	Shot2 start counter
61	12	-	Shot3 start counter
61	13	-	Shot4 start counter
61	14	-	Shot5 start counter
61	15	-	Shot1 start counter
61	16	-	Shot2 start counter

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61	17	-	Shot3 start counter
61	18	-	Shot4 start counter
61	19	-	Shot5 start counter
61	20	-	Shot1 start counter
61	21	-	Shot2 start counter
61	22	-	Shot3 start counter
61	23	-	Shot4 start counter
61	24	-	Shot5 start counter
61	25	-	Shot1 start counter
61	26	-	Shot2 start counter
61	27	-	Shot3 start counter
61	28	-	Shot4 start counter
61	29	-	Shot5 start counter
61	30	-	Shot1 start counter
61	31	-	Shot2 start counter
61	32	-	Shot3 start counter
61	33	-	Shot4 start counter
61	34	-	Shot5 start counter
61	35	-	AR start counter
61	36	-	AR fail counter
66	10	CBWEAR	Timestamp 1
66	11	CBWEAR	Phase current IL1
66	12	CBWEAR	Phase current IL2
66	13	CBWEAR	Phase current IL3
66	14	CBWEAR	Timestamp 2
66	21/23	CBWEAR	Alarm1
66	31/33	CBWEAR	Alarm2
107	10/17	lolnt>	Time stamp
107	20/27	lolnt>	Fault current
107	30/37	lolnt>	Elapsed delay
107	50/57	lolnt>	Fault voltage
107	90/97	lolnt>	Group

Category F:

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Channel Data number Item

 0 1 Device type

Category T:

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Channel Data number Item

0 1 SpaBus_Time

Category D:

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Channel Data number Item

0 1 SpaBus_Date
0 2 Day of week

Category L:

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Channel Data number Item

0 1 Events

Category B:

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Channel Data number Item

0 1 Reread event