

APPENDIX A

IEC101 INFORMATION TYPES

Table 5.2types of monitoring direction

Type number	Description	Reference
0	Not defined	
1	single-point information with time tag	M_SP_NA_1
2	Double-point information	M_SP_TA_1
3	Double-point information with time tag	M_DP_NA_1
4	step position information	M_DP_TA_1
5	step position information with time tag	M_ST_NA_1
6	Bits tring of 32 bit	M_ST_TA_1
7	Bit string of 32 bit with time tag	M_BO_NA_1
8	measured value, normalized value	M_BO_TA_1
9	measured value, normalized value with time tag	M_ME_NA_1
10	measured value, scaled value	M_ME_TA_1
11	measured value, scaled value with time tag	M_ME_NB_1
12	measured value, short floating point number	M_ME_TB_1
13	measured value, short floating point number with	M_ME_NC_1
14	time tag	M_ME_TC_1
15	integrated totals	M_IT_NA_1
16	integrated totals with time tag	M_IT_TA_1
17	event of protection equipment with time tag	M_EP_TA_1
18	packed start events of protection equipment with time tag	M_EP_TB_1
19		M_EP_TC_1
20	Packed output circuit information of protection	M_PS_NA_1
21	equipment with time tag	M_ME_ND_1
22-29	Packed single-point information with status change	M_SP_NA_1

Table 5.3ASDU types process information in monitoring direction

Type number	Description	Reference
30	single-point information with time tag CP56Time2a	M_SP_TB_1
31	double-point information with time tag CP56Time2a	M_DP_TB_1
32	step position information with time tag CP56Time2a	M_ST_TB_1
33	bit string of 32 bits with time tag CP56Time2a	M_BO_TB_1
34	measured value, normalized value with time tag CP56Time2a	M_ME_TD_1
35	measured value, scaled value with time tag CP56Time2a	M_ME_TE_1
36	measured value, short floating point number with time tag CP56Time2a	M_ME_TF_1
37	integrated totals with time tag CP56Time2a	M_IT_TB_1
38	event of protection equipment with time tag CP56Time2a	M_EP_TD_1
39	packed start events of protection equipment with time tag CP56Time2a	M_EP_TE_1
40	packed output circuit information of protection equipment with time tag CP56Time2a	M_EP_TF_1
41-44	reserved for further compatible definitions	

45	Single command	C_SC_NA_1
46	double command	C_DC_NA_1
47	regulating step command	C_RC_NA_1
48	set point command, normalized value	C_SE_NA_1
49	set point command, scaled value	C_SE_NB_1
50	set point command, short floating point number	C_SE_NC_1
51	bit string of 32	C_BO_NA_1

Table 5.4 ASDU types process information in control direction

Type number	Description	Reference
70	End of initialization	M_EI_NA_1
71	reserved for further compatible definitions	

Table 5.5 ASDU types system information in control direction

Type number	Description	Reference
100	interrogation command	C_IC_NA_1
101	Counter interrogation command	C_CI_NA_1
102	read command	C_RD_NA_1
103	clock synchronization command	C_CS_NA_1
104	test command	C_TS_NA_1
105	reset process command	C_RP_NA_1
106	delay acquisition command	C_CD_NA_1
107-109	reserved for further compatible definitions	C_IC_NA_1
	interrogation command	C_CI_NA_1

Table 5.6 parameter in control direction

Type number	Description	Reference
110	parameter of measured value, normalized value	P_ME_NA_1
111	parameter of measured value, scaled value	P_ME_NB_1
112	parameter of measured value, short floating point number	P_ME_NC_1
113	parameter activation	P_AC_NA_1
114-119	<114..119> reserved for further compatible definitions	

Table 5.7 ASDU types – file transfer

Type number	Description	Reference
120	file ready	F_FR_NA_1
121	Section ready	F_SR_NA_1
122	call directory, select File, call File, call section	F_SC_NA_1
123	last section, last segment	F_LS_NA_1
124	ack File, ack section	F_AF_NA_1
125	segment	F_SG_NA_1
126	directory	F_DR_TA_1
127	reserved for further compatible definitions	F_FR_NA_1