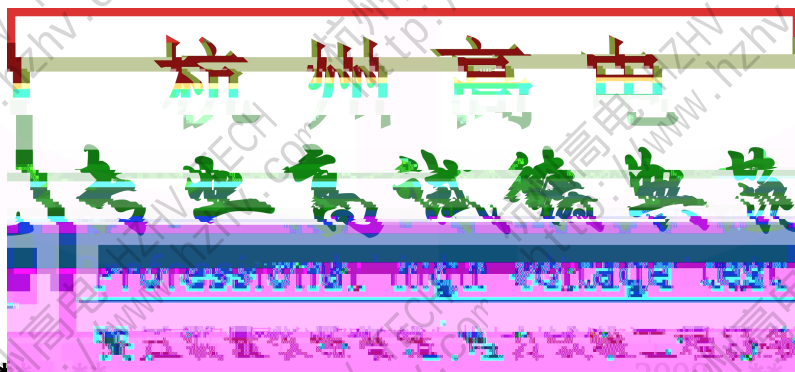


IEC61850



2008

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2007

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3.1		1	
3.2		2	
3.3		2	
3.4		3	
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4.1		3	
4.2		4	
4.3		4	
4.4		4	
4.5		4	
4.6	LNodeType	5	
4.7	DNodeType	5	
4.8	DAType	5	
4.9	LN	6	
4.10		7	
4.11		7	
4.12		7	
4.13	GOOSE	7	
4.14	GOOSE	7	.
4.15		9	
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IEC61850

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				DL/T 860	IEC61850	Ч	Ч
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			III				
				DL/T 860		Ч	
Ч	Ч	Ч	Ч	III			

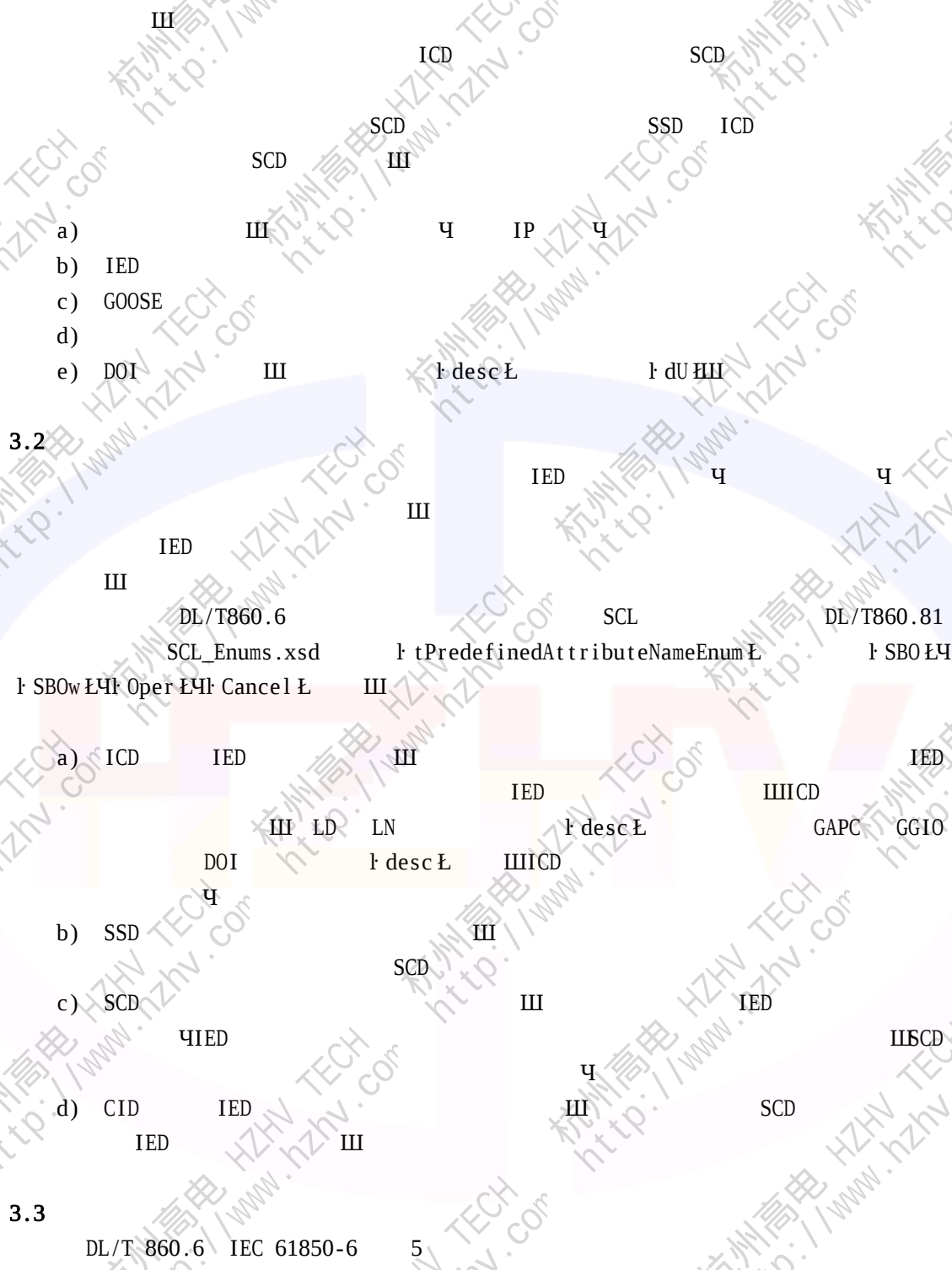
2

						III
			III			
III						
DL/T 860.1	IEC 61850-1				1	
DL/T 860.2	IEC 61850-2				2	
DL/T 860.3	IEC 61850-3				3	
DL/T 860.4	IEC 61850-4				4	
DL/T 860.5	IEC 61850-5				5	
DL/T 860.6	IEC 61850-6				6	
DL/T 860.71	IEC 61850-7-1				7-1	
DL/T 860.72	IEC 61850-7-2				7-2	
				ACSI		
DL/T 860.73	IEC 61850-7-3				7-3	
DL/T 860.74	IEC 61850-7-4				7-4	
DL/T 860.81	IEC 61850-8-1				8-1	
SCSM	MMS ISO/IEC9506	1		2		
DL/T 860.91	IEC 61850-9-1				9-1	
SCSM	-					
DL/T 860.92	IEC 61850-9-2				9-2	
SCSM	- ISO/IEC 8802-3GB/T 15629.3					
DL/T 860.10	IEC 61850-10				10	

3 Ч

3.1

III





1

a)

4.2

Server
III ICD III server
LD III LD III

4.3

DL/T860.7 III
server LN
III DL/T860 LD
LD III LD SGCB LD
LD III

4.4

LN LN A III
DL/T860.7 A LN LN LN IED
DL/T860.7 A LN LN LN IED
IED LN GGIO GAPC
III

4.5

1 GD Ł

1 3GD2 Ł

4.9 LN

a)	LN	DO				
b)		XCBR		XSWI		CSWI
c)					CSWI	Check
		CSWI				
d)		MMXU		MMXN		MSQI
		MDIF				
e)		YLTC	TapChg			
f)						GAPC

PDIFIII

4.10

4.14

ICD

ICD

III

4.11

a) BRCB URCB

b)

ICD

ICD

c)

III

4.12

a) SB0w Ч Oper Ч Cancel

B

b)

B

4.13 GOOSE

4.13.1 GOOSE

a) GOOSE Ч

SCD

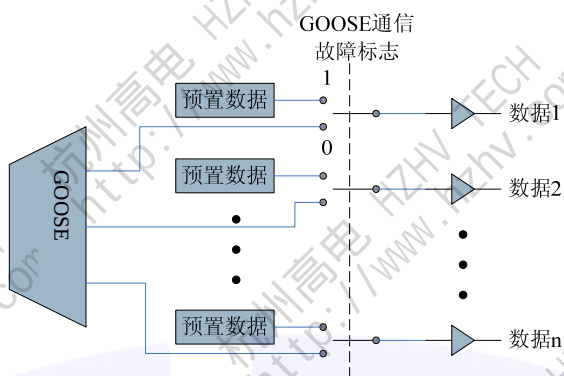
GOOSE

b)

GOOSE

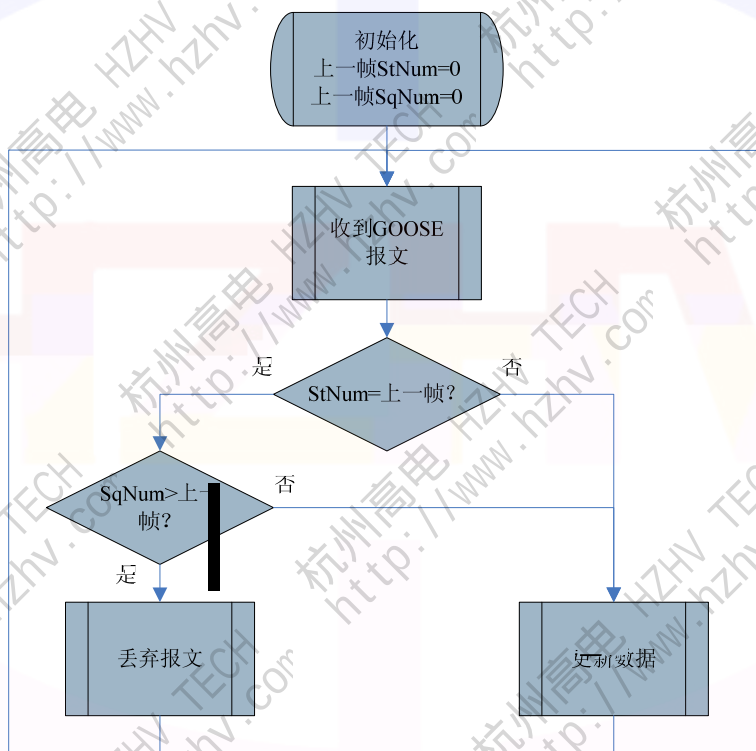
III

III



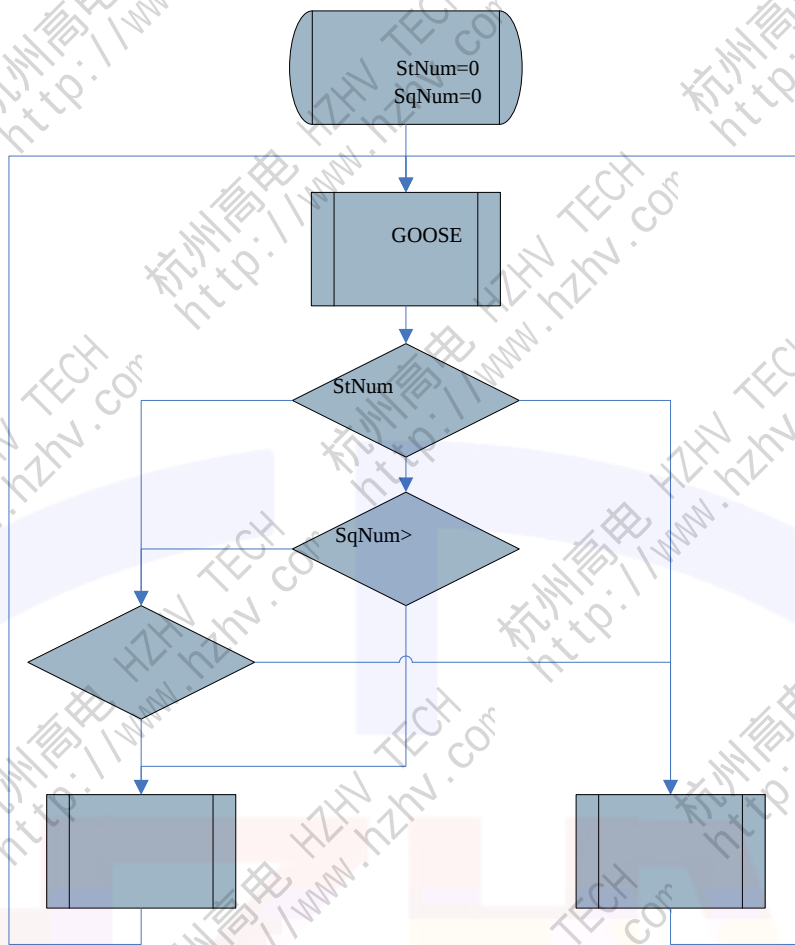
2 GOOSE

b)



3 GOOSE

c)



4 GOOSE

4.15

a)

IED

IED

q

b)

Test IIIIED

Test

III

III

4.16

a)

III

b)

4.17

a)

LLNO

Ena

AIII

III

b)

q

q

PTRC

q

q

Strp

q

AIII

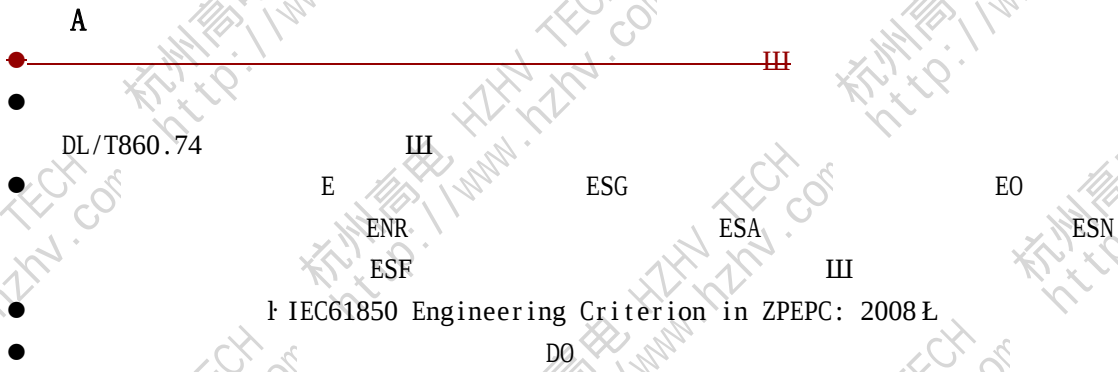
Ч Ч III

5.3

- a) Report ЧGetBRCBValues ЧSetBRCBValues
ЧGetURCBValues ЧSetURCBValues
- b) SCD
- c) IntgPd GI
- d) OptFlds TrgopIII

5.4

- a) SelectWithValue - S ЧCancel) □ Operate _ ¥ Ope
- b) sbo-with-enhenced security
- c) Direct control with enhenced security
- d) ctlModel Ч sboTimeout
- e) MB M I À



7 PSCH

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
ProTx	SPS	Teleprotection signal transmitted	M	
ProRx	SPS	Teleprotection signal received	M	
Str	ACD	Carrier Send	M	
Op	ACT	Operate	M	
CarRx	ACT	Carrier received after unblock logic	O	
LosOfGrd	SPS	Loss of guard	O	
Echo	ACT	Echo signal from weak end infeed function	O	

PhPmtSig	ACT	Phase permitted signal	E	
Ch1Alm	SPS	Channel 1 alarm	E	1
Ch2Alm	SPS	Channel 2 alarm	E	2
ChFail	SPS	Channel failed	E	
SynErr	SPS	Synchronization error	E	
ChSw	SPS	Channel switched	E	
ChNeedChk	SPS	Channel need check	E	
ChDlLong	SPS	Channel transmission delay too long	E	
ChDlErr	SPS	Channel transmission delay error	E	
Ch1IDErr	SPS	Channel 1 ID error	E	1
Ch2IDErr	SPS	Channel 2 ID error	E	2
RemTrPers	SPS	Remote trip persistent	E	
RemSig1Pers	SPS	Remote signal 1 persistent	E	1
RemSig2Pers	SPS	Remote signal 2 persistent	E	2

8

PTRC

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
TrStrp	SPC	Trip strap	E	
StrBFStrp	SPC	Start breaker failure strap	E	
Tr	ACT	Trip	C	
Op	ACT	Operate	C	
Str	ACD	Start	O	
StrBF	ACT	Start breaker failure	E	
StrRec	ACT	Start reclosing	E	
BlkRec	SPS	Block reclosing	E	
TrMod	ING	Trip Mode	O	
TrPlsTmms	ING	Trip Pulse Time	O	
TPTMod	ING	Three Pole Trip Mode	ESG	
Z2BlkRec	SPG	Zone 2 fault blocking recloser	ESG	
MPFltBlkRec	SPG	multi-phase fault blocking recloser	ESG	
PSelFailBlkRec	SPG	fail to select phase blocking recloser	ENR	

C: Tr Op

III

GGIO

PhSelFail	SPS	triple pole tripping for phase select failed	E	
SPITrFail	SPS	triple pole tripping for single pole tripping failed	E	
TPTTrFail	SPS	Persistent tripping for triple pole tripping failed	E	
PerTrFail	SPS	Persistent tripping fail	E	
SPIRunTPTTr	SPS	triple pole tripping for single phase running	E	

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
Str	ACD	Start	O	
Op	ACT	Operate	M	
ABlkVal	ASG	I0 12 block value	E0	4
OpDlTms	ASG	Operate Delay Time in Seconds	E0	
Enable	SPG	Enable	E0	
ABlkEna	SPG	I0 12 block enable	E0	4

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	0	
Str	ACD	Start	M	
Op	ACT	Operate	M	
TmASt	CSD	Active curve characteristic		
DifAClc	WYE	Differential Current	0	
LinCapac	ASG	Line capacitance (for load currents)	0	
LoSet	ING	Low operate value	0	q
HiSet	ING	High operate value	0	q
MinOpTmms	ING	Minimum Operate Time	0	
MaxOpTmms	ING	Maximum Operate Time	0	
RstMod	ING	Restraint Mode	0	
RsDlTmms	ING	Reset Time Delay	0	
TmAcrv	CURVE	Operating Curve Type	0	
LinCapacC0	ASG	Zero Sequence Line Capacitance	ESG	
StrVal	ASG	PDIF operate value	ESG	
Enable	SPG	Enable	ESG	
CTBlkEna	SPG	TA broken Block PDIF Enable	ESG	CT
CCCEna	SPG	Capacitive Current Compensate Enable	ENR	
LsrX	ASG	X value of Local Shunt Reactor	ENR	
LfrX	ASG	X value of Local fourth Reactor of Neutral Point	ENR	
RsrX	ASG	X value of Remote Shunt Reactor	ENR	
RfrX	ASG	X value of Remote fourth Reactor of Neutral Point	ENR	
CTFSet	ASG	Different value when CT broken	ENR	CT

			M/O	
CTWSet	ASG	Different value for warning of CT broken	ESN	CT
CCBlkEna	SPG	Charge Current protect Block PDIF Enable	ESN	
ResASet	ASG	Residual differential Current Setting	ESA	_____
LsrEna	SPG	Local Shunt Reactor Enabled	ESA	_____
RsrEna	SPG	Remote Shunt Reactor Enabled	ESA	_____
Ha2RstFact	ING	2 nd harmonica restraint factor	ESG	
CTWSet	ING	Different value when TA failed	ESG	CT
CTFSet	ING	Different value when TA failed	ESG	CT
Enable	SPG	Enable	ESG	
CTBlkEna	SPG	CT loop broken Block PDIF Enable	ENR	CT
RstFactor	ASG	Restraint Factor	ENR	_____
HiRstFact	ASG	High set of Restraint Factor	ENR	_____
LoRstFact	ASG	Low set of Restraint Factor	ENR	_____
OCBlkEna	SPG	Over Current Block PDIF Enable	ESN	_____
ResASet	ING	Residual differential Current Setting	ESA	_____
LoRstASet	ING		ESA	_____
HiRstASet	ING		ESA	_____

11

PDIS

220kV

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
Nm100FqC70	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
Str	ACD	Start	M	
Op	ACT	Operate	M	

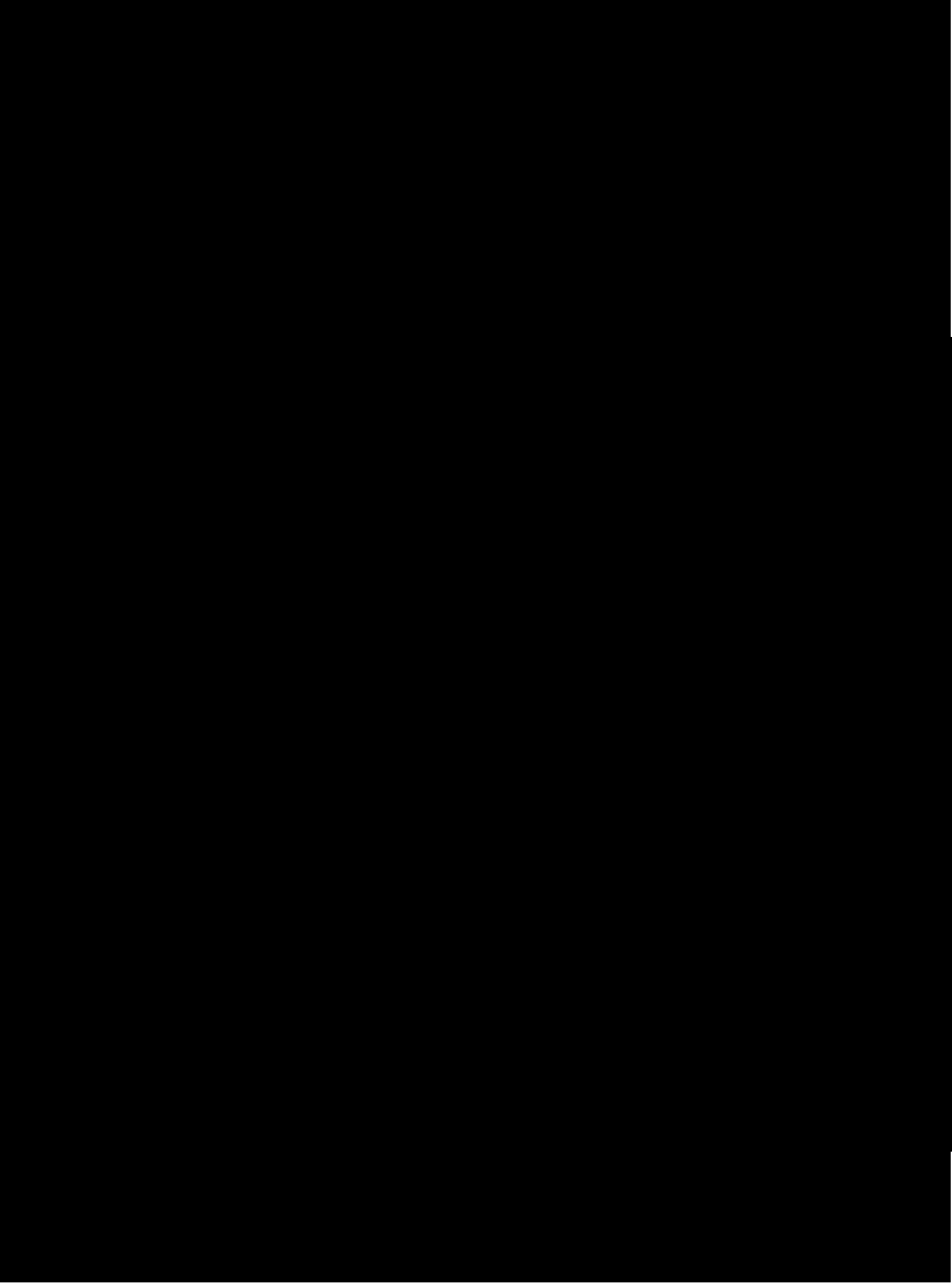
			M/O	
KOFactAng	ASG	Residual Compensation Factor Angle	0	
RsDlTmms	ING	Reset Time Delay	0	
Z1	ASG		ESG	
Z0	ASG		ESG	
LinAng0	ASG	Zero sequence line angle	ESG	
Enable	SPG	Enable	ESG	
MhoGndRch	ASG	Mho Ground Reach	ENR	
MhoPhRch	ASG	Mho Phase Reach	ENR	
MhoGndOfs	ASG	Mho Ground Offset	ENR	
MhoPhOfs	ASG	Mho Phase Offset	ENR	
MQGndRch	ASG	Mho&Quad Ground Reach	ENR	
MQPhRch	ASG	Mho&Quad Phase Reach	ENR	
Pi1MhoPosRch	ASG	Pilot Mho Positive Reach	ENR	
Pi1MhoRevRch	ASG	Pilot Mho Reverse Reach	ENR	
PhStrToTfm	ASG	Phase Start Value to transformer	ESG	
GndStrToTfm	ASG	Ground Start Value to transformer	ESG	
PhStrToBus	ASG	Phase Start Value to bus	ESG	
GndStrToBus	ASG	Ground Start Value to bus	ESG	

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
Str	ACD	Start	M	
Op	ACT	Operate	M	
TmASt	CSD	Active curve characteristic	O	
TmAcrv	CURVE	Operating Curve Type	O	
StrVal	ASG	Start Value	O	
TmMult	ASG	Time Dial Multiplier	O	
MinOpTmms	ING	Minimum Operate Time	O	
MaxOpTmms	ING	Maximum Operate Time	O	
OpDlTmms	ING	Operate Delay Time	O	
TypRsCrv	ING	Type of Reset Curve	O	
Rsdltmms	ING	Reset Time Delay	O	
DirMod	ING	Directional Mode	O	
DirToBus	SPG	Direction To Bus	ESG	
Enable	SPG	Enable	ESG	

13

PVOC

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
Str	ACD	Start	M	
Op	ACT	Operate	M	
AVSt	CSD	Active curve characteristic	O	
TmASt	CSD	Active curve characteristic	O	
AVCrV	CURVE	Operating Curve Type	O	
TmACrv	CURVE	Operating Curve Type	O	
TmMult	ASG	Time Dial Multiplier	O	
MinOpTmms	ING	Minimum Operate Time	O	
MaxOpTmms	ING	Maximum Operate Time	O	



16

RBRF

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	O	
Str	ACD	Start	M	
OpEx	ACT	Breaker failure trip (f external trip L)	C	
OpIn	ACT	Operate, retrip (f internal trip L)	C	
FailMod	ING	Breaker Failure Detection Mode (current, breaker status, both, other)	O	
FailTmms	ING	Breaker Failure Time Delay for bus bar trip	O	
SP1TrTmms	ING	Single Pole Retrip Time Delay	O	
TPTrTmms	ING	Three Pole Retrip Time Delay	O	
DetValA	ASG	Current Detector Value	O	
ReTrMod	ING	Retrip Mode	O	

17 RPSB

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
OpCntRs	INC	Resetable operation counter	0	
Str	ACD	Start (Power Swing Detected)	C1	
Op	ACT	Operate (Out of step Tripping)	C2	
BlkZn	SPS	Blocking of correlated PDIS zone	C1	
ZeroEna	SPG	Zero Enable	0	
NgEna	SPG	Negative Sequence Current Supervision Enabled	0	
MaxEna	SPG	Max Current Supervision Enabled	0	
SwgVal	ASG	Power Swing Delta	0	
SwgRis	ASG	Power Swing Delta R	0	
SwgReact	ASG	Power Swing Delta X	0	

SwgTmmwR]

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	
Health	INS	Health	M	
NamPlt	LPL	Name	M	
EEHealth	INS	External equipment health	O	
EENam	DPL	External equipment name plate	O	
OpTmh	INS	Operation time	O	
Amp	SAV	Current (Sampled value)	M	
CTFail	SPS	CT failure	ENR	CT
CTAbnorm	SPS	CT abnorm	ENR	CT
CTSeqInv	SPS	CT Sequence Inverted	ESA	CT
CTImb	SPS	CT imbalance	ESA	CT
ARtg	ASG	Rated Current	O	
HzRtg	ASG	Rated Frequency	O	
Rat	ASG	Winding ratio of an external current transformer (transducer) if applicable	O	
Cor	ASG	Current phasor magnitude correction of an external current transformer	O	
AngCor	ASG	Current phasor angle correction of an external current transformer	O	
ARtgSnd	ASG	Secondary Rated Current	ESG	

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TVTR

			M/O	
Mod	INC	Mode	M	
Beh	INS	Behaviour	M	

B

DL/T860.73

III

IEC61850 Engineering Criterion in ZPEPC: 2008

B.1 String setting STG

				/	M/O/C
DataName	Inherited from Data Class (see IEC 61850-7-2)				
Setting					
setVal	UNICODE STRING255	SP			AC_NSQ_M
setVal	UNICODE STRING255	SG, SE			AC_SG_M
configuration, description and extension					
d	VISIBLE STRING255	DC		Text	0
dU	UNICODE STRING255	DC			0
cdcNs	VISIBLE STRING255	EX			AC_DLND_M
cdcName	VISIBLE STRING255	EX			AC_DLND_M
dataNs	VISIBLE STRING255	EX			AC_DLN_M

C

C.1

```
<DOType cdc="SPS" id="CN_SPS">
  <DA bType="BOOLEAN" dchg="true" fc="ST" name="stVal"/>
  <DA bType="Quality" fc="ST" name="q"/>
  <DA bType="Timestamp" fc="ST" name="t"/>
  <DA bType="BOOLEAN" fc="SV" name="subEna"/>
  <DA bType="BOOLEAN" fc="SV" name="subVal"/>
  <DA bType="Quality" fc="SV" name="subQ"/>
  <DA bType="VisString64" fc="SV" name="subID"/>
  <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
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  <DA bType="Quality" fc="ST" name="q"/>
  <DA bType="Timestamp" fc="ST" name="t"/>
  <DA bType="BOOLEAN" fc="SV" name="subEna"/>
  <DA bType="BOOLEAN" fc="SV" name="subVal"/>
  <DA bType="Quality" fc="SV" name="subQ"/>
  <DA bType="VisString64" fc="SV" name="subID"/>
  <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
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  <DA bType="INT32" dchg="true" fc="ST" name="stVal"/>
  <DA bType="Quality" fc="ST" name="q"/>
  <DA bType="Timestamp" fc="ST" name="t"/>
  <DA bType="BOOLEAN" fc="SV" name="subEna"/>
  <DA bType="BOOLEAN" fc="SV" name="subVal"/>
  <DA bType="Quality" fc="SV" name="subQ"/>
  <DA bType="VisString64" fc="SV" name="subID"/>
  <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="MV" id="CN_MV">
  <DA bType="Struct" dchg="true" fc="MX" name="mag" type="CN_AnalogueValue"/>
  <DA bType="Quality" fc="MX" name="q"/>
  <DA bType="Timestamp" fc="MX" name="t"/>
  <DA bType="BOOLEAN" fc="SV" name="subEna"/>
  <DA bType="Struct" fc="SV" name="subMag" type="CN_AnalogueValue "/>
  <DA bType="Quality" fc="SV" name="subQ"/>
  <DA bType="VisString64" fc="SV" name="subID"/>
  <DA bType="Struct" fc="CF" name="units" type="CN_Unit"/>
  <DA bType="INT32U" fc="CF" name="db"/>
  <DA bType="INT32U" fc="CF" name="zeroDb"/>
```

```

    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="CMV" id="CN_CMV">
    <DA bType="Struct" dchg="true" fc="MX" name="cVal" type="CN_Vector"/>
    <DA bType="Quality" fc="MX" name="q"/>
    <DA bType="Timestamp" fc="MX" name="t"/>
    <DA bType="BOOLEAN" fc="SV" name="subEna"/>
    <DA bType="Struct" fc="SV" name="subCVal" type="CN_Vector"/>
    <DA bType="Quality" fc="SV" name="subQ"/>
    <DA bType="VisString64" fc="SV" name="subID"/>
    <DA bType="Struct" fc="CF" name="units" type="CN_Unit"/>
    <DA bType="INT32U" fc="CF" name="db"/>
    <DA bType="INT32U" fc="CF" name="zeroDb"/>
    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="WYE" id="CN_WYE">
    <SDO name="phsA" type="CN_CMV"/>
    <SDO name="phsB" type="CN_CMV"/>
    <SDO name="phsC" type="CN_CMV"/>
    <SDO name="neut" type="CN_CMV"/>
    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="DEL" id="CN_DEL">
    <SDO name="phsAB" type="CN_CMV"/>
    <SDO name="phsBC" type="CN_CMV"/>
    <SDO name="phsCA" type="CN_CMV"/>
    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="SPC" id="CN_SPC">
    <DA bType="Struct" fc="CO" name="SB0w" type="CN_SB0w_SDPC"/>
    <DA bType="Struct" fc="CO" name="Oper" type="CN_Oper_SDPC"/>
    <DA bType="Struct" fc="CO" name="Cancel" type="CN_Cancel_SDPC"/>
    <DA bType="BOOLEAN" dchg="true" fc="ST" name="stVal"/>
    <DA bType="Quality" fc="ST" name="q"/>
    <DA bType="Timestamp" fc="ST" name="t"/>
    <DA bType="BOOLEAN" dchg="true" fc="ST" name="stSeld"/>
    <DA bType="BOOLEAN" fc="SV" name="subEna"/>
    <DA bType="BOOLEAN" fc="SV" name="subVal"/>
    <DA bType="Quality" fc="SV" name="subQ"/>
    <DA bType="VisString64" fc="SV" name="subID"/>
    <DA bType="Struct" fc="CF" name="pulseConfig" type="CN_PulseConfig"/>
    <DA bType="Enum" fc="CF" name="ctlModel" type="CtlModel"/>
    <DA bType="INT32U" fc="CF" name="sboTimeout"/>
    <DA bType="Enum" fc="CF" name="sboClass" type="SboClass"/>

```

```

    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="DPC" id="CN_DPC">
    <DA bType="Struct" fc="CO" name="SBOW" type="CN_SBOw_SDPC"/>
    <DA bType="Struct" fc="CO" name="Oper" type="CN_Oper_SDPC"/>
    <DA bType="Struct" fc="CO" name="Cancel" type="CN_Cancel_SDPC"/>
    <DA bType="Dbpos" dchg="true" fc="ST" name="stVal"/>
    <DA bType="Quality" fc="ST" name="q"/>
    <DA bType="Timestamp" fc="ST" name="t"/>
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    <DA bType="BOOLEAN" fc="SV" name="subEna"/>
    <DA bType="Dbpos" fc="SV" name="subVal"/>
    <DA bType="Quality" fc="SV" name="subQ"/>
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    <DA bType="Struct" fc="CF" name="pulseConfig" type="CN_PulseConfig"/>
    <DA bType="Enum" fc="CF" name="ctlModel" type="CtlModel"/>
    <DA bType="INT32U" fc="CF" name="sboTimeout"/>
    <DA bType="Enum" fc="CF" name="sboClass" type="SboClass"/>
    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="INC" id="CN_INC">
    <DA bType="Struct" fc="CO" name="SBOW" type="CN_SBOw_INC"/>
    <DA bType="Struct" fc="CO" name="Oper" type="CN_Oper_INC"/>
    <DA bType="Struct" fc="CO" name="Cancel" type="CN_Cancel_INC"/>
    <DA bType="INT32" dchg="true" fc="ST" name="stVal"/>
    <DA bType="Quality" fc="ST" name="q"/>
    <DA bType="Timestamp" fc="ST" name="t"/>
    <DA bType="BOOLEAN" dchg="true" fc="ST" name="stSeld"/>
    <DA bType="BOOLEAN" fc="SV" name="subEna"/>
    <DA bType="Dbpos" fc="SV" name="subVal"/>
    <DA bType="Quality" fc="SV" name="subQ"/>
    <DA bType="VisString64" fc="SV" name="subID"/>
    <DA bType="Enum" fc="CF" name="ctlModel" type="CtlModel"/>
    <DA bType="INT32U" fc="CF" name="sboTimeout"/>
    <DA bType="Enum" fc="CF" name="sboClass" type="SboClass"/>
    <DA bType="Unicode255" fc="DC" name="dU"/>
</DOType>
<DOType cdc="BSC" id="CN_BSC">
    <DA bType="Struct" fc="CO" name="SBOW" type="CN_SBOw_BSC"/>
    <DA bType="Struct" fc="CO" name="Oper" type="CN_Oper_BSC"/>
    <DA bType="Struct" fc="CO" name="Cancel" type="CN_Cancel_BSC"/>
    <DA bType="Struct" dchg="true" fc="ST" name="valWTr" type="CN_ValWithTrans"/>
    <DA bType="Quality" fc="ST" name="q"/>
    <DA bType="Timestamp" fc="ST" name="t"/>

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```
<DA bType="BOOLEAN" dchg="true" fc="ST" name="stSeld"/>  
<DA bType="BOOLEAN" fc="SV" name="subEna"/>
```

```

        <BDA bType="INT32U" name="offDur"/>
        <BDA bType="INT32U" name="numPls"/>
    </DAType>
    <DAType id="CN_Origin">
        <BDA bType="Enum" name="orCat" type="orCategory"/>
        <BDA bType="Octet64" name="orIdent"/>
    </DAType>
    <DAType id="CN_Unit">
        <BDA bType="Enum" name="SIUnit" type="SIUnit"/>
        <BDA bType="Enum" name="multiplier" type="multiplier"/>
    </DAType>
    <DAType id="CN_Vector">
        <BDA bType="Struct" name="mag" type="CN_AnalogueValue"/>
    </DAType>
    <DAType id="CN_ValWithTrans">
        <BDA bType="INT8" name="posVal"/>
    </DAType>
    <DAType id="CN_SBoW_SDPC">
        <BDA bType="BOOLEAN" name="ctlVal"/>
        <BDA bType="Struct" name="origin" type="CN_Origin"/>
        <BDA bType="INT8U" name="ctlNum"/>
        <BDA bType="Timestamp" name="T"/>
        <BDA bType="BOOLEAN" name="Test"/>
        <BDA bType="Check" name="Check"/>
    </DAType>
    <DAType id="CN_Oper_SDPC">
        <BDA bType="BOOLEAN" name="ctlVal"/>
        <BDA bType="Struct" name="origin" type="CN_Origin"/>
        <BDA bType="INT8U" name="ctlNum"/>
        <BDA bType="Timestamp" name="T"/>
        <BDA bType="BOOLEAN" name="Test"/>
        <BDA bType="Check" name="Check"/>
    </DAType>
    <DAType id="CN_Cancel_SDPC">
        <BDA bType="BOOLEAN" name="ctlVal"/>
        <BDA bType="Struct" name="origin" type="CN_Origin"/>
        <BDA bType="INT8U" name="ctlNum"/>
        <BDA bType="Timestamp" name="T"/>
        <BDA bType="BOOLEAN" name="Test"/>
    </DAType>
    <DAType id="CN_SBoW_INC">
        <BDA bType="INT32" name="ctlVal"/>
        <BDA bType="Struct" name="origin" type="CN_Origin"/>
        <BDA bType="INT8U" name="ctlNum"/>

```

```

    <BDA bType="Timestamp" name="T"/>
    <BDA bType="BOOLEAN" name="Test"/>
    <BDA bType="Check" name="Check"/>
  </DAType>
  <DAType id="CN_Oper_INC">
    <BDA bType="INT32" name="ctlVal"/>
    <BDA bType="Struct" name="origin" type="CN_Origin"/>
    <BDA bType="INT8U" name="ctlNum"/>
    <BDA bType="Timestamp" name="T"/>
    <BDA bType="BOOLEAN" name="Test"/>
    <BDA bType="Check" name="Check"/>
  </DAType>
  <DAType id="CN_Cancel_INC">
    <BDA bType="INT32" name="ctlVal"/>
    <BDA bType="Struct" name="origin" type="CN_Origin"/>
    <BDA bType="INT8U" name="ctlNum"/>
    <BDA bType="Timestamp" name="T"/>
    <BDA bType="BOOLEAN" name="Test"/>
  </DAType>
  <DAType id="CN_SBOw_BSC">
    <BDA bType="Tcmd" name="ctlVal"/>
    <BDA bType="Struct" name="origin" type="CN_Origin"/>
    <BDA bType="INT8U" name="ctlNum"/>
    <BDA bType="Timestamp" name="T"/>
    <BDA bType="BOOLEAN" name="Test"/>
    <BDA bType="Check" name="Check"/>
  </DAType>
  <DAType id="CN_Oper_BSC">
    <BDA bType="Tcmd" name="ctlVal"/>
    <BDA bType="Struct" name="origin" type="CN_Origin"/>
    <BDA bType="INT8U" name="ctlNum"/>
    <BDA bType="Timestamp" name="T"/>
    <BDA bType="BOOLEAN" name="Test"/>
    <BDA bType="Check" name="Check"/>
  </DAType>
  <DAType id="CN_Cancel_BSC">
    <BDA bType="Tcmd" name="ctlVal"/>
    <BDA bType="Struct" name="origin" type="CN_Origin"/>
    <BDA bType="INT8U" name="ctlNum"/>
    <BDA bType="Timestamp" name="T"/>
    <BDA bType="BOOLEAN" name="Test"/>
  </DAType>

  <DAType id="CN_SBOw_Mod">

```

```

<BDA bType="Enum" name="ctlVal" type="Mod"/>
<BDA bType="Struct" name="origin" type="CN_Origin"/>
<BDA bType="INT8U" name="ctlNum"/>
<BDA bType="Timestamp" name="T"/>
<BDA bType="BOOLEAN" name="Test"/>
<BDA bType="Check" name="Check"/>
</DType>
<DType id="CN_Oper_Mod">
  <BDA bType="Enum" name="ctlVal" type="Mod"/>
  <BDA bType="Struct" name="origin" type="CN_Origin"/>
  <BDA bType="INT8U" name="ctlNum"/>
  <BDA bType="Timestamp" name="T"/>
  <BDA bType="BOOLEAN" name="Test"/>
  <BDA bType="Check" name="Check"/>
</DType>
<DType id="CN_Cancel_Mod">
  <BDA bType="Enum" name="ctlVal" type="Mod"/>
  <BDA bType="Struct" name="origin" type="CN_Origin"/>
  <BDA bType="INT8U" name="ctlNum"/>
  <BDA bType="Timestamp" name="T"/>
  <BDA bType="BOOLEAN" name="Test"/>
</DType>

```


	IntgPd	M	M	
	GetBRCBValues	M	M	
	SetBRCBValues	M	M	
	GetURCBValues	M	M	
	SetURCBValues	M	M	
Logging				
	GetLCBValues	0	0	
	SetLCBValues	0	0	
Log				
	GetLogStatusValues	0	0	
	QueryLogByTime	0	0	
	QueryLogAfter	0	0	
GOOSE				
	SendGOOSEMessage	0	M	
	GetGoCBValues	M	M	
	SetGoCBValues	M	0	
	GetGoReference	0	0	
	GetGOOSEElementNumber	0	0	
SVC				
	SendMSVMessage	0	0	
	SendUSVMessage	0	0	
	GetMSVCBValues	0	0	
	SetMSVCBValues	0	0	
	GetUSVCBValues	0	0	
	SetUSVCBValues	0	0	
Control				
	Select	M	0	
	SelectWithValue	M	M	
	Cancel	M	M	
	Operate	M	M	
	Command-Termination	M	M	
	TimeActivated-Operate	0	0	
File Transfer				
	GetFile	M	M	
	SetFile	0	0	
	DeleteFile	0	0	
	GetFileAttributeValues	M	M	
Time				
		0	0	

