

7SR158 Argus

Voltage & Frequency Relay

IEC 61850 Model Implementation Conformance Statement (MICS)

Document Release History

This document is issue 2016/10. The list of revisions up to and including this issue is:

2016/10	First issue
---------	-------------

Software Revision History

2016/10	2436H80011 R4e-2a (7SR158)	First IEC 61850 Release
---------	----------------------------	-------------------------

The copyright and other intellectual property rights in this document, and in any model or article produced from it (and including any registered or unregistered design rights) are the property of Siemens Protection Devices Limited. No part of this document shall be reproduced or modified or stored in another form, in any data retrieval system, without the permission of Siemens Protection Devices Limited, nor shall any model or article be reproduced from this document unless Siemens Protection Devices Limited consent.

While the information and guidance given in this document is believed to be correct, no liability shall be accepted for any loss or damage caused by any error or omission, whether such error or omission is the result of negligence or any other cause. Any and all such liability is disclaimed.

Contents

SOFTWARE REVISION HISTORY	1
1 REYROLLE -> IEC 61850	5
1.1 Device.....	5
1.2 Change Group.....	12
1.3 Delta Trip Counters	12
1.4 Disturbance Recorder.....	13
1.5 Double Point Controls (Enhanced Security).....	13
1.6 Double Point Controls (Normal Security)	13
1.7 Double Point Inputs.....	14
1.8 Double Point Outputs	15
1.9 General Trip Information	16
1.10 Measurement.....	16
1.11 Neutral Overvoltage	17
1.12 NPS Overvoltage.....	18
1.13 Phase U/O Voltage	18
1.14 ROCOF	22
1.15 Single Point Controls (Enhanced Security).....	23
1.16 Single Point Controls (Normal Security).....	24
1.17 Single Point Inputs.....	24
1.18 Single Point Outputs.....	28
1.19 U/O Frequency	30
1.20 VectorShift.....	33
1.21 Voltage Meters	33
2 IEC 61850 -> REYROLLE	35
2.1 PROT.....	35
2.1.1 A2759PTOV1	35
2.1.2 A2759PTOV2	35
2.1.3 A2759PTOV3	36
2.1.4 A2759PTOV4	37
2.1.5 A2759PTUV1.....	37
2.1.6 A2759PTUV2.....	38
2.1.7 A2759PTUV3.....	39
2.1.8 A2759PTUV4.....	39
2.1.9 A47PTOV1	40

2.1.10	A47PTOV2	41
2.1.11	A59nDtPTOV1	41
2.1.12	A59nltPTOV1	41
2.1.13	A78PPAM1	42
2.1.14	A78PPAM2	42
2.1.15	A81PTOF1.....	43
2.1.16	A81PTOF2.....	43
2.1.17	A81PTOF3.....	44
2.1.18	A81PTOF4.....	44
2.1.19	A81PTOF5.....	44
2.1.20	A81PTOF6.....	45
2.1.21	A81PTUF1.....	45
2.1.22	A81PTUF2.....	46
2.1.23	A81PTUF3.....	46
2.1.24	A81PTUF4.....	47
2.1.25	A81PTUF5.....	47
2.1.26	A81PTUF6.....	48
2.1.27	A81rPFRC1	48
2.1.28	A81rPFRC2	49
2.1.29	A81rPFRC3	49
2.1.30	A81rPFRC4	49
2.1.31	A81rPFRC5	50
2.1.32	A81rPFRC6	50
2.1.33	CntDelGGIO1	51
2.1.34	LLN0.....	51
2.1.35	PTRC1.....	52
2.2	MEAS.....	53
2.2.1	LLN0.....	53
2.2.2	MMXU1.....	53
2.2.3	V_MSQI1.....	53
2.3	DR.....	54
2.3.1	LLN0.....	54
2.3.2	RDRE1	55
2.4	CTRL	55
2.4.1	BI6GGIO1.....	55
2.4.2	BO8GGIO1.....	56
2.4.3	DPDOesGGIO1	56
2.4.4	DPDOesGGIO2	57

2.4.5	DPDOesGGIO3	57
2.4.6	DPDOesGGIO4	57
2.4.7	DPDOnsGGIO1	58
2.4.8	DPDOnsGGIO2	58
2.4.9	DPDOnsGGIO3	58
2.4.10	DPDOnsGGIO4	58
2.4.11	DPi8GGIO1	59
2.4.12	DPi8GGIO2	59
2.4.13	DPo8GGIO1	60
2.4.14	DPo8GGIO2	61
2.4.15	E4GGIO1	61
2.4.16	L9GGIO1	62
2.4.17	LLN0.....	62
2.4.18	Q0CILO1	63
2.4.19	Q0CSWI1	63
2.4.20	Q0XCBR1	63
2.4.21	SPDOesGGIO1	64
2.4.22	SPDOesGGIO2	64
2.4.23	SPDOesGGIO3	65
2.4.24	SPDOesGGIO4	65
2.4.25	SPDOnsGGIO1	65
2.4.26	SPDOnsGGIO2	66
2.4.27	SPDOnsGGIO3	66
2.4.28	SPDOnsGGIO4	66
2.4.29	SPi64GGIO1	67
2.4.30	SPo32GGIO1	70
2.4.31	V8GGIO1	72

1 Reyrolle -> IEC 61850

1.1 Device

Reyrolle	DOI	DA Group
LED Reset		
	CTRL.LLN0.LEDRs	stVal
Local Mode		
	PROT.CntDelGGIO1.Loc	stVal
	CTRL.LLN0.Loc	stVal
	CTRL.Q0CSW11.Loc	stVal
	CTRL.Q0XCBR1.Loc	stVal
	CTRL.SPDOsGGIO1.Loc	stVal
	CTRL.SPDOsGGIO2.Loc	stVal
	CTRL.SPDOsGGIO3.Loc	stVal
	CTRL.SPDOsGGIO4.Loc	stVal
	CTRL.SPDOesGGIO1.Loc	stVal
	CTRL.SPDOesGGIO2.Loc	stVal
	CTRL.SPDOesGGIO3.Loc	stVal
	CTRL.SPDOesGGIO4.Loc	stVal
	CTRL.DPDOsGGIO1.Loc	stVal
	CTRL.DPDOsGGIO2.Loc	stVal
	CTRL.DPDOsGGIO3.Loc	stVal
	CTRL.DPDOsGGIO4.Loc	stVal
	CTRL.DPDOesGGIO1.Loc	stVal
	CTRL.DPDOesGGIO2.Loc	stVal
	CTRL.DPDOesGGIO3.Loc	stVal
	CTRL.DPDOesGGIO4.Loc	stVal
Non-Directional		
	PROT.A2759PTOV1.Str	dirGeneral
	PROT.A2759PTOV1.Str	dirPhsA
	PROT.A2759PTOV1.Str	dirPhsB
	PROT.A2759PTOV1.Str	dirPhsC
	PROT.A2759PTUV1.Str	dirGeneral
	PROT.A2759PTUV1.Str	dirPhsA
	PROT.A2759PTUV1.Str	dirPhsB

	PROT.A2759PTUV1.Str	dirPhsC
	PROT.A2759PTOV2.Str	dirGeneral
	PROT.A2759PTOV2.Str	dirPhsA
	PROT.A2759PTOV2.Str	dirPhsB
	PROT.A2759PTOV2.Str	dirPhsC
	PROT.A2759PTUV2.Str	dirGeneral
	PROT.A2759PTUV2.Str	dirPhsA
	PROT.A2759PTUV2.Str	dirPhsB
	PROT.A2759PTUV2.Str	dirPhsC
	PROT.A2759PTOV3.Str	dirGeneral
	PROT.A2759PTOV3.Str	dirPhsA
	PROT.A2759PTOV3.Str	dirPhsB
	PROT.A2759PTOV3.Str	dirPhsC
	PROT.A2759PTUV3.Str	dirGeneral
	PROT.A2759PTUV3.Str	dirPhsA
	PROT.A2759PTUV3.Str	dirPhsB
	PROT.A2759PTUV3.Str	dirPhsC
	PROT.A2759PTOV4.Str	dirGeneral
	PROT.A2759PTOV4.Str	dirPhsA
	PROT.A2759PTOV4.Str	dirPhsB
	PROT.A2759PTOV4.Str	dirPhsC
	PROT.A2759PTUV4.Str	dirGeneral
	PROT.A2759PTUV4.Str	dirPhsA
	PROT.A2759PTUV4.Str	dirPhsB
	PROT.A2759PTUV4.Str	dirPhsC
	PROT.A47PTOV1.Str	dirGeneral
	PROT.A47PTOV2.Str	dirGeneral
	PROT.A59nDtPTOV1.Str	dirGeneral
	PROT.A81PTOF1.Str	dirGeneral
	PROT.A81PTUF1.Str	dirGeneral
	PROT.A81PTOF2.Str	dirGeneral
	PROT.A81PTUF2.Str	dirGeneral
	PROT.A81PTOF3.Str	dirGeneral
	PROT.A81PTUF3.Str	dirGeneral
	PROT.A81PTOF4.Str	dirGeneral
	PROT.A81PTUF4.Str	dirGeneral

	PROT.A81PTOF5.Str	dirGeneral
	PROT.A81PTUF5.Str	dirGeneral
	PROT.A81PTOF6.Str	dirGeneral
	PROT.A81PTUF6.Str	dirGeneral
	PROT.A81rPFRC1.Str	dirGeneral
	PROT.A81rPFRC2.Str	dirGeneral
	PROT.A81rPFRC3.Str	dirGeneral
	PROT.A81rPFRC4.Str	dirGeneral
	PROT.A81rPFRC5.Str	dirGeneral
	PROT.A81rPFRC6.Str	dirGeneral
	PROT.PTRC1.Str	dirGeneral
Out of Service		
	PROT.LLN0.Mod	stVal
	PROT.LLN0.Beh	stVal
	PROT.A2759PTOV1.Beh	stVal
	PROT.A2759PTUV1.Beh	stVal
	PROT.A2759PTOV2.Beh	stVal
	PROT.A2759PTUV2.Beh	stVal
	PROT.A2759PTOV3.Beh	stVal
	PROT.A2759PTUV3.Beh	stVal
	PROT.A2759PTOV4.Beh	stVal
	PROT.A2759PTUV4.Beh	stVal
	PROT.A47PTOV1.Beh	stVal
	PROT.A47PTOV2.Beh	stVal
	PROT.A59nltPTOV1.Beh	stVal
	PROT.A59nDtPTOV1.Beh	stVal
	PROT.A81PTOF1.Beh	stVal
	PROT.A81PTUF1.Beh	stVal
	PROT.A81PTOF2.Beh	stVal
	PROT.A81PTUF2.Beh	stVal
	PROT.A81PTOF3.Beh	stVal
	PROT.A81PTUF3.Beh	stVal
	PROT.A81PTOF4.Beh	stVal
	PROT.A81PTUF4.Beh	stVal
	PROT.A81PTOF5.Beh	stVal
	PROT.A81PTUF5.Beh	stVal

	PROT.A81PTOF6.Beh	stVal
	PROT.A81PTUF6.Beh	stVal
	PROT.A78PPAM1.Beh	stVal
	PROT.A78PPAM2.Beh	stVal
	PROT.A81rPFRC1.Beh	stVal
	PROT.A81rPFRC2.Beh	stVal
	PROT.A81rPFRC3.Beh	stVal
	PROT.A81rPFRC4.Beh	stVal
	PROT.A81rPFRC5.Beh	stVal
	PROT.A81rPFRC6.Beh	stVal
	PROT.CntDelGGIO1.Beh	stVal
	PROT.PTRC1.Beh	stVal
	CTRL.LLN0.Mod	stVal
	CTRL.LLN0.Beh	stVal
	CTRL.Q0CSW11.Beh	stVal
	CTRL.Q0XCBR1.Beh	stVal
	CTRL.Q0CILO1.Beh	stVal
	CTRL.BI6GGIO1.Beh	stVal
	CTRL.BO8GGIO1.Beh	stVal
	CTRL.L9GGIO1.Beh	stVal
	CTRL.V8GGIO1.Beh	stVal
	CTRL.E4GGIO1.Beh	stVal
	CTRL.SPi64GGIO1.Beh	stVal
	CTRL.SP032GGIO1.Beh	stVal
	CTRL.SPDOnsGGIO1.Beh	stVal
	CTRL.SPDOnsGGIO2.Beh	stVal
	CTRL.SPDOnsGGIO3.Beh	stVal
	CTRL.SPDOnsGGIO4.Beh	stVal
	CTRL.SPDOesGGIO1.Beh	stVal
	CTRL.SPDOesGGIO2.Beh	stVal
	CTRL.SPDOesGGIO3.Beh	stVal
	CTRL.SPDOesGGIO4.Beh	stVal
	CTRL.DPDOnsGGIO1.Beh	stVal
	CTRL.DPDOnsGGIO2.Beh	stVal
	CTRL.DPDOnsGGIO3.Beh	stVal
	CTRL.DPDOnsGGIO4.Beh	stVal

	CTRL.DPDOesGGIO1.Beh	stVal
	CTRL.DPDOesGGIO2.Beh	stVal
	CTRL.DPDOesGGIO3.Beh	stVal
	CTRL.DPDOesGGIO4.Beh	stVal
	CTRL.DPi8GGIO1.Beh	stVal
	CTRL.DPi8GGIO2.Beh	stVal
	CTRL.DPo8GGIO1.Beh	stVal
	CTRL.DPo8GGIO2.Beh	stVal
	MEAS.LLN0.Mod	stVal
	MEAS.LLN0.Beh	stVal
	MEAS.V_MSQI1.Beh	stVal
	MEAS.MMXU1.Beh	stVal
	DR.LLN0.Mod	stVal
	DR.LLN0.Beh	stVal
	DR.RDRE1.Beh	stVal
Protection Active		
	PROT.LLN0.Mod	stVal
	PROT.LLN0.Beh	stVal
	PROT.PTRC1.Mod	stVal
	PROT.PTRC1.Beh	stVal
Protection Healthy		
	PROT.LLN0.Health	stVal
	PROT.A2759PTOV1.Health	stVal
	PROT.A2759PTUV1.Health	stVal
	PROT.A2759PTOV2.Health	stVal
	PROT.A2759PTUV2.Health	stVal
	PROT.A2759PTOV3.Health	stVal
	PROT.A2759PTUV3.Health	stVal
	PROT.A2759PTOV4.Health	stVal
	PROT.A2759PTUV4.Health	stVal
	PROT.A47PTOV1.Health	stVal
	PROT.A47PTOV2.Health	stVal
	PROT.A59nltPTOV1.Health	stVal
	PROT.A59nDtPTOV1.Health	stVal
	PROT.A81PTOF1.Health	stVal
	PROT.A81PTUF1.Health	stVal

	PROT.A81PTOF2.Health	stVal
	PROT.A81PTUF2.Health	stVal
	PROT.A81PTOF3.Health	stVal
	PROT.A81PTUF3.Health	stVal
	PROT.A81PTOF4.Health	stVal
	PROT.A81PTUF4.Health	stVal
	PROT.A81PTOF5.Health	stVal
	PROT.A81PTUF5.Health	stVal
	PROT.A81PTOF6.Health	stVal
	PROT.A81PTUF6.Health	stVal
	PROT.A78PPAM1.Health	stVal
	PROT.A78PPAM2.Health	stVal
	PROT.A81rPFRC1.Health	stVal
	PROT.A81rPFRC2.Health	stVal
	PROT.A81rPFRC3.Health	stVal
	PROT.A81rPFRC4.Health	stVal
	PROT.A81rPFRC5.Health	stVal
	PROT.A81rPFRC6.Health	stVal
	PROT.CntDelGGIO1.Health	stVal
	PROT.PTRC1.Health	stVal
	CTRL.LLN0.Mod	stVal
	CTRL.LLN0.Beh	stVal
	CTRL.LLN0.Health	stVal
	CTRL.Q0CSW11.Health	stVal
	CTRL.Q0XCBR1.Health	stVal
	CTRL.Q0CILO1.Health	stVal
	CTRL.BI6GGIO1.Health	stVal
	CTRL.BO8GGIO1.Health	stVal
	CTRL.L9GGIO1.Health	stVal
	CTRL.V8GGIO1.Health	stVal
	CTRL.E4GGIO1.Health	stVal
	CTRL.SPi64GGIO1.Health	stVal
	CTRL.SP032GGIO1.Health	stVal
	CTRL.SPDOnsGGIO1.Health	stVal
	CTRL.SPDOnsGGIO2.Health	stVal
	CTRL.SPDOnsGGIO3.Health	stVal

	CTRL.SPDOnsGGIO4.Health	stVal
	CTRL.SPDOesGGIO1.Health	stVal
	CTRL.SPDOesGGIO2.Health	stVal
	CTRL.SPDOesGGIO3.Health	stVal
	CTRL.SPDOesGGIO4.Health	stVal
	CTRL.DPDOnsGGIO1.Health	stVal
	CTRL.DPDOnsGGIO2.Health	stVal
	CTRL.DPDOnsGGIO3.Health	stVal
	CTRL.DPDOnsGGIO4.Health	stVal
	CTRL.DPDOesGGIO1.Health	stVal
	CTRL.DPDOesGGIO2.Health	stVal
	CTRL.DPDOesGGIO3.Health	stVal
	CTRL.DPDOesGGIO4.Health	stVal
	CTRL.DPi8GGIO1.Health	stVal
	CTRL.DPi8GGIO2.Health	stVal
	CTRL.DPo8GGIO1.Health	stVal
	CTRL.DPo8GGIO2.Health	stVal
	MEAS.LLN0.Mod	stVal
	MEAS.LLN0.Beh	stVal
	MEAS.LLN0.Health	stVal
	MEAS.V_MSQ11.Health	stVal
	MEAS.MMXU1.Health	stVal
	DR.LLN0.Mod	stVal
	DR.LLN0.Beh	stVal
	DR.LLN0.Health	stVal
	DR.RDRE1.Mod	stVal
	DR.RDRE1.Beh	stVal
	DR.RDRE1.Health	stVal
Software Revision		
	PROT.LLN0.NamPlt	swRev
	CTRL.LLN0.NamPlt	swRev
	MEAS.LLN0.NamPlt	swRev
	DR.LLN0.NamPlt	swRev
Vendor Name		
	PROT.LLN0.NamPlt	vendor
	CTRL.LLN0.NamPlt	vendor

	MEAS.LLN0.NamPlt	vendor
	DR.LLN0.NamPlt	vendor

1.2 Change Group

Reyrolle	DOI	DA Group
Active Setting Group 1		
	PROT.LLN0.SGCB	ActSG
	PROT.LLN0.SGCB	LActTm
Active Setting Group 2		
	PROT.LLN0.SGCB	ActSG
	PROT.LLN0.SGCB	LActTm
Active Setting Group 3		
	PROT.LLN0.SGCB	ActSG
	PROT.LLN0.SGCB	LActTm
Active Setting Group 4		
	PROT.LLN0.SGCB	ActSG
	PROT.LLN0.SGCB	LActTm
Number of 61850 Controllable Setting Groups		
	PROT.LLN0.SGCB	NumOfSG

1.3 Delta Trip Counters

Reyrolle	DOI	DA Group
CB Delta Trip Count		
	PROT.CntDelGGIO1.ISCSO1	stVal
CB Delta Trip Count Enabled		
	PROT.CntDelGGIO1.Mod	stVal
	PROT.CntDelGGIO1.Beh	stVal
CB Delta Trip Count Operated		
	PROT.CntDelGGIO1.SPCSO	stVal
CB Delta Trip Count Target		
	PROT.CntDelGGIO1.ISCSO2	stVal

1.4 Disturbance Recorder

Reyrolle	DOI	DA Group
Fault Number		
	DR.RDRE1.FltNum	stVal
Grid Fault Number		
	DR.RDRE1.GriFltNum	stVal
Recording Made		
	DR.RDRE1.RcdMade	stVal

1.5 Double Point Controls (Enhanced Security)

Reyrolle	DOI	DA Group
DPDOes 1 Control		
	CTRL.DPDOesGGIO1.DPCSO	Oper.ctlVal
DPDOes 1 Status		
	CTRL.DPDOesGGIO1.DPCSO	stVal
DPDOes 2 Control		
	CTRL.DPDOesGGIO2.DPCSO	Oper.ctlVal
DPDOes 2 Status		
	CTRL.DPDOesGGIO2.DPCSO	stVal
DPDOes 3 Control		
	CTRL.DPDOesGGIO3.DPCSO	Oper.ctlVal
DPDOes 3 Status		
	CTRL.DPDOesGGIO3.DPCSO	stVal
DPDOes 4 Control		
	CTRL.DPDOesGGIO4.DPCSO	Oper.ctlVal
DPDOes 4 Status		
	CTRL.DPDOesGGIO4.DPCSO	stVal

1.6 Double Point Controls (Normal Security)

Reyrolle	DOI	DA Group
DPDOns 1 Control		
	CTRL.DPDOnsGGIO1.DPCSO	Oper.ctlVal
DPDOns 1 Status		

	CTRL.DPDOsGGIO1.DPCSO	stVal
DPDOs 2 Control		
	CTRL.DPDOsGGIO2.DPCSO	Oper.ctlVal
DPDOs 2 Status		
	CTRL.DPDOsGGIO2.DPCSO	stVal
DPDOs 3 Control		
	CTRL.DPDOsGGIO3.DPCSO	Oper.ctlVal
DPDOs 3 Status		
	CTRL.DPDOsGGIO3.DPCSO	stVal
DPDOs 4 Control		
	CTRL.DPDOsGGIO4.DPCSO	Oper.ctlVal
DPDOs 4 Status		
	CTRL.DPDOsGGIO4.DPCSO	stVal

1.7 Double Point Inputs

Reyrolle	DOI	DA Group
DPI8GGIO1 DPCSO 1		
	CTRL.DPI8GGIO1.DPCSO1	ctlVal
DPI8GGIO1 DPCSO 2		
	CTRL.DPI8GGIO1.DPCSO2	ctlVal
DPI8GGIO1 DPCSO 3		
	CTRL.DPI8GGIO1.DPCSO3	ctlVal
DPI8GGIO1 DPCSO 4		
	CTRL.DPI8GGIO1.DPCSO4	ctlVal
DPI8GGIO1 DPCSO 5		
	CTRL.DPI8GGIO1.DPCSO5	ctlVal
DPI8GGIO1 DPCSO 6		
	CTRL.DPI8GGIO1.DPCSO6	ctlVal
DPI8GGIO1 DPCSO 7		
	CTRL.DPI8GGIO1.DPCSO7	ctlVal
DPI8GGIO1 DPCSO 8		
	CTRL.DPI8GGIO1.DPCSO8	ctlVal
DPI8GGIO2 DPCSO 1		
	CTRL.DPI8GGIO2.DPCSO1	ctlVal
DPI8GGIO2 DPCSO 2		

	CTRL.DPi8GGIO2.DPCSO2	ctlVal
DPi8GGIO2 DPCSO 3		
	CTRL.DPi8GGIO2.DPCSO3	ctlVal
DPi8GGIO2 DPCSO 4		
	CTRL.DPi8GGIO2.DPCSO4	ctlVal
DPi8GGIO2 DPCSO 5		
	CTRL.DPi8GGIO2.DPCSO5	ctlVal
DPi8GGIO2 DPCSO 6		
	CTRL.DPi8GGIO2.DPCSO6	ctlVal
DPi8GGIO2 DPCSO 7		
	CTRL.DPi8GGIO2.DPCSO7	ctlVal
DPi8GGIO2 DPCSO 8		
	CTRL.DPi8GGIO2.DPCSO8	ctlVal

1.8 Double Point Outputs

Reyrolle	DOI	DA Group
DPo8GGIO1 Ind 1		
	CTRL.DPo8GGIO1.DPCSO1	stVal
DPo8GGIO1 Ind 2		
	CTRL.DPo8GGIO1.DPCSO2	stVal
DPo8GGIO1 Ind 3		
	CTRL.DPo8GGIO1.DPCSO3	stVal
DPo8GGIO1 Ind 4		
	CTRL.DPo8GGIO1.DPCSO4	stVal
DPo8GGIO1 Ind 5		
	CTRL.DPo8GGIO1.DPCSO5	stVal
DPo8GGIO1 Ind 6		
	CTRL.DPo8GGIO1.DPCSO6	stVal
DPo8GGIO1 Ind 7		
	CTRL.DPo8GGIO1.DPCSO7	stVal
DPo8GGIO1 Ind 8		
	CTRL.DPo8GGIO1.DPCSO8	stVal
DPo8GGIO2 Ind 1		
	CTRL.DPo8GGIO2.DPCSO1	stVal
DPo8GGIO2 Ind 2		

	CTRL.DPo8GGIO2.DPCSO2	stVal
DPo8GGIO2 Ind 3		
	CTRL.DPo8GGIO2.DPCSO3	stVal
DPo8GGIO2 Ind 4		
	CTRL.DPo8GGIO2.DPCSO4	stVal
DPo8GGIO2 Ind 5		
	CTRL.DPo8GGIO2.DPCSO5	stVal
DPo8GGIO2 Ind 6		
	CTRL.DPo8GGIO2.DPCSO6	stVal
DPo8GGIO2 Ind 7		
	CTRL.DPo8GGIO2.DPCSO7	stVal
DPo8GGIO2 Ind 8		
	CTRL.DPo8GGIO2.DPCSO8	stVal

1.9 General Trip Information

Reyrolle	DOI	DA Group
CB Trip		
	PROT.PTRC1.Tr	general
CB Trip Count		
	PROT.PTRC1.OpCntRs	stVal
General Operate		
	PROT.PTRC1.Op	general
General Pickup		
	PROT.PTRC1.Str	general
Set CB Trip Count		
	PROT.PTRC1.OpCntRs	Oper.ctlVal

1.10 Measurement

Reyrolle	DOI	DA Group
Calculated Earth Voltage (Vn)		
	MEAS.MMXU1.PhV	res.cVal.mag.f
Frequency(F)		
	MEAS.MMXU1.Hz	mag.f

Va		
	MEAS.MMXU1.PhV	phsA.cVal.mag.f
Vab		
	MEAS.MMXU1.PPV	phsAB.cVal.mag.f
Vb		
	MEAS.MMXU1.PhV	phsB.cVal.mag.f
Vbc		
	MEAS.MMXU1.PPV	phsBC.cVal.mag.f
Vc		
	MEAS.MMXU1.PhV	phsC.cVal.mag.f
Vca		
	MEAS.MMXU1.PPV	phsCA.cVal.mag.f

1.11 Neutral Overvoltage

Reyrolle	DOI	DA Group
59NDT Enabled		
	PROT.A59nDtPTOV1.Mod	stVal
	PROT.A59nDtPTOV1.Beh	stVal
59NDT Operated		
	PROT.A59nDtPTOV1.Op	general
59NDT Pickup		
	PROT.A59nDtPTOV1.Str	general
59NIT Enabled		
	PROT.A59nltPTOV1.Mod	stVal
	PROT.A59nltPTOV1.Beh	stVal
59NIT Operated		
	PROT.A59nltPTOV1.Op	general
59NIT Pickup		
	PROT.A59nltPTOV1.Str	general
Inhibit 59NDT		
	PROT.A59nDtPTOV1.Mod	stVal
	PROT.A59nDtPTOV1.Beh	stVal
Inhibit 59NIT		
	PROT.A59nltPTOV1.Mod	stVal
	PROT.A59nltPTOV1.Beh	stVal

1.12 NPS Overvoltage

Reyrolle	DOI	DA Group
47-1 Enabled		
	PROT.A47PTOV1.Mod	stVal
	PROT.A47PTOV1.Beh	stVal
47-1 Operated		
	PROT.A47PTOV1.Op	general
47-1 Pickup		
	PROT.A47PTOV1.Str	general
47-2 Enabled		
	PROT.A47PTOV2.Mod	stVal
	PROT.A47PTOV2.Beh	stVal
47-2 Operated		
	PROT.A47PTOV2.Op	general
47-2 Pickup		
	PROT.A47PTOV2.Str	general
Inhibit 47-1		
	PROT.A47PTOV1.Mod	stVal
	PROT.A47PTOV1.Beh	stVal
Inhibit 47-2		
	PROT.A47PTOV2.Mod	stVal
	PROT.A47PTOV2.Beh	stVal

1.13 Phase U/O Voltage

Reyrolle	DOI	DA Group
27/59-1 Enabled		
	PROT.A2759PTOV1.Mod	stVal
	PROT.A2759PTOV1.Beh	stVal
	PROT.A2759PTUV1.Mod	stVal
	PROT.A2759PTUV1.Beh	stVal
27/59-1 Operated		
	PROT.A2759PTOV1.Op	general

	PROT.A2759PTUV1.Op	general
27/59-1 PhA Pickup		
	PROT.A2759PTOV1.Str	general
	PROT.A2759PTOV1.Str	phsA
	PROT.A2759PTUV1.Str	general
	PROT.A2759PTUV1.Str	phsA
27/59-1 PhB Pickup		
	PROT.A2759PTOV1.Str	general
	PROT.A2759PTOV1.Str	phsB
	PROT.A2759PTUV1.Str	general
	PROT.A2759PTUV1.Str	phsB
27/59-1 PhC Pickup		
	PROT.A2759PTOV1.Str	general
	PROT.A2759PTOV1.Str	phsC
	PROT.A2759PTUV1.Str	general
	PROT.A2759PTUV1.Str	phsC
27/59-2 Enabled		
	PROT.A2759PTOV2.Mod	stVal
	PROT.A2759PTOV2.Beh	stVal
	PROT.A2759PTUV2.Mod	stVal
	PROT.A2759PTUV2.Beh	stVal
27/59-2 Operated		
	PROT.A2759PTOV2.Op	general
	PROT.A2759PTUV2.Op	general
27/59-2 PhA Pickup		
	PROT.A2759PTOV2.Str	general
	PROT.A2759PTOV2.Str	phsA
	PROT.A2759PTUV2.Str	general
	PROT.A2759PTUV2.Str	phsA
27/59-2 PhB Pickup		
	PROT.A2759PTOV2.Str	general
	PROT.A2759PTOV2.Str	phsB
	PROT.A2759PTUV2.Str	general
	PROT.A2759PTUV2.Str	phsB
27/59-2 PhC Pickup		
	PROT.A2759PTOV2.Str	general

	PROT.A2759PTOV2.Str	phsC
	PROT.A2759PTUV2.Str	general
	PROT.A2759PTUV2.Str	phsC
27/59-3 Enabled		
	PROT.A2759PTOV3.Mod	stVal
	PROT.A2759PTOV3.Beh	stVal
	PROT.A2759PTUV3.Mod	stVal
	PROT.A2759PTUV3.Beh	stVal
27/59-3 Operated		
	PROT.A2759PTOV3.Op	general
	PROT.A2759PTUV3.Op	general
27/59-3 PhA Pickup		
	PROT.A2759PTOV3.Str	general
	PROT.A2759PTOV3.Str	phsA
	PROT.A2759PTUV3.Str	general
	PROT.A2759PTUV3.Str	phsA
27/59-3 PhB Pickup		
	PROT.A2759PTOV3.Str	general
	PROT.A2759PTOV3.Str	phsB
	PROT.A2759PTUV3.Str	general
	PROT.A2759PTUV3.Str	phsB
27/59-3 PhC Pickup		
	PROT.A2759PTOV3.Str	general
	PROT.A2759PTOV3.Str	phsC
	PROT.A2759PTUV3.Str	general
	PROT.A2759PTUV3.Str	phsC
27/59-4 Enabled		
	PROT.A2759PTOV4.Mod	stVal
	PROT.A2759PTOV4.Beh	stVal
	PROT.A2759PTUV4.Mod	stVal
	PROT.A2759PTUV4.Beh	stVal
27/59-4 Operated		
	PROT.A2759PTOV4.Op	general
	PROT.A2759PTUV4.Op	general
27/59-4 PhA Pickup		
	PROT.A2759PTOV4.Str	general

	PROT.A2759PTOV4.Str	phsA
	PROT.A2759PTUV4.Str	general
	PROT.A2759PTUV4.Str	phsA
27/59-4 PhB Pickup		
	PROT.A2759PTOV4.Str	general
	PROT.A2759PTOV4.Str	phsB
	PROT.A2759PTUV4.Str	general
	PROT.A2759PTUV4.Str	phsB
27/59-4 PhC Pickup		
	PROT.A2759PTOV4.Str	general
	PROT.A2759PTOV4.Str	phsC
	PROT.A2759PTUV4.Str	general
	PROT.A2759PTUV4.Str	phsC
Inhibit 27/59-1		
	PROT.A2759PTOV1.Mod	stVal
	PROT.A2759PTOV1.Beh	stVal
	PROT.A2759PTUV1.Mod	stVal
	PROT.A2759PTUV1.Beh	stVal
Inhibit 27/59-2		
	PROT.A2759PTOV2.Mod	stVal
	PROT.A2759PTOV2.Beh	stVal
	PROT.A2759PTUV2.Mod	stVal
	PROT.A2759PTUV2.Beh	stVal
Inhibit 27/59-3		
	PROT.A2759PTOV3.Mod	stVal
	PROT.A2759PTOV3.Beh	stVal
	PROT.A2759PTUV3.Mod	stVal
	PROT.A2759PTUV3.Beh	stVal
Inhibit 27/59-4		
	PROT.A2759PTOV4.Mod	stVal
	PROT.A2759PTOV4.Beh	stVal
	PROT.A2759PTUV4.Mod	stVal
	PROT.A2759PTUV4.Beh	stVal

1.14 ROCOF

Reyrolle	DOI	DA Group
81R-1 Enabled		
	PROT.A81rPFRC1.Mod	stVal
	PROT.A81rPFRC1.Beh	stVal
81R-1 Operated		
	PROT.A81rPFRC1.Op	general
81R-1 Pickup		
	PROT.A81rPFRC1.Str	general
81R-2 Enabled		
	PROT.A81rPFRC2.Mod	stVal
	PROT.A81rPFRC2.Beh	stVal
81R-2 Operated		
	PROT.A81rPFRC2.Op	general
81R-2 Pickup		
	PROT.A81rPFRC2.Str	general
81R-3 Enabled		
	PROT.A81rPFRC3.Mod	stVal
	PROT.A81rPFRC3.Beh	stVal
81R-3 Operated		
	PROT.A81rPFRC3.Op	general
81R-3 Pickup		
	PROT.A81rPFRC3.Str	general
81R-4 Enabled		
	PROT.A81rPFRC4.Mod	stVal
	PROT.A81rPFRC4.Beh	stVal
81R-4 Operated		
	PROT.A81rPFRC4.Op	general
81R-4 Pickup		
	PROT.A81rPFRC4.Str	general
81R-5 Enabled		
	PROT.A81rPFRC5.Mod	stVal
	PROT.A81rPFRC5.Beh	stVal
81R-5 Operated		
	PROT.A81rPFRC5.Op	general

81R-5 Pickup		
	PROT.A81rPFRC5.Str	general
81R-6 Enabled		
	PROT.A81rPFRC6.Mod	stVal
	PROT.A81rPFRC6.Beh	stVal
81R-6 Operated		
	PROT.A81rPFRC6.Op	general
81R-6 Pickup		
	PROT.A81rPFRC6.Str	general
Inhibit 81R-1		
	PROT.A81rPFRC1.Mod	stVal
	PROT.A81rPFRC1.Beh	stVal
Inhibit 81R-2		
	PROT.A81rPFRC2.Mod	stVal
	PROT.A81rPFRC2.Beh	stVal
Inhibit 81R-3		
	PROT.A81rPFRC3.Mod	stVal
	PROT.A81rPFRC3.Beh	stVal
Inhibit 81R-4		
	PROT.A81rPFRC4.Mod	stVal
	PROT.A81rPFRC4.Beh	stVal
Inhibit 81R-5		
	PROT.A81rPFRC5.Mod	stVal
	PROT.A81rPFRC5.Beh	stVal
Inhibit 81R-6		
	PROT.A81rPFRC6.Mod	stVal
	PROT.A81rPFRC6.Beh	stVal

1.15 Single Point Controls (Enhanced Security)

Reyrolle	DOI	DA Group
SPDOes 1 Control		
	CTRL.SPDOesGGIO1.SPCSO	Oper.ctlVal
SPDOes 1 Status		
	CTRL.SPDOesGGIO1.SPCSO	stVal
SPDOes 2 Control		

	CTRL.SPDOesGGIO2.SPCSO	Oper.ctlVal
SPDOes 2 Status		
	CTRL.SPDOesGGIO2.SPCSO	stVal
SPDOes 3 Control		
	CTRL.SPDOesGGIO3.SPCSO	Oper.ctlVal
SPDOes 3 Status		
	CTRL.SPDOesGGIO3.SPCSO	stVal
SPDOes 4 Control		
	CTRL.SPDOesGGIO4.SPCSO	Oper.ctlVal
SPDOes 4 Status		
	CTRL.SPDOesGGIO4.SPCSO	stVal

1.16 Single Point Controls (Normal Security)

Reyrolle	DOI	DA Group
SPDOs 1 Control		
	CTRL.SPDOsGGIO1.SPCSO	Oper.ctlVal
SPDOs 1 Status		
	CTRL.SPDOsGGIO1.SPCSO	stVal
SPDOs 2 Control		
	CTRL.SPDOsGGIO2.SPCSO	Oper.ctlVal
SPDOs 2 Status		
	CTRL.SPDOsGGIO2.SPCSO	stVal
SPDOs 3 Control		
	CTRL.SPDOsGGIO3.SPCSO	Oper.ctlVal
SPDOs 3 Status		
	CTRL.SPDOsGGIO3.SPCSO	stVal
SPDOs 4 Control		
	CTRL.SPDOsGGIO4.SPCSO	Oper.ctlVal
SPDOs 4 Status		
	CTRL.SPDOsGGIO4.SPCSO	stVal

1.17 Single Point Inputs

Reyrolle	DOI	DA Group
----------	-----	----------

SPi64GGIO1 SPCSO 1		
	CTRL.SPi64GGIO1.SPCSO1	ctlVal
SPi64GGIO1 SPCSO 10		
	CTRL.SPi64GGIO1.SPCSO10	ctlVal
SPi64GGIO1 SPCSO 11		
	CTRL.SPi64GGIO1.SPCSO11	ctlVal
SPi64GGIO1 SPCSO 12		
	CTRL.SPi64GGIO1.SPCSO12	ctlVal
SPi64GGIO1 SPCSO 13		
	CTRL.SPi64GGIO1.SPCSO13	ctlVal
SPi64GGIO1 SPCSO 14		
	CTRL.SPi64GGIO1.SPCSO14	ctlVal
SPi64GGIO1 SPCSO 15		
	CTRL.SPi64GGIO1.SPCSO15	ctlVal
SPi64GGIO1 SPCSO 16		
	CTRL.SPi64GGIO1.SPCSO16	ctlVal
SPi64GGIO1 SPCSO 17		
	CTRL.SPi64GGIO1.SPCSO17	ctlVal
SPi64GGIO1 SPCSO 18		
	CTRL.SPi64GGIO1.SPCSO18	ctlVal
SPi64GGIO1 SPCSO 19		
	CTRL.SPi64GGIO1.SPCSO19	ctlVal
SPi64GGIO1 SPCSO 2		
	CTRL.SPi64GGIO1.SPCSO2	ctlVal
SPi64GGIO1 SPCSO 20		
	CTRL.SPi64GGIO1.SPCSO20	ctlVal
SPi64GGIO1 SPCSO 21		
	CTRL.SPi64GGIO1.SPCSO21	ctlVal
SPi64GGIO1 SPCSO 22		
	CTRL.SPi64GGIO1.SPCSO22	ctlVal
SPi64GGIO1 SPCSO 23		
	CTRL.SPi64GGIO1.SPCSO23	ctlVal
SPi64GGIO1 SPCSO 24		
	CTRL.SPi64GGIO1.SPCSO24	ctlVal
SPi64GGIO1 SPCSO 25		
	CTRL.SPi64GGIO1.SPCSO25	ctlVal

SPi64GGIO1 SPCSO 26		
	CTRL.SPi64GGIO1.SPCSO26	ctlVal
SPi64GGIO1 SPCSO 27		
	CTRL.SPi64GGIO1.SPCSO27	ctlVal
SPi64GGIO1 SPCSO 28		
	CTRL.SPi64GGIO1.SPCSO28	ctlVal
SPi64GGIO1 SPCSO 29		
	CTRL.SPi64GGIO1.SPCSO29	ctlVal
SPi64GGIO1 SPCSO 3		
	CTRL.SPi64GGIO1.SPCSO3	ctlVal
SPi64GGIO1 SPCSO 30		
	CTRL.SPi64GGIO1.SPCSO30	ctlVal
SPi64GGIO1 SPCSO 31		
	CTRL.SPi64GGIO1.SPCSO31	ctlVal
SPi64GGIO1 SPCSO 32		
	CTRL.SPi64GGIO1.SPCSO32	ctlVal
SPi64GGIO1 SPCSO 33		
	CTRL.SPi64GGIO1.SPCSO33	ctlVal
SPi64GGIO1 SPCSO 34		
	CTRL.SPi64GGIO1.SPCSO34	ctlVal
SPi64GGIO1 SPCSO 35		
	CTRL.SPi64GGIO1.SPCSO35	ctlVal
SPi64GGIO1 SPCSO 36		
	CTRL.SPi64GGIO1.SPCSO36	ctlVal
SPi64GGIO1 SPCSO 37		
	CTRL.SPi64GGIO1.SPCSO37	ctlVal
SPi64GGIO1 SPCSO 38		
	CTRL.SPi64GGIO1.SPCSO38	ctlVal
SPi64GGIO1 SPCSO 39		
	CTRL.SPi64GGIO1.SPCSO39	ctlVal
SPi64GGIO1 SPCSO 4		
	CTRL.SPi64GGIO1.SPCSO4	ctlVal
SPi64GGIO1 SPCSO 40		
	CTRL.SPi64GGIO1.SPCSO40	ctlVal
SPi64GGIO1 SPCSO 41		
	CTRL.SPi64GGIO1.SPCSO41	ctlVal

SPi64GGIO1 SPCSO 42		
	CTRL.SPi64GGIO1.SPCSO42	ctlVal
SPi64GGIO1 SPCSO 43		
	CTRL.SPi64GGIO1.SPCSO43	ctlVal
SPi64GGIO1 SPCSO 44		
	CTRL.SPi64GGIO1.SPCSO44	ctlVal
SPi64GGIO1 SPCSO 45		
	CTRL.SPi64GGIO1.SPCSO45	ctlVal
SPi64GGIO1 SPCSO 46		
	CTRL.SPi64GGIO1.SPCSO46	ctlVal
SPi64GGIO1 SPCSO 47		
	CTRL.SPi64GGIO1.SPCSO47	ctlVal
SPi64GGIO1 SPCSO 48		
	CTRL.SPi64GGIO1.SPCSO48	ctlVal
SPi64GGIO1 SPCSO 49		
	CTRL.SPi64GGIO1.SPCSO49	ctlVal
SPi64GGIO1 SPCSO 5		
	CTRL.SPi64GGIO1.SPCSO5	ctlVal
SPi64GGIO1 SPCSO 50		
	CTRL.SPi64GGIO1.SPCSO50	ctlVal
SPi64GGIO1 SPCSO 51		
	CTRL.SPi64GGIO1.SPCSO51	ctlVal
SPi64GGIO1 SPCSO 52		
	CTRL.SPi64GGIO1.SPCSO52	ctlVal
SPi64GGIO1 SPCSO 53		
	CTRL.SPi64GGIO1.SPCSO53	ctlVal
SPi64GGIO1 SPCSO 54		
	CTRL.SPi64GGIO1.SPCSO54	ctlVal
SPi64GGIO1 SPCSO 55		
	CTRL.SPi64GGIO1.SPCSO55	ctlVal
SPi64GGIO1 SPCSO 56		
	CTRL.SPi64GGIO1.SPCSO56	ctlVal
SPi64GGIO1 SPCSO 57		
	CTRL.SPi64GGIO1.SPCSO57	ctlVal
SPi64GGIO1 SPCSO 58		
	CTRL.SPi64GGIO1.SPCSO58	ctlVal

SPi64GGIO1 SPCSO 59		
	CTRL.SPi64GGIO1.SPCSO59	ctlVal
SPi64GGIO1 SPCSO 6		
	CTRL.SPi64GGIO1.SPCSO6	ctlVal
SPi64GGIO1 SPCSO 60		
	CTRL.SPi64GGIO1.SPCSO60	ctlVal
SPi64GGIO1 SPCSO 61		
	CTRL.SPi64GGIO1.SPCSO61	ctlVal
SPi64GGIO1 SPCSO 62		
	CTRL.SPi64GGIO1.SPCSO62	ctlVal
SPi64GGIO1 SPCSO 63		
	CTRL.SPi64GGIO1.SPCSO63	ctlVal
SPi64GGIO1 SPCSO 64		
	CTRL.SPi64GGIO1.SPCSO64	ctlVal
SPi64GGIO1 SPCSO 7		
	CTRL.SPi64GGIO1.SPCSO7	ctlVal
SPi64GGIO1 SPCSO 8		
	CTRL.SPi64GGIO1.SPCSO8	ctlVal
SPi64GGIO1 SPCSO 9		
	CTRL.SPi64GGIO1.SPCSO9	ctlVal

1.18 Single Point Outputs

Reyrolle	DOI	DA Group
SPo32GGIO1 Ind 1		
	CTRL.SPo32GGIO1.Ind1	stVal
SPo32GGIO1 Ind 10		
	CTRL.SPo32GGIO1.Ind10	stVal
SPo32GGIO1 Ind 11		
	CTRL.SPo32GGIO1.Ind11	stVal
SPo32GGIO1 Ind 12		
	CTRL.SPo32GGIO1.Ind12	stVal
SPo32GGIO1 Ind 13		
	CTRL.SPo32GGIO1.Ind13	stVal
SPo32GGIO1 Ind 14		
	CTRL.SPo32GGIO1.Ind14	stVal

SPo32GGIO1 Ind 15		
	CTRL.SPo32GGIO1.Ind15	stVal
SPo32GGIO1 Ind 16		
	CTRL.SPo32GGIO1.Ind16	stVal
SPo32GGIO1 Ind 17		
	CTRL.SPo32GGIO1.Ind17	stVal
SPo32GGIO1 Ind 18		
	CTRL.SPo32GGIO1.Ind18	stVal
SPo32GGIO1 Ind 19		
	CTRL.SPo32GGIO1.Ind19	stVal
SPo32GGIO1 Ind 2		
	CTRL.SPo32GGIO1.Ind2	stVal
SPo32GGIO1 Ind 20		
	CTRL.SPo32GGIO1.Ind20	stVal
SPo32GGIO1 Ind 21		
	CTRL.SPo32GGIO1.Ind21	stVal
SPo32GGIO1 Ind 22		
	CTRL.SPo32GGIO1.Ind22	stVal
SPo32GGIO1 Ind 23		
	CTRL.SPo32GGIO1.Ind23	stVal
SPo32GGIO1 Ind 24		
	CTRL.SPo32GGIO1.Ind24	stVal
SPo32GGIO1 Ind 25		
	CTRL.SPo32GGIO1.Ind25	stVal
SPo32GGIO1 Ind 26		
	CTRL.SPo32GGIO1.Ind26	stVal
SPo32GGIO1 Ind 27		
	CTRL.SPo32GGIO1.Ind27	stVal
SPo32GGIO1 Ind 28		
	CTRL.SPo32GGIO1.Ind28	stVal
SPo32GGIO1 Ind 29		
	CTRL.SPo32GGIO1.Ind29	stVal
SPo32GGIO1 Ind 3		
	CTRL.SPo32GGIO1.Ind3	stVal
SPo32GGIO1 Ind 30		
	CTRL.SPo32GGIO1.Ind30	stVal

SPo32GGIO1 Ind 31		
	CTRL.SPo32GGIO1.Ind31	stVal
SPo32GGIO1 Ind 32		
	CTRL.SPo32GGIO1.Ind32	stVal
SPo32GGIO1 Ind 4		
	CTRL.SPo32GGIO1.Ind4	stVal
SPo32GGIO1 Ind 5		
	CTRL.SPo32GGIO1.Ind5	stVal
SPo32GGIO1 Ind 6		
	CTRL.SPo32GGIO1.Ind6	stVal
SPo32GGIO1 Ind 7		
	CTRL.SPo32GGIO1.Ind7	stVal
SPo32GGIO1 Ind 8		
	CTRL.SPo32GGIO1.Ind8	stVal
SPo32GGIO1 Ind 9		
	CTRL.SPo32GGIO1.Ind9	stVal

1.19 U/O Frequency

Reyrolle	DOI	DA Group
81-1 Enabled		
	PROT.A81PTOF1.Mod	stVal
	PROT.A81PTOF1.Beh	stVal
	PROT.A81PTUF1.Mod	stVal
	PROT.A81PTUF1.Beh	stVal
81-1 Operated		
	PROT.A81PTOF1.Op	general
	PROT.A81PTUF1.Op	general
81-1 Pickup		
	PROT.A81PTOF1.Str	general
	PROT.A81PTUF1.Str	general
81-2 Enabled		
	PROT.A81PTOF2.Mod	stVal
	PROT.A81PTOF2.Beh	stVal
	PROT.A81PTUF2.Mod	stVal
	PROT.A81PTUF2.Beh	stVal

81-2 Operated		
	PROT.A81PTOF2.Op	general
	PROT.A81PTUF2.Op	general
81-2 Pickup		
	PROT.A81PTOF2.Str	general
	PROT.A81PTUF2.Str	general
81-3 Enabled		
	PROT.A81PTOF3.Mod	stVal
	PROT.A81PTOF3.Beh	stVal
	PROT.A81PTUF3.Mod	stVal
	PROT.A81PTUF3.Beh	stVal
81-3 Operated		
	PROT.A81PTOF3.Op	general
	PROT.A81PTUF3.Op	general
81-3 Pickup		
	PROT.A81PTOF3.Str	general
	PROT.A81PTUF3.Str	general
81-4 Enabled		
	PROT.A81PTOF4.Mod	stVal
	PROT.A81PTOF4.Beh	stVal
	PROT.A81PTUF4.Mod	stVal
	PROT.A81PTUF4.Beh	stVal
81-4 Operated		
	PROT.A81PTOF4.Op	general
	PROT.A81PTUF4.Op	general
81-4 Pickup		
	PROT.A81PTOF4.Str	general
	PROT.A81PTUF4.Str	general
81-5 Enabled		
	PROT.A81PTOF5.Mod	stVal
	PROT.A81PTOF5.Beh	stVal
	PROT.A81PTUF5.Mod	stVal
	PROT.A81PTUF5.Beh	stVal
81-5 Operated		
	PROT.A81PTOF5.Op	general
	PROT.A81PTUF5.Op	general

81-5 Pickup		
	PROT.A81PTOF5.Str	general
	PROT.A81PTUF5.Str	general
81-6 Enabled		
	PROT.A81PTOF6.Mod	stVal
	PROT.A81PTOF6.Beh	stVal
	PROT.A81PTUF6.Mod	stVal
	PROT.A81PTUF6.Beh	stVal
81-6 Operated		
	PROT.A81PTOF6.Op	general
	PROT.A81PTUF6.Op	general
81-6 Pickup		
	PROT.A81PTOF6.Str	general
	PROT.A81PTUF6.Str	general
Inhibit 81-1		
	PROT.A81PTOF1.Mod	stVal
	PROT.A81PTOF1.Beh	stVal
	PROT.A81PTUF1.Mod	stVal
	PROT.A81PTUF1.Beh	stVal
Inhibit 81-2		
	PROT.A81PTOF2.Mod	stVal
	PROT.A81PTOF2.Beh	stVal
	PROT.A81PTUF2.Mod	stVal
	PROT.A81PTUF2.Beh	stVal
Inhibit 81-3		
	PROT.A81PTOF3.Mod	stVal
	PROT.A81PTOF3.Beh	stVal
	PROT.A81PTUF3.Mod	stVal
	PROT.A81PTUF3.Beh	stVal
Inhibit 81-4		
	PROT.A81PTOF4.Mod	stVal
	PROT.A81PTOF4.Beh	stVal
	PROT.A81PTUF4.Mod	stVal
	PROT.A81PTUF4.Beh	stVal
Inhibit 81-5		
	PROT.A81PTOF5.Mod	stVal

	PROT.A81PTOF5.Beh	stVal
	PROT.A81PTUF5.Mod	stVal
	PROT.A81PTUF5.Beh	stVal
Inhibit 81-6		
	PROT.A81PTOF6.Mod	stVal
	PROT.A81PTOF6.Beh	stVal
	PROT.A81PTUF6.Mod	stVal
	PROT.A81PTUF6.Beh	stVal

1.20 VectorShift

Reyrolle	DOI	DA Group
78-1 Enabled		
	PROT.A78PPAM1.Mod	stVal
	PROT.A78PPAM1.Beh	stVal
	PROT.A78PPAM2.Mod	stVal
	PROT.A78PPAM2.Beh	stVal
78-1 Operated		
	PROT.A78PPAM1.Op	general
	PROT.A78PPAM2.Op	general
Inhibit 78-1		
	PROT.A78PPAM1.Mod	stVal
	PROT.A78PPAM1.Beh	stVal
	PROT.A78PPAM2.Mod	stVal
	PROT.A78PPAM2.Beh	stVal

1.21 Voltage Meters

Reyrolle	DOI	DA Group
Sequence Components V Seq NPS		
	MEAS.V_MSQI1.SeqV	c2.instCVal.mag.f
	MEAS.V_MSQI1.SeqV	c2.cVal.mag.f
	MEAS.V_MSQI1.SeqV	c2.units.SIUnit
	MEAS.V_MSQI1.SeqV	c2.units.multiplier
Sequence Components V Seq		

PPS		
	MEAS.V_MSQ11.SeqV	c1.instCVal.mag.f
	MEAS.V_MSQ11.SeqV	c1.cVal.mag.f
	MEAS.V_MSQ11.SeqV	c1.units.SIUnit
	MEAS.V_MSQ11.SeqV	c1.units.multiplier
Sequence Components V Seq ZPS		
	MEAS.V_MSQ11.SeqV	c3.instCVal.mag.f
	MEAS.V_MSQ11.SeqV	c3.cVal.mag.f
	MEAS.V_MSQ11.SeqV	c3.units.SIUnit
	MEAS.V_MSQ11.SeqV	c3.units.multiplier

2 IEC 61850 -> Reyrolle

2.1 PROT

2.1.1 A2759PTOV1

Beh		
	stVal	Out of Service
		Inhibit 27/59-1
		27/59-1 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-1
		27/59-1 Enabled
Op		
	general	27/59-1 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-1 PhA Pickup
		27/59-1 PhB Pickup
		27/59-1 PhC Pickup
	phsA	27/59-1 PhA Pickup
	phsB	27/59-1 PhB Pickup
	phsC	27/59-1 PhC Pickup

2.1.2 A2759PTOV2

Beh		
	stVal	Out of Service
		Inhibit 27/59-2
		27/59-2 Enabled
Health		
	stVal	Protection Healthy

Mod		
	stVal	Inhibit 27/59-2
		27/59-2 Enabled
Op		
	general	27/59-2 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-2 PhA Pickup
		27/59-2 PhB Pickup
		27/59-2 PhC Pickup
	phsA	27/59-2 PhA Pickup
	phsB	27/59-2 PhB Pickup
	phsC	27/59-2 PhC Pickup

2.1.3 A2759PTOV3

Beh		
	stVal	Out of Service
		Inhibit 27/59-3
		27/59-3 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-3
		27/59-3 Enabled
Op		
	general	27/59-3 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-3 PhA Pickup
		27/59-3 PhB Pickup

		27/59-3 PhC Pickup
	phsA	27/59-3 PhA Pickup
	phsB	27/59-3 PhB Pickup
	phsC	27/59-3 PhC Pickup

2.1.4 A2759PTOV4

Beh		
	stVal	Out of Service
		Inhibit 27/59-4
		27/59-4 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-4
		27/59-4 Enabled
Op		
	general	27/59-4 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-4 PhA Pickup
		27/59-4 PhB Pickup
		27/59-4 PhC Pickup
	phsA	27/59-4 PhA Pickup
	phsB	27/59-4 PhB Pickup
	phsC	27/59-4 PhC Pickup

2.1.5 A2759PTUV1

Beh		
	stVal	Out of Service
		Inhibit 27/59-1
		27/59-1 Enabled
Health		

	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-1
		27/59-1 Enabled
Op		
	general	27/59-1 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-1 PhA Pickup
		27/59-1 PhB Pickup
		27/59-1 PhC Pickup
	phsA	27/59-1 PhA Pickup
	phsB	27/59-1 PhB Pickup
	phsC	27/59-1 PhC Pickup

2.1.6 A2759PTUV2

Beh		
	stVal	Out of Service
		Inhibit 27/59-2
		27/59-2 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-2
		27/59-2 Enabled
Op		
	general	27/59-2 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-2 PhA Pickup

		27/59-2 PhB Pickup
		27/59-2 PhC Pickup
	phsA	27/59-2 PhA Pickup
	phsB	27/59-2 PhB Pickup
	phsC	27/59-2 PhC Pickup

2.1.7 A2759PTUV3

Beh		
	stVal	Out of Service
		Inhibit 27/59-3
		27/59-3 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-3
		27/59-3 Enabled
Op		
	general	27/59-3 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-3 PhA Pickup
		27/59-3 PhB Pickup
		27/59-3 PhC Pickup
	phsA	27/59-3 PhA Pickup
	phsB	27/59-3 PhB Pickup
	phsC	27/59-3 PhC Pickup

2.1.8 A2759PTUV4

Beh		
	stVal	Out of Service
		Inhibit 27/59-4
		27/59-4 Enabled

Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 27/59-4
		27/59-4 Enabled
Op		
	general	27/59-4 Operated
Str		
	dirGeneral	Non-Directional
	dirPhsA	Non-Directional
	dirPhsB	Non-Directional
	dirPhsC	Non-Directional
	general	27/59-4 PhA Pickup
		27/59-4 PhB Pickup
		27/59-4 PhC Pickup
	phsA	27/59-4 PhA Pickup
	phsB	27/59-4 PhB Pickup
	phsC	27/59-4 PhC Pickup

2.1.9 A47PTOV1

Beh		
	stVal	Out of Service
		Inhibit 47-1
		47-1 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 47-1
		47-1 Enabled
Op		
	general	47-1 Operated
Str		
	dirGeneral	Non-Directional
	general	47-1 Pickup

2.1.10 A47PTOV2

Beh		
	stVal	Out of Service
		Inhibit 47-2
		47-2 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 47-2
		47-2 Enabled
Op		
	general	47-2 Operated
Str		
	dirGeneral	Non-Directional
	general	47-2 Pickup

2.1.11 A59nDtPTOV1

Beh		
	stVal	Out of Service
		Inhibit 59NDT
		59NDT Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 59NDT
		59NDT Enabled
Op		
	general	59NDT Operated
Str		
	dirGeneral	Non-Directional
	general	59NDT Pickup

2.1.12 A59nltPTOV1

Beh		
	stVal	Out of Service

		Inhibit 59NIT
		59NIT Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 59NIT
		59NIT Enabled
Op		
	general	59NIT Operated
Str		
	general	59NIT Pickup

2.1.13 A78PPAM1

Beh		
	stVal	Out of Service
		Inhibit 78-1
		78-1 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 78-1
		78-1 Enabled
Op		
	general	78-1 Operated

2.1.14 A78PPAM2

Beh		
	stVal	Out of Service
		Inhibit 78-1
		78-1 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 78-1
		78-1 Enabled

Op		
	general	78-1 Operated

2.1.15 A81PTOF1

Beh		
	stVal	Out of Service
		Inhibit 81-1
		81-1 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-1
		81-1 Enabled
Op		
	general	81-1 Operated
Str		
	dirGeneral	Non-Directional
	general	81-1 Pickup

2.1.16 A81PTOF2

Beh		
	stVal	Out of Service
		Inhibit 81-2
		81-2 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-2
		81-2 Enabled
Op		
	general	81-2 Operated
Str		
	dirGeneral	Non-Directional
	general	81-2 Pickup

2.1.17 A81PTOF3

Beh		
	stVal	Out of Service
		Inhibit 81-3
		81-3 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-3
		81-3 Enabled
Op		
	general	81-3 Operated
Str		
	dirGeneral	Non-Directional
	general	81-3 Pickup

2.1.18 A81PTOF4

Beh		
	stVal	Out of Service
		Inhibit 81-4
		81-4 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-4
		81-4 Enabled
Op		
	general	81-4 Operated
Str		
	dirGeneral	Non-Directional
	general	81-4 Pickup

2.1.19 A81PTOF5

Beh		
	stVal	Out of Service

		Inhibit 81-5
		81-5 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-5
		81-5 Enabled
Op		
	general	81-5 Operated
Str		
	dirGeneral	Non-Directional
	general	81-5 Pickup

2.1.20 A81PTOF6

Beh		
	stVal	Out of Service
		Inhibit 81-6
		81-6 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-6
		81-6 Enabled
Op		
	general	81-6 Operated
Str		
	dirGeneral	Non-Directional
	general	81-6 Pickup

2.1.21 A81PTUF1

Beh		
	stVal	Out of Service
		Inhibit 81-1
		81-1 Enabled
Health		

	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-1
		81-1 Enabled
Op		
	general	81-1 Operated
Str		
	dirGeneral	Non-Directional
	general	81-1 Pickup

2.1.22 A81PTUF2

Beh		
	stVal	Out of Service
		Inhibit 81-2
		81-2 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-2
		81-2 Enabled
Op		
	general	81-2 Operated
Str		
	dirGeneral	Non-Directional
	general	81-2 Pickup

2.1.23 A81PTUF3

Beh		
	stVal	Out of Service
		Inhibit 81-3
		81-3 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-3

		81-3 Enabled
Op		
	general	81-3 Operated
Str		
	dirGeneral	Non-Directional
	general	81-3 Pickup

2.1.24 A81PTUF4

Beh		
	stVal	Out of Service
		Inhibit 81-4
		81-4 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-4
		81-4 Enabled
Op		
	general	81-4 Operated
Str		
	dirGeneral	Non-Directional
	general	81-4 Pickup

2.1.25 A81PTUF5

Beh		
	stVal	Out of Service
		Inhibit 81-5
		81-5 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-5
		81-5 Enabled
Op		
	general	81-5 Operated

Str		
	dirGeneral	Non-Directional
	general	81-5 Pickup

2.1.26 A81PTUF6

Beh		
	stVal	Out of Service
		Inhibit 81-6
		81-6 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81-6
		81-6 Enabled
Op		
	general	81-6 Operated
Str		
	dirGeneral	Non-Directional
	general	81-6 Pickup

2.1.27 A81rPFRC1

Beh		
	stVal	Out of Service
		Inhibit 81R-1
		81R-1 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81R-1
		81R-1 Enabled
Op		
	general	81R-1 Operated
Str		
	dirGeneral	Non-Directional
	general	81R-1 Pickup

--	--	--

2.1.28 A81rPFRC2

Beh		
	stVal	Out of Service
		Inhibit 81R-2
		81R-2 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81R-2
		81R-2 Enabled
Op		
	general	81R-2 Operated
Str		
	dirGeneral	Non-Directional
	general	81R-2 Pickup

2.1.29 A81rPFRC3

Beh		
	stVal	Out of Service
		Inhibit 81R-3
		81R-3 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81R-3
		81R-3 Enabled
Op		
	general	81R-3 Operated
Str		
	dirGeneral	Non-Directional
	general	81R-3 Pickup

2.1.30 A81rPFRC4

Beh		
-----	--	--

	stVal	Out of Service
		Inhibit 81R-4
		81R-4 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81R-4
		81R-4 Enabled
Op		
	general	81R-4 Operated
Str		
	dirGeneral	Non-Directional
	general	81R-4 Pickup

2.1.31 A81rPFRC5

Beh		
	stVal	Out of Service
		Inhibit 81R-5
		81R-5 Enabled
Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81R-5
		81R-5 Enabled
Op		
	general	81R-5 Operated
Str		
	dirGeneral	Non-Directional
	general	81R-5 Pickup

2.1.32 A81rPFRC6

Beh		
	stVal	Out of Service
		Inhibit 81R-6
		81R-6 Enabled

Health		
	stVal	Protection Healthy
Mod		
	stVal	Inhibit 81R-6
		81R-6 Enabled
Op		
	general	81R-6 Operated
Str		
	dirGeneral	Non-Directional
	general	81R-6 Pickup

2.1.33 CntDelGGIO1

Beh		
	stVal	CB Delta Trip Count Enabled
		Out of Service
Health		
	stVal	Protection Healthy
ISCSO1		
	stVal	CB Delta Trip Count
ISCSO2		
	stVal	CB Delta Trip Count Target
Loc		
	stVal	Local Mode
Mod		
	stVal	CB Delta Trip Count Enabled
SPCSO		
	stVal	CB Delta Trip Count Operated

2.1.34 LLN0

Beh		
	stVal	Protection Active
		Out of Service
Health		
	stVal	Protection Healthy
Mod		

	stVal	Protection Active
		Out of Service
NamPlt		
	swRev	Software Revision
	vendor	Vendor Name
SGCB		
	ActSG	Active Setting Group 1
		Active Setting Group 2
		Active Setting Group 3
		Active Setting Group 4
	LActTm	Active Setting Group 1
		Active Setting Group 2
		Active Setting Group 3
		Active Setting Group 4
	NumOfSG	Number of 61850 Controllable Setting Groups

2.1.35 PTRC1

Beh		
	stVal	Protection Active
		Out of Service
Health		
	stVal	Protection Healthy
Mod		
	stVal	Protection Active
Op		
	general	General Operate
OpCntRs		
	Oper.ctlVal	Set CB Trip Count
	stVal	CB Trip Count
Str		
	dirGeneral	Non-Directional
	general	General Pickup
Tr		
	general	CB Trip

2.2 MEAS

2.2.1 LLN0

Beh		
	stVal	Protection Healthy
		Out of Service
Health		
	stVal	Protection Healthy
Mod		
	stVal	Protection Healthy
		Out of Service
NamPlt		
	swRev	Software Revision
	vendor	Vendor Name

2.2.2 MMXU1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Hz		
	mag.f	Frequency(F)
PhV		
	phsA.cVal.mag.f	Va
	phsB.cVal.mag.f	Vb
	phsC.cVal.mag.f	Vc
	res.cVal.mag.f	Calculated Earth Voltage (Vn)
PPV		
	phsAB.cVal.mag.f	Vab
	phsBC.cVal.mag.f	Vbc
	phsCA.cVal.mag.f	Vca

2.2.3 V_MSQI1

Beh		
	stVal	Out of Service

Health		
	stVal	Protection Healthy
SeqV		
	c1.cVal.mag.f	Sequence Components V Seq PPS
	c1.instCVal.mag.f	Sequence Components V Seq PPS
	c1.units.multiplier	Sequence Components V Seq PPS
	c1.units.SIUnit	Sequence Components V Seq PPS
	c2.cVal.mag.f	Sequence Components V Seq NPS
	c2.instCVal.mag.f	Sequence Components V Seq NPS
	c2.units.multiplier	Sequence Components V Seq NPS
	c2.units.SIUnit	Sequence Components V Seq NPS
	c3.cVal.mag.f	Sequence Components V Seq ZPS
	c3.instCVal.mag.f	Sequence Components V Seq ZPS
	c3.units.multiplier	Sequence Components V Seq ZPS
	c3.units.SIUnit	Sequence Components V Seq ZPS

2.3 DR

2.3.1 LLN0

Beh		
	stVal	Protection Healthy
		Out of Service
Health		
	stVal	Protection Healthy
Mod		
	stVal	Protection Healthy
		Out of Service
NamPlt		

	swRev	Software Revision
	vendor	Vendor Name

2.3.2 RDRE1

Beh		
	stVal	Protection Healthy
		Out of Service
FltNum		
	stVal	Fault Number
GriFltNum		
	stVal	Grid Fault Number
Health		
	stVal	Protection Healthy
Mod		
	stVal	Protection Healthy
RcdMade		
	stVal	Recording Made

2.4 CTRL

2.4.1 BI6GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Ind1		
	stVal	1
Ind2		
	stVal	2
Ind3		
	stVal	3
Ind4		
	stVal	4
Ind5		
	stVal	5

Ind6		
	stVal	6

2.4.2 BO8GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Ind1		
	stVal	1
Ind2		
	stVal	2
Ind3		
	stVal	3
Ind4		
	stVal	4
Ind5		
	stVal	5
Ind6		
	stVal	6
Ind7		
	stVal	7
Ind8		
	stVal	8

2.4.3 DPDOesGGIO1

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOes 1 Control
	stVal	DPDOes 1 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

--	--	--

2.4.4 DPDOesGGIO2

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOes 2 Control
	stVal	DPDOes 2 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.5 DPDOesGGIO3

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOes 3 Control
	stVal	DPDOes 3 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.6 DPDOesGGIO4

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOes 4 Control
	stVal	DPDOes 4 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.7 DPDOsGGIO1

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOs 1 Control
	stVal	DPDOs 1 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.8 DPDOsGGIO2

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOs 2 Control
	stVal	DPDOs 2 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.9 DPDOsGGIO3

Beh		
	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOs 3 Control
	stVal	DPDOs 3 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.10 DPDOsGGIO4

Beh		
-----	--	--

	stVal	Out of Service
DPCSO		
	Oper.ctlVal	DPDOs 4 Control
	stVal	DPDOs 4 Status
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

2.4.11 DPi8GGIO1

Beh		
	stVal	Out of Service
DPCSO1		
	ctlVal	DPi8GGIO1 DPCSO 1
DPCSO2		
	ctlVal	DPi8GGIO1 DPCSO 2
DPCSO3		
	ctlVal	DPi8GGIO1 DPCSO 3
DPCSO4		
	ctlVal	DPi8GGIO1 DPCSO 4
DPCSO5		
	ctlVal	DPi8GGIO1 DPCSO 5
DPCSO6		
	ctlVal	DPi8GGIO1 DPCSO 6
DPCSO7		
	ctlVal	DPi8GGIO1 DPCSO 7
DPCSO8		
	ctlVal	DPi8GGIO1 DPCSO 8
Health		
	stVal	Protection Healthy

2.4.12 DPi8GGIO2

Beh		
	stVal	Out of Service
DPCSO1		

	ctlVal	DPI8GGIO2 DPCSO 1
DPCSO2		
	ctlVal	DPI8GGIO2 DPCSO 2
DPCSO3		
	ctlVal	DPI8GGIO2 DPCSO 3
DPCSO4		
	ctlVal	DPI8GGIO2 DPCSO 4
DPCSO5		
	ctlVal	DPI8GGIO2 DPCSO 5
DPCSO6		
	ctlVal	DPI8GGIO2 DPCSO 6
DPCSO7		
	ctlVal	DPI8GGIO2 DPCSO 7
DPCSO8		
	ctlVal	DPI8GGIO2 DPCSO 8
Health		
	stVal	Protection Healthy

2.4.13 DPo8GGIO1

Beh		
	stVal	Out of Service
DPCSO1		
	stVal	DPo8GGIO1 Ind 1
DPCSO2		
	stVal	DPo8GGIO1 Ind 2
DPCSO3		
	stVal	DPo8GGIO1 Ind 3
DPCSO4		
	stVal	DPo8GGIO1 Ind 4
DPCSO5		
	stVal	DPo8GGIO1 Ind 5
DPCSO6		
	stVal	DPo8GGIO1 Ind 6
DPCSO7		
	stVal	DPo8GGIO1 Ind 7
DPCSO8		

	stVal	DPo8GGIO1 Ind 8
Health		
	stVal	Protection Healthy

2.4.14 DPo8GGIO2

Beh		
	stVal	Out of Service
DPCSO1		
	stVal	DPo8GGIO2 Ind 1
DPCSO2		
	stVal	DPo8GGIO2 Ind 2
DPCSO3		
	stVal	DPo8GGIO2 Ind 3
DPCSO4		
	stVal	DPo8GGIO2 Ind 4
DPCSO5		
	stVal	DPo8GGIO2 Ind 5
DPCSO6		
	stVal	DPo8GGIO2 Ind 6
DPCSO7		
	stVal	DPo8GGIO2 Ind 7
DPCSO8		
	stVal	DPo8GGIO2 Ind 8
Health		
	stVal	Protection Healthy

2.4.15 E4GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Ind1		
	stVal	1
Ind2		
	stVal	2

Ind3		
	stVal	3
Ind4		
	stVal	4

2.4.16 L9GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Ind1		
	stVal	1
Ind2		
	stVal	2
Ind3		
	stVal	3
Ind4		
	stVal	4
Ind5		
	stVal	5
Ind6		
	stVal	6
Ind7		
	stVal	7
Ind8		
	stVal	8
Ind9		
	stVal	9

2.4.17 LLN0

Beh		
	stVal	Out of Service
		Protection Healthy
Health		
	stVal	Protection Healthy

LEDRs		
	stVal	LED Reset
Loc		
	stVal	Local Mode
Mod		
	stVal	Out of Service
		Protection Healthy
NamPlt		
	swRev	Software Revision
	vendor	Vendor Name

2.4.18 Q0CILO1

Beh		
	stVal	Out of Service
EnaCls		
	stVal	Not Close Block
EnaOpn		
	stVal	Not Open Block
Health		
	stVal	Protection Healthy

2.4.19 Q0CSWI1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
Pos		
	Oper.ctlVal	
	stVal	

2.4.20 Q0XCBR1

Beh		
	stVal	Out of Service

BlkCls		
	stVal	Close Block
BlkOpn		
	stVal	Open Block
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
OpCnt		
	stVal	CB Operations Counter
Pos		
	stVal	
SumSwARs1		
	actVal	CB Wear PhA
SumSwARs2		
	actVal	CB Wear PhB
SumSwARs3		
	actVal	CB Wear PhC

2.4.21 SPDOesGGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOes 1 Control
	stVal	SPDOes 1 Status

2.4.22 SPDOesGGIO2

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy

Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOes 2 Control
	stVal	SPDOes 2 Status

2.4.23 SPDOesGGIO3

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOes 3 Control
	stVal	SPDOes 3 Status

2.4.24 SPDOesGGIO4

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOes 4 Control
	stVal	SPDOes 4 Status

2.4.25 SPDOsGGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode

SPCSO		
	Oper.ctlVal	SPDOs 1 Control
	stVal	SPDOs 1 Status

2.4.26 SPDOsGGIO2

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOs 2 Control
	stVal	SPDOs 2 Status

2.4.27 SPDOsGGIO3

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOs 3 Control
	stVal	SPDOs 3 Status

2.4.28 SPDOsGGIO4

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Loc		
	stVal	Local Mode
SPCSO		
	Oper.ctlVal	SPDOs 4 Control

	stVal	SPDOs 4 Status

2.4.29 SPi64GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
SPCSO1		
	ctlVal	SPi64GGIO1 SPCSO 1
SPCSO10		
	ctlVal	SPi64GGIO1 SPCSO 10
SPCSO11		
	ctlVal	SPi64GGIO1 SPCSO 11
SPCSO12		
	ctlVal	SPi64GGIO1 SPCSO 12
SPCSO13		
	ctlVal	SPi64GGIO1 SPCSO 13
SPCSO14		
	ctlVal	SPi64GGIO1 SPCSO 14
SPCSO15		
	ctlVal	SPi64GGIO1 SPCSO 15
SPCSO16		
	ctlVal	SPi64GGIO1 SPCSO 16
SPCSO17		
	ctlVal	SPi64GGIO1 SPCSO 17
SPCSO18		
	ctlVal	SPi64GGIO1 SPCSO 18
SPCSO19		
	ctlVal	SPi64GGIO1 SPCSO 19
SPCSO2		
	ctlVal	SPi64GGIO1 SPCSO 2
SPCSO20		
	ctlVal	SPi64GGIO1 SPCSO 20
SPCSO21		
	ctlVal	SPi64GGIO1 SPCSO 21
SPCSO22		

	ctlVal	SPi64GGIO1 SPCSO 22
SPCSO23		
	ctlVal	SPi64GGIO1 SPCSO 23
SPCSO24		
	ctlVal	SPi64GGIO1 SPCSO 24
SPCSO25		
	ctlVal	SPi64GGIO1 SPCSO 25
SPCSO26		
	ctlVal	SPi64GGIO1 SPCSO 26
SPCSO27		
	ctlVal	SPi64GGIO1 SPCSO 27
SPCSO28		
	ctlVal	SPi64GGIO1 SPCSO 28
SPCSO29		
	ctlVal	SPi64GGIO1 SPCSO 29
SPCSO3		
	ctlVal	SPi64GGIO1 SPCSO 3
SPCSO30		
	ctlVal	SPi64GGIO1 SPCSO 30
SPCSO31		
	ctlVal	SPi64GGIO1 SPCSO 31
SPCSO32		
	ctlVal	SPi64GGIO1 SPCSO 32
SPCSO33		
	ctlVal	SPi64GGIO1 SPCSO 33
SPCSO34		
	ctlVal	SPi64GGIO1 SPCSO 34
SPCSO35		
	ctlVal	SPi64GGIO1 SPCSO 35
SPCSO36		
	ctlVal	SPi64GGIO1 SPCSO 36
SPCSO37		
	ctlVal	SPi64GGIO1 SPCSO 37
SPCSO38		
	ctlVal	SPi64GGIO1 SPCSO 38
SPCSO39		

	ctlVal	SPi64GGIO1 SPCSO 39
SPCSO4		
	ctlVal	SPi64GGIO1 SPCSO 4
SPCSO40		
	ctlVal	SPi64GGIO1 SPCSO 40
SPCSO41		
	ctlVal	SPi64GGIO1 SPCSO 41
SPCSO42		
	ctlVal	SPi64GGIO1 SPCSO 42
SPCSO43		
	ctlVal	SPi64GGIO1 SPCSO 43
SPCSO44		
	ctlVal	SPi64GGIO1 SPCSO 44
SPCSO45		
	ctlVal	SPi64GGIO1 SPCSO 45
SPCSO46		
	ctlVal	SPi64GGIO1 SPCSO 46
SPCSO47		
	ctlVal	SPi64GGIO1 SPCSO 47
SPCSO48		
	ctlVal	SPi64GGIO1 SPCSO 48
SPCSO49		
	ctlVal	SPi64GGIO1 SPCSO 49
SPCSO5		
	ctlVal	SPi64GGIO1 SPCSO 5
SPCSO50		
	ctlVal	SPi64GGIO1 SPCSO 50
SPCSO51		
	ctlVal	SPi64GGIO1 SPCSO 51
SPCSO52		
	ctlVal	SPi64GGIO1 SPCSO 52
SPCSO53		
	ctlVal	SPi64GGIO1 SPCSO 53
SPCSO54		
	ctlVal	SPi64GGIO1 SPCSO 54
SPCSO55		

	ctlVal	SPi64GGIO1 SPCSO 55
SPCSO56		
	ctlVal	SPi64GGIO1 SPCSO 56
SPCSO57		
	ctlVal	SPi64GGIO1 SPCSO 57
SPCSO58		
	ctlVal	SPi64GGIO1 SPCSO 58
SPCSO59		
	ctlVal	SPi64GGIO1 SPCSO 59
SPCSO6		
	ctlVal	SPi64GGIO1 SPCSO 6
SPCSO60		
	ctlVal	SPi64GGIO1 SPCSO 60
SPCSO61		
	ctlVal	SPi64GGIO1 SPCSO 61
SPCSO62		
	ctlVal	SPi64GGIO1 SPCSO 62
SPCSO63		
	ctlVal	SPi64GGIO1 SPCSO 63
SPCSO64		
	ctlVal	SPi64GGIO1 SPCSO 64
SPCSO7		
	ctlVal	SPi64GGIO1 SPCSO 7
SPCSO8		
	ctlVal	SPi64GGIO1 SPCSO 8
SPCSO9		
	ctlVal	SPi64GGIO1 SPCSO 9

2.4.30 SPo32GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Ind1		
	stVal	SPo32GGIO1 Ind 1
Ind10		

	stVal	SPo32GGIO1 Ind 10
Ind11		
	stVal	SPo32GGIO1 Ind 11
Ind12		
	stVal	SPo32GGIO1 Ind 12
Ind13		
	stVal	SPo32GGIO1 Ind 13
Ind14		
	stVal	SPo32GGIO1 Ind 14
Ind15		
	stVal	SPo32GGIO1 Ind 15
Ind16		
	stVal	SPo32GGIO1 Ind 16
Ind17		
	stVal	SPo32GGIO1 Ind 17
Ind18		
	stVal	SPo32GGIO1 Ind 18
Ind19		
	stVal	SPo32GGIO1 Ind 19
Ind2		
	stVal	SPo32GGIO1 Ind 2
Ind20		
	stVal	SPo32GGIO1 Ind 20
Ind21		
	stVal	SPo32GGIO1 Ind 21
Ind22		
	stVal	SPo32GGIO1 Ind 22
Ind23		
	stVal	SPo32GGIO1 Ind 23
Ind24		
	stVal	SPo32GGIO1 Ind 24
Ind25		
	stVal	SPo32GGIO1 Ind 25
Ind26		
	stVal	SPo32GGIO1 Ind 26
Ind27		

	stVal	SPo32GGIO1 Ind 27
Ind28		
	stVal	SPo32GGIO1 Ind 28
Ind29		
	stVal	SPo32GGIO1 Ind 29
Ind3		
	stVal	SPo32GGIO1 Ind 3
Ind30		
	stVal	SPo32GGIO1 Ind 30
Ind31		
	stVal	SPo32GGIO1 Ind 31
Ind32		
	stVal	SPo32GGIO1 Ind 32
Ind4		
	stVal	SPo32GGIO1 Ind 4
Ind5		
	stVal	SPo32GGIO1 Ind 5
Ind6		
	stVal	SPo32GGIO1 Ind 6
Ind7		
	stVal	SPo32GGIO1 Ind 7
Ind8		
	stVal	SPo32GGIO1 Ind 8
Ind9		
	stVal	SPo32GGIO1 Ind 9

2.4.31 V8GGIO1

Beh		
	stVal	Out of Service
Health		
	stVal	Protection Healthy
Ind1		
	stVal	1
Ind2		
	stVal	2
Ind3		

	stVal	3
Ind4		
	stVal	4
Ind5		
	stVal	5
Ind6		
	stVal	6
Ind7		
	stVal	7
Ind8		
	stVal	8

