MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GE

IS200TPROH1C

BACKUP TURBINE PROTECTION TERMINAL BOARD

Used with the applicable GE Mark VIe Backup Turbine Protection configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GE Mark VIe and Mark VIeS Controls Equipment Technical Guide

GEH-6725R

Mark* VIe and Mark VIeS Control Systems Equipment in Hazardous Locations (HazLoc) Instruction Guide

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Public Information

3.13 PPRO and YPRO Backup Turbine Protection Modules

The following I/O pack and terminal board combinations are approved for use in hazardous locations:

- Mark VIe Backup turbine protection I/O pack **IS220PPROH1A**
  with terminal boards (accessories) **IS200SPROH1A, IS200SPROH2A, IS200TPROH1C, IS200TPROH2C, IS200TREAH1A, IS200TREAH3A**
- Mark VIe Backup turbine protection I/O pack **IS220PPROS1B**
  with terminal boards (accessories) **IS200SPROH1A, IS200SPROH2A, IS200TPROH1C, IS200TPROH2C, IS200TPROS1C, IS200TPROS2C, IS200TREAH1A, IS200TREAH3A**
- Mark VIeS Backup turbine protection I/O pack **IS220YPROS1A**
  with terminal boards (accessories) **IS200SPROS1A, IS200TPROS1C, IS200TPROS2C, IS200TREAS1A**

3.13.1 Electrical Ratings

Item	Min	Nominal	Max	Units
Power Supply				
Voltage	27.4	28.0	28.6	V dc
Current	—	—	0.37	A dc
Voltage Detection Inputs (TREA)				
Voltage	16	—	140	V dc
E-stop Input (TREA)				
Voltage	18	—	140	V dc
PT Inputs (SPRO, TPRO)				
Voltage	0	—	138	V ac
Frequency	5	—	66	Hz
Speed Inputs (SPRO, TPRO, TREA)				
Voltage	-15	—	15	V dc
Contact Out (TREA)				
Voltage	—	—	28	V dc
Current	—	—	7	A dc
Speed Sensor Power Output (TPRO)				
Voltage	22.8	24.0	25.2	V
Current	—	—	25	mA

3.13.2 Field Wire Connections

For SPROH2A, TPRO_2A, and TREAH3A terminal boards (accessories) certified for HazLoc, refer to the table *Euro Style Box-type Terminal Blocks* for wire size and screw torques.

For SPRO_1A, TPRO_1A, TREA_1A terminal boards (accessories) certified for HazLoc, refer to the table *Barrier-type Terminal Blocks* for wire size and screw torques.

Mark VIe I/O Modules Classified Location Certifications (continued)

Equipment	Non-hazardous	Class I, Division 2, Groups A, B, C, D	Class I, Zone 2, Group IIC	ATEX Zone 2, Group IIC
IS220PPRAS1A Accessories: IS200TREAS1A IS200WREAS1A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PPRAS1B Accessories: IS200TREAS1A IS200WREAS1A	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PPRFH1A Accessories: IS200SPIDG1A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PPRFH1B Accessories: IS200SPIDG1A	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PPROH1A Accessories: IS200SPROH1A IS200SPROH2A IS200TPROH1C IS200TPROH2C IS200TREAH1A IS200TREAH3A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X
IS220PPROS1B Accessories: IS200SPROH1A IS200SPROH2A IS200TPROH1C IS200TPROH2C IS200TPROS1C IS200TPROS2C IS200TREAH1A IS200TREAH3A	UL E207685	UL E207685	UL E207685	UL DEMKO 13 ATEX 1214780X
IS220PRTDH1A Accessories: IS200TRTDH2D IS200SRTDH1A IS200SRTDH2A	UL E207685	UL E207685	UL E207685	UL DEMKO 12 ATEX 1114875X

Mark VIe I/O Modules Classified Location Standards (continued)

Equipment	Non-hazardous	Class I, Division 2, Groups A, B, C, D	Class I, Zone 2, Group IIC	ATEX Zone 2, Group IIC
IS220PPRFH1A Accessories: IS200SPIDG1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-15:2010
IS220PPRFH1B Accessories: IS200SPIDG1A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-15:2010
IS220PPROH1A Accessories: IS200SPROH1A IS200SPROH2A IS200TPROH1C IS200TPROH2C IS200TREAH1A IS200TREAH3A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-15:2010
IS220PPROS1B Accessories: IS200SPROH1A IS200SPROH2A IS200TPROH1C IS200TPROH2C IS200TPROS1C IS200TPROS2C IS200TREAH1A IS200TREAH3A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-15:2010
IS220PRTDH1A Accessories: IS200TRTDH2D IS200SRTDH1A IS200SRTDH2A	UL 508 Ed. 17 CSA-C22.2 No. 142-M1987	ANSI/ISA-12.12.01-2015 CAN/CSA-C22.2 No. 213-15	UL 60079-0 Ed. 5 UL 60079-15 Ed. 3 CAN/CSA-C22.2 No. 60079-0:11 CAN/CSA-C22.2 No. 60079-15:12	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010

Mark VIe I/O Modules Equipment Markings (continued)

Equipment	US & CAN Class I Div 2	US & CAN Class I Zone 2	ATEX Zone 2
IS220PPRAH1A Accessories: IS200TREAH1A IS200WREAH1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PPRAS1A Accessories: IS200TREAS1A IS200WREAS1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PPRAS1B Accessories: IS200TREAS1A IS200WREAS1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PPRFH1A Accessories: IS200SPIDG1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PPRFH1B Accessories: IS200SPIDG1A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PPROH1A Accessories: IS200SPROH1A IS200SPROH2A IS200TPROH1C IS200TPROH2C IS200TREAH1A IS200TREAH3A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc
IS220PPROS1B Accessories: IS200SPROH1A IS200SPROH2A IS200TPROH1C IS200TPROH2C IS200TPROS1C IS200TPROS2C IS200TREAH1A IS200TREAH3A	Class I, Div 2, Groups A, B, C, D, T4	Class I, Zone 2, AEx nA IIC T4, Ex nA IIC T4 Gc X	Ex nA IIC T4 Gc