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# Schedule
# TYPE EXAMINATION CERTIFICATE No.
## DEMKO 12 ATEX 1114875X Rev. 18

Mark Vle Control Power Distribution Board, Cat. Nos. IS200JPDLG1A, IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A

The Mark VIe Control PPDA Power Distribution System Feedback Module, Cat. No. IS220PPDAH1A is intended to be used with accessory control power distribution board Cat. No. IS200JPDSG1A.

Mark Vle Controller, Cat Nos. IS220UCSAH1A, IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A and IS420PPNGH1A.

Mark VleS Safety Controller, Cat No. IS420UCSBS1A, IS421UCSBS1A.

The Mark Vle Control HART Enabled I/O Module, Cat No. IS220PHRAH1A is intended to be used with accessory terminal board Cat. Nos. IS200SHRAH1A, IS200SHRAH2A.

The Mark VleS Control HART Enabled I/O Module, Cat No. IS220YHRAS1A is intended to be used with accessory terminal board Cat. Nos. IS200SHRAS1A, IS200SHRAS2A.

The Mark VIe Control PTUR Turbine Specific Primary Trip, Cat. No. IS220PTURH1A is intended to be used with accessory terminal board Cat. No. IS200TRPAH1A.

The Mark VIe Control YTUR Turbine Specific Primary Trip, Cat. No. IS220YTURS1A is intended to be used with accessory terminal board Cat. Nos. IS200TRPAS1A. Cat. No. IS220YTURS1A with RoHS-compliant internal boards IS400BTURS1A and IS400KTURS1A is intended to be used with accessory terminal board Cat. Nos. IS200TRPAS1A.

The Mark VIe Control PPRO Backup Turbine Protection, Cat. Nos. IS220PPROH1A is intended to be used with accessory terminal board Cat. Nos. IS200TREAH1A, IS200TREAH3A, IS200SPROH1A, IS200SPROH2A, IS200TPROH1C, IS200TPROH2C.

The Mark VIe Control YPRO Backup Turbine Protection, Cat. Nos. IS220YPROS1A is intended to be used with accessory terminal board Cat. Nos. IS200TREAS1A, IS200SPROS1A, IS200TPROS1C, IS200TPROS2C.

The Mark VIe Control PAMC Acoustic Monitoring Input Module, Cat. No. IS210BAPAH1A is intended to be used with accessory terminal board Cat. No. IS210SAMBH1A.

| Model Nos. | Protection Method Employed |
|---|---|
| IS220PTCCH1A, IS220YTCCS1A, IS220PRTDH1A, IS220PDIAH1A, IS220YDIAS1A | Ex nA [ic] IIC T4 Gc |
| IS220PDOAH1A, IS220YDOAS1A, IS220PSVOH1A | Ex ic nA IIC T4 Gc |
| IS220PAICH1A, IS220YAICS1A, IS220PCLAH1A, IS220PDIOH1A, IS210BAPAH1A | Ex ic nA [ic] IIC T4 Gc |
| IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A, IS220PVIBH1A, IS220YVIBS1A, IS200JPDLG1A, IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A, IS420UCSBS1A, IS421UCSBS1A, IS220PHRAH1A, IS220YHRAS1A, IS220PPDAH1A, IS220PPRAH1A, IS220PPRAS1A, IS220PPRFH1A, IS220PSCAH1A, IS220PSCHH1A, IS220PCNOH1A, IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A, IS220UCSAH1A, IS220PTURH1A, IS220YTURS1A, IS220PPROH1A, IS220YPROS1A, IS420PPNGH1A | Ex nA IIC T4 Gc |

| Model Nos. | Protection Method Employed |
|---|---|
| IS220PTCCH1A, IS220YTCCS1A, IS220PRTDH1A, IS220PDIAH1A, IS220YDIAS1A | Ex ec [ic] IIC T4 Gc |
| IS220PDOAH1A, IS220YDOAS1A, IS220PSVOH1A | Ex ic ec IIC T4 Gc |
| IS220PAICH1A, IS220YAICS1A, IS220PCLAH1A, IS220PDIOH1A, IS210BAPAH1A | Ex ic ec [ic] IIC T4 Gc |
| IS42, followed by 0 or 1, followed by ESW followed by A, B, C, or D, followed by H, followed by 1, 2, 3, 4 or 5, followed by A, IS220PVIBH1A, IS220YVIBS1A, IS200JPDLG1A, IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A, IS420UCSBS1A, IS421UCSBS1A, IS220PHRAH1A, IS220YHRAS1A, IS220PPDAH1A, IS220PPRAH1A, IS220PPRAS1A, IS220PPRFH1A, IS220PSCAH1A, IS220PSCHH1A, IS220PCNOH1A, IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A, IS220UCSAH1A, IS220PTURH1A, IS220YTURS1A, IS220PPROH1A, IS220YPROS1A, IS420PPNGH1A | Ex ec IIC T4 Gc |

Note : x = 2 or 4 and y = 0 or 1

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# Schedule

# TYPE EXAMINATION CERTIFICATE No.

## DEMKO 12 ATEX 1114875X Rev. 18

Nomenclature:

| IS | 2 | 2 | 0 | PTCC | H | 1 | A |
|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | VII |

I - 2 – Designates non-RoHS
4 -- Designates RoHS

II - 0 – Designates PWA
1 – Designates PWAs mounted on a base
2 – Designates a module containing PWAs

III - 0 -- Standard operating environment
1 -- Conformal coating

IV – Board name – Four letter shorthand catalog number. For modules, a “Y” first letter designates a SIL certified module

PTCC
YTCC
ESWB
ESWA
PDOA
YDOA
PAIC
YAIC
PDIA
YDIA
PRTD
PVIB
YVIB
JPDL
UCSB
PHRA
PCLA
PCNO
PDIO
PPRA
PPRF
PSCA
PSCH
PSVO
JPDH
PPDA
UCSA
PTUR
YTUR
PPRO
SPRO
BAPA
TBTC (Accessory)
STTC (Accessory)
TRLY (Accessory)
STAI (Accessory)
TBAI (Accessory)
STCI (Accessory)
TBCI (Accessory)
SRTD (Accessory)
TVBA (Accessory)
WNPS (Accessory)
SHRA (Accessory)
TRTD (Accessory)
SCLS (Accessory)
SCLT (Accessory)
SPID (Accessory)
TDBS (Accessory)
TDBT (Accessory)
TREA (Accessory)
WREA (Accessory)
SSCA (Accessory)
TSVC (Accessory)
WSVO (Accessory)
JPDS (Accessory)
TRPA (Accessory)
SPRO (Accessory)



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TPRO (Accessory)
SAMB (Accessory)

V - H – Contains SMT components
G – Contains no SMT components
S – Indicates a SIL certified PWA

VI - Assembly variant - number identifies bill of material used

VII - Major revision - defines board functional interchangeability

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1 to the scope of EN 60079-28:2015 for all models

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 3 to the scope of EN 60079-28:2015 for Cat. Nos. IS42yESWAH4A, IS42yESWAH5A, IS42yESWBH4A, and IS42yESWBH5A.

Temperature range:
The relation between ambient temperature and the assigned temperature class is as follows:

| Models | Ambient temperature range | Temperature class |
|---|---|---|
| All models, except for IS420UCSBH3A, IS220UCSAH1A, IS220PCNOH1A, IS220PPRFH1A, IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A<br><br>ESW followed by C or D, followed by H, followed by 1, 2, 3, 4 or 5, followed by A (Vertical Orientation, with Power Connector on bottom) | -30 °C to +65 °C | T4 |
| IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A; IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A<br><br>ESW followed by C or D, followed by H, followed by 1, 2, 3, 4 or 5, followed by A (Vertical Orientation, with Power Connector on top) | -40C to +70C | T4 |
| IS420UCSBH3A, IS220UCSAH1A | 0 °C to +65 °C | T4 |
| IS220PCNOH1A, IS220PPRFH1A | -20 °C to +55 °C | T4 |

Electrical data
I/O pack System Cat. Nos. IS220PTCCH1A with Cat. Nos. IS200STTCH1A, IS200STTCH2A, IS200TBTCH1B, IS200TBTCH1C:
Input: 28 Vdc, 0.16 A max

Cat No. IS220YTCCS1A with Cat. Nos. ISx0ySTTCS1A, ISx0ySTTCS2A, IS200TBTCS1B, ISx0yTBTCS1C. Cat No. IS220YTCCS1A with RoHS-compliant internal board IS400BPTCS1A is intended to be used with accessory terminal board Cat. Nos. ISx0ySTTCS1A, ISx0ySTTCS2A, IS200TBTCS1B, ISx0yTBTCS1C:
Input: 28 Vdc, 0.16 A max

Cat. Nos. IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A:
Input: 24 - 28 Vdc, 1.0 A max

Cat. Nos. IS42, followed by 0 or 1, followed by ESW followed by C or D, followed by H, followed by 1, 2, 3, 4 or 5, followed by A:
Input: 24 - 28 Vdc, 1.0 A max

Cat No. IS220PDOAH1A with Cat. Nos. IS200TRLYH2E, IS200TRLYH3E IS200TRLYH1F, IS200TRLYH2F:
Input: 28 Vdc, 0.71 A max

Cat No. IS220YDOAS1A with Cat. Nos. ISx0yTRLYS1F, ISx0yTRLYS2F:; Model with RoHS compliant boards Cat. No.: IS220YDOAS1A with RoHS compliant internal acquisition board Cat. IS400BPDOS1A, and RoHS compliant terminal boards Cat. Nos. ISx0yTRLYS1F, ISx0yTRLYS2F:
Input: 28 Vdc, 0.71 A max

Cat. No. IS220PAICH1A with Cat. Nos. IS200STAIH1A, IS200STAIH2A, IS200TBAIH1C:
Input: 28 Vdc, 0.50 A max

Cat. No. IS220YAICS1A with Cat. Nos. ISx0ySTAIS1A, ISx0ySTAIS2A, ISx0yTBAIS1C ; Cat. No. IS220YAICS1A with RoHS-compliant internal board Cat. No. IS400BPAIS1A with Cat. Nos. ISx0ySTAIS1A, ISx0ySTAIS2A, and ISx0yTBAIS1C:
Input: 28 Vdc, 0.50 A max


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Cat. No. IS220PDIAH1A with Cat. Nos. IS200STCIH1A, IS200STCIH2A, IS200STCIH8A, IS200TBCIH2C, IS200TBCIH4C:
Input: 28 Vdc, 0.23 A max

Cat. No. IS220YDIAS1A with Cat. Nos. ISx0ySTCIS1A, ISx0ySTCIS2A, ISx0yTBCIS2C: ; Model with RoHS compliant boards Cat. No. IS220YDIAS1A with RoHS compliant internal acquisition board Cat. Nos. IS400BPDIS1A, and terminal boards IS200TBCIS2CISx0ySTCIS1A and ISx0ySTCIS2A:
Input: 28 Vdc, 0.23 A max

Cat. No. IS220PRTDH1A with Cat. Nos. IS200TRTDH2D, IS200SRTDH1A, IS200SRTDH2A:
Input: 28 Vdc, 0.24 A max

Cat. No. IS220PVIBH1A with Cat. Nos. IS200TVBAH2A, IS200WNPSH1A:
Input: 28 Vdc, 0.98 A max

Cat. No. IS220YVIBS1A with Cat. Nos. IS200TVBAS2A, IS200WNPSS1A:
Input: 28 Vdc, 0.98 A max

Cat. No. IS200JPDLG1A:
Input: 28 Vdc, 7.5 A max

Cat. Nos. IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A, and IS420PPNGH1A:
Input: 28 Vdc, 1.1 A max

Cat. No. IS420UCSBS1A, IS421UCSBS1A:
Input: 28 Vdc, 1.1 A max

Cat. No. IS220PHRAH1A with Cat. Nos. IS200SHRAH1A, IS200SHRAH2A:
Input: 28 Vdc, 0.50 A max

Cat. No. IS220YHRAS1A with Cat. Nos. IS200SHRAS1A, IS200SHRAS2A:
Input: 28 Vdc, 0.50 A max

Cat. No. IS220PCLAH1A with Cat. Nos. IS210SCLSH1A, IS200SCLTH1A:
Input: 28 Vdc, 0.78 A max

Cat. No. IS220PCNOH1A with Cat. No. IS200SPIDG1A:
Input: 28 Vdc, 0.17 A max

Cat. No. IS220PDIOH1A with Cat. Nos. IS200TDBSH2A, IS200TDBTH2A
Input: 28 Vdc, 0.81 A max

Cat. No. IS220PPRAH1A with Cat. Nos. IS200TREAH1A, IS200WREAH1A:
Input: 28 Vdc, 0.5 A max

Cat. No. IS220PPRAS1A with Cat. Nos. IS200TREAS1A, IS200WREAS1A:
Input: 28 Vdc, 0.5 A max

Cat. No. IS220PPRFH1A with Cat. No. IS200SPIDG1A:
Input: 28 Vdc, 0.18 A max

Cat. No. IS220PSCAH1A with Cat. Nos. IS200SSCAH1A, IS200SSCAH2A:
Input: 28 Vdc, 0.36 A max

Cat. No. IS220PSCHH1A with Cat. Nos. IS200SSCAH1A, IS200SSCAH2A:
Input: 28 Vdc, 0.36 A max

Cat. No. IS220PSVOH1A with Cat. Nos. IS200TSVCH2A, IS210WSVOH1A:
Input: 28 Vdc, 1.0 A max

Cat. Nos. IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A:
Input:24 - 28 Vdc, 13 A max

Cat. No. IS220PPDAH1A with Cat. No. IS200JPDSG1A:
Input: 28 Vdc, 0.24 A max

Cat. No. IS220UCSAH1A:
Input: 28 Vdc, 0.62 A max

Cat. No. IS220PTURH1A with Cat. No. IS200TRPAH1A:
Power Supply: 28 V dc, 0.41 A dc
Speed In: -15 to +15 V dc
Voltage In: 16 to 140 V dc
E-stop In: 18 to 140 V dc


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E-stop Power Out: 28V dc O.C., 17 mA dc S.C.,
Contact Out: 28 V dc, 7 A dc

Cat. No. IS220YTURS1A with Cat. No. IS200TRPAS1A; Cat No. IS220YTURS1A with RoHS-compliant internal boards; IS400BTURS1A and IS400KTURS1A with accessory terminal board Cat. Nos. IS200TRPAS1A:

Power Supply: 28 V dc, 0.41 A dc
Speed In: -15 to +15 V dc
Voltage In: 16 to 140 V dc
E-stop In: 18 to 140 V dc
E-stop Power Out: 28V dc O.C., 17 mA dc S.C.
Contact Out: 28 V dc, 7 A dc

Cat. No. IS220PPROH1A with Cat. Nos IS200SPROH1A, IS200SPROH2A, IS200TPROH1C, IS200TPROH2C, IS200TREAH1A, IS200TREAH3A:

Power Supply: 28 V dc, 0.37 A dc
(SPRO,TPRO, TREA) designates the ratings associated with the specific Cat. No. terminal board
PT In (SPRO/TPRO): 0 to 138 V ac, 5 to 66 Hz
Speed In (SPRO/TPRO/TREA): -15 to +15 V dc
Speed Sensor Power Out (TPRO): 24 V dc, 25 mA dc
Voltage In (TREA): 16 to 140 V dc
E-stop In (TREA): 18 to 140 V dc
Contact Out (TREA): 28 V dc, 7 A dc

Cat. No. IS220YPROS1A with Cat. Nos. IS200SPROS1A, IS200TPROS1C, IS200TPROS2C, IS200TREAS1A:

Power Supply: 28 V dc, 0.37 A dc
(SPRO,TPRO, TREA) designates the ratings associated with the specific Cat. No. terminal board
PT In (SPRO/TPRO): 0 to 138 V ac, 5 to 66 Hz
Speed In (SPRO/TPRO/TREA): -15 to +15 V dc
Speed Sensor Power Out (TPRO): 24 V dc, 25 mA dc
Voltage In (TREA): 16 to 140 V dc
E-stop In (TREA): 18 to 140 V dc
Contact Out (TREA): 28 V dc, 7 A dc

Cat. No. IS210BAPAH1A with Cat. No. IS210SAMBH1A:

Power Supply: 28 V dc, 0.5 A dc
Pressure In: 12 to 18.5 V dc
Sensor Power Out: 12 to 18.5 Vdc, 2.9 to 4.3 mAdc
Buffered Out: -10 to +10 V dc, 5 mA dc

Routine tests:
None.

[16] Descriptive Documents:
The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this Type Examination Certificate.

[17] Specific Conditions of Use:

- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140% of the rated voltage.
- This equipment shall be mounted in an ATEX Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (as defined in EN 60529) and used in an environment of not more than Pollution Degree 2 (as defined in EN 60664-1).
- This equipment shall be powered by a switched-mode power supply (SMPS) that is certified for the applicable location and has its output current limited to 20 A maximum, and has the features listed for Vendor Manufactured Control Power supplies in GEH-6721_Vol_II, Mark VIe Control, Volume II System Hardware Guide.
- This equipment shall be powered through a power distribution board that is certified for the applicable classified location.
- Mark Vle Cat Nos. IS220PTCCH1A, IS220YTCCS1A, IS220PRTDH1A, IS220PCLAH1A must contain the following installation conditions:
  1. The maximum cable length connecting each thermocouple to the device shall not exceed 1000 feet.
  2. Only resistive simple apparatus, such as thermocouples shall be connected.
  3. Each cable used to connect the simple apparatus must have suitable insulation as required by the applicable local electrical codes.

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

The trademark GE VERNOVA will be used as the company identifier on the marking label.


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