General Electric IS420UCSBH4A

UCSB Controller

IS420UCSBH4A is listed as a Mark VIe controller with a 1066 MHz Intel EP80579 processor. Its IECEx annex lists a 28 V DC input and a maximum input current of 1.1 A.

Controller	System I/O	Application
IS420UCSBH4A	Digital and analog	Turbine / driven load

Documented system configurations

Simplex	One CPU and one I/O processing network
Dual	Two CPUs; primary / backup I/O processing network
TMR	Three CPUs and three I/O processing networks

Architecture boundary

The DNV document describes system configurations. A single controller is not a complete redundant or safety system; installed software and I/O determine the application configuration.

Contact Apter Power

Phone / WhatsApp: +86 180 3023 5313

Email: sales13@apterpower.com

Website: www.apterpower.com

General Electric
IS420UCSBH4A
Mark VIe Controller

02 / Processing, electrical and installation data

Control platform	Mark VIe
Component identity	UCSB controller
Processor	Intel EP80579
Processor frequency	1066 MHz
Rated input	28 V DC
Maximum input current	1.1 A
Certificate ambient range	-30 to +65 degrees C
IECEx protection marking	Ex ec IIC T4 Gc
Classified-location enclosure	Certified enclosure, IP54 minimum
Installation pollution degree	2 maximum

Keep the two current limits separate

The annex gives 1.1 A as the maximum controller input current at 28 V DC. The certificate separately requires the supplying SMPS output current to be limited to 20 A maximum for the certified installation.

Important Notice: Certificate conditions establish an installation boundary. They do not supply connector pin assignments, cable torque values or a controller restart procedure.

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03 / Application configuration and certified installation

Certified-location supply path

SMPS
Location-certified; 20 A maximum output limit

Distribution
Location-certified power distribution board

Controller
28 V DC / 1.1 A maximum input

Enclosure	Certified; IP54 minimum
Environment	Pollution Degree 2 maximum
Transient protection	Prevent disturbances above 140% of rated voltage

Application approval and software control

DNV type approval covers the listed hardware. For a DNV-classed application, the system manufacturer must submit documentation for the actual application. The certificate also requires software changes to be recorded and major changes to be approved before installation.

Scope of this reference

This dossier summarizes exact-model ratings and documented system conditions. Detailed wiring, controller replacement and startup remain subject to the applicable manufacturer system instructions and the approved installed configuration.

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04 / Model-specific FAQ (1-4)

1. Which processor is documented for General Electric IS420UCSBH4A?

The manufacturer-hosted DNV type-approval table identifies IS420UCSBH4A with a 1066 MHz Intel EP80579 processor. Processor ratings for other UCSB suffixes are not substituted.

2. How does the input rating of General Electric IS420UCSBH4A differ from the certificate 20 A SMPS condition?

The IECEx annex lists IS420UCSBH4A input as 28 V DC, 1.1 A maximum. The separate 20 A limit concerns the certified SMPS output in the installation conditions; it is not the controller's current consumption.

3. Which certified ambient range applies to General Electric IS420UCSBH4A?

IECEx Issue 7 specifies -30 to +65 degrees C for models other than the separately identified H3A/UCSA exceptions. H4A is included in that general range, subject to all applicable installation conditions.

4. What hazardous-area marking is listed for the controller group containing General Electric IS420UCSBH4A?

The IECEx annex includes IS420UCSBH4A in the Ex ec IIC T4 Gc controller group. Use that marking only within the certificate's scope and specified conditions; it does not authorize an arbitrary installation.

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5. Does the IP54 installation condition describe a sealed bare General Electric IS420UCSBH4A controller?

No. The certificate requires installation in an appropriately certified enclosure providing at least IP54. The enclosure requirement must not be represented as a standalone enclosure rating of the bare controller.

6. Which environmental and transient conditions apply to certified installation of General Electric IS420UCSBH4A?

The certificate specifies Pollution Degree 2 maximum and protection preventing transient disturbances from exceeding 140 percent of rated voltage. These are installation conditions, alongside the required enclosure and power-supply provisions.

7. Does one General Electric IS420UCSBH4A controller establish a complete TMR turbine-control system?

No. DNV describes Simplex, Dual and TMR as system architectures involving the required controllers and I/O networks. The installed software, I/O and approved application determine the system configuration.

8. Can the installation reference for General Electric IS420UCSBH4A replace GEH-6721 commissioning instructions?

No. The Apter Power installation reference summarizes the certified ratings and installation conditions supported by official manufacturer documents. Detailed wiring, replacement and startup require the applicable GEH-6721 system instructions.

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06 / Related Mark VIe portfolio and source record

Related Mark VIe portfolio

Separate portfolio references. These links do not assert compatibility or replacement equivalence.

General Electric IS220PRTDH1A

View General Electric IS220PRTDH1A

General Electric IS200SHRAH2A

View General Electric IS200SHRAH2A

General Electric IS400JPDHG1A

View General Electric IS400JPDHG1A

General Electric IS200STCIH2AED

View General Electric IS200STCIH2AED

Manufacturer-hosted official references

DNV Type Approval Certificate TAA000001E, Revision 1, issued 19 April 2024; Tables 1 and 3 and application limitations. Official manufacturer document.

IECEx Certificate IECEx UL 21.0073X, Issue 7, 16 February 2026; certificate pages 1 and 3; Annex pages 2 and 4. Official manufacturer document.

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