



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx INE 24.0038X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2024-12-20
Applicant: **SCHNEIDER Electric Industries SAS**
35, rue Joseph Monier
Rueil Malmaison 92500
France
Equipment: **STO Safety function of the Altivar soft starters ATS490**
Optional accessory:
Type of Protection: **Associated safety device**
Marking: [Ex Gb] [Ex Db] [Ex Mb]

Approved for issue on behalf of the IECEx
Certification Body:

Position:

Signature:
(for printed version)

Date:
(for printed version)



Thierry HOUEIX

Ex Certification Officer

2024-12-20

Signé électroniquement
Digitally signed by
Thierry HOUEIX
Ex Certification Officer
Délégué Certification

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Certificate issued by:

INERIS
Institut National de l'Environnement Industriel et des Risques
BP n2 / Parc Technologique ALATA
F-60550 Verneuil-en-Halatte
France



controlling risks
for sustainable development



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Manufacturer: **SCHNEIDER Electric Industries SAS**
35, rue Joseph Monier
Rueil Malmaison 92500
France

Manufacturing locations: **PT SCHNEIDER ELECTRIC
MANUFACTURING BATAM**
JL Beringin Lot 4 and 208 Batamindo
Industrial Park Muka Kuning,
BATAM INDONESIA, 29433
Indonesia

SCHNEIDER WUXI DRIVES Co., Ltd.
No.20, Hanjiang Road Jiangsu,
Wuxi
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC TS
60079-42:2019](#) Explosive atmospheres - Part 42: Electrical Safety Devices for the control of potential ignition sources from Ex-Equipment
Edition:1.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[FR/INE/ExTR24.0045/00](#)

Quality Assessment Report:

[FR/INE/QAR24.0004/00](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Soft starter ATS490 is an electronic device which control the current level during electrical motor (AC squirrel cage motor) acceleration and deceleration. The current control is realized by SCR (Silicon Controlled Rectifier also named Thyristor).

ATS 490 is based on three phases controlled with bypass contactor embedded.

The basic fail-safe function (STO) purpose is to bring the motor into a no torque condition.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The safety device must be located outside of explosive atmospheres or must be protected by a standardized type of protection.

The other conditions of use are stipulated in the instructions.

Annex:

[IECEX INE 24.0038X-00_Annex.pdf](#)



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PARAMETERS RELATING TO THE SAFETY

Firmware: 1.1.1.2

Hardware:

- Version STM32G031C8T7 for safe microcontroller.
- See below for references list and associated PCBA.

The level of SIL, category, PL, SIL CL depends on the connecting schemes for the STO safety function as defined hereafter. The wiring certified configurations are identified in the safety manual and in the certification report identified previously.

Safety standards	ATS490 Size 1	
	Parameter	Value
	Safety function	STO, SS1
	PST	6050ms
IEC 61508	HFT	0
	PFH	$2,51 \cdot 10^{-7}$ /h
	PTI	1 year
	PFDAvg	$2,97 \cdot 10^{-3}$
	SIL	1
	SIL capability	1
	SFF	66,85%
	Type	B
IEC 62061	SIL CL	1
IEC 60204	Safe Stop category	0 or 1 depending on the wiring
EN 13849	MTTFd	> 30 years
	DCavg	63,54%
	Category	2
	Performance Level	c
Lifetime		10 years
	Hypothesis	Hypothesis: 87600 pop/year, B10d: 500000

Safety standards	ATS490 Size 2	
	Parameter	Value
	Safety function	STO
	PST	6050ms
IEC 61508	HFT	0
	PFH	$2,86 \cdot 10^{-7}$ /h
	PTI	1 year
	PFDAvg	$3,62 \cdot 10^{-3}$
	SIL	1
	SIL capability	1
	SFF	65,89%
	Type	B
IEC 62061	SIL CL	1
IEC 60204	Safe Stop category	0 or 1 depending on the wiring
EN 13849	MTTFd	> 30 years
	DCavg	62,91%
	Category	2
	Performance Level	c
Lifetime		10 years
	Hypothesis	Hypothesis: 87600 pop/year, B10d: 418684



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Safety standards	ATS490 Size 3	
	Parameter	Value
	Safety function	STO
	PST	6050ms
IEC 61508	HFT	0
	PFH	$2,26 \cdot 10^{-7}$ /h
	PTI	1 year
	PFDAvg	$2,60 \cdot 10^{-3}$
	SIL	1
	SIL capability	1
	SFF	67,29%
	Type	B
IEC 62061	SIL CL	1
IEC 60204	Safe Stop category	0 or 1 depending on the wiring
EN 13849	MTTEd	> 30 years
	DCavg	63,68%
	Category	2
	Performance Level	c
Lifetime		10 years
	Hypothesis	Hypothesis: 52560 nop/year, B10d: 340174

Safety standards	ATS490 Size 4/5	
	Parameter	Value
	Safety function	STO, SS1
	PST	6050ms
IEC 61508	HFT	0
	PFH	$2,28 \cdot 10^{-7}$ /h
	PTI	1 year
	PFDAvg	$2,60 \cdot 10^{-3}$
	SIL	1
	SIL capability	1
	SFF	67,05%
	Type	B
IEC 62061	SIL CL	1
IEC 60204	Stop category	0 or 1 depending on the wiring
EN 13849	MTTEd	> 30 years
	DCavg	63,67%
	Category	2
	Performance Level	c
Lifetime		10 years
	Hypothesis	Hypothesis: 52560 nop/year, B10d: 340174

MARKING

Marking must be readable and indelible; it has to include the following indications:

- Schneider Electric Industries SAS
- F- 92506 Rueil Malmaison – France ⁽¹⁾
- ATS490 ⁽²⁾
- IECEx INE 24.0038X
- (Serial Number) ⁽³⁾
- [Ex Gb] [Ex Db] and/or [Ex Mb]

⁽¹⁾ This address may be given on a document delivered with the product

⁽²⁾ References list: see below

⁽³⁾ Available through a specific code



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ROUTINE EXAMINATIONS AND TESTS

None.

REFERENCES LIST

The list of references covered by the present certificate is provided hereafter:

ATS490 - RANGE	Part Number	Revision	Description
SIZE 1 ATS490D17Y - S1A ATS490D22Y - S1A ATS490D32Y - S1A ATS490D38Y - S1A ATS490D47Y - S1A ATS490D62Y - S1B ATS490D75Y - S1B ATS490D88Y - S1B ATS490C11Y - S1B	GEX6439401	02	A60-GENERIC SCHEMATIC-ATS490-430 POWER S1 PCBA
	GEX64393	01	ATS490- 430 POWER S1 PCB
	GEX64394	02	ATS490 POWER S1 PCBA D17
	GEX67185	02	ATS490 POWER S1 PCBA D22
	GEX67186	02	ATS490 POWER S1 PCBA D32
	GEX67187	02	ATS490 POWER S1 PCBA D38
	GEX67188	02	ATS490 POWER S1 PCBA D47
	GEX67189	02	ATS490 POWER S1 PCBA D62
	GEX67190	02	ATS490 POWER S1 PCBA D75
	GEX67191	02	ATS490 POWER S1 PCBA D88
	GEX67192	02	ATS490 POWER S1 PCBA C11
	BQT4487601	00	A60-GENERIC SCHEMATIC-ATS490-430 FILTER S1 PCBA
	BQT44875	00	ATS490-430 FILTER S1 PCB
	BQT44876	00	ATS490 FILTER S1 PCBA
	GEX6439601	00	A60-GENERIC SCHEMATIC-ATS490 RELAY S1A PCBA
	GEX64395	00	ATS490 RELAY S1A PCB
	GEX64396	00	ATS490 RELAY S1A PCBA
	GEX6439701	01	A60-GENERIC SCHEMATIC-ATS490 RELAY S1B PCBA
	GEX64397	01	ATS490-430 RELAY S1B PCB
	GEX64398	01	ATS490 RELAY S1B PCBA
SIZE 2 – SIZE 3 ATS490C14Y – S2 ATS490C17Y – S2 ATS490C21Y – S3 ATS490C25Y – S3 ATS490C32Y – S3 ATS490C41Y – S3	GEX6891601	03	A60-GENERIC SCHEMATIC-ATS490-430 POWER S2S3 PCBA
	GEX68915	03	ATS490-430 POWER S2S3 PCB
	GEX68916	03	ATS490 POWER S2 PCBA C14
	GEX68925	03	ATS490 POWER S2 PCBA C17
	GEX68926	03	ATS490 POWER S3 PCBA C21
	GEX68927	03	ATS490 POWER S3 PCBA C25
	GEX68928	03	ATS490 POWER S3 PCBA C32
	GEX68929	03	ATS490 POWER S3 PCBA C41
	GEX6891801	01	A60-GENERIC SCHEMATIC-ATS490-430 FILTER S2 PCBA
	GEX68917	00	ATS490-430 FILTER S2 PCB
	GEX68918	02	ATS490 FILTER S2 PCBA
	GEX6892001	01	A60-GENERIC SCHEMATIC-ATS490-430 FILTER S3 PCBA
	GEX68919	00	ATS490-430 FILTER S3 PCB
	GEX68920	02	ATS490 FILTER S3 PCBA
SIZE 4 – SIZE 5 ATS490C48Y – S4 ATS490C59Y – S4 ATS490C66Y – S4 ATS490C79Y – S5 ATS490M10Y – S5 ATS490M12Y – S5	GEX6892201	01	A60-GENERIC SCHEMATIC-ATS490-430 POWER S4S5 PCBA
	GEX68921	00	ATS490-430 POWER S4S5 PCB
	GEX68944	02	ATS490 POWER S4 PCBA C48
	GEX68945	02	ATS490 POWER S4 PCBA C59
	GEX68940	02	ATS490 POWER S4 PCBA C66
	GEX68941	02	ATS490 POWER S5 PCBA C79
	GEX68942	02	ATS490 POWER S5 PCBA M10
	GEX68943	02	ATS490 POWER S5 PCBA M12



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ATS490 - RANGE	Part Number	Revision	Description
	GEX6892401	01	A60-GENERIC SCHEMATIC-ATS490-430 FILTER S4S5 PCBA
	GEX68923	00	ATS490-430 FILTER S4S5 PCB
	GEX68924	02	ATS490 FILTER S4S5 PCBA
Common for all ATS490 rating	GEX6439001	01	A60-GENERIC SCHEMATIC-ATS490 APPLI PCBA
	GEX64389	01	ATS490 APPLI PCB
	GEX64390	02	ATS490 APPLI PCBA