

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres
Directive 94/9/EC

(1) **EC-TYPE EXAMINATION CERTIFICATE**

- (3) Number of the EC type examination certificate: **INERIS 07ATEX0003X**

- (4) Equipment or protective system:

CPS Starters and Starters

TYPE : Telemecanique / Schneider Electric

**Ref : Product range TeSys U Power bases 12 and 32 A (LUS/LUB) with their control units references
LUCA LUCB, LUCD and LUCC**

- (5) Manufacturer: **Schneider Electric**
(6) Address: **31, rue Pierre MENDES-FRANCE
F-38320 EYBENS - FRANCE**

- (7) This equipment or protective system and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.
- (8) INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 1994, certifies that this equipment or protective system fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in annex II of the Directive.

The examinations and the tests are consigned in confidential report No P86689/07.

- (9) The respect of the Essential Health and Safety Requirements is ensured by:

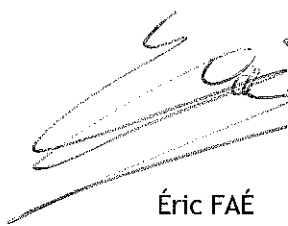
- conformity with:

EN 61508 (parts 1 and 2) of December 2001 : SIL 1
EN 954-1 (December 1996) and EN ISO 13849-2 of august 2003 : category 2.
NF EN 60079-14 of December 2003
EN 61241-14 of September 2004
IEC 60947-4-1 (2002-12)
IEC 60947-6-2 (2002-12)

- (10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.
- (11) This EC type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.
- (12) The marking of the equipment or the protective system will have to contain:

 II (2) GD

Verneuil-en-Halatte, 2007.03.19


Éric FAÉ

Project Manager at the ATEX
Equipment Evaluation Laboratory



Director of the Certifying Body,
By delegation
T. HOUeix
Certification Officer
Certification Division

(13)

ANNEX

(14)

EC TYPE EXAMINATION CERTIFICATE N° INERIS 07ATEX0003X

(15) **DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM**

« TeSys U » product range consists of two main architectures :

A) CPS Starter TeSys U

The TeSys U CPS Starters are Control and Protective switching devices (CPS) according to IEC 60947-6-2 standard. They consist of :

- a CPS Power base of « LUB » type linked with
- a control unit of « LUC » type

The CPS Power base is available in 2 maximum current versions (12A or 32A) and in 2 connecting versions (with or without terminal). This CPS Power base assures isolation, short-circuit protection and change over functions (manual or remote-controlled by internal contacts).

Associated Control units are off 4 different functional types, each type is divided in 6 current and 4 voltage ranges. Each of them assures the overload protection function.

Thus, the basic functions for a complete Motor starter are included in a single product. Other additional functions, with no impact on the « overload protection function » are available. These additional functions exists in the different options, modules and accessories that are optionally available for this product range.

A optional reverser module allows the motor control in the two rotations directions.

B) Starter TeSys U

The TeSys U Starters consist of :

- a Power base of « LUS » type linked with
- a control unit of « LUC » type

they assure change over and overload protection functions according to IEC 60947-4-1 standard.

« LUS » differs from « LUB » Power base by having no manual control (no isolation function) and no short-circuit protection. LUS Power base exists also in 2 different maximum current ranges (12A or 32A).

Other product and architecture functions are similar to previous described ones for the CPS Starter TeSys U family.

These two Starter architectures meet the qualitative and quantitative requirements of :

- **Category 2** according to EN 954-1 - and
- **SIL 1** according to EN 61508 parts 1 and 2 (table 2).

The data of the motor manufacturer and/or the data regarding explosion protection given in the Certificate of Conformity or in the EC-type-examination Certificate for explosion protected motors of the "Increased Safety" type of protection must be taken into account.

The TeSys U type starters may be installed only outside potentially explosive atmospheres for the protection of explosion-protected motors. When they are used in potentially explosive atmospheres, the device must be of the type of protection required.

The TeSys U type starters have been tested according to suitable test conditions by ASEFA using the following standards :

IEC 60947-4-1 (2002-12)

IEC 60947-6-2 (2002-12)

The certificates references number are :

Starter controller TeSys U :

Certificate N°	Standard	sequence	Reference of Power base
159a-04BT	60947-6-2	1	LUB12
161a-04BT	60947-6-2	1	LUB32
014a-05BT	60947-6-2	2	LUB12
017a-05BT	60947-6-2	2	LUB32
007a-05BT	60947-6-2	3	LUB32
008a-03BT	60947-6-2	3	LUB12
001a-05BT	60947-6-2	4	LUB12
004a-05BT	60947-6-2	4	LUB32
014a-03BT	60947-6-2	5	LUB12
0163a-04BT	60947-6-2	5	LUB32
166a-04BT	60947-6-2	8	LUB12
168a-04BT	60947-6-2	8	LUB32

Starter TeSys U :

Certificate N°	Standard	sequence	Reference of Power base
116-05BT	60947-4-1	1	LUS12
118-05BT	60947-4-1	1	LUS32
123a-05BT	60947-4-1	2	LUS12
125b-05BT	60947-4-1	2	LUS32
079-06BT	60947-4-1	3	LUS12
080-06BT	60947-4-1	3	LUS32

Additional information can be download from the internet website <http://www.telemecanique.com>

MARKING

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

Telemecanique

Schneider Electric

Reference of Power base: LUB.. or LUS.. (see after)

Reference of Power base: LUCA..., LUCB..., LUCC... or LUCD... (see below)

INERIS 07ATEX0003X (*)

(Batch number including manufacturing date)

 II (2) GD (*)

(*)information only given on the control unit. The information " Batch number including manufacturing date " is not clearly mentioned on the product, although available through the specific " DATAMATRIX ZONE" marking.

The different types of devices taken into account in this certificate are :

References of Power base (8 references)											
Starter controller ACP											
Power base 12A	LU	B12							without terminal:	LU	B120
Power base 32A	LU	B32							without terminal:	LU	B320
Starter											
Power base 12A	LU	S12							without terminal:	LU	S120
Power base 32A	LU	S32							without terminal:	LU	S320

References of control units (96 references)												
Control Unit			6 calibers for current						4 calibers for Voltage			
			0.15-0.6 A	0.35-1.4 A	1.25-5 A	3-12 A	4.5-18 A	8-32 A	24 VDC	24 VAC	48-60 VAC 48-72 VDC	110-240 VAC/ DC
Standard 3 phases motor cl. 10	LU	CA	X6	1X	05	12	18	32	BL	B	ES	FU
Advanced 3 phases motor cl. 10	LU	CB	X6	1X	05	12	18	32	BL	B	ES	FU
Advanced 3 phases motor cl. 20	LU	CD	X6	1X	05	12	18	32	BL	B	ES	FU
Advanced single phase motor cl. 10	LU	CC	X6	1X	05	12	18	32	BL	B	ES	FU

+ WARNINGS

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

None.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation of the equipment, subject of this certificate.

- Descriptive notice (pages + drawings) signed on 14/02/2007
- Instruction for use (pages) signed on 14/02/2007
- INERIS safety analysis of TeSys U n° CGR 86689 / CL 86690 - TeSys U signed on 2006 March

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are mentioned in the instruction for use of the safety device.

The apparatus must be located out of explosive atmospheres or be protected by a standardized mode of protection.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- The tests carried out and their positive results mentioned in ASEFA certificates mentioned in (15).
- Suitably selected and adjusted safety devices of this type are necessary for the safe operation of motors of the type of protection "increased safety". The devices themselves are installed outside potentially explosive atmospheres (article 1, section 1-of ATEX directive 94/9/CE)

ADDITION

(3) INERIS 07ATEX0003X/01

(4) CPS Starters and Starters
TYPE : Telemecanique / Schneider Electric
Ref : Product range TeSys U Power bases 12 and 32 A (LUS/LUB)
with their control units references LUCA LUCB, LUCD and LUCC

(5) Made by Schneider Electric / Telemecanique

(15) **PURPOSE OF THE ADDITION**

- The evolutions are identified in INERIS certification report DSC-16-138721-02728A.
- Extension of references
- New version of standards

The paragraph 9 of the of EC type Examination certificate INERIS 08ATEX0012X is changed by :

EN 50495 July 2010	: SIL 1
EN 61508 (parts 1 and 2) December 2001	: SIL 1
EN 60947-6-2:2003 + A1	:2007 test sequence 1, 2, 3, 4, 5 and 8

« TeSys U » product range consists of the following architecture:

CPS STARTER TESYS U

The TeSys U CPS Starters are Control and Protective Switching devices (CPS) according to IEC 60947-6-2 standard. They consist of:

- a CPS Power base of « LUB » type linked with
- a control unit of « LUC » type

The CPS Power base is available in 2 maximum current versions (12A or 32A) and in 2 connecting versions (with or without terminal). This CPS Power base assures isolation, short-circuit protection and change over functions (manual or remote-controlled by internal contacts).

Associated Control units are off different functional types, each type is divided in 6 current and 4 voltage ranges. Each of them assures the overload protection function.

Thus, the basic functions for a complete Motor starter are included in a single product. Other additional functions, with no impact on the « overload protection function » are available. These additional functions exists in the different options, modules and accessories that are optionally available for this product range.

A optional reverser module allows the motor control in the two rotations directions.

Other product and architecture functions are similar to previous described ones for the CPS Starter TeSys U family.

The architecture of Thermal overload relays meets the qualitative and quantitative requirements of :

- **Annex II § 1.5 according to ATEX Directive 94/9/EC - safety device.**
- **SIL 1** according to EN 61508 parts 1 and 2 (table 2).
- **SIL 1** according to EN 50495:2010.

The data of the motor manufacturer and/or the data regarding explosion protection given in the Certificate of Conformity or in the EC-type-examination Certificate for explosion protected motors of the "Increased Safety" type of protection must be taken into account.

The TeSys U type starters may be installed only outside potentially explosive atmospheres for the protection of explosion-protected motors. When they are used in potentially explosive atmospheres, the device must be of the type of protection required.

The TeSys U type starters have been tested according to suitable test conditions by ASEFA using the following standards :

EN 60947-6-2:2003 + A1:2007 test sequence 1, 2, 3, 4, 5 and 8
depending on the following certificates. Test reports are mentioned inside these certificates

The certificates of conformity issued by ASEFA references are :

063-12BT, 064-12BT, 078-12BT, 077-12BT, 067-12BT, 065-12BT, 066-12BT, 081-12BT, 079-12BT, 080-12BT, 084-12BT, 070-12BT, 082-12BT, 068-12BT, 083-12BT, 069-12BT, 073-12BT, 071-12BT, 072-12BT, 087-12BT, 085-12BT, 086-12BT, 076-12BT, 074-12BT, 075-12BT, 090-12BT, 088-12BT, 089-12BT, 166a-04BT, 167a-04BT, 168a-04BT, 169a-04BT, 056a-06BT, 057a-06BT, 058a-06BT, 059a-06BT dated 2012/09/20

Additional information can be download from the internet website <http://www.schneider-electric.com>

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking is modified as follows:

SCHNEIDER ELECTRIC and / or TELEMECANIQUE

Reference of Power base: LUB. (see after)

Reference of Power base: LUCA..., LUCB..., LUCC... or LUCD... (see below)

INERIS 07ATEX0003X

(Batch number including manufacturing date)

 II (2) GD
[Ex e]

OR
 I (M2)
[Ex e]

OR

 II (2) GD -  I (M2)

[Ex e]

The different types of devices taken into account in this certificate are :

References of Power base (8 references)						
Starter controller ACP						
Power base 12A	LU	B12		without terminal:	LU	B120
Power base 32A	LU	B32		without terminal:	LU	B320

References of control units (96 references)												
Control Unit			6 calibers for current						4 calibers for Voltage			
			0.15-0.6 A	0.35-1.4 A	1.25-5 A	3-12 A	4.5-18 A	8-32 A	24 VDC	24 VAC	48-60 VAC 48-72 VDC	110-240 VAC/DC
Standard 3 phases motor cl. 10	LU	CA	X6	1X	05	12	18	32	BL	B	ES	FU
Advanced 3 phases motor cl. 10	LU	CB	X6	1X	05	12	18	32	BL	B	ES	FU
Advanced 3 phases motor cl. 20	LU	CD	X6	1X	05	12	18	32	BL	B	ES	FU
Advanced single phase motor cl. 10	LU	CC	X6	1X	05	12	18	32	BL	B	ES	FU

(*) The information " Batch number including manufacturing date " are not clearly mentioned on the product, because they are available through the specific marking " DATAMATRIX ZONE".

The paragraphs 15 and 16 of the of EC type Examination certificate INERIS 07ATEX0003X are remains valid.

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are unchanged.

(16) DESCRIPTIVE DOCUMENTS

Following descriptive documents hereafter contains the information and technical information related to LRD/ LR3D products lines are :

- | | |
|--|----------------|
| - Descriptive notice | signed on 2015 |
| - Instruction notice | signed on 2015 |
| - INERIS certification report of TeSys U | signed on 2016 |

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is modified as follows:

- Conformity to the standards quoted in clause (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2016.03.15



The Chief Executive Officer of INERIS
By delegation

Dominique CHARPENTIER
Responsable Pôle Certification
Certification Division, Manager