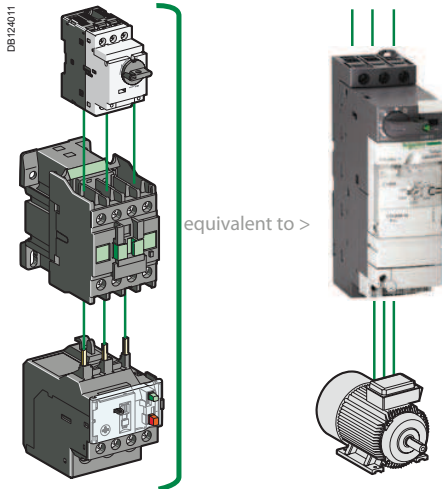


1



### The Standard TeSys U replaces conventional components in a smaller space

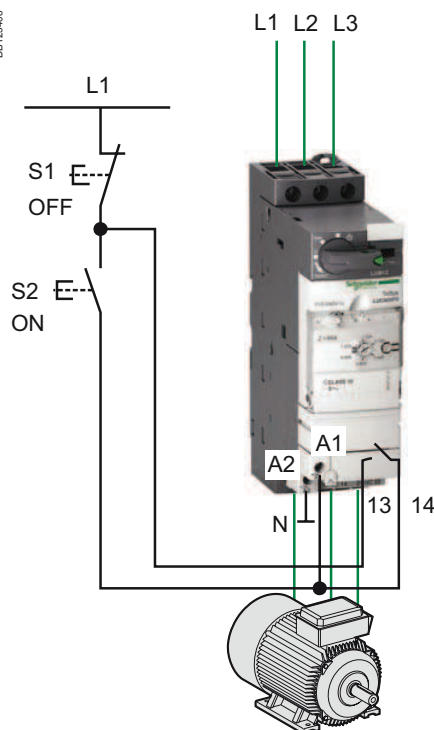
- The Standard TeSys U starter-controller incorporates all the conventionally associated functions: circuit breaker + contactor + thermal relay.
- It considerably reduces wiring time.
- The electrical coordination of the components is intrinsically ensured.

Space-saving

Time-saving

Safety

DB 122408



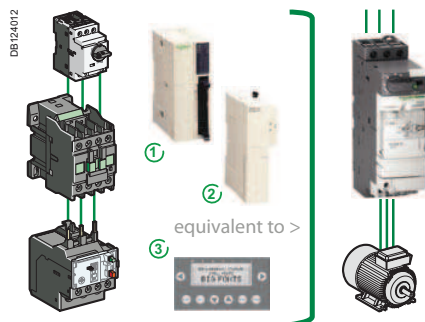
### The Standard TeSys U meets 80 % of protection – motor control requirements

The functions embedded in the Standard TeSys U unit are those which are commonly deployed in simple solutions:

- Adjustable protection against overloads and short-circuits
- ON/OFF control of one direction of rotation
- The wiring diagram illustrates ON/OFF pushbutton control. TeSys U incorporates "coil" terminals A1-A2 and "self-holding auxiliary contacts" 13-14.

Conventional control diagram

Preservation of know-how



- ① Input / output card  
 ② Communication interface  
 ③ LCD display unit

Furthermore, this version significantly extends the control possibilities.

Advanced TeSys U incorporates the basic functions (protection, motor control) to which one or more functions that are usually carried out with automation modules can be added: motor status remote indication, protection trip remote indication, remote reset, overload alarm, transmission over bus, alphanumeric display, etc.

1

Space-saving

Economical optimisation



By also allowing variable speed control

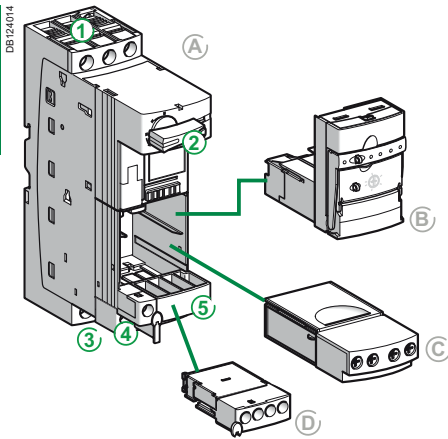
■ Advanced TeSys U connected to the XYZ variable speed controller also constitutes a natural variable speed control solution. It makes it possible to maintain the homogeneity of a motor control panel already well equipped with TeSys U starter-controllers.

Homogeneity

Simplicity

Performance

1



- ① Power supply terminal block
- ② ON/OFF/Reset control handle
- ③ "Motor" terminal block
- ④ "Coil" power supply terminal
- ⑤ Built-in auxiliary contacts

Creating a motor feeder with TeSys U requires combination of at least a power base and a control unit. The plug and play principle of this product allows other modules to be added to provide access to additional functions.

### Standard TeSys U - non-reversing

This configuration consists of a power base, a control unit and possibly an auxiliary contact module. It is used to protect a motor and to switch it ON/OFF.

#### A LUB12 or LUB32 power base

This power base incorporates the power components: terminal blocks, switching mechanism and power contacts. It also includes a set of NO-NC auxiliary contacts and their terminal blocks.

#### B LUCA, LUCL control unit

These control units incorporate the detection and protection functions with respect to:

- overload – short circuit
- phase failure – phase imbalance
- earth fault protection (equipment protection only).

The LUCL control unit is exclusively used with the variable speed controller.

#### C Additional auxiliary LUF signalling contacts

#### D LUA signalling contacts

- Indicate that the protective device has tripped.

LU2B 12 - LU2B 32  
Reverser control assembly



### Standard TeSys U - non-reversing and reversing

#### LU2B12

Reversing power base allowing a motor to be controlled in both directions of operation.

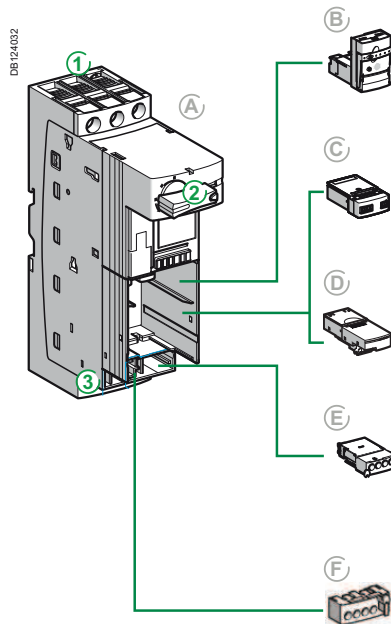
It incorporates the power components and the auxiliary contacts used to remotely indicate the direction of rotation.

The NO-NC auxiliary contacts used to remotely indicate the ON/OFF status are to be ordered separately, in the same way as the LUCA control module.

# Advanced TeSys U

For advanced applications or applications incorporating communication

- ① Power supply terminal block
- ② ON/OFF/Reset control handle
- ③ "Motor" terminal block



## Advanced TeSys U - non-reversing

This version consists of a power base, an advanced control unit and possibly an information or communication module for the measurement and alarm functions. They complement the main ON/OFF control function.

### (A) LUB120, LUB320 power base

This power base incorporates the power components: terminal blocks, switching mechanism and power contacts. It also incorporates the auxiliary contacts (terminal block not included).

### (B) LUCB, LUCC, LUCD supervisable control units

detection / tripping / measurement

### (C) LUCM control unit with display

detection / tripping / measurement  
load parameter, alarm, log display, etc.

### (D) Thermal overload signalling LUF module,

Motor load indication LUF module  
Motor overload alarm LUF module

### (E) LUL communication modules

AS-Interface, Modbus, Profibus DP, CANopen,  
DeviceNet or Advantys STB

### (F) LUA signalling contacts

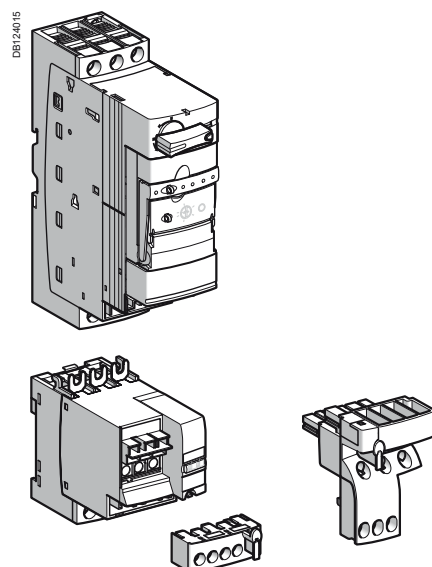
indicate that the protective device has tripped

**Plug-in integrated auxiliary contact terminal block**

## Advanced TeSys U - non-reversing and reversing

An LU2M reverser block is added according to the principle of the Standard TeSys U. No preassembled reverser assembly in the Advanced TeSys U version.

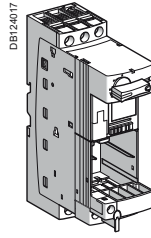
A reverser assembly can be built by ordering the different parts separately. This makes it possible to modify the installation or to create assemblies that incorporate a communication module.



1

## Power base

For assembling components, connecting to the process, ON / OFF operation, resetting.



### Standard TeSys U

LUB12

LUB32

## Control unit

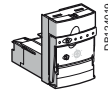
This unit is essential for providing all the electrical protection functions.

Some of these also provide advanced measurement, alarm and display functions.

### Standard control unit

#### LUCA

Class 10 - 3-phase  
(see page 1/71)

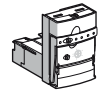


- Protection against overloads and short-circuits.
- Protection against phase failure and phase imbalance.
- Earth fault protection (equipment protection only).
- Manual reset.

### Magnetic control unit

#### LUCI

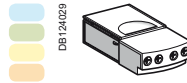
For use with a variable speed controller or a soft starter  
(see page 1/134)



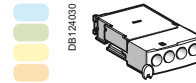
- Short-circuit protection.
- Manual reset.
- Motor thermal overload protection must be provided by the variable speed controller or the soft starter.

## Auxiliary contact module

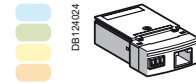
For additional remote indication contacts.  
Indication of pole status or cause of tripping



Auxiliary contact module - pole status  
**LUFA1C**  
(see page 1/65)

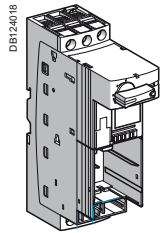


Auxiliary contact module - protection status  
**LUFA1C** (depending on configuration)  
(see page 1/65)



Auxiliary contact module (protection status, pole status) on RJ connector  
**LUFC00**  
(see page 1/78)

Code showing the compatibility of modules with control units.

**Advanced TeSys U****LUB120****LUB320****Control and diagnostic unit****LUCB**

Class 10 - 3-phase

**LUCC**

Class 10 - single-phase

**LUCD**

Class 20 - 3-phase

(see page 1/71)



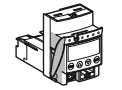
DB124019

Same functions as the standard control unit.  
In addition, in conjunction with a function module:

- fault differentiation with manual reset,
- fault differentiation with remote or automatic reset,
- thermal overload alarm,
- indication of motor load.

**Multi-function control unit****LUCM**

Classes 5 to 30 –  
single-phase and  
three-phase  
(see page 1/72)



DB124020

Same functions as the standard control unit.  
In addition, reset parameters can be set to manual or automatic.

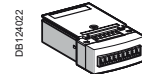
- protection function alarm.
- indication on front panel or on remote terminal.
- "log" function.
- main motor parameter "monitoring" function.
- differentiation of thermal overload and magnetic fault.
- overload, no-load running.

**Fault signalling module**

For indicating the cause  
of tripping and allowing  
a reset.



Thermal overload signalling  
module and manual reset.  
**LUF DH11**  
(see page 1/73)



Thermal overload signalling  
module and automatic or  
remote reset  
**LUG DA01** and **LUF DA10**  
(see page 1/73)

**Load level module**

For indicating the load  
level, alerting a threshold  
overshoot.



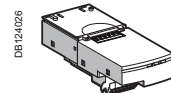
Motor load indication module.  
**LUF V2**  
(see page 1/73)



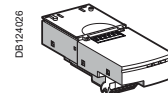
Thermal overload alarm  
module  
**LUF W10**  
(see page 1/73)

**Communication module**

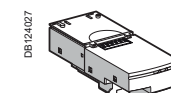
For monitoring the status  
of the starter-controller  
from a centralised  
automation system.



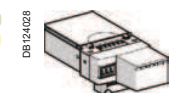
CANopen  
communication module  
**LUF V2**  
(see page 1/86)



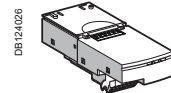
DeviceNet  
communication module  
**LUL C09**  
(see page 1/92)



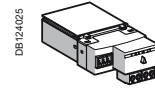
Advantys stb  
communication module  
**LUL C15**  
(see page 1/92)



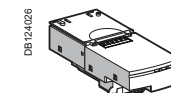
Modbus  
communication module  
**LUL C033**  
(see page 1/94)



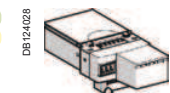
BECKHOFF  
communication module  
**LUL C14**  
(contact us)



AS-Interface  
communication module  
**ASILUF C51**  
(see page 1/80)



Profibus DP  
communication module  
**LUL C07**  
(see page 1/82)



Module for Ethernet  
communication  
**LUL C033 + TeSys port**  
(contact us)