

Switch units

- **the switch can be closed** only if the earthing switch is open and the access panel is in position.
- **the earthing switch can be closed** only if the switch is open.
- **the access panel for connections can be opened** only if the earthing switch is closed.
- **the switch is locked** in the open position when the access panel is removed. The earthing switch may be operated for tests.

Circuit-breaker units

- **the disconnecter(s) can be closed** only if the circuit breaker is open and the front panel is locked (interlock type 50).
- **the earth switch(es) can be closed** only if the disconnecter(s) is/are open.
- **the access panel for connections can be opened** only if:
 - the circuit breaker is locked open,
 - the disconnecter(s) is/are open,
 - the earth switch(es) is/are closed.

Note: it is possible to lock the disconnecter(s) in the open position for no-load operations with the circuit breaker.

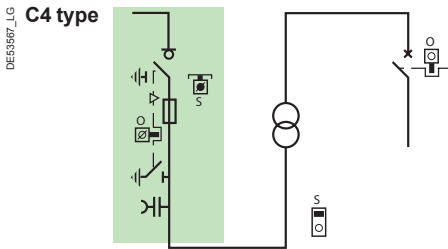
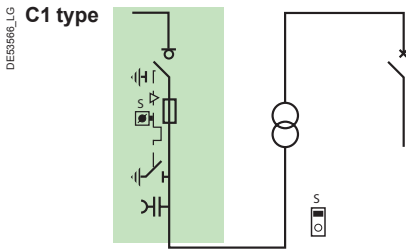
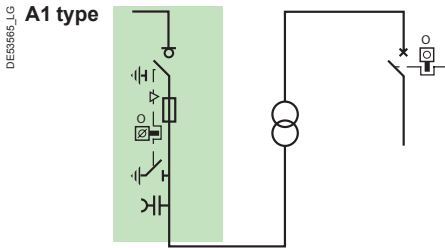
Functional interlocks

These comply with IEC recommendation 62271-200 and EDF specification HN 64-S-41 (for 24 kV).

In addition to the functional interlocks, each disconnecter and switch include:

- **built-in padlocking** capacities (padlocks not supplied)
- **four knock-outs** that may be used for keylocks (supplied on request) for mechanism locking functions.

Unit interlock													
Units	Interlock												
	A1	C1	C4	A3	A4	A5	50	52	P1	P2	P3	P5	
IM, IMB, IMC				■	■				■				
PM, QM, QMB, QMC,	■	■	■										
DM1-A, DM1-D, DM1-W, DM1-Z, DM1-S, DMV-A, DMV-D, DMV-S, DMVL-A, DMVL-D	■	■	■				■						
CVM		■						■					
NSM				■					■				
GAM				■		■						■	
SM										■	■		
DM2							■						



Key-type interlocks

Outgoing units

Aim:

- to prevent the closing of the earthing switch on a transformer protection unit unless the LV circuit breaker is locked in "open" or "disconnected" position.

- to prevent the access to the transformer if the earthing switch for transformer protection has not first been closed.

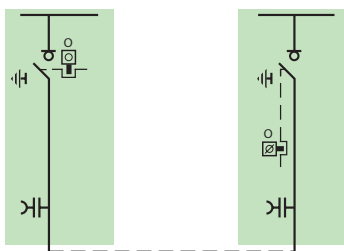
- to prevent the closing of the earthing switch on a transformer protection unit unless the LV circuit breaker is locked in "open" or "disconnected" position.
- to prevent the access to the transformer if the earthing switch for transformer protection has not first been closed.

Legend for key-type interlocks:

□ no key □ free key ■ captive key — panel or door

A3 type

DES366_LG



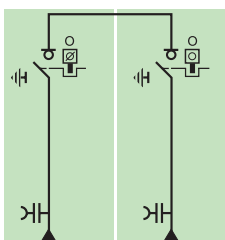
Ring units

Aim:

- to prevent the closing of the earthing switch of a load-side cubicle unless the line-side switch is locked "open".

A4 type

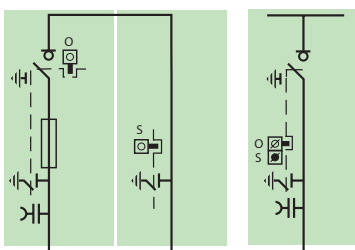
DES369_LG



- to prevent the simultaneous closing of two switches.

A5 type

DES370_LG



- to prevent the closing of the earthing switch of the casing unit unless the downstream and the upstream switches are locked in the "open" position.

Legend for key-type interlocks:

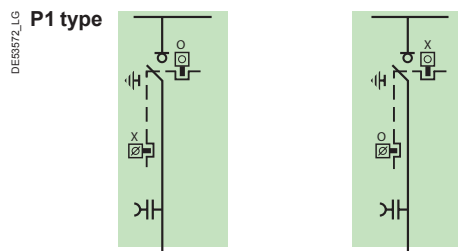
no key

free key

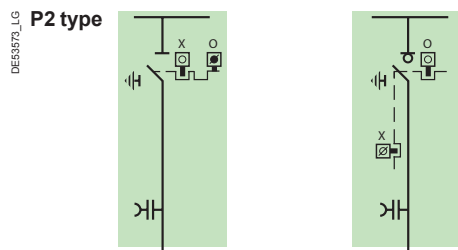
captive key

panel or door

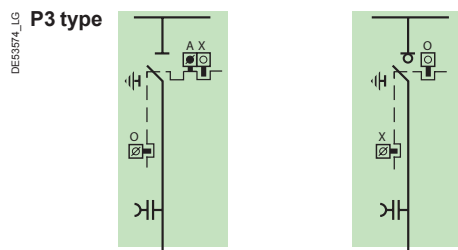
Interlocks



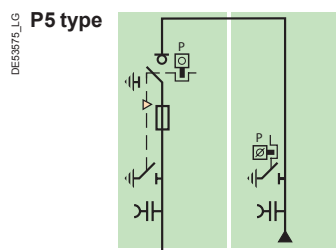
- to prevent the closing of an earthing switch if the switch of the other unit has not been locked in the "open" position.



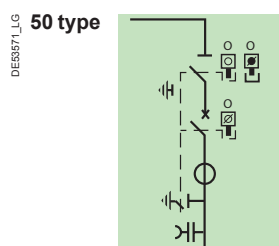
- to prevent on-load operation of the disconnector unless the switch is locked "open"
- to prevent the closing of the earthing switches unless the disconnector and the switch are locked "open".



- to prevent on-load operation of the disconnector unless the switch is locked "open"
- to prevent the closing of the earthing switches with the unit energised, unless the disconnector and the switch are locked "open"
- to allow off-load operation of the switch.



- to prevent the closing of the earthing switch of the incoming unit unless the disconnector and the switch is locked "open".



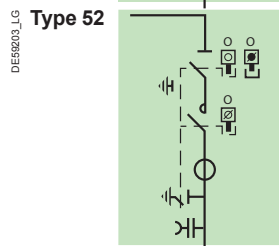
Functional interlocks

Prevents

- on-load switching of the disconnectors.

Allows

- off-load operation of the circuit breaker with the disconnectors open (double isolation).
- off-load operation of the circuit breaker with the disconnector open (single isolation).



Prevents

- on-load switching of the disconnectors.

Allows

- off-load operation of the contactor with the disconnectors open (double isolation).
- off-load operation of the contactor with the disconnector open (single isolation).

Legend for key-type interlocks:

no key

free key

captive key

panel or door