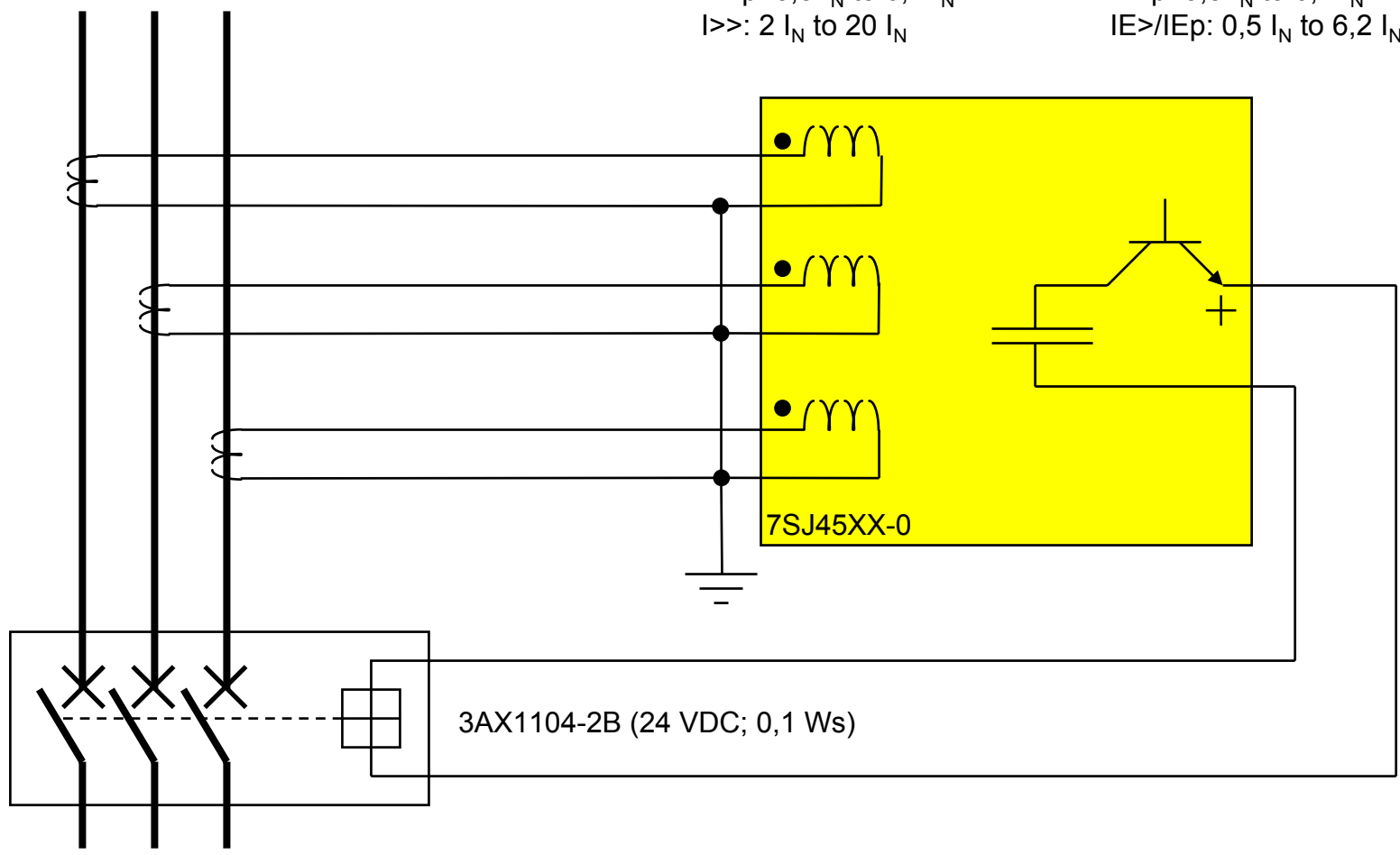




CT-powered 7SJ45 with pulse output

MODE I>>
 I>/I_p: 0,5 I_N to 6,2 I_N
 I>>: 2 I_N to 20 I_N

or **MODE IE**
 I>/I_p: 0,5 I_N to 6,2 I_N
 IE>/IE_p: 0,5 I_N to 6,2 I_N

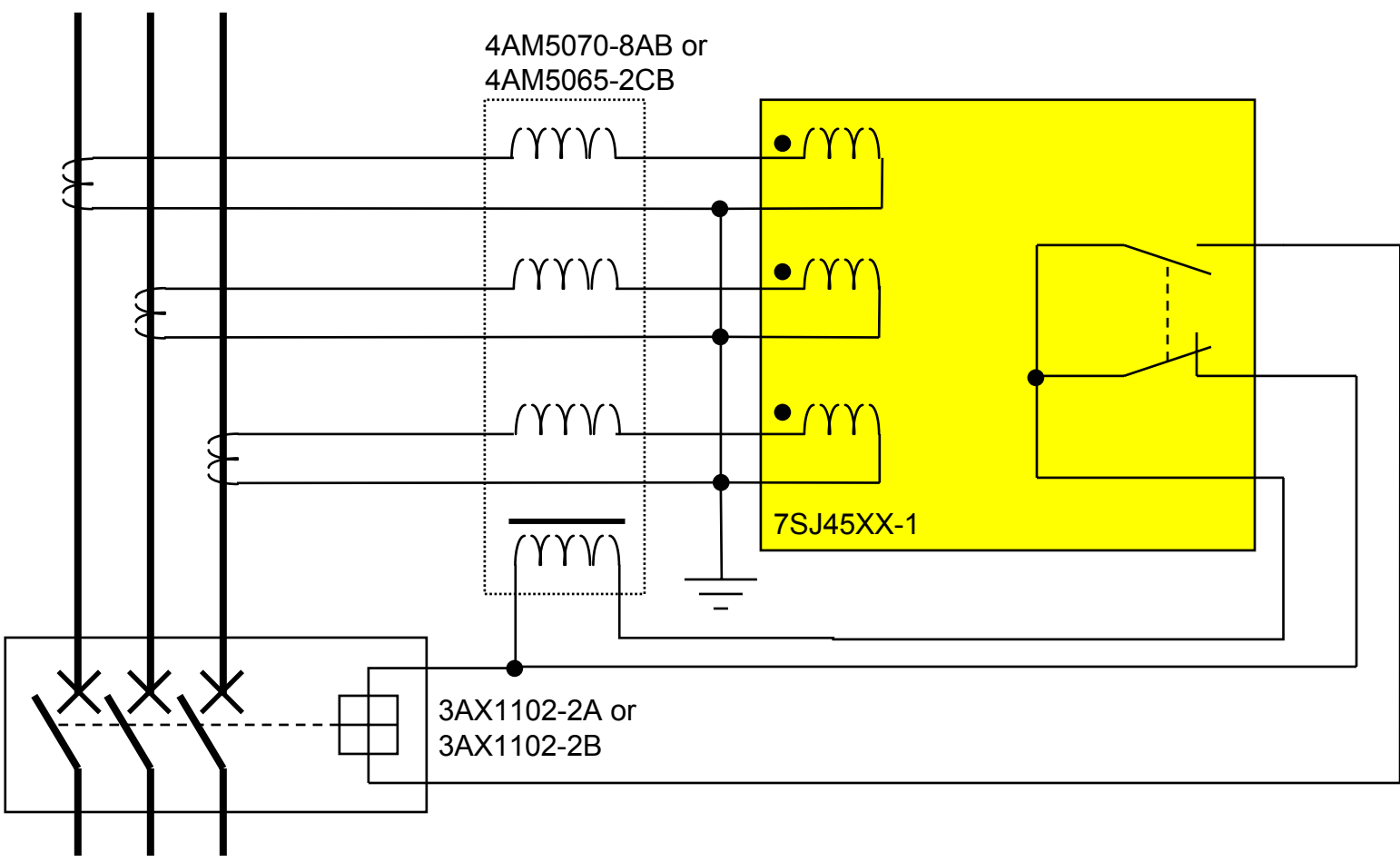




CT powered 7SJ45 with relay contact and auxiliary trip transformer

MODE I>>
I>/Ip: 0,5 I_N to 6,2 I_N
I>>: 2 I_N to 20 I_N

or **MODE IE**
I>/Ip: 0,5 I_N to 6,2 I_N
IE>/IEp: 0,5 I_N to 6,2 I_N

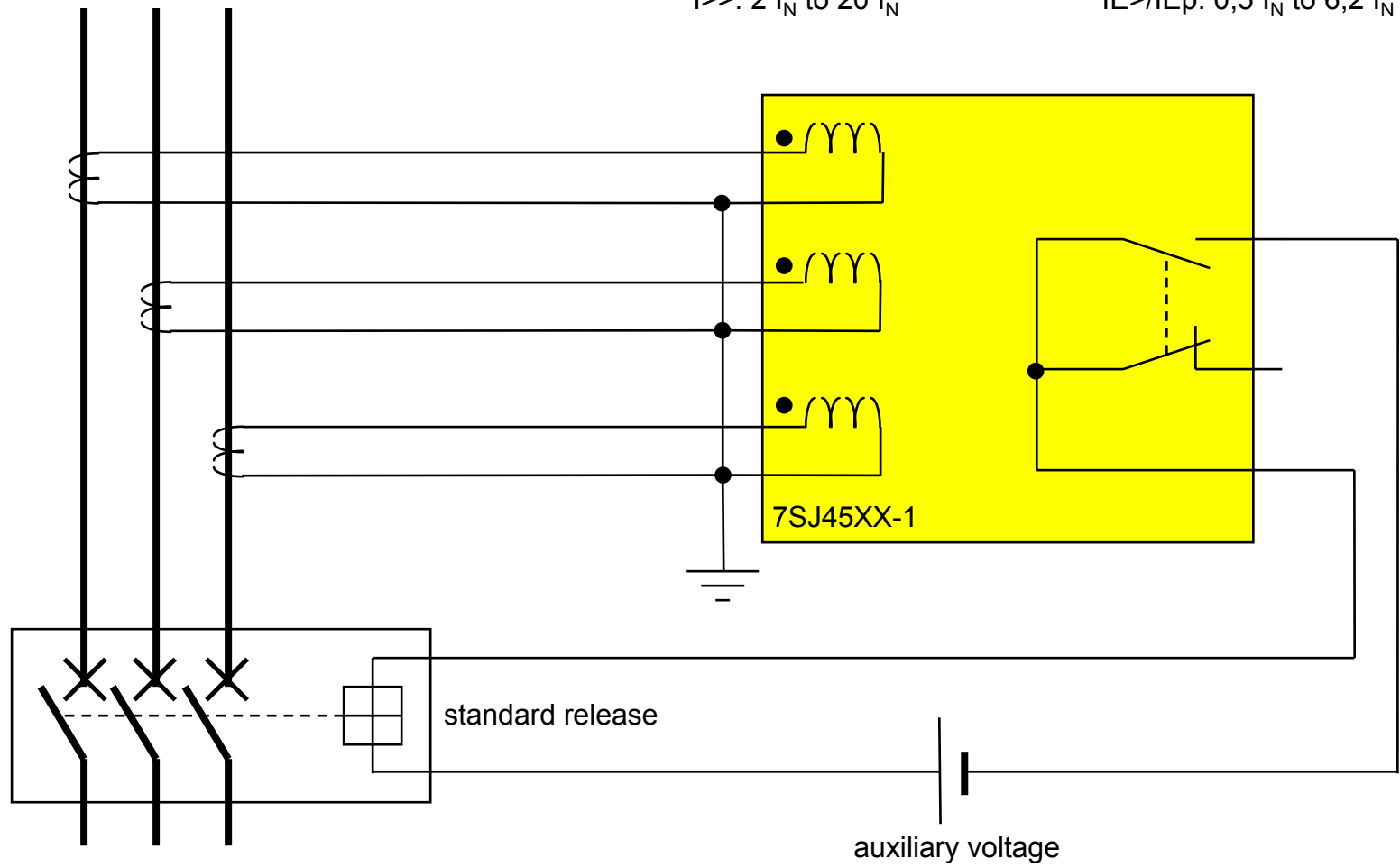




CT powered 7SJ45 with relay contact and station battery

MODE I>>
 I>/Ip: 0,5 I_N to 6,2 I_N
 I>>: 2 I_N to 20 I_N

or **MODE IE**
 I>/Ip: 0,5 I_N to 6,2 I_N
 IE>/IEp: 0,5 I_N to 6,2 I_N



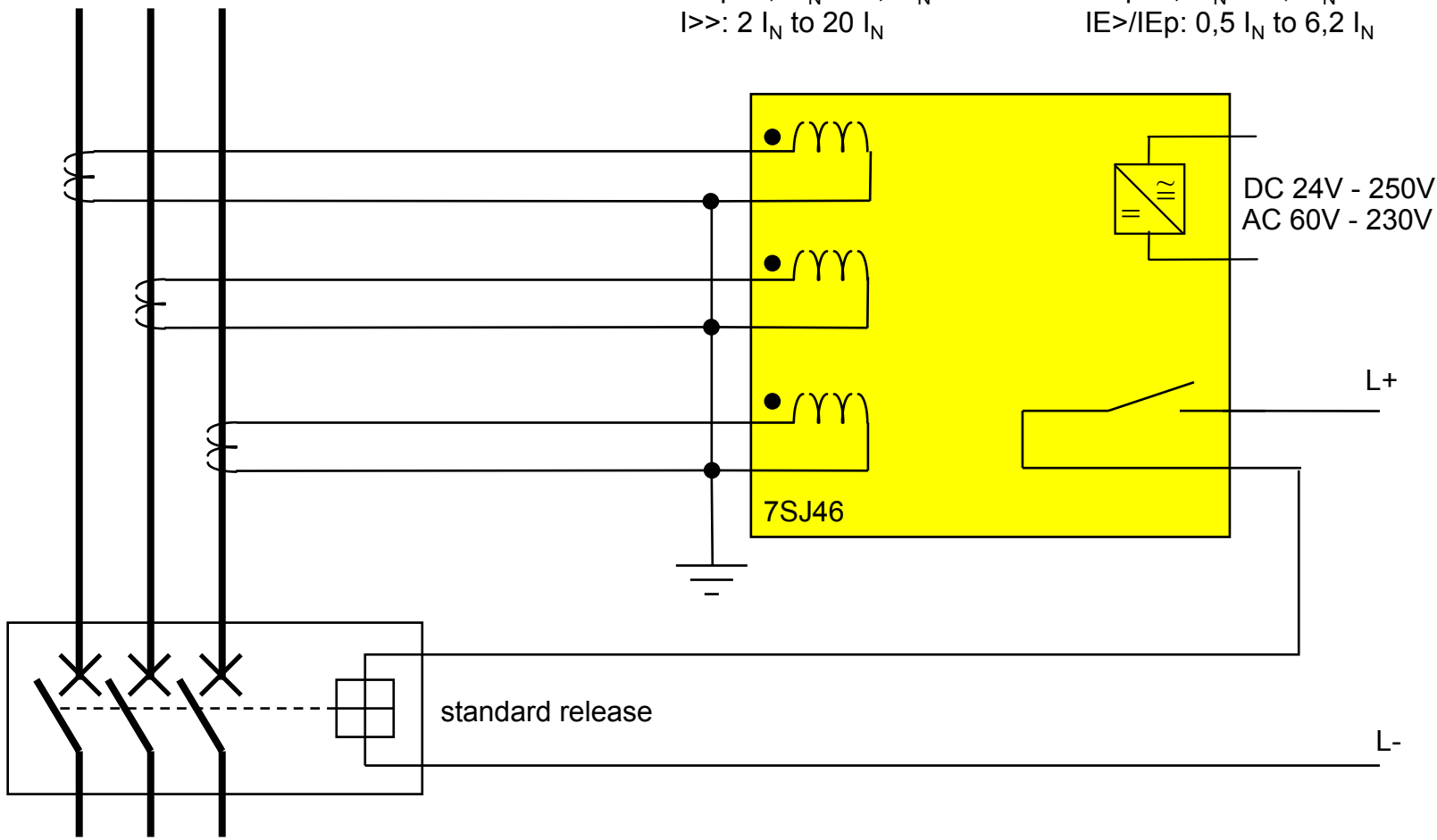


Application with AC/DC powered version 7SJ46



MODE I>>
 I>/Ip: 0,5 I_N to 6,2 I_N
 I>>: 2 I_N to 20 I_N

or **MODE IE**
 I>/Ip: 0,5 I_N to 6,2 I_N
 IE>/IEp: 0,5 I_N to 6,2 I_N





Application with AC/DC powered version 7SJ46 Earth Fault Protection (normal or sensitive)

MODE I>>

I>/I_p: 0,5 I_N to 6,2 I_N

I>>: 2 I_N to 20 I_N

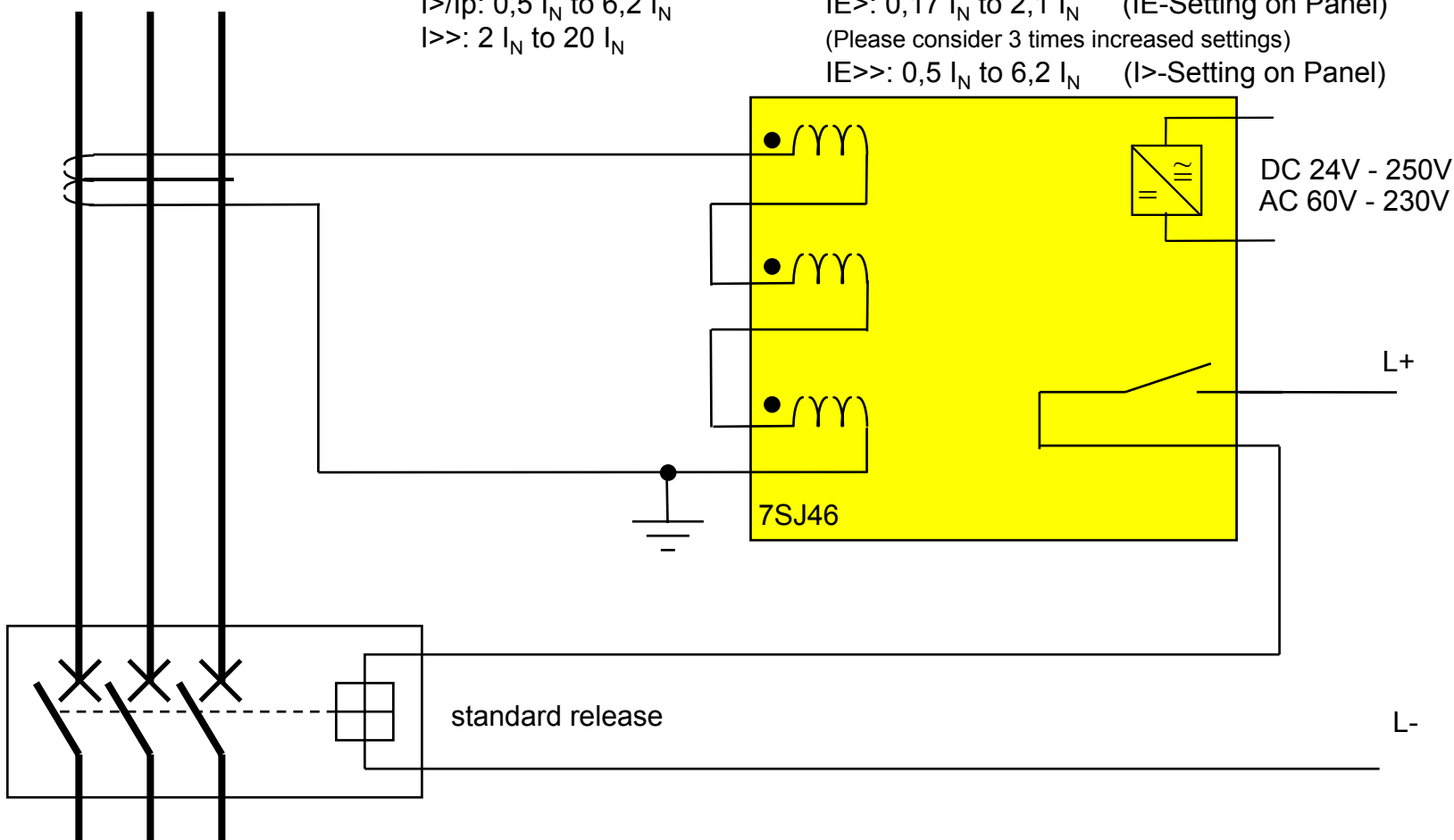
or

MODE IE

IE>: 0,17 I_N to 2,1 I_N (IE-Setting on Panel)

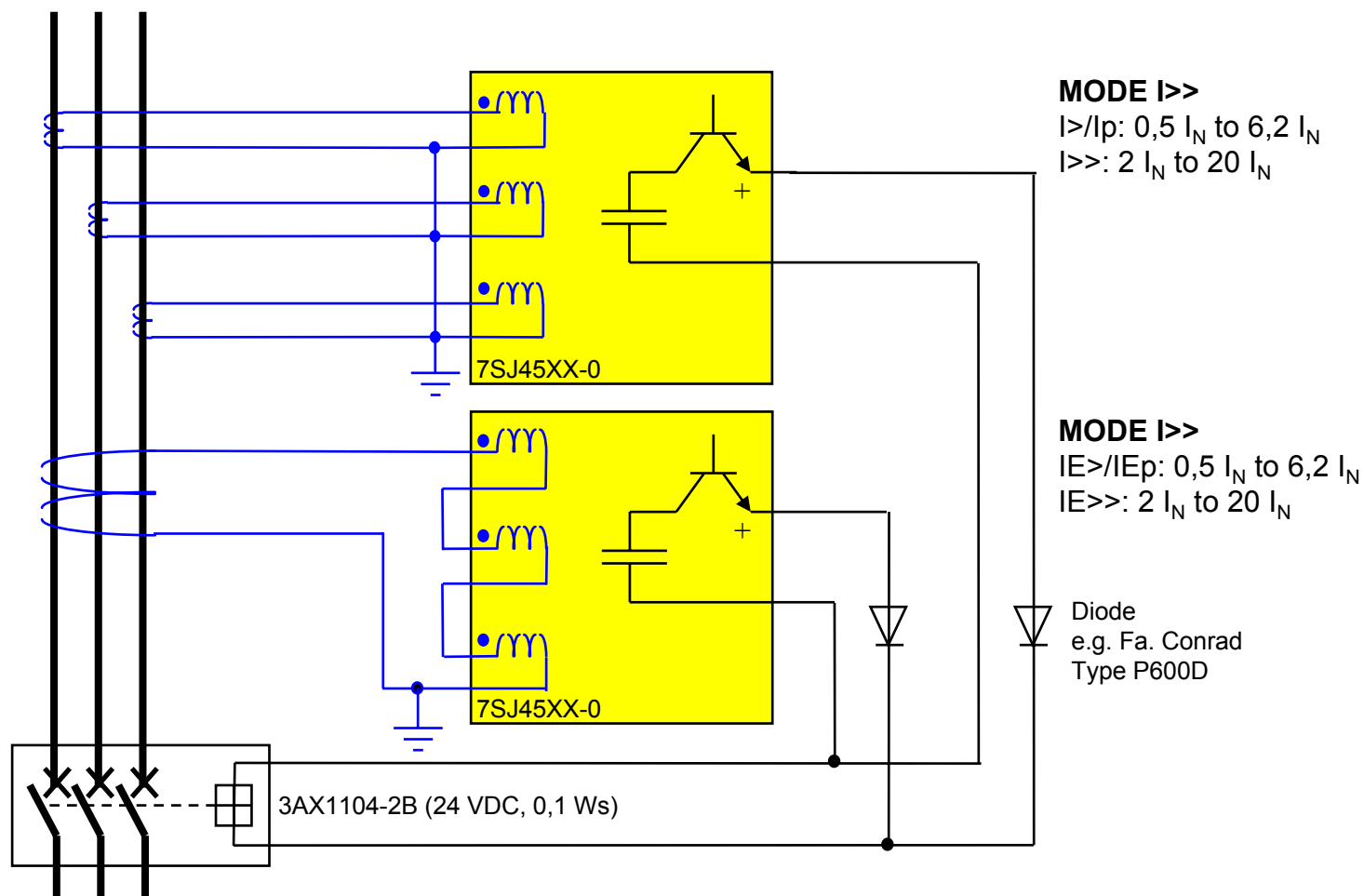
(Please consider 3 times increased settings)

IE>>: 0,5 I_N to 6,2 I_N (I>-Setting on Panel)



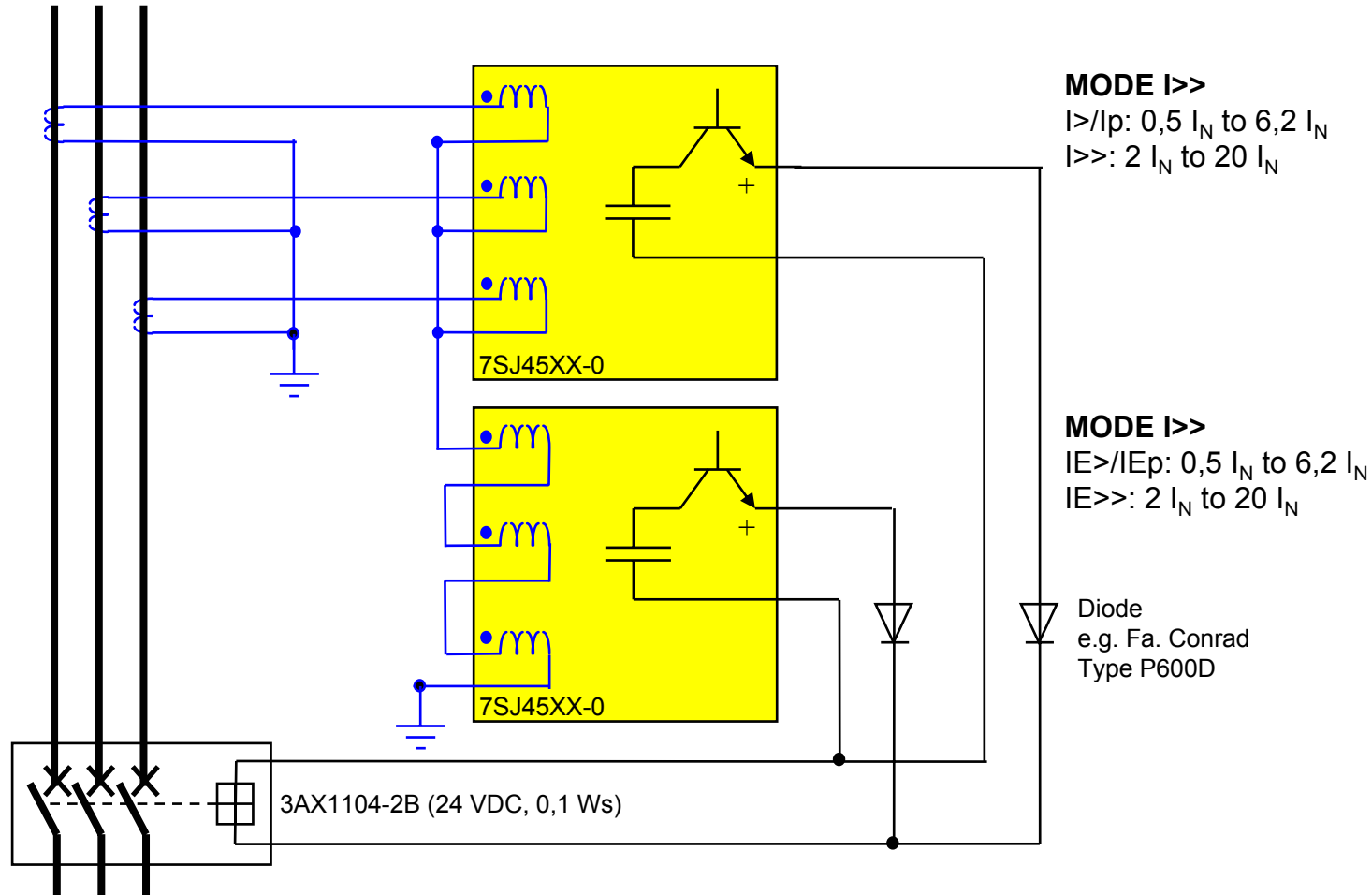


CT-powered SIPROTEC **easy** 7SJ45 (Pulse Output, 4-stage, sensitive IE)





CT-powered SIPROTEC easy 7SJ45 (Pulse Output, 4-stage, normal IE)





Dual-powered combination SIPROTEC **easy** 7SJ45/46 (Pulse Output, 4-stage, sensitive IE)

MODE I>>

I>/I_p: 0,5 I_N to 6,2 I_N

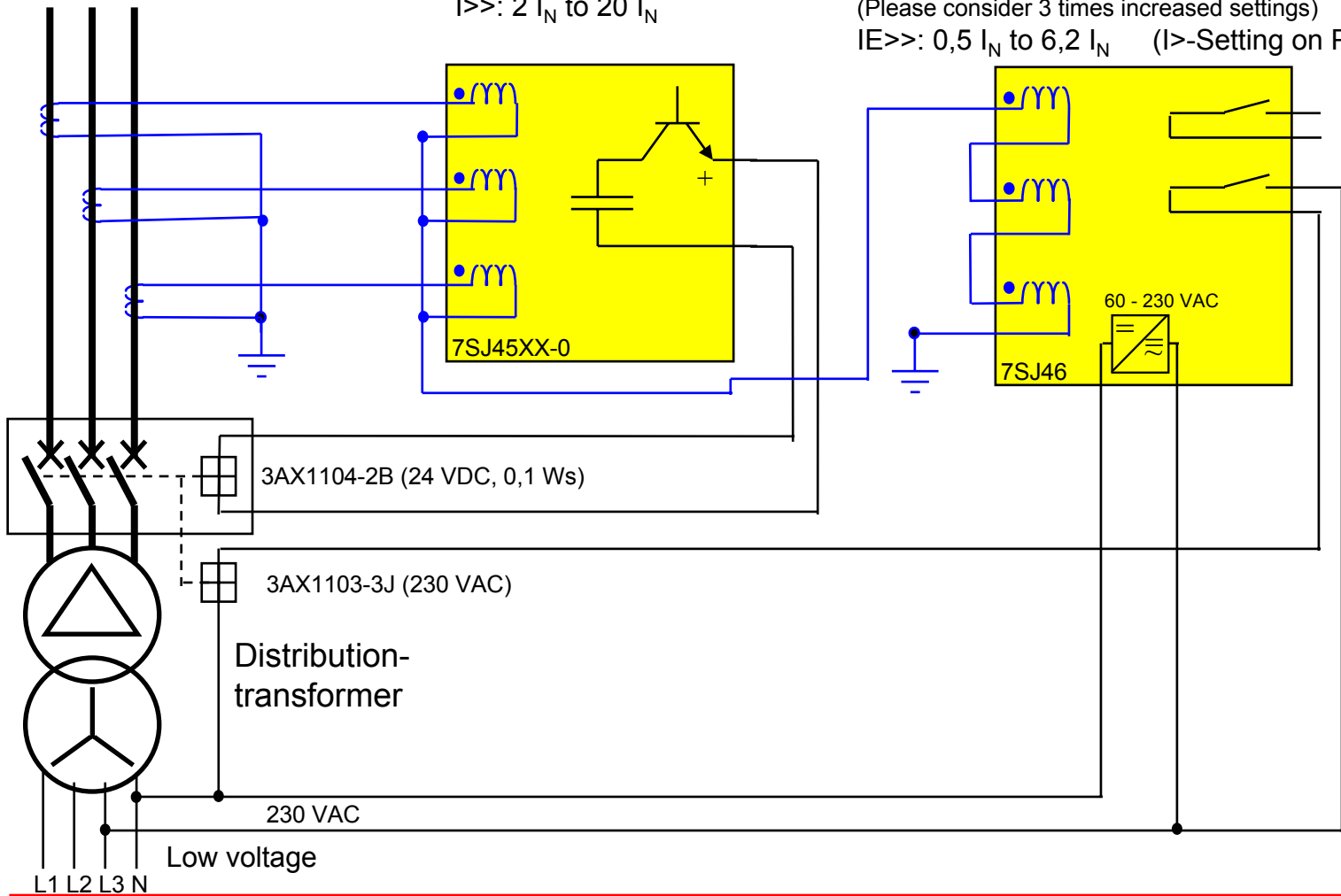
I>>: 2 I_N to 20 I_N

MODE IE

IE>: 0,17 I_N to 2,1 I_N (IE-Setting on Panel)

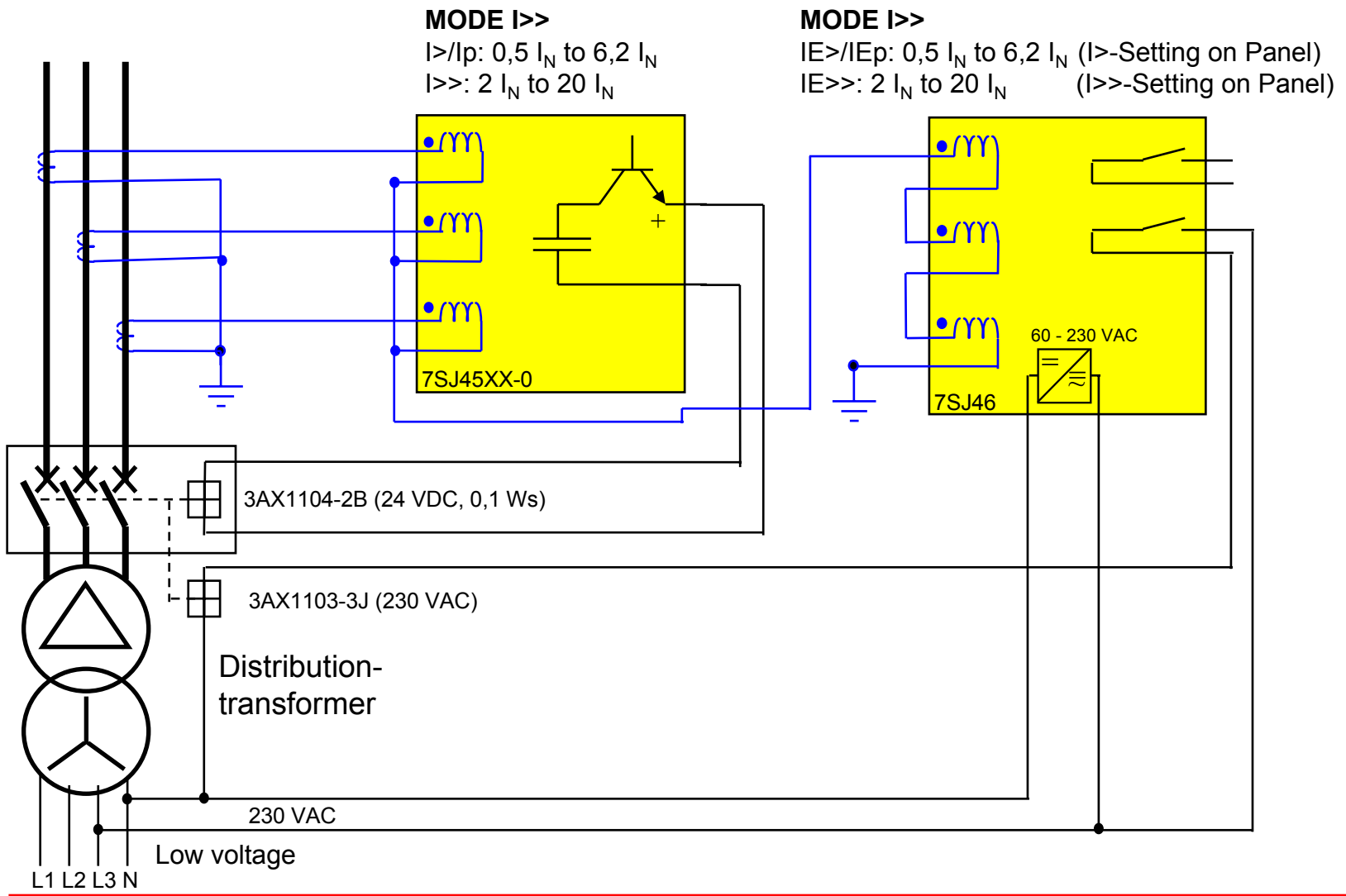
(Please consider 3 times increased settings)

IE>>: 0,5 I_N to 6,2 I_N (I>-Setting on Panel)



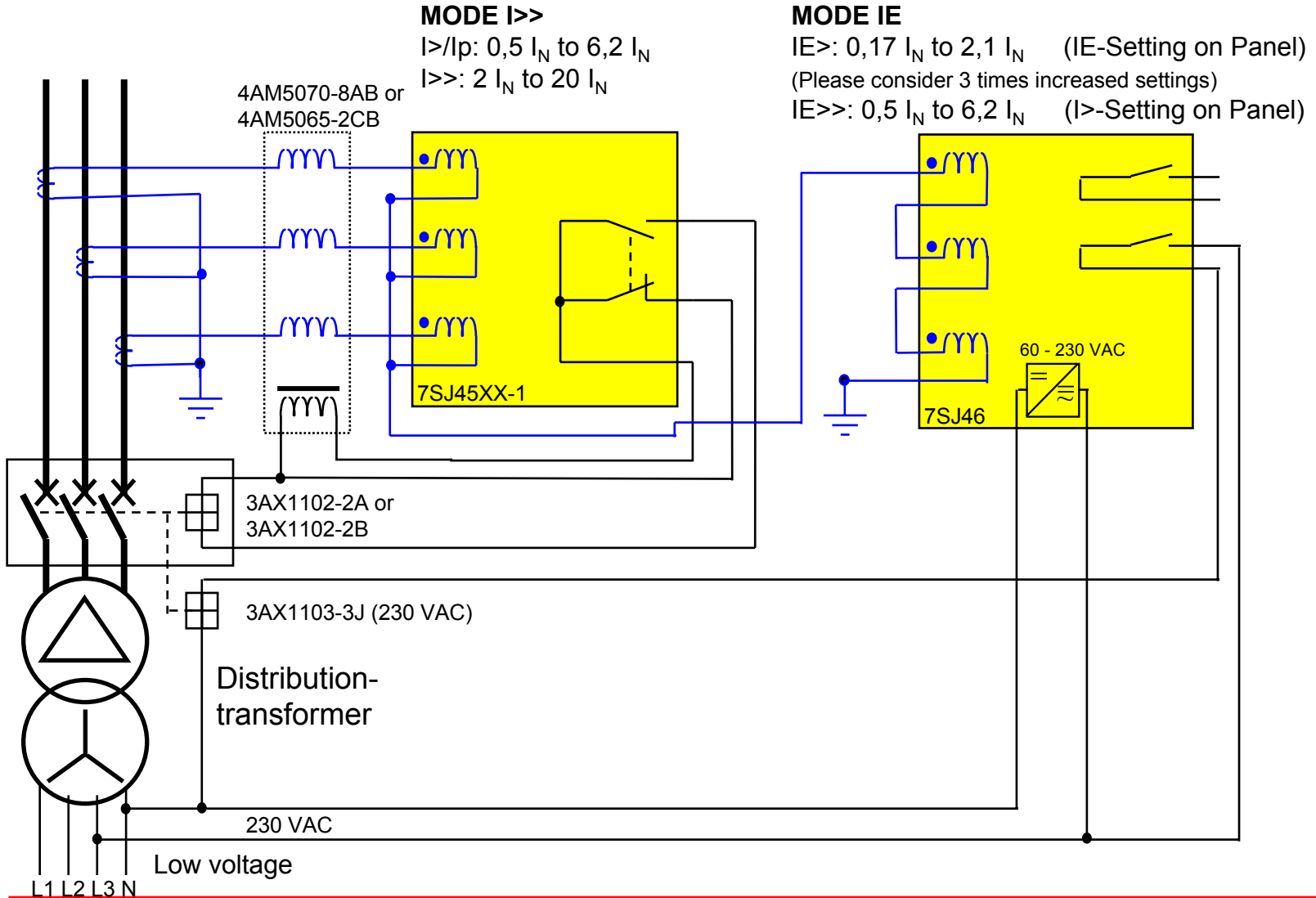


Dual-powered combination SIPROTEC easy 7SJ45/46 (Pulse Output, 4-stage, normal IE)



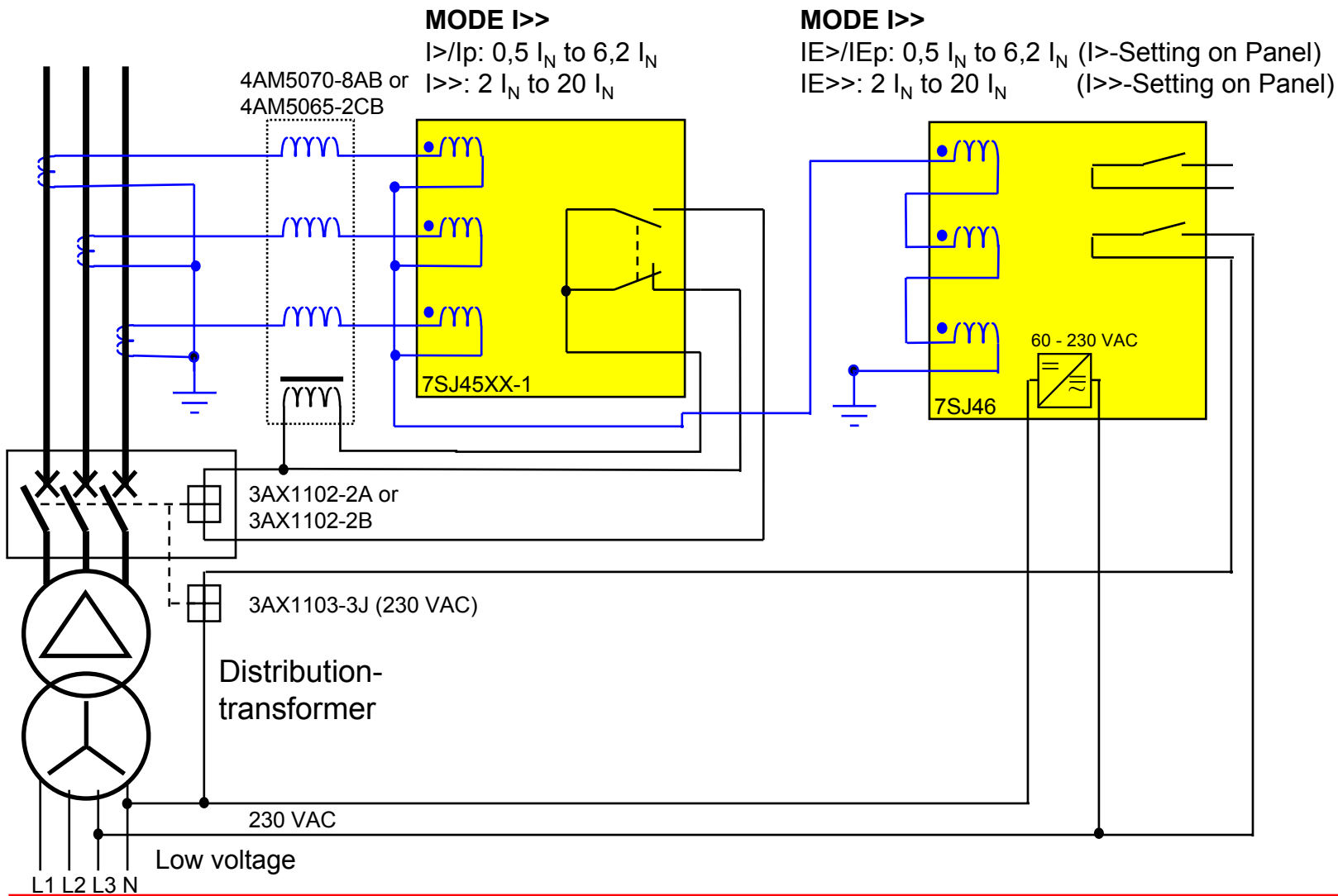


Dual-powered combination SIPROTEC **easy** 7SJ45/46 (Relay-Output, 4-stage, sensitive IE)



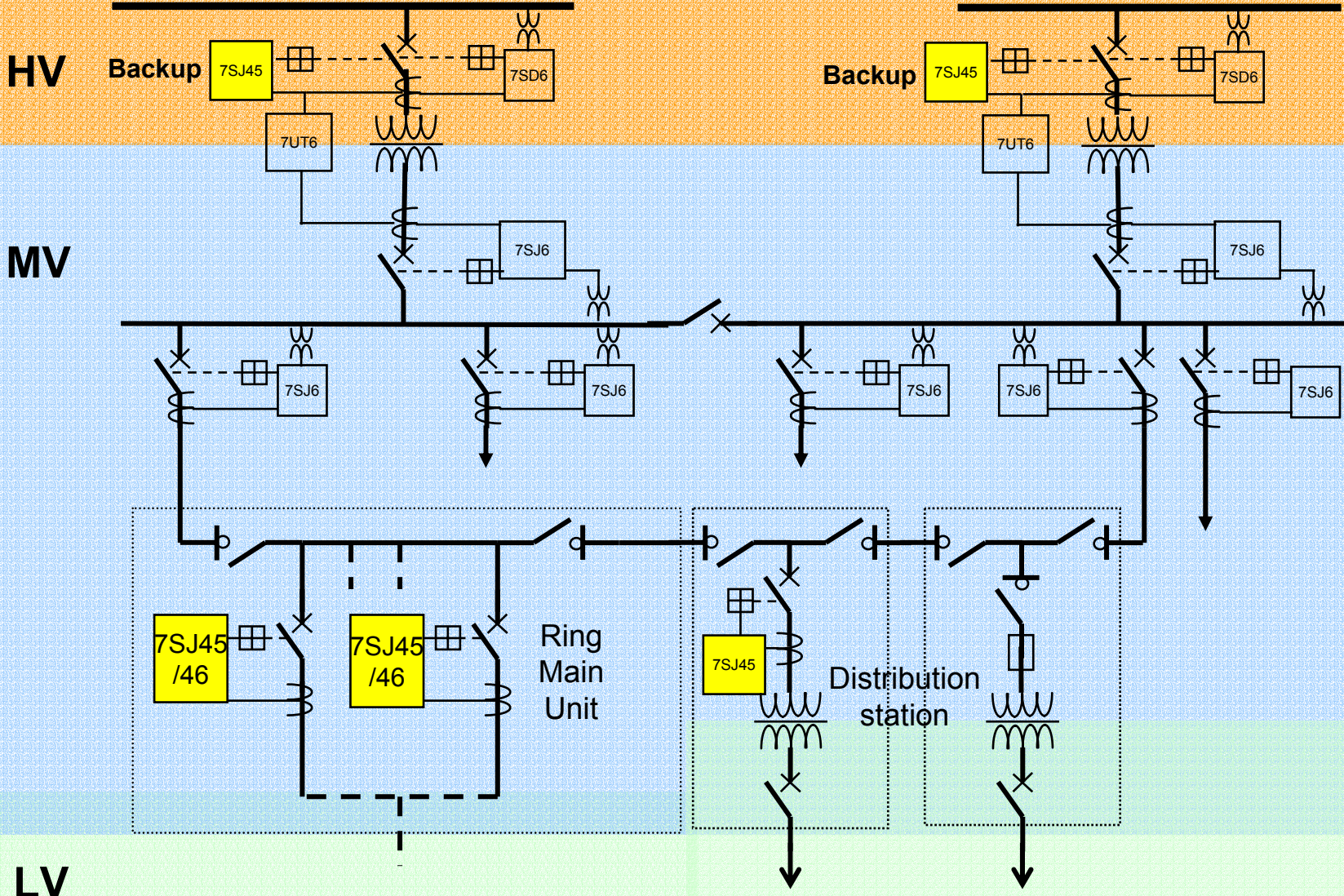


Dual-powered combination SIPROTEC **easy** 7SJ45/46 (Relay-Output, 4-stage, normal IE)



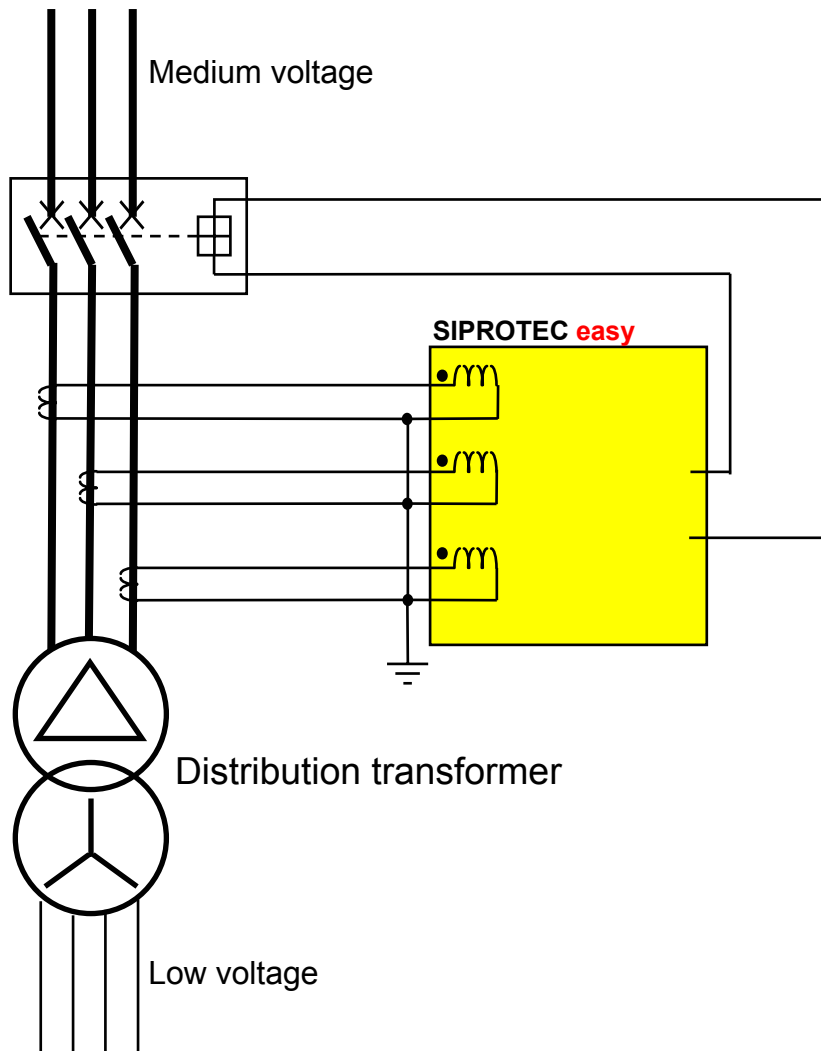


Application





SIPROTEC **easy** for distribution transformer application



Settings (inverse time):

Mode IE

$I_p = 0,5 I_N$ to $4 I_N$ step 0,1

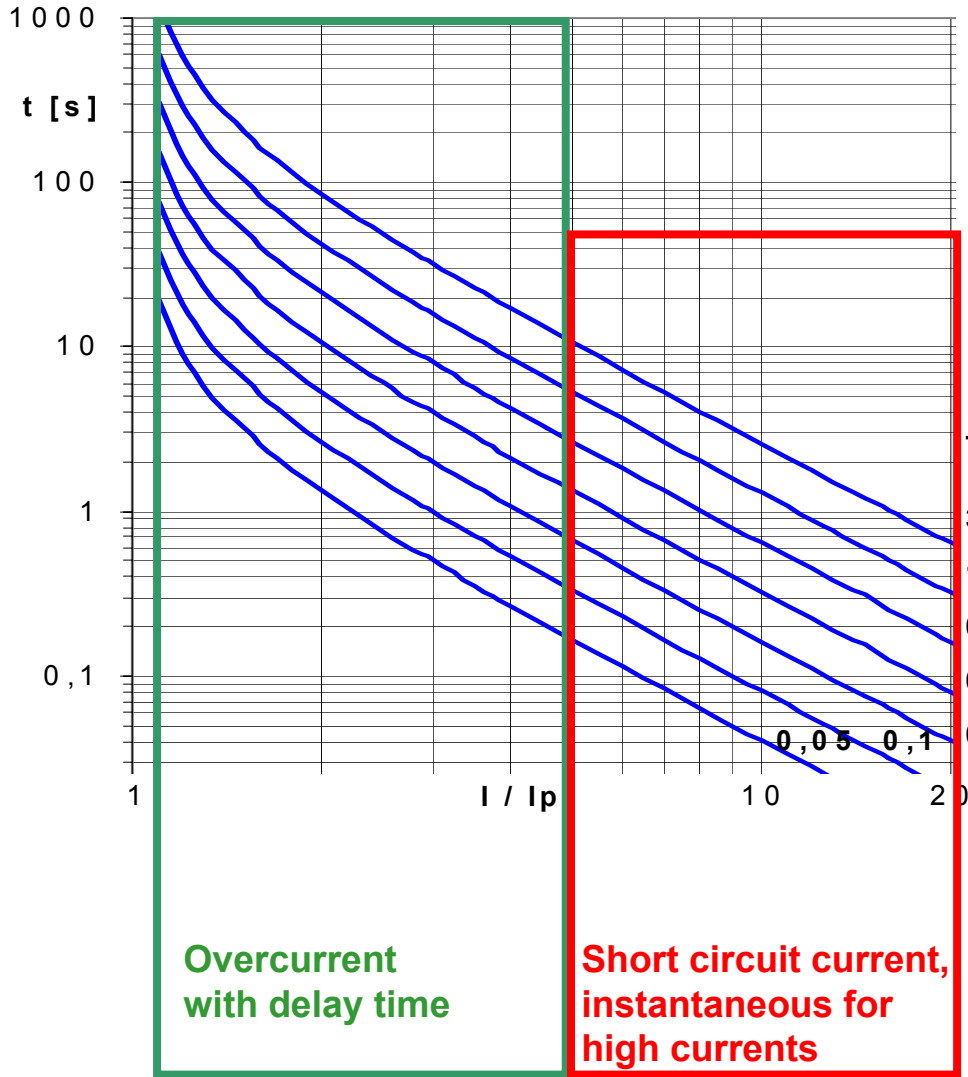
$T_{Ip} = 0,05$ to $3,15$ s step 0,05 s

$I_{Ep} = 0,5 I_N$ to $4 I_N$ step 0,1

$T_{IEp} = 0,05$ to $3,15$ s step 0,05 s
(example see next page)



SIPROTEC *easy* for distribution transformer application



Example: IEC 51

Extremely inverse, E INV

$I_p = 1,2 I_N$, $T_{Ip} = 0,05$ s

$I_{Ep} = 0,5 I_N$, $TIEp = 0,05$ s

→ Tripping for phase current $> 1,2 I_N$ with delay time < 19 s.
 Instantaneous tripping for phase current at $10 I_N$ (58 ms).

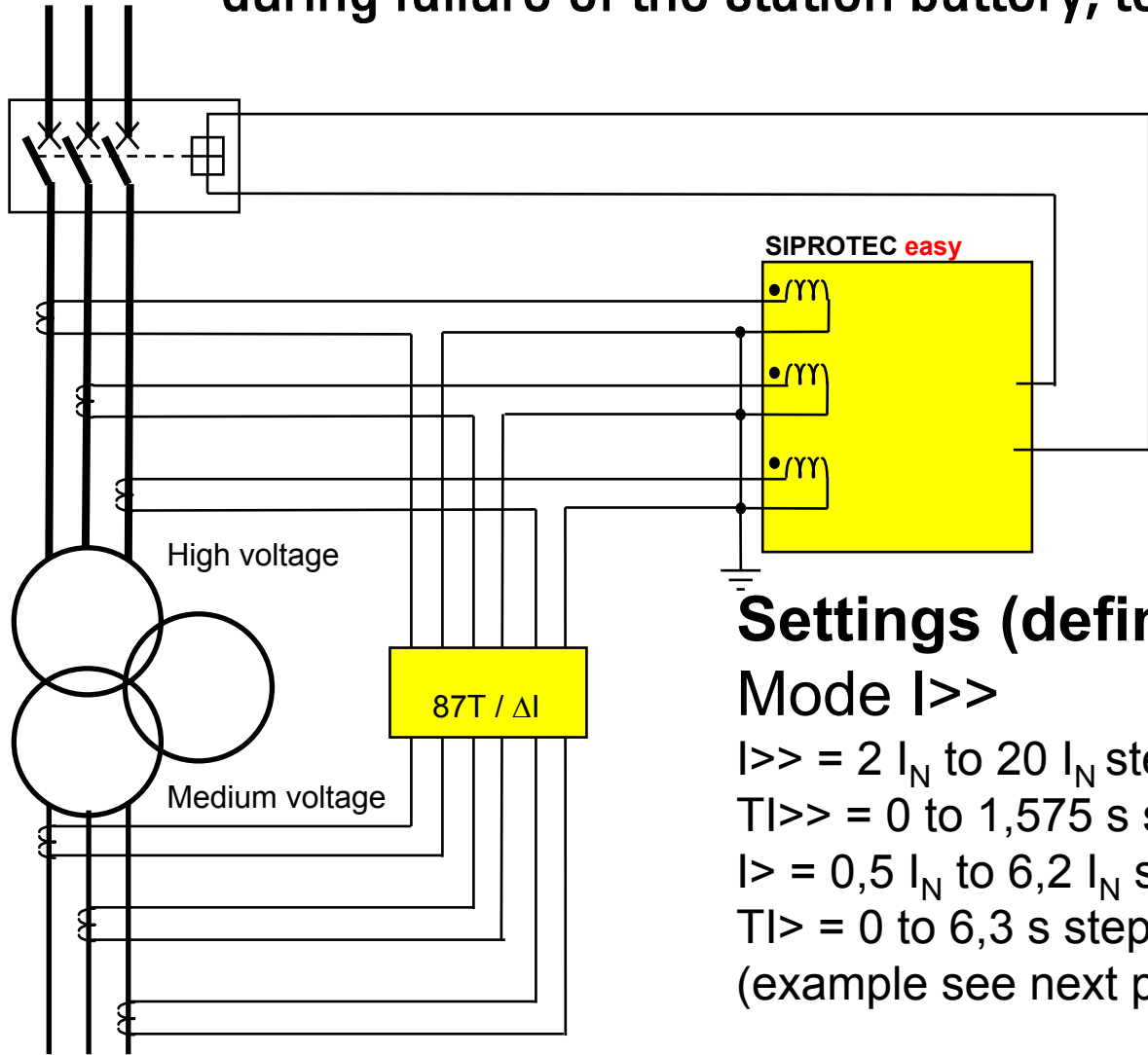
Tripping for earth current $> 0,5 I_N$ with delay time < 19 s.
 Instantaneous tripping for earth current at $5 I_N$ (40 ms).

Overcurrent with delay time

Short circuit current, instantaneous for high currents



SIPROTEC **easy** for transformer protection (backup) - during failure of the station battery, too (7SJ45) -



Settings (definite time):

Mode I>>

I>> = $2 I_N$ to $20 I_N$ step 0,5

TI>> = 0 to 1,575 s step 0,025 s

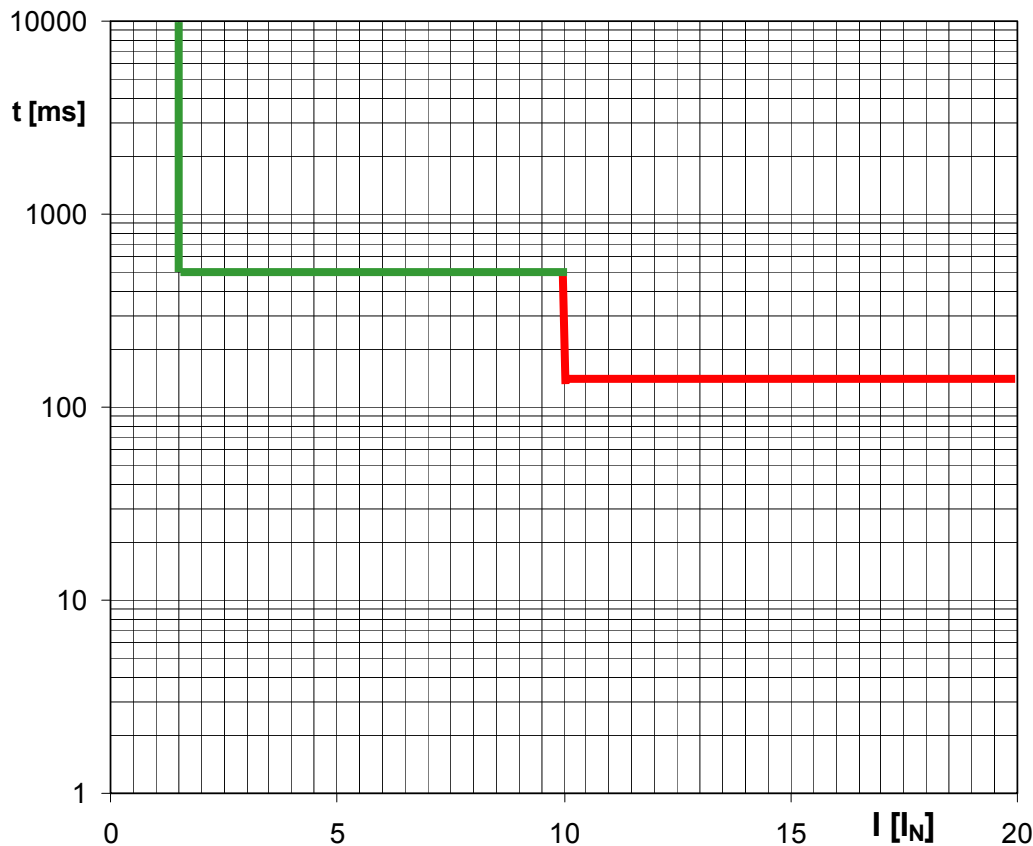
I> = $0,5 I_N$ to $6,2 I_N$ step 0,1

TI> = 0 to 6,3 s step 0,1 s

(example see next page)



SIPROTEC *easy* for transformer protection (backup)



Example:

Definite time DT O/C

$I > = 1,5 I_N, T I > = 0,5 s$

$I >> = 10 I_N, T I >> = 0,15 s$

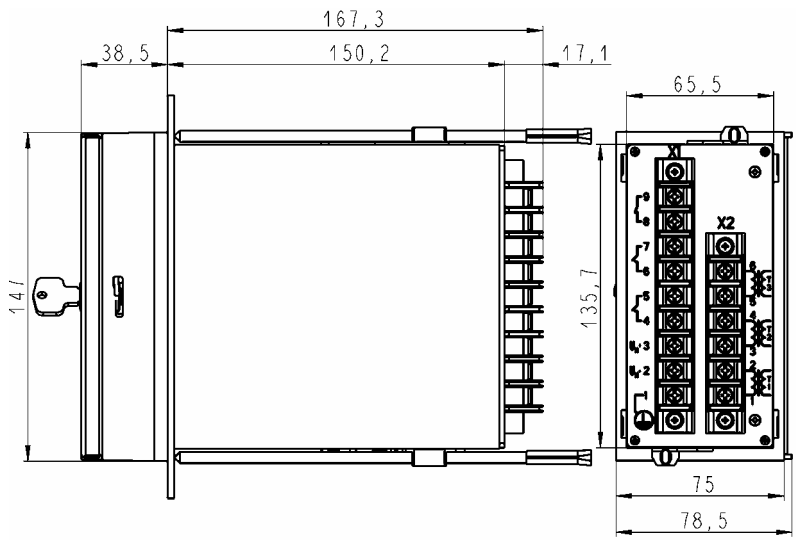
- Tripping at $1,5 I_N$ with delay time of 500 ms.
- Instantaneous tripping at $10 I_N$ with delay time of 150 ms.

$I >, T I >$:
Overcurrent
with delay time

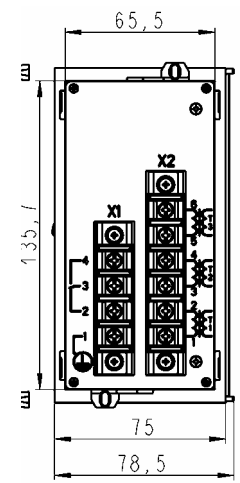
$I >>, T I >>$:
Short circuit current



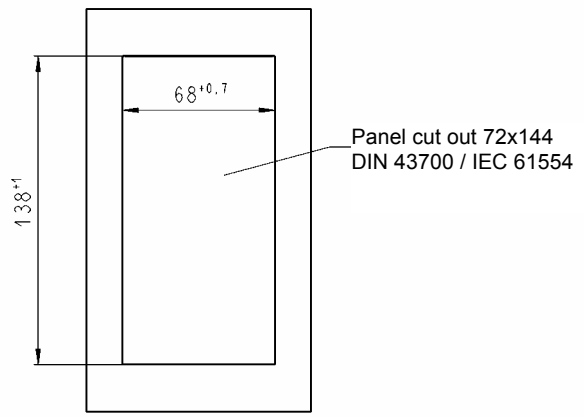
Dimensions flush mounting



7SJ46



7SJ45





Dimensions rail mounting

