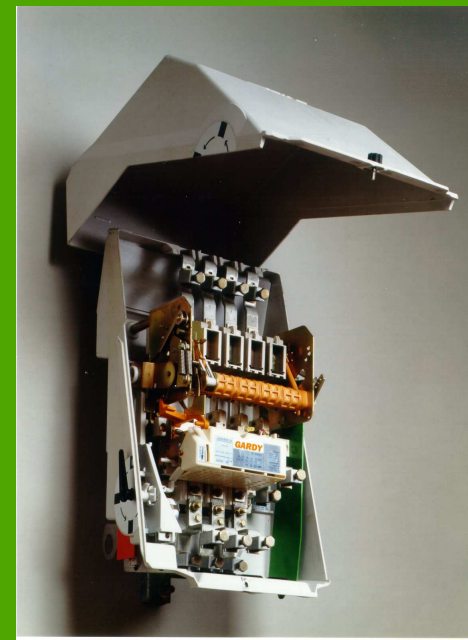


PMCB Pole Mounted Circuit Breaker

SAE Gardy

2012



Schneider
Electric

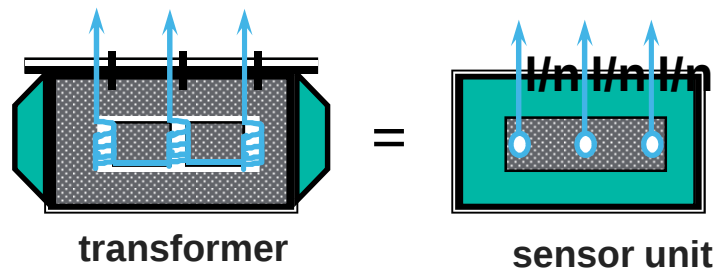
PMCB



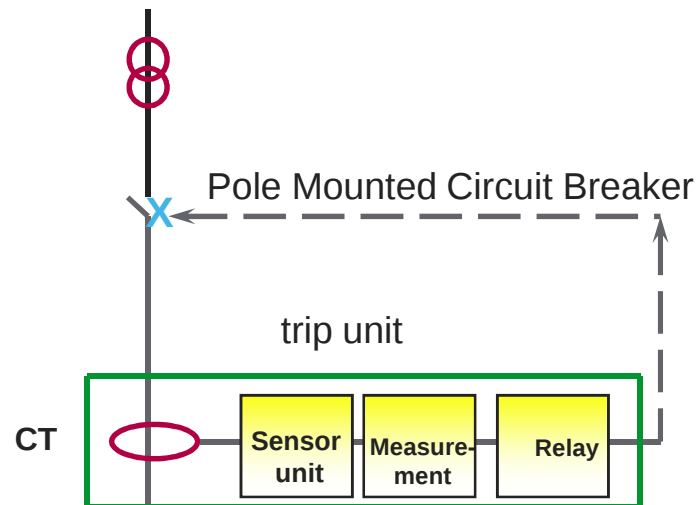
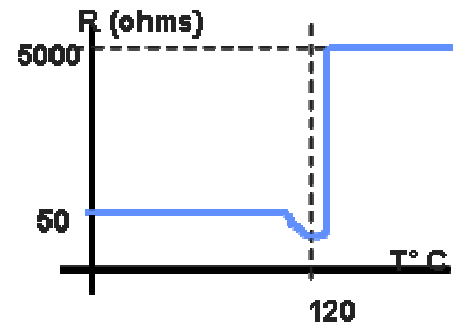
- The PMCB is installed downstream the LV side of the transformers on overhead distribution lines (MV/LV).
- The PMCB protects the transformers against short circuit currents and overloads
- The PMCB manage the energy with efficiency :
 - Unbalanced & Phase Peak load
 - Better continuity of service
 - Increased transfo lifetime
 - Gains come direct to Utility & Customers

Transformer load is Managed with our Thermal Image Patent

- Draw the full Power of the Transformer with more efficiency
- Offers a better load peak control & optimise energy sales
- Allows unbalanced load and avoid frequent trippings
- Better Satisfaction for Consumers & Utilities
- Less travel for Agent, less stocks & More Budget
- Avoid Transformer explosion



PMCB Relay: The thermistors of the sensor unit allows the full use of the transformer power in following its thermal characteristics

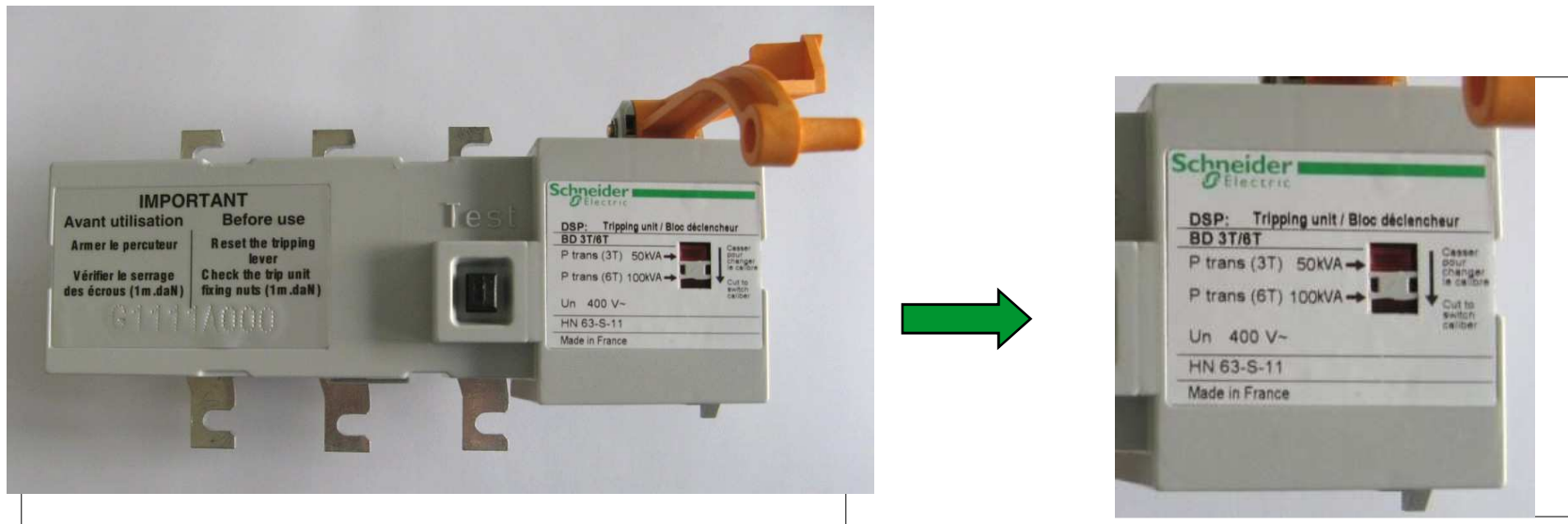


Optimization of Power with a Thermal Image relay

Operation	Phase 1	Phase 2	Phase 3	gain
Protection under BALANCED conditions	1,25 In	1,25 In	1,25 In	/
PMCB Under UNBALANCED conditions				
exemple 1	0,80 In	0,80 In	1,60 In	28%
exemple 2	0,00 In	1,40 In	1,40 In	12%

$$1,60 \text{ In} / 1,25 \text{ In} = 28\%$$

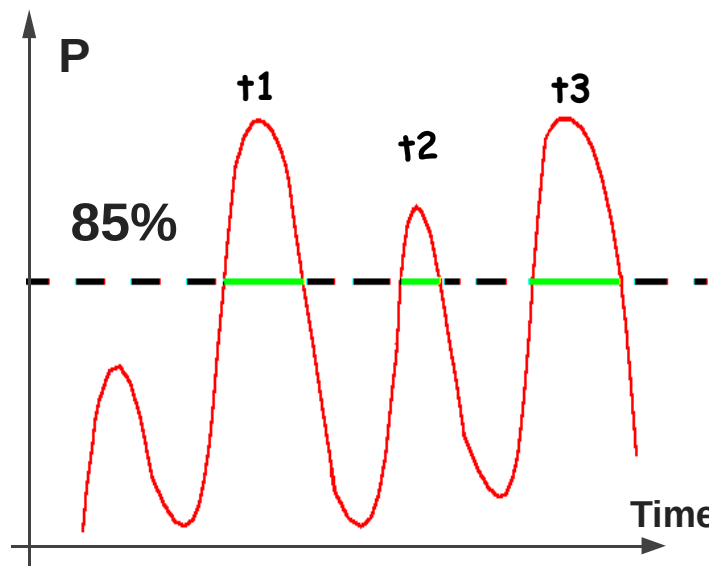
Twin rating Tripping Unit



- Tripping Unit with TWIN rating can protect two size of Transformer (mainly 50&100 KVA but the power can be adapted)
- Saving Money because no use to replace the Tripping Unit or PMCB
- You just have to switch the trigger on the tripping unit to change Power
- Tripping Unit can be removed from a old PMCB & use in a new PMCB
- Less stocks means more Gains

Load indicator

- Starts to add all the periods only when the nominal load of the transformer is over 85% (t1 + t2 + t3 etc...) and works until the needle has reach 24hours of accumulation.
- Then the PMCB can **TRIPS** or Just **SIGNALS**
- Replacement of the Transformer can be planned
- Utility can forecast their Budget transformer Park



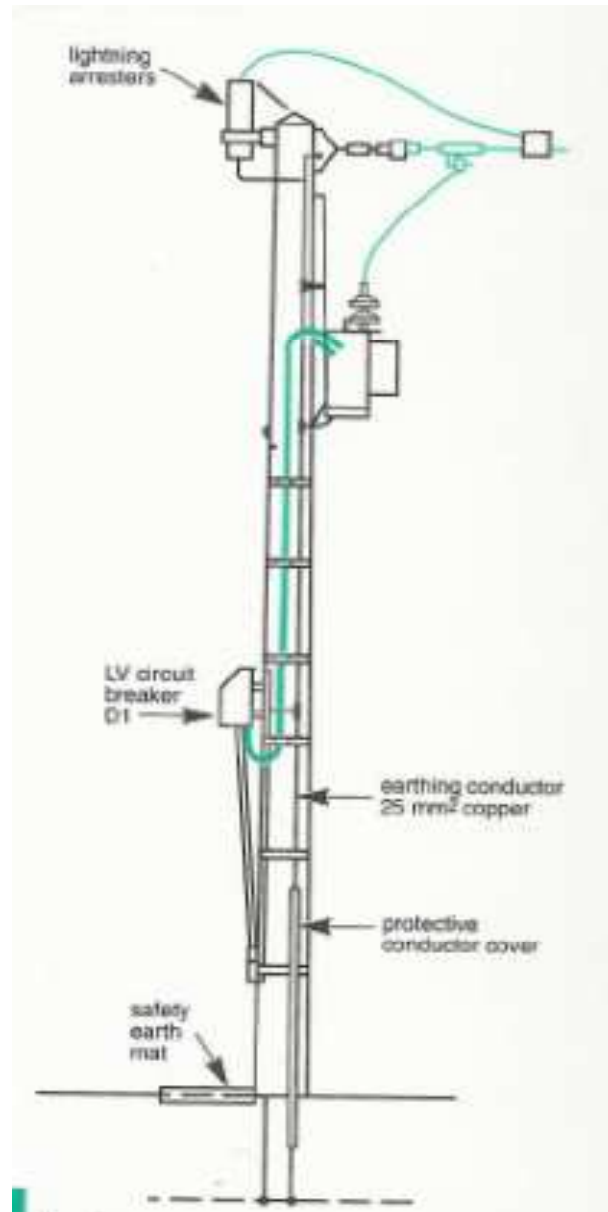
Load indicator

- **Load Indicator Protection (LIP)**
 - GMOV type surge arrester
 - Protects the load indicator and the relay against lightning
 - This device should be replaced when found in “trip” position or “off”



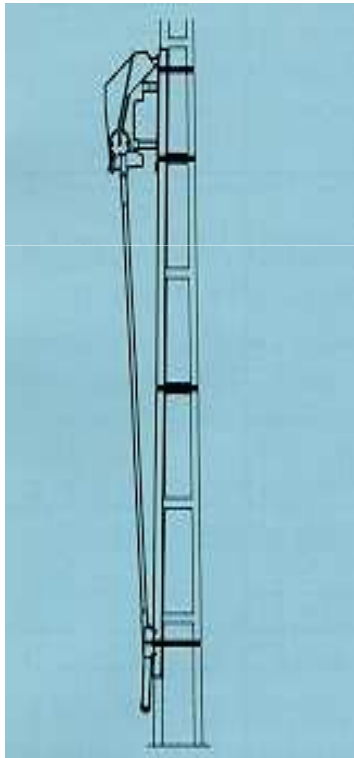
PMCB pole-mounted circuit breaker

Typical installation

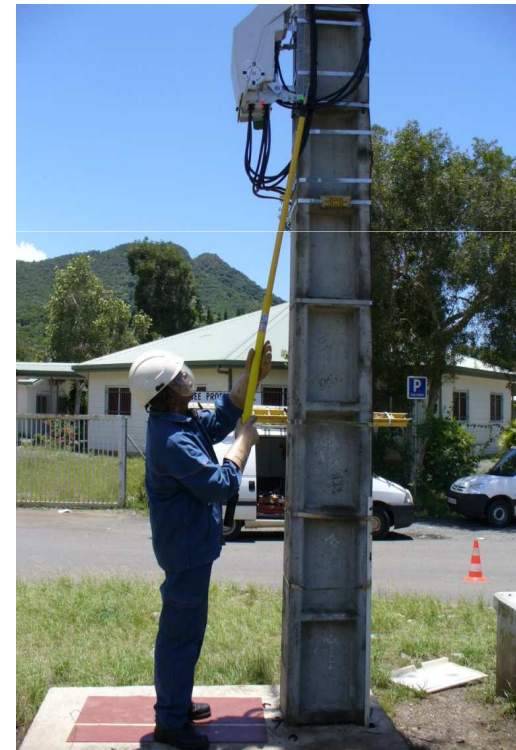
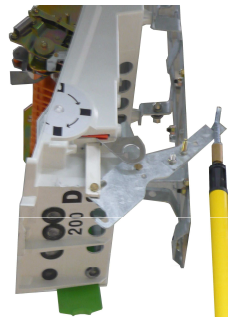


PMCB types of control rod

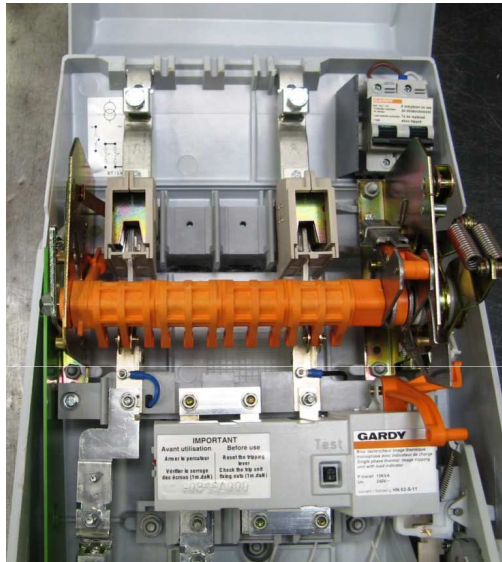
- for middle of pole
PMCB at 3,5 m



- New Removable rod Against VANDALISM

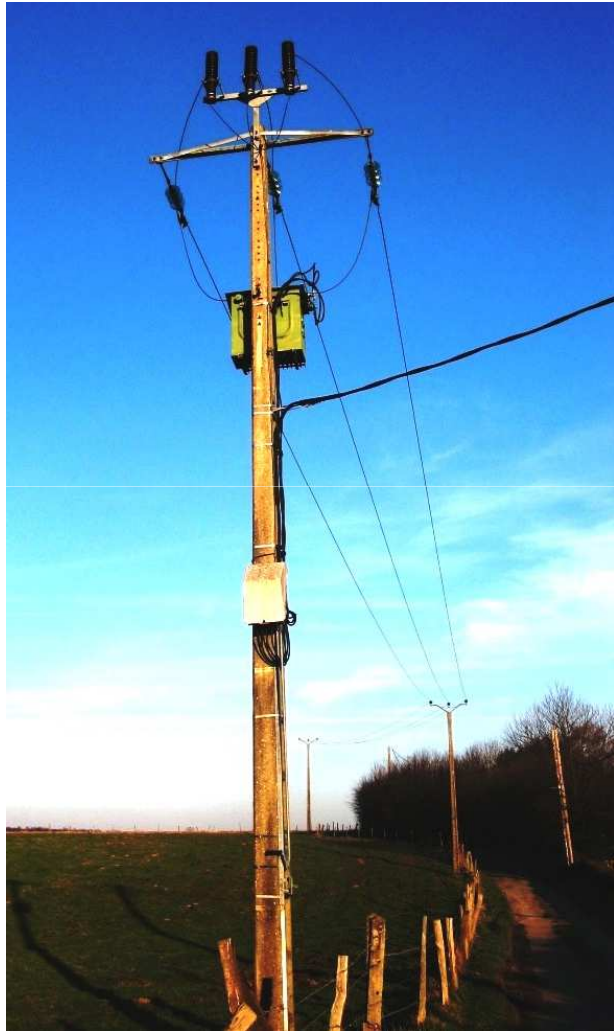


The PMCB range



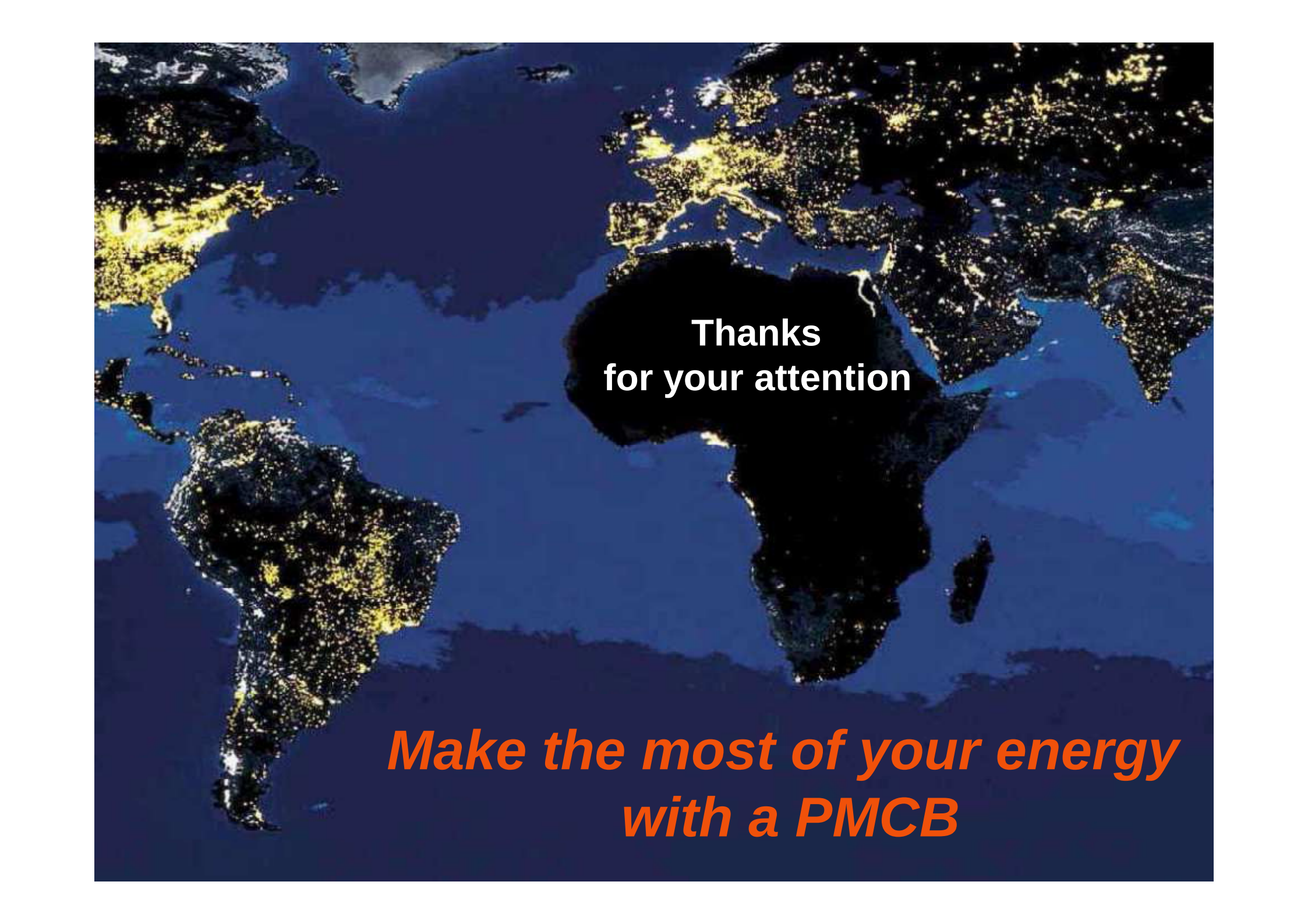
- For transformer from 15 kVa up to 200 kVA
 - 25, 50, 100, 160 and 200 kVA (three phases)
 - 10,15,25,37,5 and 50kVA (single phase)
- With 3,5m control rod or Removable Rod
- According to
HN 63 S 11 and IEC 947.2 where applicable

PMCB pole-mounted circuit breaker



- More than 500.000 PMCB in operation during the last 30 years and in a tough conditions.(Sahara desert, Tropical humidity, sea side, mountains, snow etc...)
- That 's why a lot of Utilities use them all over the world.
- IMPROVE THE EFFICIENCY WITH A PMCB

(NO WASTE, NO RESIDU AND LESS CARBON IMPACT ON THE PLANET COMPARE TO FUSES)

A satellite night view of Earth, showing the continents of North America, South America, Europe, and Africa. The landmasses are covered in a dense pattern of yellow and white lights, representing city lights and urban areas. The oceans are a deep blue. The text "Thanks for your attention" is centered over the African continent.

Thanks
for your attention

*Make the most of your energy
with a PMCB*