



Presentation

# ABB - Pôle Foudre Soulé & Hélipta

## OVR PLUS N1 40

# The new OVR PLUS N1 40

## All in one product

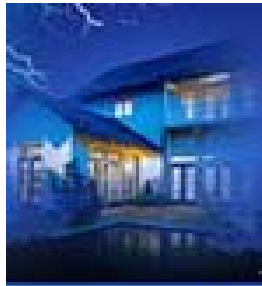
- SPDs with integrated back up protection are a solution that allow to have a complete surge protection design into one product
- ABB has a range offering both solution to cover different market field
- Those products are a good solution in order to:
  - Offer to customer a solution that many specialist don't have
  - Offer a good solution for residential or commercial markets

# The new OVR PLUS N1 40

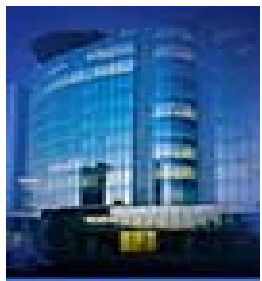
## Dedicated Applications



- TT & TNS networks (1 phase + neutral)



- Residential in high frequency lightning areas  
keraunic level >25



- Commercial buildings with crucial electrical equipments :
  - computer networks, switchboards, inverters...

# The new OVR PLUS N1 40

## Main Advantages



- **Auto-protected**  
With its integrated end of life protection by MCB, no need of additional MCB or fuse.
- **Compact**  
2 modules only to save space. Easy to install
- **High performance**  
Isc at Un: 15KA  
In : 20KA
- **Discharge current**  
With  $I_m^*$  40kA, the OVR PLUS can be installed in high risk areas (keraunic level > 25) \*:  $I_{max}$  of the MOV
- **Eco-Design & Recycling**  
Innovative internal design: helps to reduce CO2 emissions

# The new OVR PLUS N1 40

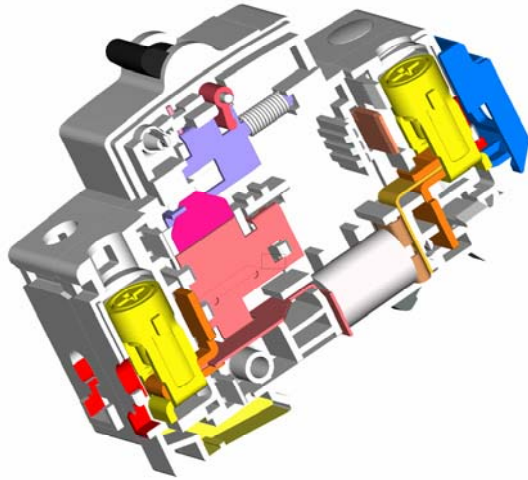
## Main Advantages



- **State Indicator**  
Visual indication: The MCB lever contact indicates the state of the surge arrester
- **S2C-H6R:**  
As option, ABB proM Range auxiliary contact
- **Complete ABB ProM design**

# The new OVR PLUS N1 40

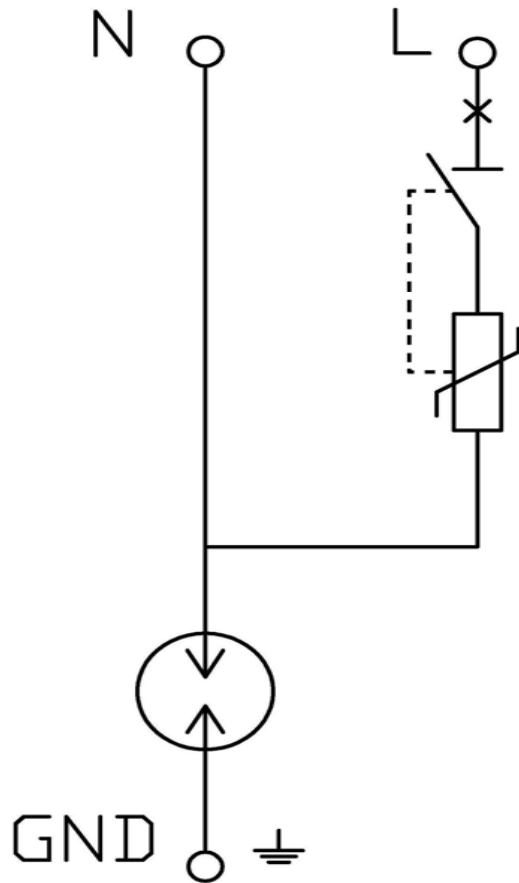
## Operating characteristics



- Very high flow capacity:  
Can afford one **40,000A** impact (or 20 consecutive impacts of 20,000A)
- Secure End of Life: association of a bimetal sensor (patented) and an MCB
  - EoL due to overvoltage: progressive warm-up of the varistor recognised by the bimetal sensor which causes the opening of the MCB
  - EoL due to strike: the varistor is placed in short circuit, the MCB opens instantaneously

# The new OVR PLUS N1 40

## Operating characteristics



- **Greater reliability**  
Due to a brand new technology with no welding in the product :  
As soon as the internal temperature reaches 100°C the sensor automatically opens the MCB
- **Full protection**  
Common mode neutral/earth (gas spark gap) & differential phase/neutral (varistor)  
TT & TNS networks (1 phase + neutral)

# The new OVR PLUS N1 40

## A fully environmental product



- **Reduced environmental impact:**  
To produce the OVR PLUS N1 40, we have followed the “Environmental management: life cycle assessment-principle & framework” of ISO 14040 for the analysis of all phases of the cycle life of the product
- **Compliance with the RoHS rules (2002/96/CE):**  
Lead, mercury, hexavalent chromium, cadmium, PBB or PBDE free
- **Very low consumption <math><220\mu\text{A}</math>**
- **Compact and light (less plastic & metal)**
- **No welding => less energy for assembly, less raw material used, more reliable**
- **No dangerous material => can be destroyed by crushing**

# The new OVR PLUS N1 40

## Technical data sheet- Electrical features

<b>Types of networks</b>		<b>TNS - TT</b>
<b>Number of poles</b>		2
<b>Type / test class</b>		T2 / II
<b>Type of current</b>		A.C.
<b>Nominal voltage Un</b>	V	230
<b>Maximal continuous operating voltage Uc</b>	V	320
<b>Voltage protection level Up at In (L-N/N-PE)</b>	kV	1.6 / 1.5
<b>Voltage protection level Ures at 3kA (L-N/N-PE)</b>	kV	1 / 0.6
<b>Voltage protection level Up at 5kA (L-N/N-PE)</b>	kV	1.1 / 0.8
<b>Voltage protection level Up at 10kA (L-N/N-PE)</b>	kV	1.3 / 1
<b>Nominal discharge current In (8/20) (L-N/N-PE)</b>	kA	20 / 40
<b>Maximal discharge current Im (8/20) (L-N/N-PE)</b>	kA	40 / 40
<b>Follow current If</b>	A	none
<b>Response time</b>	ns	<25
<b>Operating current Ic</b>	mA	< 1
<b>Short circuit withstand Icc at Un</b>	kA	15
<b>Degree of protection</b>		IP 20
<b>Integrated disconnecter</b>		Yes (MCB)
<b>Integrated thermal sensor</b>		Yes
<b>State indicator</b>		Yes (MCB)
<b>TS remote indicator</b>		Optional - S2C-H6R
		<b>ABB 2CDS200 912 R0001</b>

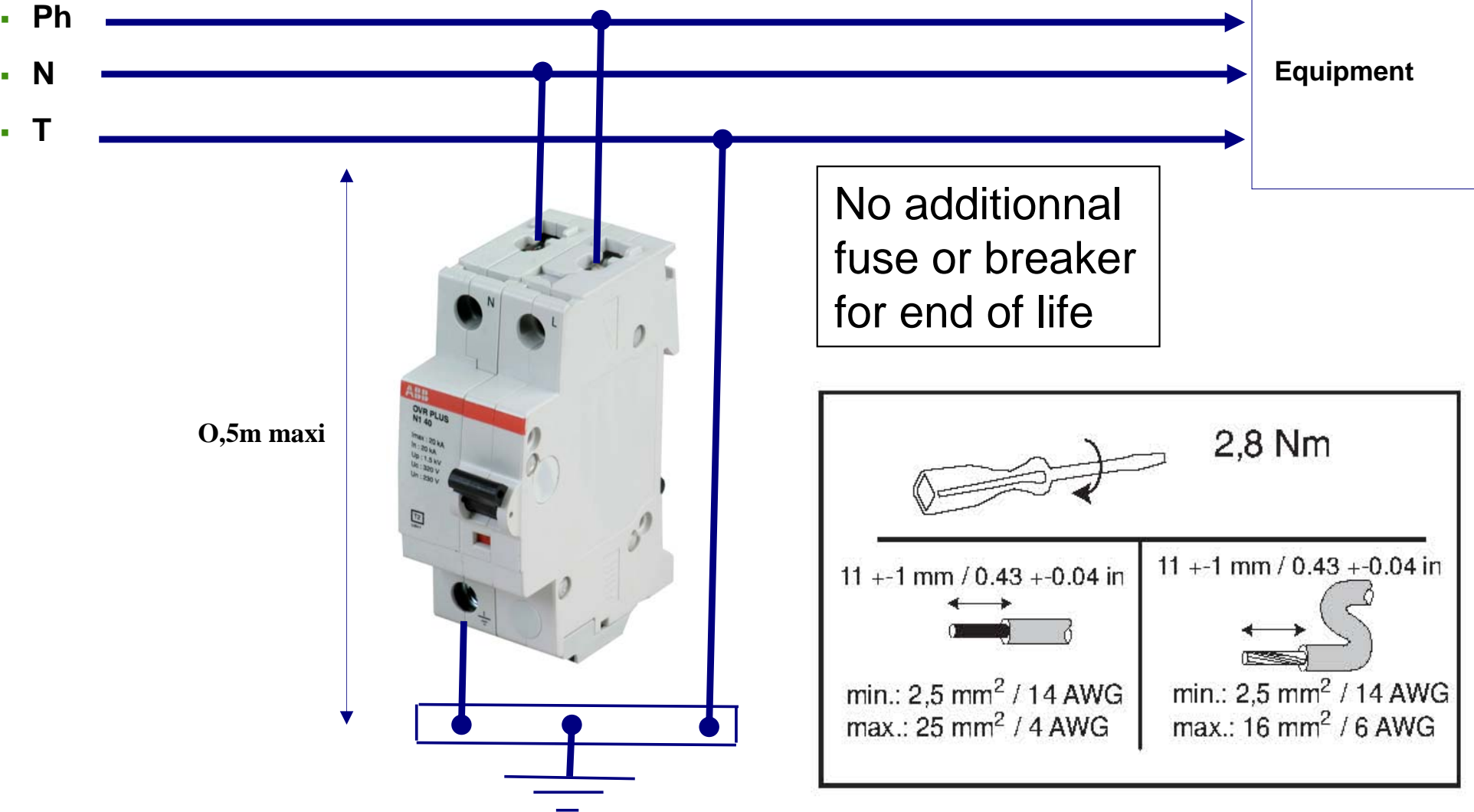
# The new OVR PLUS N1 40

## Technical data sheet – mechanical features

<b>Mechanical characteristics</b>		
<b>Wire range L/N</b>		
Solid wire	mm <sup>2</sup>	2.5...25
Stranded wire	mm <sup>2</sup>	2.5...16
Stripping length L/N	mm	11
Tightening torque L/N	Nm	2,8
<b>Wire range PE</b>		
Solid wire	mm <sup>2</sup>	2.5...25
Stranded wire	mm <sup>2</sup>	2.5...16
Stripping length	mm	11
Tightening torque PE	Nm	2,8
Stocking temperature	°C	- 40 to +80
Operating temperature	°C	- 20 to +80
Maximal altitude	m	2000
Weight	g	260
Color of Housing		Grey RAL 7035
Reference standards		EN 61643-11, IEC 61643-1

# The new OVR PLUS N1 40

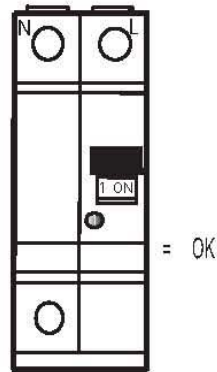
## Easy cabling



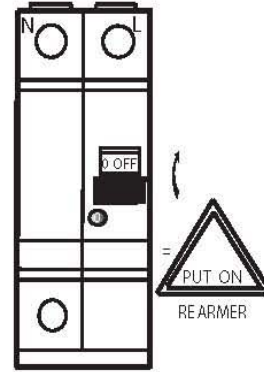
# The new OVR PLUS N1 40

## State indication

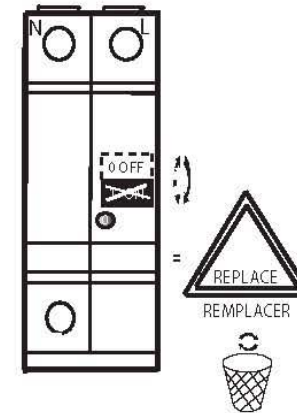
Parafoudre en fonctionnement  
SPD connected



Parafoudre déconnecté  
SPD disconnected

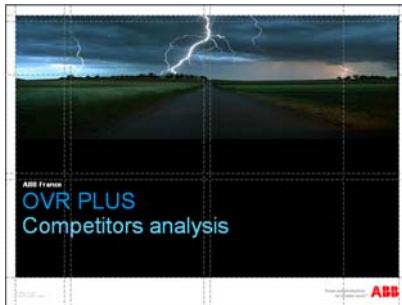


Parafoudre déconnecté impossible de  
basculer sur ON  
SPD disconnected impossible to turn on



- Lever position of MCB « ON »: SPD connected
- Lever position of MCB « OFF »: To connect the SPD, put the lever position on « ON »
- Lever position of MCB « OFF » and impossible to put « ON »: The SPD is disconnected and you must replace it

# Marketing Tools



- Leaflet of OVR PLUS
- Competitor analyse
- Technical Article
- High resolution pictures
- Data sheet
- Samples



ABB

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