



> PROTECTION OF POWER SUPPLY LINES

> ATBARRIER SERIES

> ATBARRIER

Coordinated protection cabinets for power supply lines



Reference	Model	Description
AT-8114	ATBARRIER MFF	Coordinated protection for single-phase lines with ATSHOCK + ATCOVER
AT-8125	ATBARRIER MF	Coordinated protection for single-phase lines with ATSHOCK + ATSUB15
AT-8118	ATBARRIER MM	Coordinated protection for single-phase lines with ATSHOCK + ATSUB40
AT-8134	ATBARRIER TFF	Coordinated protection for three-phase lines with ATSHOCK + ATCOVER
AT-8141	ATBARRIER TF	Coordinated protection for three-phase lines with ATSHOCK + ATSUB15
AT-8121	ATBARRIER TM	Coordinated protection for three-phase lines with ATSHOCK + ATSUB40

-N: For lines with no neutral

> NOMENCLATURE

ATBARRIER	T	F
	T: if three-phase M: if single-phase	M: for medium protection (with ATSUB40) F: for tight protection (with ATSUB15) FF: for very tight protection (with ATCOVER)

For all of the protectors to work, they must be separated by at least 10 metres of cable or a decoupling inductor which also withstands the line operating current. The complete ATBARRIER systems have been designed in this way.

ATBARRIER series protection cabinets contain all the different protectors required for coordinated protection of all of the phases. ATBARRIER boxes are to be installed in series with the line. In normal conditions, they remain inactive without affecting line operation at all. Compact box, easy to install and with the same advantages as Aplicaciones Tecnológicas protectors: robust, quick, reliable and tested according to applicable standards (EN 61643-11) in **official and independent laboratories**.

Correct overvoltage protection is only achieved if all of the protection stages are well coordinated. Otherwise, the most robust protection will not work, possibly even causing the destruction of the most sensitive protectors and even the equipment that they should protect.

> INSTALLATION

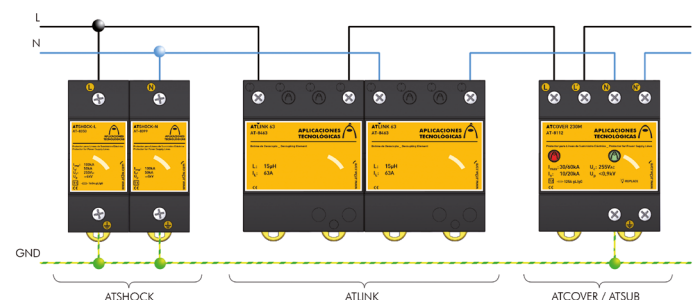
ATBARRIER boxes are to be installed **in series** with the low voltage line, connected to phase/s, neutral and ground. **Fuses or circuit breakers must be present upstream**. They will be disconnected during installation for operator safety. Installation is recommended where **direct lightning currents** could penetrate and very sensitive equipment is connected, without enough space to separate the different protection stages.



The operating current of the line must be lower than 63 A.



Connection to earth is a must. Earthing in the whole installation must be bonded either directly or by a spark gap and resistance should be lower than 10 Ω . If the indications on this datasheet are not fulfilled during use or installation of the protectors, the protection provided by this device could be compromised.





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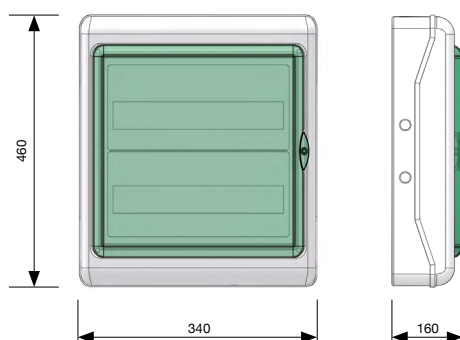
> ATBARRIER MFF

Coordinated protection for power supply single-phase lines

> TECHNICAL DATASHEET

Reference:		AT-8114
Protection categories according to the REBT:		I, II, III and IV
Type of tests according to EN 61643-11:		Type 1 + 2 + 3
Nominal voltage:	U_n	230 V _{AC}
Maximum continuous operating voltage:	U_c	275 V _{AC}
Nominal frequency:		50 – 60 Hz
Maximum operating current:	I_L	63 A
Nominal discharge current (8/20 μ s wave):	I_n	50 kA
Impulse current per pole (10/350 μ s wave):	I_{imp}	50 kA
Protection level:	U_p	900 V
Combined wave voltage:	$U_{o.c.}$	6 kV
Residual voltage with 6 kV/3 kA combination wave:		700 V
Response time:	t_r	< 25 ns
Working temperature:	ϑ	-40 °C to +70 °C
Protector location:		Outdoor
Type of connection:		Series (two ports)
No. of poles:		2
Dimensions:		460 x 340 x 160 mm
Fixing:		Wall or vertical support
Box material:		Self-extinguishing, insulating
IP Code:		IP65 according to IEC 60.529
Insulation:		Double (class II)
Fire resistance:		650 °C according to IEC 60695-2-1
Impact protection:		IK09 according to EN 50.102
Connections L/N/G:		25 mm ² maximum section
Certificated tests according to: UNE-EN 61643-11		
Complies with requirements of: UL 1449		
Relevant standards: UNE 21186, NF C 17-102, IEC 62305		

> DIMENSIONS (MM)





> PROTECTION OF POWER SUPPLY LINES

> ATBARRIER SERIES

> ATBARRIER MF

Coordinated protection for power supply single-phase lines

> TECHNICAL DATASHEET

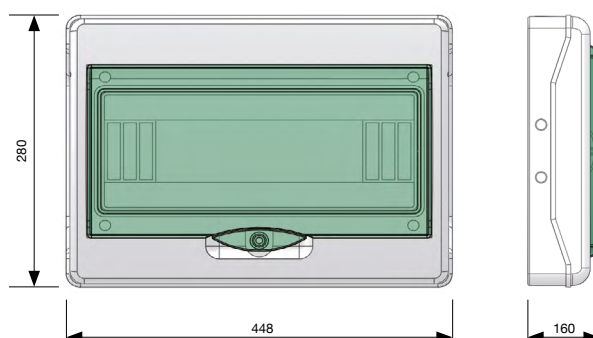
Reference:		AT-8125
Protection categories according to the REBT:		I, II, III and IV
Type of tests according to EN 61643-11:		Type 1 + 2 + 3
Nominal voltage:	U_n	230 V _{AC}
Maximum continuous operating voltage:	U_c	275 V _{AC}
Nominal frequency:		50 – 60 Hz
Maximum operating current:	I_L	63 A
Nominal discharge current (8/20 μ s wave):	I_n	50 kA
Impulse current per pole (10/350 μ s wave):	I_{imp}	50 kA
Protection level:	U_p	1200 V
Combined wave voltage:	$U_{o.c.}$	6 kV
Response time:	t_r	< 25 ns
Working temperature:	ϑ	-40 °C to +70 °C
Protector location:		Outdoor
Type of connection:		Series (two ports)
No. of poles:		2
Dimensions:		280 x 448 x 160 mm
Fixing:		Wall or vertical support
Box material:		Self-extinguishing, insulating
IP Code:		IP65 according to IEC 60.529
Insulation:		Double (class II)
Fire resistance:		650 °C according to IEC 60695-2-1
Impact protection:		IK09 according to EN 50.102
Connections L/N/G:		25 mm ² maximum section

Certificated tests according to: UNE-EN 61643-11

Complies with requirements of: UL 1449

Relevant standards: UNE 21186, NF C 17-102, IEC 62305

> DIMENSIONS (MM)





> PROTECTION OF POWER SUPPLY LINES

> ATBARRIER SERIES

> ATBARRIER MM

Coordinated protection for power supply single-phase lines

> TECHNICAL DATASHEET

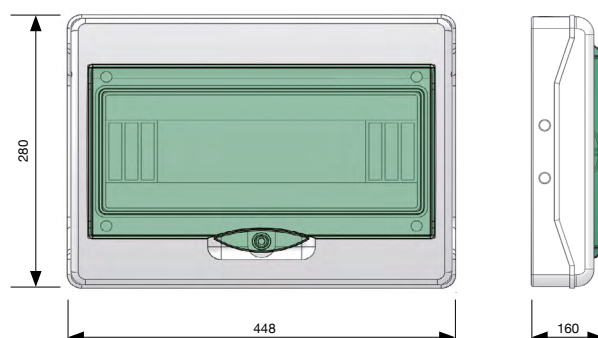
Reference:		AT-8118
Protection categories according to the REBT:		I, II, III and IV
Type of tests according to EN 61643-11:		Type 1 + 2
Nominal voltage:	U_n	230 V _{AC}
Maximum continuous operating voltage:	U_c	275 V _{AC}
Nominal frequency:		50 – 60 Hz
Maximum operating current:	I_L	63 A
Nominal discharge current (8/20 μ s wave):	I_n	50 kA
Impulse current per pole (10/350 μ s wave):	I_{imp}	50 kA
Protection level:	U_p	1400 V
Response time:	t_r	< 25 ns
Working temperature:	ϑ	-40 °C to +70 °C
Protector location:		Outdoor
Type of connection:		Series (two ports)
No. of poles:		2
Dimensions:		280 x 448 x 160 mm
Fixing:		Wall or vertical support
Box material:		Self-extinguishing, insulating
IP Code:		IP65 according to IEC 60.529
Insulation:		Double (class II)
Fire resistance:		650 °C according to IEC 60695-2-1
Impact protection:		IK09 according to EN 50.102
Connections L/N/G:		25 mm ² maximum section

Certificated tests according to: UNE-EN 61643-11

Complies with requirements of: UL 1449

Relevant standards: UNE 21186, NF C 17-102, IEC 62305

> DIMENSIONS (MM)





> PROTECTION OF POWER SUPPLY LINES

> ATBARRIER SERIES

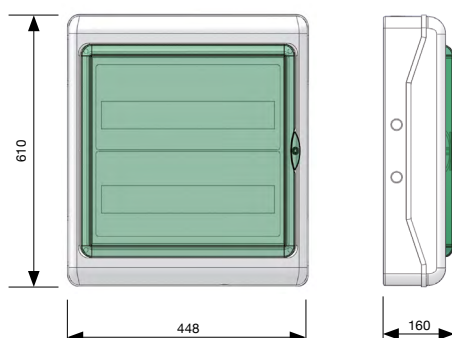
> ATBARRIER TFF

Coordinated protection for power supply three-phase lines

> TECHNICAL DATASHEET

Reference:		AT-8134
Protection categories according to the REBT:		I, II, III and IV
Type of tests according to EN 61643-11:		Type 1 + 2 + 3
Nominal voltage:	U_n	400 V _{AC} (L-L) 230 V _{AC} (L-GND)
Maximum continuous operating voltage:	U_c	460 V _{AC} (L-L) 275 V _{AC} (L-GND)
Nominal frequency:		50 – 60 Hz
Maximum operating current:	I_L	63 A
Nominal discharge current (8/20 μ s wave):	I_n	50 kA
Impulse current per pole (10/350 μ s wave):	I_{imp}	50 kA
Protection level:	U_p	900 V
Combined wave voltage:	$U_{o.c.}$	6 kV
Residual voltage with 6 kV/3 kA combination wave:		700 V
Response time:	t_r	< 25 ns
Working temperature:	ϑ	-40 °C to +70 °C
Protector location:		Outdoor
Type of connection:		Series (two ports)
No. of poles:		4
Dimensions:		610 x 448 x 160 mm
Fixing:		Wall or vertical support
Box material:		Self-extinguishing, insulating
IP Code:		IP65 according to IEC 60.529
Insulation:		Double (class II)
Fire resistance:		650 °C according to IEC 60695-2-1
Impact protection:		IK09 according to EN 50.102
Connections L/N/G:		25 mm ² maximum section
Certificated tests according to: UNE-EN 61643-11		
Complies with requirements of: UL 1449		
Relevant standards: UNE 21186, NF C 17-102, IEC 62305		

> DIMENSIONS (MM)





> PROTECTION OF POWER SUPPLY LINES

> ATBARRIER SERIES

> ATBARRIER TF

Coordinated protection for power supply single-phase lines

> TECHNICAL DATASHEET

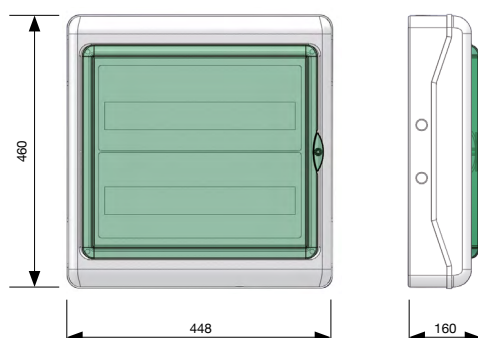
Reference:		AT-8141
Protection categories according to the REBT:		I, II, III and IV
Type of tests according to EN 61643-11:		Type 1 + 2 + 3
Nominal voltage:	U_n	400 V _{AC} (L-L) 230 V _{AC} (L-GND)
Maximum continuous operating voltage:	U_c	460 V _{AC} (L-L) 275 V _{AC} (L-GND)
Nominal frequency:		50 – 60 Hz
Maximum operating current:	I_L	63 A
Nominal discharge current (8/20 µs wave):	I_n	50 kA
Impulse current per pole (10/350 µs wave):	I_{imp}	50 kA
Protection level:	U_p	1200 V
Combined wave voltage:	$U_{o.c.}$	6 kV
Response time:	t_r	< 25 ns
Working temperature:	ϑ	-40 °C to +70 °C
Protector location:		Outdoor
Type of connection:		Series (two ports)
No. of poles:		4
Dimensions:		460 x 448 x 160 mm
Fixing:		Wall or vertical support
Box material:		Self-extinguishing, insulating
IP Code:		IP65 according to IEC 60.529
Insulation:		Double (class II)
Fire resistance:		650 °C according to IEC 60695-2-1
Impact protection:		IK09 according to EN 50.102
Connections L/N/G:		25 mm ² maximum section

Certificated tests according to: UNE-EN 61643-11

Complies with requirements of: UL 1449

Relevant standards: UNE 21186, NF C 17-102, IEC 62305

> DIMENSIONS (MM)





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> ATBARRIER TM

Coordinated protection for power supply three-phase lines

> TECHNICAL DATASHEET

Reference:		AT-8121
Protection categories according to the REBT:		I, II, III and IV
Type of tests according to EN 61643-11:		Type 1 + 2
Nominal voltage:	U_n	400 V _{AC} (L-L) 230 V _{AC} (L-GND)
Maximum continuous operating voltage:	U_c	460 V _{AC} (L-L) 275 V _{AC} (L-GND)
Nominal frequency:		50 – 60 Hz
Maximum operating current:	I_L	63 A
Nominal discharge current (8/20 μ s wave):	I_n	50 kA
Impulse current per pole (10/350 μ s wave):	I_{imp}	50 kA
Protection level:	U_p	1400 V
Response time:	t_r	< 25 ns
Working temperature:	ϑ	-40 °C to +70 °C
Protector location:		Outdoor
Type of connection:		Series (two ports)
No. of poles:		4
Dimensions:		460 x 448 x 160 mm
Fixing:		Wall or vertical support
Box material:		Self-extinguishing, insulating
IP Code:		IP65 according to IEC 60.529
Insulation:		Double (class II)
Fire resistance:		650 °C according to IEC 60695-2-1
Impact protection:		IK09 according to EN 50.102
Connections L/N/G:		25 mm ² maximum section

Certificated tests according to: UNE-EN 61643-11

Complies with requirements of: UL 1449

Relevant standards: UNE 21186, NF C 17-102, IEC 62305

> DIMENSIONS (MM)

