



SCIENCE DRIVING VALUE

ENGLISH - DATASHEET

Impulse-X AIR

BRAKING RESISTORS + STEEL CASED

Technology driving Quality at Low Cost!

Impulse-X AIR SERIES



POWER RANGE:
500W to 6kW

Impulse-X AIR DIMENSIONS

APPLICATIONS

International Patent Pending. A technologically advanced range of braking resistors providing multiple functions and **boasting robust design, long-term reliability and great value for money.**

The Impulse-X AIR has been developed specifically to handle Heavy Duty Cyclic Loads, for applications such as Lifts, Elevators and Escalators and has a protective enclosure (IP20).

Attention to every detail is at the core of the Impulse-X AIR braking resistor, they are NiCr wire-wound, mica insulated and clad in strong **ALUMINIZED STEEL** (rust free and super heat radiation) and **no fragile ceramic**. High temperature cables (-60°C to 250°C) and the terminal in high temperature ceramic. **NOISE FREE and no glowing.**

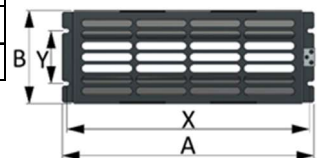
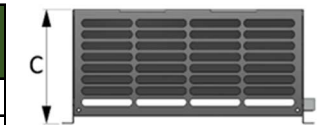
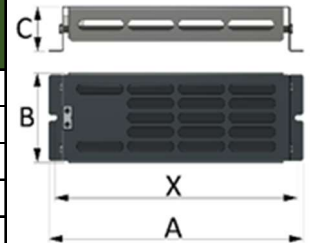
ASTON is committed to producing innovative products that are environmentally friendly made with an environmentally friendly process. The Impulse-X AIR Series is 95% recyclable.

The Impulse-X AIR Series has 10 standard enclosures, each of which is customizable to any specific resistance requirement. **RESISTANCE: Customizable**



Impulse-X AIR	Nominal Power (W)	Dimensions					Weight (kg)
		A	B	C	X	Y	
500	500	282	110	52	268	40	1,41
600	600	332	110	52	318	40	1,67
700	700	357	110	52	343	40	1,77
900	900	417	110	52	403	40	2,10
1000	1000	417	130	52	403	75	2,57
1500	1500	532	150	52	518	75	3,77

Impulse-X AIR	Nominal Power (W)	Dimensions					Weight (kg)
		A	B	C	X	Y	
2000	2000	420	125	152	403	70	5,6
3000	3000	535	125	172	518	70	8,6
4500	4500	535	200	172	518	145	12,8
6000	6000	535	300	172	518	245	17,0



- Lifts, Elevators & Conveyors
- Dynamic braking + Motor control + Motion control
- Cranes & Winches
- Safety braking
- Test loads
- Snubbers
- Current limiters
- Charge / discharge capacitor





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OPERATIONAL BENEFITS

- ✓ Safe, shielded robust high electrical insulation
- ✓ High Short Circuit Protection
- ✓ Engineered for very high reliability
- ✓ Rated for repetitive duty
- ✓ Engineered for low thermal resistance – to speed up cooling
- ✓ Dissipates high dynamic loads fast;
- ✓ High Overload Capacity
- ✓ Very High Peak Load Capacity
- ✓ Very High Cyclic Load

Impulse-X AIR CUSTOM

The entire Impulse-X AIR Series is fully and easily customizable for a continuous power range up to **9kW**.

PRACTICAL FEATURES

- Lightweight – easy mounting
- High Power Density – keeps it small
- Extremely robust construction – no fragile ceramic
- IP52 for Resistor
- IP20 for the case
- No glowing
- Noise FREE
- Low inductivity for reduced EMC
- Temperature stable resistor element up to 1.200°C, NiCr 80/20 - NO RUST
- Close resistance tolerance (+10% - 0%) - never lower than expected – optional different tolerance.

TECHNICAL QUALITY

- High Electrical Insulation (Overvoltage Category - Creepage) – IEC Class III – Class IV Optional
- High Humidity Protection - Pollution Degree – IEC Class III - Class IV Optional

OPTIONS

- Terminal cover
- Thermal switch (to protect against overload)
- Different resistance tolerance
- Insulation Overvoltage Protection Class IV for the Resistors
- Pollution Degree Class IV for the Resistors

INSTALLATION ADVICE

- Units must be mounted with Terminals pointing down or sideways, never facing up.
- To avoid breakage never hold the resistor only by the cables.

PRECAUTIONS

- Maximum power cannot be applied to any resistor model for more than 60 minutes without interval.
- Max normal operating Temp 450°C – Peak Temp 670°C
- Tolerance on Size +/- 2%
- Tolerance on Weight +/- 10%
- Standard tolerance on resistance +10% - 0%

MARKING

The resistor is marked on the housing with a high temperature label.

ASTON

A TECHNOLOGY STARTUP supported by over 30 years of practical experience in resistor design and production. ASTON strives to produce the best high technology dissipative devices setting new standards for volume and power density with high reliability all at unbeatable value. **Made with Pride in Italy.**



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Impulse-X AIR CHART

	Min	Max	Unit	Conditions	Symbol
AC Resistor Max Voltage		1.000	V		Vac
DC Resistor Max Voltage		1.500	V		Vdc
Insulation Resistance	100		Mohm	1000 Vdc	
Dielectric Strength / Insulation Voltage		1	mA	3000V, 60 sec, 50Hz	
Thermal Derivative	<100		ppm/°C		
Thermal Time Constant	750		s		
Case Temperature Range - Operation	-55	670	°C	Floor Mounting	Tc
Ambient Temperature Range	-55	70	°C	Storage & Operation	
Clearance Distance in Air	5		mm	IEC 60664-1 and EN 50124-1	Da
Surface Creepage Distance	5		mm	IEC 60664-1 and EN 50124-1	Ds
Tolerance Class	J			For Resistance	
Overvoltage Category	III			IEC	
Pollution Degree	III			IEC	
Protection DURA AIR	IP52			IP of Resistor element	
Protection DURA AIR	IP00			IP of Terminals	
Protection DURA AIR	IP20			IP thermal protection provided by the enclosure	

DECLARATION OF CONFORMITY

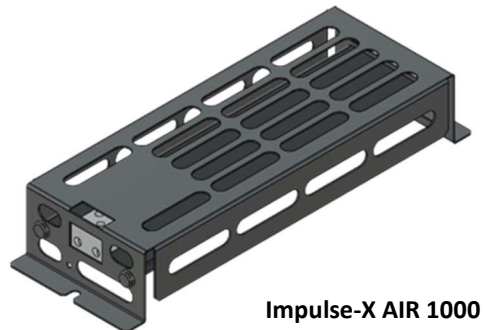
Aston Resistors Srl hereby declares, that the Impulse-X AIR series are in conformity with the provisions of:

- Council Directive 2014/30/UE (February 26, 2014) on Electromagnetic Compatibility.
- Council Directive 2014/35/UE (February 26, 2014) on Low Voltage Equipment Safety.
- RoHS Directive 2011/65/CE on Restriction of Hazardous Substances.
- REACH Regulation.

The Technical Construction File required by this Directive is maintained in the corporate headquarters of Aston Resistors Srl.

DISCLAIMER

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CALL US FOR ANY TECHNICAL QUERIES

WWW.AstonR.COM DATASHEETS: Impulse-X AIR 03-2025

ASTON © 03/2025 reserves the right to change and improve products and specifications.

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