ENGLISH - DATASHEET

DURA

BRAKING RESISTORS + STEEL CASED

SCIENCE DRIVING VALUE

Technology driving Quality at Low Cost!

DURA SERIES

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 DURA Series uses SMART resistors as the building blocks, which are flat, ultra-slim, lightweight and shielded (completely insulated).

Attention to every detail is at the core of the SMART Series 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 terminal cables (-60°C to 250°C), standard length 50cm. **NOISE FREE and no glowing**.

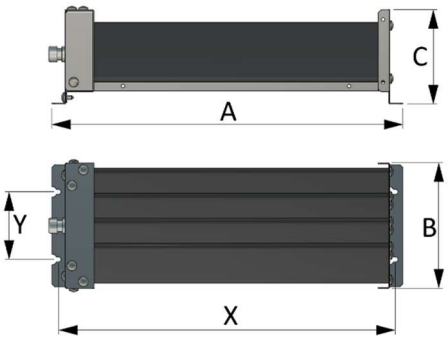
FINAR is committed to producing innovative products that are environmentally friendly made through an environmentally friendly process. The DURA Series is 95% recyclable.

POWER RANGE:
1kW to 6kW

The DURA Series has 7 standard enclosures. Each model can support multiple functions, each of which is customizable to any specific resistance requirement.

DURA DIMENSIONS

DURA	Rated Power (W)	Dimensions					Weight (kg)
		A	B	C	X	Y	
1000	1.000	365	130	98	350	70	1,8
1500	1.500	365	130	98	350	70	2,2
2000	2.000	365	130	98	350	70	2,6
3000	3.000	365	250	98	350	200	3,9
4000	4.000	365	250	98	350	200	4,7
5000	5.000	365	370	98	350	330	6,1
6000	6.000	365	370	98	350	330	6,9



DURA CUSTOM

The entire DURA Series is fully and easily customizable for a continuous power range up to **10kW**. That means we can supply customizable products both in size and electrical characteristics at highly competitive prices. **See our case-studies!**

APPLICATIONS

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

MADE IN ITALY

Aston Resistors S.r.l. – Via Pietro Verri, 27, 20090, Trezzano Sul Naviglio (Milano), Italy,
email: produzione@AstonR.com tel: +393355956453

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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

OPTIONS

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

PRACTICAL FEATURES

- High Power Density – keeps it small
- Extremely robust construction – no fragile ceramic
- Lightweight – easy mounting
- Low inductivity for reduced EMC
- IP54 for Resistor
- Noise FREE
- 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

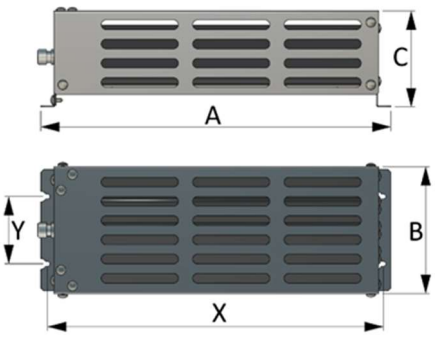
- High Electrical Insulation (Overvoltage Category - Creepage) – IEC Class III – Class IV Optional
- High Humidity Protection - Pollution Degree – IEC Class III - Class IV Optional

DURA+C

The DURA+C provides an enclosure as thermal protection, IP20.

DURA+C DIMENSIONS

DURA+C	Rated Power (W)	Dimensions					Weight (kg)
		A	B	C	X	Y	
1000	1.000	365	132	100	350	70	2,3
1500	1.500	365	132	100	350	70	2,7
2000	2.000	365	132	100	350	70	3,1
3000	3.000	365	252	100	350	200	4,4
4000	4.000	365	252	100	350	200	5,2
5000	5.000	365	372	100	350	330	6,6
6000	6.000	365	372	100	350	330	7,4



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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DURA 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
Tollerance Class	J			For Resistance	
Overvoltage Category	III			IEC	
Pollution Degree	III			IEC	
Protection DURA	IP54			IP of Resistor element	
Protection DURA	IP00			IP of Terminals	
Protection DURA+C	IP20			IP thermal protection provided by the enclosure	

INSTALLATION ADVICE

- Units must be mounted with terminals pointing down, or horizontal, 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.

DECLARATION OF CONFORMITY

Aston Resistors Srl hereby declares, that the DURA 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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