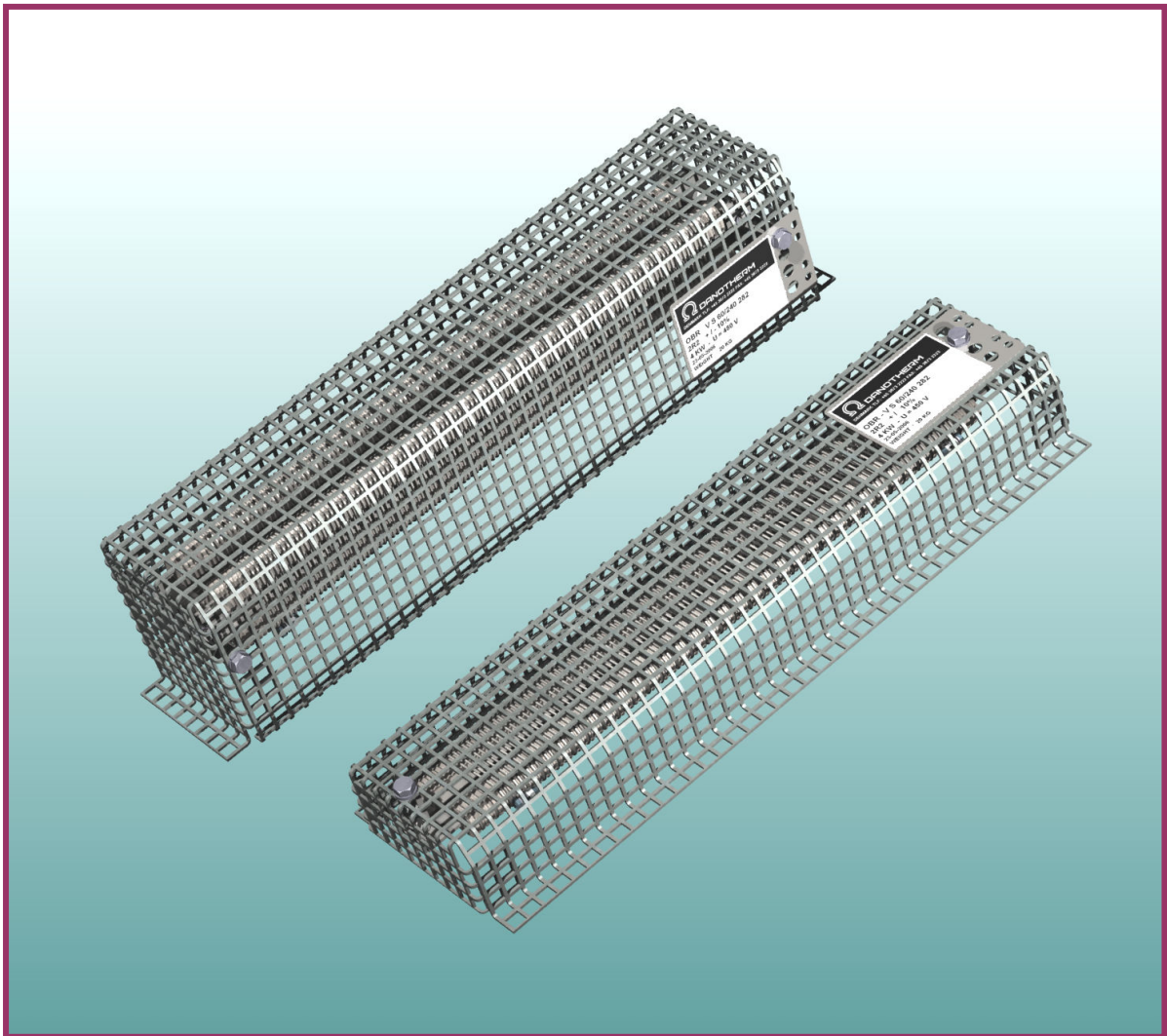


Λ LAMBDA OBR

OPEN WIREWOUND BRAKE RESISTORS
IN IP 20 CLASS ENCLOSURE



LAMBDA OBR is a range of Open wire wound Brake Resistors. They are especially suitable for customer specified constructions with specific demands to mechanical sizes.

As "ready to use" solution we offer resistors banks with protection class IP20 enclosure in our standard size configurations.

It is also possible to make resistor banks in configurations specified by Customer.

The OBR resistors can be supplied as single components too.

Construction

The resistor wire is wound around special ceramic insulators with grooves keeping the wire in the right position..

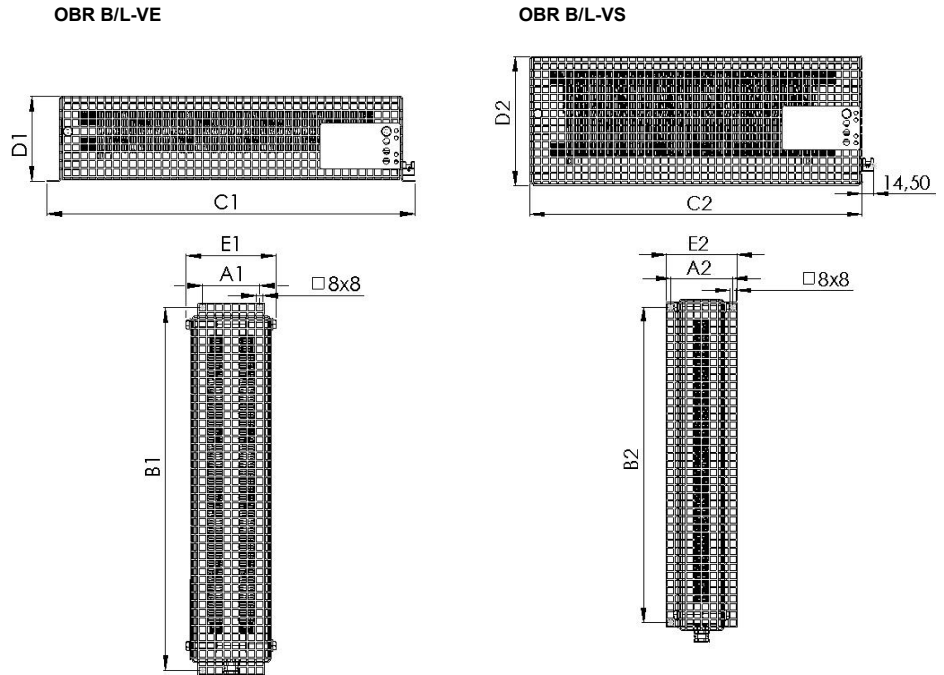
For higher insulation levels, than specified in this data sheet, the supporting metal plates are insulated with ceramic insulators.

External Connection

Power cables can be connected to the terminals either by normal M5 screw connection or welded on the factory.

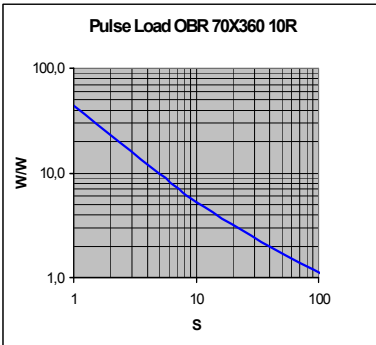
Load ability of Lambda Resistors depends on the mechanical size and the specific resistor wire. The table shows some examples of the power of some Lambda OBR banks.

MECHANICAL DRAWING OF TWO RESISTORS UNIT CONFIGURATIONS IN THEIR PERMISSIBLE MOUNTING POSITIONS:



PULSE LOAD

The curves show the pulse load ability compared to the nominal load for the OBR resistors under the following conditions: The load is a periodic pulse load with a constant period time of 120 sec and a pulse width from one second to 40 sec.



For all other load conditions please contact DANOTHERM. By mean of individual thermal models we can simulate the rises of temperatures of the resistor wire during and between the specified pulses.

TYPE OBR B/L	Weight kg	R Ω ±10% Rating min - max	PN W @40°C	A1	B1	C1	D1	E1	A2	B2	C2	D2	E2
OBR 30/180x1	0.6	0.5-1.6	250	30	250	260	105	70	80	210	230	105	90
OBR 30/180x2	1.1	0.25-30	410	70	250	260	105	110	170	210	230	105	130
OBR 30/180x4	1.9	0.12-60	820	160	250	260	105	200	210	210	230	105	220
OBR 30/360x1	1.2	1.2-25	420	30	440	450	105	70	80	400	420	105	90
OBR 30/360x2	2	0.6-50	690	70	440	450	105	110	170	400	420	105	130
OBR 30/360x4	3.6	0.5-100	1390	160	440	450	105	200	210	400	420	105	220
OBR 30/420x1	1.3	2-30	520	30	500	510	105	70	80	460	480	105	90
OBR 30/420x2	2.3	1-90	860	70	500	510	105	110	170	460	480	105	130
OBR 30/420x4	4.1	0.5-180	1720	160	500	510	105	200	210	460	480	105	220
OBR 60/180x1	0.9	0.8-26	430	30	250	260	135	70	80	210	230	135	90
OBR 60/180x2	1.5	0.2-52	710	70	250	260	135	110	170	210	230	135	130
OBR 60/180x4	2.7	0.85-104	1420	160	250	260	135	200	210	210	230	135	220
OBR 60/360x1	1.5	1.8-32	720	30	440	450	135	70	80	400	420	135	90
OBR 60/360x2	2.5	0.9-64	1190	70	440	450	135	110	170	400	420	135	130
OBR 60/360x4	4.5	0.45-128	2380	160	440	450	135	200	210	400	420	135	220
OBR 60/420x1	1.8	2.4-38	900	30	500	510	135	70	80	460	480	135	90
OBR 60/420x2	3	1.2-76	1490	70	500	510	135	110	170	460	480	135	130
OBR 60/420x4	5.6	0.6-152	2970	160	500	510	135	200	210	460	480	135	220
OBR 90/180x2	1.7	0.5-72	920	70	250	260	165	110	170	210	230	165	130
OBR 90/180x4	3.2	0.25-144	1850	160	250	260	165	200	210	210	230	165	220
OBR 90/360x2	3.5	1.2-128	1500	70	440	450	165	110	170	400	420	165	130
OBR 90/360x4	6.4	0.6-216	3000	160	440	450	165	200	210	400	420	165	220
OBR 90/420x2	4.0	1.6-128	1780	70	500	510	165	110	170	460	480	165	130
OBR 90/420x4	7.3	0.8-256	3570	160	500	510	165	200	210	460	480	165	220

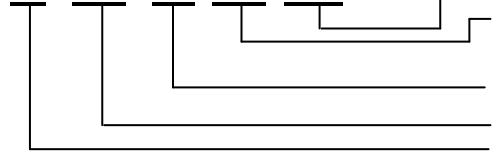
General Specifications	
Temperature Coefficient:	<±200ppm
Dielectric strength:	2500VAC 1 minute
Working Voltage:	UL: 600VAC / CE: 690VAC; 1100VDC
Isolation Resistance:	> 20 MΩ
Overload:	5-10x in 5 sec; 25-35 x in 1 s
Environmental:	-40 °C - 90 °C
Derating :	Linear: 40°C = P _N to 70°C = 0.5*P _N

PN: NOMINAL POWER WITH NATURAL COOLING and mounted in a horizontal/vertical position (like shown on the picture below)
 WIRE TEMPERATURE: Peak: 500 K; Steady state 350K.

Type identification:

Please specify your OBR Brake resistor as follows:

OBR 30 / 360 -VE 102 22R XXX



Customer Drawing Number
 Ohm Value (Examples: 2R2=2.2Ω; 22R=22 Ω)
 Configuration : 1XX: Cable connections and protection grid; 0XX: Cable connectors, no protection grid. X0X: No thermostat; XX1: One resistor component; XX2: Two resistor components; XX4: Four resistor components.
 VE: Resistors vertically, mounting at ends; VS: Resistors vertically, mounting at sides; HE: Resistors horizontally, mounting at ends; HS: Resistors horizontally, mounting at sides.
 Total length of resistor support insulators (= N * 60 mm, max 480mm)
 Width of resistor support plate in mm.

More size configurations (or IP23, IP50, thermostats and connector boxes) can be supplied, please consult Danotherm Electric A/S for further details.