

Dynamic Braking Resistor

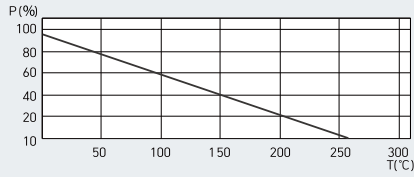
Single Type MCRA



Characteristics

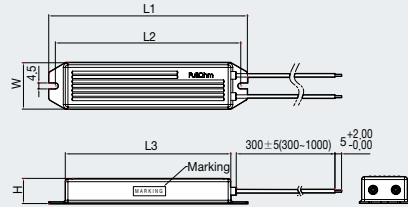
Temperature range	-55°C~200°C
Insulation resistance	Over 100MΩ
Dielectric strength	AC 2,500V / 1 Min
Temperature coefficient	±260 ppm / °C max
Resistor wattage Range	50 ~ 200[W]

Power Derating Curve



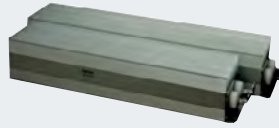
[NOTE] Thermostat sensor included types use 0.5mm² silicone asbestos wire.

Dimensions [mm]



Model	L1±1	L2±1	L3±1	W±1	H±1
MCRA-50	150	140	125	35	19
MCRA-100	150	140	125	35	19
MCRA-150	182	172	150	43	20
MCRA-200	230	220	200	60	20

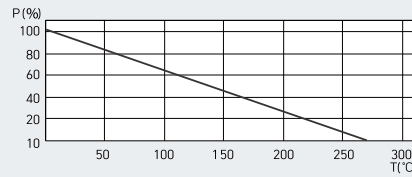
Single Type MCRF



Characteristics

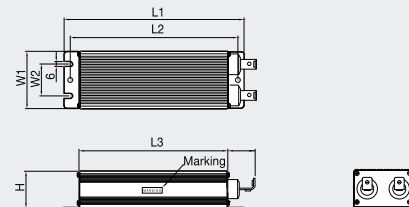
Temperature range	-55°C~200°C
Insulation resistance	Over 100MΩ
Dielectric strength	AC 2,500V / 1 Min
Temperature coefficient	±260 ppm / °C max
Resistor wattage Range	300 ~ 2000[W]

Power Derating Curve



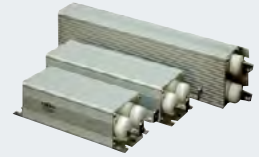
[NOTE] Thermostat sensor included types use 0.5mm² silicone asbestos wire.

Dimensions [mm]



Model	L1±1	L2±1	L3±1	W±0.5	W2±0.5	H±1
MCRF-300	190	175	152	70	39	45
MCRF-400	220	205	182	70	39	45
MCRF-500	240	225	202	70	39	45
MCRF-600	260	245	222	70	39	45
MCRF-700	300	285	262	70	39	45
MCRF-800	300	285	262	70	39	45
MCRF-1000	340	325	302	70	39	45
MCRF-1200	400	385	362	70	39	45
MCRF-1600	440	425	402	70	39	45
MCRF-2000	510	495	472	70	39	45

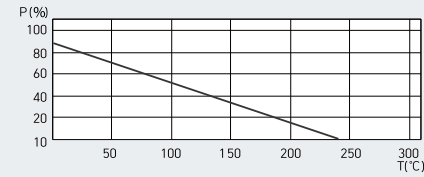
Single Type MCRS



Characteristics

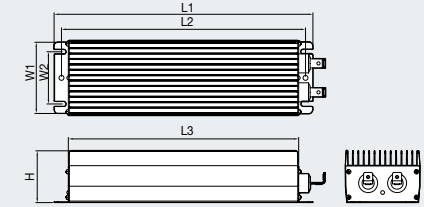
Temperature range	-55°C~200°C
Insulation resistance	Over 100MΩ
Dielectric strength	AC 2,500V / 1 Min
Temperature coefficient	±260 ppm / °C max
Resistor wattage Range	2400[W]

Power Derating Curve



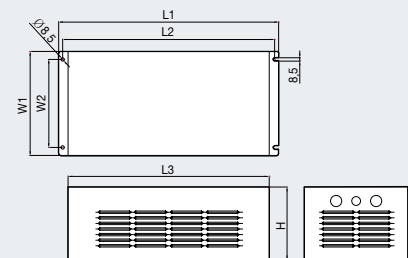
[NOTE] Thermostat sensor included types use 0.5mm² silicone asbestos wire.

Dimensions [mm]



Model	L1±1	L2±1	L3±1	W1±1	W2±1	H±1
MCRS-2400 [2.4kW]	470	450	432	94	68	68

Set Type MCRF-ST (IP00)



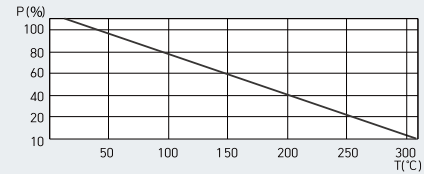
Characteristics

Temperature range	-55°C~200°C
Insulation resistance	Over 20MΩ
Dielectric strength	AC 2,500V / 1 Min
Temperature coefficient	±260 ppm / °C max
Resistor wattage Range	12 ~ 60[kW]
Built-in thermostat sensor	B Contact

Dimensions [mm]

Model	L1±2	L2±2	L3±2	W1±2	W2±2	H±2
MCRF-ST 1.2kW	550	525-537	503	180	140	126
MCRF-ST 1.6kW						
MCRF-ST 1.8kW						
MCRF-ST 2kW						
MCRF-ST 2.4kW	550	525-537	503	260	220	126
MCRF-ST 3.2kW						
MCRF-ST 3.6kW						
MCRF-ST 4kW						
MCRF-ST 4.8kW	550	525-537	503	180	140	182
MCRF-ST 5kW						
MCRF-ST 6kW						
MCRF-ST 6.4kW						
MCRF-ST 7.2kW	550	525-537	503	260	220	182
MCRF-ST 7.5kW						
MCRF-ST 10kW						

Power Derating Curve



[NOTE] Thermostat sensor included types use 0.5mm² silicone asbestos wire.

Model	L1±2	L2±2	L3±2	W1±2	W2±2	H±2
MCRF-ST 12kW	550	525-537	503	260	220	322
MCRF-ST 13kW						
MCRF-ST 14.4kW						
MCRF-ST 15kW						
MCRF-ST 16kW	550	525-537	503	260	220	392
MCRF-ST 20kW						
MCRF-ST 24kW						
MCRF-ST 26kW						
MCRF-ST 30kW	550	525-537	503	340	300	462
MCRF-ST 32kW						
MCRF-ST 40kW						
MCRF-ST 48kW						
MCRF-ST 52kW	550	525-537	503	500	460	602
MCRF-ST 58kW						
MCRF-ST 60kW						

Dynamic Braking Resistor

Built-in Dynamic Breaking IGBT

Voltage Class	Capacity [kW]	Torque 100%						Torque 150%											
		Value [Ω]	Wattage[W] (%ED=5%)	Single		Set		Value [Ω]	Wattage[W] (%ED=5%)	Single(%ED=5%)		Set(%ED=5%)		Wattage[W] (%ED=10%)	Single(%ED=10%)		Set(%ED=10%)		
				ERP Code	Model Name	ERP Code	Model Name			ERP Code	Model Name	ERP Code	Model Name		ERP Code	Model Name	ERP Code	Model Name	
200V	0.4	400	50	64090131	MCRA-50														
	0.75	200	100	64090134	MCRA-100														
	1.5	100	200	64090136	MCRA-200														
	2.2	60	300	64090149	MCRF-300														
	3.7/4.0	40	500	64090155	MCRF-500														
	5.5	33	600	64090158	MCRF-600														
	7.5	20	800	64090160	MCRF-800														
	11	15	1200	64090162	MCRF-1200	6409018400	MCRF-ST 1.2kW												
	15	10	2400	64090169	MCRS-2400	6409018900	MCRF-ST 2.4kW												
	18.5	8	2400	64090170	MCRS-2400	6409019700	MCRF-ST 2.4kW												
400V	0.4	1800	50	64090125	MCRA-50														
	0.75	900	100	64090128	MCRA-100														
	1.5	450	200	64090130	MCRA-200														
	2.2	300	300	64090138	MCRF-300														
	3.7/4.0	200	400	64090140	MCRF-400														
	5.5	120	700	64090145	MCRF-700														
	7.5	90	1000	64090146	MCRF-1000														
	11	60	1200	64090151	MCRF-1200	6409017200	MCRF-ST 1.2kW												
	15	45	2000	64090154	MCRF-2000	6409017300	MCRF-ST 2kW												
	18.5	35	2400	64090165	MCRS-2400	6409017600	MCRF-ST 2.4kW												
22	30	2400	64090166	MCRS-2400	6409017800	MCRF-ST 2.4kW													
30	20	3600			6409018100	MCRF-ST 3.6kW													

Dynamic Breaking Unit (Non Dynamic Breaking IGBT)

Voltage Class	DB Unit Capacity [kW]	Torque 100%						Torque 150%										
		Value [Ω]	Wattage[W] (%ED=5%)	Single		Set		Value [Ω]	Wattage[W] (%ED=5%)	Single(%ED=5%)		Set(%ED=5%)		Wattage[W] (%ED=10%)	Single(%ED=10%)		Set(%ED=10%)	
				ERP Code	Model Name	ERP Code	Model Name			ERP Code	Model Name	ERP Code	Model Name		ERP Code	Model Name	ERP Code	Model Name
200V	11	8.5	1.6	64090163	MCRF-1600	6409019300	MCRF-ST 2kW											
	15	8.5	1.6	64090163	MCRF-1600	6409019300	MCRF-ST 2kW											
	18.5	5.7	2.4	64090171	MCRS-2400	6409020100	MCRF-ST 2.4kW											
	22	5.7	2.4	64090171	MCRS-2400	6409020100	MCRF-ST 2.4kW											
	30	4.2	3.2			6409020600	MCRF-ST 3.2kW											
	37	4.2	3.2			6409020600	MCRF-ST 3.2kW											
	45	2.8	4.8			6409021300	MCRF-ST 4.8kW											
	55	2.8	4.8			6409021300	MCRF-ST 4.8kW											
	75	2	7.5			6409022000	MCRF-ST 7.5kW											
	90	1.5	10			6409022400	MCRF-ST 10kW											
400V	11	33.9	1.6	64090157	MCRF-1600	6409017700	MCRF-ST 1.6kW											
	15	33.9	1.6	64090157	MCRF-1600	6409017700	MCRF-ST 1.6kW											
	18.5	22.8	2.4	64090167	MCRS-2400	6409018000	MCRF-ST 2.4kW											
	22	22.8	2.4	64090167	MCRS-2400	6409018000	MCRF-ST 2.4kW											
	30	16.9	3.2			6409018300	MCRF-ST 3.2kW											
	37	16.9	3.2			6409018300	MCRF-ST 3.2kW											
	45	11.4	4.8			6409018800	MCRF-ST 4.8kW											
	55	11.4	4.8			6409018800	MCRF-ST 4.8kW											
	75	8.4	6.4			6409019400	MCRF-ST 6.4kW											
	90	6	10			6409019900	MCRF-ST 10kW											

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