

# MCA

**Self-regulating** cable for anti-freeze use or for maintaining temperatures for general use.

For anti-freeze use on pipes or tanks or for maintaining process temperatures under 65°C, even in hazardous areas. Maintenance-free, reliable, easy to install. Suitable even in the presence of mild inorganic solutions.



Product	Power voltage (V)	Minimum installation temperature (°C)	Power at 10°C (W/m)	TEMPERATURE MAX	
				Continuous cable powered (°C)	Intermittent cable not powered (°C)
MCA3	220-240	-30	10	65	80
MCA5	220-240	-30	15	65	80
MCA8	220-240	-30	25	65	80

ELECTRICAL SIZING		MAXIMUM LENGTH OF THE CIRCUITS IN THE HEATING CABLE (m)								
		MCA3			MCA5			MCA8		
Starting temperature (°C)		+10°	-10°	-20°	+10°	-10°	-20°	+10°	-10°	-20°
Switchgear protection (A), with C curve and 30mA* differential protection*	10 A	-	-	-	103	71	62	64	47	37
	16 A	177	144	125	160	114	99	103	75	60
	20 A	-	149	139	-	133	124	126	94	75
	25 A	-	-	-	-	-	-	-	107	94

\* Suggested where protection of people is requested; installations with no personnel admittance can be performed with 100 to 300 mA.









Pipe Ø		Thermal insulation thickness									
		10 mm		20 mm		30 mm		40 mm		50 mm	
		Outer temperature (°C)									
inch	mm	-10	-20	-10	-20	-10	-20	-10	-20	-10	-20
1/2"	15	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
3/4"	20	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
1"	25	1-3	1-8	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
1¼"	32	1-3	1-8	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
1½"	40	1-3	1-8	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
2"	50	1-8	1-8	1-3	1-8	1-3	1-3	1-3	1-3	1-3	1-3
2½"	65	1-8	1-8	1-3	1-8	1-3	1-3	1-3	1-3	1-3	1-3
3"	80	1-8	2-8	1-3	1-8	1-3	1-5	1-3	1-3	1-3	1-3
4"	100	1-8	2-8	1-5	1-8	1-3	1-5	1-3	1-5	1-3	1-3
6"	150	2-8	2-8	1-8	2-8	1-8	1-8	1-3	1-8	1-3	1-8
8"	200	2-8	-	1-8	2-8	1-8	1-8	1-8	1-8	1-3	1-8
10"	250	2-8	-	2-8	-	1-8	2-8	1-8	1-8	1-8	1-8

### HOW TO CHOOSE MCA CABLE FOR ANTIFREEZE PROTECTION

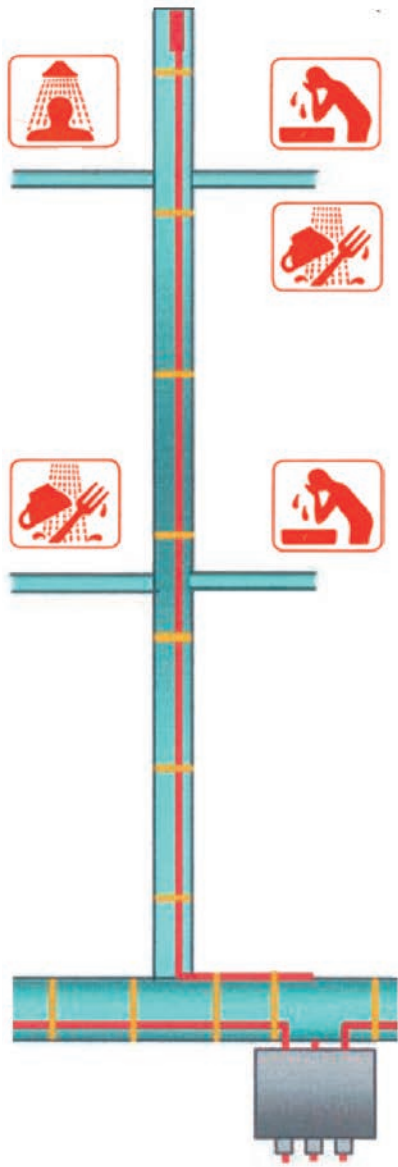
The table gives the cable quantity for tube length unit (1st number) and the MCA cable code number (2nd number) versus tube diameter, thermal insulation thickness (for rockwool) and min outer temperature.

For uses other than anti-freeze, request design from Raytech technical direction.

### MCA connection accessories

 <p><b>MCA Universal IP68</b></p> <ul style="list-style-type: none"> <li>• Connection kit integrated with the terminal box.</li> <li>• Termination Kit.</li> <li>• Joint Kit.</li> </ul>	 <p><b>MCA-Y</b> Branch Kit.</p>	 <p><b>MCA-BOX3 / 4</b></p> <p>Connection boxes between heating cables or heating and power cables.</p>	 <p><b>MCA-AL</b></p> <p>Thermal insulation pass-through kit.</p>	 <p><b>MCA-PRESS</b></p> <p>Cable gland.</p>	 <p><b>MCA-EA</b></p> <p>Warning label.</p>	 <p><b>MCA-FV</b></p> <p>Glass fiber tape.</p>	 <p><b>MCA-ALL</b></p> <p>Aluminium self adhesive tape 25 or 75 mm.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------

For other accessories see page 219



# MCA

**Self-regulating** cable for pipe tracing for domestic hot water.






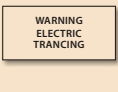


The tracing of domestic hot water systems allows you to always have the water at the ideal temperature available at each pick up point: this allows an energy saving (approximately up to 70%) also for the elimination of thermal losses in recirculation pipes. The pipes must always be insulated with suitable thermal insulation; for the choice and the project, please contact Raytech.

		MCA3	MCA5	MCA8	MCA10-IGF
<b>TEMPERATURE (°C)</b>	<b>max operating</b>	65°	65°	65°	120°
	<b>max exposure*</b>	80°	80°	80°	120°
	<b>maintenance**</b>	45°	55°	60°	80°
<b>Available power</b>	<b>a 40°C (W/m)</b>	6	8	14	25
<b>Max length to be supplied with starting at 10°C through a switchgear</b>	<b>16 A</b>	177	160	103	85
	<b>20 A</b>	-	-	126	114
	<b>30 A</b>	-	-	126	-
<b>RECOMMENDED FOR</b>		Small villas	Blocks of flats Buildings	Blocks of flats Buildings	Hotels Hospitals

\*Circuit breakers with "C" curve, with a 30 mA differential.

\*\*The indicated data is the limit maintenance temperature for which the cable can be used; for insulation sizing, please contact Raytech.

## MCA connection accessories

 <p><b>MCA Universal IP68</b></p> <ul style="list-style-type: none"> <li>• Connection kit integrated with the terminal box.</li> <li>• Termination Kit.</li> <li>• Joint Kit.</li> </ul>	 <p><b>MCA-Y</b> Branch Kit.</p>	 <p><b>MCA-BOX3 / 4</b> Connection boxes between heating cables or heating and power cables.</p>	 <p><b>MCA-AL</b> Thermal insulation pass-through kit.</p>	 <p><b>MCA-PRESS</b> Cable gland.</p>	 <p><b>MCA-EA</b> Warning label.</p>	 <p><b>MCA-FV</b> Glass fiber tape.</p>	 <p><b>MCA-ALL</b> Aluminium self adhesive tape 25 or 75 mm.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------

For other accessories see page 219