INDUSTRIAL USE

Anti-freeze maintenance and heating
up to 65°C continuous
85°C intermittent

ATEX

MCA3
MCA5
MCA7-I-PF
MCA8
MCA10
MCA13-I

Anti-freeze maintenance and heating
up to 120°C continuous
120°C intermittent

MCA3-I-GF
MCA5-I-GF
MCA8-I-GF
MCA10-I-GF
MCA20-I-GF

Anti-freeze maintenance, heating and washing
up to 120°C continuous
190°C intermittent

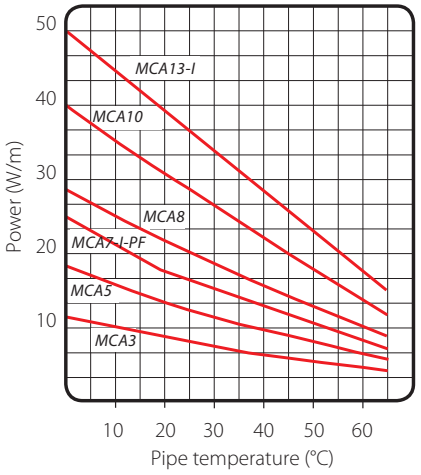
ATEX

MCA3-I-FF
MCA5-I-FF
MCA7-I-FF
MCA8-I-FF
MCA10-I-FF
MCA15-I-FF
MCA20-I-FF

ATEX

MCA

Self-regulating heating cables for anti-freeze or temperature maintenance use with exposure to **mild inorganic solutions**



Suitable for anti-freeze and process temperature maintenance use **up to 65°C** on piping and tanks. Cannot be used when washing with steam or continuous exposure to strong corrosive and organic acids.

CONSTITUTION OF THE CABLE

Copper conductors

Self regulating conductive core

Modified polyolefine insulation

Copper screen

Modified polyolefine or fluoropolymer (1-PF) outer sheath

Cables certified for classified zones
Ex II 2G Ex e IIC Gb
Ex II 2D Ex tb IIIC Db
In accordance:
EN 60079-0 :2009
EN 60079-31 :2009
EN 60079-30-1 :2007

Type of surface to be tracked:
Steel - Painted - Stainless Steel - Plastic.
Chemical resistance: Suitable for exposure to mild inorganic solutions.

Product	Power voltage (V)	Power at 10°C (W/m)	Minimum installation temperature (°C)	MAX TEMPERATURE Continuous cable powered (°C)	MAX TEMPERATURE Intermittent cable not powered ≤1000 h cum. (°C)	Bending radius min. (mm)	Temperature classification EN50014
MCA3*	230	10	-45	65	80	25	T6
MCA5*	230	15	-45	65	80	25	T6
MCA7-I-PF	230	20	-45	65	80	25	T6
MCA8*	230	25	-45	65	80	25	T6
MCA10*	230	30	-45	65	80	25	T6
MCA13-I	230	40	-45	65	80	25	T6

Add the abbreviation **I-PF** for external fluoropolymer sheaths

ELECTRICAL SIZING

Maximum length of the circuits in the heating cable (m)

Starting temperature (°C)		MCA3 +10°	MCA3 -10°	MCA3 -20°	MCA5 +10°	MCA5 -10°	MCA5 -20°	MCA7-I-PF +10°	MCA7-I-PF -10°	MCA7-I-PF -20°	MCA8 +10°	MCA8 -10°	MCA8 -20°	MCA10 +10°	MCA10 -10°	MCA10 -20°	MCA13-I +10°	MCA13-I -10°	MCA13-I -20°
Switchgear protection (A), with C curve and 30mA* differential protection*	10 A	-	-	-	103	71	62	-	-	-	64	47	37	49	38	33	-	-	-
	16 A	177	144	125	160	114	99	109	79	70	103	75	60	78	61	53	57	44	40
	20 A	-	149	139	-	133	124	129	99	87	126	94	75	97	76	66	71	55	50
	25 A	-	-	-	-	-	-	-	111	104	-	107	94	112	95	83	89	69	62

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

MCA connection accessories

Connection kit integrated with the terminal box	Termination Kit	Joint Kit	Branch Kit	Thermal insulation pass-through kit
MCA Universal	MCA Universal	MCA Universal	MCA Universal	MCA-AL
Cable gland	**Warning label**	**Fixing tape glass**	**Fixing tape Aluminum 25mm**	**Fixing tape Aluminum 75mm**
MCA-PRESS	MCA-EA	MCA-FV	MCA-ALL25	MCA-ALL75

For other accessories see page 206.

MCA-I-GF

Self-regulating heating cables for anti-freeze or temperature maintenance use with exposure to **corrosives and acids**

Suitable for maintaining process temperatures **up to 120°C** on piping and tanks, even in the presence of acids and corrosives, or for anti-freeze use where acids and corrosives are present, in safe areas. Not suitable for use in the presence of steam washing.

CONSTITUTION OF THE CABLE

Copper conductors

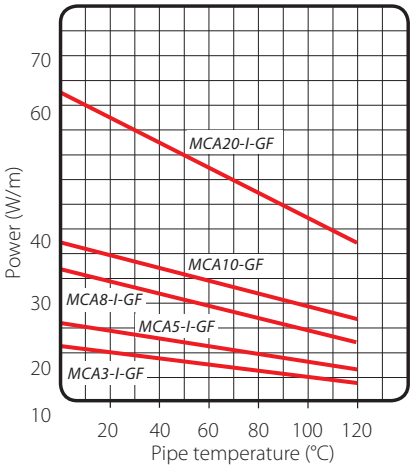
Self regulating conductive core

Fluoropolymer insulation

Copper screen

Modified polyolefine outer sheath

Type of surface to be tracked: Steel - Painted - Stainless Steel.
Chemical resistance: Suitable for exposure to corrosive and organic acids.



Product	Power voltage (V)	Power at 10°C (W/m)	Minimum installation temperature (°C)	MAX TEMPERATURE Continuous cable powered (°C)	MAX TEMPERATURE Intermittent cable not powered ≤1000 h cum. (°C)	Bending radius min. (mm)	Temperature classification EN50014
MCA3-I-GF	230	10	-30	120	120	25	T3
MCA5-I-GF	230	15	-30	120	120	25	T3
MCA8-I-GF	230	25	-30	120	120	25	T3
MCA10-I-GF	230	30	-30	120	120	25	T3
MCA20-I-GF	230	60	-30	120	120	25	T3

ELECTRICAL SIZING

Maximum length of the circuits in the heating cable (m)

Starting temperature		MCA3-I-GF			MCA5-I-GF			MCA8-I-GF			MCA10-I-GF			MC20-I-GF		
		+10°C	-15°C	-25°C	+10°C	-15°C	-25°C	+10°C	-15°C	-25°C	+10°C	-15°C	-25°C	+10°C	-15°C	-25°C
Switchgear protection (A), with C curve and 30mA* differential protection	16 A	200	180	175	165	130	117	120	97	88	85	73	69	50	41	38
	20 A	235	235	235	189	162	152	140	125	120	114	98	92	64	55	52
	30 A	-	-	-	-	-	189	-	-	140	-	-	114	-	-	64

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

Connection accessories for MCA-I-GF

Connection kit integrated with the terminal box	Termination Kit	Joint Kit	Branch Kit	Thermal insulation pass-through kit
MCA Universal	MCA Universal	MCA Universal	MCA Universal	MCA-AL
Cable gland	**Warning label**	**Fixing tape glass**	**Fixing tape Aluminum 25mm**	**Fixing tape Aluminum 75mm**
MCA-PRESS	MCA-EA	MCA-FV	MCA-ALL25	MCA-ALL75

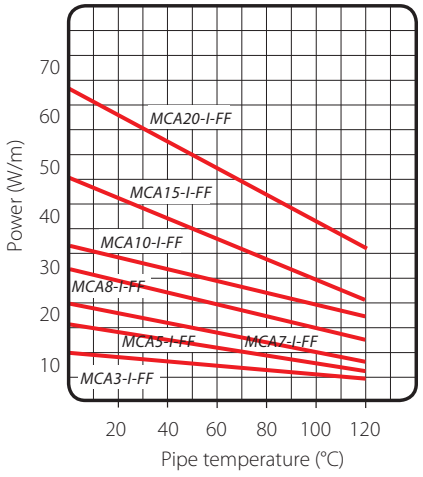
For other accessories see page 206.

ATEX

MCA-I-FF

Self-regulating heating cables for anti-freeze or temperature maintenance use with exposure to **corrosives and acids and high temperatures**

Suitable for maintaining process temperatures **up to 120°C** on piping and tanks, even in the presence of acids and corrosives, or for anti-freeze use even in the presence of acids and corrosives and where high temperature thermal treatment is foreseen, like steam washing, **up to 190°C.**



CONSTITUTION OF THE CABLE

- Copper conductors
- Self regulating conductive core
- Fluoropolymer insulation
- Copper screen
- Fluoropolymer outer sheath

Cables certified for classified zones
Ex II 2G Ex e IIC Gb
Ex II 2D Ex tb IIIC Db
In accordance:
EN 60079-0 :2009
EN 60079-31 :2009
EN 60079-30-1 :2007

Type of surface to be tracked: Steel - Painted - Stainless Steel - Plastic.
Chemical resistance: Suitable for exposure to corrosive and organic acids.

Product	Power voltage (V)	Power at 10°C (W/m)	Minimum installation temperature (°C)	TEMPERATURE MAX Continuous cable powered (°C)	TEMPERATURE MAX Intermittente a cavo non alimentato ≤1000 h cum. (°C)	Bending radius min. (mm)	Temperature classification EN50014
MCA3-I-FF	230	10	-30	120	190	25	T3
MCA5 -I-FF	230	15	-30	120	190	25	T3
MCA7-I-FF	230	20	-30	120	190	25	T3
MCA8-I-FF	230	25	-30	120	190	25	T3
MCA10-I-FF	230	30	-30	120	190	25	T3
MCA15-I-FF	230	45	-30	120	190	25	T3
MCA20-I-FF	230	60	-30	120	210	25	T3

ELECTRICAL SIZING

Maximum length of the circuits in the heating cable (m)

Starting temperature (°C)		MCA3-I-FF +10°	MCA3-I-FF -15°	MCA3-I-FF -25°	MCA5-I-FF +10°	MCA5-I-FF -15°	MCA5-I-FF -25°	MCA7-I-FF +10°	MCA7-I-FF -15°	MCA7-I-FF -25°	MCA8-I-FF +10°	MCA8-I-FF -15°	MCA8-I-FF -25°	MCA10-I-FF +10°	MCA10-I-FF -15°	MCA10-I-FF -25°	MCA15-I-FF +10°	MCA15-I-FF -15°	MCA15-I-FF -25°	MCA20-I-FF +10°	MCA20-I-FF -15°	MCA20-I-FF -25°
Switchgear protection (A), with C curve and 30mA* differential protection	16 A	200	180	175	165	130	117	122	107	102	120	97	88	85	73	69	55	48	36	50	41	38
	20 A	235	235	235	189	162	152	136	127	124	140	125	120	114	98	92	68	60	57	64	55	52
	30 A	-	-	-	-	-	189	-	-	-	-	-	140	-	-	114	91	83	82	-	-	64

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

Connection accessories for MCA-I-FF

Connection kit integrated with the terminal box	Termination Kit	Joint Kit	Branch Kit	Thermal insulation pass-through kit
MCA Universal	MCA Universal	MCA Universal	MCA Universal	MCA-AL
Cable gland	**Warning label**	**Fixing tape glass**	**Fixing tape Aluminum 25mm**	**Fixing tape Aluminum75mm**
MCA-PRESS	MCA-EA	MCA-FV	MCA-ALL25	MCA-ALL75

For other accessories see page 206.