

Ignitors

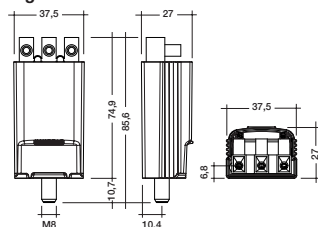
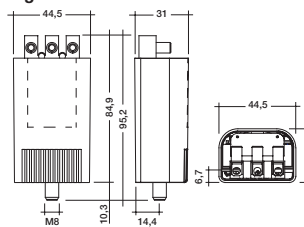
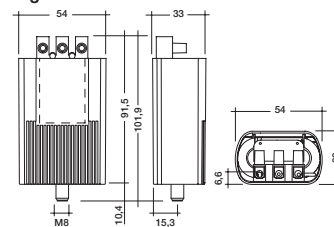
Superimposed Pulse Ignitors
ZRM 2-ES/C, ZRM 2.5-ES/C, ZRM 4.5-ES/C, ZRM 6-ES/C, ZRM 12-ES/C
**Packaging:**

ZRM 2–4.5 ES/C:
50 pieces/box
1200 pieces/pallet

ZRM 6–12 ES/C:
20 pieces/box
720 pieces/pallet

Approvals:

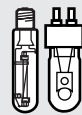
EN 61347-2-1
EN 60927

Figure 1**Figure 2****Figure 3**

Type		ZRM 2-ES/C	ZRM 2.5-ES/C	ZRM 4.5-ES/C	ZRM 6-ES/C	ZRM 12-ES/C
Article number		22176025	22176024	22176023	87500031	87500028
Line voltage	V	198–264	198–264	198–264	198–264	198–264
Mains frequency	Hz	50–60	50–60	50–60	50–60	50–60
Ignition voltage	kV	1.8–2.5	4.0–5.0	4.0–5.0	4.0–5.0	4.0–5.0
Max. permissible lamp current I_b	A	1.0	3.0	4.6	5.0	12.0
Lamp wattage HS	W	35–70 ①	70–250 ②	70–400 ②	70–400 ②	250–1000
Lamp wattage HI	W	70 ①	35–250	35–400	35–400	250–1000
Temperature rise at $I_b = 0.54$ A (35 W)	K	0.2	0.1	0.1	–	–
$I_b = 1.0$ A (70 W)	K	2.5	2.5	1	1.1	–
$I_b = 1.2$ A (100 W)	K	–	4	2	1.9	–
$I_b = 1.8$ A (150 W)	K	–	9.5	6.5	3.7	–
$I_b = 3.0$ A (250 W)	K	–	27	14	9.9	2.9
$I_b = 4.6$ A (400 W)	K	–	–	33.5	22.2	5.9
$I_b = 6.2$ A (600 W)	K	–	–	–	–	10.3
$I_b = 7.0$ A (750 W)	K	–	–	–	–	13.2
$I_b = 10.3$ A (1000 W)	K	–	–	–	–	27.2
$I_b = 12.0$ A (max. W)	K	–	–	–	–	36.6
Losses at $I_b = 0.54$ A (35 W)	W	0.05	0.06	0.03	–	–
$I_b = 1.0$ A (70 W)	W	0.20	0.21	0.11	0.10	–
$I_b = 1.2$ A (100 W)	W	–	0.31	0.15	0.15	–
$I_b = 1.8$ A (150 W)	W	–	0.72	0.35	0.35	–
$I_b = 3.0$ A (250 W)	W	–	2.10	1.0	1.00	0.35
$I_b = 4.6$ A (400 W)	W	–	–	2.5	2.40	0.82
$I_b = 6.2$ A (600 W)	K	–	–	–	–	1.54
$I_b = 7.0$ A (750 W)	K	–	–	–	–	2.02
$I_b = 10.3$ A (1000 W)	K	–	–	–	–	4.68
$I_b = 12.0$ A (max. W)	K	–	–	–	–	6.73
Max. cable capacitance	pF	20–300	20–100	20–100	20–100	20–200
Max. distance from lamp	m	4	1.5	1.5	1.5	3
Max. housing temperature	°C	105	105	105	105	105
Max. housing temperature, other casing sides	°C	105	105	105	105	105
Min. operating temperature	°C	–30	–30	–30	–30	–30
Weight	kg	0.13	0.13	0.13	0.21	0.28
Figure		1	1	1	2	3

① only for metal halide lamps and high pressure sodium lamps with an ignition voltage < 2.5 kVp

② only for HS 4–5 kVp



Ignitors

Superimposed Pulse Ignitors ZRM 6-ES/C 400, ZRM 12-ES/C 400



Packaging:

20 pieces/box
720 pieces/pallet

Approvals:

EN 61347-2-1
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Figure 1

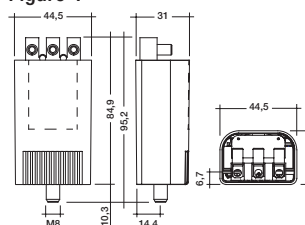
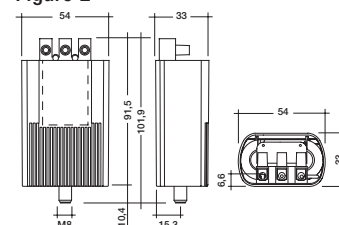


Figure 2



Type		ZRM 6-ES/C 400	ZRM 12-ES/C 400
Article number		87500032	87500029
Line voltage	V	360–466	342–440
Mains frequency	Hz	50–60	50–60
Ignition voltage	kV	4.0–5.0	4.0–5.0
Max. permissible lamp current I_b	A	6	12.7
Lamp wattage HS	W	600–750	600–1000
Lamp wattage HI	W	–	1000–2000
Temperature rise at $I_b = 3.4$ A (600 W)	K	12.9	3.5
$I_b = 3.62$ A (600 W)	K	14.3	4.0
$I_b = 4.5$ A (750 W)	K	21.8	5.8
$I_b = 6.8$ A (1500 W)	K	–	12.7
$I_b = 10.3$ A (2000 W)	K	–	27.2
$I_b = 12.7$ A (max. W)	K	–	36.6
Losses at $I_b = 3.4$ A (600 W)	W	1.3	0.45
$I_b = 3.62$ A (600 W)	W	1.45	0.51
$I_b = 4.5$ A (750 W)	W	2.33	0.72
$I_b = 6.8$ A (1500 W)	W	–	1.86
$I_b = 10.3$ A (2000 W)	W	–	4.68
$I_b = 12.7$ A (max. W)	K	–	6.73
Max. cable capacitance	pF	20–200	20–200
Max. distance from lamp	m	3	3
Max. housing temperature	°C	105	105
Max. housing temperature, other casing sides	°C	105	105
Min. operating temperature	°C	–30	–30
Weight	kg	0.21	0.28
Figure		1	2

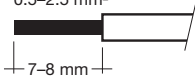
Installation instructions

Wiring type and cross section

Stranded wire or solid wire with a cross section up to 2.5 mm² may be used for wiring. Strip 8 mm of insulation from the cables to ensure perfect operation of the screw terminals. The lamp cable has to be selected according to the ignition voltage.

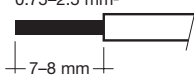
ZRM 2–4.5 ES/C:

wire preparation:
0.5–2.5 mm²



ZRM 6–12 ES/C:

wire preparation:
0.75–2.5 mm²



When using two wires in one clamp-cage it is recommended to use the same wire types (solid or flexible) and same wire diameters. Above all, it must be made sure that the wires are fastened securely.

Important advice

Always switch off at the mains before changing the lamp. Warning – starting voltage up to 5.0 kV!
Not suitable for use with lamps with internal ignitors.

Wiring notes

The ignitor can be used in luminaires for Protection Class 1 and Protection Class 2. The maximum allowable torque on the M8 nut is 4 Nm.

ATTENTION!

Terminals which are not fastened sufficient can cause charrings (maximum torque of terminal screws is 0.8 Nm). Wrong wiring can cause the destruction of the ignitor.