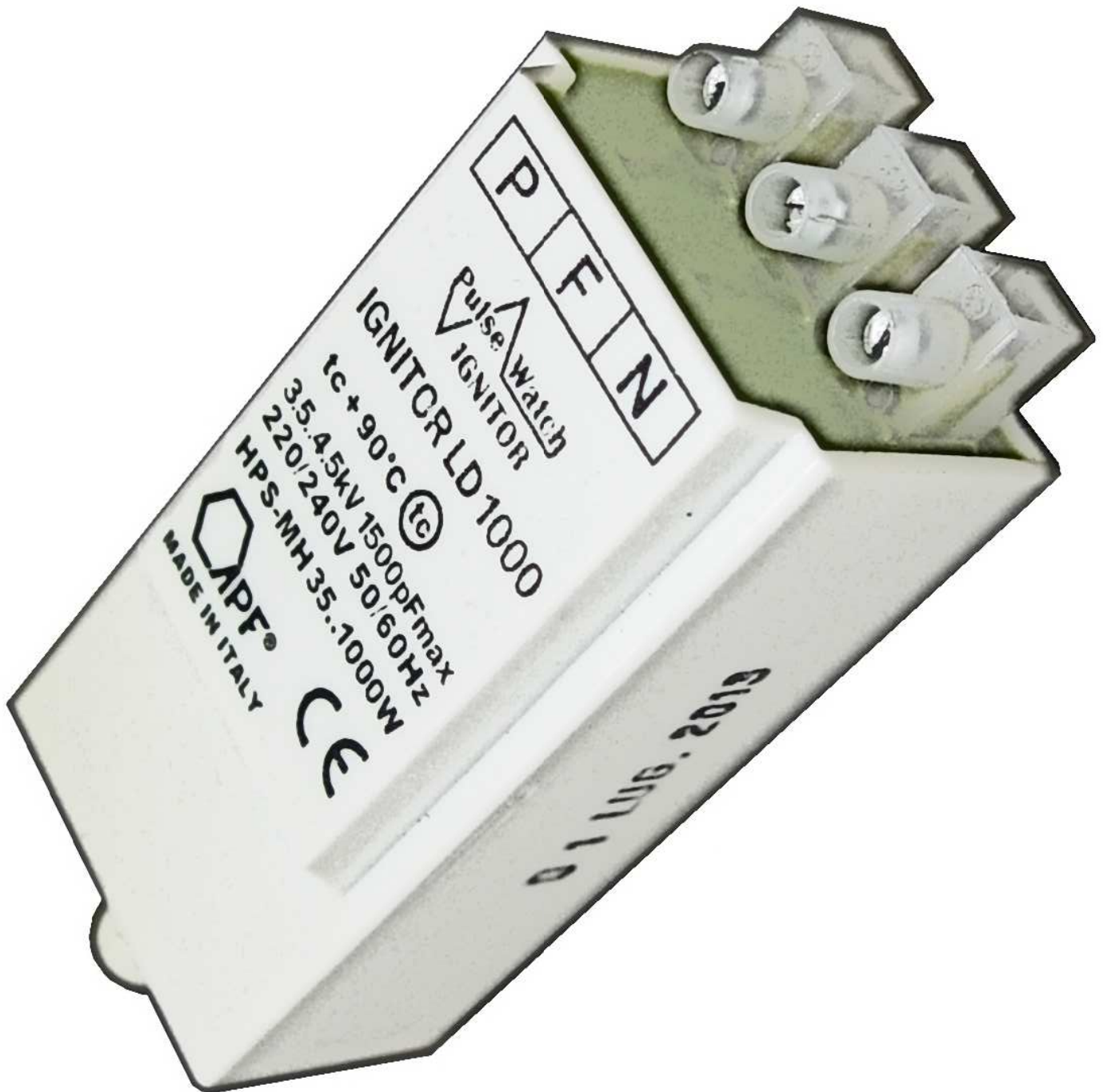


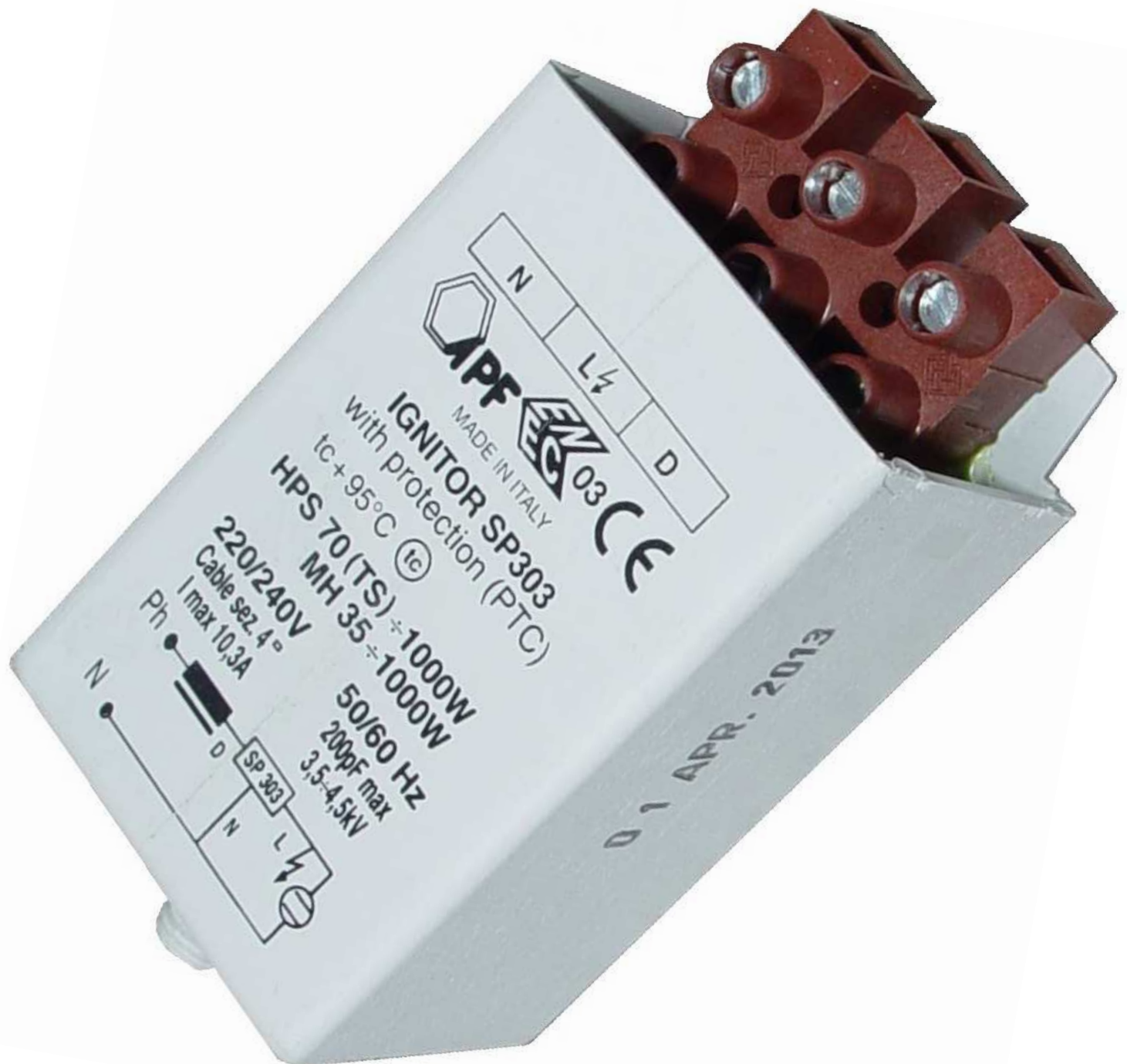


Electronic Ignitors

Class I IP20

for High Intensity Discharge Lamps





MADE IN ITALY

IGNITOR SP303
with protection (PTC)

tc + 95°C

HPS 70 (TS) = 1000W
MH 35 = 1000W

50/60 Hz
200pF max
3,5-4,5kV

220/240V
Cable sez. 4 =

I max 10,3A

Ph



01 APR. 2013



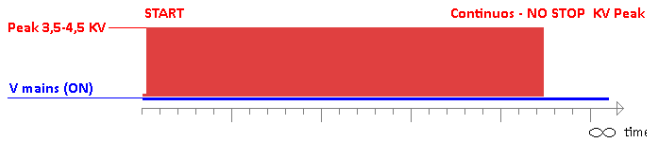
Gli Accenditori sono dei dispositivi elettronici indispensabili all'accensione di lampade a scarica in gas, fornendo per l'innesco un treno di impulsi di alta tensione con valori di picco, ampiezza, posizione e numero adeguati ai vari tipi di lampade in commercio. Con lampada in funzione si ha l'interruzione automatica della generazione degli impulsi.
Per ogni famiglia di lampade, gli accenditori si suddividono in differenti valori di tensione di picco.
APF produce una gamma completa di accenditori elettronici per lampade Sodio Alta Pressione ed Alogenuri Metallici, da incorporare, atti a soddisfare tutte le esigenze del mercato, nelle diverse configurazioni:

*Ignitors are electronics device necessary to switch on the discharge lamps, it forwards for ignition some high voltage pulses with peak amplitude, position and number appropriate for various lamps type available on the market.
When the lamp works there is an automatic reset of the impulse production.
For each lamps family the ignitors are divided for different voltage peak values.
APF produces a complete range of electronic ignitor for High Pressure Sodium and Metal Halide Lamps in different configurations, to satisfy all the market needs:*

HPSV Lamps 35 - 1000W - MH Lamps 35 - 2000W

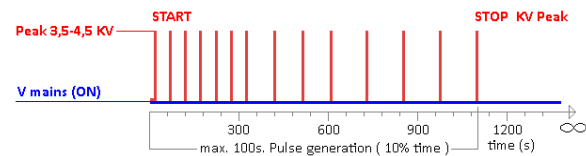
HIGH VOLTAGE SUPERIMPOSED CONVENTIONAL series
SP 13 - E 400 - SP 303 - SP 403

Senza programma di controllo lampada esaurita o difettosa
Without control end of life or damage lamp

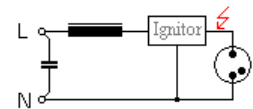


HIGH VOLTAGE DIGITAL SAFETY PULSE WATCH series
PW 70 - PW E 400 - PW 1000

Con programma di controllo lampada esaurita o difettosa
Programmed switch-off end of life or damage lamp



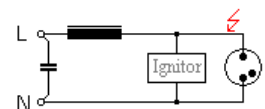
		Conventional ignitor	E 13	F 400	SP 303	SP 403
		Safety timed ignitor	PWE 70	PWE400	PW1000	-
		kV peak	1,8..2,3		3,5...4,5	
HPSV Lamps	MH Lamps					
35 - 50 - 70			pag. 3			
35 - 400	35 - 400			pag. 4		
150 - 1000	150 - 1000				pag. 5	
	2000 (8,8...12,2A)					pag. 6



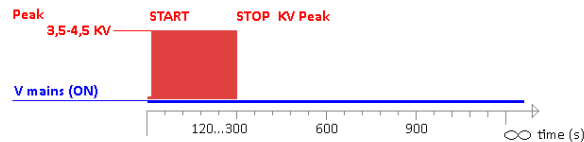
HPSV Lamps 35 - 1000W

SELF STOPPING HIGH VOLTAGE PULSE IGNITORS RANGE series (pag. 7)

		Timed ignitor	SP 70 T	SP 2 T
		kV peak	1,8..2,3	3,5...4,5
HPSV Lamps	35 - 50 - 70			
HPSV Lamps	100 - 1000			



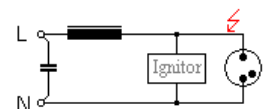
Ciclo di spegnimento in condizioni anomale 2...5min *Cut-out time in anomalous condition*



MH (HPI..) Lamps 250 - 2000W

LOW VOLTAGE PULSE IGNITORS RANGE serie (pag. 8)

		Timed ignitor	LV 1000	IM 2	IM 4
		kV peak		0,6...1,0	1,0..1,2
MH (HPI...) Lamps	250 - 1000				
MH (HPI...) Lamps	250 - 2000				
MH (HPI...) Lamps	2000 (8,8A)				



REFERENCE STANDARD	Safety	EN 61347-1	EN 61347-2-1
	Performance	EN 60927	R.F.I. Emissions EN 55015
			Immunity EN 61547

35 - 70W
HS
 1,8 ... 2,3 KV Lamps

Built-in type HIGH Voltage Superimposed Ignitor

For DISCHARGE Vapour lamps

Pulse Watch Tecnology

and Standard tecnology



class I IP 20

HPSV Lamps

(W) 35 50 70



REFERENCE STANDARD

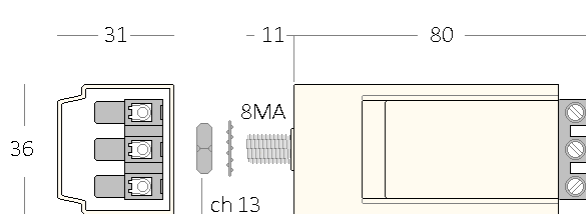
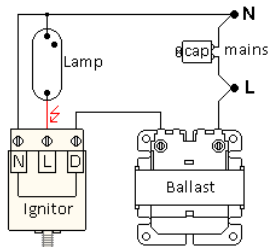
Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Tecnopolimero "
 Glow wire test: 850°C 30 sec

- ✓ Completamente elettronici
- ✓ Sistema multi impulso
- ✓ Abbinabili a qualsiasi tipo di alimentatore
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ Completely electronic
- ✓ Multiple pulse system
- ✓ Coupling with any type of ballast
- ✓ Reduced power losses
- ✓ Reduced heating

Mains Value	V / Hz	Ignitor Range	
Lamps	HS....	198...264V	50 / 60Hz
		35 - 50 - 70	35 - 50 - 70
IGNITOR	Tecnology type Cod.	Safety timed ignitor with control of defect lamp PW E 70 58700000T	Standard tecnology E 13 581300000
Approval			03
Automatic switch-off		YES - 20 min	NO
Ignition voltage	kV		1,8...2,3
Impulses position	°el		60 - 90 / 240 - 270
Pulse for cycle	n°		> 6
Load capacitance	pF		20...200
Losses	W		0,5 (1A max current operation)
Max. distance lamp	m		2
Max. case temperature	°C		105 (norm / abnorm)
Minimum temperature	°C		- 30
Weight	Kg.		0,13



Morsettiera a vite

1...2,5mm²

Screw terminal

35 ... 400W HPSV
35 ... 400W MH
3,5 ... 4,5 KV Lamps

Built-in type HIGH Voltage Superimposed Ignitor

For DISCHARGE Vapour lamps

Pulse Watch Tecnology



and Standard tecnology



class I IP 20

HPSV Lamps	(W)	35	70	100	150	250	400
MH Lamps	(W)	35	70	100	150	250	400



REFERENCE STANDARD

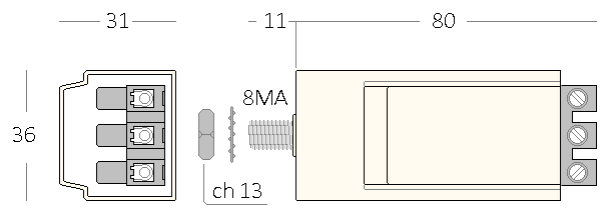
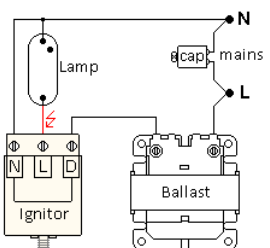
Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Tecnopolimero "
 Glow wire test: 850°C 30 sec

- ✓ Completamente elettronici
- ✓ Sistema multi impulso
- ✓ Abbinabili a qualsiasi tipo di alimentatore
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ Completely electronic
- ✓ Multiple pulse system
- ✓ Coupling with any type of ballast
- ✓ Reduced power losses
- ✓ Reduced heating

Mains Value	V / Hz	Ignitor Range					
		198...264V			50 / 60Hz		
Lamps HS...	W	35	70	100	150	250	400
Lamps HL...	W	35	70	100	150	250	400
IGNITOR	Tecnology type Cod.	Safety timed ignitor with control of defect lamp PW E 400 5840000WE			Standard tecnology E 400 58000000E		
Approval							
Automatic switch-off		YES - 20 min			NO		
Ignition voltage	kV	3,5...4,5					
Impulses position	°el	60 - 90 / 240 - 270					
Pulse for cycle	n°	> 6					
Load capacitance	pF	20...100					
Losses	W	2,5 (4,60A max current operation)					
Max. distance lamp	m	2					
Max. case temperature	°C	105 (norm / abnorm)					
Minimum temperature	°C	- 30					
Weight	Kg.	0,14					



Morsettiera a vite

1...2,5mm²

Screw terminal

400 ... 1000W HPSV
400 ... 1000W MH
3,5 ... 4,5 KV Lamps

Built-in type HIGH Voltage Superimposed Ignitor

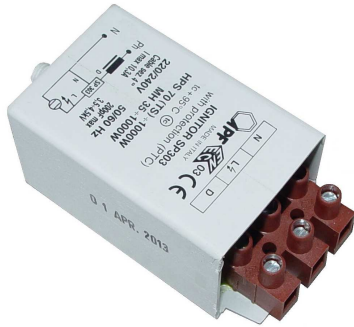
For DISCHARGE Vapour lamps

Pulse Watch Tecnology  and Standard tecnology



class I IP 20

HPSV Lamps	(W)	400	600	1000
MH Lamps	(W)	400		1000




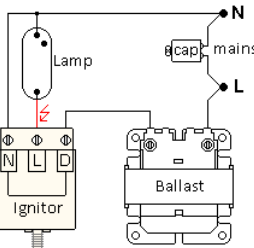
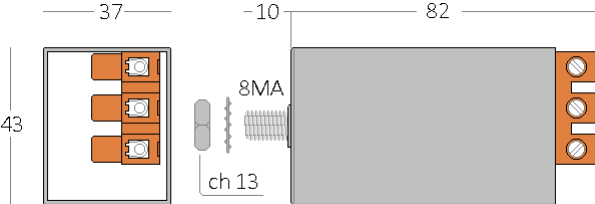
- ✓ Completamente elettronici
- ✓ Sistema multi impulso
- ✓ Abbinabili a qualsiasi tipo di alimentatore
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ Completely electronic
- ✓ Multiple pulse system
- ✓ Coupling with any type of ballast
- ✓ Reduced power losses
- ✓ Reduced heating

REFERENCE STANDARD

Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Tecnopolimero "
 Glow wire test: 850°C 30 sec

Mains Value	V / Hz	Ignitor Range 198...264V 50 / 60Hz	
Lamps	HS....	W	400 - 600 - 1000
Lamps	HL....	W	400 - 1000
IGNITOR	Tecnology type Cod.	<i>Safety timed ignotr with control of defect lamp</i> PW 1000 58000000T	<i>Standard tecnology</i> SP 303 583000000
Approval			
Automatic switch-off		YES - 20 min	NO
Ignition voltage	kV	3,5...4,5	
Impulses position	°el	60 - 90 / 240 - 270	
Pulse for cycle	n°	> 6	
Load capacitance	pF	20...200	
Losses	W	6,5 (10,3A max current operation)	
Max. distance lamp	m	2	
Max. case temperature	°C	95 (norm / abnorm)	
Minimum temperature	°C	- 30	
Weight	Kg.	0,18	
			
		Morsettiera a vite	Screw terminal

2000W MH

3,5 ... 4,5 KV Lamps

Built-in type HIGH Voltage Superimposed Ignitor
for Metal Halide lamps



class I IP 20

MH Lamps (W) 2000



REFERENCE STANDARD

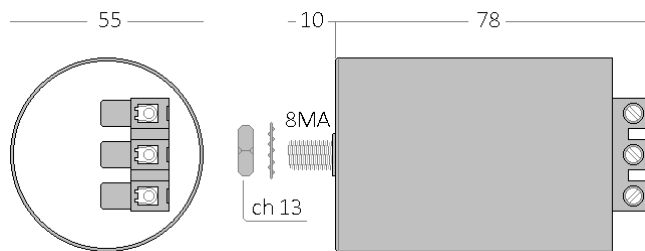
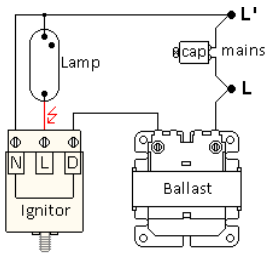
Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Aluminium "

- ✓ Completamente elettronici
- ✓ Sistema multi impulso
- ✓ Abbinabili a qualsiasi tipo di alimentatore
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ Completely electronic
- ✓ Multiple pulse system
- ✓ Coupling with any type of ballast
- ✓ Reduced power losses
- ✓ Reduced heating

Mains Value	Value	V / Hz	Ignitor Range
Lamps	HL....	W	360...440V 50 / 60Hz
			HQI T 2000 / N / E - HQI T 2000 / D - HQI TS 2000 / DS
			HQI TS 2000 / D / S HIGH FLUX - MHN SA 2000
IGNITOR	Tecnology		Standard tecnologia
	type		SP 403
	Cod.		584000000
Approval			
Automatic switch-off			NO
Ignition voltage	kV		3,5...4,5
Impulses position	°el		60 - 90 / 240 - 270
Pulse for cycle	n°		> 2
Load capacitance	pF		20...200
Losses	W		6,0 (12,2A max current operation)
Max. distance lamp	m		2
Max. case temperature	°C		95 (norm / abnorm)
Minimum temperature	°C		- 30
Weight	Kg.		0,37



Morsettiera a vite

1...4,0mm²

Screw terminal

250 - 2000W
HPI... HQI.../SI
 0,6 ... 1,2 KV Lamps

Built-in type Low Voltage Pulse Ignitor
 for Metal Halide lamps

CE
 class I IP 20

HPI... HPI Plus... Lamps	(W)	250	400	1000	2000
HQI... / SI Lamps	(W)	250	400	1000	2000



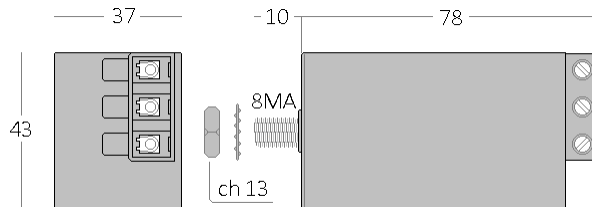
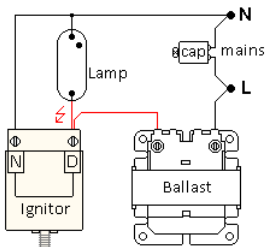
REFERENCE STANDARD		
Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Tecnopolimero "
 Glow wire test: 850°C 30 sec

- ✓ Completamente elettronici
- ✓ Sistema multi impulse
- ✓ Abbinabili a qualsiasi tipo di alimentatore
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ Completely electronic
- ✓ Multiple pulse system
- ✓ Coupling with any type of ballast
- ✓ Reduced power losses
- ✓ Reduced heating

Mains Value Lamps	Value MH...	V / Hz W	Low Voltage Ignitor Range	
			198...264V 50 / 60Hz 250 - 400 - 1000 - 2000	360...440V 50 / 60Hz 2000
IGNITOR	type		IM 2	IM 4
	Cod.		590200000	580400000
Approval				
Automatic switch-off			NO	NO
Ignition voltage	kV		0,6...1,0	0,8...1,2
Impulses position	°el		60 - 90	60 - 90
Pulse for cycle	n°		≥ 1	≥ 1
Load capacitance	pF		20...10.000	20...10.000
Losses	W		< 1	< 1
Max. distance lamp	m		40	40
Max. case temperature	°C		90	90
Minimum temperature	°C		- 30	- 30
Weight	Kg.		0,08	0,15



Morsettiera a vite

1...2,5mm²

Screw terminal

70 - 1000W
HS
 1,8 ... 4,5 KV Lamps

Built-in type HIGH Voltage Pulse Ignitor
 For DISCHARGE Vapour lamps
SELF STOPPING - AUTOMATIC CUT-OUT

CE
 class I IP 20

HPSV Lamps (W) 250 400 1000 2000



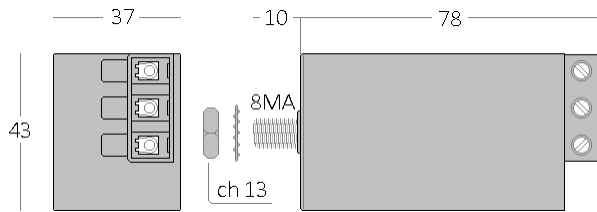
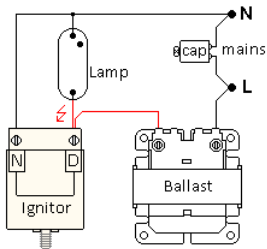
REFERENCE STANDARD		
Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Tecnopolimero "
 Glow wire test: 850°C 30 sec

- ✓ Completamente elettronici
- ✓ Sistema multi impulso
- ✓ Abbinabili a qualsiasi tipo di alimentatore
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ *Completely electronic*
- ✓ *Multiple pulse system*
- ✓ *Coupling with any type of ballast*
- ✓ *Reduced power losses*
- ✓ *Reduced heating*

Mains Value Lamps	Value HS...	V / Hz W	Ignitor Range	
			198...264V	50 / 60Hz
			35 - 50 - 70	100 - 150 - 250 - 400 - 600 - 1000
IGNITOR	type		SP 70 T	SP 2 T
	Cod.		587006000	580206000
Approval				Ⓢ
Automatic switch-off			YES - 2.....5 min	YES - 2.....5 min
Ignition voltage	kV		1,8...2,3	3,5...4,5
Impulses position	°el		60 - 90	60 - 90
Pulse for cycle	n°		≥ 3	≥ 3
Load capacitance	pF		20...1000	20...1000
Losses	W		< 1	< 1
Max. distance lamp	m		10	10 (6m x 600 / 1000 W)
Max. case temperature	°C		90	90
Minimum temperature	°C		- 30	- 30
Ballast insulation	kV		4,5	4,5
Weight	Kg.		0,14	0,14



Morsettiera a vite

1...2,5mm²

Screw terminal



Long Distance Application

Abbinabili ad alimentatori con presa, serie:

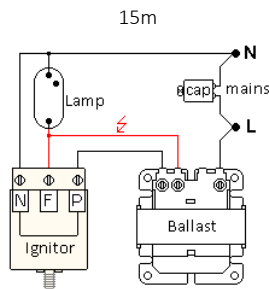
PVT... PT...

To be coupled with ballasts with tape, series:

High Pressure Sodium Vapour Lamps	HS	(W)	35	50	70	100	150	250	400	600	1000
Metal Halide Lamps	HI	(W)	35	70	100	150	250	400	1000		

- Completamente elettronici
- Sistema multi-impulso
- Perdite ridotte
- Riscaldamento ridotto
- Applicazione a lunga distanza (max)

- Completely electronic
- Multiple pulse system
- Reduced power losses
- Reduced heating
- Long distance application



Gli accenditori ad impulsi della serie " High Voltage " , per lampade Sodio Alta Pressione ed Alogenuri Metallici, idonei per applicazioni a distanza , generando impulsi di alta tensione devono essere associati a reattori con isolamento idoneo.

Allo scopo di migliorare la sicurezza degli impianti, le prestazioni dei componenti e il contenimento delle emissioni RFI in tutte le condizioni, APF ha sviluppato una nuova serie di accenditori di sicurezza **PW – PULSE WATCH** .

Questa serie **PW** , in abbinamento universale a lampade Sodio alta pressione ed Alogenuri metallici, integra un circuito digitale di controllo che consente di ottenere il migliore risultato con il minimo disturbo (max. per 100 s).

- Minori costi di manutenzione,
 - riduzione dei tempi di riaccensione a caldo di lampade ad alogenuri metallici,
 - controllo ciclico accensione-spegnimenti delle lampade Sodio alta pressione,
 - eliminazione dei disturbi generati su apparecchi audio-video, computer, sistemi di controllo e allarme.....
- ne consigliamo un utilizzo sostitutivo ai sistemi convenzionali.

In order of improving the system security, the components performances and to restrain the RFI emissions in every conditions, APF has developed a new series of **PW – PULSE WATCH** security ignitors.

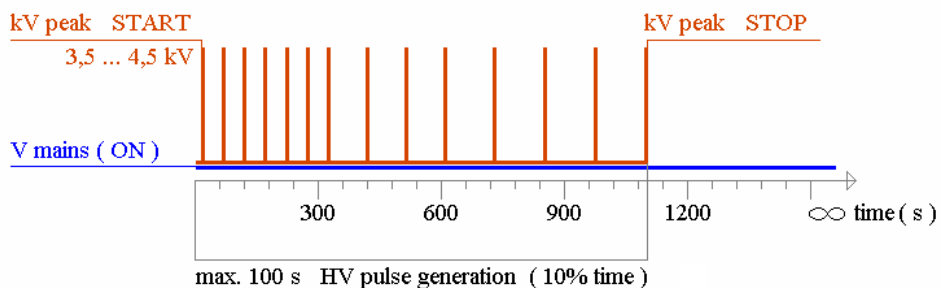
This **PW** series, both for the coupling with high pressure sodium an metal halide lamps, has a digital control circuit that allows the best result with the lowest disturb (max. 100 s).

- Lower maintenance cost,
- reduced time for the hot-restart in metal halide lamps,
- cyclic control off witch-in / switch-off in high pressure sodium lamps,
- absence of disturb on audio-video fittings, computers, control system and alarms.....

For all these reasons, we suggest the use oof this system instead of the standard ones.

Ciclo di spegnimento in condizioni anormale

Cut-out time ia anomalous conditions



REFERENCE STANDARD

Safety

EN 61347-1

EN 61347-2-1

Performance

EN 60927

R.F.I. Emissions

EN 55015

Immunity

EN 61547

35 ... 1000W HPSV

35 ... 1000W MH

3,5 ... 4,5 KV Lamps

Built-in type HIGH Voltage Superimposed Ignitor

For DISCHARGE Vapour lamps

Pulse Watch Tecnology



and Standard tecnology



class I IP 20

Abbinabili ad alimentatori con presa , serie:

PVT... PT...

To be coupled with ballasts with tape, series:

Long Distance Application

High Pressure Sodium Vapour Lamps	HS	(W)	35	50	70	100	150	250	400	600	1000
Metal Halide Lamps	HI	(W)	35	70	100	150	250	400	1000		



REFERENCE STANDARD

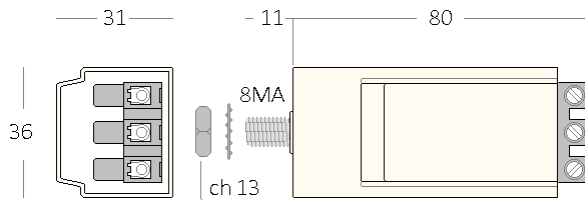
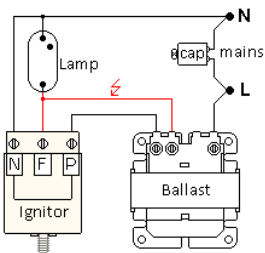
Safety	EN 61347-1	EN 61347-2-1
Performance	EN 60927	
R.F.I. Emissions	EN 55015	
Immunity	EN 61547	

Case Material: " Tecnopolimero "
Glow wire test: 850°C 30 sec

- ✓ Completamente elettronici
- ✓ Sistema multi impulso
- ✓ Abbinabili ad alimentatori con presa ed isolamento idoneo
- ✓ Perdite ridotte
- ✓ Riscaldamento ridotto

- ✓ Completely electronic
- ✓ Multiple pulse system
- ✓ To be coupled with ballast with tape **with high insulation**
- ✓ Reduced power losses
- ✓ Reduced heating

Mains Value	V / Hz	Ignitor Range
		198...264V 50 / 60Hz
IGNITOR	Tecnology	Safety timed ignitor with control of defect lamp
	type	LD 1000
	Cod.	580000LD
Approval		
Automatic switch-off		YES - 20 min
Ignition voltage	kV	3,5...4,5
Impulses position	°el	60 - 90 / 240 - 270
Ballast insulation	kV	3,5...4,5
Pulse for cycle	n°	> 2
Load capacitance	pF	20...1500
Losses	W	6,5 (10,3A max current operation)
Max. distance lamp	m	15
Max. case temperature	°C	90 (norm / abnorm)
Minimum temperature	°C	- 30
Weight	Kg.	0,08



Morsettiera a vite

1...2,5mm²

Screw terminal



APF S.r.l.

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in collaborazione con



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