



# FLUO 110

## DC/AC INVERTERS

### Description

This series of inverters is designed to supply interior fluorescent tubes in rolling stocks applications. Depending on its different versions, it is possible to supply 1 or 2 tubes from 5 W to 35 W.

### Input Specifications

Product reference	All references
Nominal input voltage	110 VDC
Input voltage range	77 to 137,5 VDC
Input transients voltage	66 V - 154 V during 100 ms
Reverse input voltage protection	Yes, by serial diode
Inrush current limitation	< 20 In

### Output Specifications

Product reference	MPF 007 1101	MPF 016 2101	MPF 035 2101
Output signal	Sinus		
Output frequency	30 to 85 kHz		
Dimming	No	No	Yes
Nominal output power (depending on applications)	5 to 7 W	5 to 16 W	14 to 35 W
Efficiency	> 74%		
Thermal protection	No		
Overvoltage protection	Yes		
Permanent short circuit protection	Yes		

Product reference	MPF 007 1101	MPF 016 2101	MPF 035 2101
Fluorescent tubes configuration	PL-S PRO 5W or similar PL-S PRO 6W or similar PL-S PRO 7W or similar	PL-S PRO 5W or similar (1 or 2 tubes) TL Mini PRO 8W or similar (1 or 2 tubes)	TL5 35W or similar (1 tube) TL5 28W or similar (1 tube) TL5 21W or similar (1 tube) TL5 14W or similar (1 or 2 tubes)

### Environmental Details

Product reference	All references
Operating temperature range	-25°C to +55°C
Ambient temperature around the product	-25°C to +70°C
Derating	Without derating
Storage temperature range	-40°C to +75°
Temperature coefficient	< 2.10 <sup>-4</sup> /°C
Relative humidity at 40°C	95%
Cooling	Natural convection
Insulation resistance	> 10 MΩ / 500 VDC
Dielectric strength	1 500 Vrms between input+output and ground
MTBF (according to UTE C 80 801)	GM 40°C: 300 000 h
Burn in (ON-OFF test)	100 000 cycles
Coating	PCB coated with varnish
Protection index	IP40

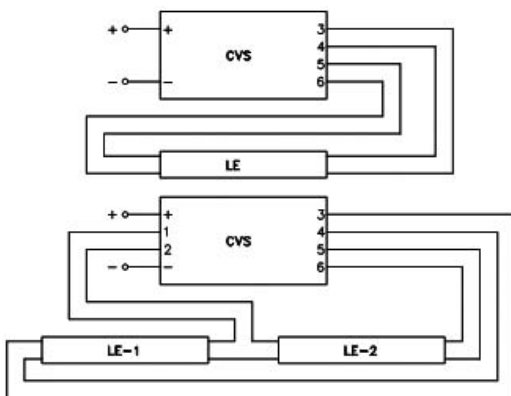
MPF 007 1101



MPF 016 2101



MPF 035 2101





### Applicable Norms

Item	Reference	Level	Compliance
EMC	EN 50121-3-2		X
Radiated emissions	EN 55011	Class A radiated	X
Conducted emissions	EN 55011	Class A + 20 dB conducted	X
Vibrations	EN 61373	category 1, mounted in cabin (class B)	X
Shocks	NFF 62011	1/2 sinus pulse (18 ms, 30 m/s)	X
Electrostatic discharges	EN 61000-4-2	D.E.S 6 kV contact, 8 kV in the air	X
Radiated immunity	EN 61000-4-3	20 V/m	X
Fast transients	EN 61000-4-4	2 kV	X
Conducted perturbations	EN 61000-4-6	3 Vrms	X
Surge	EN 50155	5/50µs 1800 V	X
Electronic equipments used into rolling-stocks	STM-E-001		X

### Mechanical Characteristics

Product reference	MPF 007 1101	MPF 016 2101	MPF 035 2101
Box material	Aluminium		
Potting	No		
Dimension	115 x 50 x 42	236 x 50 x 39	210 x 64 x 39
Weight	< 200 g	< 290 g	< 310 g
Fixing	4 x Ø5,5 mm	2 x Ø5,5 mm	4 x Ø5,5 mm
Input connector	6,35 faston clamps		
Output connector	LMI compatible connector		

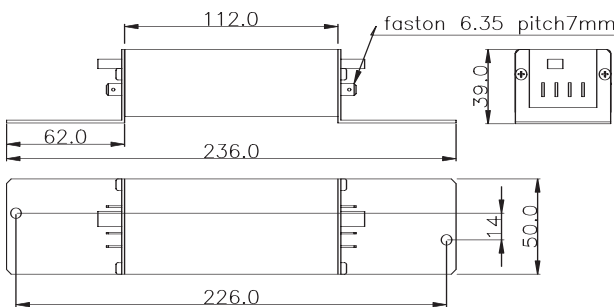
Pinout: According to norm (XPF 61-031: connectors for transistor ballasts)

### Technical Drawing

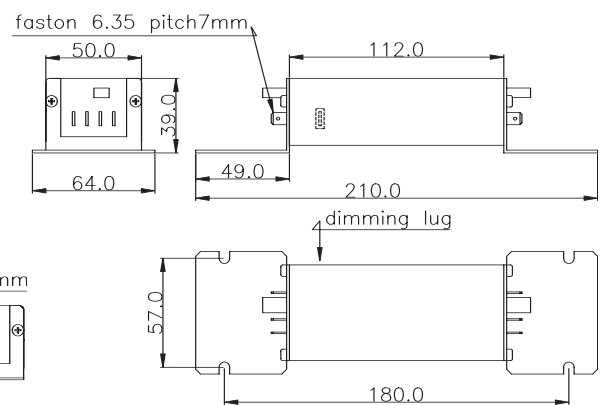
#### NOTES

- All dimensions in mm
- Specifications subject to change without notification
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- Different sizes available for braces

#### MPF 016 2101



#### MPF 035 2101



#### MPF 007 1101

