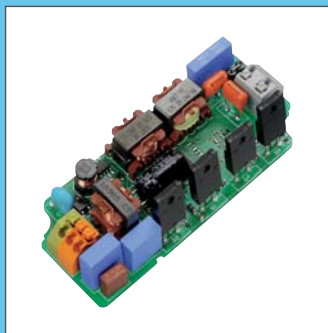


Electronics

HID-PrimaVision mCDM



HID-PV m 1X020/S CDM LPF

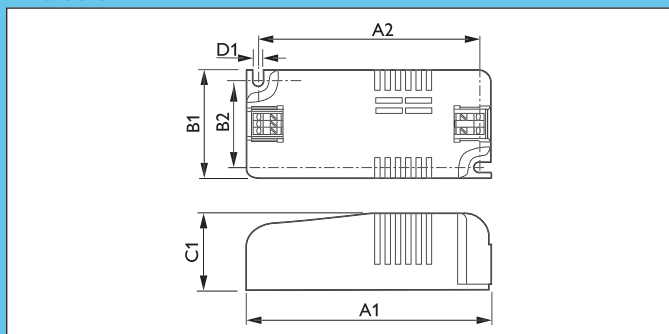


HID-PV m 020/P LPF



HID-PV m 020/I CDM LPF

Dimensions in mm



Product Description

- Miniature, one-piece electronic ballast for Philips miniMaster CDM-Tm 20W ceramic metal halide lamps
- Developed together with the miniMaster CDM-Tm lamps for optimum system performance

Features and Benefits:

Choice of versions:

- standard version (/S) with full polycarbonate/ABS housing
- with 2x strain relief (/I) for stand-alone applications
- PCB version (/P) for integration in luminaire
- Advantages in luminaire miniaturization and cable ratings due to low-rated ignition voltage (<1.5 kV) compared with higher-wattage CDM lamps (<5 kV)
- Microprocessor-controlled operation plus state-of-the-art software based on Philips' expertise in compact HID lamp operation

Applications:

- Retail premises
- Offices
- Public buildings
- Lobbies
- Outdoor applications with limited relative humidity and vibration levels
- Recommended luminaire classification IP54 or higher

Philips quality

This assures optimum quality regarding:

- System supplier  
As manufacturers of lamps and electronic control gear, Philips ensures that, from the earliest development stage, optimum lamp/ballast performance is maintained
- European standards  
Philips HID electronic ballasts comply with all relevant international rules and regulations.

Compliances and approvals

- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: EN 60926 / EN 60928 / VDE 0712/ 14,22
- Performance: EN 60927 / EN 60929
- Approval marks: KEMA
- CE marking
- Environmental standard: ISO 14001

Product ID	Overall length				
	A1 max.	A2 max.	B1 max.	B2 max.	C1 max.
HID-PVm	97	88	43	34	4.2

**Technical data**

Ballast type	For lamps	System Power W	Lamp Power W	T <sub>case</sub> life °C	T <sub>case</sub> max. °C	T <sub>ambient</sub> range °C
HID-PV m 1X020/S or /I	CDM-Tm 20W	25	22	65	75	-20...50
HID-PV m 1X020/P	CDM-Tm 20W	25	22	80	90	-20...50

**Technical data for installation**

Mains operation

Rated mains voltage	230V	
With tolerances for performance:	-10%/+6%	207 – 244V
With tolerances for operation:	189 – 253V	
Mains frequency	50/60Hz	
Mains power factor	0.5	

Lamp operation

Operation frequency (typical)	100Hz
Ignition voltage	1.25kV
Air & creepage distance from any (metal) part that may come live, to earthed environment (class I) or test finger (class II)	>2.5 mm
Cable capacity	Max. 120 pF

**⚠:**

For proper EMC wiring inside luminaire should be straight and as short as possible: mains wires should not run parallel to lamp wires.

Thermo-protected circuit incorporates self-resetting facility; ignition attempts stop after 20 min; mains supply must switched off and on to reset ballast.

Overvoltage protection	48 hrs at 275 Vac
	2 hrs at 320 Vac

Automatic restart after lamp replacement or voltage dip, lamp may take up to 20 min to restart.

**Mains current at 230 V**

Ballast	Nominal current
HID-PV m 20/S or /P or /I	0.21

**Inrush current**

Ballast	Max. quantity of ballast per Miniature Circuit Breaker Type B 16 A	Inrush current 1/2 value time at typical mains impedance
HID-PV m 1X020/S, /I, /G or /P CDM	36	30 A / 400 μs.

**Conversion table for max. quantities of ballasts on other types of Miniature Circuit Breaker**

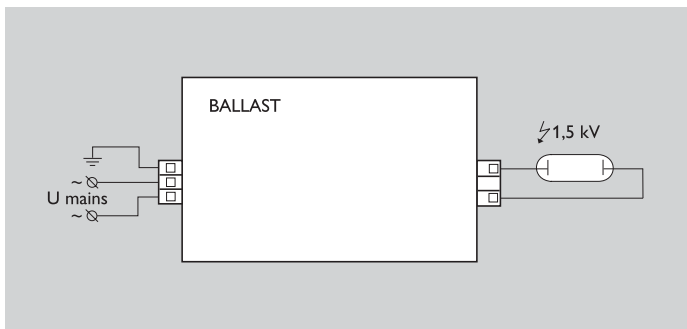
MCB type	Rating	Relative number of ballasts
B	16 A	100% (see table above)
B	10 A	63%
C	16 A	170%
C	10 A	104%
L, I	16 A	108%
L, I	10 A	65%
G, U, II	16 A	212%
G, U, II	10 A	127%
K, III	16 A	254%
K, III	10 A	154%

**Notes:**

1. Data is based on a mains supply with an impedance of 400 mΩ (equal to 15 m cable of 2.5mm<sup>2</sup> and other 20m to the middle of the power distribution), under worst-case conditions. With an impedance of 800mΩ the number of ballasts can be increased by 10%.
2. Measurements will be verified in real installations; therefore data are subject to change.
3. In some cases the maximum number of ballasts is not determined by the MCB but by the maximum electrical load of the installation.
4. Note that the maximum number of ballasts is given when these are all switched on at the same moment, i.e. by a wall switch.
5. Measurements were carried out on single-pole MCB's. For multi-pole MCB's it is advisable to reduce the number of ballasts by 20%.
6. The maximum number of ballasts which can be connected to one Residual Current Detector of 30mA is 60.

## Electronics

Wiring diagram



Connection wiring is greatly simplified by the use of cage-clamp contacts with push buttons.

Wire cross-section:

On the mains side: 0,75...1.5 mm<sup>2</sup> advised rating: U<sub>o</sub>/U = 250/250V

On the lamp side: 0,75...1.5 mm<sup>2</sup> advised rating: U<sub>o</sub>/U = 250/250V

Strip length: 8 mm

## Ordering and packing data

Ballast	Single unit	Bulk packing		
	Weight net kg	Qty.  pcs	Dimensions l x w x h cm	Weight gross kg
HID-PV m 020/S	0.088	12	18.5 × 11.5 × 12	1.12
HID-PV m 020/I	0.14	12	31.4 × 20.3 × 8.6	1.74
HID-PV m 020/P	0.06	12	18.5 × 11.5 × 12	0.78