

GearUnits – for high-power floodlighting

High Power GearUnits

Philips is one of the few companies able to provide total floodlight system solutions comprising all necessary elements – floodlight, lamp source and control gear unit. Our innovative high-power GearUnits are designed to meet our customers' need for a compact gear solution that is completely ready for installation. The pre-wired high-power control gear units are intended for use in combination with floodlights that are suitable for high-wattage HID lamps and cannot integrate electrical components because of limited space or high temperatures. A gear unit contains all electrical components (ballast, ignitors, capacitors), wiring and terminal blocks needed to ensure initial lamp ignition and proper operation of the lamp in stabilized current. The electromagnetic high-power GearUnits are available in both IP20 (ECB330) and IP65 (ECP330) versions. Within the GearUnits family there is also an electronic flicker-free ballast version (ECM330) available in IP20, which is suitable for the MVF403 MHN-LA 1000 W and MVF404 MHN-SE HO 2000 W ArenaVision floodlights. The ArenaVision floodlight family is specially designed for TV broadcasts from indoor and outdoor sports facilities. Electronic-ballast GearUnits completely eliminate the flicker effect, thereby guaranteeing perfect images filmed with super-slow-motion cameras.

Benefits

- Guarantees reliable functioning of total Philips floodlight system
- Compact in size and ready for easy installation
- Serviceable – all components are easily replaceable independently

Features

- Sufficiently high power factor
- Available in IP20 and IP65 versions
- Suitable for 2000, 1000, 600 and 2x400/600 W lamps in Philips floodlights
- Flicker-free light with electronic-ballast version for super-slow-motion cameras

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Application

- IP20 version: indoor, inside cabinets only
- IP65 version: for outdoor use

Specifications

Type	ECB330 (IP20 version)
	ECP330 (IP65 version)
	ECM330 (IP20 electronic flicker-free ballast version)
	ECM330 ESI KIT (IP20 electronic flicker-free ballast retrofit kit version)
Applicable light sources	HID:
	- MASTER MHN-SE HO 2000W
	- MASTER MHN-SA HO 2000W
	- MASTER MHN-LA / X528 / 1000, 2000 W
	- MASTER MHN-FC / Double ended / 1000, 2000 W
	- HPI-T / E40 / 1000, 2000 W
	- SON-T / E40 / 600, 1000 W
	- 2 x SON-T / E40 / 400, 600 W
- 2 x HPI-TP / E40 / 400 W	
Mains voltage	230 or 240 V / 50 Hz
	220-480 V / 50-60 Hz
	277-480 V / 50-60 Hz
	380-400-415-430 V / 50 Hz
	360-380-400-415 V / 50 Hz
	Note: mains supply voltage fluctuation not more than -8% and +6% from the rated voltage of the ballast

Ignitor	Parallel (PA) ignitors supplied on the gear unit
	Series (SI / ESI) ignitor versions of the gear units are not supplied with suitable ignitor and the series ignitor is provided with the floodlight and enables long distance between floodlight and gear unit
Capacitor	Floodlights with MHN-SE/SA HO 2000 W and MHN-LA 1000 / 2000 W lamps in electronic hot re-strike (HRE) version do not need specific HRE gear unit
	The timer integral electronic hot re-strike ignitor (HRE), which works only in combination with Philips' electromagnetic high power GearUnits, is located at the back of the luminaire and acts at the same time as a normal series ignitor
Capacitor	A set of parallel capacitors is used to obtain a power factor of the lamp / electromagnetic ballast circuit up to 0.90

Specifications

Cable gland	Applicable only for ECP330 IP65 versions:
	1-lamp versions:
	- 2 x M25 cable glands (one of them blinded) for mains IN/OUT (through-wiring) suitable for mains supply cable Ø 13 to 18 mm (i.e. 3x2.5 to 5x6 mm ² rigid or 5x4 mm ² soft)
	- 1 x M20 for lamp supply cable Ø 10 to 14 mm
	2-lamp versions:
Options	- 2 x M25 cable glands for individual mains supply per lamp circuit (no through-wiring)
	- 1 x M25 for cable Ø 13 to 18 mm accepting 1 cable of 5x6 mm ² rigid or 5x4 mm ² soft for individual lamp supply
	Fuse (FU), not for ECM330 version
Materials and finishing	Note: fuse option applies as 1-phase protection for 230/240 V versions and 2-phase protection for 360-430 V versions
Materials and finishing	Gear tray:
	- ECB330: pre-galvanized steel
	- ECM330: aluminum
	Housing (ECP330): aluminum extrusion and die-casting aluminum endcaps, painted in grey

Installation	Ready for mains connection, only cabling needs to be installed between gear unit and luminaire
	Connectors made with screw terminals live, neutral, earth for mains supply
Installation	Mains and lamp connections are clearly marked and to be used for cable cores up to 16 mm ² for mains connections and up to 4 mm ² for lamp connections
	Ambient temperature: min. -30 °C / max. 45 °C indoor, 55 °C outdoor for ECP330 (IP65) and ECM330 versions
Installation	For electronic-ballast GearUnits installations, mains supply must be fused according to local safety regulations, recommended 2-phase fuse protection (fuses are not supplied by Philips)
	Maximum distance in between electronic flicker-free ballast GearUnits and floodlight is 150 m for MHN-LA 1000 W and 180 m for MHN-SE HO 2000 W lamp versions (floodlight terminal block for lamp connection is limited up to 6 mm
Installation	ECM330 ESI KIT product (retrofit kit to upgrade the old MVF404/403 installations) is supplied with ECM330 electronic gear unit and ESI ignitor in one package, also with a wired lampholder for MVF404 MHN-SE 2000W floodlight version

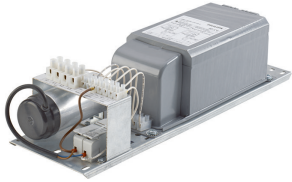
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Maintenance

All components of electromagnetic GearUnits will be easily replaceable independently for maintenance reason (i.e. ballast, ignitor, capacitors), except IP65 gearbox version the ballast is

not possible to replace since it is potted inside gear unit housing. Maintenance is not possible for electronic flicker-free ballast GearUnits, to be replaced with the new one.

Versions

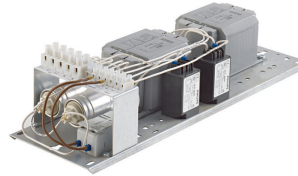


GearUnits - MASTER MHN-SA - 2000 W

Product details



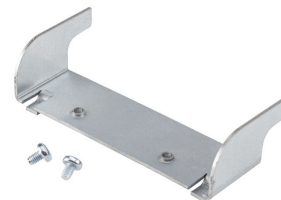
OPDP_ECB330i_0007-Detail photo



OPDP_ECB330i_0001-Detail photo



Suspension hook



Suspension hook

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