100W Standard Universal Voltage HID Electronic Ballasts for Metal Halide Lamps

For Metal Halide Lamps

100W – ANSI Codes M/C90, M/C140 and M/C164

Technical Features

Minimum ballast temp:...–15°C/+5°F
Power factor:..................High
Lamp frequency:............170 Hertz square-wave
Harmonic distortion:......<15%
EMI/RFI:........................Complies with FCC 18C, non-consumer limits
Safety:............................UL outdoor type 1, suitable for recessed use
Thermally protected/Transient protected
Lampholder min. pulse rating: 4.0kV

Safety Instructions

- Always disconnect power to the entire luminaire before installation and/or removal of ballasts or controls.
- Ballast green wire must be grounded.
- Install per national and local electrical codes.
- Dispose of any replaced ballasts and lamps properly.
- **Do not** connect lamp leads to ground or neutral.

Lamp Maintenance Notice

- To start new lamps or replaced lamps, turn off ballast input voltage for 10 seconds then back on.
- If lamp or wiring is defective the ballast will "shut down" in 1.5 to 30 minutes depending on the fault condition.

M10012-27CK-5EU (no feet)

M10012-27CK-5EU-F (feet)

M10012-27CK-5EU-J (studs)

Lamp ①		Electronic ballast				Ref. No.	Input voltage 50, 60 Hz	Mounting/ lead exit	Weight	Warranty ② Max case temperature	
Output W	Type	Input power W	Input current max. A	Type			V		ounces	3 years °C	5 years °C
Standard 100W											
100	M/C90 M/C140 M/C164	110	0.94 (120V) 0.42 (277V)	M10012-27CK-5EU c**ᴙ**us	≋ RoHS Compliant	**188168**	120–277	No feet Side lead exit	20	<80	<75
100	M/C90 M/C140 M/C164	110	0.94 (120V) 0.42 (277V)	M10012-27CK-5EU-F c(UL)us	≋ RoHS Compliant	**188169**	120–277	Feet Side lead exit	20	<80	<75
100	M/C90 M/C140 M/C164	110	0.94 (120V) 0.42 (277V)	M10012-27CK-5EU-J c(UL)us	≋ RoHS Compliant	**188170**	120–277	Studs Top lead exit	20	<80	<75

Note ① Consult lamp manufacturers for lamp compatibility approval.

Note ② Warranty is based on maximum operating time of 4000 hours per year. For additional operating hours consult with VS.

VS reserves the right to change any of the above performance characteristics without notice.

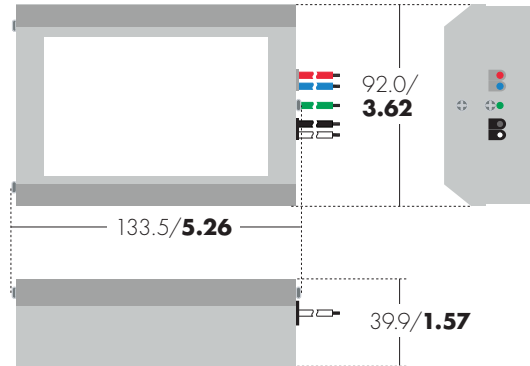# 100W Standard Universal Voltage HID Electronic Ballasts

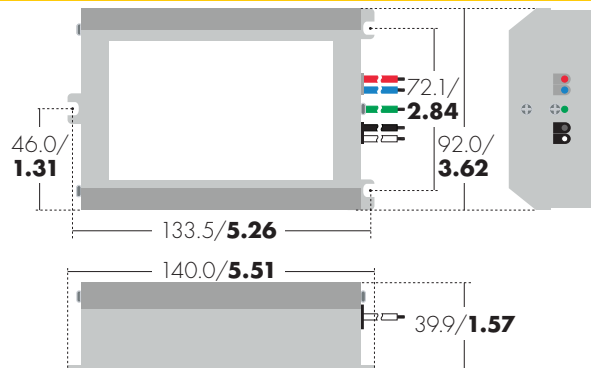**Wiring & Dimension Diagrams** (shown in millimeters and **inches**)

WHITE
N
120V–277V
L
BLACK
GREEN

RED ①
BLUE

① Connect red lead to center contact on Edison base lampholders

M10012-27CK-5EU

92.0/**3.62**

133.5/**5.26**

39.9/**1.57**

M10012-27CK-5EU-F

72.1/**2.84**
46.0/**1.31**
92.0/**3.62**
133.5/**5.26**
140.0/**5.51**
39.9/**1.57**

M10012-27CK-5EU-J

92.0/**3.62**
46.0/**1.31**
127.5/**5.02**
50.8/**2.0**
8-32 stud
11.4/**0.45**
39.9/**1.57**
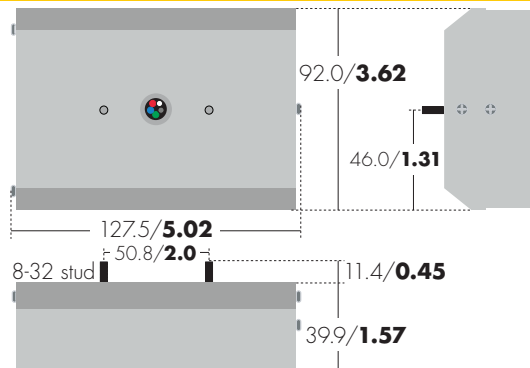
Construction notes

- For additional installation and operational information, please refer to: Vossloh-Schwabe Information Documents (VSID).
- Remote wiring guidelines:
  - Each lamp's lead wires must be run in a separate conduit from the input power leads to achieve good EMI performance and maximum remote capabilities. Lamp leads shall not be bundled together, but each set of lamp leads shall be run in its own conduit.
  - Individual lamp lead wires must be used for external fixture wire extensions using wire types SF-2 (equivalent to SEW-2 or 3071) or SFF-2 (equivalent to SEWF-2 or 3070) or alternately, if approved by VS, high voltage luminaire wire with a 18AWG conductor and a 1000VAC minimum voltage rating. Temperature rating is especially critical if the lamp lead extension wires are directly connected to lampholder terminals.
  - Maximum remote distances: See chart below
    The specified maximum remote distances are based on lamp leads run in a minimum ½" internal diameter conduit, pipe or flexible conduit For longer remote distances consult with VS.
  - Using service power cords (types SJ, SO, ST, SV etc.) or metal clad cable assemblies for lamp lead extension wire are **not** recommended as they are not compatible with the above characteristics, can cause starting problems and shall not be used unless VS gives written approval.

Remote Distances and Lead Lengths

Shape	Wattage	Max. Remote Distances (feet)	Wire Color (wire length in inches)								Stripping	Dimensional Tolerances		Mounting Slot Width
			Black	White	Green	Red	Blue	Yellow	Purple	Orange		Case	Lead length	
"-5EU"	100W	15	10	10	10	10	10	n/a	n/a	n/a	0.375"	±1mm (±0.039")	+50(+2")/-30mm(-1")	n/a
"-5EU-F"	100W	15	10	10	10	10	10	n/a	n/a	n/a	0.375"	±1mm (±0.039")	+50(+2")/-30mm(-1")	5mm (0.2")
"-5EU-J"	100W	15	7	7	7	7	7	n/a	n/a	n/a	0.375"	±1mm (±0.039")	+50(+2")/-30mm(-1")	n/a