



■ Features:

- Universal AC input/Full rang 90~305VAC
- Built-in active PFC function
- Protections: Short circuit/Over current /Overvoltage/Over temperature
- Cooling by free air convection
- Built-in 3 in 1 dimming function (0~10Vdc or 10V PWM signal or resistance)
- Metal case, IP65 design for indoor or outdoor installations
- Suitable for outdoor LED street lighting, outdoor LED and moving sign applications
- 5 years warranty



185R-42□ V: IP65 Level, Io adjustable through built-in potentiometer

D: IP65 Level, 3 in 1 dimming function (1~10VDC, 10V PWM signal and resistance)

SPECIFICATION

Parameter Name	Min.	Typ.	Max.	Unit
Input Voltage	100	110;230	277	Vac
Input Current	---	0.9	3.5	A
Power Factor	0.95	0.98	0.99	PF
Frequency Rang	47	50\60	63	Hz
Output no-load Voltage	43	46	48	Vdc
Output Serving Voltage	36	42	43	Vdc
Output Current	-3%	4.4	+3%	Adc
Overshoot	---	---	10	%
Ripple & Noise	---	---	300	mV
No Load Power	---	0.5	2	W
Efficiency	91	93	---	% (230VAC)
Over Current Protection	---	---	110	%
Over Temperature Protection	Shut down O/P voltage, recovers automatically after temperature goes down			
Short Circuit Protection	Constant Current limiting, recovers automatically after fault condition is removed (output current<2A)			

WORKING ENVIRONMENT

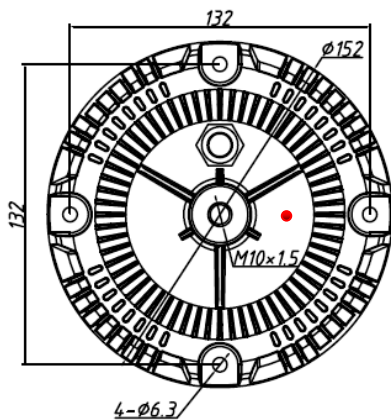
Item	Min.	Typ.	Max.	Unit
Working Temp.	-40~+70℃ (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)			
IP Rating	IP65			
MAX. Working Humidity	20~95%RH non-condensing			
Cooling Method	Cooling by free air convection, External LED Driver can improve the lifespan.			
Storage Temp. , Humidity	-40~+80℃, 10~95%RH			
Working Atmosphere	70	---	106	Kpa

SAFETY

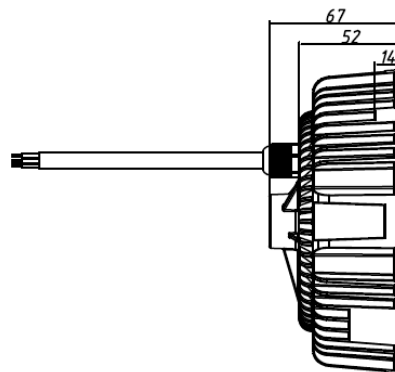
Item	Min.	Typ.	Max.	Unit
I/P-O/P	3750	---	---	V(AC)
I/P-FG	2000	---	---	V(AC)
O/P-FG	500	---	---	V(DC)
Surge: L-N	2000	---	---	V
Surge :L,N-FG	4000	---	---	V

MECHANIC SPECIFICATION

※ V-Type:(185R- 42V)



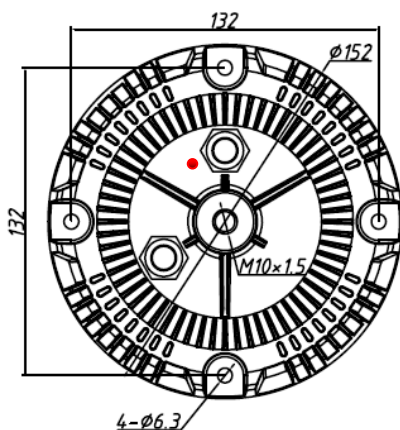
AC/L Black
Or Brown
AC/N White
Or Blue
FG Green
Or Green/Yellow



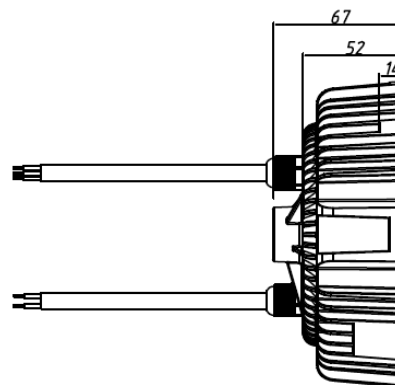
+V Red
Or Brown
-V Black
Or Blue

• tc: MAX. Case Temperature.(case temperature measured point)

※ D-Type:(185R- 42D)



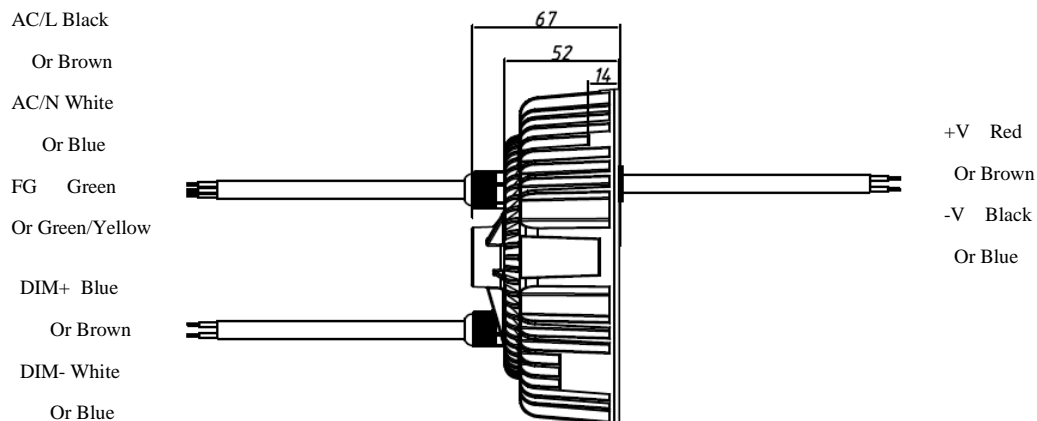
AC/L Black
Or Brown
AC/N White
Or Blue
FG Green
Or Green/Yellow
DIM+ Blue
Or Brown
DIM- White
Or Blue



+V Red
Or Brown
-V Black
Or Blue

• tc: MAX. Case Temperature.(case temperature measured point)

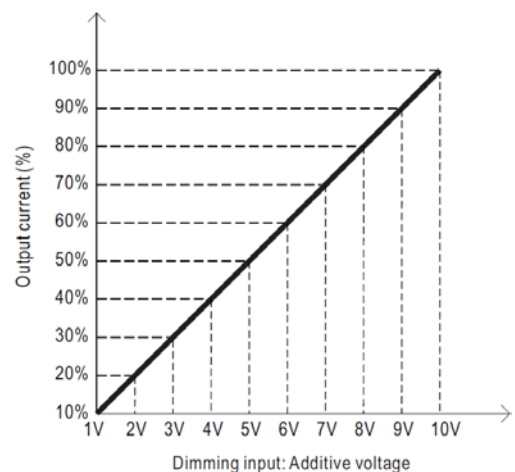
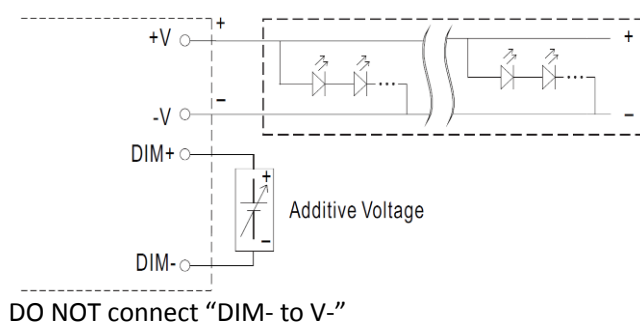
DIMMING OPERATION



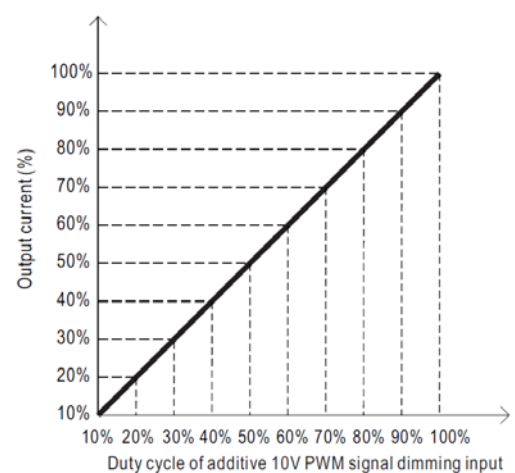
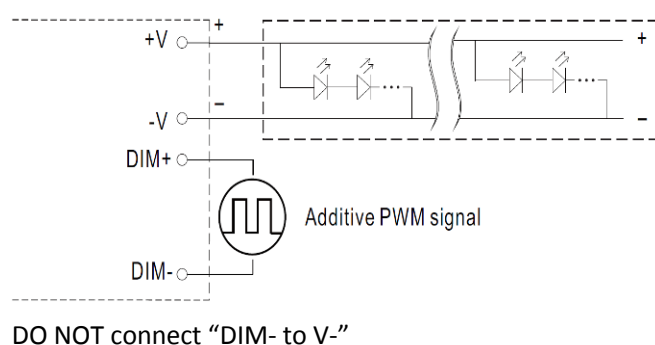
※ IP67 LEVEL, 3 in 1 dimming function(for D-Type).

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 1~10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested .It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100uA (typ.).

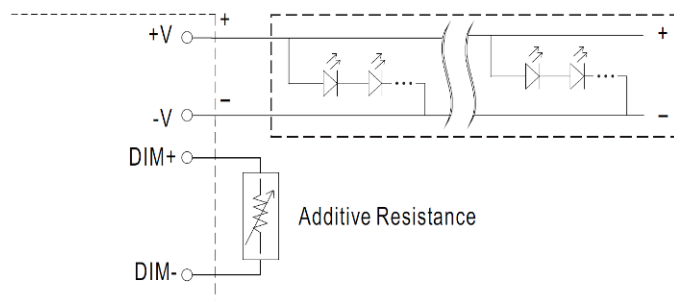
◎ Applying additive 1~10VDC



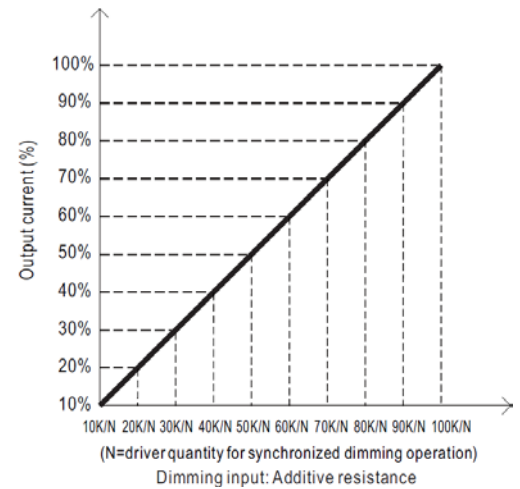
◎ Applying additive 10V PWM signal(frequency rang 100Hz~3KHz)



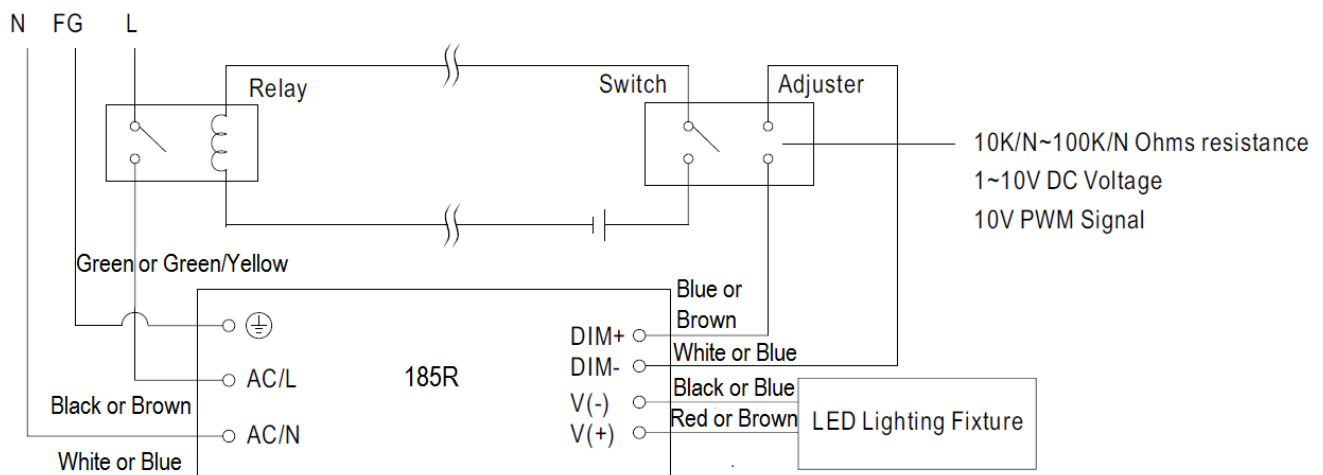
© Applying additive resistance:



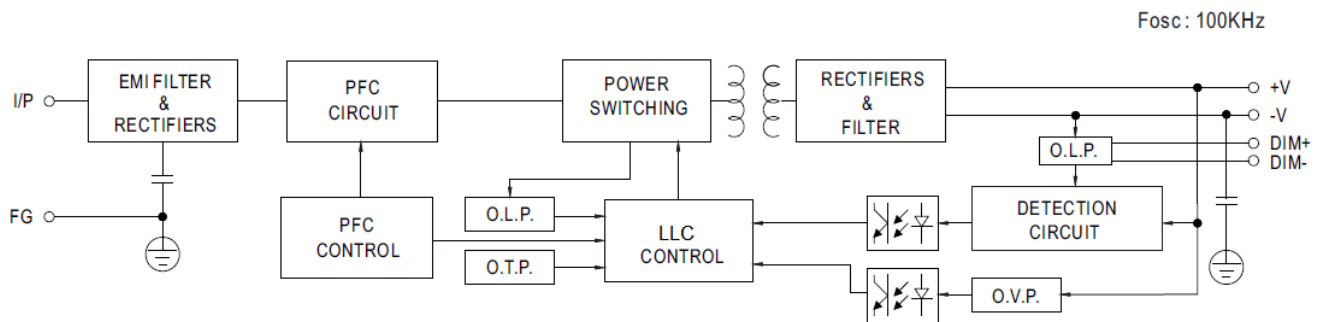
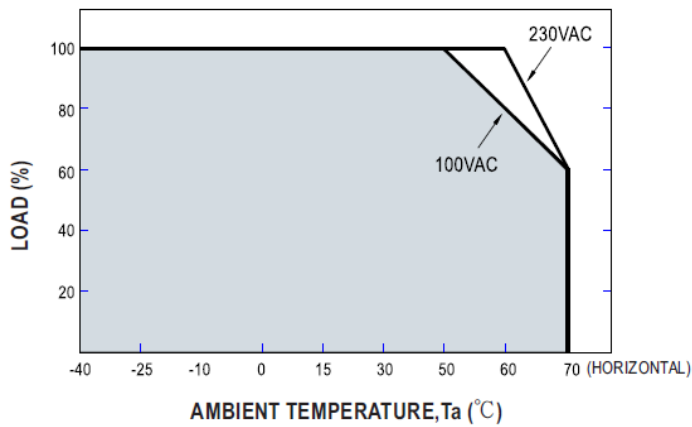
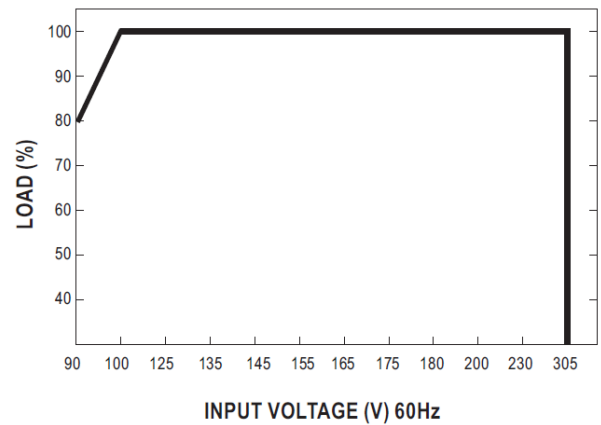
DO NOT connect "DIM- to V-"



Note: In the case of turning the lighting fixture down to 0% brightness ,
please refer to the configuration as follow:



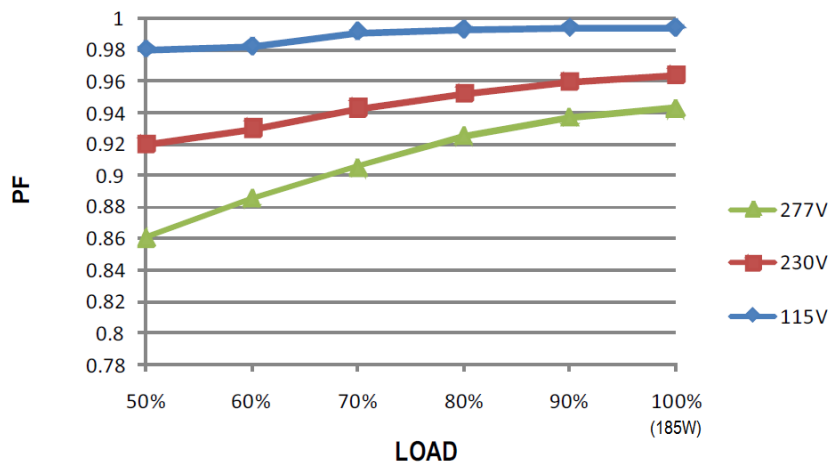
※ Using a switch and relay can turn ON/OFF the lighting fixture.

BLOCK DIAGRAM

OUTPUT LOAD vs TEMPERATURE

STATIC CHARACTERISTICS


※ De-rating is needed under low input voltage.

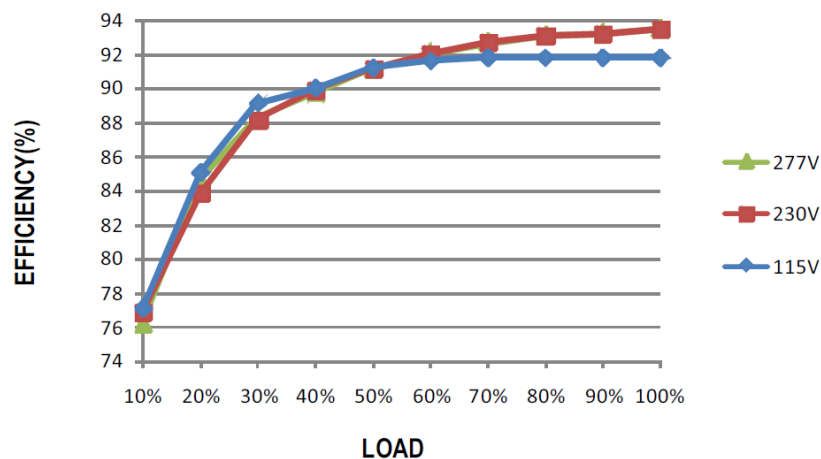
POWER FACTOR (PF) CHARACTERISTIC

Constant Current Mode



EFFICIENCY vs LOAD

185R series possess superior working efficiency that up to 93%
Can be reached in field applications.



DRIVING METHODS OF LED MODULE

※ This series is able to work in either Constant Current mode(a direct drive way) or Constant Voltage mode (usually through additional DC/DC drive) to drive the LEDs.

