



### ■ Features :

- Constant current design
- Wide input range 180~528VAC
- · Built-in active PFC function
- High efficiency up to 90.5%
- Protections: Short circuit / Over voltage / Over temperature
- · Cooling by free air convection
- · OCP point adjustable through output cable or internal potentiometer
- IP67 / IP65 design for indoor or outdoor installations
- Three in one dimming function (0~10Vdc or 10V PWM signal or resistance)
- Suitable for LED lighting and street lighting applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 5 years warranty (Note.7)



HVGC-65-350 A : IP65 rated. Constant current level can be adjusted through internal potentiometer.

B: IP67 rated. Constant current level adjustable through output cable with 0~10Vdc or 10V PWM signal or resistance.

D (option): IP67 rated. Timer dimming function, contact MEAN WELL for details.

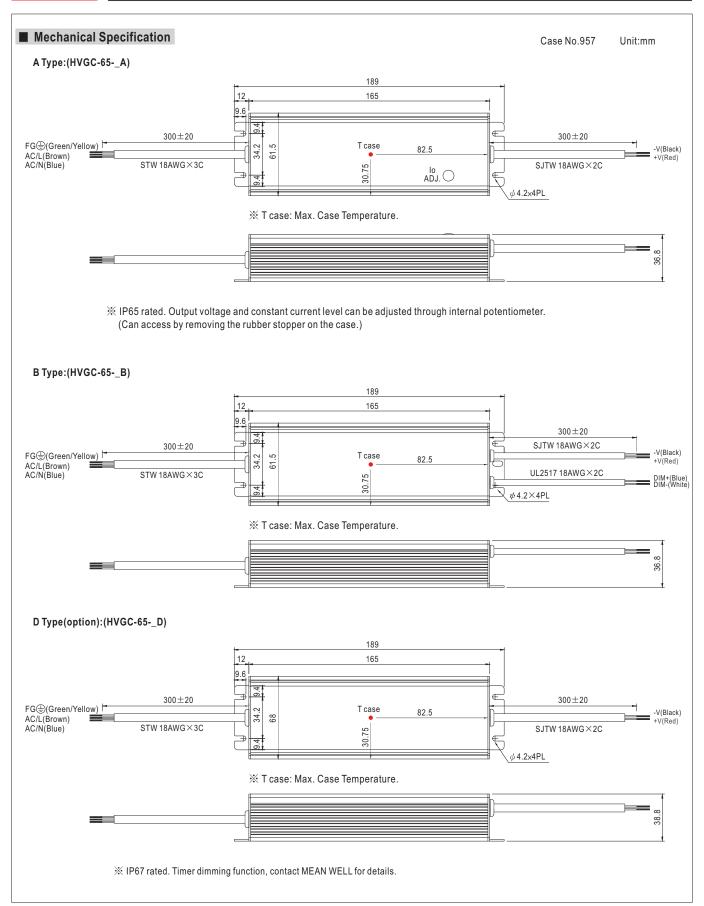
### **SPECIFICATION**

CURRENT NT CURRENT REGION Note.4 ENT ACCURACY T VOLTAGE POWER E. NOISE (max.) Note.2 ENT ADJ. RANGE RISE TIME JP TIME (Typ.) GE RANGE Note.3 ENCY RANGE R FACTOR (Typ.)	±5.0%  18 ~ 186V  65.1W  1Vp-p  Can be adjusted by in 210 ~ 350mA  500ms, 80ms / 230V/ B type 500ms, 80ms  16ms / 347VAC  180 ~ 528VAC  47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	500mA 78 ~ 130V 65W 0.7Vp-p entiometer A type only 300 ~ 500mA ss, 80ms / 347VAC / 480V 500ms, 80ms / 347VA		1050mA 37 ~ 62V 6 ~ 62V 65.1W 0.3Vp-p 630 ~ 1050mA							
T VOLTAGE POWER  & NOISE (max.) Note.2  ENT ADJ. RANGE  RISE TIME  JP TIME (Typ.)  GE RANGE Note.3  ENCY RANGE  R FACTOR (Typ.)	±5.0%  18 ~ 186V  65.1W  1Vp-p  Can be adjusted by in 210 ~ 350mA  500ms, 80ms / 230V/ B type 500ms, 80ms  16ms / 347VAC  180 ~ 528VAC  47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	13 ~ 130V 65W 0.7Vp-p entiometer A type only 300 ~ 500mA ss, 80ms / 347VAC / 480V 500ms, 80ms / 347VAC	9 ~ 93V 65.1W 0.5Vp-p 420 ~ 700mA	6 ~ 62V 65.1W 0.3Vp-p							
T VOLTAGE POWER  8 NOISE (max.) Note.2  ENT ADJ. RANGE  RISE TIME  JP TIME (Typ.)  GE RANGE Note.3  ENCY RANGE  R FACTOR (Typ.)	18 ~ 186V 65.1W 1Vp-p Can be adjusted by it 210 ~ 350mA 500ms, 80ms / 230V/ B type 500ms, 80ms 16ms / 347VAC 180 ~ 528VAC 47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	65W 0.7Vp-p entiometer A type only 300 ~ 500mA is, 80ms / 347VAC / 480V 500ms, 80ms / 347VA	65.1W 0.5Vp-p 420 ~ 700mA VAC at full load	65.1W 0.3Vp-p							
POWER  E. & NOISE (max.) Note.2  ENT ADJ. RANGE  RISE TIME  UP TIME (Typ.)  GE RANGE Note.3  ENCY RANGE  R FACTOR (Typ.)	65.1W  1Vp-p  Can be adjusted by it  210 ~ 350mA  500ms, 80ms / 230V/ B type 500ms, 80ms  16ms / 347VAC  180 ~ 528VAC  47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	65W 0.7Vp-p entiometer A type only 300 ~ 500mA is, 80ms / 347VAC / 480V 500ms, 80ms / 347VA	65.1W 0.5Vp-p 420 ~ 700mA VAC at full load	65.1W 0.3Vp-p							
RISE TIME  JP TIME (Typ.) GE RANGE  RISE TOR (Typ.) GE RANGE  REACTOR (Typ.)	1Vp-p Can be adjusted by in 210 ~ 350mA 500ms, 80ms / 230V/ B type 500ms, 80ms 16ms / 347VAC 180 ~ 528VAC 2 47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	0.7Vp-p entiometer A type only 300 ~ 500mA is, 80ms / 347VAC / 480V 500ms, 80ms / 347VA	0.5Vp-p 420 ~ 700mA VAC at full load	0.3Vp-p							
RISE TIME  JP TIME (Typ.) GE RANGE Note.3 ENCY RANGE R FACTOR (Typ.)	Can be adjusted by in 210 ~ 350mA 500ms, 80ms / 230V/ B type 500ms, 80ms 16ms / 347VAC 180 ~ 528VAC 47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	antiometer A type only 300 ~ 500mA s, 80ms / 347VAC / 480V 500ms, 80ms / 347VA	420 ~ 700mA VAC at full load								
RISE TIME  UP TIME (Typ.)  GE RANGE Note.3  ENCY RANGE  R FACTOR (Typ.)	210 ~ 350mA 500ms, 80ms / 230V/ B type 500ms, 80ms 16ms / 347VAC 180 ~ 528VAC 47 ~ 63Hz	AC 400ms / 230VAC 30ms / 480	300 ~ 500mA s, 80ms / 347VAC / 480\ 500ms, 80ms / 347VA	VAC at full load	630 ~ 1050mA							
RISE TIME  UP TIME (Typ.)  GE RANGE Note.3  ENCY RANGE  R FACTOR (Typ.)	500ms, 80ms / 230V/B type 500ms, 80ms 16ms / 347VAC 180 ~ 528VAC 47 ~ 63Hz	30ms / 480	s, 80ms / 347VAC / 480V 500ms, 80ms / 347VA	VAC at full load	630 ~ 1050mA							
JP TIME (Typ.) GE RANGE Note.3 ENCY RANGE R FACTOR (Typ.)	B type 500ms, 80ms 16ms / 347VAC 180 ~ 528VAC 47 ~ 63Hz	30ms / 480	500ms, 80ms / 347VA									
JP TIME (Typ.) GE RANGE Note.3 ENCY RANGE R FACTOR (Typ.)	16ms / 347VAC 180 ~ 528VAC 47 ~ 63Hz	30ms / 480	· · · · · · · · · · · · · · · · · · ·	C / 480VAC at 95% load								
GE RANGE Note.3 ENCY RANGE R FACTOR (Typ.)	180 ~ 528VAC 47 ~ 63Hz		OVAC at full load		B type 500ms, 80ms / 230VAC 500ms, 80ms / 347VAC / 480VAC at 95% load							
ENCY RANGE R FACTOR (Typ.)	47 ~ 63Hz	254\/DC ~ 3										
R FACTOR (Typ.)	1 1	254 1 D C ~ 1	747VDC									
, , , ,		47 ~ 63Hz										
IADMONIC DISTORTION	PF≥0.98/230VAC, PF≥0.97/277VAC, PF≥0.95/347VAC, PF≥0.93/480VAC at full load (Please refer to "Power Factor Characteristic" curve											
	Total harmonic distortion will be lower than 20% when output loading is 60% or higher at 230VAC / 277VAC / 347VAC											
TARMONIC DISTORTION	Total harmonic distortion will be lower than 20% when output loading is 75% or higher at 480VAC											
ENCY (Typ.)	90%		90.5%	90.5%	90%							
RRENT (Typ.)	0.22A/347VAC 0.18A/480VAC											
H CURRENT (Typ.)	COLD START 25A(twidth=420 \( \mu \) s measured at 50%   peak) at 480VAC											
LEAKAGE CURRENT <0.75mA / 480VAC												
CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed											
1017405	195 ~ 210V		137 ~ 150V	98 ~ 107V	65 ~ 72V							
VOLTAGE	Protection type: Shut down o/p voltage with auto-recovery or re-power on to recovery											
EMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down											
NG TEMP.	-40 ~ +70°C (Refer to "Derating Curve")											
NG HUMIDITY	20 ~ 95% RH non-condensing											
GE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH											
COEFFICIENT	±0.03%/°C (0~60°C)											
TION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes											
Y STANDARDS Note.5	UL8750, CSA C22.2	No. 250.0-	13, ENEC EN61347-1, E	N61347-2-13, EN62384, indepe	endent, IP65 or IP67 approved							
TAND VOLTAGE	I/P-O/P:3.75KVAC	I/P-FG:2	KVAC O/P-FG:0.5KV	'AC								
TON RESISTANCE	I/P-O/P, I/P-FG, O/F	P-FG:100M	Ohms / 500VDC / 25°C	/70% RH								
MISSION					15 class B							
IMUNITY	Compliance to EN61	000-4-2,3,4	4,5,6,8,11, EN61547, ligl	ht industry level (surge 4KV), cri	iteria A							
	202.7K hrs min. N	/IL-HDBK-2	217F (25°C)	· · · · ·								
SION	189*61.5*36.8mm (L*W*H)											
NG .	0.77Kg; 18pcs/14.9K	0.77Kg; 18pcs/14.9Kg/0.89CUFT										
CO NG NG NG NG NG NG NG NG NG NG NG	RCUIT  LTAGE  MPERATURE  G TEMP. G HUMIDITY  E TEMP., HUMIDITY  EFFICIENT  N  STANDARDS Note.5  ND VOLTAGE  N RESISTANCE  SSION  JNITY	Constant current lim	Constant current limiting, recov	RCUIT  Constant current limiting, recovers automatically after far 195 ~ 210V  Protection type : Shut down o/p voltage with auto-recomplex farmer.  Shut down o/p voltage, recovers automatically after the stemp.  40 ~ +70°C (Refer to "Derating Curve")  SHUMIDITY  20 ~ 95% RH non-condensing  ETEMP., HUMIDITY  40 ~ +80°C, 10 ~ 95% RH  EFFICIENT  ±0.03%/°C (0 ~ 60°C)  N  10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each at 10 condition of 10	RCUIT  Constant current limiting, recovers automatically after fault condition is removed  195 ~ 210V  137 ~ 150V  98 ~ 107V  Protection type: Shut down o/p voltage with auto-recovery or re-power on to recover shut down o/p voltage, recovers automatically after temperature goes down  TEMP.  -40 ~ +70°C (Refer to "Derating Curve")  CHUMIDITY  20 ~ 95% RH non-condensing  TEMP., HUMIDITY  -40 ~ +80°C, 10 ~ 95% RH  EFFICIENT  ±0.03%/°C (0 ~ 60°C)  N  10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes  TANDARDS  Note.5  UL8750, CSA C22.2 No. 250.0-13, ENEC EN61347-1, EN61347-2-13, EN62384, independent of the control of the co							

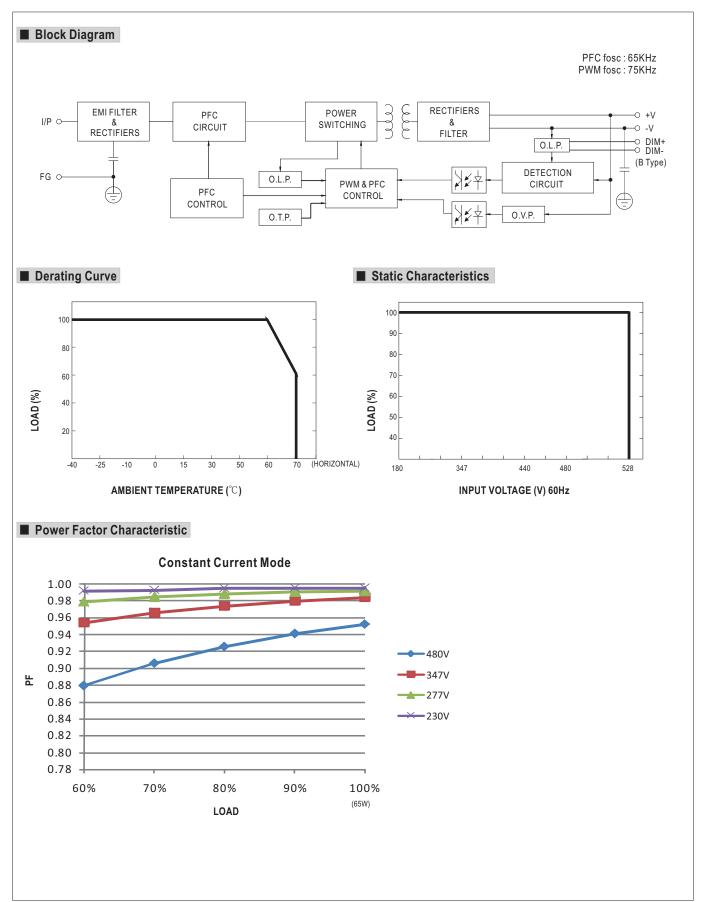
- Derating may be needed under low input voltages. Please check the static characteristics for more details.
   Please refer to "DRIVING METHODS OF LED MODULE".

- Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1.
   The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)
- 7. Refer to warranty statement.





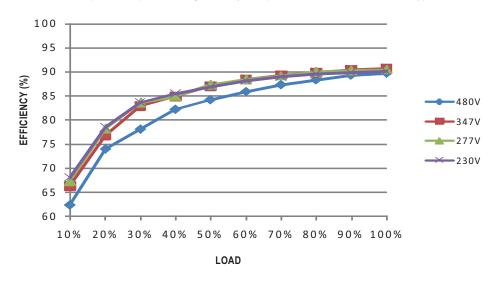






## ■ EFFICIENCY vs LOAD (HVGC-65-700 Model)

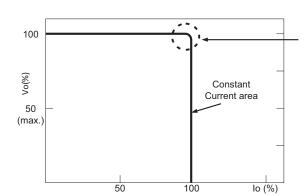
HVGC-65 series possess superior working efficiency that up to 90.5% can be reached in field applications.



### ■ DRIVING METHODS OF LED MODULE

A typical LED power supply may work in "constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CC characteristic can be operated at CC mode (direct drive, at area).



Typical LED power supply I-V curve

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact MEAN WELL.



# **■**DIMMING OPERATION (for B-type only)



- Built-in 3 in 1 dimming function, IP67 rated. Output constant current level can be adjusted through output cable by connecting a resistance or 0 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-.
- $\ensuremath{\mathbb{X}}$  Please DO NOT connect "DIM-" to "-V".
- \* Reference resistance value for output current adjustment (Typical)

Resistance	Single driver	Short	10K Ω	20K Ω	30K Ω	$40 \mathrm{K}\Omega$	50K $\Omega$	60K Ω	70K $\Omega$	80KΩ	90K Ω	100K $\Omega$	OPEN
value	Multiple drivers (N=driver quantity for synchronized dimming operation)	Short	10K Ω /N	20K Ω /N	30K Ω /N	40K Ω/N	50K Ω /N	60K Ω /N	70K Ω /N	80K Ω /N	90K Ω /N	100K Ω /N	
Percentage	e of rated current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%~108%

Dimming value	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%~108%

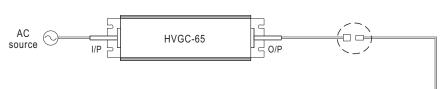
¾ 10V PWM signal for output current adjustment (Typical): Frequency range: 100Hz ~ 3KHz

Duty value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Percentage of rated current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%~108%

### ■ WATERPROOF CONNECTION

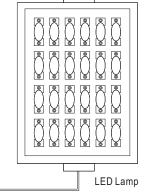
O Waterproof connector

Waterproof connector can be assembled on the output cable of HVGC-65 to operate in dry/wet/damp or outdoor environment.



Size	Pin Configuration (Female)						
M12	00	000					
IVIIZ	4-PIN	5-PIN					
	5A/PIN	5A/PIN					
Order No.	M12-04	M12-05					
Suitable Current	10A max.	10A max.					

Size	Pin Configuration (Female)					
M15	00					
IVI 10	2-PIN					
	12A/PIN					
Order No.	M15-02					
Suitable Current	12A max.					





# CJ04-1 suitable for 14AWG-16AWG CJ04-2 suitable for 18AWG-22AWG Up to four wires can be connected through this cable joiner by soldering or clamping by tools. HVGC-65 O/P Wires

※CJ04 cable joiner can be purchased independently for user's own assembly.

MEAN WELL order No.: CJ04-1, CJ04-2.