



■ Feature:

- Constant voltage design
- Built-in active PFC function
- Universal AC input / Full range
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- High efficiency
- IP67 design for indoor and outdoor appliances

SELV     

ELECTRICAL SPECIFICATION

MODEL	GTICV100300-12V		GTICV100300-24V	
OUTPUT				
Rated Voltage	12V		24V	
Rated Current	22.9A		12.5A	
Rated Power	274.8W		300W	
Line Regulation	± 1%			
Load Regulation	± 3%			
Tolerance [1]	± %			
Ripple & Noise (max.)	240mV _{p-p}		480mV _{p-p}	
Setup time	Typ.: 0.4s; Max.: 1s /220VAC			
Overshoot / Undershoot (max.)	10% when power on or off			
Load Dynamic Response	5% for R/S: 1A/#s; load: 25% ' 75%			
INPUT				
Voltage Range	90 ÷ 305VAC			
Frequency Range	47 ÷ 63Hz			
Efficiency (typ.)	91.5%		91%	
AC current (typ.)	3.3A / 110VAC, 1.5A / 220VAC			
Power Factor	Min.: PF > 0.9 ; Typ.: PF > 0.98 / 100VAC ÷ 277VAC; Load: 75% ÷ 100%			
Inrush current	155A, 2.33A²s / 220VAC; cold start; 251C, t = 3ms (10%Ipk-10%Ipk)			
Leakage current (max.)	0.75mA / 240VAC			
No load power consumption (max.)	4.5W			
PROTECTIONS				
Over Current	Range: 130 ÷ 200% rated current			
	Type: hiccup mode. Recovers automatically after fault condition is removed.			
Short Circuit	Type: hiccup mode. Recovers automatically after fault condition is removed.			
Over Voltage	14V ÷ 18V		28V ÷ 35V	
	Type: Limits output voltage at no load and in case the normal voltage limit fails. Re-power on to recovery.			
Over Temperature	Range: 1101C ± 101C			
	Typ: shut off output voltage. Recovers automatically after temperature goes down.			

WORKING ENVIRONMENT

Working Temperature	For safety: $T_{CASE} = -40^{\circ}\text{C} \div +90^{\circ}\text{C}$; For warranty: $T_{CASE} = -40^{\circ}\text{C} \div +60^{\circ}\text{C}$
Working Humidity	20 ÷ 90% RH non-condensing
Storage Temperature and Humidity	$-40^{\circ}\text{C} \div 85^{\circ}\text{C}$, 10 ÷ 95% RH non-condensing
Temperature Coefficient	$\pm 0.02\% / ^{\circ}\text{C}$ ($T_{CASE} = 0^{\circ}\text{C} \div 90^{\circ}\text{C}$)

SAFETY AND EMC REGULATIONS

Safety Standards	Compliance to EN61347-1, EN61347-2-13
Withstand Voltage	IN/OUT: 3.75kVAC; IN/GND(CASE): 1.5kVAC; OUT/GND(CASE): 0.5kVAC
Isolation Resistance	IN/OUT: 100M Ω /500VDC/25 $^{\circ}\text{C}$ /70%
EMC Emission	Compliance to EN 55015
EMC Immunity	Compliance to EN 61547; IEC 61000-4-2, -3, -4, -5, -6, -8, -11
Harmonic Current	Compliance to EN61000-3-3; EN61000-3-2

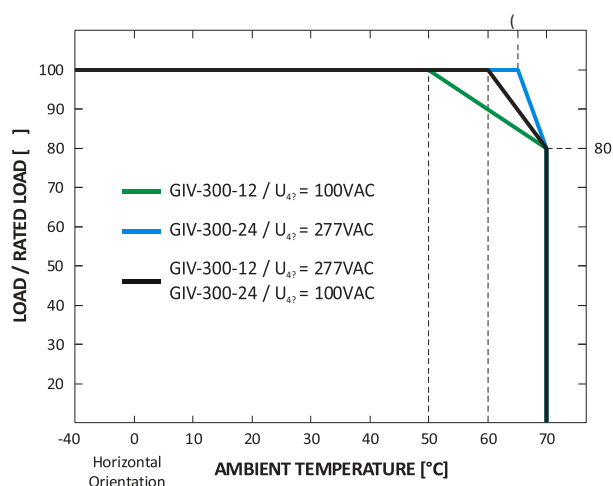
OTHERS

MTBF	278 000 hours according to MIL-HDBK-27F ($U_{A7} = 110\text{VAC}$; load: 80%, $T_A = 251^{\circ}\text{C}$)
Lifetime	58 000 hours ($U_{A7} = 220\text{VAC}$; load: 80%, $T_{CASE} = 601^{\circ}\text{C}$)
Dimensions	224 x 98 x 44.5mm (L x W x H)
Weight and Packing	1.55kg; 10pcs/box; box weight and dimensions: 17.8kg; 31 x 40 x 20cm

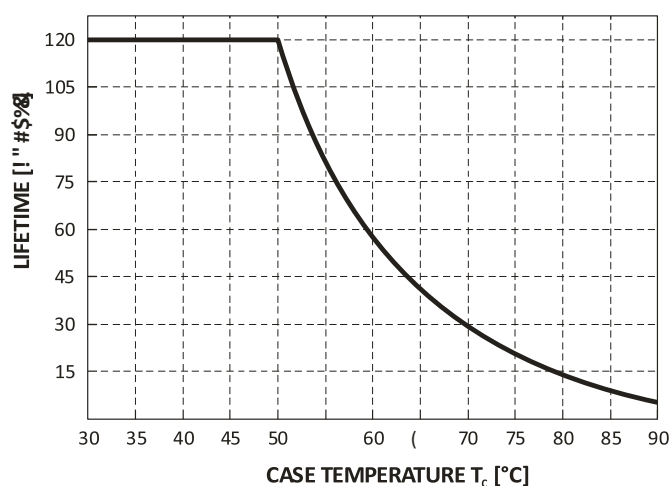
1. Tolerance includes set up tolerance, line regulation and load regulation.

2. Power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment must be re-qualify to comply with EMC Directives.

DERATING CURVE

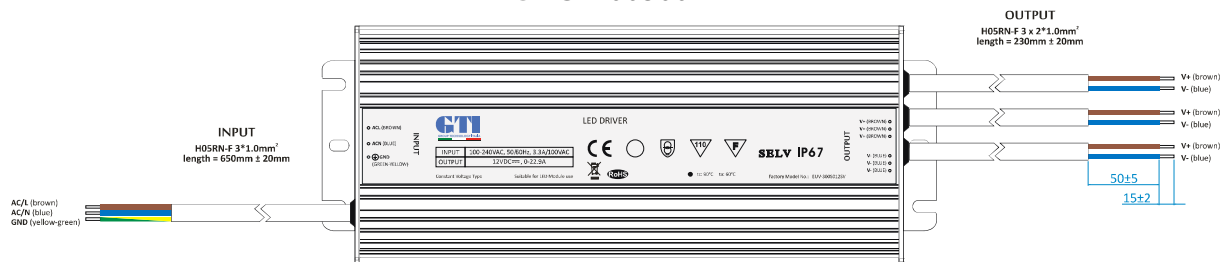


LIFETIME vs. CASE TEMPERATURE T_C



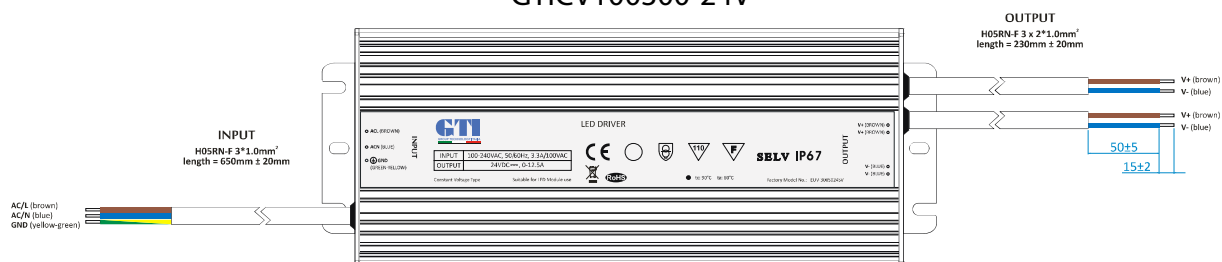
MECHANICAL SPECIFICATION

GTICV100300-12V



Note! The 3 DC output cables are connected in parallel internally because one 1.0mm² wire can only carry 10A. Please connect the 3 brown wires together and 3 blue wires together in application or ensure each cable carries same current.

GTICV100300-24V



Note! The 2 DC output cables are connected in parallel internally because one 1.0mm² wire can only carry 10A. Please connect the 2 brown wires together and 2 blue wires together in application or ensure each cable carries same current.

