



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- · Built-in active PFC function
- · UL1310 Class 2 power unit
- · Cooling by free air convection
- 100% full load burn-in test
- · High reliability
- Suitable for LED lighting and moving sign applications
- · Compliance to worldwide safety regulations for lighting
- · 2 years warranty

SPECIFICATION











MODEL		PLC-100-12	PLC-100-15	PLC-100-20	PLC-100-24	PLC-100-27	PLC-100-36	PLC-100-48	
	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V	
ОИТРИТ	CONSTANT CURRENT REGION Note.4	8.4 ~ 12V	10.5 ~ 15V	14 ~ 20V	16.8 ~ 24V	18.9 ~ 27V	25.2 ~ 36V	33.6 ~ 48V	
	RATED CURRENT Note.6	5A	5A	4.8A	4A	3.55A	2.65A	2A	
	CURRENT RANGE Note.6	0 ~ 5A	0 ~ 5A	0 ~ 4.8A	0 ~ 4A	0 ~ 3.55A	0 ~ 2.65A	0 ~ 2A	
	RATED POWER Note.6	60W	75W	96W	96W	95.85W	95.4W	96W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	
	VOLTAGE ADJ. RANGE(ADJ V)	10.2 ~ 12V	12.8 ~ 15V	17 ~ 20V	20.4 ~ 24V	23 ~ 27V	30.6 ~ 36V	40.8 ~ 48V	
	CURRENT ADJ. RANGE(ADJ I)	3.75 ~ 5A	3.75 ~ 5A	3.6 ~ 4.8A	3 ~ 4A	2.6 ~ 3.55A	2 ~ 2.65A	1.5 ~ 2A	
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	LINE REGULATION	±1.0%							
	LOAD REGULATION	±2.0%							
	SETUP, RISE TIME	1200ms, 80ms/230VAC 1200ms, 80ms/115VAC at full load							
	HOLD UP TIME (Typ.)	60ms/230VAC 30ms/115VAC at full load							
INPUT	VOLTAGE RANGE Note.5	90 ~ 264VAC 127 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR (Typ.)	PF>0.95/230VAC	PF>0.95/11	5VAC at full load	PF≧0.9 at 70	~ 100% load			
	EFFICIENCY (Typ.)	85%	86%	89%	88.5%	88%	88%	89%	
	AC CURRENT (Typ.)	12V:0.8A/115VAC 0.4A/230VAC 15V:0.9A/115VAC 0.45A/230VAC 20V ~ 48V:1.1A/115VAC 0.55A/230VAC							
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC							
	LEAKAGE CURRENT	<0.75mA / 240VAC							
PROTECTION	OVER CURRENT (Typ.) Note.4	95 ~ 102%							
		Protection type :	Constant current li	imiting, recovers au	utomatically after fa	ault condition is ren	noved		
	OVER VOLTAGE	13 ~ 16V	16.5 ~ 20V	22 ~ 27V	27 ~ 34V	30 ~ 36V	39 ~ 48V	52 ~ 64V	
			21 4 1 11 4		o nower on to rece	wor			
	OVER VOLIAGE	Protection type :	Shut down and late	ch off o/p voltage, r	e-power on to rect	7761			
		Protection type : 90°C ±10°C (RTF		ch off o/p voltage, r	e-power on to rect)VEI			
	OVER TEMPERATURE	90°C ±10°C (RTH	2)			ovei			
	OVER TEMPERATURE	90°C ±10°C (RTH Protection type :	2)	Itage, re-power on)VEI			
	OVER TEMPERATURE WORKING TEMP.	90°C ±10°C (RTH Protection type :	2) Shut down o/p vo er to output load d	Itage, re-power on	•	vei			
NVIRONMENT	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY	90°C ±10°C (RTH Protection type : -10 ~ +50°C (Ref	2) Shut down o/p vo er to output load d -condensing	Itage, re-power on	•	vei			
NVIRONMENT	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY	$90^{\circ}\text{C} \pm 10^{\circ}\text{C}$ (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 -	2) Shut down o/p vo er to output load d -condensing · 95% RH	Itage, re-power on	•	vei			
NVIRONMENT	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY	90°C ±10°C (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 ~ ±0.03%/°C (0 ~ 5	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C)	Itage, re-power on erating curve)	to recover				
NVIRONMENT	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT	90°C ±10°C (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 ~ $\pm 0.03\%$ °C (0 ~ 5 10 ~ 500Hz, 2G 1	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri	Itage, re-power on erating curve)	to recover	5	ted in UL Sian Comp	onents Manual (S <i>A</i>	
NVIRONMENT	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT	90°C ±10°C (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 ~ $\pm 0.03\%$ /°C (0 ~ 5 10 ~ 500Hz, 2G 1 UL1310 Class 2, E	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri	Itage, re-power on erating curve) od for 72min. each 7-2-13 independent,	n along X, Y, Z axe UL60950-1, TUV EN		ted in UL Sign Comp	onents Manual (S <i>A</i>	
	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7	90° $\pm 10^{\circ}$ (RTH Protection type: -10 ~ +50° C (Ref 20 ~ 95% RH nor -40 ~ +80° C, 10 ~ $\pm 0.03\%$)° (0 ~ 5 10 ~ 500Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri N61347-1, EN6134	Itage, re-power on erating curve) od for 72min. each 7-2-13 independent, ept for 48V) approv	n along X, Y, Z axe UL60950-1, TUV EN	5	ted in UL Sign Comp	onents Manual (S <i>A</i>	
AFETY &	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE	90°C ±10°C (RTH Protection type: $-10 \sim +50$ °C (Ref 20 ~ 95 % RH nor $-40 \sim +80$ °C, $10 \sim \pm 0.03$ %/°C (0 ~ 5 10 ~ 500 Hz, 2G 10 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri N61347-1, EN6134' No. 223-M91(exce	ltage, re-power on erating curve) od for 72min. each 7-2-13 independent, ept for 48V) approvik	n along X, Y, Z axe UL60950-1, TUV EN ed	5	ed in UL Sign Comp	onents Manual (S <i>A</i>	
AFETY &	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE ISOLATION RESISTANCE	90°C ±10°C (RTH Protection type: $-10 \sim +50$ °C (Ref 20 ~ 95 % RH nor $-40 \sim +80$ °C, $10 \sim 500$ Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/I/P-O/P, I/P-FG,	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri N61347-1, EN61347 No. 223-M91(exce	Itage, re-power on erating curve) fod for 72min. each 7-2-13 independent, ept for 48V) approv KVAC O/P-FG:0	n along X, Y, Z axe UL60950-1, TUV EN ed 0.5KVAC ℃/70% RH	5	ted in UL Sign Comp	onents Manual (S <i>A</i>	
AFETY &	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION	90°C ±10°C (RTH Protection type: $-10 \sim +50$ °C (Ref 20 ~ 95 % RH nor $-40 \sim +80$ °C, $10 \sim 500$ Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/J/P-O/P, I/P-FG, Compliance to El	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri N61347-1, EN6134; No. 223-M91(exce NC I/P-FG:1.88) O/P-FG:100M Oh	ltage, re-power on erating curve) dod for 72min. each 7-2-13 independent, ept for 48V) approv KVAC O/P-FG:0 ims / 500VDC / 25' (CISPR22) Class I	n along X, Y, Z axe UL60950-1, TUV EN ed 0.5KVAC C/70% RH	5	ed in UL Sign Comp	onents Manual (S <i>A</i>	
NVIRONMENT SAFETY & MC	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION HARMONIC CURRENT	90°C ±10°C (RTH Protection type: $-10 \sim +50$ °C (Ref 20 $\sim 95\%$ RH nor $-40 \sim +80$ °C, $10 \sim 500$ Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/I/P-O/P, I/P-FG, Compliance to EI Compliance to EI	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri N61347-1, EN6134; No. 223-M91(exce NC I/P-FG:1.88 O/P-FG:100M Oh N55015, EN55022	ltage, re-power on erating curve) od for 72min. each 7-2-13 independent, lept for 48V) approv KVAC O/P-FG:0 ms / 500VDC / 25 (CISPR22) Class I ass C (≥70% load)	n along X, Y, Z axe: UL60950-1, TUV EN ed 0.5KVAC C/70% RH B); EN61000-3-3	s 60950-1, UL879 (lis			
AFETY &	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION HARMONIC CURRENT EMS IMMUNITY	90°C ±10°C (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 ~ ±0.03%/°C (0 ~ 5 10 ~ 500Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/I/P-O/P, I/P-FG, Compliance to El Compliance	2) Shut down o/p vo er to output load d -condensing • 95% RH 0°C) 2min./1cycle, peri N61347-1, EN6134* No. 223-M91(exce NC I/P-FG:1.88 O/P-FG:100M Oh N55015, EN55022 N61000-3-2,-3, Cla	ltage, re-power on erating curve) od for 72min. each 7-2-13 independent, lept for 48V) approv. KVAC O/P-FG:0 tims / 500VDC / 25 (CISPR22) Class I (CISPR22) Class I (ass C (≥70% load) 6,8,11; ENV50204,	n along X, Y, Z axe: UL60950-1, TUV EN ed 0.5KVAC C/70% RH B); EN61000-3-3	5			
AFETY & MC	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION HARMONIC CURRENT EMS IMMUNITY MTBF	90°C ±10°C (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 ~ ±0.03%/°C (0 ~ 5 10 ~ 500Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/I/P-O/P, I/P-FG, Compliance to EI Compliance to EI Compliance to EI 297.9Khrs min.	2) Shut down o/p vo er to output load d -condensing • 95% RH 0°C) 2min./1cycle, peri N61347-1, EN6134 No. 223-M91(exce NC I/P-FG:1.88 O/P-FG:100M Oh N55015, EN55022 N61000-3-2,-3, Cla	ltage, re-power on erating curve) od for 72min. each 7-2-13 independent, lept for 48V) approv. KVAC O/P-FG:0 tims / 500VDC / 25 (CISPR22) Class I (CISPR22) Class I (ass C (≥70% load) 6,8,11; ENV50204,	n along X, Y, Z axe: UL60950-1, TUV EN ed 0.5KVAC C/70% RH B); EN61000-3-3	s 60950-1, UL879 (lis			
AFETY &	OVER TEMPERATURE WORKING TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.7 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMI CONDUCTION & RADIATION HARMONIC CURRENT EMS IMMUNITY	90°C ±10°C (RTH Protection type: -10 ~ +50°C (Ref 20 ~ 95% RH nor -40 ~ +80°C, 10 ~ ±0.03%/°C (0 ~ 5 10 ~ 500Hz, 2G 1 UL1310 Class 2, E CAN/CSA C22.2 I/P-O/P:3.75KV/I/P-O/P, I/P-FG, Compliance to El Compliance	2) Shut down o/p vo er to output load d -condensing 95% RH 0°C) 2min./1cycle, peri N61347-1, EN61347 No. 223-M91(exce xC I/P-FG:1.88 O/P-FG:100M Oh N55015, EN55022 N61000-3-2,-3, Cla N61000-4-2,3,4,5, MIL-HDBK-217F n (L*W*H)	ltage, re-power on erating curve) od for 72min. each 7-2-13 independent, lept for 48V) approv. KVAC O/P-FG:0 tims / 500VDC / 25 (CISPR22) Class I (CISPR22) Class I (ass C (≥70% load) 6,8,11; ENV50204,	n along X, Y, Z axe: UL60950-1, TUV EN ed 0.5KVAC C/70% RH B); EN61000-3-3	s 60950-1, UL879 (lis			

- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Constant current operation region is within 50% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.
- 5. Derating may be needed under low input voltage. Please check the derating curve for more details.
- 6. This is the maximum possible output current and power. Over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2.
- 7. Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.



