

# Numbering System of Power Supplies

**M F 320 A 24 A G 0 - V/RC**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

numbering system

**P U 040 A 070 A Q 1 - L**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

LED driver  
- PU series

LED driver  
- MU series

LED driver  
- other types

general power supplies  
- MF series

① case option	M	metal case
	P	plastic case
	O	open frame
	B	brick (module)
	U	"U" case
② input voltage range	L	"L" case
	A	85~127 VAC
	E	175~264 VAC
	F	85~264 VAC
	S	115VAC / 230VAC switch selectable
③ rated output power* 1	U	90~305 VAC
	-	rated output power in integer value
④ PFC function	A	active PFC
	P	passive PFC
	N	PFC not available
⑤ rated output voltage/current of main circuit* 2	-	rated output voltage/current of main circuit in integer value
	A	1 output
⑥ number of output channels	B	2 output
	C	3 output
	D	4 output
	E ~	E~ by analogy
	G	general series
⑦ type of power supply	P	LED driver series – constant voltage
	Q	LED driver series – constant current
	S	ODM (original design manufacturer) series
	D	DIN rail series
	T	telecommunication series
⑧ mode of output channels combination* 3	-	mode of output channels combination
⑨ options (suffix)* 4	-	specific function or special tagging

## Note:

- \* 1 Series model output power value or powergrade; the LED driver series 3-digit mark.
- \* 2 In the LED driver series, the 3 digit "XXX" are used to represent the output voltage(V) or output current(mA).  
eg: The output voltage of 48V is labeled as "048", and the output current of 350mA is labeled as "350".
- \* 3 Output combined mode
  - 3.1 Single Output: default value of "0" and can be omitted. "0-9, J-Z" represents a different output specifications.  
eg: "PU040A070AQ-L" is the LED drivers, PU040A Series, output 38W/700 mA/27-54VDC  
"PU040A070AQ1-L" is the LED drivers, PU040A Series, output 30W/700 mA/18-36VDC
  - 3.2 Multiple Output: "0" for same output voltage and current (and can be omitted).  
"0-9, J-Z" for different output specifications.

- \* 4 Power supplies that have the same output power, voltage, current, but have different optional features are designated with different suffixes to distinguish the specific S.P.S. models. There may be several suffixes separated by "/", in sequence.
- 4.1 The first group is fixed to the definition of terminal types.
- 4.2 Typical options:
  - V - vertical terminal block
  - H - horizontal terminal block
  - C - connector
  - L - wiring type
  - RC - remote (ON/OFF) control
  - RS - remote sensing
  - M - motor (application)
  - F - fan (cooling)
  - LT - long life
  - AT - over temperature protection (OTP); automatic recovery
  - HC - OCP type: hiccup mode, automatic recovery
  - PF - power failure signal output function
  - PC - parallel connection
  - PV - programable voltage

numbering  
systemLED  
driver  
- PU seriesLED  
driver  
- MU seriesLED  
driver  
- other typesgeneral  
power supplies  
- MF series

# PU012 Series - constant current/voltage output

## Features

- input voltage range: 90-305 VAC
- high efficiency: 85% typical
- active PFC: 0.97 typical
- IP66 compliant
- protection: OVP, OCP, SCP
- comply with UL8750, UL1310, IEC61347.1, IEC61347-2-13
- CE compliant; UL/TUV/CB certification application in process



85 × 35 × 23mm

## Electrical Specifications

input voltage range	90-305 VAC
frequency	47-63 Hz
power factor	0.97 at 110VAC; 0.94 at 220VAC (typical)
inrush current	15 A MAX (25°C at 220 VAC, cold start)
input current	0.15A MAX at 110VAC; 0.1A MAX at 220VAC
efficiency	85% (typical) at 220 VAC maximum load
maximum power	12W
line regulation	± 1%
load regulation	± 3%
leakage current	0.3mA MAX
hold-up time	half cycle
protection	over voltage, over current, short circuit: auto recovery

## Environmental Specifications

operating temperature	-30°C ~ +60°C
storage temperature	-40°C ~ +85°C
maximum case temperature	90°C
humidity	5% ~ 100%
cooling method	convection
isolation voltage	input / output 3000 VAC
vibration	5-55 Hz/2g, 30 minutes
MTBF	300,000 hours full load at 25°C ambient
life time	100,000 hours at 25°C ambient
dimension (L x W x H)	3.35 × 1.38 × 0.91 (inch) / 85 × 35 × 23 (mm)

## Safety & EMC Compliance

CUL	UL 8750, UL1310
CE	EN 61347-1, EN61347-2-13
conducted emissions	FCC Level B / EN55015
radiated emissions	FCC Level B / EN55015
harmonic current emissions	EN61000-3-2
voltage fluctuations and flicker	EN61000-3-3
electrostatic discharge	EN61000-4-2
RFE field susceptibility	EN61000-4-3
electrical fast transient	EN61000-4-4
conducted radio frequency	EN61000-4-6
power frequency magnetic field test	EN61000-4-8
voltage dips	EN61000-4-11
electromagnetic immunity	EN61547

## Model Specifications - constant current

part number	output current	output voltage	current accuracy	efficiency (typical)	
				110 VAC	220 VAC
PU012A025AQ	250mA	24-48VDC	± 3%	84%	85%
PU012A030AQ	300mA	18-36VDC	± 3%	83%	84%
PU012A035AQ	350mA	18-36VDC	± 3%	83%	84%
PU012A050AQ	500mA	12-24VDC	± 3%	83%	84%
PU012A070AQ	700mA	8-16VDC	± 3%	82%	83%
PU012A080AQ	800mA	8-16VDC	± 3%	82%	83%
PU012A100AQ	1000mA	6-12VDC	± 3%	82%	83%

## Model Specifications - constant voltage

part number	output voltage	MAX output current	voltage accuracy	efficiency (typical)	
				110 VAC	220 VAC
PU012A048AP	48VDC	250mA	± 5%	84%	85%
PU012A036AP	36VDC	350mA	± 5%	83%	84%
PU012A024AP	24VDC	500mA	± 5%	83%	84%
PU012A016AP	16VDC	800mA	± 5%	82%	83%
PU012A012AP	12VDC	1000mA	± 5%	82%	83%

## Mechanical Outline (unit: mm[inch])

