## Sandan Limited

### 15W series AC to DC power adaptor

#### Wall mount



#### ♦ Feature

- Universal Input Switch Mode Power Supplies
- No load power consumption <0.3 Watt</li>
- Meet energy star CEC, EUPS, MEPS level (IV) & (V)
- Protection: over voltage , over current ,short circuit
- High Efficiency and Reliability
- Range output 3VDC~36VDC
- · Comply to UL,CSA, GS/TUV, CE, PSE

### Specification

	Voltage range	Itage range 90~264Vac					
Ŧ	Frequency range	47~63Hz					
Input	AC current	0.3A Max. @ 230Vac					
-	Inrush current (max.)	30Amax. @ 230Vac, cold start					
	Leakage current(max.)	0.25mA @120Vac,60Hz / 0.45mA @ 230Vac,50Hz					
u	Over load	>105% rate output voltage power					
ctic		Hiccup mode, Recovery automatically					
Protection	Ob ant aircruit	Power shutdown					
Pre	Short circuit	Auto recovery after fault condition is removed					
nt	Operating Temp.	<b>0~40</b> ℃					
Environment	Relative Humidity 20%~90%, non-condensing						
lon	Storage Temp. / Humidity -20°C~85°C, 10%~95% RH						
-iz	Vibration 19.6m/s <sup>2</sup> 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)						
Ē	IMPACT	196.1m/s <sup>2</sup> 11ms, once each X,Y and Z azis (Non operating)					
	Safety Standard	UL60950-1, EN60950-1, J60950, EN61558					
∞ >()	Withstand voltage	I/P-O/P:3KVac, 1 minute					
Safety & EMC	Isolation resistance	I/P-O/P: 100M ohms/500Vdc/25℃/70%RH					
Sa	Conducted / Radiated	EN55022, FCC part 15 Class B					
-	Harmonic	EN6100-3-2					
ers	MTBF	100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)					
Others	Dimension	75.7mm *47.5mm *31mm					
	1.All parameters are spe	cified at 230Vac input, rated load,25°C 70% RH ambient;					
	2.DC voltage: the output	voltage set at point measure by plug terminal & 100% load;					
0	3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor						
Note	4.Tolerance: includes se	t up tolerance, line regulation, load regulation,					
2	5.Line regulation is meas	sured from low line to high line at rated load,					
	6.Load regulation is mea	asured from 0%~100% at rated load					
	7.Efficency is measured	at 110Vac or 230Vac.					
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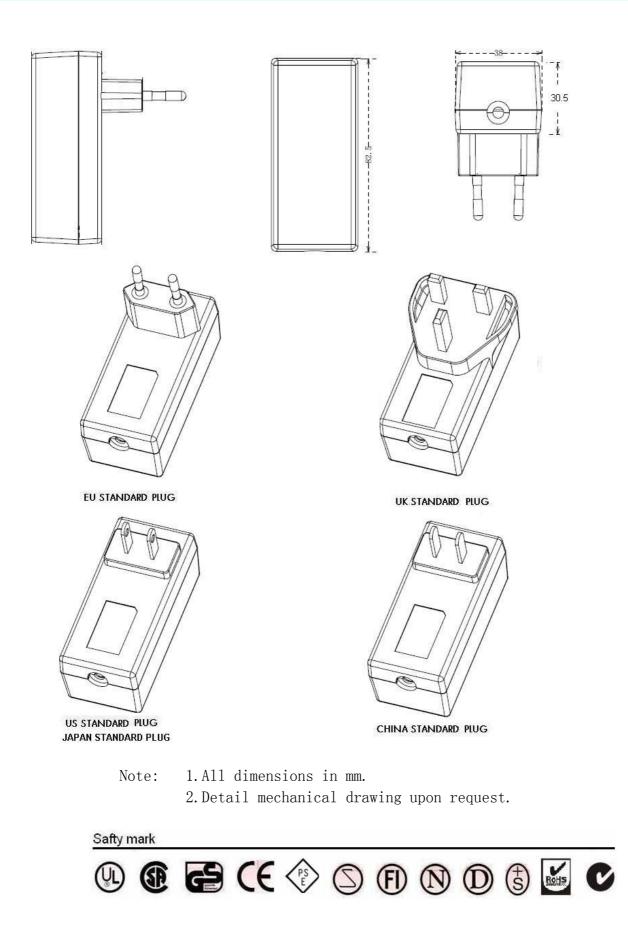
Safty mark



Output						
Model No.	DC Voltage	Current range '(mA)	Ripple & Noise	Line regulation	Load regulation	Voltage tolerance
SPA030yyyy	3V	100 to 2500	1%	±1%	±5%	±5%
SPA035yyyy	3.5V	100 to 2500	1%	±1%	±5%	±5%
SPA040yyyy	4V	100 to 2500	1%	±1%	±5%	±5%
SPA045yyyy	4.5V	100 to 2500	1%	±1%	±5%	±5%
SPA050yyyy	5V	100 to 2500	1%	±1%	±5%	±5%
SPA055yyyy	5.5V	100 to 2200	1%	±1%	±5%	±5%
SPA060yyyy	6V	100 to 2200	1%	±1%	±5%	±5%
SPA065yyyy	6.5V	100 to 2200	1%	±1%	±5%	±5%
SPA070yyyy	7V	100 to 2000	1%	±1%	±5%	±5%
SPA075yyyy	7.5V	100 to 1900	1%	±1%	±5%	±5%
SPA080yyyy	8V	100 to 1800	1%	±1%	±5%	±5%
SPA085yyyy	8.5V	100 to 1700	1%	±1%	±5%	±5%
SPA090yyyy	9V	100 to 1600	1%	±1%	±5%	±5%
SPA095yyyy	9.5V	100 to 1500	1%	±1%	±5%	±5%
SPA100yyyy	10V	100 to 1400	1%	±1%	±5%	±5%
SPA105yyyy	10.5V	100 to 1400	1%	±1%	±5%	±5%
SPA110yyyy	11V	100 to 1300	1%	±1%	±5%	±5%
SPA115yyyy	11.5V	100 to 1250	1%	±1%	±5%	±5%
SPA120yyyy	12V	100 to 1250	1%	±1%	±5%	±5%
SPA125yyyy	12.5V	100 to 1150	1%	±1%	±5%	±5%
SPA130yyyy	13V	100 to 1150	1%	±1%	±5%	±5%
SPA135yyyy	13.5V	100 to 1100	1%	±1%	±5%	±5%
SPA140yyyy	14V	100 to 1050	1%	±1%	±5%	±5%
SPA145yyyy	14.5V	100 to 1000	1%	±1%	±5%	±5%
SPA150yyyy	15V	100 to 1000	1%	±1%	±5%	±5%
SPA155yyyy	15.5V	100 to 950	1%	±1%	±5%	±5%
SPA160yyyy	16V	100 to 900	1%	±1%	±5%	±5%
SPA165yyyy	16.5V	100 to 900	1%	±1%	±5%	±5%
SPA170yyyy	17V	100 to 850	1%	±1%	±5%	±5%
SPA175yyyy	17.5V	100 to 850	1%	±1%	±5%	±5%
SPA180yyyy	18V	100 to 800	1%	±1%	±5%	±5%
SPA185yyyy	18.5V	100 to 800	1%	±1%	±5%	±5%
SPA190yyyy	19V	100 to 750	1%	±1%	±5%	±5%
SPA195yyyy	19.5V	100 to 750	1%	±1%	±5%	±5%
SPA200yyyy	20V	100 to 750	1%	±1%	±5%	±5%
SPA205yyyy	20.5V	100 to 700	1%	±1%	±5%	±5%
SPA210yyyy	20V	100 to 700	1%	±1%	±5%	±5%
SPA215yyyy	21.5V	100 to 650	1%	±1%	±5%	±5%
SPA220yyyy	22V	100 to 650	1%	±1%	±5%	±5%
SPA225yyyy	22.5V	100 to 650	1%	±1%	±5%	±5%
SPA230yyyy	23V	100 to 650	1%	±1%	±5%	±5%
SPA235yyyy	23.5V	100 to 600	1%	±1%	±5%	±5%
SPA240yyyy	24V	100 to 600	1%	±1%	±5%	±5%
SPA245yyyy	24.5V	100 to 600	1%	±1%	±5%	±5%
SPA250yyyy	25V	100 to 600	1%	±1%	±5%	±5%

15W series AC	15W series AC to DC power adaptor Wall mount									
SPA255yyyy	25.5V	100 to	600	1%	±1%	±5%	±5%			
SPA260yyyy	26V	100 to	550	1%	±1%	±5%	±5%			
SPA265yyyy	26.5V	100 to	550	1%	±1%	±5%	±5%			
SPA270yyyy	27V	100 to	550	1%	±1%	±5%	±5%			
SPA275yyyy	27.5V	100 to	550	1%	±1%	±5%	±5%			
SPA280yyyy	28V	100 to	500	1%	±1%	±5%	±5%			
SPA285yyyy	28.5V	100 to	500	1%	±1%	±5%	±5%			
SPA290yyyy	29V	100 to	500	1%	±1%	±5%	±5%			
SPA295yyyy	29.5V	100 to	500	1%	±1%	±5%	±5%			
SPA300yyyy	30V	100 to	500	1%	±1%	±5%	±5%			
SPA305yyyy	30.5V	100 to	500	1%	±1%	±5%	±5%			
SPA310yyyy	31V	100 to	450	1%	±1%	±5%	±5%			
SPA315yyyy	31.5V	100 to	450	1%	±1%	±5%	±5%			
SPA320yyyy	32V	100 to	450	1%	±1%	±5%	±5%			
SPA325yyyy	32.5V	100 to	450	1%	±1%	±5%	±5%			
SPA330yyyy	33V	100 to	450	1%	±1%	±5%	±5%			
SPA335yyyy	33.5V	100 to	450	1%	±1%	±5%	±5%			
SPA340yyyy	34V	100 to	400	1%	±1%	±5%	±5%			
SPA345yyyy	34.5V	100 to	400	1%	±1%	±5%	±5%			
SPA350yyyy	35V	100 to	400	1%	±1%	±5%	±5%			
SPA355yyyy	35.5V	100 to	400	1%	±1%	±5%	±5%			
SPA360yyyy	36V	100 to	400	1%	±1%	±5%	±5%			

Mechanical Drawing - Casing Type NO.: A21



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- Meet energy star CEC, EUPS, MEPS level (IV) & (V)
- Protection: over voltage , over current ,short circuit
- High Efficiency and Reliability
- Range output 3VDC~36VDC
- · Comply to UL,CSA, GS/TUV, CE, PSE

Speci	t	cation

Prequency range       47-63Hz         AC current       0.3A Max. @ 230Vac, cold start         Inrush current (max.)       30Amax. @ 230Vac, cold start         Leakage current(max.)       0.25mA @ 120Vac, 60Hz / 0.45mA @ 230Vac, 50Hz         Over load       >105% rate output voltage power         Hiccup mode, Recovery automatically       Power shutdown         Auto recovery after fault condition is removed       Qoerating Temp.         O-40°C       Relative Humidity         Storage Temp.       0-40°C         Wibration       19.6m/s* 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)         IMPACT       196.1m/s* 11ms, once each X,Y and Z azis (Non operating)         Withstand voltage       I/P-O/P:3KVac, 1 minute         Solation resistance       I/P-O/P:3KVac, 1 minute         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line re		Voltage range 90~264Vac						
Influence       30Amax. @ 230Vac, cole start         Leakage current(max.)       0.25mA @ 120Vac, cole start         Leakage current(max.)       0.25mA @ 120Vac, cole start         Ver load       >105% rate output voltage power         Hiccup mode, Recovery automatically       >         Short circuit       Power shutdown         Auto recovery after fault condition is removed       >         Operating Temp.       0~40°C         Relative Humidity       20%~90%, non-condensing         Storage Temp. / Humidity       -20°~85°C, 10%~95% RH         Vibration       19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         Vibration       19.6m/s² 10-55Hz, 3minutes         Safety Standard       UL60950-1, EN60950-1 / EN61558 / J60950         Withstand voltage       I/P-O/P: 3KVac, 1 minute         Isolation resistance       I/P-O/P: 100M ohms/500Vdc/25°C/70% RH         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         Superson       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;	Ħ	Frequency range	47~63Hz					
Influence         Journax. @ 230Vac, color start           Leakage current (max.)         0.25mA @ 120Vac, color start           Leakage current (max.)         0.25mA @ 120Vac, color start           Over load         >105% rate output voltage power           Hiccup mode, Recovery automatically         >           Short circuit         Power shutdown           Auto recovery after fault condition is removed         >           Operating Temp.         0~40°C           Relative Humidity         20%~90%, non-condensing           Storage Temp. / Humidity         -20°~85°C, 10%~95% RH           Vibration         19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)           IMPACT         196.1m/s² 11ms, once each X,Y and Z azis (Non operating)           IMPACT         196.1m/s² 11ms, once each X,Y and Z azis (Non operating)           Withstand voltage         I/P-O/P: 3KVac, 1 minute           Isolation resistance         I/P-O/P: 3KVac, 1 minute           Isolation resistance         EN6100-3-2           Temp         100,000 hours min. @ 25°C, 80% of full load. (MIL-HDBK-217F)           Dimension         81.7mm *52mm *31.35mm           1.All parameters are especified at 230Vac input, rated load,25°C 70% RH ambient;           2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;     <	ЪС	AC current	0.3A Max. @ 230Vac					
Over load       >105% rate output voltage power         Hiccup mode, Recovery automatically         Short circuit       Power shutdown         Auto recovery after fault condition is removed         Operating Temp.       0~40°C         Relative Humidity       20%-90%, non-condensing         Storage Temp. / Humidity       20%-95% RH         Vibration       19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:100M ohms/500Vdc/25°C/70%RH         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,	=	Inrush current (max.)	30Amax. @ 230Vac, cold start					
Over load         Hiccup mode, Recovery automatically           Short circuit         Power shutdown           Auto recovery after fault condition is removed           Operating Temp.         0-40°C           Relative Humidity         20%-90%, non-condensing           Storage Temp. / Humidity         20%-95% RH           Vibration         19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)           IMPACT         196.1m/s² 11ms, once each X,Y and Z azis (Non operating)           IMPACT         196.1m/s² 11ms, once each X,Y and Z azis (Non operating)           Withstand voltage         I/P-O/P:3KVac, 1 minute           Isolation resistance         I/P-O/P:100M ohms/500Vdc/25°C/70%RH           Conducted / Radiated         EN55022, FCC part 15 Class B           Harmonic         EN6100-3-2           Stage         MTBF         100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)           Dimension         81.7mm *52mm *31.35mm           1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;           2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;           3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor           4.Tolerance: includes set up tolerance, line regulation, load regulation,           5.Line regulation is measured from low line to high line a		Leakage current(max.)	0.25mA @120Vac,60Hz / 0.45mA @ 230Vac,50Hz					
Operating Temp.       0~40°C         Relative Humidity       20%-90%, non-condensing         Storage Temp. / Humidity       -20°C~85°C, 10%~95% RH         Vibration       19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:3KVac, 1 minute         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	L L	Over load						
Operating Temp.       0~40°C         Relative Humidity       20%-90%, non-condensing         Storage Temp. / Humidity       -20°C~85°C, 10%~95% RH         Vibration       19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:3KVac, 1 minute         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	ctic		Hiccup mode, Recovery automatically					
Operating Temp.       0~40°C         Relative Humidity       20%-90%, non-condensing         Storage Temp. / Humidity       -20°C~85°C, 10%~95% RH         Vibration       19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         IMPACT       196.1m/s² 11ms, once each X,Y and Z azis (Non operating)         Safety Standard       UL60950-1, EN60950-1 / EN61558 / J60950         Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:100M ohms/500Vdc/25°C/70%RH         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	ote	Chart singuit	Power shutdown					
Image: ProblemRelative Humidity20%~90%, non-condensingStorage Temp. / Humidity-20°C-85°C, 10%~95% RHVibration19.6m/s² 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)IMPACT196.1m/s² 11ms, once each X,Y and Z azis (Non operating)Safety StandardUL60950-1, EN60950-1 / EN61558 / J60950Withstand voltageI/P-O/P:3KVac, 1 minuteIsolation resistanceI/P-O/P:100M ohms/500Vdc/25°C/70%RHConducted / RadiatedEN55022, FCC part 15 Class BHarmonicEN6100-3-2MTBF100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)Dimension81.7mm *52mm *31.35mm1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor4.Tolerance: includes set up tolerance, line regulation, load regulation,5.Line regulation is measured from low line to high line at rated load,6.Load regulation is measured from 0%~100% at rated load	Pro	Short circuit	Auto recovery after fault condition is removed					
Software       130. m/s 1 m/s 00ce each X, 1 and 2 azis (Non operating)         Software       Safety Standard       UL60950-1, EN60950-1 / EN61558 / J60950         Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:100M ohms/500Vdc/25°C/70%RH         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	nt	Operating Temp.	0~40℃					
Image: Section of the section of th	me	Relative Humidity 20%~90%, non-condensing						
Software       130. m/s 1 m/s 00ce each X, 1 and 2 azis (Non operating)         Software       Safety Standard       UL60950-1, EN60950-1 / EN61558 / J60950         Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:100M ohms/500Vdc/25°C/70%RH         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	lo	Storage Temp. / Humidity -20°C~85°C, 10%~95% RH						
Image: Section of the section of th	, N	Vibration 19.6m/s <sup>2</sup> 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operatin						
Withstand voltage       I/P-O/P:3KVac, 1 minute         Isolation resistance       I/P-O/P:100M ohms/500Vdc/25°C/70%RH         Conducted / Radiated       EN55022, FCC part 15 Class B         Harmonic       EN6100-3-2         MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	ш	IMPACT 196.1m/s <sup>2</sup> 11ms, once each X,Y and Z azis (Non operating)						
Harmonic       EN6100-3-2         Seep       MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load		Safety Standard	UL60950-1, EN60950-1 / EN61558 / J60950					
Harmonic       EN6100-3-2         Seep       MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	∞ >()	Withstand voltage	I/P-O/P:3KVac, 1 minute					
Harmonic       EN6100-3-2         Seep       MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	fet	Isolation resistance	I/P-O/P: 100M ohms/500Vdc/25℃/70%RH					
Harmonic       EN6100-3-2         Seep       MTBF       100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)         Dimension       81.7mm *52mm *31.35mm         1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	Sa	Conducted / Radiated	EN55022, FCC part 15 Class B					
Provide       1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load		Harmonic	EN6100-3-2					
Provide       1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;         2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;         3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor         4.Tolerance: includes set up tolerance, line regulation, load regulation,         5.Line regulation is measured from low line to high line at rated load,         6.Load regulation is measured from 0%~100% at rated load	ers	MTBF	100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)					
2.DC voltage: the output voltage set at point measure by plug terminal & 100% load; 3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor 4.Tolerance: includes set up tolerance, line regulation, load regulation, 5.Line regulation is measured from low line to high line at rated load, 6.Load regulation is measured from 0%~100% at rated load	Oth	Dimension	81.7mm *52mm *31.35mm					
3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor 4.Tolerance: includes set up tolerance, line regulation, load regulation, 5.Line regulation is measured from low line to high line at rated load, 6.Load regulation is measured from 0%~100% at rated load		1.All parameters are spe	ecified at 230Vac input, rated load,25 $^\circ C$ 70% RH ambient;					
<ul> <li>4.Tolerance: includes set up tolerance, line regulation, load regulation,</li> <li>5.Line regulation is measured from low line to high line at rated load,</li> <li>6.Load regulation is measured from 0%~100% at rated load</li> </ul>		2.DC voltage: the output	voltage set at point measure by plug terminal & 100% load;					
5.Line regulation is measured from low line to high line at rated load, 6.Load regulation is measured from 0%~100% at rated load	a)	3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor						
5.Line regulation is measured from low line to high line at rated load, 6.Load regulation is measured from 0%~100% at rated load	lote	4.Tolerance: includes se	t up tolerance, line regulation, load regulation,					
	2	5.Line regulation is meas	sured from low line to high line at rated load,					
7.Efficency is measured at 110Vac or 230Vac.		6.Load regulation is mea	asured from 0%~100% at rated load					
		7.Efficency is measured	at 110Vac or 230Vac.					

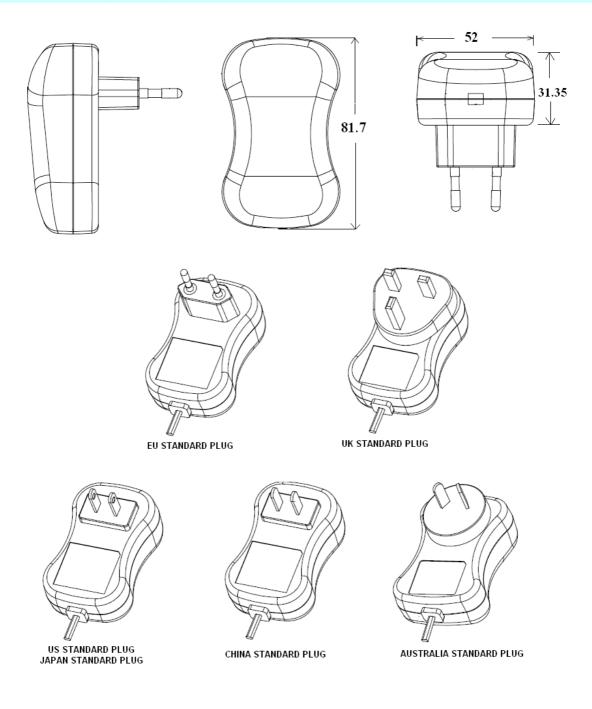
Safty mark



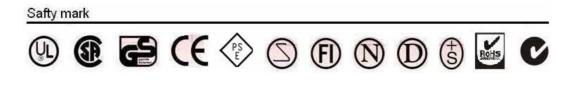
Output						
Model No.	DC Voltage	Current range '(mA)	Ripple & Noise	Line regulation	Load regulation	Voltage tolerance
SPA030yyyy	3V	100 to 2500	1%	±1%	±5%	±5%
SPA035yyyy	3.5V	100 to 2500	1%	±1%	±5%	±5%
SPA040yyyy	4V	100 to 2500	1%	±1%	±5%	±5%
SPA045yyyy	4.5V	100 to 2500	1%	±1%	±5%	±5%
SPA050yyyy	5V	100 to 2500	1%	±1%	±5%	±5%
SPA055yyyy	5.5V	100 to 2200	1%	±1%	±5%	±5%
SPA060yyyy	6V	100 to 2200	1%	±1%	±5%	±5%
SPA065yyyy	6.5V	100 to 2200	1%	±1%	±5%	±5%
SPA070yyyy	7V	100 to 2000	1%	±1%	±5%	±5%
SPA075yyyy	7.5V	100 to 1900	1%	±1%	±5%	±5%
SPA080yyyy	8V	100 to 1800	1%	±1%	±5%	±5%
SPA085yyyy	8.5V	100 to 1700	1%	±1%	±5%	±5%
SPA090yyyy	9V	100 to 1600	1%	±1%	±5%	±5%
SPA095yyyy	9.5V	100 to 1500	1%	±1%	±5%	±5%
SPA100yyyy	10V	100 to 1400	1%	±1%	±5%	±5%
SPA105yyyy	10.5V	100 to 1400	1%	±1%	±5%	±5%
SPA110yyyy	11V	100 to 1300	1%	±1%	±5%	±5%
SPA115yyyy	11.5V	100 to 1250	1%	±1%	±5%	±5%
SPA120yyyy	12V	100 to 1250	1%	±1%	±5%	±5%
SPA125yyyy	12.5V	100 to 1150	1%	±1%	±5%	±5%
SPA130yyyy	13V	100 to 1150	1%	±1%	±5%	±5%
SPA135yyyy	13.5V	100 to 1100	1%	±1%	±5%	±5%
SPA140yyyy	14V	100 to 1050	1%	±1%	±5%	±5%
SPA145yyyy	14.5V	100 to 1000	1%	±1%	±5%	±5%
SPA150yyyy	15V	100 to 1000	1%	±1%	±5%	±5%
SPA155yyyy	15.5V	100 to 950	1%	±1%	±5%	±5%
SPA160yyyy	16V	100 to 900	1%	±1%	±5%	±5%
SPA165yyyy	16.5V	100 to 900	1%	±1%	±5%	±5%
SPA170yyyy	17V	100 to 850	1%	±1%	±5%	±5%
SPA175yyyy	17.5V	100 to 850	1%	±1%	±5%	±5%
SPA180yyyy	18V	100 to 800	1%	±1%	±5%	±5%
SPA185yyyy	18.5V	100 to 800	1%	±1%	±5%	±5%
SPA190yyyy	19V	100 to 750	1%	±1%	±5%	±5%
SPA195yyyy	19.5V	100 to 750	1%	±1%	±5%	±5%
SPA200yyyy	20V	100 to 750	1%	±1%	±5%	±5%
SPA205yyyy	20.5V	100 to 700	1%	±1%	±5%	±5%
SPA210yyyy	20V	100 to 700	1%	±1%	±5%	±5%
SPA215yyyy	21.5V	100 to 650	1%	±1%	±5%	±5%
SPA220yyyy	22V	100 to 650	1%	±1%	±5%	±5%
SPA225yyyy	22.5V	100 to 650	1%	±1%	±5%	±5%
SPA230yyyy	23V	100 to 650	1%	±1%	±5%	±5%
SPA235yyyy	23.5V	100 to 600	1%	±1%	±5%	±5%
SPA240yyyy	24V	100 to 600	1%	±1%	±5%	±5%
SPA245yyyy	24.5V	100 to 600	1%	±1%	±5%	±5%
SPA250yyyy	25V	100 to 600	1%	±1%	±5%	±5%

15W series AC	15W series AC to DC power adaptor Wall mount									
SPA255yyyy	25.5V	100 to	600	1%	±1%	±5%	±5%			
SPA260yyyy	26V	100 to	550	1%	±1%	±5%	±5%			
SPA265yyyy	26.5V	100 to	550	1%	±1%	±5%	±5%			
SPA270yyyy	27V	100 to	550	1%	±1%	±5%	±5%			
SPA275yyyy	27.5V	100 to	550	1%	±1%	±5%	±5%			
SPA280yyyy	28V	100 to	500	1%	±1%	±5%	±5%			
SPA285yyyy	28.5V	100 to	500	1%	±1%	±5%	±5%			
SPA290yyyy	29V	100 to	500	1%	±1%	±5%	±5%			
SPA295yyyy	29.5V	100 to	500	1%	±1%	±5%	±5%			
SPA300yyyy	30V	100 to	500	1%	±1%	±5%	±5%			
SPA305yyyy	30.5V	100 to	500	1%	±1%	±5%	±5%			
SPA310yyyy	31V	100 to	450	1%	±1%	±5%	±5%			
SPA315yyyy	31.5V	100 to	450	1%	±1%	±5%	±5%			
SPA320yyyy	32V	100 to	450	1%	±1%	±5%	±5%			
SPA325yyyy	32.5V	100 to	450	1%	±1%	±5%	±5%			
SPA330yyyy	33V	100 to	450	1%	±1%	±5%	±5%			
SPA335yyyy	33.5V	100 to	450	1%	±1%	±5%	±5%			
SPA340yyyy	34V	100 to	400	1%	±1%	±5%	±5%			
SPA345yyyy	34.5V	100 to	400	1%	±1%	±5%	±5%			
SPA350yyyy	35V	100 to	400	1%	±1%	±5%	±5%			
SPA355yyyy	35.5V	100 to	400	1%	±1%	±5%	±5%			
SPA360yyyy	36V	100 to	400	1%	±1%	±5%	±5%			

#### Mechanical Drawing - Caing Type No. A22



Note: 1. All dimensions in mm. 2. Detail mechanical drawing upon request.



#### 15W series AC to DC power adaptor



#### ♦ Feature

- Universal Input Switch Mode Power Supplies
- No load power consumption <0.3 Watt</li>
- Meet energy star CEC, EUPS, MEPS level (IV) & (V)
- Protection: over voltage , over current ,short circuit
- High Efficiency and Reliability
- Range output 3VDC~36VDC
- · Comply to UL,CSA, GS/TUV, CE, PSE

# Specification

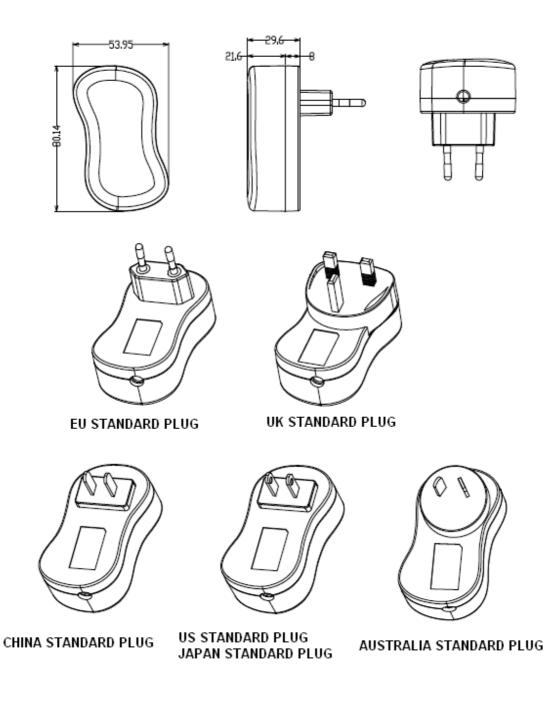
	Voltage range 90~264Vac						
t	Frequency range	47~63Hz					
Input	AC current	0.3A Max. @ 230Vac					
-	Inrush current (max.)	30Amax. @ 230Vac, cold start					
	Leakage current(max.)	0.25mA @120Vac,60Hz / 0.45mA @ 230Vac,50Hz					
u	Over load	>105% rate output voltage power					
ctic		Hiccup mode, Recovery automatically					
Protection		Power shutdown					
Pro	Short circuit	Auto recovery after fault condition is removed					
nt	Operating Temp.	0~40℃					
Environment	Relative Humidity 20%~90%, non-condensing						
lon	Storage Temp. / Humidity	-20℃~85℃, 10%~95% RH					
nzi I	Vibration	19.6m/s <sup>2</sup> 10-55Hz, 3minutes period,60minutes each along X,Y and Z axis (Non operating)					
ш	IMPACT	196.1m/s <sup>2</sup> 11ms, once each X,Y and Z azis (Non operating)					
	Safety Standard	UL60950-1, EN60950-1 / EN61558 / J60950					
Safety & EMC	Withstand voltage	I/P-O/P:3KVac, 1 minute					
fet.	Isolation resistance	I/P-O/P: 100M ohms/500Vdc/25℃/70%RH					
Sa	Conducted / Radiated	EN55022 , FCC part 15 Class B					
-	Harmonic	EN6100-3-2					
ers	MTBF	100,000 hours min. @25°C, 80% of full load. (MIL-HDBK-217F)					
Others	Dimension	80.14mm *53.95mm *29.6mm					
	1.All parameters are spe	ecified at 230Vac input, rated load,25°C 70% RH ambient;					
	2.DC voltage: the output	voltage set at point measure by plug terminal & 100% load;					
D D	3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor						
Note	4.Tolerance: includes se	t up tolerance, line regulation, load regulation,					
2	5.Line regulation is meas	sured from low line to high line at rated load,					
	6.Load regulation is mea	asured from 0%~100% at rated load					
	7.Efficency is measured	at 110Vac or 230Vac.					
B							

Safty mark



Output						
Model No.	DC Voltage	Current range '(mA)	Ripple & Noise	Line regulation	Load regulation	Voltage tolerance
SPA030yyyy	3V	100 to 2500	1%	±1%	±5%	±5%
SPA035yyyy	3.5V	100 to 2500	1%	±1%	±5%	±5%
SPA040yyyy	4V	100 to 2500	1%	±1%	±5%	±5%
SPA045yyyy	4.5V	100 to 2500	1%	±1%	±5%	±5%
SPA050yyyy	5V	100 to 2500	1%	±1%	±5%	±5%
SPA055yyyy	5.5V	100 to 2200	1%	±1%	±5%	±5%
SPA060yyyy	6V	100 to 2200	1%	±1%	±5%	±5%
SPA065yyyy	6.5V	100 to 2200	1%	±1%	±5%	±5%
SPA070yyyy	7V	100 to 2000	1%	±1%	±5%	±5%
SPA075yyyy	7.5V	100 to 1900	1%	±1%	±5%	±5%
SPA080yyyy	8V	100 to 1800	1%	±1%	±5%	±5%
SPA085yyyy	8.5V	100 to 1700	1%	±1%	±5%	±5%
SPA090yyyy	9V	100 to 1600	1%	±1%	±5%	±5%
SPA095yyyy	9.5V	100 to 1500	1%	±1%	±5%	±5%
SPA100yyyy	10V	100 to 1400	1%	±1%	±5%	±5%
SPA105yyyy	10.5V	100 to 1400	1%	±1%	±5%	±5%
SPA110yyyy	11V	100 to 1300	1%	±1%	±5%	±5%
SPA115yyyy	11.5V	100 to 1250	1%	±1%	±5%	±5%
SPA120yyyy	12V	100 to 1250	1%	±1%	±5%	±5%
SPA125yyyy	12.5V	100 to 1150	1%	±1%	±5%	±5%
SPA130yyyy	13V	100 to 1150	1%	±1%	±5%	±5%
SPA135yyyy	13.5V	100 to 1100	1%	±1%	±5%	±5%
SPA140yyyy	14V	100 to 1050	1%	±1%	±5%	±5%
SPA145yyyy	14.5V	100 to 1000	1%	±1%	±5%	±5%
SPA150yyyy	15V	100 to 1000	1%	±1%	±5%	±5%
SPA155yyyy	15.5V	100 to 950	1%	±1%	±5%	±5%
SPA160yyyy	16V	100 to 900	1%	±1%	±5%	±5%
SPA165yyyy	16.5V	100 to 900	1%	±1%	±5%	±5%
SPA170yyyy	17V	100 to 850	1%	±1%	±5%	±5%
SPA175yyyy	17.5V	100 to 850	1%	±1%	±5%	±5%
SPA180yyyy	18V	100 to 800	1%	±1%	±5%	±5%
SPA185yyyy	18.5V	100 to 800	1%	±1%	±5%	±5%
SPA190yyyy	19V	100 to 750	1%	±1%	±5%	±5%
SPA195yyyy	19.5V	100 to 750	1%	±1%	±5%	±5%
SPA200yyyy	20V	100 to 750	1%	±1%	±5%	±5%
SPA205yyyy	20.5V	100 to 700	1%	±1%	±5%	±5%
SPA210yyyy	20V	100 to 700	1%	±1%	±5%	±5%
SPA215yyyy	21.5V	100 to 650	1%	±1%	±5%	±5%
SPA220yyyy	22V	100 to 650	1%	±1%	±5%	±5%
SPA225yyyy	22.5V	100 to 650	1%	±1%	±5%	±5%
SPA230yyyy	23V	100 to 650	1%	±1%	±5%	±5%
SPA235yyyy	23.5V	100 to 600	1%	±1%	±5%	±5%
SPA240yyyy	24V	100 to 600	1%	±1%	±5%	±5%
SPA245yyyy	24.5V	100 to 600	1%	±1%	±5%	±5%
SPA250yyyy	25V	100 to 600	1%	±1%	±5%	±5%

15W series AC	15W series AC to DC power adaptor Wall mount									
SPA255yyyy	25.5V	100 to	600	1%	±1%	±5%	±5%			
SPA260yyyy	26V	100 to	550	1%	±1%	±5%	±5%			
SPA265yyyy	26.5V	100 to	550	1%	±1%	±5%	±5%			
SPA270yyyy	27V	100 to	550	1%	±1%	±5%	±5%			
SPA275yyyy	27.5V	100 to	550	1%	±1%	±5%	±5%			
SPA280yyyy	28V	100 to	500	1%	±1%	±5%	±5%			
SPA285yyyy	28.5V	100 to	500	1%	±1%	±5%	±5%			
SPA290yyyy	29V	100 to	500	1%	±1%	±5%	±5%			
SPA295yyyy	29.5V	100 to	500	1%	±1%	±5%	±5%			
SPA300yyyy	30V	100 to	500	1%	±1%	±5%	±5%			
SPA305yyyy	30.5V	100 to	500	1%	±1%	±5%	±5%			
SPA310yyyy	31V	100 to	450	1%	±1%	±5%	±5%			
SPA315yyyy	31.5V	100 to	450	1%	±1%	±5%	±5%			
SPA320yyyy	32V	100 to	450	1%	±1%	±5%	±5%			
SPA325yyyy	32.5V	100 to	450	1%	±1%	±5%	±5%			
SPA330yyyy	33V	100 to	450	1%	±1%	±5%	±5%			
SPA335yyyy	33.5V	100 to	450	1%	±1%	±5%	±5%			
SPA340yyyy	34V	100 to	400	1%	±1%	±5%	±5%			
SPA345yyyy	34.5V	100 to	400	1%	±1%	±5%	±5%			
SPA350yyyy	35V	100 to	400	1%	±1%	±5%	±5%			
SPA355yyyy	35.5V	100 to	400	1%	±1%	±5%	±5%			
SPA360yyyy	36V	100 to	400	1%	±1%	±5%	±5%			



Note: 1. All dimensions in mm. 2. Detail mechanical drawing upon request.

