Application Summary

Cisco – Understanding AIR-PWRADPT Power Injectors

EDCS-24292640

Application question:

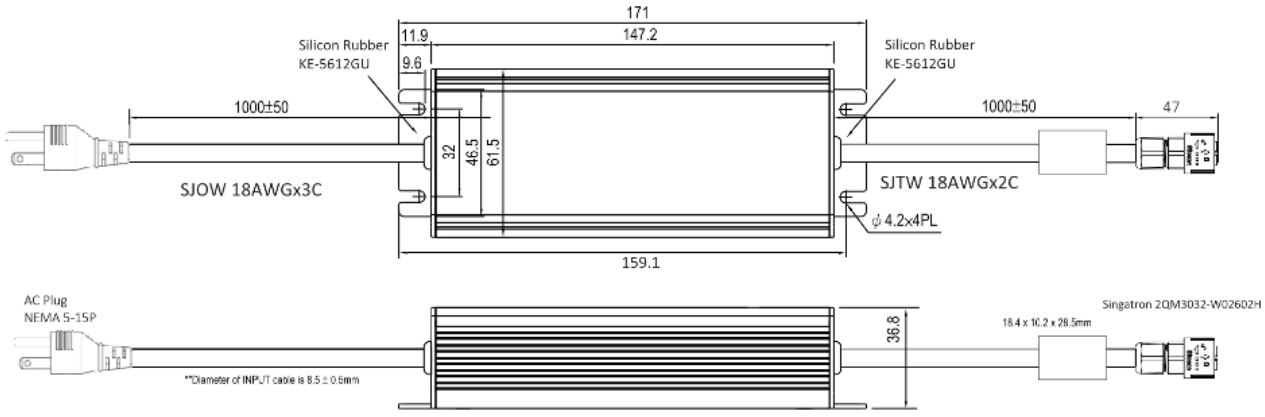
I'd like to understand a little bit more about the Cisco power adapter AIR-PWRADPT-RGD2 and RGD2U would you happen to have specifications on these adapters.

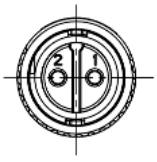
Application answer:

Differences between Cisco AIR-PWRADPT-RGD2 and RGD2U

The adapter AIR-PWR-ADPT-RGD2 has a "pig tail" for the AC power entry (designed to be wired to a source of AC) while the AIR-PWR-ADPT-RGD2U has a plug assembly (NEMA 5-15P) installed for use in most power sources in North America.

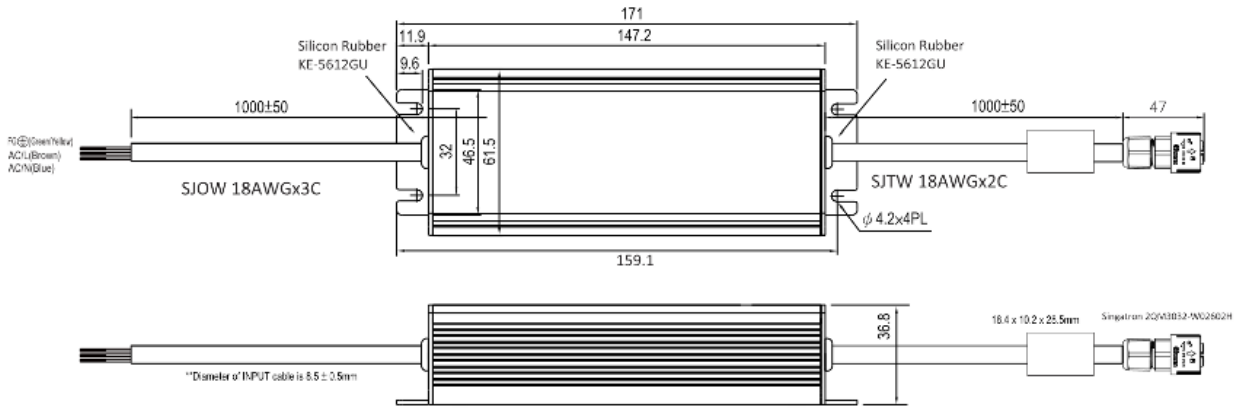
Mechanical Specifications for AIR-PWRADPT-RGD2U





Pin No.	Assignment
1	+V
2	-V

Mechanical Specifications for AIR-PWRADPT-RGD2



Pin No.	Assignment
1	+V
2	-V

These are essentially the same power adapters with different connectors and the specifications are below.

INPUT	VOLTAGE RANGE Note. 8	90 ~ 264VAC 135 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	EFFICIENCY (Typ.)	92%
	AC CURRENT	1.4A / 115VAC 1A / 230VAC
	INRUSH CURRENT (max.)	65A / 230VAC
	LEAKAGE CURRENT(max.)	0.75mA / 240VAC
PROTECTION	OVERLOAD	105 ~ 150% rated output power
		Protection type : Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	50.4 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	RTH2 > 80℃
		Protection type : Shut down o/p voltage, re-power on to recover
ENVIRONMENT	WORKING TEMP.	-30 ~ + 60℃ (Refer to output load derating curve)
	WORKING HUMIDITY	20% ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-30 ~ +85℃, 10 ~ 95% RH
	TEMP. COEFFICIENT	±0.03% / ℃ (0 ~ 50℃)
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SAFETY & EMC (Note. 6)	SAFETY STANDARDS	UL/cUL 60950-1, TUV IEC/EN 62368-1, CCC Gb4943, EAC, NOM, RCM/SAA BSMI, S-mark, PSE J60950-1
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2.0KVAC O/P-FG:0.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH
	EMI CONDUCTION & RADIATION	EN55032 class B, FCC PART 15 / CISPR22 class B, CNS13438 class B, GB9254 class B
	HARMONIC CURRENT	Compliance to EN61000-3-2,3, GB17625.1
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A
OTHERS	MTBF	555K hrs min. MIL-HDBK-217F(25℃)
	DIMENSION	219*144*50mm (L*W*H)
	PACKING	0.77Kg; 12pcs/10.8Kg/0.98CUFT

Output of the adapter is:

OUTPUT	DC VOLTAGE	Note.2	48V
	RATED CURRENT		1.25A
	CURRENT RANGE		0 ~ 1.25A
	RATED POWER (max.)		60W
	RIPPLE & NOISE (max.)	Note.3	240mVp-p
	VOLTAGE TOLERANCE	Note.4	3.5%
	LINE REGULATION	Note.5	1.0%
	LOAD REGULATION		2.5%
	SETUP, RISE TIME	Note.7	600ms, 30ms / 230VAC 600ms, 30ms / 115VAC at full load
	HOLD UP TIME (Typ.)		50ms / 230VAC 15ms / 115VAC at full load

NOTE

1. All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient.
2. DC voltage: The output voltage set at point measure by plug terminal & 50% load.
3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated 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. 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.
7. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
8. Absolute input voltage is 305Vac