



# AC-DC Power Supplies ARC Series

ARCXX-XXX



Core Technology's series ARCXX-XXX provides up to 750 Watts in a compact, very low profile form factor. Each unit contains an autoranging input and thermal shutdown with autorecovery. These units contain a single output and "AC-OK" / "DC-OK" indicators observed from the top of the unit. Any output voltage from 5 Vdc to 48 Vdc out can be selected. Both AC and DC connectors are accessible from the top of the unit. The ARC series is housed in a rugged aluminum housing with a 0.25" thick base-plate for mounting.

**CORE** Technology, Inc.

## **PRODUCT FEATURES**

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- Auto Ranging Input
- Compact Rugged Package  
(6.25"W x 11.000"L x 1.950"H)
- Output Voltage Available From  
5Vdc to 48Vdc
- Output voltage Adjustment From 70% to  
110% nominal (From top of unit)
- OVP Protection
- Over Current/Short Circuit Protected
- Over-temperature Shutdown  
(With Auto Recovery)
- UL and CSA Approvals (Pending)
- EMI/RFI FCC Part 15 Class A, (Pending)
- Low Noise Outputs
- High Base-plate operating temperature
- All connectors Accessible From Top of Unit
- IEC AC-Power Inlet.

## **AC INPUT**

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Autoranging 90-132VAC / 180-264VAC

## **OUTPUT INDICATORS**

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AC and DC good indicators ("AC and DC" good logic signal available)

## **OPTIONAL HEATSINK**

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An optional heat sink which can be mounted to the base-plate is available.

## **OVER-TEMPERATURE SHUTDOWN**

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The ARCXX-XXX will automatically shut down in the event of an over-temperature condition, and will recover when the base-plate reaches a safe operating temperature.

### ELECTRICAL SPECIFICATIONS - Output

Parameter	Symbol	Units	ARC05-XXX-XX	ARC12-XXX-XX	ARC15-XXX-XX	ARC24-XXX-XX	ARC28-XXX-XX	ARC48-XXX-XX
Nominal Output Voltage	V <sub>o</sub>	Vdc	5	12	15	24	28	48
Typical Efficiency *1	η <sub>eff</sub>	%	81	82	82	83	84	84
Max Ripple & Noise	V <sub>pp</sub>	mv	50	100	150	200	200	250
Output Voltage Accuracy	-	%	≤ 1%					
Voltage Adjustment Range	-	%	70% to 110% of Nominal output					
Maximum Line Regulation*3	-	%	≤ 0.5%					
Maximum Load Regulation*2	-	%	≤ 1.0 %					
Current Limit Type	-	%	Straight Line w/ auto Recovery					
Over Current Protection	-	%	105% - 120% of full load I <sub>out</sub>					
Overvoltage Protection	-	%	118% - 125% of nominal output					
Over-Temperature Shutdown	T <sub>sd</sub>	celsius	+85°C - ( ± 5°C) (Base-plate) Auto Recovering *4					
Over temp Shutdown Hysteresis	Thy	celsius	10°C - 15°C					
Transient Response	Tr	μ sec	250 USec (20% - 80% load Step)					
Hold Up Time	T <sub>hold</sub>	μ sec	20ms (minimum)					

### ELECTRICAL SPECIFICATIONS - Input

Parameter	Symbol	Units	ARC05-XXX-XX	ARC12-XXX-XX	ARC15-XXX-XX	ARC24-XXX-XX	ARC28-XXX-XX	ARC48-XXX-XX
Input Voltage Range	V <sub>in</sub>	Vac	90 to 132VAC / 180 to 264VAC (Auto Ranging)					
Isolation (Input to Output)	V <sub>I/O</sub>	Vdc	3000					
Isolation (Input to Case)	V <sub>I/C</sub>	Vdc	1500					
Isolation (Output to Case)	V <sub>O/C</sub>	Vdc	500					

### ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Units	ARC05-XXX-XX	ARC12-XXX-XX	ARC15-XXX-XX	ARC24-XXX-XX	ARC28-XXX-XX	ARC48-XXX-XX
Maximum Output Power	P <sub>out</sub>	Watts	600	720	720	720	750	750
Maximum Output Current	I <sub>out</sub>	Amps	120	60	48	30	26.7	15.6
Maximum Input Volts	V <sub>in</sub>	VAC	264					
Base Plate Temperature	T <sub>BP</sub>	°C	-30°C to 85°C *4 (-40°C to 95°C)					
Storage Temperature	T <sub>ST</sub>	°C	-40°C to 110°C					

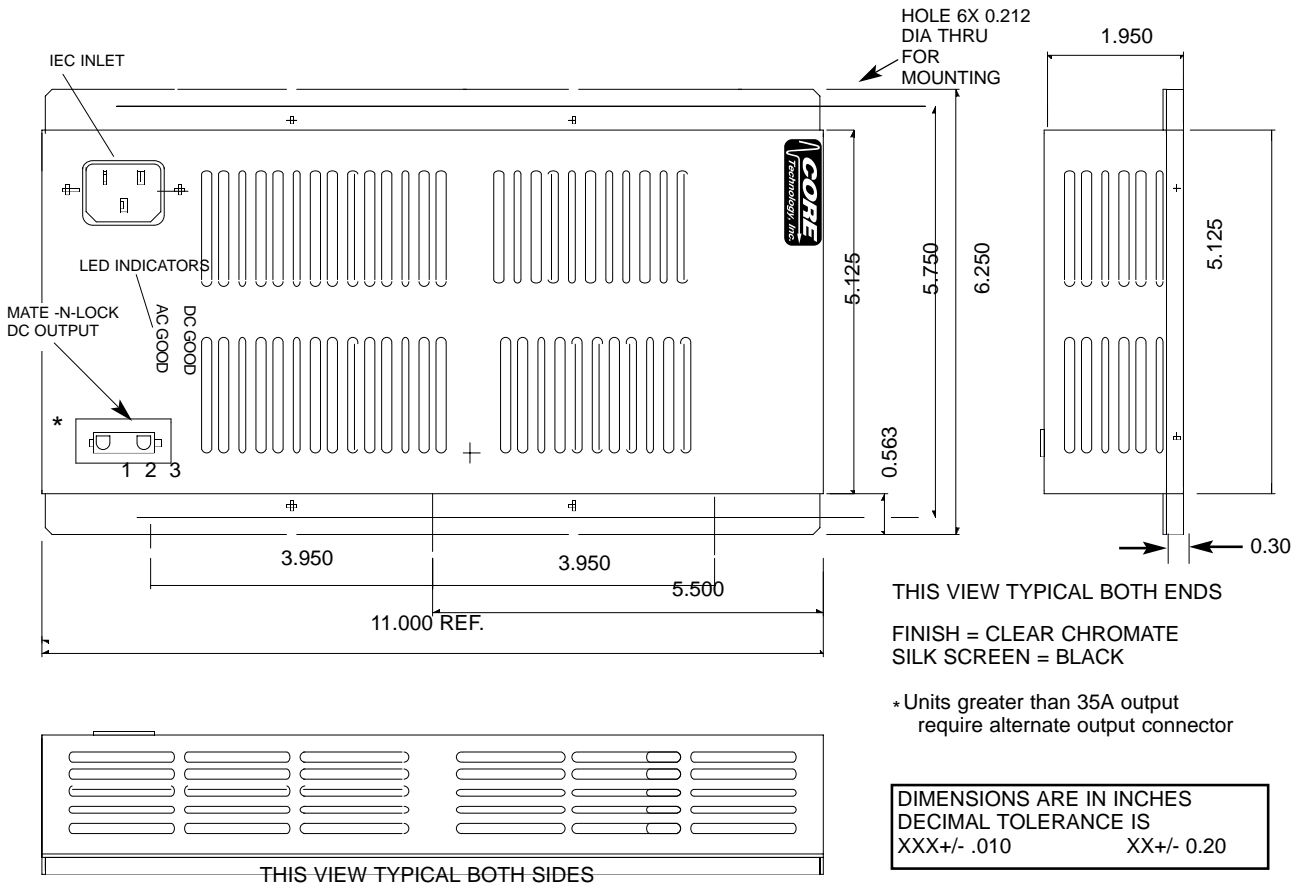
\*1 75% of Max I.

\*2 From no-load to Full Load.

\*3 From Min input to Max input voltage.

\*4 Consult factory for wider operating temperature range.

## Outline Drawing



### Connector Pin Assignment

1	-Vout
2	N/C
3	+Vout

## Ordering Information

Part Numbering Scheme for  
ARCXX-XXX-XX AC-to-DC Power Supply

TYPE	POWER LEVEL AVAILABLE	BLANK	NOTES
ARC 05	400 600		Power levels for 5 Vdc Output are 400 and 600 Watts
ARC 12 ARC 15 ARC 24	480 720		Power level available for 12, 15, and 24 Vdc are 480 and 720
ARC 28 ARC 48	500 750		Power levels available for 28 & 48 Vdc are 500 and 750 Watts

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