ARTESYN CSZ3200FT-9

3200 W Distributed Power System

Advanced Energy's Artesyn CSZ3200FT-3 series is a closed frame, self-cooling power supply with regulated 55V PoE compliant main output and 3.3V standby output . Rated at 3200 W it is an 80 Plus Titanium supply with a high peak efficiency of 96%. Housed in an 1.58 x 3.95 x 14.55 inch rack-mounting package, the power supply is ideal for telecommunication environments. This series comes in two airflow versions – DC-connector to AC-connector and vice versa.

SPECIAL FEATURES

- 3200 W output power
- 1.58 x 3.95 x 14.55 inch power supply
- Power Factor Corrected
- EN61000-3-2 harmonic compliance
- Inrush current control
- 80 plus tatanium efficiency
- N+1 or N+N redundant
- Hot-pluggable
- Active current sharing
- PMBus compliant
- Compatible with Artesyn's Universal PMBus GUI
- Reverse airflow option
- Two-year warranty

COMPLIANCE

- EMI conducted/radiated Class A Limits + 6 dB margin
- EN61000-4 electromagnetic compatibility
- RoHS 6/6

SAFETY

- UL/IEC/EN 62368-1
- DEMKO/TUV
- UL/CSA 62368-1
- CB
- CE Mark
- CQC
- BSMI
- KC
- EAC
- BIS
- Morocco

AT A GLANCE

Total Output Power

1600 W low line
3200 W high line

Input Voltage

90 to 132 VAC
180 to 264 VAC

of Outputs

Main and Standby

ELECTRICAL SPECIFICATIONS

Input						
Input Range	90 to 132 VAC low line 180 to 264 VAC high line					
Frequency	47 Hz to 63 Hz					
Efficiency	80 plus @ titanium 10% load with 90%; 20% load with 94%; 50% load with 96%; 100% load with 92% at 230 VAC 20% load with 90%; 50% load with 94%; 100% load with 92% at 115 VAC					
Max Input Current	20A					
Inrush Current	50 Apk at cold turn on					
Conducted EMI	Class A +6 dB margin					
Radiated EMI	Class A +6 dB margin					
Power Factor	> 0.9 beginning at 5% load with normal input voltage 115/230 VAC					
Leakage Current	<1.75 mA					
Hold-up Time	20 ms @ 3200 W (100/200VAC,50Hz)					
Output						
	Main DC Output			Standby DC Output		
	MIN	NOM	MAX	MIN	NOM	MAX
Nominal Setting	-1.82%	55 V	+1.82%	-1.47%	3.4 V	+1.47%
Total Output Voltage Range	54 V	55 V	56 V	3. 35V	3.4 V	3.45 V
Output Ripple	-	-	550 mVp-p	-	-	33 mVp-p
Output Current - Low line	-	-	28.36 A	-	-	3.0 A
Output Current - High line	-	-	58 A	-	-	3.0 A
Capacitive Loading	1000 µF		10,000 µF	300 µF	-	800 µF
Start-up From AC to Output	-	-	3000 ms	-	-	2500 ms
Output Rise Time	-	-	500 ms	-	-	-

Protections			
Main Output	MIN	NOM	MAX
Overcurrent Protection[1]	110%		130%
Overvoltage Protection[2]	58 V		59 V
Overtemperature Protection		Yes	
Undervoltage Protection	-0.5%	47 V	+0.5%
Standby Output			
Overcurrent Protection	115%		130%
Overvoltage Protection	4 V		4.3 V

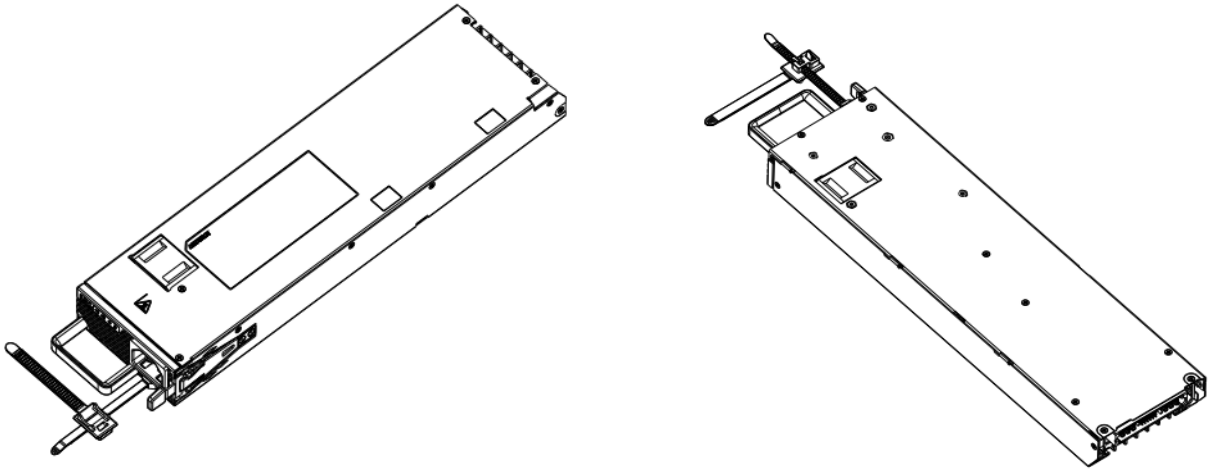
1 The power supply will shut down when the output current exceeds the current rating, and will autorecovery after this fault is cleared.
2 The power supply will shut down when the output voltage exceeds the specific threshold.

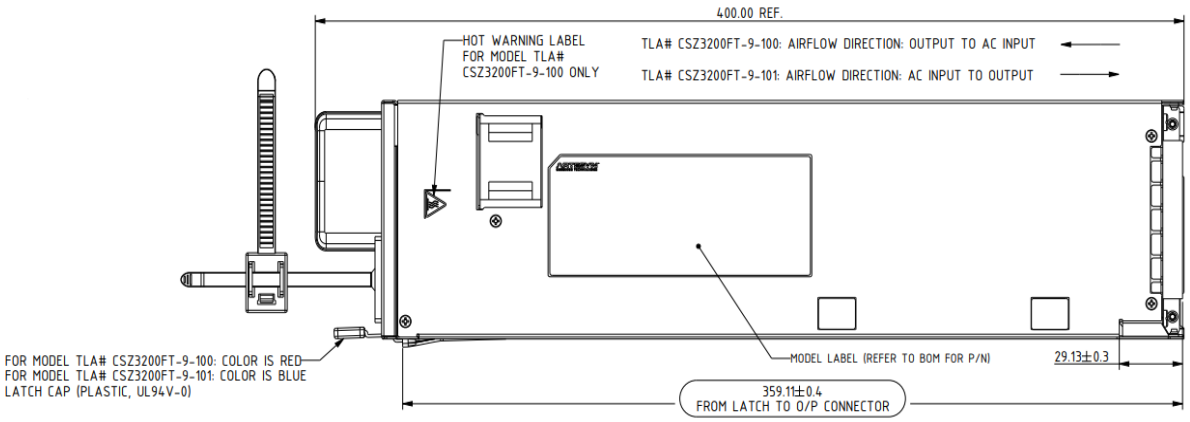
ENVIRONMENTAL SPECIFICATIONS

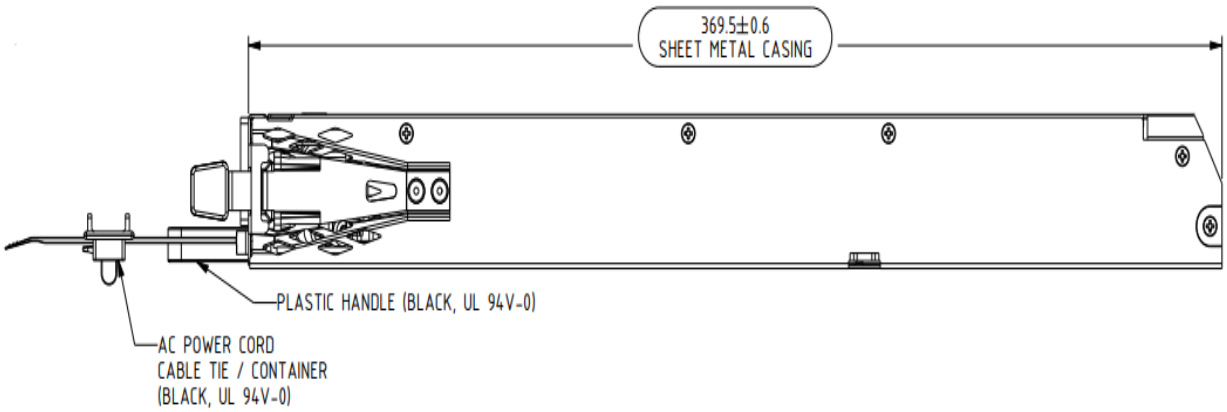
Operating Temperature	CSZ3200FT-9-100 CSZ3200FT-9-101	Full power at -5 to 45°C (NAF, 100% load, 3200 W , 90 to 264 VAC) Half power at -5 to 50°C (NAF, 50% load, 1600 W , 90 to 264 VAC) Full power at -5 to 55°C (RAF, 100% load, 3200 W , 90 to 264 VAC) Half power at -5 to 60°C (RAF, 50% load, 1600 W , 90 to 264 VAC)
Storge Temperature	-40 to 85°C	
Operating Relative Humidity	10% to 90% non-condensing	
Storage Relative Humidity	5% to 95% non-condensing	
Operating Altitude[1]	-500 to 10,000 ft over allowable temperature range (NAF: -5 to 40°C, RAF: -5 to 45°C, full load)[2]	
Non-operating Altitude	-1000 to 50,000 ft over allowable temperature range [2]	
Vibration and Shock	Standard operating/non-operating random shock and vibration	
RoHS Compliance	Yes	
MTBF[3]	>150,000 hours	

1 Operating altitude in China is 6561.6 ft (2000m) maximum.
2. Derating 1.4°C per 1000 ft above 6000 ft.
3. Calculated by Telcordia SR-332 Issue 4, Reliability Prediction Procedure for Electronic Equipment (Method 1 case 1: Parts Count) at 25°C, 40°C, 55°C and 50% part count.

MECHANICAL OUTLINE







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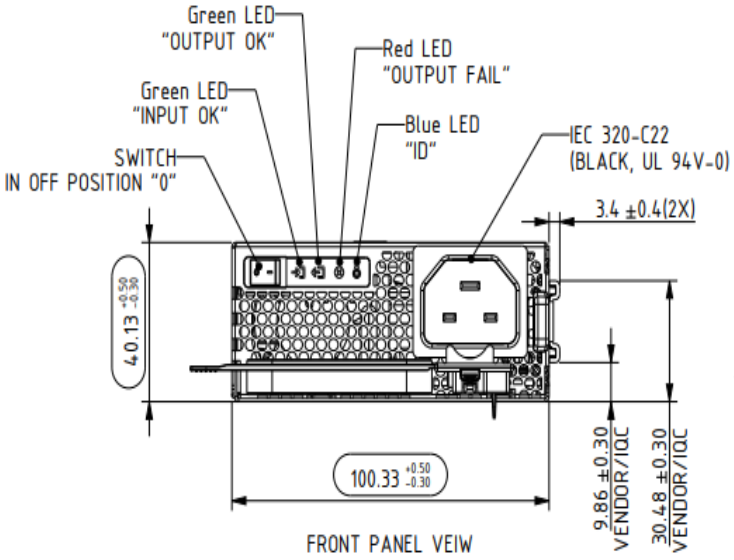
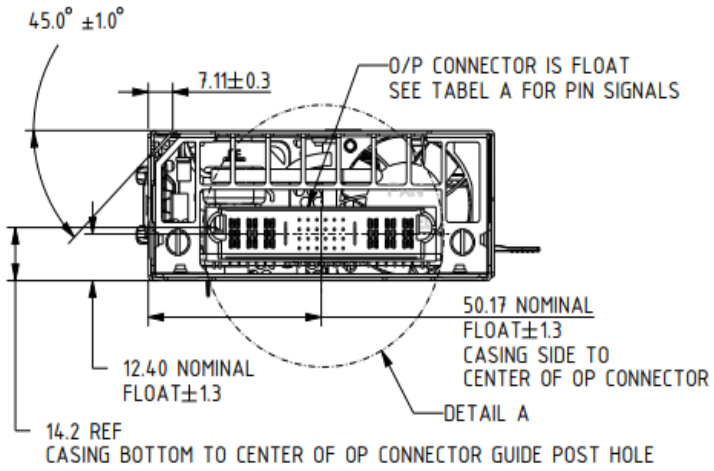


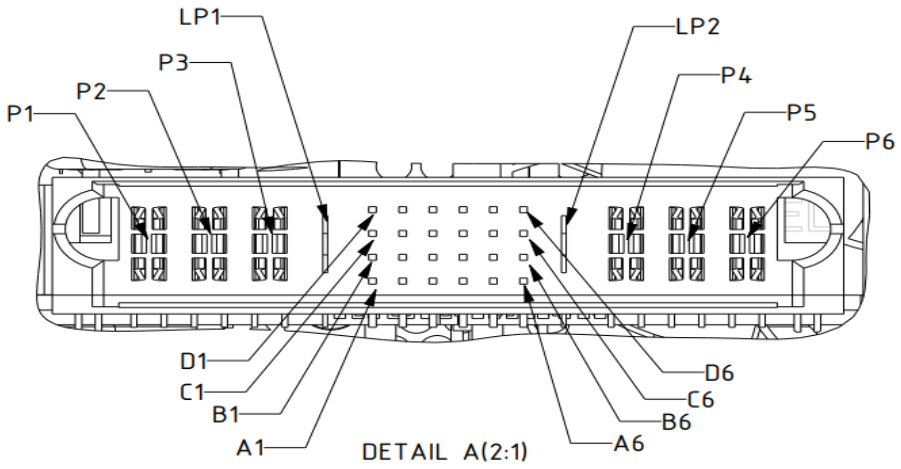


AC INPUT CONNECTOR

Input Connector Part Number	IEC320-C22
Mating Connector Part Number	IEC320-C19

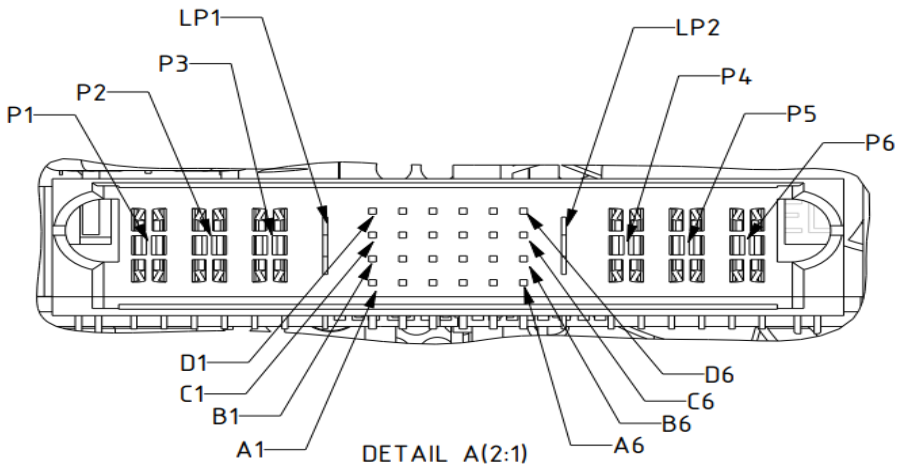
OUTPUT CONNECTOR

Output Connector Part Number	FCI 10106262-6206007LF, TE: 6-6450830-1
Mating Connector Part Number	FCI 10106265-6206001LF, TE: 3-6450880-4



Output Connector Pin Configuration		
Pin	**Signal Name**	**Description**
P1	+55 V Return	Main Output Return
P2	+55 V Return	Main Output Return
P3	+55 V Return	Main Output Return
LP1	+3.3 VSB Return	Standby Output Return
A1	SCL	Serial Clock Input
A2	GND	Chassis Ground
A3	SDA	Serial Data I/O
A4	+55 VCS	+55V Current Share
A5	GND	Chassis Ground
A6	RSD	Remote Shutdown Input
B1	GND	Chassis Groun
B2	I^2C_INT_L	I^2C Interrupt Output
B3	GND	Chassis Groun
B4	+55V_OUT_DIS	+55V Output Disable
B5	FF	Fan Fail
B6	PF	Power Fail

OUTPUT CONNECTOR



Output Connector Pin Configuration		
Pin	**Signal Name**	**Description**
C1	I^2C_RESET	I^2C Reset
C2	OUT_EN_L	Output Enable Input
C3	SPARE	UNUSED
C4	START_SYNC	Startup Synchronization Bus
C5	PS_PRES_L	Power Supply Present Output
C6	GND	Chassis Ground
D1	GND	Chassis Ground
D2	SPARE	UNUSED
D3	A3	EEPROM Upper Address Input
D4	A2	EEPROM Upper Address Input
D5	A1	EEPROM Lower Address Input
D6	A0	EEPROM Lower Address Input
LP2	+3.3 VSB	+3.3V Standby Output
P4	+55 V	Main Output
P5	+55 V	Main Output
P6	+55 V	Main Output

ORDERING INFORMATION

Model Number	Description	Outputs		Airflow Direction
CSZ3200FT-9-100	1.58” H x 3.95” W x 14.55” D 3200 W, Titanium efficiency	55 V / 58A	3.3 V / 3A	Standard air flow (SAF) (From output to input)
CSZ3200FT-9-101	1.58” H x 3.95” W x 14.55” D 3200 W, Titanium efficiency	55 V / 58A	3.3 V / 3A	Reverse[1] air flow (RAF) (From input to output)

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

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