

Blade Server Power Supply Series



Introduction

Blade server power supply series contains AC-DC and DC-DC three products, including 2000W, 2500W and 3000W power, support N+1 redundant, hot swap, PMBus communication and relevant protection. Surge protection meet IEC61000-4-5 and ITU-TK.21 standard. Be suitable for servers, storage, advanced workstations, routers, network switches, telecommunications equipment and so on.

Specification



Features

- Over current protection
- Short circuit protection
- Output overvoltage protection
- Over temperature protection
- PMBus 1.2 communication protocol
- Suitable for the TT, TN, IT power supply system *
- N+N, N+M redundant backup
- Multi modules parallel

*PDC2500S12-CE without this function

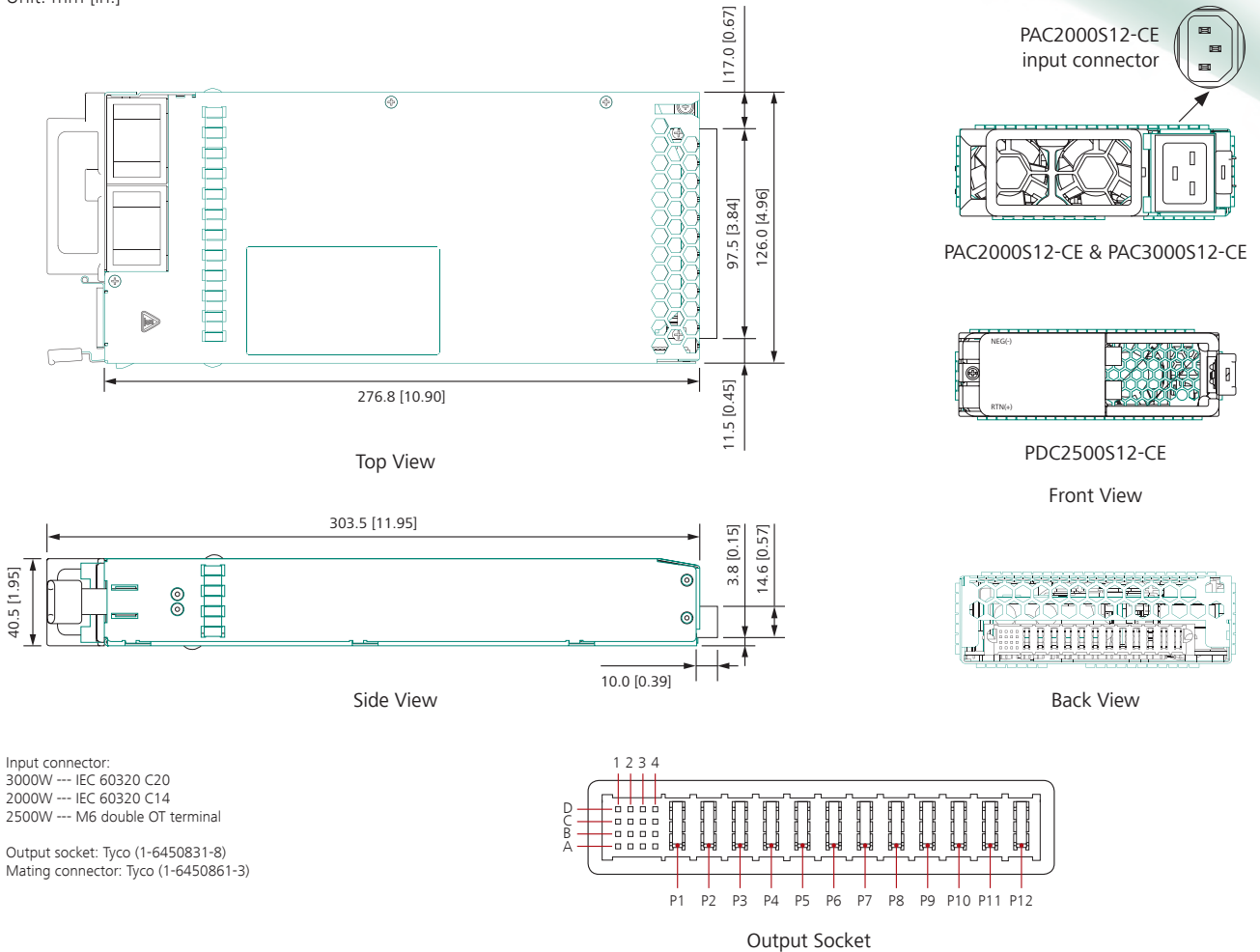
	Model	Parameter	Notes & Conditions
Output characteristics			
Output voltage range	ALL	12.0 - 12.8 V	-
Output power	PAC2000S12-CE	2000 W	Vin=90 - 200 VAC; Pomax=800W Vin=200 - 220 VAC; Pomax=1800W Vin=220 - 264 VAC; Pomax=2000W
	PAC3000S12-CE	3000 W	Vin=90 - 175 VAC; Pomax=1200W Vin=175 - 200 VAC; Pomax=2500W Vin=200 - 264 VAC; Pomax=3000W
	PDC2500S12-CE	2500 W	Vin=38 - 40 VDC; Pomax=2200W Vin=40 - 72 VDC; Pomax=2500W
Output line regulation	ALL	1%Vo	Vin=90 - 264 VAC; Po=Max
Output load regulation	ALL	1.2%Vo	Vin=220 VAC; Po=0 - Max
Output ripple and noise (PK-PK)	ALL	150mV	Oscilloscope bandwidth: 20 MHz
Input characteristics			
Operating input voltage	PAC2000S12-CE PAC3000S12-CE	90 - 264 VAC@50/60Hz	-
	PDC2500S12-CE	38.4 - 72V	
	PAC2000S12-CE	10A	Vin=220 VAC; Po=2000W
Maximum input current	PAC3000S12-CE	16A	Vin=220 VAC; Po=3000W
	PDC2500S12-CE	80A	Vin=38 - 72V; Po=2500W
Power factor	PAC2000S12-CE PAC3000S12-CE	0.98	Vin=220 VAC; Po=Max
Protection characteristics			
Input OVP	PAC2000S12-CE PAC3000S12-CE	Turn on: 275V AC Turn off: 280V AC	Hysteresis: 5.0V
	PDC2500S12-CE	Turn on: 77V Turn off: 82V	Hysteresis: 2.0V
Input UVP	PAC2000S12-CE PAC3000S12-CE	Turn on: 89V AC Turn off: 84V AC	Hysteresis: 5.0V
	PDC2500S12-CE	Turn on: 36V Turn off: 34V	Hysteresis: 2.0V
Output OVP	ALL	15V	Latch-off
Over current Protection	PAC2000S12-CE	170A - 200A	Latch-off
	PAC3000S12-CE	256A - 300A	
	PDC2500S12-CE	213A - 250A	
Over temperature Protection	PAC3000S12-CE	-	Self-recovery
Absolute maximum ratings			
Operating ambient temperature	PAC2000S12-CE	-5 - 60°C	-
	PAC3000S12-CE	-5 - 50°C	
	PDC2500S12-CE	0 - 50°C	
Storage temperature	PAC3000S12-CE	-40 - 85°C	-
Other characteristics			
PMBus communication	ALL	Input voltage/current/power Output voltage/current/power Output OVP/UVI alarm	-
Surge	PAC2000S12-CE	Line to earth: ±2.5kV Line to line: ±2.5kV	IEC61000-4-5
	PAC3000S12-CE	Line to earth: ±6kV Line to line: ±6kV	IEC61000-4-5/ITU-TK.21
	PDC2500S12-CE	Line to earth: ±4kV Line to line: ±2.5kV	IEC61000-4-5
Mean time between failures (MTBF)	ALL	0.5 million hours	Telcordia SR332, Vin=220VAC, 100% load, TA=25°C

Model Selector

Model	Input Voltage	Output Voltage	Output Current	Output Power	Efficiency
PAC2000S12-CE	90 - 264 Vac	12V	162.6A	2000W	94.5%
PAC3000S12-CE	90 - 264 Vac	12V	244A	3000W	94.5%
PDC2500S12-CE	38.4 - 72V	12V	203.3A	2500W	94.0%

Mechanical Diagram

Unit: mm [in.]



Pin definition of output socket:

Pin	Definition	Description	Pin	Definition	Description
P1~P6	12V	Output: 12V DC	D2	PRESENT	Power supply present (lagging pin)
P7~P12	GND	Power GND	A3	DCOK	Indicator whether the DC output voltage is OK
A1	A0	Address0	B3	ACOK	Indicator whether the AC output voltage is OK
B1	A1	Address1	C3	PS_INTERRUPT	Power supply interruption signal
C1	A2	Address2	D3	PS_ON	Power supply on/off control signal
D1	PS_KILL	Power supply kill	A4	NA	-
A2	SCL	PMBus clock signal	B4	I_Monitor	12V DC load sharing
B2	SDA	PMBus data signal	C4	Sense+	12V DC remote sense+
C2	GND	Signal GND	D4	Sense-	12V DC remote sense-

Tolerances
 ±0.5[0.02in.] (≤63[2.48])
 ±1.0[0.04in.] (>63[2.48])