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Product DataSheet:

Description:

The AC / DC power supply via a connector accepts a type of service line in input 60Hz, three phase, 115Vac line to line, three wires without neutral, star configured, "as for STANAG 1008 Edition 9" to transform into voltage DC output.

AC / DC is a converter with multiple outputs on different connectors.

REACH compliant, CE Marked.

Key Specifications:

- Input Line type:
  60Hz, three phases, 115Vac line to line, without neutral, star configured as for STANAG 1008 Edition 9.
- Power Outputs:
  - 28Vdc $I_{OUT-MAX}$ = 39A $P_{OUT-MAX}$ = 1100W
  - 28Vdc $I_{OUT-MAX}$ = 19A $P_{OUT-MAX}$ = 530W
  - 54Vdc $I_{OUT-MAX}$ = 9A $P_{OUT-MAX}$ = 490W
  - 45,5Vdc $I_{OUT-MAX}$ = 12,5A $P_{OUT-MAX}$ = 570W
- Overvoltage; Undervoltage; Overcurrent protection on each single output
- Operating Temperature -5 to 55°C
- Storage Temperature -40 to 85°C
- Light Indicators Input AC Line; Output DC Line; Fail; H.T°;
- EMI/EMC Compliant with MIL-STD-461F
- Environmental conditions compliant with MIL-STD-810G with Change1.
- CE Marked
- REACH compliant with the regulation CE n° 1907/2006
- Dimensions (h x l x d): 265 x 356 x 395mm
- Weight: 25kg

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CCIAA 846326 RM – Registro delle imprese e C.F. e Part. IVA 05164991001 - cap. soc. € 10.200,00 int. vers.

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ELECTRICAL CHARACTERISTICS

Parameter	INPUT CHARACTERISTIC	Min.	Typ.	Max.	UNIT
Voltage Level	Nominal Voltage Level		115V		V_{RMS}
	Steady state Tolerance Limits (due to the combined effects)	105		125	V_{RMS}
	Transient Tolerance Limits (due to the combined effects) Time=2.00 s	89		141	V_{RMS}
Voltage	Voltage spike (peak value, includes fundamental)	±1kV			V_{dc}
Voltage Waveform	Total harmonic distortion (Maximum)	5			%
	Individual harmonic (Maximum)	3			
	Deviation factor	5			
Frequency	Nominal Frequency	60			Hz
	Frequency tolerance (4)	±3			%
	Frequency modulation (5)	0.5			%
	Frequency transient tolerance (6)	±4			%
	Maximum departure from the nominal frequency due to the combined effects of (4), (5) and (6)	±5.5			%
	Frequency transient tolerance (6)	2			seconds
Parameter	**Isolation Characteristics**	**Min.**	**Typ.**	**Max.**	**UNIT**
Safety	Isolation Voltage (dielectric strength)			1000	V_{RMS}
	Isolation Resistance @ 500Vdc	1			MΩ
FEATURE CHARACTERISTICS		**Min.**	**Typ.**	**Max.**	**UNIT**
Switching Frequency			200		kHz
ON/OFF Control Off-State Voltage On-State Voltage					
		Input Signal Active Low			
		Input Signal Non Active Floating			
Over-Temperature Shutdown			100		°C
Over-Temperature Shutdown Restart Hysteresis			10		°C
Cooling	Forced air by FAN UNIT				
MECHANICAL FEATURES					
Dimensions (H x W x D)	265 x 356 x 395mm				
Weight	25kg				
RELIABILITY CHARACTERISTICS		**Min.**	**Typ.**	**Max.**	**UNIT**
Calculated MTBF MIL-HDBK-217F Notice 2 @ TA=40°C Naval Sheltered (N_S)			45		10^3 Hrs.

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ELECTRICAL CHARACTERISTICS (28V 1100W)

Parameter	Test Condition	Min.	Typ.	Max.	UNIT
Nominal Voltage (at nominal input line and within min to max load range)	Measured at output connector pins	27	28	29	V_{dc}
Nominal Current load	(See Note 1)	0		39	A
Total Static Regulation (Line and Load Reg. and Thermal Stability)				1	V_{dc}
Total Dynamic Regulation Load: (from 50% to 100% load transient)					
Under-Voltage				0.9	V_{dc}
Over-Voltage				0.9	V_{dc}
Recovery Time				3	ms
Ripple: Low Frequency (50Hz to 200MHz)				500	mV_{PP}
Limiting Current Protection	Converter Shut Down with Automatic Recovery (See Note 3)		51		
Under voltage Protection Threshold	Converter Shut Down with Automatic Recovery	24			V_{dc}
Over voltage Protection Threshold	Converter Shut Down with Automatic Recovery			31.5	V_{dc}
Auto Reset Retry (Hiccup Mode)	Min Interval Between Auto Reset Retry For Limiting Current and Over Voltage Protections	0.6		1	s
Turn-on Time	Input-Output Voltage Delay			200	ms
Rise Time				150	ms
Delay Time	(See Note 4)				
Isolation Voltage	Vs. chassis	100			V_{dc}
Insulation resistance		1			MΩ
External load Impedance Max.				10	mF
Reference Return Ground	(See Note 2)		GND_1		

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ELECTRICAL CHARACTERISTICS (28V 532W)

Parameter	Test Condition	Min.	Typ.	Max.	UNIT
Nominal Voltage (at nominal input line and within min to max load range)	Measured at output connector pins	27	28	29	V_{dc}
Nominal Current load	(See Note 1)	0		19	A
Total Static Regulation (Line and Load Reg. and Thermal Stability)				1	V_{dc}
Total Dynamic Regulation Load: (from 50% to 100% load transient)					
Under-Voltage				0.7	V_{dc}
Over-Voltage				0.7	V_{dc}
Recovery Time				3	ms
Ripple: Low Frequency (50Hz to 200MHz)				500	mV_{PP}
Limiting Current Protection	Converter Shut Down with Automatic Recovery (See Note 3)		25		
Under voltage Protection Threshold	Converter Shut Down with Automatic Recovery	24			V_{dc}
Over voltage Protection Threshold	Converter Shut Down with Automatic Recovery			31.5	V_{dc}
Auto Reset Retry (Hiccup Mode)	Min Interval Between Auto Reset Retry For Limiting Current and Over Voltage Protections	0.6		1	s
Turn-on Time	Input-Output Voltage Delay			100	ms
Rise Time				50	ms
Delay Time	(See Note 4)				
Isolation Voltage	Vs. chassis	100			V_{dc}
Insulation resistance		1			MΩ
External load Impedance Max.				5	mF
Reference Return Ground	(See Note 2)		GND_2		

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ELECTRICAL CHARACTERISTICS (54V 486W)

Parameter	Test Condition	Min.	Typ.	Max.	UNIT
Nominal Voltage (at nominal input line and within min to max load range)	Measured at output connector pins	52	54	56	V_{dc}
Nominal Current load	(See Note 1)	0		9	A
Total Static Regulation (Line and Load Reg. and Thermal Stability)				1	V_{dc}
Total Dynamic Regulation Load: (from 50% to 100% load transient)					
Under-Voltage				0.7	V_{dc}
Over-Voltage				0.7	V_{dc}
Recovery Time				3	ms
Ripple: Low Frequency (50Hz to 200MHz)				500	mV_{PP}
Limiting Current Protection	Converter Shut Down with Automatic Recovery (See Note 3)		11.8		
Under voltage Protection Threshold	Converter Shut Down with Automatic Recovery	49			V_{dc}
Over voltage Protection Threshold	Converter Shut Down with Automatic Recovery			59	V_{dc}
Auto Reset Retry (Hiccup Mode)	Min Interval Between Auto Reset Retry For Limiting Current and Over Voltage Protections	0.6		1	s
Turn-on Time	Input-Output Voltage Delay			100	ms
Rise Time				50	ms
Delay Time	(See Note 4)				
Isolation Voltage	Vs. chassis	100			V_{dc}
Insulation resistance		1			MΩ
External load Impedance Max.				3	mF
Reference Return Ground	(See Note 2)		GND_3		

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ELECTRICAL CHARACTERISTICS (45.5V 573W)

Parameter	Test Condition	Min.	Typ.	Max.	UNIT
Nominal Voltage (at nominal input line and within min to max load range)	Measured at output connector pins	44.6	45.5	46.4	V_{dc}
Nominal Current load	(See Note 1)	0		12.6	A
Total Static Regulation (Line and Load Reg. and Thermal Stability)				0.9	V_{dc}
Total Dynamic Regulation Load: (from 50% to 100% load transient)					
Under-Voltage				0.8	V_{dc}
Over-Voltage				0.8	V_{dc}
Recovery Time				3	ms
Ripple: Low Frequency (50Hz to 200MHz)				500	mV_{PP}
Limiting Current Protection	Converter Shut Down with Automatic Recovery (See Note 3)	13.9		16.4	
Under voltage Protection Threshold	Converter Shut Down with Automatic Recovery	36			V_{dc}
Over voltage Protection Threshold	Converter Shut Down with Automatic Recovery			48	V_{dc}
Auto Reset Retry (Hiccup Mode)	Min Interval Between Auto Reset Retry For Limiting Current and Over Voltage Protections	0.6		1	s
Turn-on Time	Input-Output Voltage Delay			200	ms
Rise Time				150	ms
Delay Time	(See Note 4)				
Isolation Voltage	Vs. chassis	100			V_{dc}
Insulation resistance		1			MΩ
External load Impedance Max.				7	mF
Reference Return Ground	(See Note 2)	GND_3			

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STANDARDS & QUALIFICATION

Parameter		Notes & Conditions	
STANDARDS COMPLIANCE			
CE Marked			
REACH		with the regulation CE n° 1907/2006	
QUALIFICATION TESTING			
		MIL-STD-810Gw/Change1	
Low Temperature	Operative	-5°C ÷ +55°C	Method 502.6 Proc. II
High Temperature	Operative	-5°C ÷ +55°C	Method 501.6 Proc. II
Low Temperature	Storage	-40°C ÷ +85°C	Method 502.6 Proc. I
High Temperature	Storage	-40°C ÷ +85°C	Method 501.6 Proc. I
Humidity		RH 70% -5°C ÷ +55°C	Method 507.6.
Salt Fog		24 hours + 24 hours Number of cycles : 2	Method 509.6.
Vibration		Amplit. 1 mm Freq. range from 4 to 14Hz Amplit. 0,8 g Freq. range from 14 to 100Hz	Method. 528.1 Three axis
Shock		Acceleration of 30 g and duration of 6ms	Method 516.7 Three axis
Fungus		Method 508.7	
		MIL-STD-461F Surface Ship Application	
CE101		Conducted Emissions, Power Leads, 120Hz to 10kHz	
CE102		Conducted Emissions, Power Leads, 10kHz to 10MHz	
CS101		Conducted Susceptibility, Power Leads, 120Hz to 150kHz	
CS106		Conducted Susceptibility, Transients, Power Leads	
CS114		Conducted Susceptibility, Bulk Cable Injection, 10kHz to 200MHz	
CS116		Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power Leads, 10 kHz to 100 MHz	
RE101		Radiated Emissions, Magnetic Field, 30 Hz to 100 kHz	
RE102		Radiated Emissions, Electric Field, 10 kHz to 18 GHz “limit Below Desk”	
RS101		Radiated Susceptibility, Magnetic Field, 30 Hz to 100 kHz	
RS103		Radiated Susceptibility, Electric Field, 2 MHz to 40 GHz “Limit 10V/m”	