ALPHA OUTBACK ENERGY

Y-ONE 500 - 48/120

TSi 500 VA

TELECOM DATACOM MASS TRANSIT OIL & GAS POWER UTILITIES

STANDALONE INVERTER SYSTEM

POWER 500 VA
INPUT 48 Vdc and 120 Vac
OUTPUT 120 Vac

DESCRIPTION

This standalone inverter is capable of converting a 48 Vdc power source into a pure 120 Vac sine wave.

An additional AC input is used under normal conditions to achieve an overall conversion efficiency of 90.5%. In the event of a grid failure, it automatically switches to the DC to secure the loads.

With modules in place for many years, the Y-One is extremely reliable. This inverter exists in a UL certified and non-certified version.

APPLICATIONS

Convenient for any Mission Critical Applications. It reveals its full worth in large deployments when energy savings at module scale turn into substantial OPEX savings at global level.

Handle any type of AC load including laser printers, compressors and induction motors.

Compact, friendly Plug & Play installation, suitable for racks and wall mount applications.

MAIN FEATURES

- Extra AC input for increased efficiency
- High reliability
- No disturbances on DC loads & batteries
- Easy maintenance
- UL certified version available

Leading AC Backup Technology

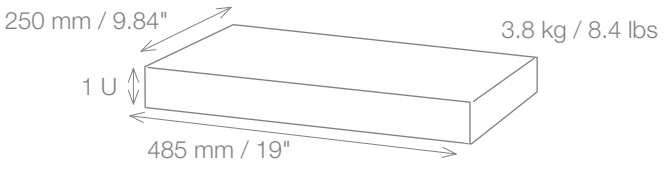
CE+T POWER

ALPHA OUTBACK ENERGY

Y-ONE

	Y-One 500 - 48/120 - cUL	Y-One 500 - 48/120 - non UL
GENERAL		
Part number	T351330101	T351A30101
Applicable Standards	cULus 1778 Listed / IEC 1000-4 / FCC part 15 / ROHS	
Cooling / Isolation DC/AC	Forced	
MTBF (module)	240 000 hrs	
Efficiency (Typical): Enhanced power conversion / on line	90.5% / 85.5%	
Dielectric strength DC/AC	4,300 Vdc	
Vibration	GR63 office vibration 0 to 100 hz-0.1 g / transport vibration 5-100 Hz 0.5 g 100 to 500 hz-1.5 g / Drop test	
Operating ambiance / Ingress Protection	Free from dust and corrosive materials / NEMA 1 [2]	
Altitude above sea	1500m; no derating, >1500m; 0.8 % derating / 100 m	
Operating temperature (Ambient & measured @ air inlet)	-20 to 50 °C; -4°F to 122°F for rated power 50 °C to 65°C with 2%/°C derating [1,4] 122°F to 149°F with 1%/°F derating [1,4]	
Ambient / storage temperature / relative humidity	-40° to 70 ° C / -40°F to 158°F / 95 %, non-condensing	
Material (casing)	Coated steel - ALU ZINC	
AC OUTPUT POWER		
Nominal Output power	500 VA / 400 W	
Short duration overload capacity	150 % (15 seconds)	
Long duration overload capacity	110 % permanent	
Admissible load power factor	Full VA power rating from 0 inductive to 0 capacitive Limited to W power rating from Pf 0,8 to 1	
Internal temperature management and switch off	Automatic	
DC INPUT SPECIFICATIONS		
Nominal voltage (DC) (Operating Range)	48 V (40 - 60 V)	
Nominal current (at floating voltage and 400W output)	8.75 A [5]	
Voltage ripple	<2 mV Psopho	
Input voltage boundaries	40 V to 60 V user selectable	
Connections	Terminal block [5]	
AC INPUT SPECIFICATIONS		
Nominal voltage (AC) (Operating range with full rating)	120 Vac L-N (95 – 150 Vac)	
Conformity range before transfer to DC	Fixed	
Power factor	> 99%	
Frequency range (selectable) / synchronization range	50 – 60 Hz / range 47 – 53 Hz / 57 – 63 Hz	
Nominal current (at 120Vac and 400W output)	3.7 A [5]	
Connections	3 feet power cord with NEMA 5-15R plug	Terminal block
AC OUTPUT SPECIFICATIONS		
Nominal voltage (AC*)	120 Vac L-N	
Frequency / frequency accuracy	50 or 60 Hz / 0.03 %	
Total harmonic distortion (resistive load)	< 1.5 %	
Load impact recovery time	0.4 ms	
Turn on delay	30 s	
Nominal current. Protected against reverse current	4.2 A [5]	
Crest factor at nominal power with short circuit management and protection	2.0	
Short circuit clear up capacity when AC is not present	1.5 x I_n for 15 s	
Short circuit current after clear up capacity	4.62 A	
Connections	No.1 NEMA 5-15R receptacle	Terminal Block
ENERGY SOURCE CHANGEOVER		
Total transient voltage duration (max) (as seen from the load)	0 s	
Maintenance Bypass (MBP)	Optional	
SIGNALING & SUPERVISION		
Display	LED w/module status and power bargraph	
Alarms output / supervision	No 2 Dry Contacts (Maj, Min) located on the rear	
Remote Monitoring	None	
Remote on / off	On terminal block located on the rear	

Y-ONE 500 - 48/120 - Datasheet - v1.0



*Operation within lower voltage networks leads to de-rating of power performances.
1 Derating is not UL certified.
2 Specific execution can be provided on request.
3 While the boost function is enabled AC source present.
4 Automatic temperature management and cut off.
5 Refer to specific document for NEC compliance for protections and cable sizing.

Illustrations are non-binding and may include customized fittings.

Leading AC Backup Technology

CET POWER

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