

High-efficiency COTS and custom power conversion



Military Grade Power Solutions

EATON

Powering Business Worldwide

Over 1500 military grade
COTS power solutions
from 5 to 1000 watts



Airborne
Naval
Missile & defense
Vehicle & ground

AC/DC converters

#Vout	Watts	Vout	Vin nominal	Products
1	20 - 200	2 - 28V	110V	RW
	50 - 100	5 - 28V	110V/220V	RM
	75 - 400	2 - 28V	110V/220V	MW
	100 - 1000	275V/380V	110V/220V	PF*
	1000	300V	110V/220V	SMR**
2	35 - 50	5 - 15V	110V	RW
3	50	5 - 15V	110V/220V	RM

* Power factor correction module meets MIL-STD-1399-300B

** Rectifier module; 47-440Hz, single and three-phase inputs.

DC/DC converters

#Vout	Vin nominal	Watts	Vout	Products
1	12V	50 - 150	2 - 15V	NL
		5 - 150	2 - 28V	CB
		15 - 150	2 - 28V	NB
	28V	20 - 200	5 - 28V	RB
		50 - 100	2 - 48V	SMH
		100 - 200	2 - 48V	SM
	270V	120 - 150	3.3 - 15V	QB
		50 - 100	2 - 48V	SMH
		50 - 150	2 - 28V	NH
		100 - 200	2 - 48V	SM
2	12V	130 - 500	3.3 - 28V	SL
		100	2 - 15V	NL
		10 - 150	2 - 28V	CB
	28V	30 - 100	2 - 28V	NB
		35 - 50	5 - 15V	RB
		100 - 200	5 - 15V	SM
270V	100	2 - 28V	NH	
	100 - 200	5 - 15V	SM	
3	12V	150	2 - 15V	NL
		45 - 150	2 - 28V	NB
	28V	75 - 225	2 - 28V	CB
		270V	150	2 - 28V

DC/AC inverters

Vin nom.	Watts	Vout nominal	Products
28V	5 - 60	27/115V, 400 - 1600Hz	S
	180	27/115V, 400 - 1600Hz	SN

Advanced topologies and thermal management techniques facilitate high-power densities

Eaton combines high-efficiency topologies with advanced thermal management techniques to facilitate high-power-density solutions such as QB150 DC/DC converters (depicted below) that deliver 150 watts from ultra-compact, ¼-brick packages.



QB150 converters are up to 91% efficient and provide 3.3V to 15V outputs from 18V to 40V inputs. Compliances include MIL-STD-704D and MIL-STD-810D. The QBF150 EMI filter facilitates meeting MIL-STD-461F.

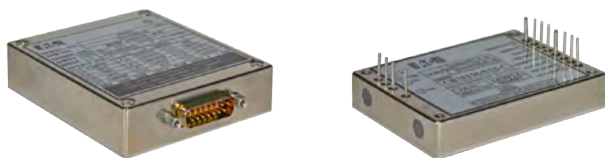


A track record of uncompromised reliability proven in over 55 years of military heritage

Eaton’s heritage-proven power solutions extend from board-mounted converters to highly-integrated systems and include the products previously provided by Martek Power, Abbott Electronics and Sure Power.

These COTS and custom solutions meet a wide range of military standards including MIL-STD-1399-300B, MIL-STD-704, MIL-STD-901, MIL-STD-1275 and MIL-STD-810.

- Standard protections include over temperature, over voltage, over current and short circuit.
- Integrated component deratings increase reliability.
- Output-configuration capabilities support parallel and series operation.



Six-sided shielding and fixed switching frequencies that can be synchronized between multiple converters simplify EMI management.



Quick turn, custom solutions

Eaton’s broad range of standard products provide proven topologies and design platforms that can be leveraged to quickly develop cost effective, modified and custom solutions.

Custom solution program heritage ranges from board-level to stand-alone products such as the DC/AC inverter depicted above. This high-efficiency inverter provides an 1800 watt, zero-harmonic output from a convection cooled, IP67 rated enclosure. Additional features include SAE J1939 CAN communication and compliances to MIL-STD-810 and MIL-STD-461F.

Contact Eaton to discuss how your application can be powered by our collaborative solution-development methodologies, strategically located manufacturing facilities and proven track record of advanced engineering, quality and reliability.

For additional power solution information, please visit eaton.com/powerconversion

AC/DC and DC/DC accessories simplify power systems integrations

Eaton’s offers a wide range of military grade, COTS power-conversion accessories with ratings up to 1000 watts:

- AC/DC – EMI filtering, rectification, active power factor correction and harmonic attenuation.
- DC/DC – EMI filtering, input-transient protection and output-ripple attenuation.



This broad range of accessories facilitates power-system compliance to the following standards:

- MIL-STD-461C, Part 2, Class A1b
- MIL-STD-461D CE101 and CE102
- MIL-STD-704A & E
- MIL-STD-1275A
- MIL-STD-1399, section 300B

For additional information

- Call 310.542.8561
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