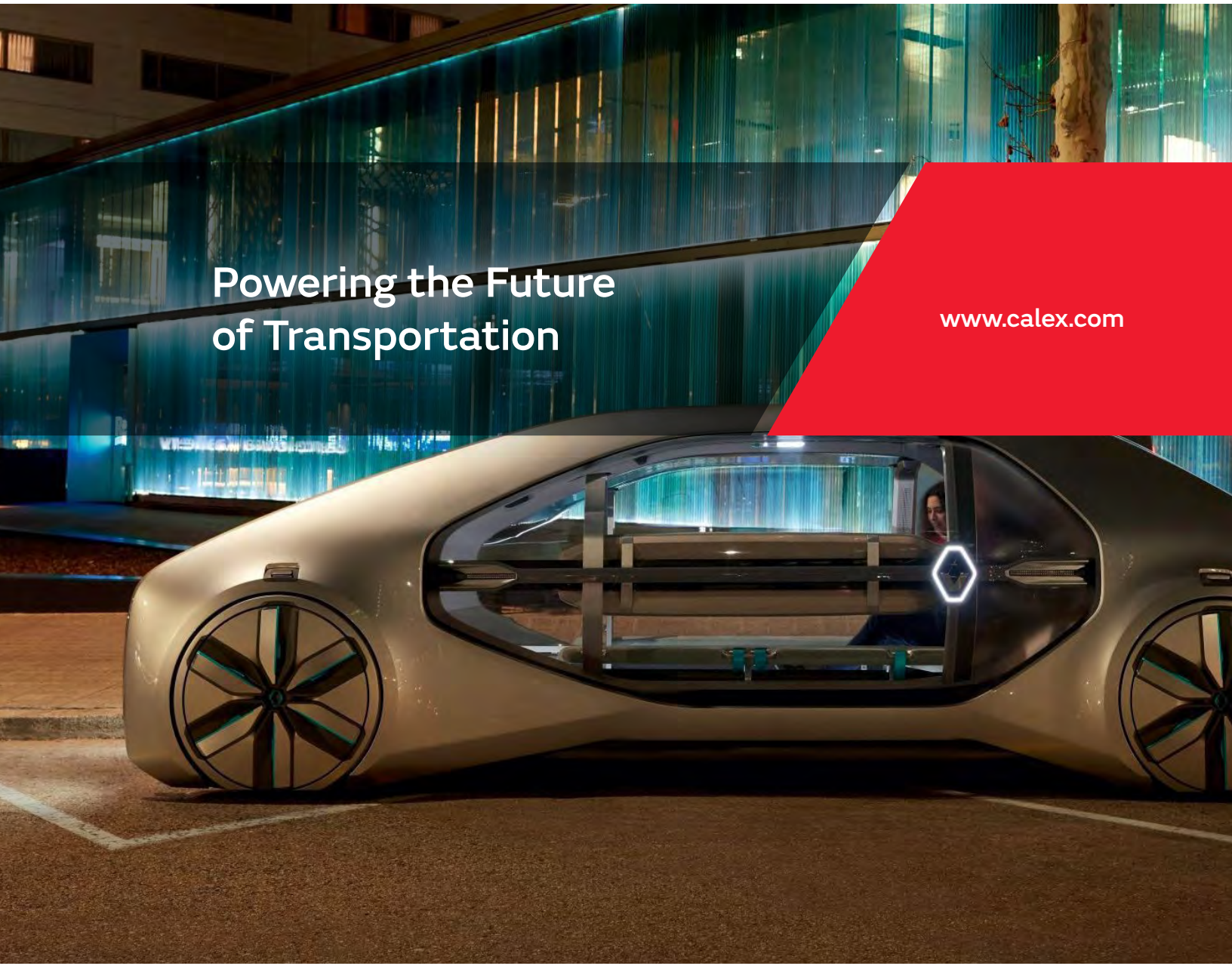
CALEX



Powering the Future of Transportation

www.calex.com

DC-DC Brick Solutions

75 to 1000 Watt

- 4:1 & 2:1 input voltage ranges
- High power density
- Efficiencies up to 96%
- Excellent thermal performance
- Over-current and short circuit protection
- Over-temperature protection
- Auto-restart
- Remote ON/OFF
- Good shock and vibration damping
- Temperature range -40ºC to +100ºC
- RoHS compliant

SERIES	WATTS	PACKAGE	V IN NOMINAL	V OUT	V IN RANGE	CASE SIZE
QH SINGLE	75	1/4 BRICK	24, 48	3.3, 5, 12, 15,24	2:1	1.45” x 2.28” x 0.52”
QSW SINGLE	150	1/4 BRICK	24	12	4:1	1.54” x 2.39” x 0.52”
QMW SINGLE	250	1/4 BRICK	24	12	4:1	1.54” x 2.39” x 0.52”
HEW SINGLE	100	1/2 BRICK	24, 48	3.3, 5, 12, 15, 24	4:1	2.28” x 2.40” x 0.55”
HEW SINGLE	150	1/2 BRICK	24, 48	3.3, 5, 12, 15, 24	4:1	2.28” x 2.40” x 0.55”
GX SINGLE	200	1/2 BRICK	28	15, 24	2:1	2.28” x 2.40” x 0.55”
MTW SINGLE	360	1/2 BRICK	24	12, 24, 28	4:1	2.4” x 2.5” x 0.52”
MXW SINGLE	500	1/2 BRICK	24	12, 24, 28	4:1	2.4” x 2.5” x 0.52”
HD DUAL	75	1/2 BRICK	24	(5, 3.3) (3.3, 2.5)	2:1	2.28” x 2.40” x 0.55”
HE TRIPLE	75	1/2 BRICK	24, 48	(5 ±12) (5 ±15) (5 ±17)	2:1	2.28” x 2.40” x 0.55”
LT TRIPLE	75	1/2 BRICK	24	(5, 3.3, 2.5) (3.3, 2.5, 1.8) (3.3, 2.5, 1.5)	2:1	2.28” x 2.40” x 0.55”
FXP SINGLE	1000	FULL BRICK	24	24, 28, 48, 53	4:1	2.5” x 4.7” x 0.52”
FXW SINGLE	1000	FULL BRICK	24	12, 24, 28, 48, 53	4:1	2.5” x 4.7” x 0.52”
FXM SINGLE	1000	FULL BRICK	24	12	4:1	2.5” x 4.7” x 0.52”

Bi-Directional DC-DC Converter 3500 Watt

- Automotive 12V/48V battery system
- LS Current and internal temperature monitoring
- High power density
- Disconnect switch on LS (12V)
- Overcurrent, overvoltage, & over-temperature protection. All protections are latching.
- Constant voltage and constant current mode
- Efficiency up to 97%
- Average current mode control
- Dimensions 9.45” x 5.37” x 0.73”
- Weight 2.86 lb (1.22 Kg)
- CAN 2.0b
- Excellent thermal performance
- Common ground with two terminals
- RoHS compliant
- Good shock and vibration damping

MODEL				48S14.250BC					
Input Voltage Range (V)				Output Current		Output Power (W)		Efficiency (%)	
12V In		48V in		Buck	Boost	Buck	Boost	Buck	Boost
Min	Max	Min	Max	Max	Max	Max	Max	Max	Max
6	18	24	58	250A	130A	3500	1000	<97	<97

Chassis Mount DC-DC Converters

1100 to 2100 Watt

- Delivers up to 2100 Watts
- Efficiency up to 97%
- Low profile compact package: 9.0”L x 6.5”W x 1.25” H
- Weighs only 3.3 LBS
- No minimum load requirement
- Fixed frequency operation at 400kHz
- Fully protected (OTP, OCP, OVP, UVLO)
- Auto recovery
- Input reverse polarity protection
- High reliability

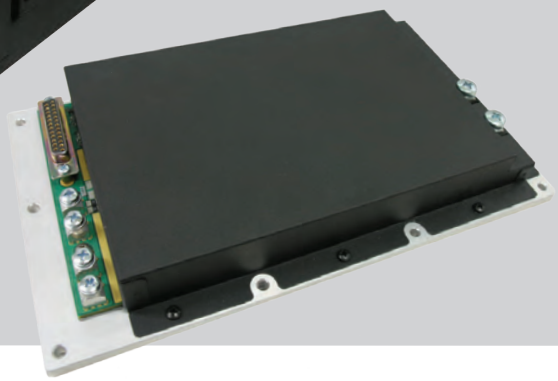
MODEL NUMBER	WATTS	V IN NOMINAL	V IN RANGE	V OUT	I OUT	CASE SIZE
13S28.40MBH	1100	13	10-16	28	40A	9.0” x 6.5” x 1.25”
13S28.60MBH	1700	13	10-16	28	60A	9.0” x 6.5” x 1.25”
13S28.75MBH	2100	13	10-16	28	75A	9.0” x 6.5” x 1.25”

40 Watt 2:1 NCM, 75 Watt 2:1 QCM
150 Watt 4:1 HCM, 360 Watt 4:1 TCM

- 4:1 and 2:1 input voltage ranges
- High Power density
- Good shock and vibration damping
- Optional Din Mount

SERIES	WATTS	V IN NOMINAL	V OUT	V IN RANGE	CASE SIZE
NCM	40	12, 24, 48	3.3, 5, 12, 15	2:1	4.20” x 2.65” x 1.00”
QCM	75	24, 48	3.3, 5, 12, 15, 24	2:1	4.20” x 2.65” x 1.00”
HCM	150	24, 48	3.3, 5, 12, 15, 24	4:1	4.30” x 3.20” x 1.00”
TCM	360	24	12, 24, 28	4:1	4.30” x 3.20” x 1.00”

If you don't find the DC-DC Converter that satisfies your requirement in our standard models, we offer the fastest turnaround in the industry on custom solutions and modifications of standard product designs. Our engineering department can provide samples for most designs at a reasonable lead time after your specification has been finalized.



Custom DC-DC Converters

What enables us to offer you this service:

- Complete electronic designs from Solidworks to PC Board layout
- Automated EVT System developed in-house in the early stage of custom development (includes automatically generated report with all waveforms and captions)
- Use of IR camera for identifying any hot spots and thermo-coupler for thermal derating plots (bench and wind tunnel)
- Calex's self-directed work team structure improves response time and coordination, with 70+ years combined experience in the industry, and excellent track record in the power electronics industry
- ISO 9001:2015 Certified Quality System

What we can offer:

- Application specific packaging
- Non-Standard electrical parameters
- Thermal testing with automatic data collection
- Unique features
- Integrated digital interface, software design
- Standards compliance
- Turn-key solutions
- All units 100% tested in production with individual reports generated

CALEX

Enabling the next generation of travel

- Autonomous Driving
- Robo-Taxis
- Hybrid Electric Vehicles
- Delivery Drones
- Last Mile Transit

Calex Manufacturing Co., Inc. has served the electronics industry for over 50 years and we offer a wide variety of cutting edge DC-DC Converters for transportation, industrial, and military applications as standard catalog products for fast delivery. Calex also specializes in custom solutions tailored to your specific requirement. Custom capabilities range from simple modifications to complete turn-key power systems. Our products are used in virtually every industry requiring voltage conversion in the 1 Watt to 3.5 kilowatt range.

We have worked hard to balance our growth with a commitment to service. Calex provides you with some of the shortest lead times in the industry while also providing a top notch quality product backed by our unmatched five year warranty. Our manufacturing facility in Concord, California is ISO9001:2015 Certified and uses the latest EDI, kanban and automated manufacturing technology to ensure a repeatable and cost effective solution for your power needs. Calex product performance is verified by an extensive in-house Design Validation Test procedure to ensure the product meets our published specification under all operating conditions.

CALEX

We have what you need. It's a matter of determining your specific requirements and coupling them with the product that will do the job right. With our standards and experience, you won't have to reinvent the wheel. Contact us today to provide a solution for your power needs quickly and cost effectively.

CALEX

QUALITY
I.S. EN ISO 9001:2015
NSAI Certified

Calex Manufacturing, Inc.
A Murata Company
+1 925-687-4411
+1 800-542-3355
e-mail: sales@calex.com
www.calex.com