SEC America, LLC

HIGH POWER DC-DC CONVERTERS

SELECTOR GUIDE

Dependable Operation in Industrial Applications

SEC America's line of high power, chassis-mount DC-DC converters has been specifically designed for the most challenging industrial applications.

Each unit includes features that contribute to overall performance and durability resulting in high reliability and long life. Among the characteristics of these high power units are:

- Wide operating temperature range
- Shock and vibration resistance
- Internal component protection through encapsulation
- Electronic protection against overloads
- Quick Mounting
- Easy Connection
- Cool operation
- High MTBF

Unlike competitive power conversion products, SEC America's DC-DC converters are engineered and manufactured in the United States. From our facility in Burlington, VT, we innovate and develop new products while offering support and application guidance for customers sourcing for both established and future projects. We can stand behind each and every product that goes out our doors, because of our engineering and manufacturing teams' traceable interaction during the build process. The result is proven, fully-tested units at the end of the production line.

Through years of experience, we have developed an industry-leading reputation for providing power converter products that meet a wide range of requirements. But as technology continues to grow, new applications continue to arise. At SEC America, we are constantly innovating and improving.

Our years of expertise have enhanced our abilities to build to custom mechanical and electrical demands. Various mechanical options and circuit building blocks have become standardized at SEC, leading to fast turn arounds for new custom models. Our highly qualified engineering staff is ready to match a unit design to your exact requirements.

LIMITED WARRANTY

We warrant each instrument, sold by us, or our authorized agents, to be free from defects in material and workmanship and that it will perform within applicable specifications for a period of two years after original shipment. Our obligation under this guarantee is limited to repairing or replacing any instrument or any part thereof, except fuses and pilot lights, which shall within two years after delivery to the original purchaser, be returned to us with transportation charges prepaid, prove after our examination to be thus defective.

The above limited warranties take the place of all other warranties, expressed or implied, and correction of such defects by replacement or repair shall constitute a fulfillment of all obligations under the terms of the warranties. The warranties do not cover any unit that has been damaged either in transit or by misuse, accident, or negligence. No warranty or representation by anyone other than this Company shall be binding on us.

TO RETURN A UNIT, SEND TO THE FOLLOWING ADDRESS:

SEC America, LLC **/** 78 Ethan Allen Drive, Suite #3 **/** South Burlington, VT 05403

CONTACT INFORMATION

P.O. Box 2266 **/** South Burlington, VT 05407
TEL (802) 865-8388 **/ FAX** (802) 865-8389
sales@secamerica.com **/ secamerica.com**

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Model 620

Electrical Specifications

DC-DC Boost Converter

12V-24V | 300W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

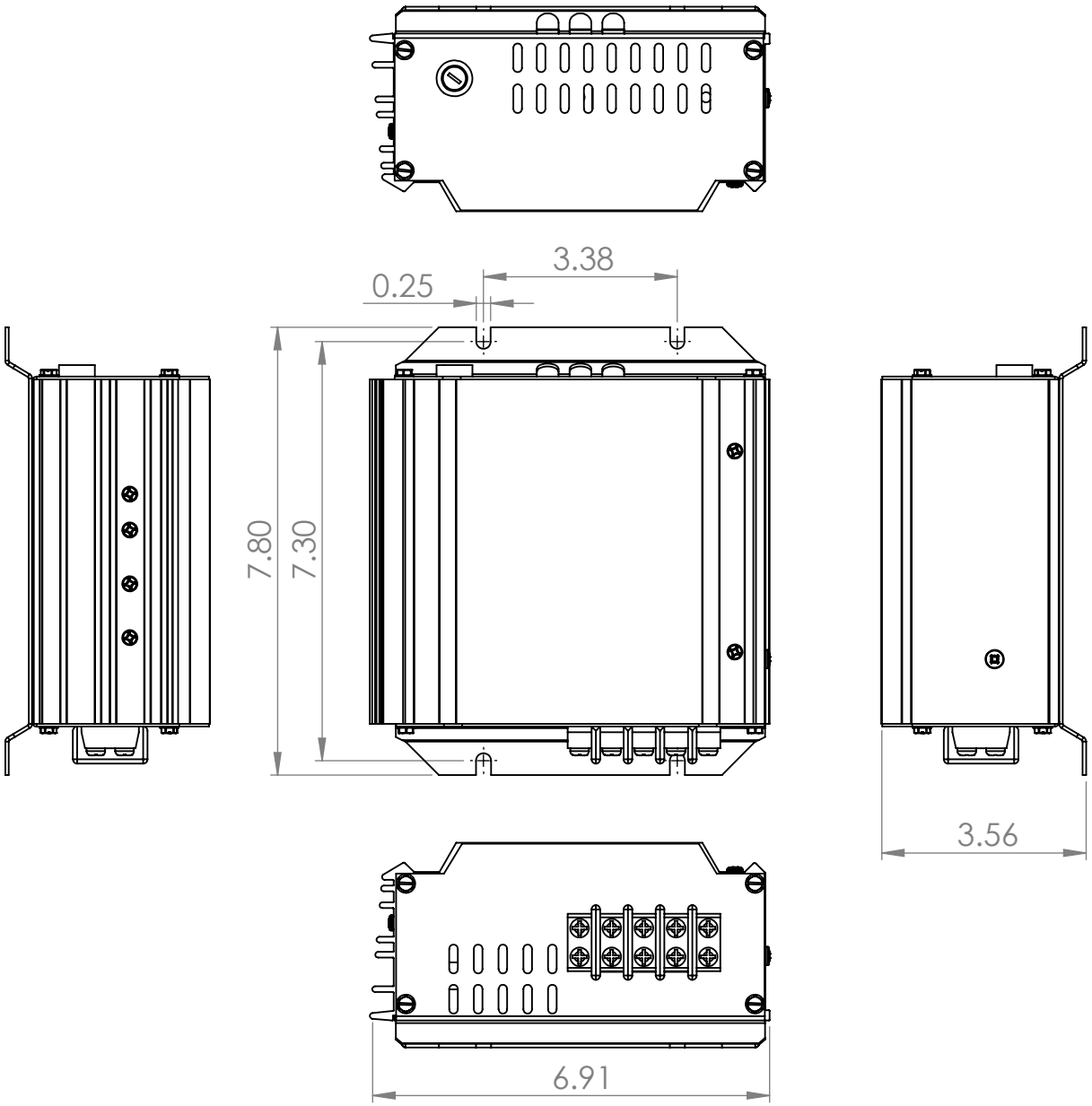
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	21.5 A
	INPUT CURRENT AT NO LOAD	0.21 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**25.5 - 25.7 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**10 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	300 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (30A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	10.5 -10.8 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Replaceable Input Fuse Externally Accesible
CONNECTIONS	INPUT CONNECTION	Screw Terminal Block, Magum 602-3
	OUTPUT CONNECTION	Screw Terminal Block, Magum 602-3
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	7.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	7.30 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	6.0 / 2.75

NOTE: Specifications are subject to change without notice.

Model 620

Mechanical Drawing

▪ Drawing No. 17-0620 ▪ REV 1 ▪ Scale 1:3



Model 640CE

Electrical Specifications

DC-DC Boost Converter

12V-24V | 500W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

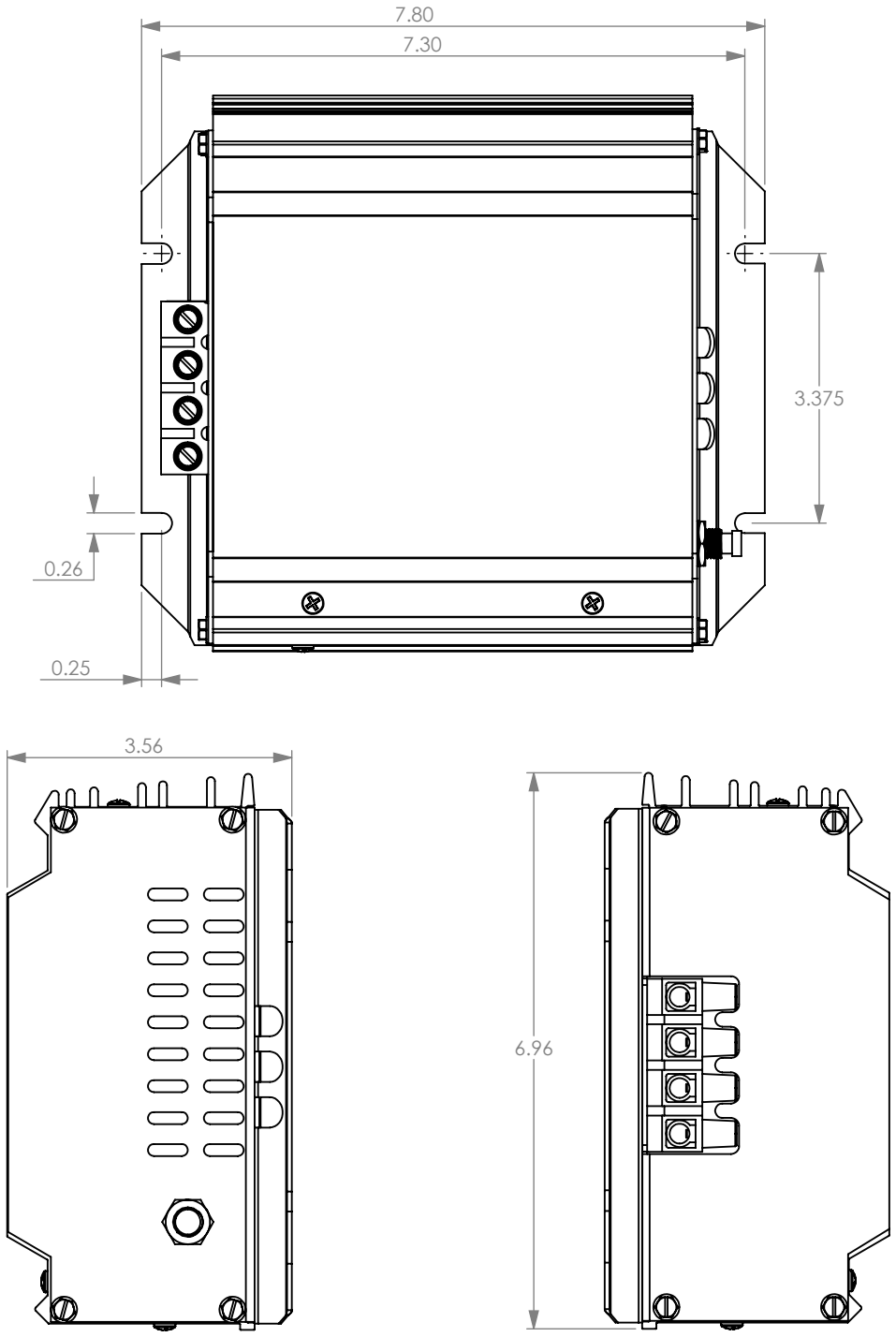
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	43 A
	INPUT CURRENT AT NO LOAD	0.28 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**25.5 - 25.7 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**20 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	500 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (30A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	10.5 -10.8 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	7.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	7.30 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	7.0 / 3.25

NOTE: Specifications are subject to change without notice.

Model 640CE

Mechanical Drawing

▪ Drawing No. 17-640CE ▪ REV 1 ▪ Scale 1:2.25



Model 680CE

Electrical Specifications

DC-DC Boost Converter

12V-24V | 40A | 1000W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

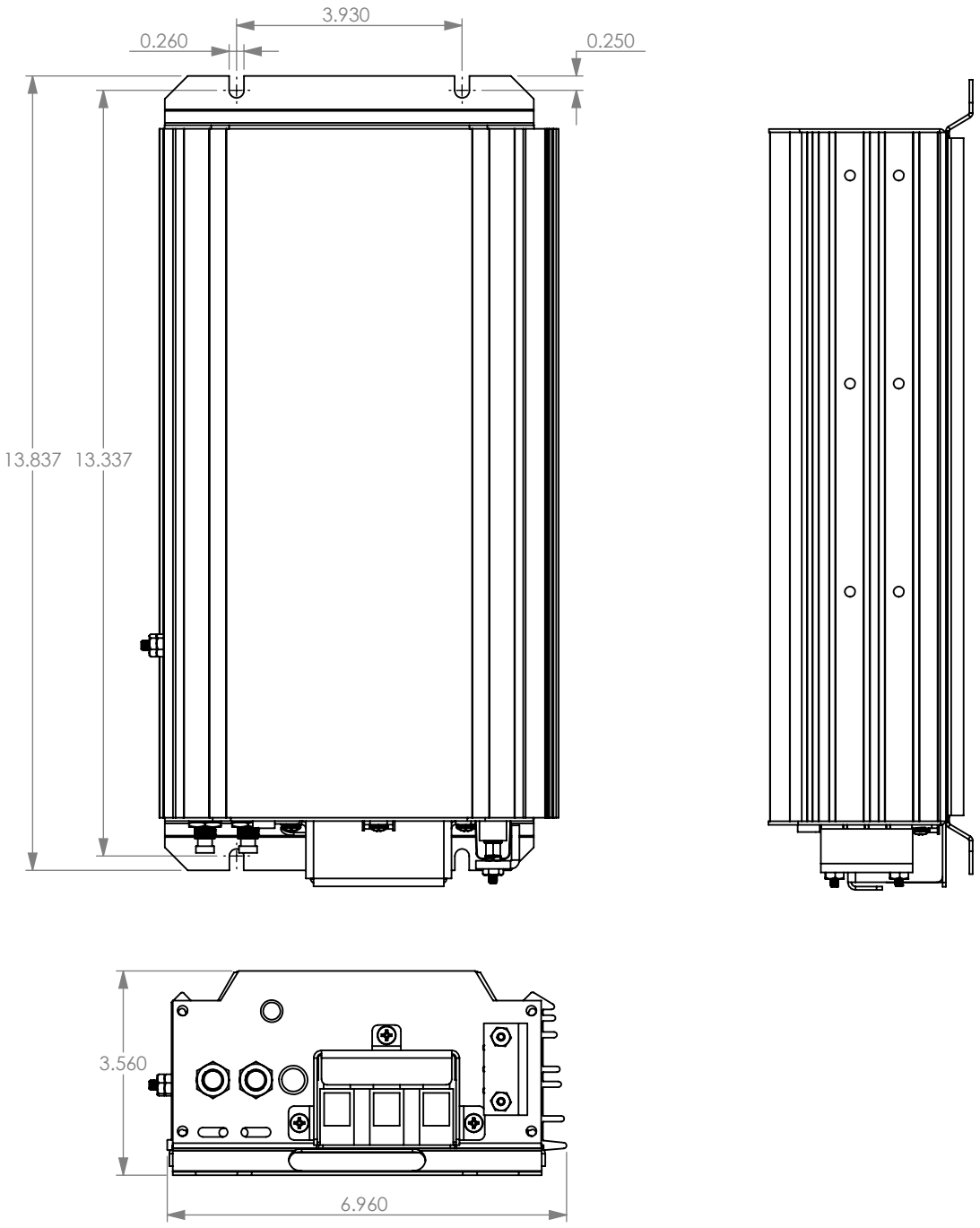
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	89 A
	INPUT CURRENT AT NO LOAD	0.28 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**26.3-26.5 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**40 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	1000 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	factory set at 10.5V, internally adj. from 10.5 - 13.0 VDC
		cutout hysteresis is 1.2VDC@13.0VDC / 0.9VDC@10.5 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	COOLING	By convection and thermostat controlled fan
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	YES
	When deactivated by the remote control port, the input voltage remains connected through a diode drop to the output terminal	
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	13.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES	13.30 x 3.93
	VIBRATION & SHOCK RESISTANCE	Internally Encapsulated
	WEIGHT (LB/KG)	12.0 / 5.5

NOTE: Specifications are subject to change without notice.

Model 680CE

Mechanical Drawing

▪ Drawing No. 17-680CE ▪ REV 1 ▪ Scale 1:3



Model 695CE

Electrical Specifications

DC-DC Boost Converter

12V-24V | 55A | 1500W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

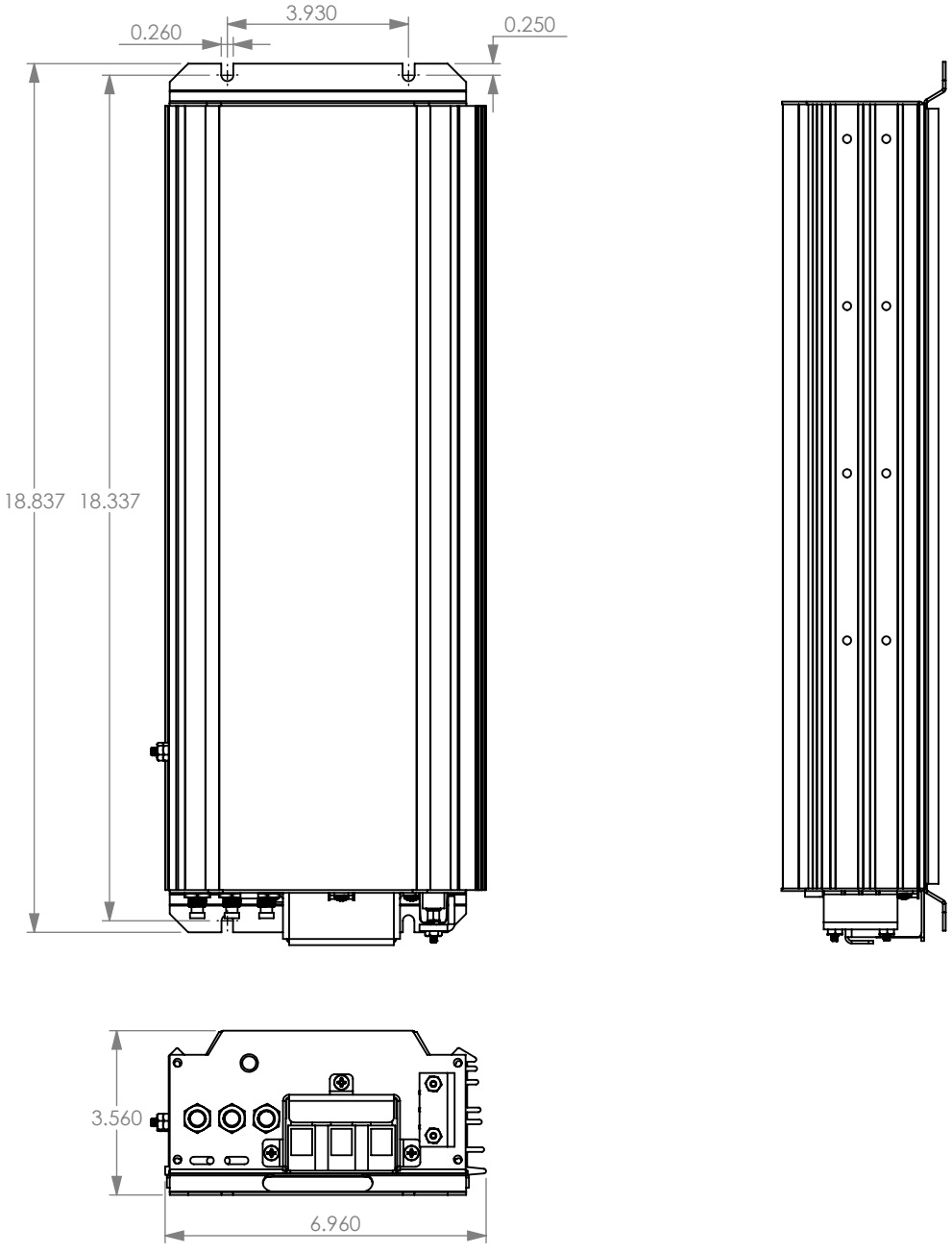
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	122 A
	INPUT CURRENT AT NO LOAD	0.36 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**26.3-26.5 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**55 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	1500 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	factory set at 10.5V, internally adj. from 10.5 - 13.0 VDC
		cutout hysteresis is 1.2VDC@13.0VDC / 0.9VDC@10.5 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	COOLING	By convection and thermostat controlled fan
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	YES
	When deactivated by the remote control port, the input voltage remains connected through a diode drop to the output terminal	
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	18.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES	18.30 x 3.93
	VIBRATION & SHOCK RESISTANCE	Internally Encapsulated
	WEIGHT (LB/KG)	18.0 / 8.5

NOTE: Specifications are subject to change without notice.

Model 695CE

Mechanical Drawing

▪ Drawing No. 17-695CE ▪ REV 1 ▪ Scale 1:4



Model 670

Electrical Specifications

DC-DC Boost Converter

12V-16V | 70A | 1000W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

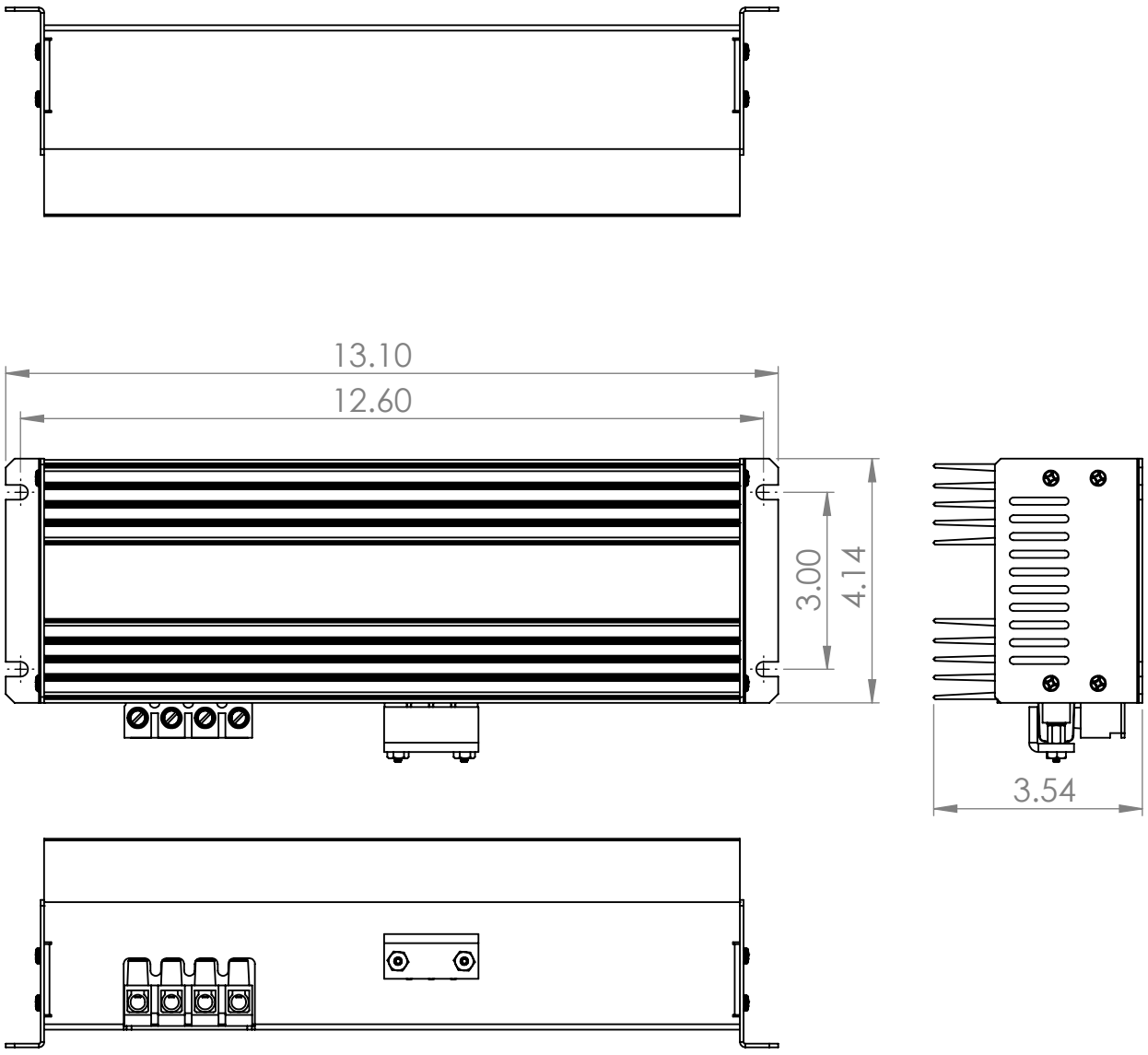
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 14 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	95 A
	INPUT CURRENT AT NO LOAD	0.28 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**15.5-15.7 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**70 A**
	MAXIMUM 10 MSEC PULSED CURRENT	**200 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	1000 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	factory set at 10.5V
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	COOLING	By convection and thermostat controlled fan
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	YES
	When deactivated by the remote control port, the input voltage remains connected through a diode drop to the output terminal	
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	3000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	13.2 x 4.2 x 3.75
	MOUNTING CENTERS, INCHES	12.75 x 3.0
	WEIGHT (LB/KG)	6.0 / 2.5

NOTE: Specifications are subject to change without notice.

Model 670

Mechanical Drawing

▪ Drawing No. 17-0670 ▪ REV 1 ▪ Scale 1:3



Model 679CE

Electrical Specifications

DC-DC Boost Converter

12V-16V | 80A | 1200W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

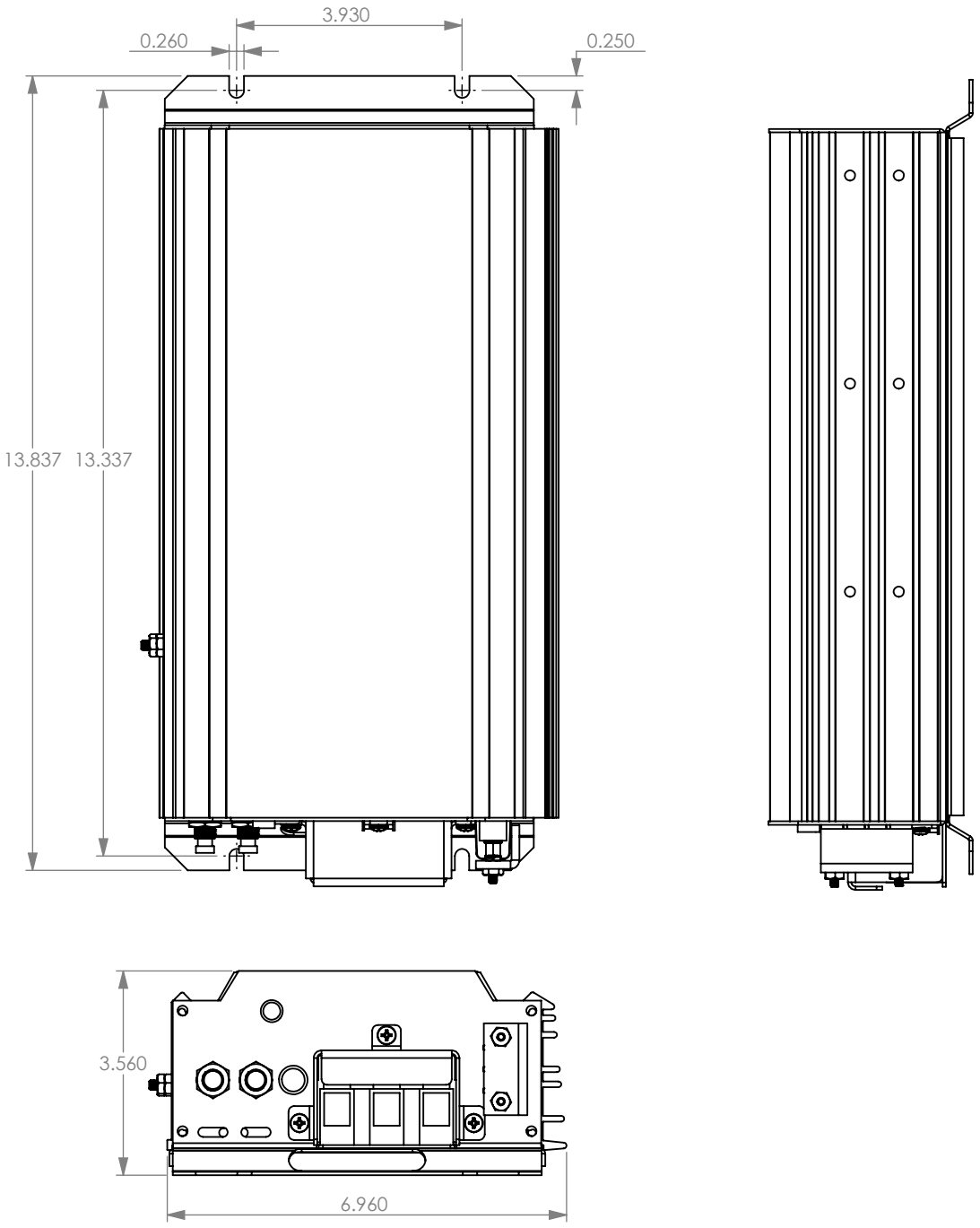
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 14 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	105 A
	INPUT CURRENT AT NO LOAD	0.28 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**15.5-15.7 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**80 A**
	MAXIMUM 10 MSEC PULSED CURRENT	**250A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	1200 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	factory set at 10.5V, internally adj. from 10.5 - 13.0 VDC
		cutout hysteresis is 1.2VDC@13.0VDC / 0.9VDC@10.5 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	COOLING	By convection and thermostat controlled fan
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	YES
	When deactivated by the remote control port, the input voltage remains connected through a diode drop to the output terminal	
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	13.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES	13.30 x 3.93
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	12.0 / 5.5

NOTE: Specifications are subject to change without notice.

Model 679CE

Mechanical Drawing

▪ Drawing No. 17-680CE ▪ REV 1 ▪ Scale 1:3



Model 636-10

Electrical Specifications

DC-DC Boost Converter

12V-36V | 10A | 400W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

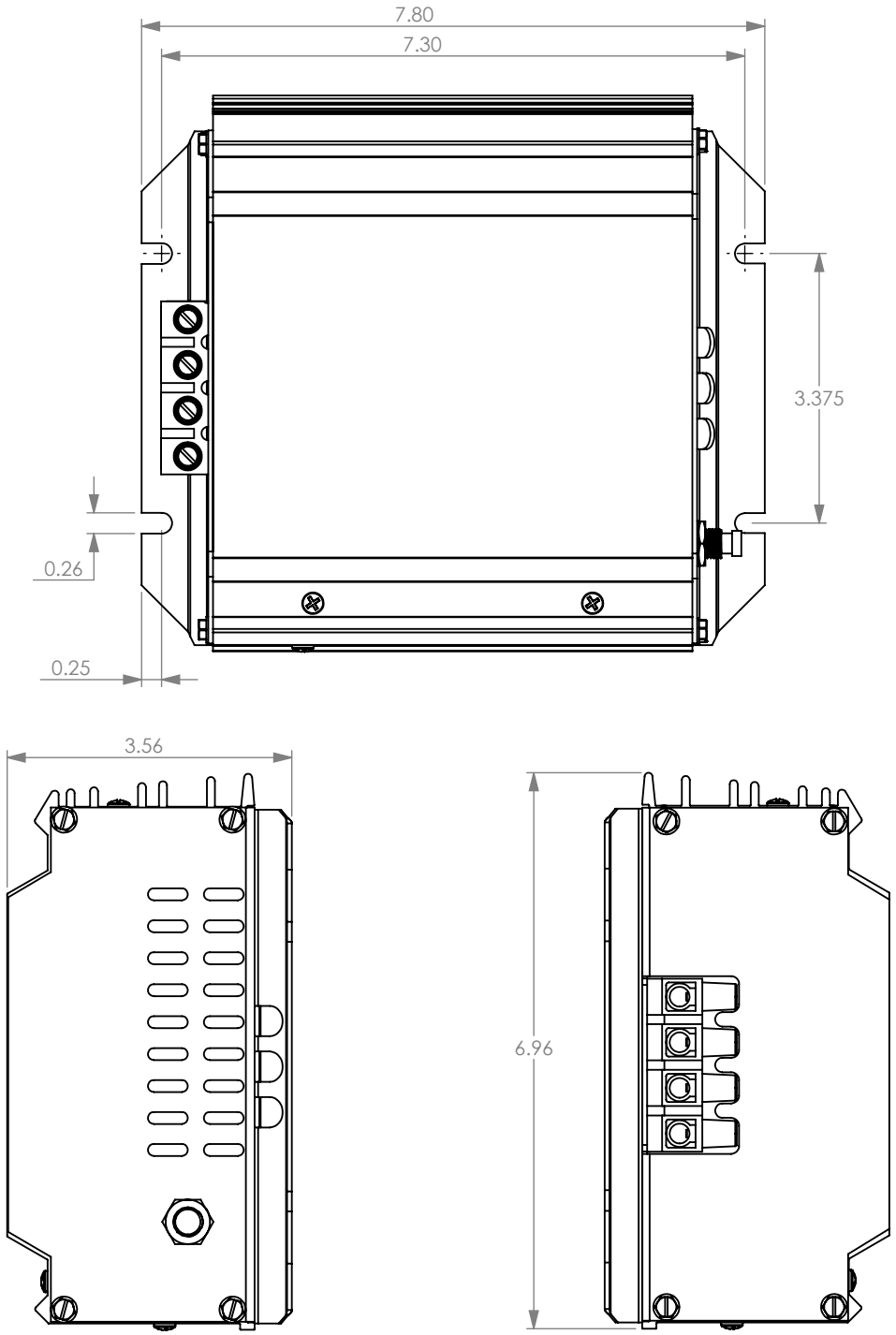
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	31.5 A
	INPUT CURRENT AT NO LOAD	0.28 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**36.0 - 36.5 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**10 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	400 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	10.5 -10.8 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	7.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	7.30 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	7.0 / 3.25

NOTE: Specifications are subject to change without notice.

Model 636-10

Mechanical Drawing

▪ Drawing No. 17-640CE ▪ REV 1 ▪ Scale 1:2.25



Model 648-8TB

Electrical Specifications

DC-DC Boost Converter

12V-48V | 8A | 400W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

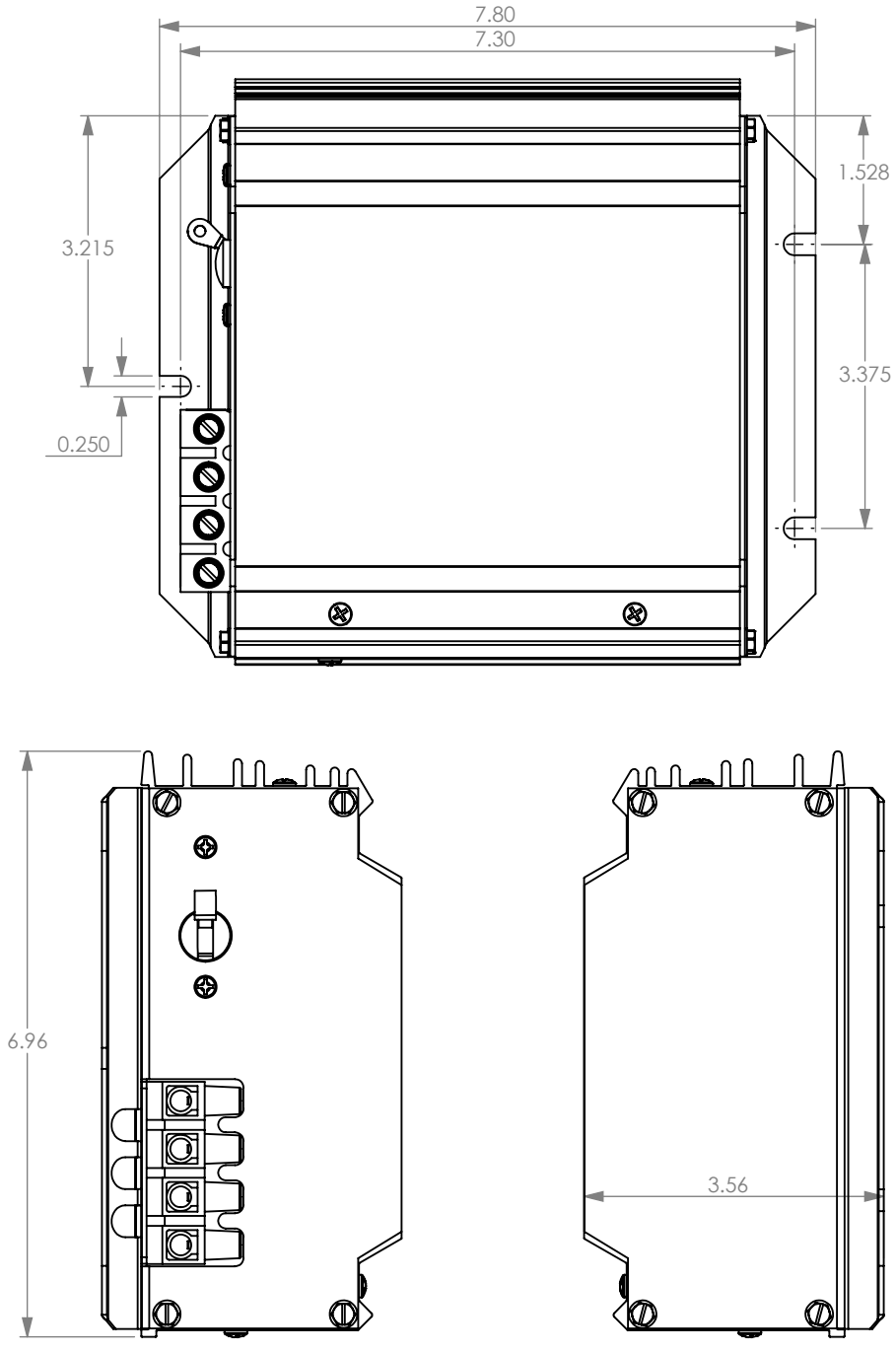
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	33 A
	INPUT CURRENT AT NO LOAD	0.21 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**48.3 - 48.5 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**8 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	400 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	10.5 -10.8 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker/ON-OFF Switch
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	7.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	7.30 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	7.0 / 3.25

NOTE: Specifications are subject to change without notice.

Model 648-8TB

Mechanical Drawing

▪ Drawing No. 17-0648 ▪ REV 1 ▪ Scale 1:2.25



Model 6948

Electrical Specifications

DC-DC Boost Converter

12V-48V | 25A | 1250W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

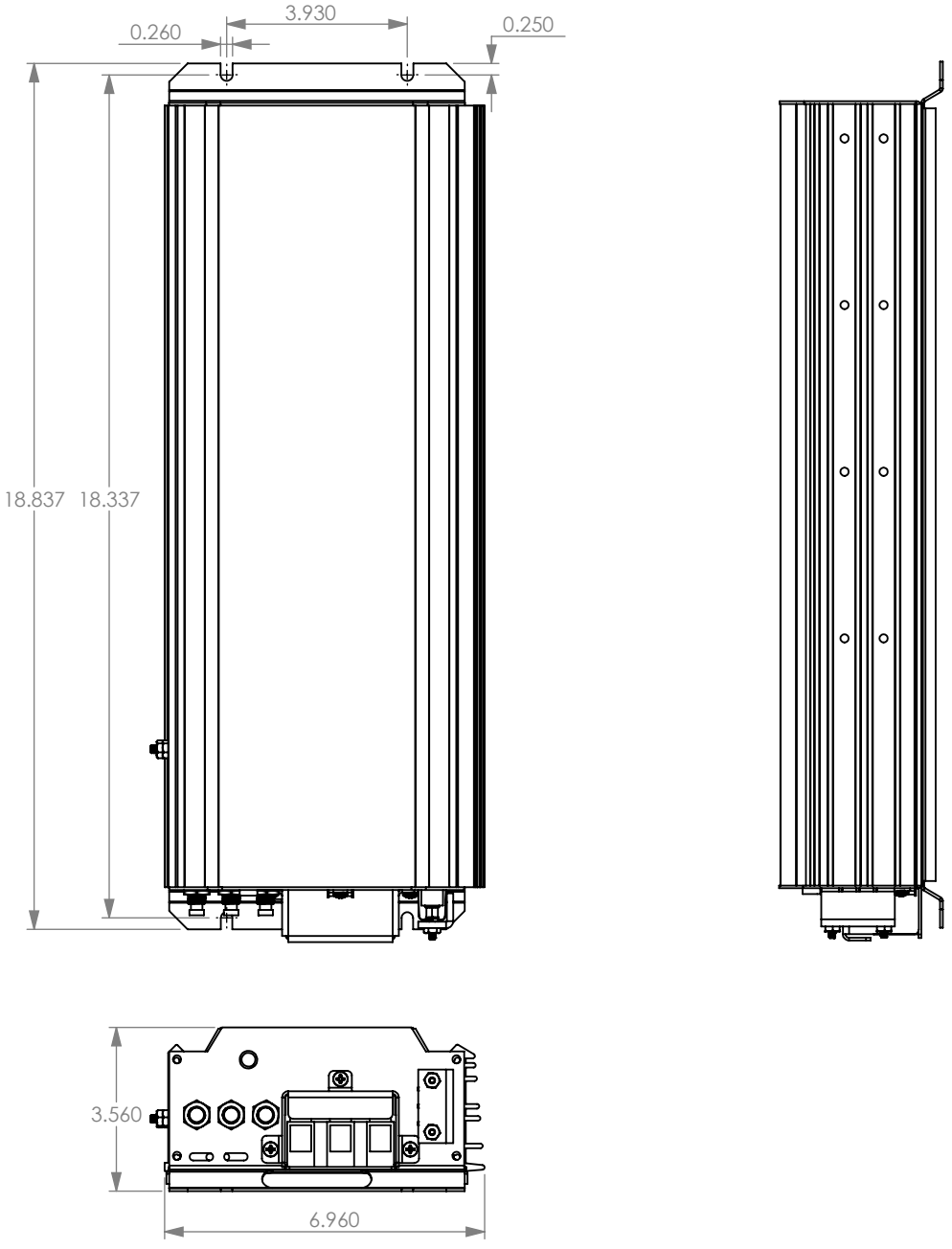
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	12 VDC
	NOMINAL INPUT VOLTAGE	12.75 VDC
	INPUT VOLTAGE RANGE	11 to 16 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	107 A
	INPUT CURRENT AT NO LOAD	0.36 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**52.4-52.8 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 60 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**25 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	1250 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (10A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	factory set at 10.5V, internally adj. from 10.5 - 13.0 VDC
		cutout hysteresis is 1.2VDC@13.0VDC / 0.9VDC@10.5 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 17.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Circuit Breaker
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	YES
	When deactivated by the remote control port, the input voltage remains connected through a diode drop to the output terminal	
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	18.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES	18.30 x 3.93
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	18.0 / 8.5

NOTE: Specifications are subject to change without notice.

Model 6948

Mechanical Drawing

▪ Drawing No. 17-695CE ▪ REV 1 ▪ Scale 1:4



Model 359

Electrical Specifications

DC-DC Buck Converter

24V-12V | 15A | 200W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

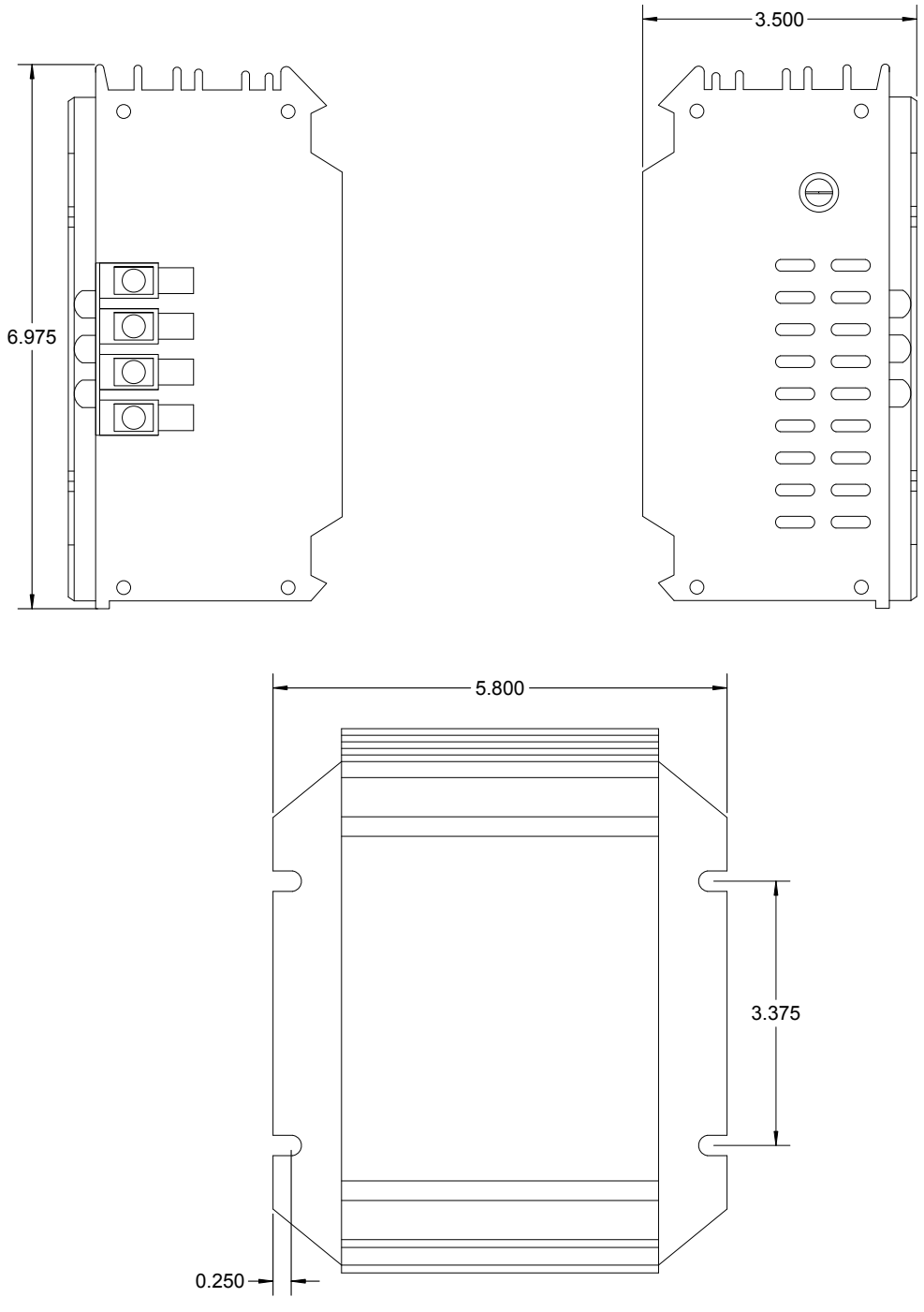
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	24 VDC
	NOMINAL INPUT VOLTAGE	25.5 VDC
	INPUT VOLTAGE RANGE	22 to 30 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	9.0 A
	INPUT CURRENT AT NO LOAD	0.18 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**13.6 - 13.8 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 80 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**15 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	200 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (30A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	19.0 - 21.0 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 32.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Replaceable Input Fuse Externally Accessible
CONNECTIONS	INPUT CONNECTION	DIN Terminal Block
	OUTPUT CONNECTION	DIN Terminal Block
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	5.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	5.38 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	4.0 / 1.8

NOTE: Specifications are subject to change without notice.

Model 359

Mechanical Drawing

- Drawing No. 93-0359



Model 362

Electrical Specifications

DC-DC Buck Converter

24V-12V | 400W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

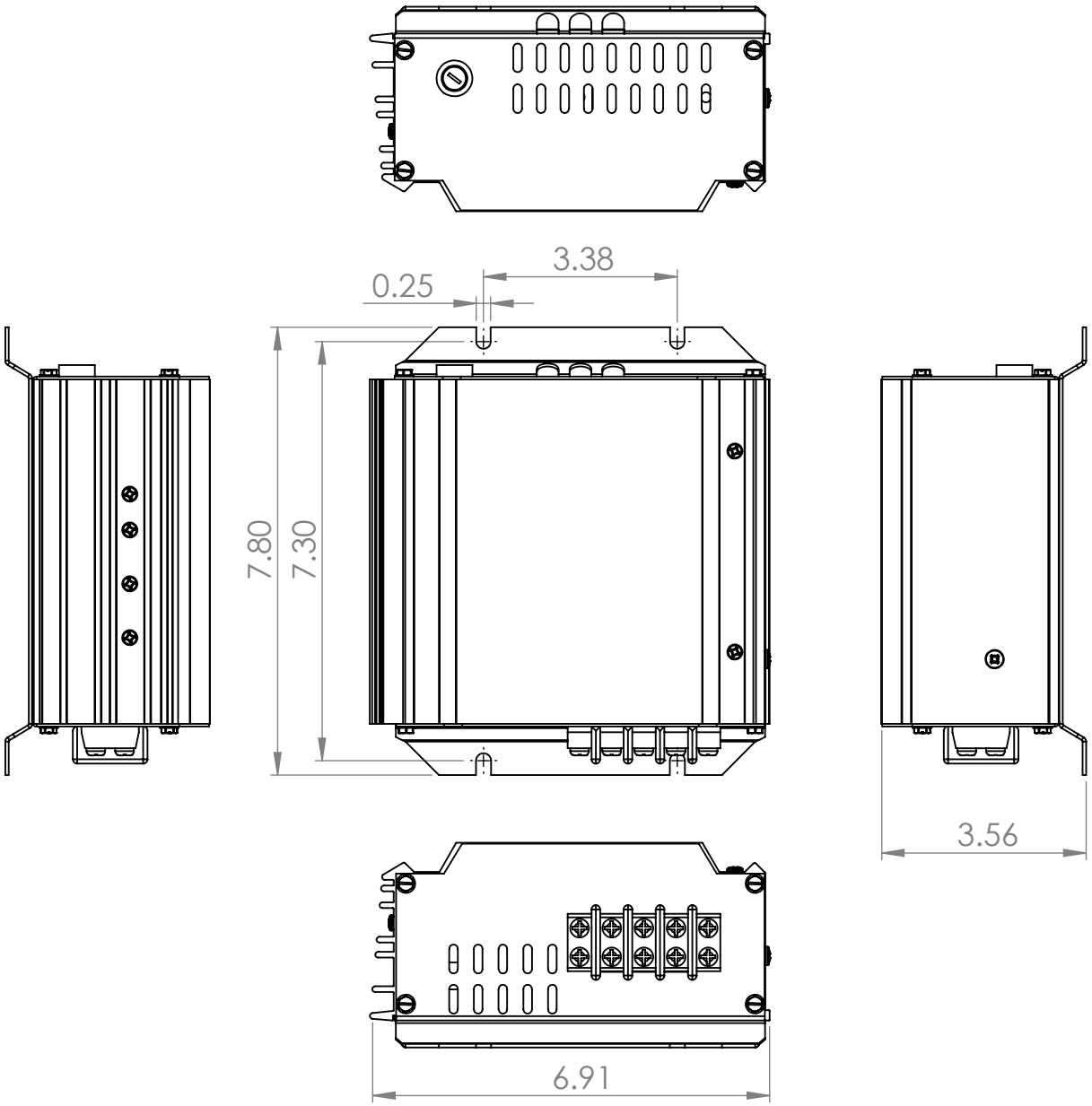
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	24 VDC
	NOMINAL INPUT VOLTAGE	25.5 VDC
	INPUT VOLTAGE RANGE	22 to 30 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	16.5 A
	INPUT CURRENT AT NO LOAD	0.30 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**13.6 - 13.8 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 80 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**30 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	400 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (30A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	19.0 - 21.0 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 32.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Replaceable Input Fuse Externally Accessible
RF TRANSPARENCY	High pass filters allow RF signals in the PLC4 spectrum to pass between input and output terminals with attenuation <3dB	
CONNECTIONS	INPUT CONNECTION	Screw Terminal Block, Magum 602-3
	OUTPUT CONNECTION	Screw Terminal Block, Magum 602-3
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	7.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	7.30 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	6.0 / 2.75

NOTE: Specifications are subject to change without notice.

Model 362

Mechanical Drawing

▪ Drawing No. 17-0620 ▪ REV 1 ▪ Scale 1:3



Model 364

Electrical Specifications

DC-DC Buck Converter

24V-12V | 700W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

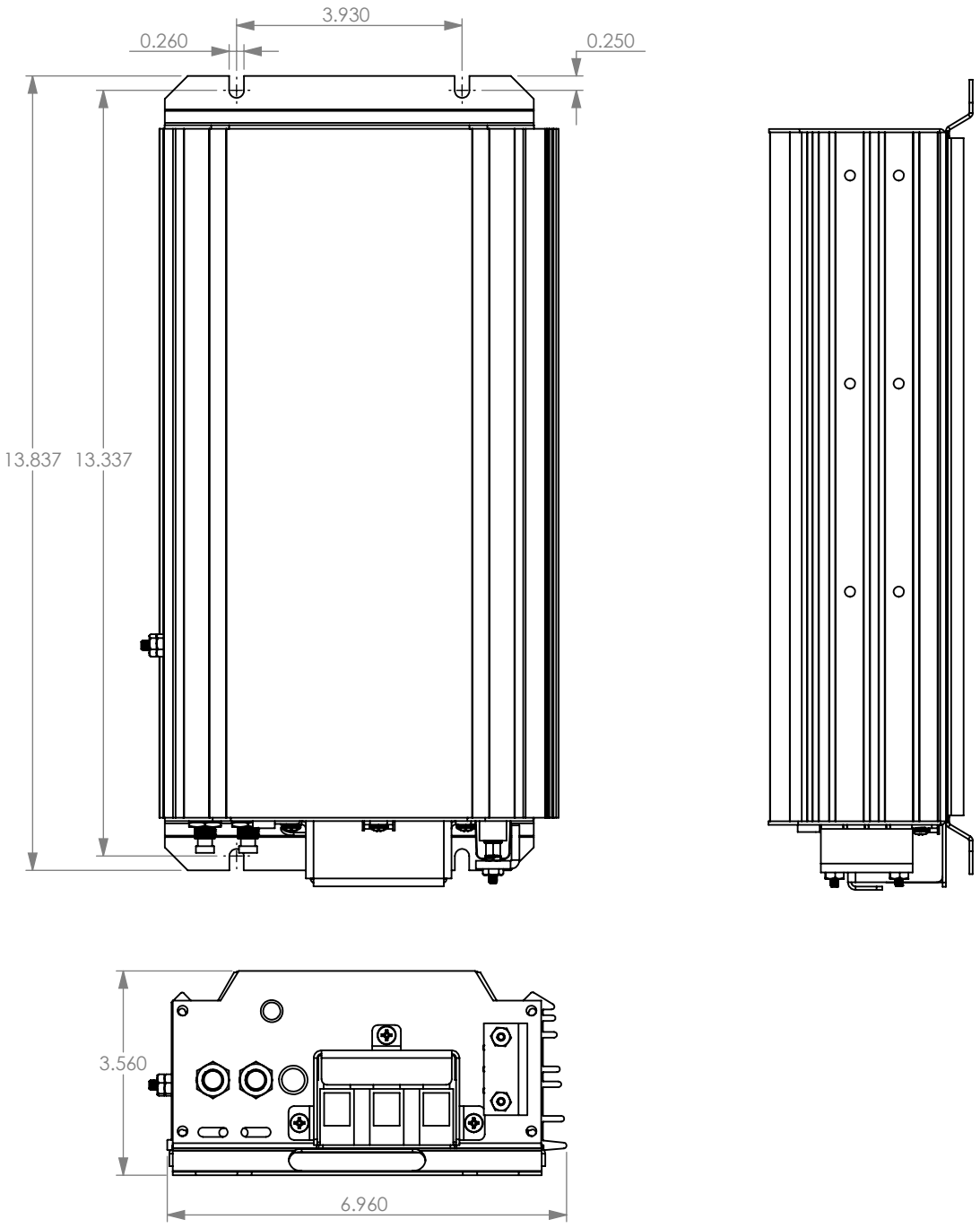
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	24 VDC
	NOMINAL INPUT VOLTAGE	25.5 VDC
	INPUT VOLTAGE RANGE	22 to 30 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	27 A
	INPUT CURRENT AT NO LOAD	0.45 A when converter is in "ON" state
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**13.6 - 13.8 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 80 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**50 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	700 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (30A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	19.0 - 21.0 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 32.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Input Breakers
CONNECTIONS	INPUT CONNECTION	DIN Blocks, cable terminals provided
	OUTPUT CONNECTION	DIN Blocks, cable terminals provided
	REMOTE CONTROL PORT	Yes
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating
		Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	13.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	13.3 x 3.9
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	12.0 / 5.5

NOTE: Specifications are subject to change without notice.

Model 364

Mechanical Drawing

▪ Drawing No. 17-680CE ▪ REV 1 ▪ Scale 1:3



Model 3602

Electrical Specifications

DC-DC Buck Converter

36V-12V | 400W

DESIGN FEATURES:

- Low Input Voltage Cutout
- Compact design
- Convection Cooled
- Electronic Current Limiting
- Common Input/Output Negative Terminal
- Soft Start technology

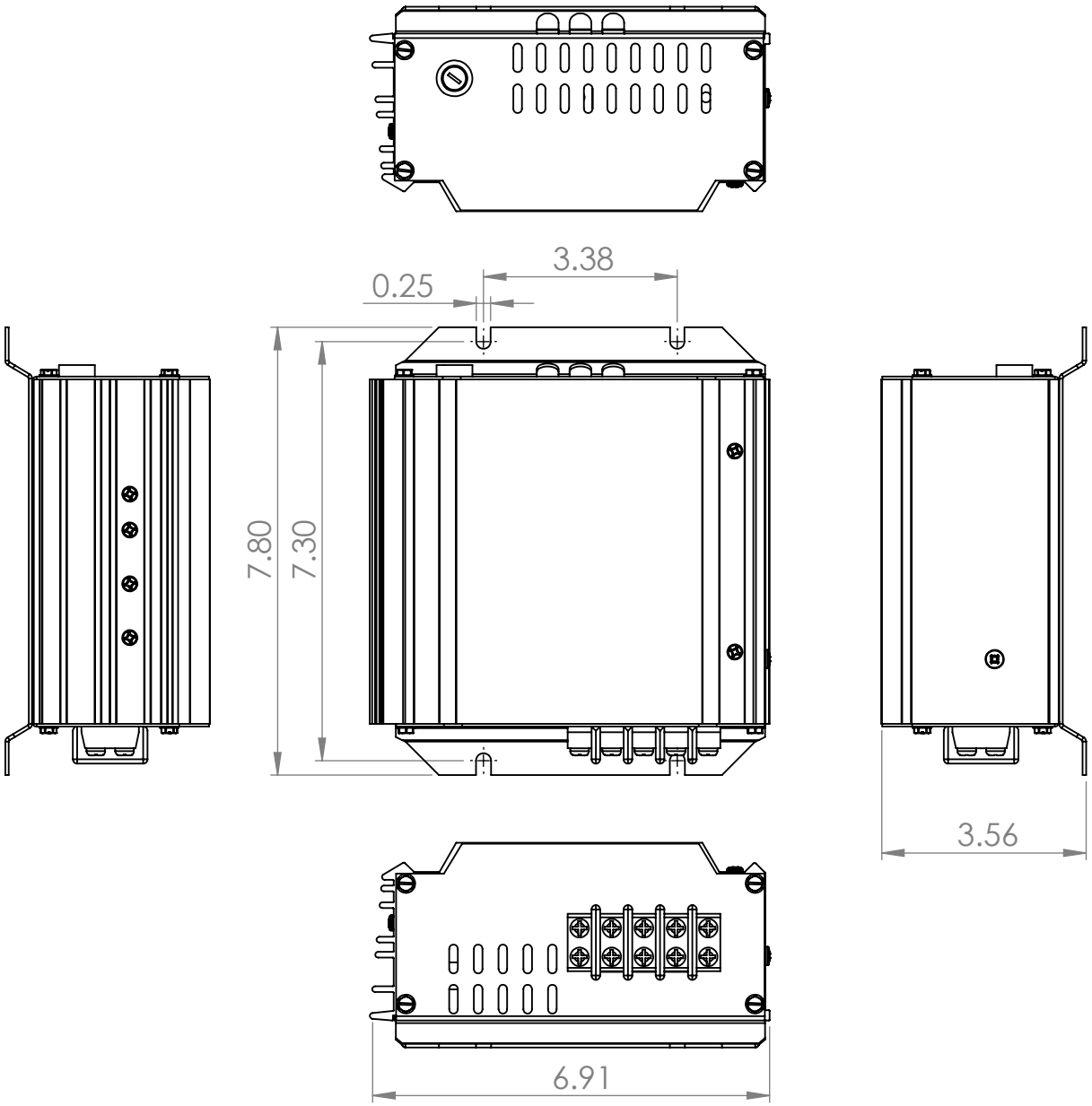
SPECIFICATIONS		
INPUT	SYSTEM BATTERY VOLTAGE	24 or 36 VDC
	NOMINAL INPUT VOLTAGE	25.5 VDC
	INPUT VOLTAGE RANGE	22 to 40 (+/- 0.5) VDC
	INPUT CURRENT AT MAX CONTINUOUS POWER	16.5 A @ 25.5 VDC
	INPUT CURRENT AT NO LOAD	0.30 A when converter is in "ON" state @ 25.5 VDC input
	INPUT CURRENT AT NO LOAD	<0.002 A when converter is in "OFF" state
OUTPUT	OUTPUT VOLTAGE	**13.6 - 13.8 VDC (factory set, internally adjustable)**
	OUTPUT VOLTAGE REGULATION	< 80 mV, NL to Full Load
	RATED MAX OUTPUT CURRENT	**30 A**
	OUTPUT POWER, CONTINUOUS (RESISTIVE LOAD)	400 W
	OUTPUT RIPPLE & NOISE	<50 mV RMS
	EFFICIENCY AT MAX CURRENT (30A)	92%
PROTECTIONS	LOW INPUT VOLTAGE SHUTDOWN	19.0 - 21.0 VDC
	HIGH INPUT VOLTAGE SHUTDOWN	> 42.0 VDC
	OVERLOAD CURRENT LIMITING	Electronic knee type at power limit
	OVER TEMPERATURE SHUTDOWN	Yes (Auto reset)
	INPUT REVERSE POLARITY PROTECTION	Replaceable Input Fuse Externally Accessible
CONNECTIONS	INPUT CONNECTION	Screw Terminal Block, Magum 602-3
	OUTPUT CONNECTION	Screw Terminal Block, Magum 602-3
	REMOTE CONTROL PORT	No
ENVIRONMENT	AMBIENT AIR OPERATING TEMPERATURE RANGE	-40C to +40C no derating Derate 15% per 10C above 40C to a maximum of 60C
	OPERATING HUMIDITY	<95%, non condensing
	ALTITUDE	6000 meters
MECHANICAL	DIMENSIONS, INCHES (L x W x H)	7.8 x 6.9 x 3.6
	MOUNTING CENTERS, INCHES (L x W x H)	7.30 x 3.38
	VIBRATION & SHOCK RESISTANT	Internally Encapsulated
	WEIGHT (LB/KG)	6.0 / 2.75

NOTE: Specifications are subject to change without notice.

Model 3602

Mechanical Drawing

▪ Drawing No. 17-0620 ▪ REV 1 ▪ Scale 1:3



If you cannot find a model in this guide that suits your requirements, if you have questions, or would like engineering assistance, please contact us.

CONTACT US

SEC America, LLC

secamerica.com / (802) 865-8388