

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

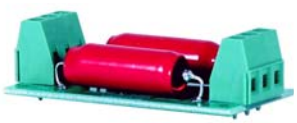
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

Filter Cards

	Model Number	Inductance Line to Line	Continuous Current	Voltage Rating
Filter Cards for Single Phase Loads: Brushed Motors, Voice Coils, and other Single Phase Loads	FC1010	20µH	10A	200V
	FC10010	200µH	10A	250V
	FC15030	300µH	30A	400V
Filter Cards for Three Phase Loads: Brushless Motors, Linear Motors, and other Three Phase Loads	BFC1010	20µH	10A	200V
	BFC10010	200µH	10A	250V
	BFC15030	300µH	30A	400V
	BFC15030800	300µH	30A	800V



FC1010



FC10010



FC15030



BFC1010



BFC10010



BFC15030



BFC15030800

Description

The FC and BFC series of filter cards have been designed to complement ***ADVANCED* Motion Controls**' servo drives. These filters contain two inductors for single phase loads and three inductors for three phase loads.

Inductive filter cards have two typical applications:

1. **To increase the inductance to meet the minimum load inductance requirement of *ADVANCED* Motion Controls servo drives.**

   Some motors have inductances that are less than the minimum load inductance requirement for the servo drive. For example, "basket-wound" and "pancake" motors do not have a conventional iron core rotor so the winding inductance is usually less than 25 µH. For this type of application the filter card should be sized so the total inductance of the motor plus filter card meets or exceeds the inductance requirements of the servo drive. The filter card must also be rated to the required current.

2. **To reduce the DV/DT of the motor outputs.**

   The main source of emitted drive noise is the high DV/DT (typically about 1V/nanosecond) of the drive's output power stage. Unfiltered motor outputs can introduce noise in digital encoder signals. For applications with noise sensitive devices (e.g. video cameras, magnetic/capacitive sensors) the use of an external inductive filter card may reduce emitted noise.

Note: Most applications do not require external filters.

Features

- Increases Load Inductance
- Small Size, Low Cost, Ease of Use
- Provides Dramatic Noise Reduction

Agency Approvals

US and Canadian safety compliance with UL 508c, the industrial standard for power conversion electronics. UL registered under file number E140173. Note that machine components compliant with UL are considered UL registered as opposed to UL listed, as would be the case for commercial products.

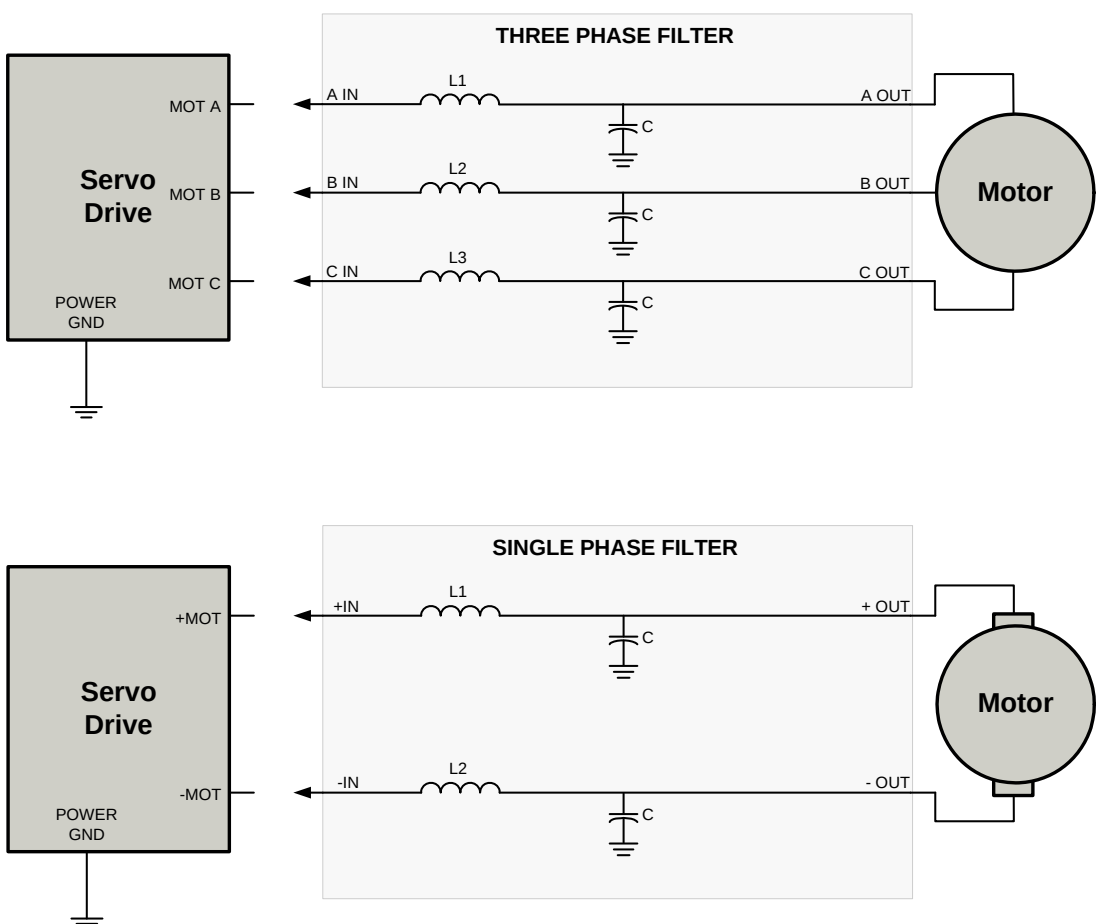
Compliant with European CE for both the Class A EMC Directive 2004/108/EC on Electromagnetic Compatibility (specifically EN 61000-6-4:2007 and EN 61000-6-2:2005) and LVD requirements of directive 2006/95/EC (specifically EN 60204-1:2006), a low voltage directive to protect users from electrical shock.

RoHS (Reduction of Hazardous Substances) is intended to prevent hazardous substances such as lead from being manufactured in electrical and electronic equipment.

SPECIFICATIONS

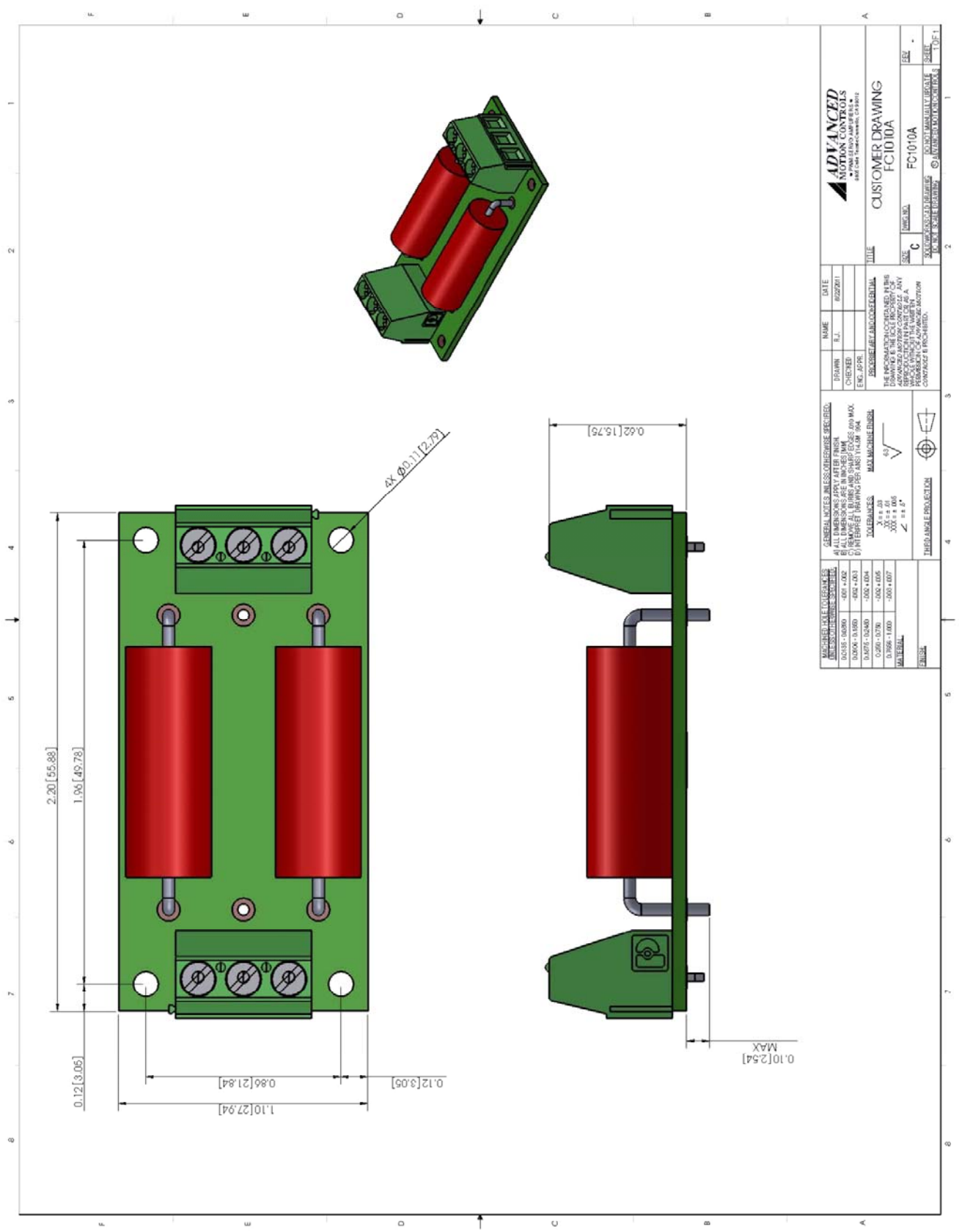
Power Specifications								
Description	Units	FC1010	FC10010	FC15030	BFC1010	BFC10010	BFC15030	BFC15030800
Inductance (Line to Line)	µH	20	200	300	20	200	300	300
Continuous Current	A	10	10	30	10	10	30	30
Voltage Rating	VDC	200	250	400	200	250	400	800
Capacitance (C)	µF	-	.01	.068	-	.01	-	-
Mechanical Specifications								
Description	Units	FC1010	FC10010	FC15030	BFC1010	BFC10010	BFC15030	BFC15030800
Connector	-	Screw Terminals						
Size (HxWxD)	mm (in)	56.5x28.0x15.8 (2.23x1.10x0.62)	65.3x51.3x25.7 (2.57x2.02x1.01)	101.6x88.9x44.5 (4.00x3.5x1.75)	56.5x28.6x15.8 (2.23x1.13x0.62)	65.3x64.8x25.7 (2.57x2.55x1.01)	134.6x113.7x43.5 (5.30x4.48x1.71)	173.7x113.7x52.4 (6.84x4.48x2.06)
Weight	kg (lbs)	0.027 (0.06)	0.14 (0.32)	0.95 (2.1)	0.037 (0.08)	0.21 (0.46)	1.43 (3.16)	1.63 (3.60)
Operating Temperature Range	°C (°F)	-40 - 75 (-40 - 167)						

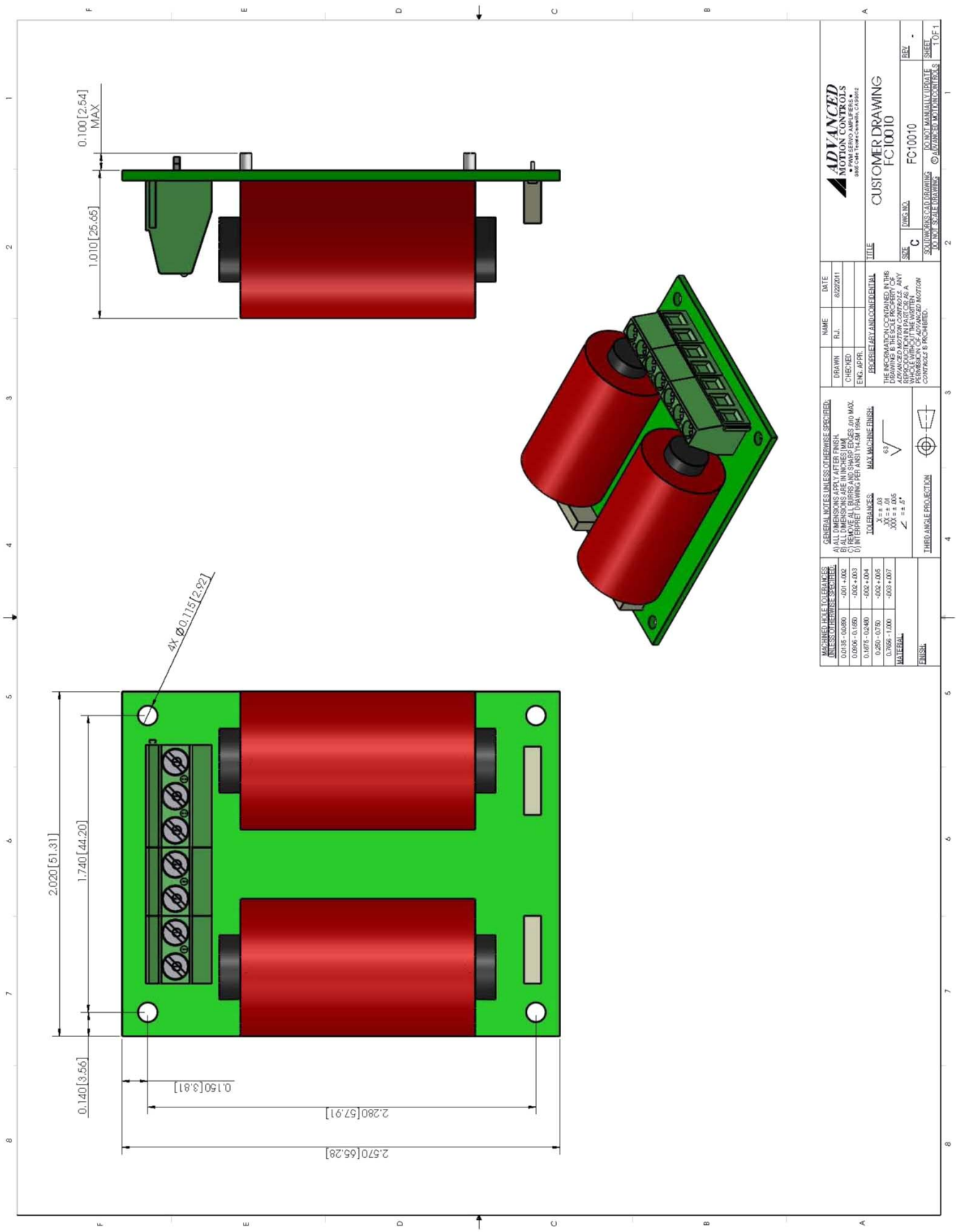
BLOCK DIAGRAM

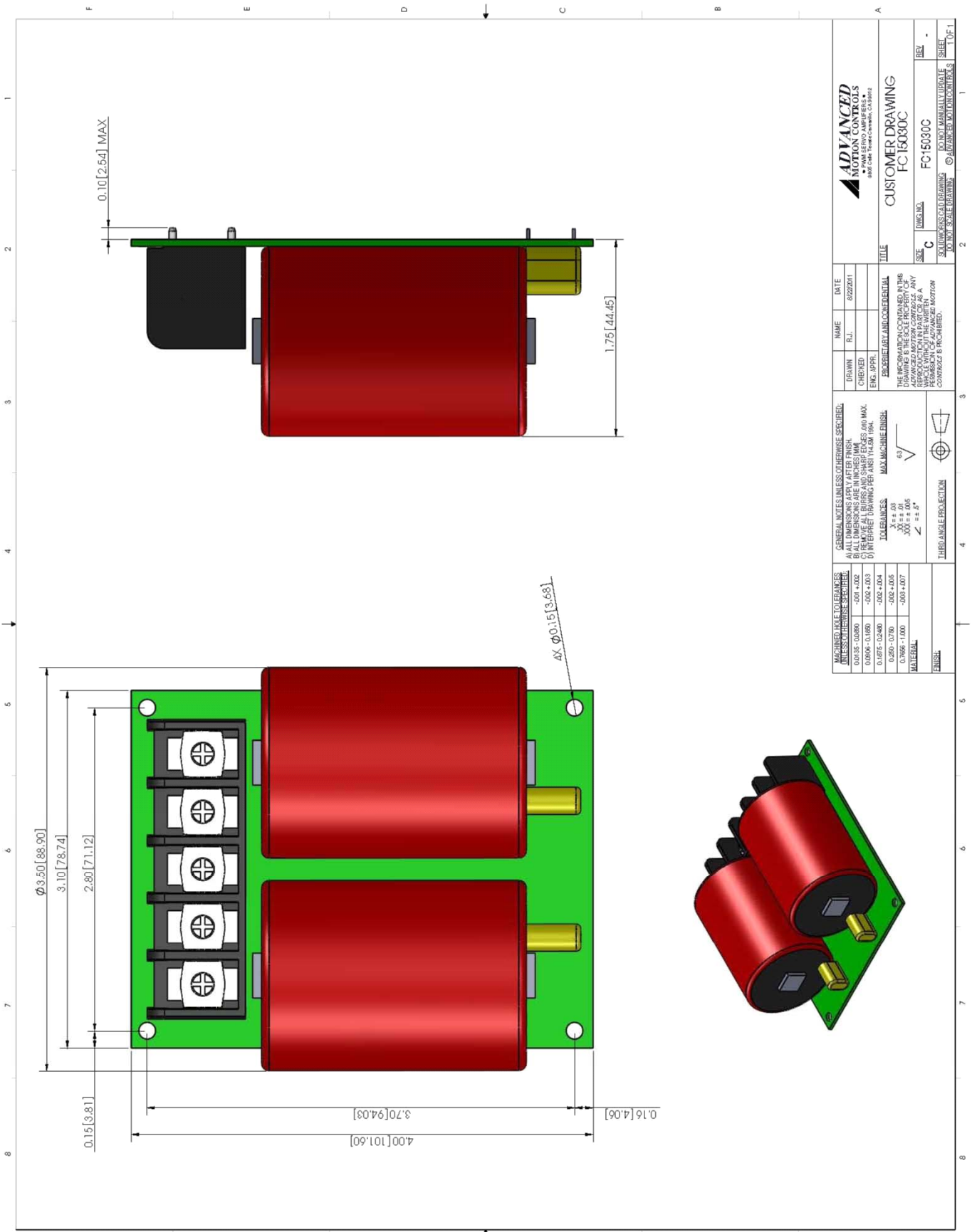


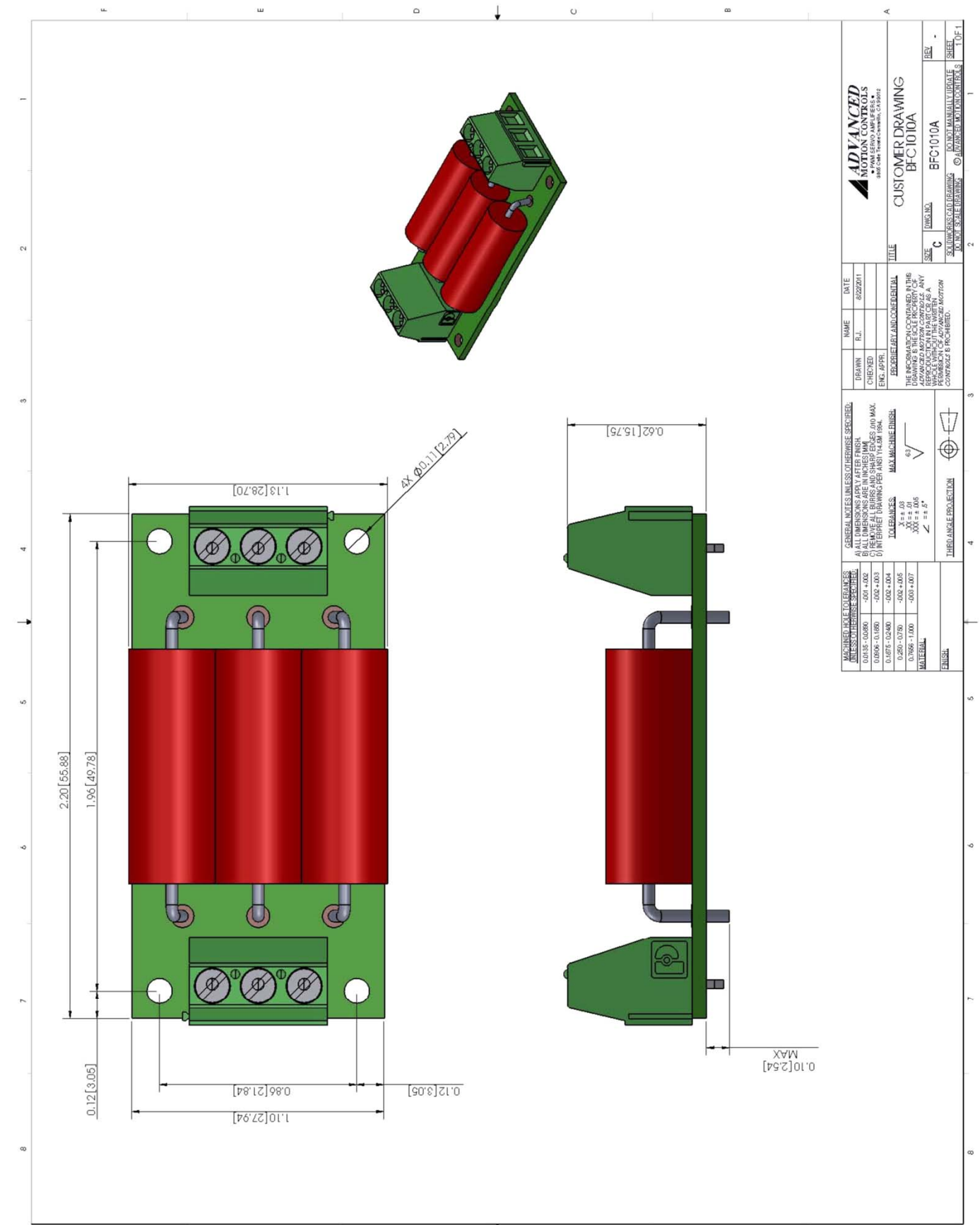
NOTE: Capacitor is not used on all models. See Specifications above for applicable capacitance values

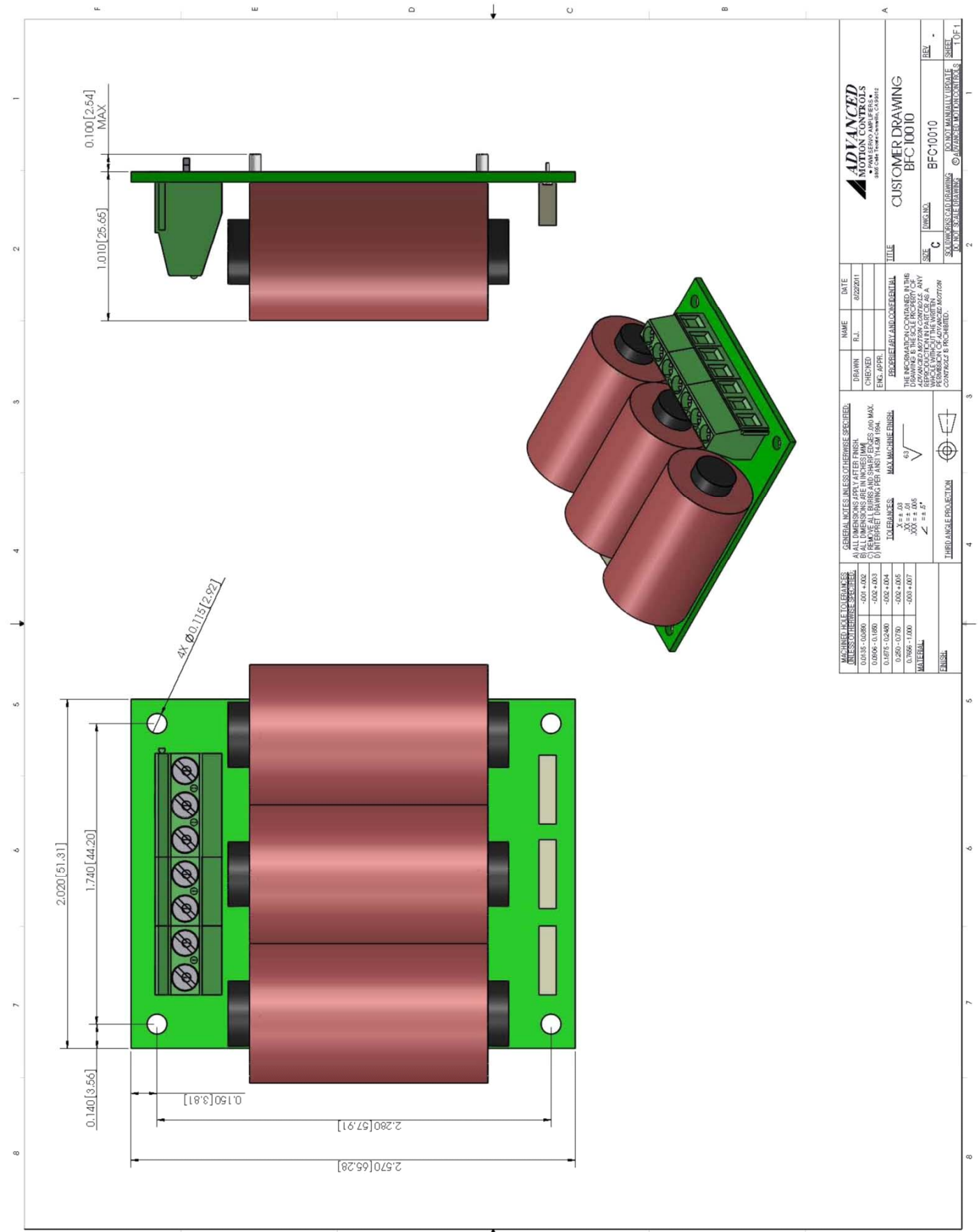
MOUNTING DIMENSIONS

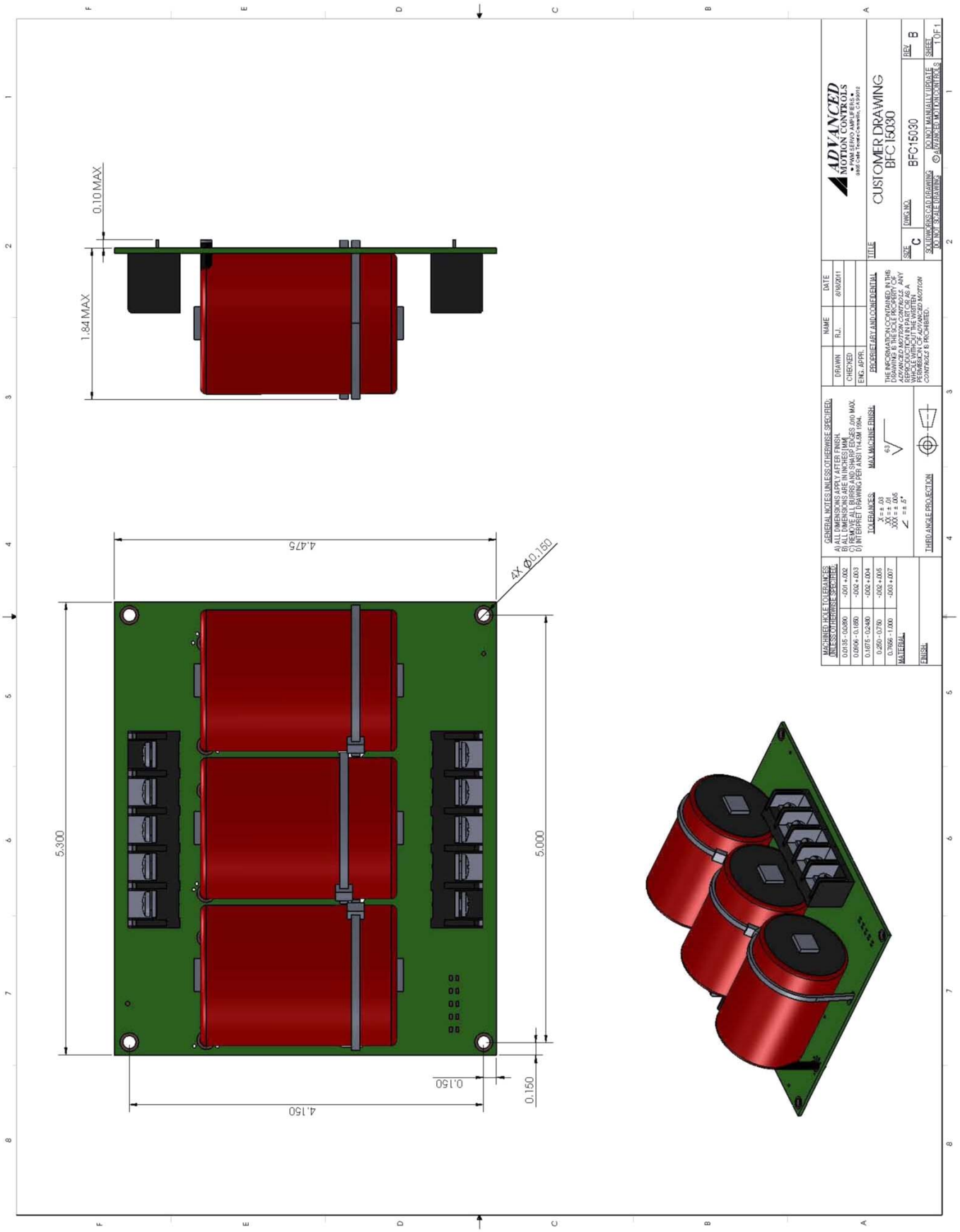


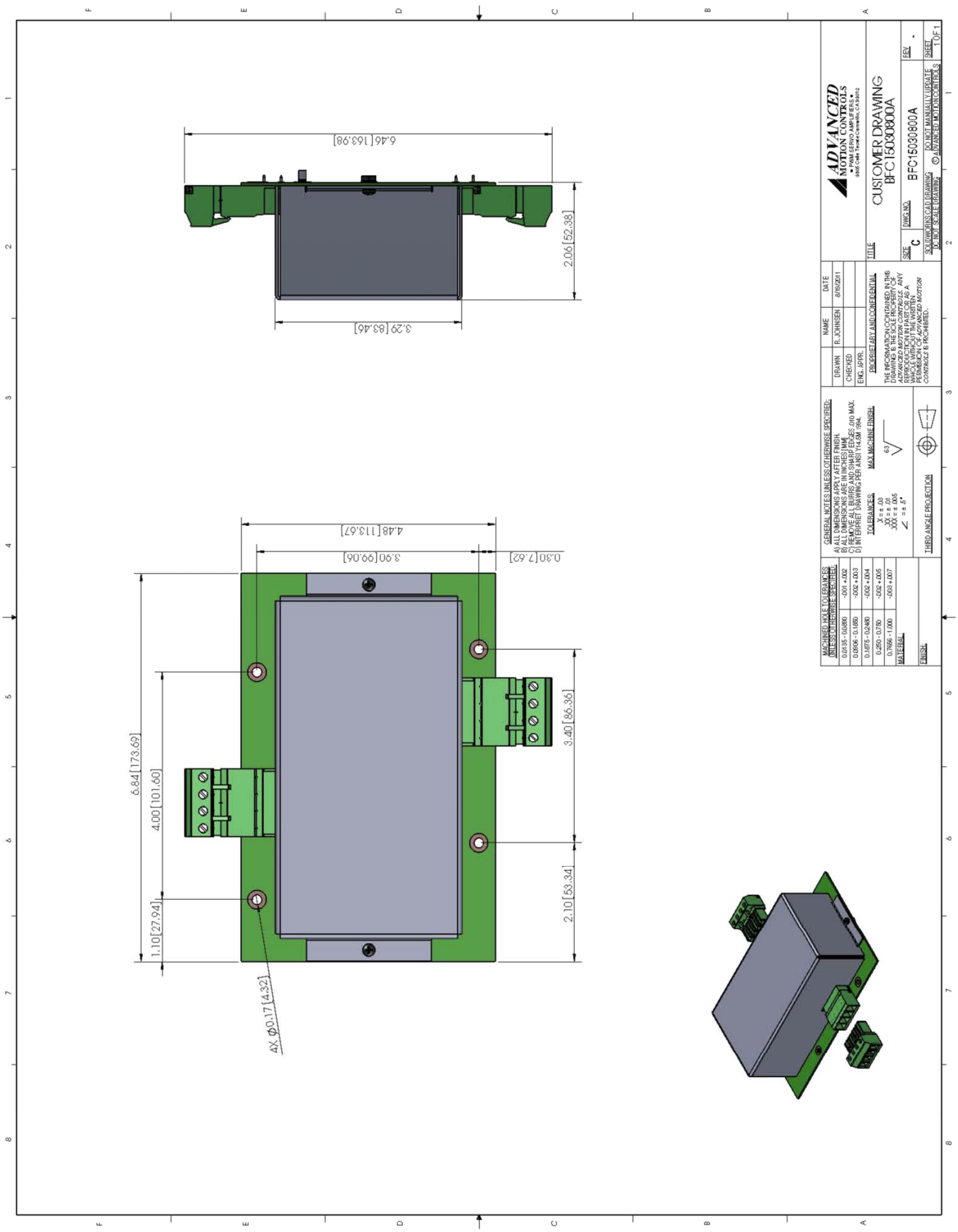

0.100[2.54] MAX
1.010[25.65]
4X Ø0.115[2.92]
2.020[51.31]
1.740[44.20]
0.140[3.56]
0.150[3.81]
2.280[57.91]
2.570[65.28]
ADVANCED MOTION CONTROLS
CUSTOMER DRAWING
FC10010
SIZE C
DWG NO. FC10010
REV -
SHEET 1 OF 1
THIRD ANGLE PROJECTION
PROPRIETARY AND CONFIDENTIAL


0.10 [2.54] MAX
1.75 [44.45]
4X Ø0.15 [3.68]
Ø3.50 [88.90]
3.10 [78.74]
2.80 [71.12]
0.15 [3.81]
3.70 [94.03]
4.00 [101.60]
0.16 [4.06]
ADVANCED MOTION CONTROLS
CUSTOMER DRAWING
FC15030C
DWG NO. FC15030C
REV -
SHEET 1 OF 1
SIZE C
SOLIDWORKS CAD DRAWING
DO NOT SCALE DRAWING
DO NOT MANUALLY UPDATE
© ADVANCED MOTION CONTROLS
DRAWN R.J. 8/22/2011
CHECKED
ENG. APPR.
PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF ADVANCED MOTION CONTROLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ADVANCED MOTION CONTROLS IS PROHIBITED.
GENERAL NOTES (UNLESS OTHERWISE SPECIFIED)
A) ALL DIMENSIONS APPLY AFTER FINISH.
B) ALL DIMENSIONS ARE IN INCHES [MM].
C) REMOVE ALL BURRS AND SHARP EDGES .010 MAX.
D) INTERPRET DRAWING PER ANSI Y14.5M 1994.
TOLERANCES:
X = ± .03
.XX = ± .01
.XXX = ± .005
∠ = ± 5°
MAX MACHINE FINISH: 63
MACHINED HOLE TOLERANCES (UNLESS OTHERWISE SPECIFIED)
0.0135 - 0.0890 -.001 +.002
0.0906 - 0.1650 -.002 +.003
0.1675 - 0.2480 -.002 +.004
0.250 - 0.780 -.002 +.005
0.7656 - 1.000 -.003 +.007
MATERIAL:
FINISH:
THIRD ANGLE PROJECTION


1.13[28.70]
4X Ø0.11[2.79]
2.20[55.88]
1.96[49.78]
0.12[3.05]
0.86[21.84]
1.10[27.94]
0.12[3.05]
0.62[15.75]
0.10[2.54] MAX
ADVANCED MOTION CONTROLS
CUSTOMER DRAWING
BFC1010A
DRAWN R.J. 8/22/2011
CHECKED
ENG. APPR.
PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ADVANCED MOTION CONTROLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ADVANCED MOTION CONTROLS IS PROHIBITED.
SIZE C
DWG NO. BFC1010A
REV -
SHEET 1 OF 1
DO NOT MANUALLY UPDATE
© ADVANCED MOTION CONTROLS


0.100[2.54] MAX
1.010[25.65]
4X Ø0.115[2.92]
2.020[51.31]
1.740[44.20]
0.140[3.56]
0.150[3.81]
2.280[57.91]
2.570[65.28]
ADVANCED MOTION CONTROLS
CUSTOMER DRAWING
BFC10010
BFC10010
SIZE C
REV -
SHEET 1 OF 1
DRAWN RJL 8/22/2011
CHECKED
ENG. APPR.
PROPRIETARY AND CONFIDENTIAL
THIRD ANGLE PROJECTION
DO NOT MANUALLY UPDATE
© ADVANCED MOTION CONTROLS


0.10 MAX
1.84 MAX
4.475
4X Ø0.150
5.300
5.000
0.150
0.150
4.150
CUSTOMER DRAWING
BFC15030
SIZE C
DWG NO. BFC15030
REV B
SHEET 1 OF 1
DRAWN RJ. 8/18/2011
CHECKED
ENG. APPR.
PROPRIETARY AND CONFIDENTIAL
THIRD ANGLE PROJECTION
SOLIDWORKS CAD DRAWING
DO NOT SCALE DRAWING
DO NOT MANUALLY UPDATE


6.46 [163.98]
2.06 [52.38]
3.29 [83.46]
4.48 [113.67]
3.90 [99.06]
0.30 [7.62]
6.84 [173.69]
4.00 [101.60]
1.10 [27.94]
3.40 [86.36]
2.10 [53.34]
4X Ø0.17 [4.32]
ADVANCED MOTION CONTROLS
CUSTOMER DRAWING
BFC15030800A
DRAWN R. JOHNSEN 8/16/2011
CHECKED
ENG APPR.
SIZE C
DWG NO. BFC15030800A
REV -
SHEET 1 OF 1
SOLIDWORKS CAD DRAWING
DO NOT SCALE DRAWING
DO NOT MANUALLY UPDATE
GENERAL NOTES UNLESS OTHERWISE SPECIFIED:
A) ALL DIMENSIONS APPLY AFTER FINISH.
B) ALL DIMENSIONS ARE IN INCHES [MM]
C) REMOVE ALL BURRS AND SHARP EDGES .010 MAX.
D) INTERPRET DRAWING PER ANSI Y14.5M 1994.
TOLERANCES:
X = ± .03
XX = ± .01
XXX = ± .005
∠ = ± .5°
MAX MACHINE FINISH:
63
MACHINED HOLE TOLERANCES UNLESS OTHERWISE SPECIFIED:
0.0135 - 0.0890 -.001 +.002
0.0906 - 0.1660 -.002 +.003
0.1675 - 0.2490 -.002 +.004
0.250 - 0.750 -.002 +.005
0.7500 - 1.000 -.003 +.007
MATERIAL:
FINISH:
THIRD ANGLE PROJECTION
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ADVANCED MOTION CONTROLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ADVANCED MOTION CONTROLS IS PROHIBITED.
© ADVANCED MOTION CONTROLS

CUSTOMIZATION INFORMATION

ADVANCED Motion Controls' products are available in many configurations. All models listed in the selection tables of the website are readily available, standard product offerings.

ADVANCED Motion Controls also has the capability to promptly develop and deliver specified products for OEMs with volume requests. Our Applications and Engineering Departments will work closely with your design team through all stages of development in order to provide the best servo drive solution for your system. Equipped with on-site manufacturing for quick-turn customs capabilities, *ADVANCED* Motion Controls utilizes our years of engineering and manufacturing expertise to decrease your costs and time-to-market while increasing system quality and reliability. Feel free to contact Applications Engineering for further information and details.

Examples of Customized Products

- Optimized Footprint
- Private Label Software
- OEM Specified Connectors
- No Outer Case
- Increased Current Resolution
- Increased Temperature Range
- Custom Control Interface
- Integrated System I/O
- Tailored Project File
- Silkscreen Branding
- Optimized Base Plate
- Increased Current Limits
- Increased Voltage Range
- Conformal Coating
- Multi-Axis Configurations
- Reduced Profile Size and Weight

Available Accessories

ADVANCED Motion Controls offers a variety of accessories designed to facilitate drive integration into a servo system. Visit www.a-m-c.com to see which accessories will assist with your application design and implementation.



Power Supplies



Shunt Regulators



Drive(s)



Filter Cards

To Motor

All specifications in this document are subject to change without written notice. Actual product may differ from pictures provided in this document.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP