

87654321

NOTES:

1. MECHANICAL REQUIREMENTS: (SEE OUTLINE DRAWING).
EXTERIOR SHEET METAL MATERIAL: .090 THK AL ALY, 5052-H32 OR EQUIV.
FINISHES:
ALUMINUM: GOLD FILM PER MIL-C-5541, CLASS 1A.
COPPER: TIN PLATE.
BRASS: TIN OR NICKEL
PRINTED CIRCUIT DESIGN: PER IPC-275.
MATERIAL: FR4, 4 OZ CU ON OUTER LAYERS 2 OZ ON INNER LAYERS, 94-V-0. MIN.
COOLING REQUIREMENTS: FORCED-AIR COOLED WITH THREE 90 CFM FANS.
2. UNIT MOUNTED IN LOCATIONS MARKED "M", QTY=20. MARKING SHOWN FOR CLARITY ONLY, NOT ON SCREEN PRINT. UNIT MOUNTS USING 8-32 UNC-2B WITH .210 MAX. INSERTION DEPTH.
3. CONNECTIONS:
AC INPUT: TB1
TERMINAL BLOCK, DUAL ROW, 0.563 INCH PITCH, 8-32 UNC-2B SCREWS
A TERMINAL BLOCK IS PROVIDED FOR EACH OF THE INPUT TYPES (REFER TO INPUT RATING CHART).

INPUT TYPE (#)			
1 SINGLE PHASE	2 DC	3 3 PHASE 3 WIRE	4 3 PHASE 4 WIRE
TB1-1 L1	TB1-1 +	TB1-1 A	TB1-1 A
TB1-2 L2/N	TB1-2 -	TB1-2 B	TB1-2 B
		TB1-3 C	TB1-3 C
			TB1-4 N

STATUS/CONTROL CONNECTOR: J1
AMP, D-SUB, RECEPTACLE, 15 PIN., PART NO. 748876-4 WITH 4-40 THREADED JACKSCREWS. MATES WITH AMP, D-SUB, PLUG, 15 POS., PART NO. 748048-1 OR EQUIVALENT.

J1-1	SIG RET	J1-9	SIGNAL RET
J1-2	VCC +5V @ 300mA	J1-10	PS ENA
J1-3	AC PWR OK	J1-11	PS INH
J1-4	N/C	J1-12	N/C
J1-5	N/C	J1-13	+ REM SENSE
J1-6	+5V DC (IN)	J1-14	- REM SENSE
J1-7	DC OK	J1-15	+5VDC RET (IN)
J1-8	DC OK'		

OUTPUT TERMINATION
TWO 0.250 INCH THICK COPPER BUS BAR WITH HOLE TO ACCOMMODATE 0.5 INCH HARDWARE. (HARDWARE NOT SUPPLIED).

T1	+OUTPUT
T2	-OUTPUT

4. ELECTRICAL SPECIFICATIONS: (TYPICAL AT 25°C, NOMINAL LINE AND 75%, UNLESS OTHERWISE SPECIFIED)
INPUT REQUIREMENTS: (SEE INPUT RATING CHART)
INPUT VOLTAGE: 85-254 VAC, 47-500Hz/100-380 VDC
INRUSH CURRENT:
INPUT TYPE 1 - SINGLE PHASE: 90A PEAK @ 115 VAC, 180A PEAK @ 230 VAC
INPUT TYPE 2 - DIRECT CURRENT: 90A PEAK @ 115 VDC, 180A PEAK @ 230 VDC
INPUT TYPE 3 - 3 PHASE 3 WIRE: 52A PEAK @ 115 VAC PER PHASE
104A PEAK @ 230 VAC PER PHASE
INPUT TYPE 4 - 3 PHASE 4 WIRE: 30A PEAK @ 115 VAC PER PHASE, 60A PEAK @ 230 VAC PER PHASE
RIDE-THROUGH TIME: 20 MS AT 1200W LOAD
POWER FACTOR: .99 (115 VAC 800W LOAD)/.95 (230 VAC 1200W LOAD)
TRANSIENT SURGE (COMMON MODE & NORMAL MODE): IEC 801-5 LEVEL 3
EFFICIENCY: TYPICALLY >75%

4. ELECTRICAL SPECIFICATIONS: CONTINUED.
OUTPUT REQUIREMENTS:
NUMBER OF OUTPUTS: 1
OUTPUT VOLTAGE: (SEE TABULATION ON SHEET 2).
OUTPUT ADJUSTMENT: 95% OF V NOM MIN., 105% OF V NOM MAX.
SETPOINT ACCURACY: ±0.5% OF V NOM TYP., ±1% OF V NOM MAX.
LOAD REGULATION: ±0.2% OF V NOM MAX., 0% TO 100% LOAD
LINE REGULATION: ±0.2% FROM 10% LOAD TO FULL LOAD
OUTPUT RIPPLE-PP: 1% TYP., 20 MHz BANDWIDTH
TEMPERATURE REGULATION: 0.002°C TYP., 0.005°C MAX., -40 TO 65°C
LONG TERM DRIFT: 0.02%/1K HOURS TYP.
TOTAL REMOTE SENSE COMPENSATION: 0.25 VDC EACH SENSE LINE.
OVP SET POINT: MIN. 112% OF V MAX., MAX. 135% OF V MAX., AUTOMATIC RESTART
MAXIMUM OUTPUT POWER: (SEE INPUT RATING CHART).
OTHER REQUIREMENTS:
POWER SUPPLY INHIBIT: WITH THE POWER SUPPLY INHIBIT AT A HIGH LEVEL OR OPEN, THE POWER SUPPLY SHALL BE ENABLED REGARDLESS OF THE STATE OF POWER SUPPLY ENABLE.
POWER SUPPLY ENABLE: CONNECTING POWER SUPPLY INHIBIT AND POWER SUPPLY ENABLE TO SIGNAL RETURN SHALL CAUSE THE POWER SUPPLY TO OPERATE. IN THIS CONFIGURATION, PLACING A HIGH LEVEL OR OPEN ON POWER SUPPLY ENABLE WILL CAUSE THE POWER SUPPLY TO BE DISABLED.

INHIBIT	ENABLE	POWER SUPPLY STATE
1	X	ON
0	0	ON
0	1	OFF

1= TTL HIGH OR OPEN CIRCUIT
0= TTL LOW OR CLOSED CIRCUIT
X= DON'T CARE

AC POWER OK: TTL ACTIVE HIGH SIGNAL. MINIMUM 3ms HOLD UP TIME @ 3600 WATTS LOAD
OVER TEMPERATURE PROTECTION: OUTPUT THERMAL LIMITING 100°C, INPUT LIMITING 90°C
DCOK: SIGNAL WILL INDICATE WHEN THE OUTPUT VOLTAGE IS OUT OF TOLERANCE (±4 TO ±6%)

5. COMPLIANCE REQUIREMENTS:
RADIATED EMISSIONS: MIL-STD-461E RE101-1, RE101-2, RE102-1, UPPER CURVE
SUSCEPTIBILITY: MIL-STD-461E CS101-1; CS114-1, CURVE 2; RS103-1
SAFETY APPROVALS: DESIGNED TO MEET UL 1950, CSA C22.2 NO.234, IEC 950, EN 60950
DIELECTRIC WITHSTAND: PRIMARY TO CHASSIS GND=2121 VDC/PRIMARY TO SECONDARY=2121 VDC/SECONDARY TO CHASSIS GND=50 VDC
6. ENVIRONMENTAL REQUIREMENTS:
OPERATING TEMPERATURE: C-GRADE -20°C TO +55°C, T AND H-GRADE -40°C TO +55°C, M-GRADE -55°C TO +55°C
LINEAR DERATE TO 50% POWER BETWEEN 55°C AND 65°C (REFER TO INPUT RATING CHART).
STORAGE TEMPERATURE: C AND T-GRADE -40°C TO +125°C, H-GRADE -55°C TO +125°C, M-GRADE -65°C TO +125°C
VIBRATION: MIL-STD-167-1, TYPE 1 SINE 4-50HZ.
SHOCK: MIL-S-901, LIGHTWEIGHT CLASS 1 (5FT. HAMMER BLOW W/57 LB LOAD)
ALTITUDE: 15000 FT MAXIMUM OPERATING AND NON-OPERATING.
BENCH HANDLING: MIL-STD-810, METHOD 516.4 PROCEDURE V1.
HUMIDITY: 95% NON-CONDENSING, OPERATING AND NON-OPERATING.
WITH OPTIONAL CONFORMAL COATING: (700-0176-XXX-C)
HUMIDITY: 100% CONDENSING, MIL-STD-810, METHOD 507 OPERATING AND NON-OPERATING.
SALT ATMOSPHERE: MIL-STD-810, METHOD 509 OPERATING AND NON-OPERATING.
FUNGUS: MIL-STD-810, METHOD 508 OPERATING AND NON-OPERATING.

7. SIZE: 7.00" H X 16.00" W X 13.00" L MAXIMUM
8. WEIGHT: 45.5 LBS MAXIMUM.

PART NO. : 700-0176-XXX-X
(SEE PART NUMBER TABULATION ON SHEET 2).
CUSTOMER PART NO. : TBD

INPUT RATING CHART

INPUT RATING	POWER MAXIMUM (WATTS)	INPUT TYPE (#)	INPUT VOLTAGE RANGE
1	1800	(1) SINGLE PHASE	80/85 TO 254 VAC
		(2) DIRECT CURRENT	80/85 TO 380 VDC
		(3) 3 PHASE 3 WIRE	80/85 TO 254 VAC LINE TO LINE
		(4) 3 PHASE 4 WIRE	80/85 TO 254VAC LINE TO NEUTRAL
2	2400	(1) SINGLE PHASE	102/108 TO 254 VAC
		(2) DIRECT CURRENT	102/108 TO 380 VDC
		(3) 3 PHASE 3 WIRE	102/108 TO 254 VAC LINE TO LINE
		(4) 3 PHASE 4 WIRE	102/108 TO 254VAC LINE TO NEUTRAL
3	3600	(1) SINGLE PHASE	146/158 TO 254 VAC
		(2) DIRECT CURRENT	146/158 TO 380 VDC
		(3) 3 PHASE 3 WIRE	146/158 TO 254 VAC LINE TO LINE
		(4) 3 PHASE 4 WIRE	146/158 TO 254 VAC LINE TO NEUTRAL
4	4800	(1) SINGLE PHASE	192 TO 254 VAC
		(2) DIRECT CURRENT	192 TO 380 VDC
		(3) 3 PHASE 3 WIRE	192 TO 254 VAC LINE TO LINE
		(4) 3 PHASE 4 WIRE	192 TO 254VAC LINE TO NEUTRAL
5	5400	(1) SINGLE PHASE	215 TO 254 VAC
		(2) DIRECT CURRENT	215 TO 380 VDC
		(3) 3 PHASE 3 WIRE	215 TO 254 VAC LINE TO LINE
		(4) 3 PHASE 4 WIRE	215 TO 254 VAC LINE TO NEUTRAL

DESIGN ACKNOWLEDGMENT:
ALL MECHANICAL AND ELECTRICAL SPECIFICATIONS HAVE BEEN REVIEWED AND ARE CORRECT.

SIGNATURE
PRINTED NAME
TITLE

CONTROL DRAWING

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
DECIMALS ANGLES
.XX ± .03 ± 1°
.XXX ± .010
DO NOT SCALE DRAWING

CONTRACT NO.
APPROVALS
DRAWN R. MILLER 03/06/10
CHECKED
ENGR R. MILLER 03/06/10

TITLE
CD, P.S., JAVELIN III

SIZE CAGE CODE DWG NO. REV.
D1FWR8 700-0176-XXX B
SCALE 1/1 F/M 700-0176-XXX-B-1 SHEET 1 OF 5

Maximum Output Power vs. Input Voltage AC or DC

Maximum Output Power vs. Temperature

700-0176-X X X-X

MODEL NUMBER

TEMPERATURE GRADE
C, T, H, OR M

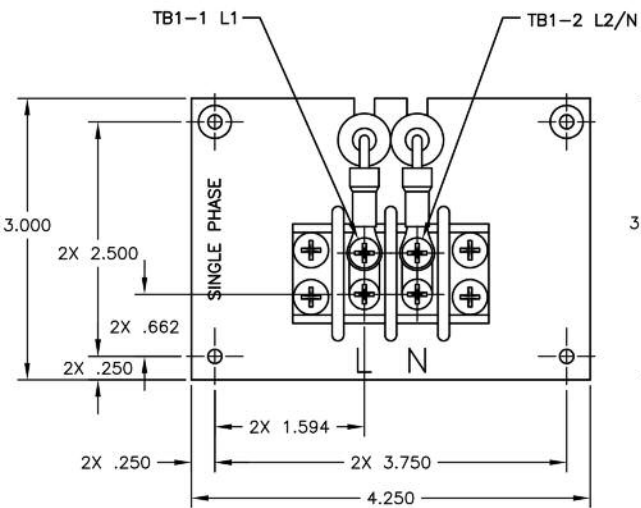
SEE CHART
BELOW

OPTION CODE:
BLANK = NO OPTION SELECTED
C = CONFORMAL COATING

REVISION			
REV	DESCRIPTION	DATE	APPROVED
-	SEE SHEET 1		

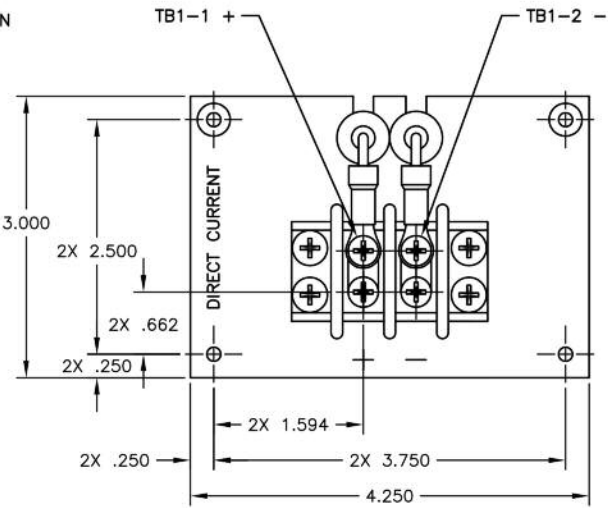
OUTPUT RATING AND PART NUMBER TABULATION

DASH #	OUTPUT VOLTAGE	OUTPUT POWER (WATTS)	OUTPUT CURRENT (ADC)	INPUT RATING	INPUT TYPE (#)	DASH #	OUTPUT VOLTAGE	OUTPUT POWER (WATTS)	OUTPUT CURRENT (ADC)	INPUT RATING	INPUT TYPE (#)
700-0176-XXX						700-0176-XXX					
X01	2	480	240	1	1	X49	2	480	240	1	3
X02	2	960	480	1	1	X50	2	960	480	1	3
X03	2	1440	720	1	1	X51	2	1440	720	1	3
X04	3.3	792	240	1	1	X52	3.3	792	240	1	3
X05	3.3	1584	480	1	1	X53	3.3	1584	480	1	3
X06	3.3	2376	720	1, 2	1	X54	3.3	2376	720	1, 2	3
X07	5	1200	240	1	1	X55	5	1200	240	1	3
X08	5	2400	480	1, 2	1	X56	5	2400	480	1, 2	3
X09	5	3600	720	1, 2, 3	1	X57	5	3600	720	1, 2, 3	3
X10	12	1800	150	1	1	X58	12	1800	150	1	3
X11	12	3600	300	1, 2, 3	1	X59	12	3600	300	1, 2, 3	3
X12	12	5400	450	1, 2, 3, 4, 5	1	X60	12	5400	450	1, 2, 3, 4, 5	3
X13	15	1800	120	1	1	X61	15	1800	120	1	3
X14	15	3600	240	1, 2, 3	1	X62	15	3600	240	1, 2, 3	3
X15	15	5400	360	1, 2, 3, 4, 5	1	X63	15	5400	360	1, 2, 3, 4, 5	3
X16	24	1800	75	1	1	X64	24	1800	75	1	3
X17	24	3600	150	1, 2, 3	1	X65	24	3600	150	1, 2, 3	3
X18	24	5400	225	1, 2, 3, 4, 5	1	X66	24	5400	225	1, 2, 3, 4, 5	3
X19	28	1800	64.3	1	1	X67	28	1800	64.3	1	3
X20	28	3600	128.6	1, 2, 3	1	X68	28	3600	128.6	1, 2, 3	3
X21	28	5400	192.9	1, 2, 3, 4, 5	1	X69	28	5400	192.9	1, 2, 3, 4, 5	3
X22	48	1800	37.5	1	1	X70	48	1800	37.5	1	3
X23	48	3600	75	1, 2, 3	1	X71	48	3600	75	1, 2, 3	3
X24	48	5400	112.5	1, 2, 3, 4, 5	1	X72	48	5400	112.5	1, 2, 3, 4, 5	3
X25	2	480	240	1	2	X73	2	480	240	1	4
X26	2	960	480	1	2	X74	2	960	480	1	4
X27	2	1440	720	1	2	X75	2	1440	720	1	4
X28	3.3	792	240	1	2	X76	3.3	792	240	1	4
X29	3.3	1584	480	1	2	X77	3.3	1584	480	1	4
X30	3.3	2376	720	1, 2	2	X78	3.3	2376	720	1, 2	4
X31	5	1200	240	1	2	X79	5	1200	240	1	4
X32	5	2400	480	1, 2	2	X80	5	2400	480	1, 2	4
X33	5	3600	720	1, 2, 3	2	X81	5	3600	720	1, 2, 3	4
X34	12	1800	150	1	2	X82	12	1800	150	1	4
X35	12	3600	300	1, 2, 3	2	X83	12	3600	300	1, 2, 3	4
X36	12	5400	450	1, 2, 3, 4, 5	2	X84	12	5400	450	1, 2, 3, 4, 5	4
X37	15	1800	120	1	2	X85	15	1800	120	1	4
X38	15	3600	240	1, 2, 3	2	X86	15	3600	240	1, 2, 3	4
X39	15	5400	360	1, 2, 3, 4, 5	2	X87	15	5400	360	1, 2, 3, 4, 5	4
X40	24	1800	75	1	2	X88	24	1800	75	1	4
X41	24	3600	150	1, 2, 3	2	X89	24	3600	150	1, 2, 3	4
X42	24	5400	225	1, 2, 3, 4, 5	2	X90	24	5400	225	1, 2, 3, 4, 5	4
X43	28	1800	64.3	1	2	X91	28	1800	64.3	1	4
X44	28	3600	128.6	1, 2, 3	2	X92	28	3600	128.6	1, 2, 3	4
X45	28	5400	192.5	1, 2, 3, 4, 5	2	X93	28	5400	192.9	1, 2, 3, 4, 5	4
X46	48	1800	37.5	1	2	X94	48	1800	37.5	1	4
X47	48	3600	75	1, 2, 3	2	X95	48	3600	75	1, 2, 3	4
X48	48	5400	112.5	1, 2, 3, 4, 5	2	X96	48	5400	112.5	1, 2, 3, 4, 5	4



TERMINAL BLOCK
TYPE 1

(SINGLE PHASE)

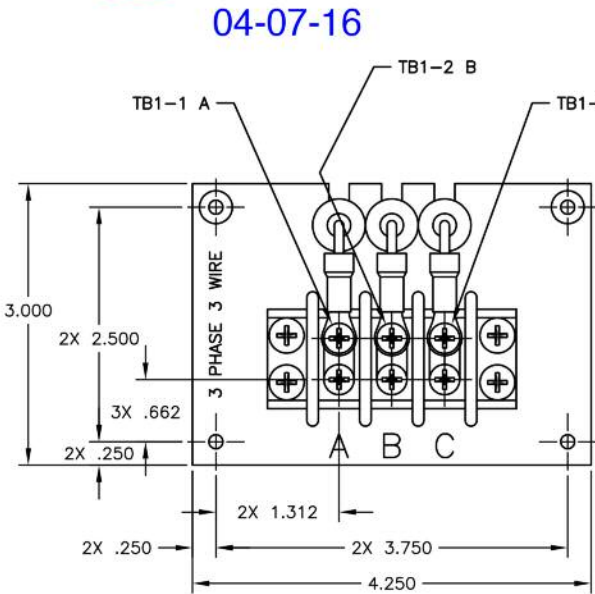


TERMINAL BLOCK
TYPE 2

(DIRECT CURRENT)

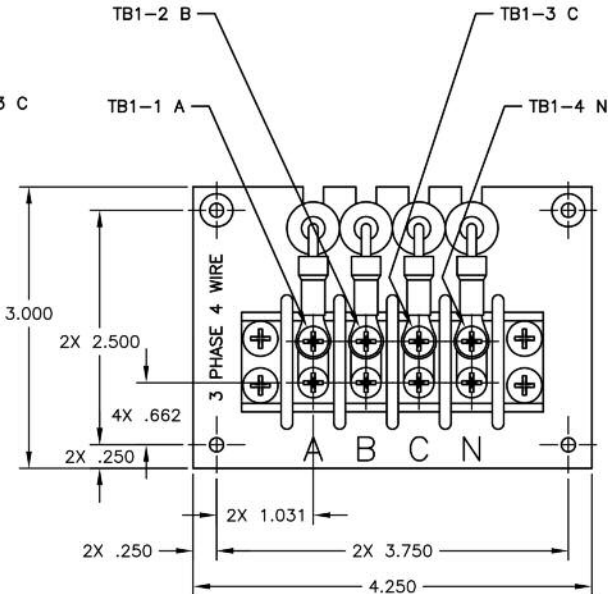
RELEASED

04-07-16



TERMINAL BLOCK
TYPE 3

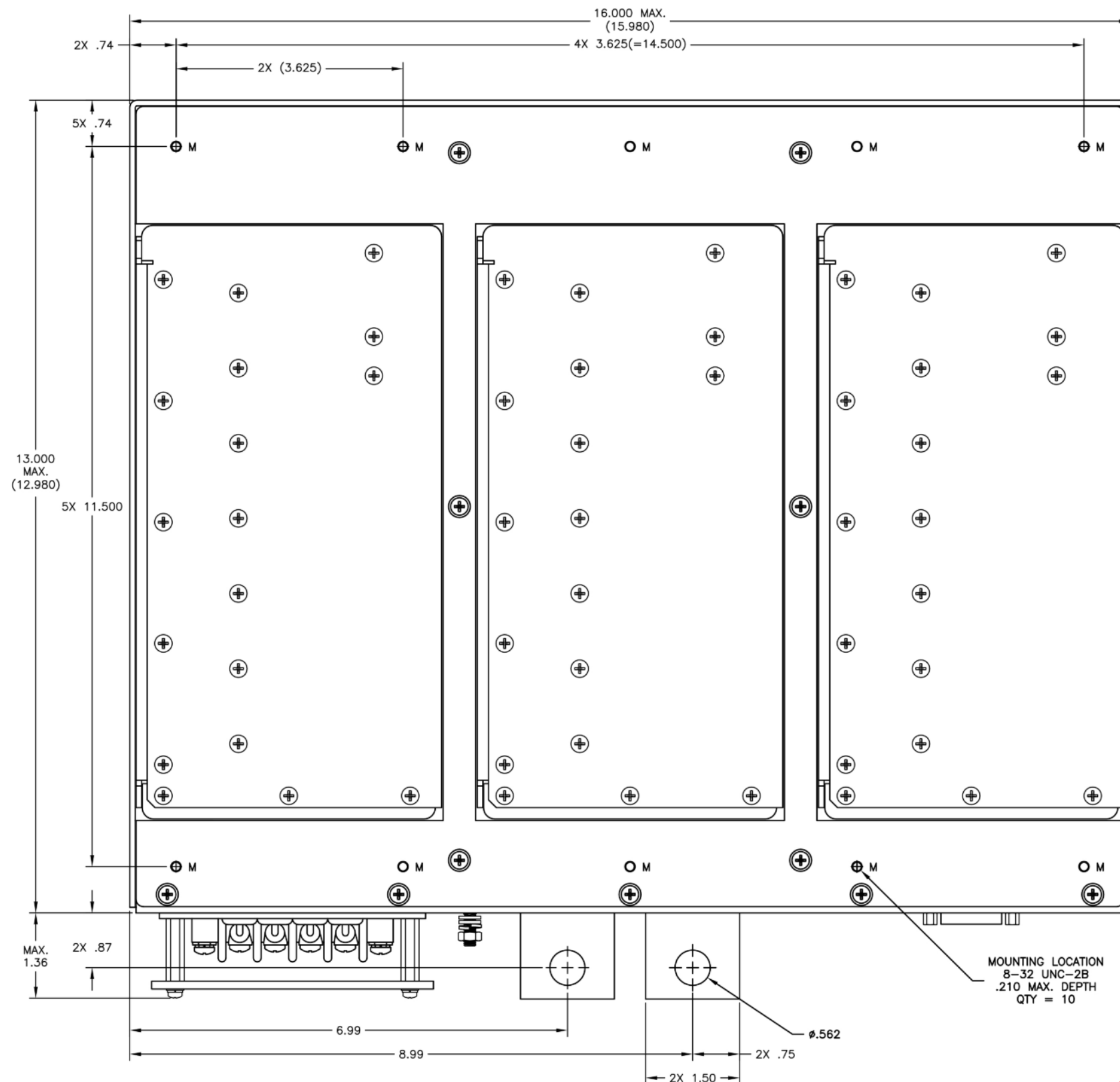
(3 PHASE 3 WIRE)



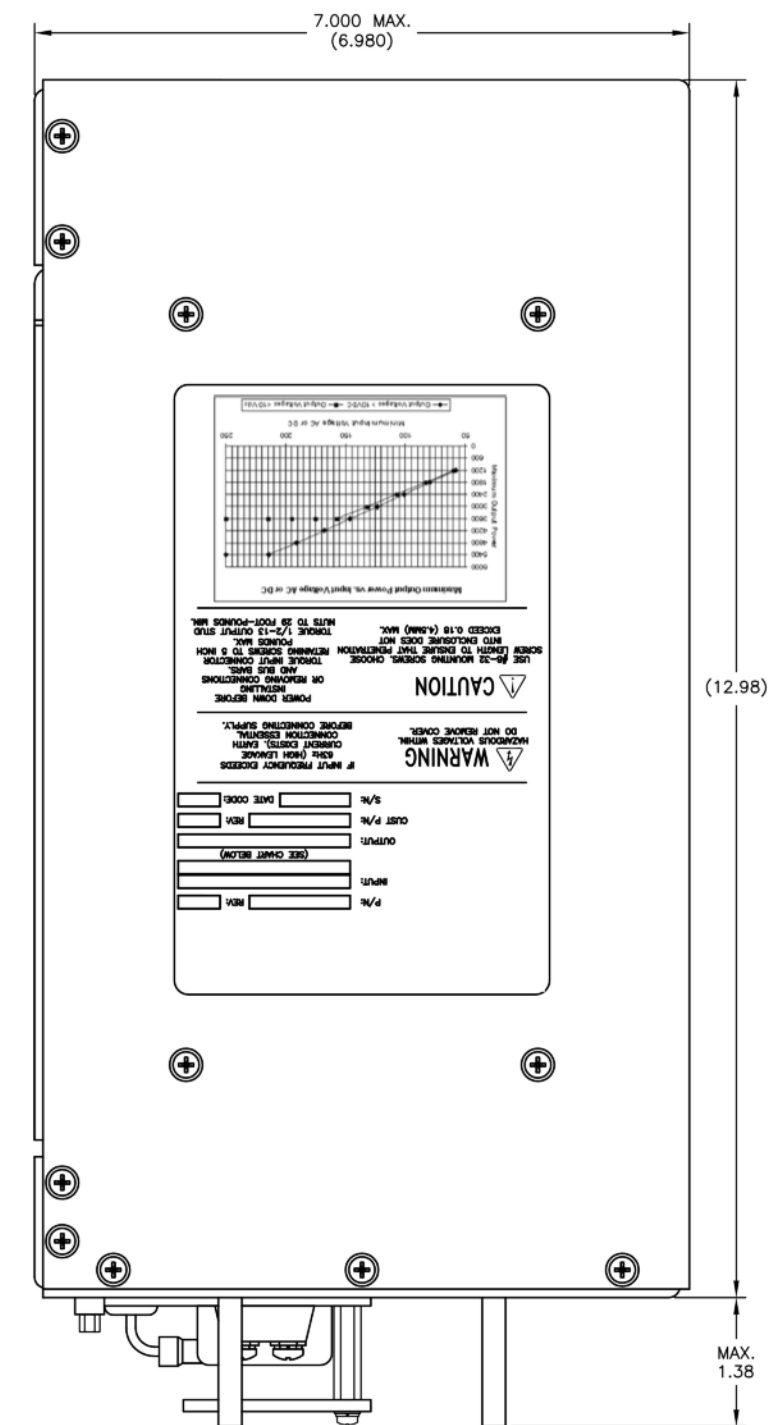
TERMINAL BLOCK
TYPE 4

(3 PHASE 4 WIRE)

REVISION			
REV	DESCRIPTION	DATE	APPROVED
-	SEE SHEET 1		



TOP VIEW



SIDE VIEW

RELEASED

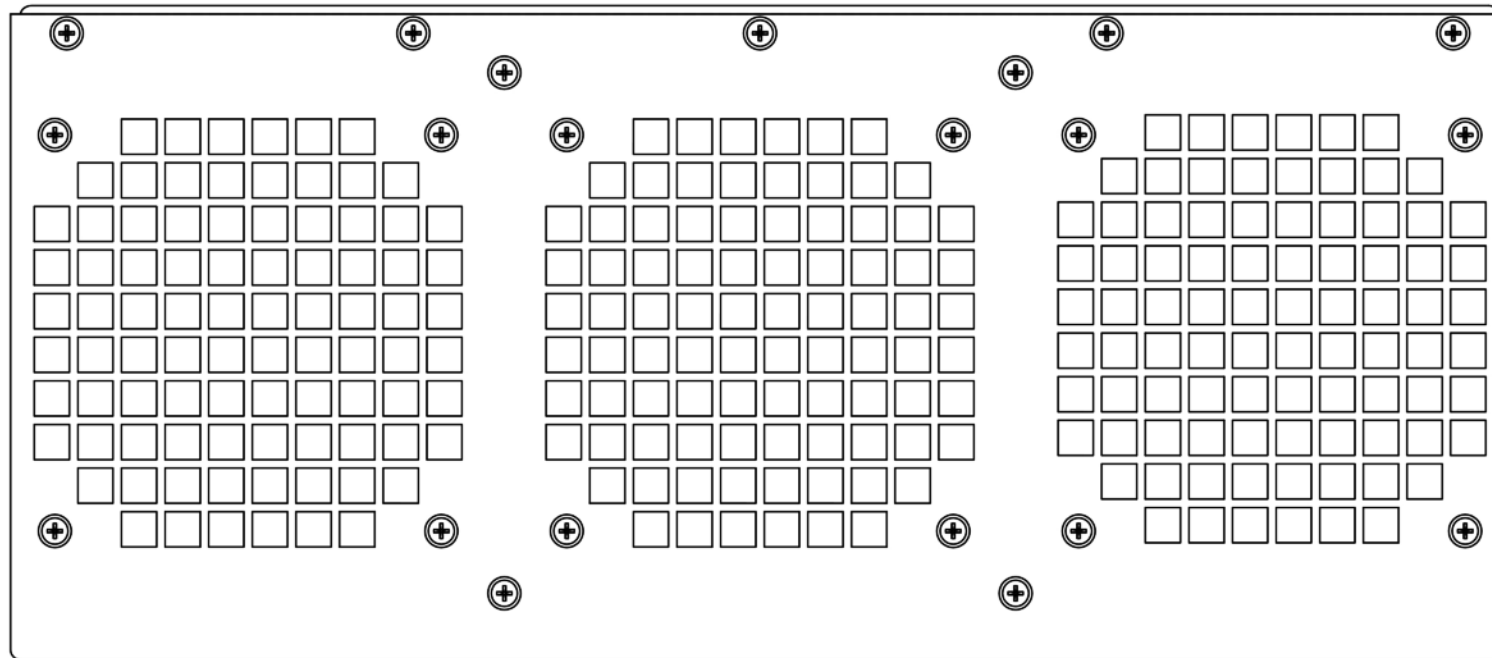
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SIZE	CAGE CODE	DWG NO.	REV.
D	1FWR8	700-0176-XXX	B
SCALE	1/1	F/N 700-0176-XXX-B-3	SHEET 3 OF 5

8 7 6 5 4 3 2 1

REVISION			
REV	DESCRIPTION	DATE	APPROVED
-	SEE SHEET 1		

D



D

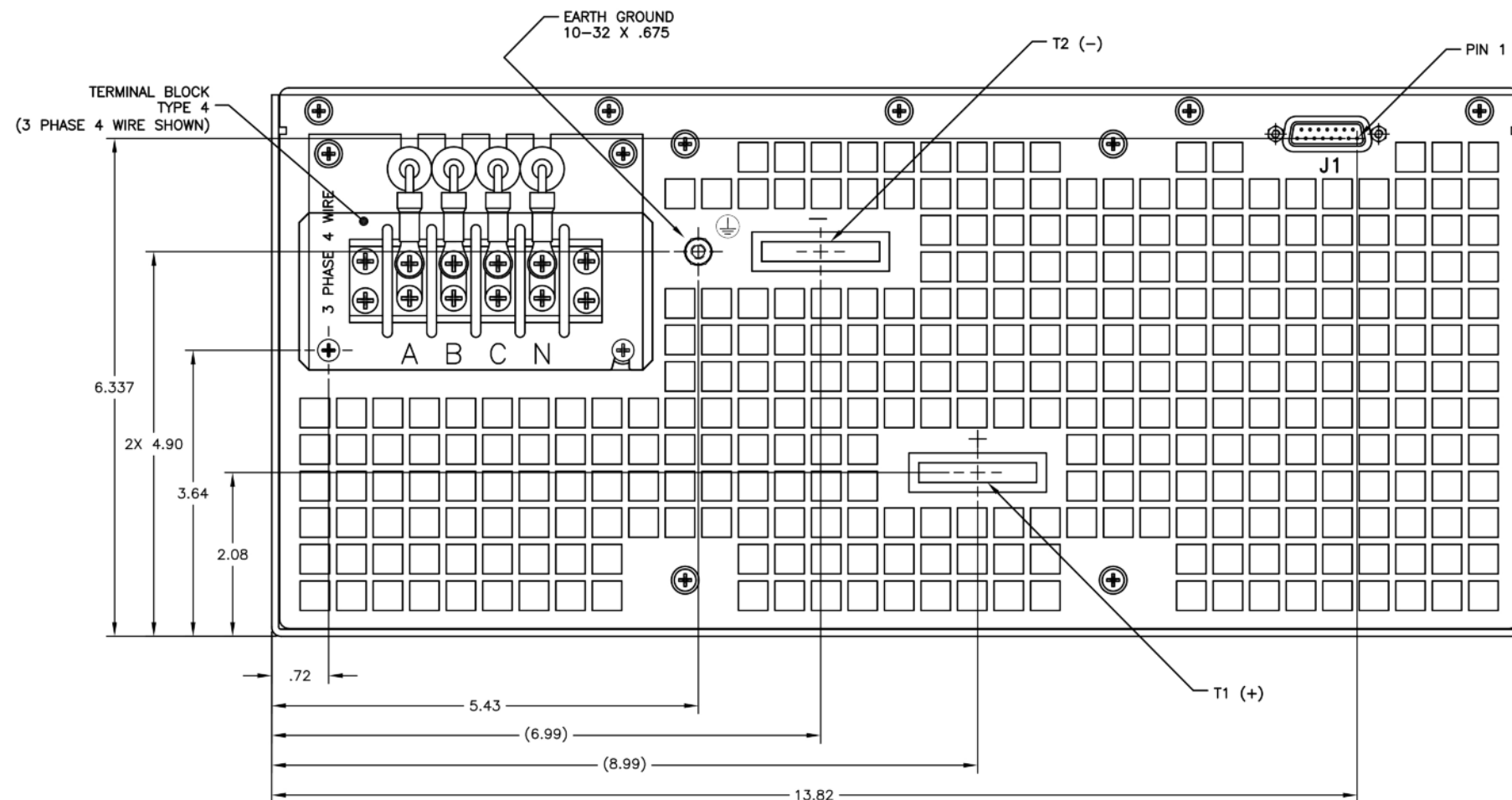
C

C

FRONT VIEW

B

B



B

B

A

A

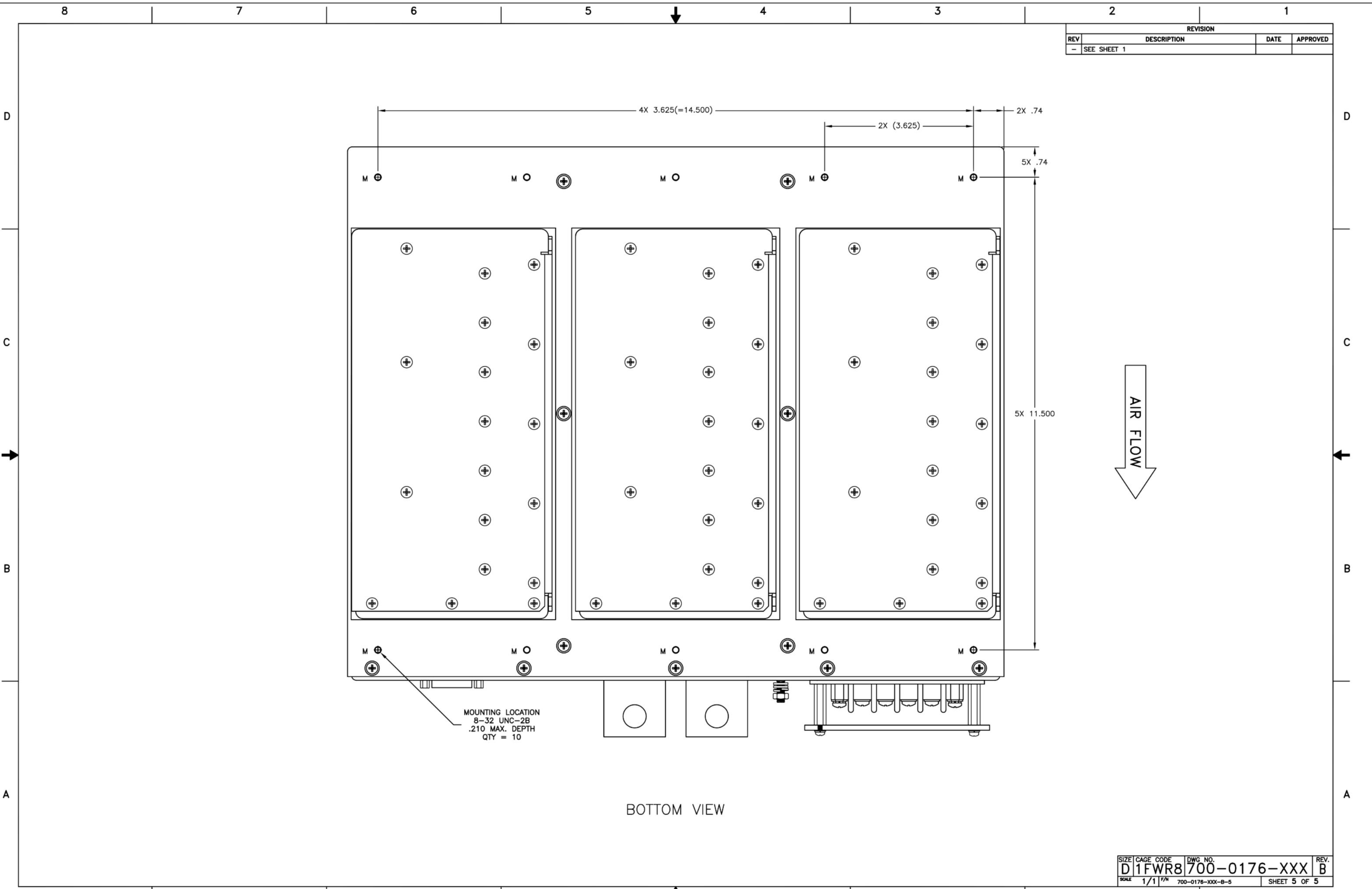
REAR VIEW

RELEASED

04-07-16

8 7 6 5 4 3 2 1

SIZE	CAGE CODE	DWG NO.	REV.
D	1FWR8	700-0176-XXX	B
SCALE	1/1	F/N 700-0176-XXX-B-4	SHEET 4 OF 5



REVISION			
REV	DESCRIPTION	DATE	APPROVED
-	SEE SHEET 1		

SIZE	CAGE CODE	DWG. NO.	REV.
D	1FWR8	700-0176-XXX	B
SCALE	1/1 F/N	700-0176-XXX-B-5	SHEET 5 OF 5