

REVISION			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03-11-14	R. MILLER
B	UPDATE PROTO		

NOTES:

- 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.
- 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.
- 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	2	3	4
SINGLE PHASE	DC	3 PHASE 3 WIRE	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

- 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%

- 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%)

- 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

- 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.

- SIZE: 7.00" H X 16.00" W X 13.00" L MAXIMUM

- WEIGHT: 45.5 LBS MAXIMUM.

9 ASSEMBLY IDENTIFIED WITH MISSION POWER SOLUTIONS PRODUCT LABEL APPROX. WHERE SHOWN.

- VENDOR:
MISSION POWER SOLUTIONS INC.
4168 AVENIDA DE LA PLATA
SUITE #105
OCEANSIDE, CA 92056-6030
SALES@MPWRS.COM
TEL: (760) 631-6846
FAX: (760) 631-6972
MPS 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

DATE

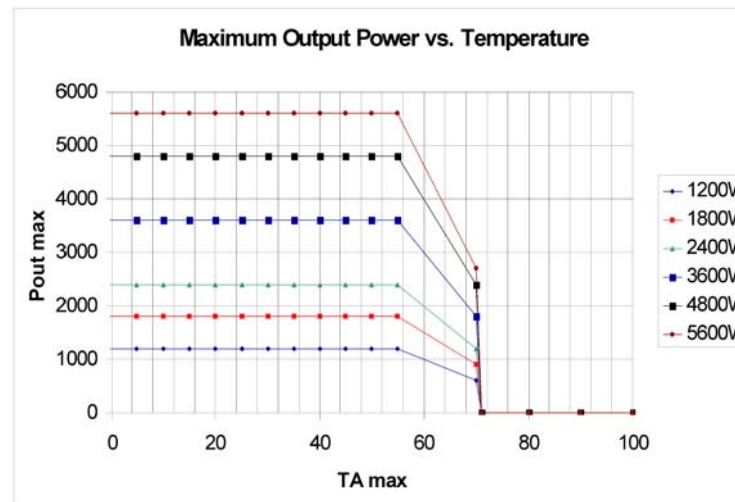
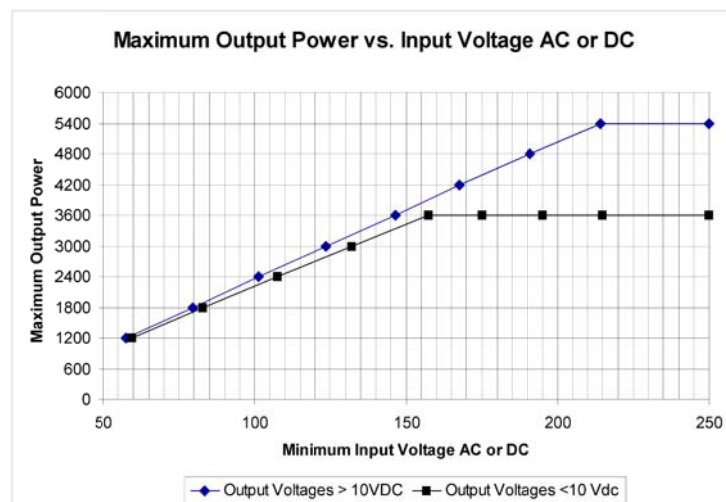
TITLE

CONTROL DRAWING

THIRD ANGLE PROJECTION	CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS ANGLES .XX ± .03 ± 1° .XXX ± .010	APPROVALS		DATE
DO NOT SCALE DRAWING	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.
		D1FWR8700-0176-XXX B	
		SCALE 1/1 F/M 700-0176-XXX-B-1	SHEET 1 OF 5

RELEASED

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700-0176-X X X-X

MODEL NUMBER

TEMPERATURE GRADE
C, T, H, OR M

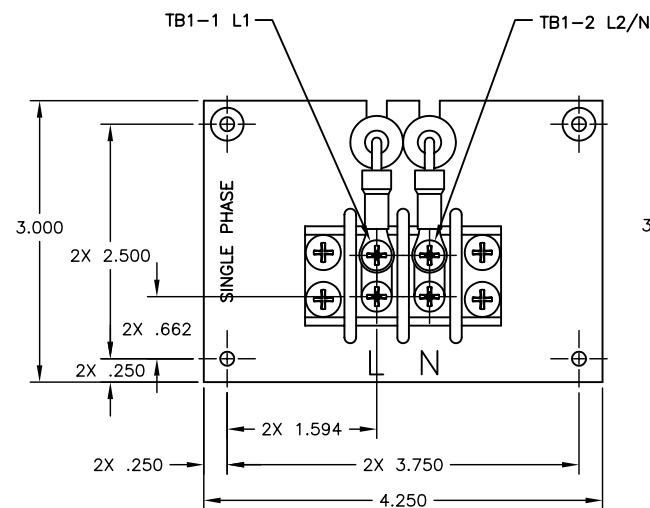
SEE CHART
BELOW

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

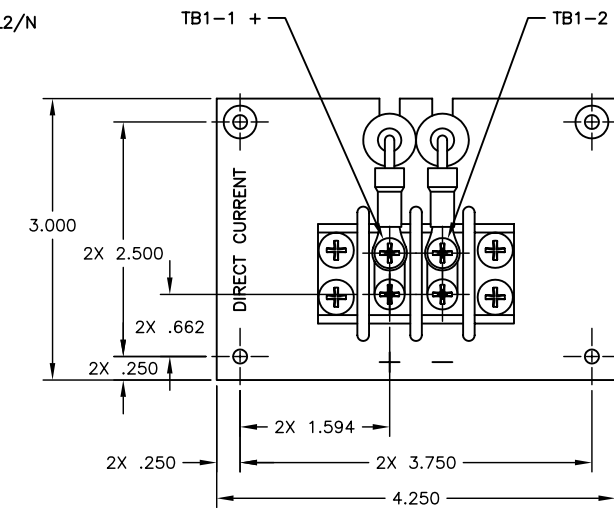
REVISION			
REV	DESCRIPTION	DATE	APPROVED
-	SEE SHEET 1		

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



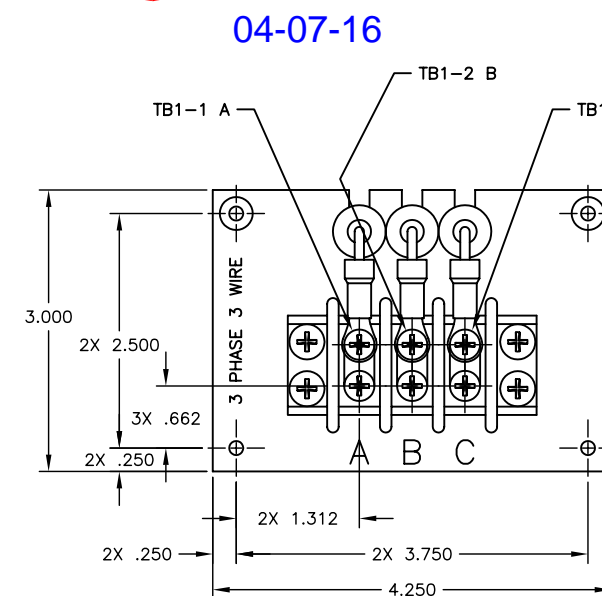
TERMINAL BLOCK
TYPE 1
(SINGLE PHASE)



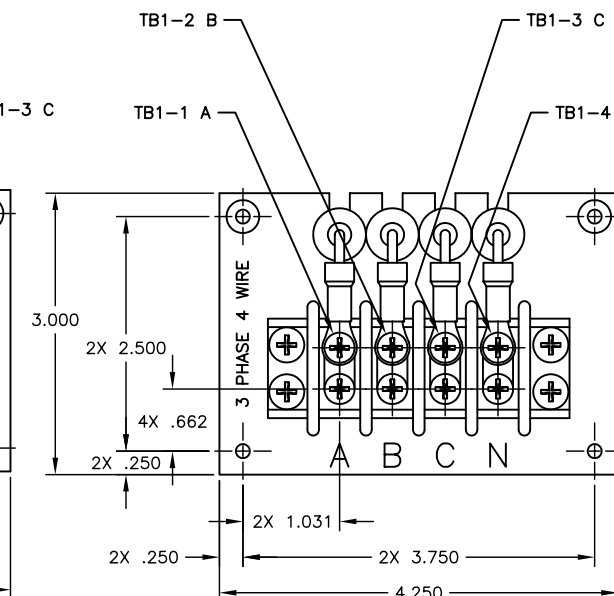
TERMINAL BLOCK
TYPE 2
(DIRECT CURRENT)



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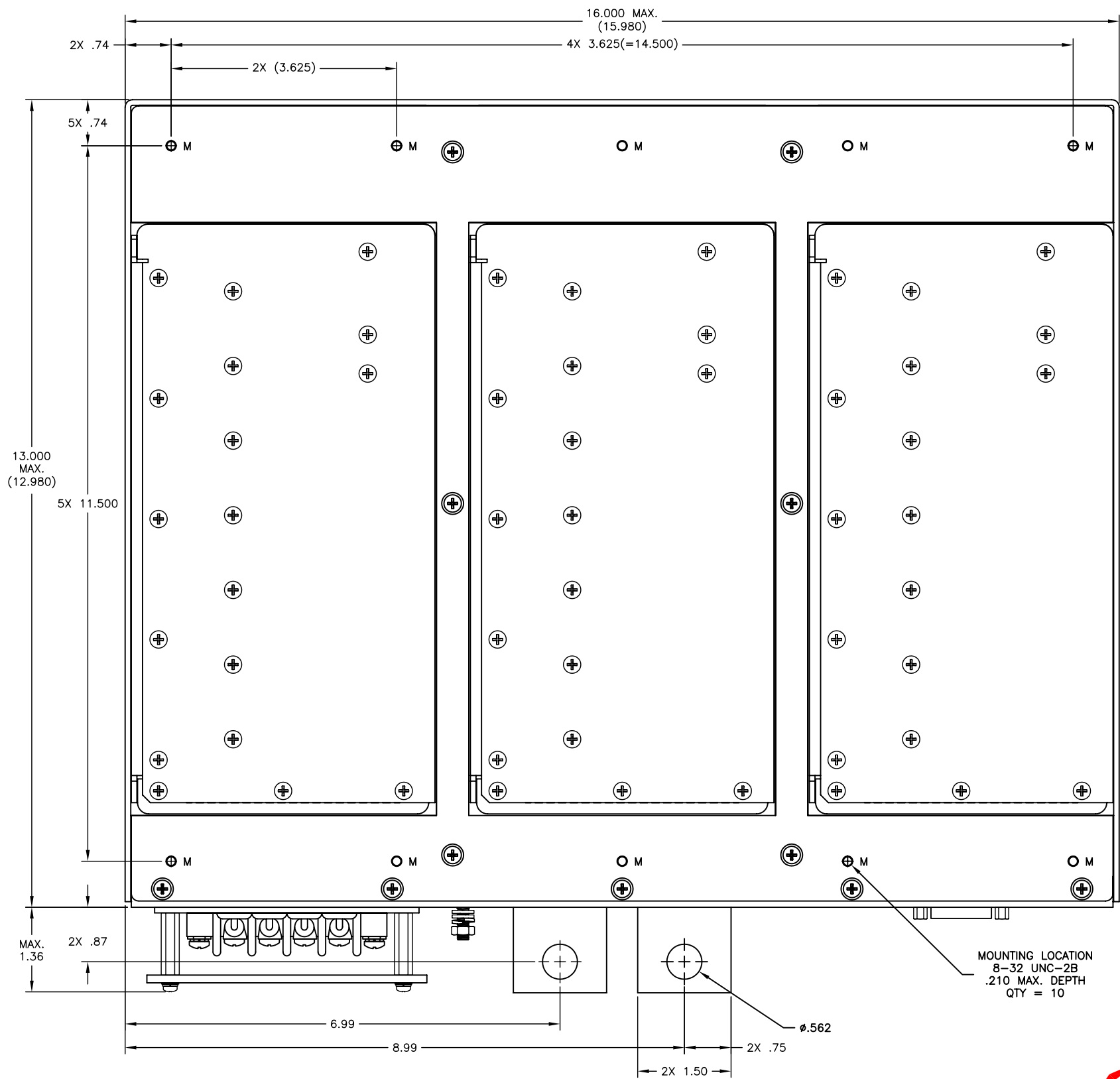


TERMINAL BLOCK
TYPE 3
(3 PHASE 3 WIRE)

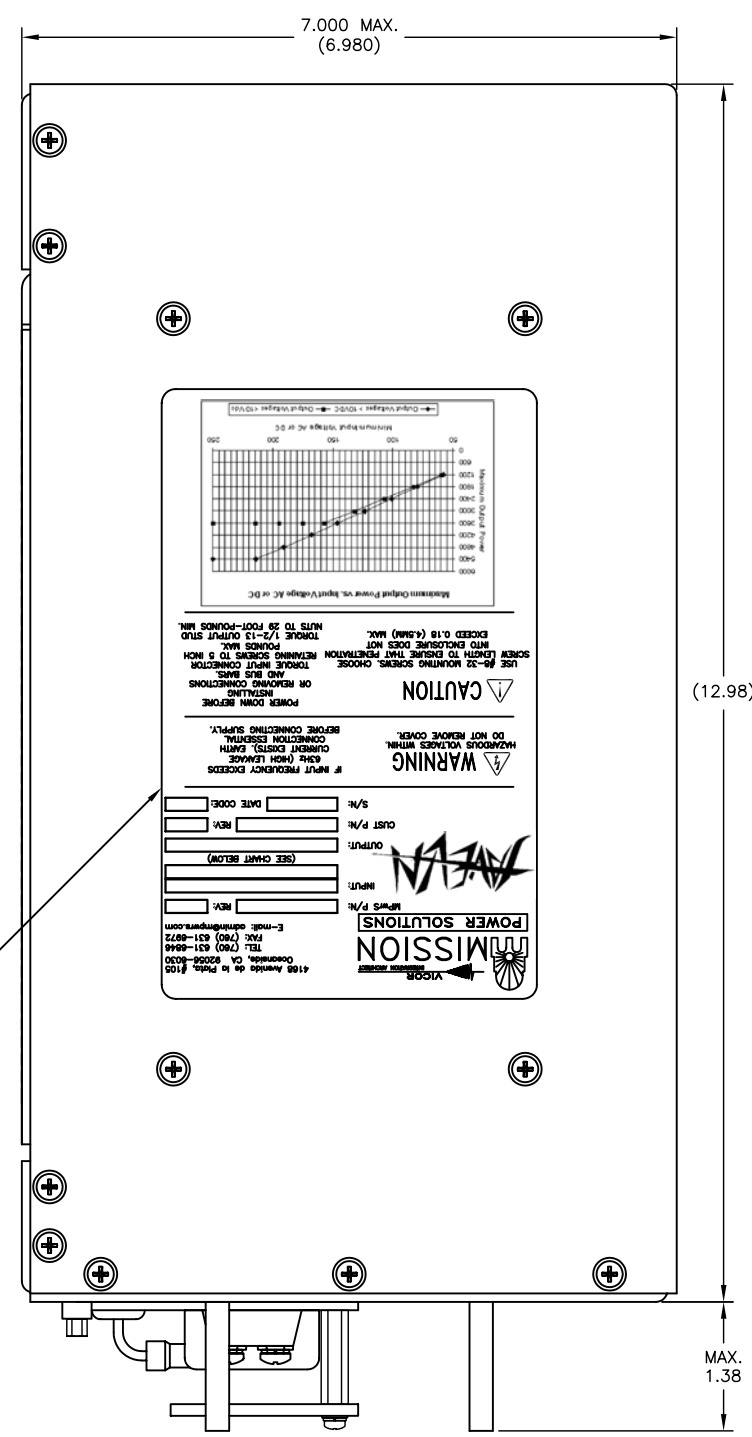


TERMINAL BLOCK
TYPE 4
(3 PHASE 4 WIRE)

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-	SEE SHEET 1		



TOP VIEW



SIDE VIEW

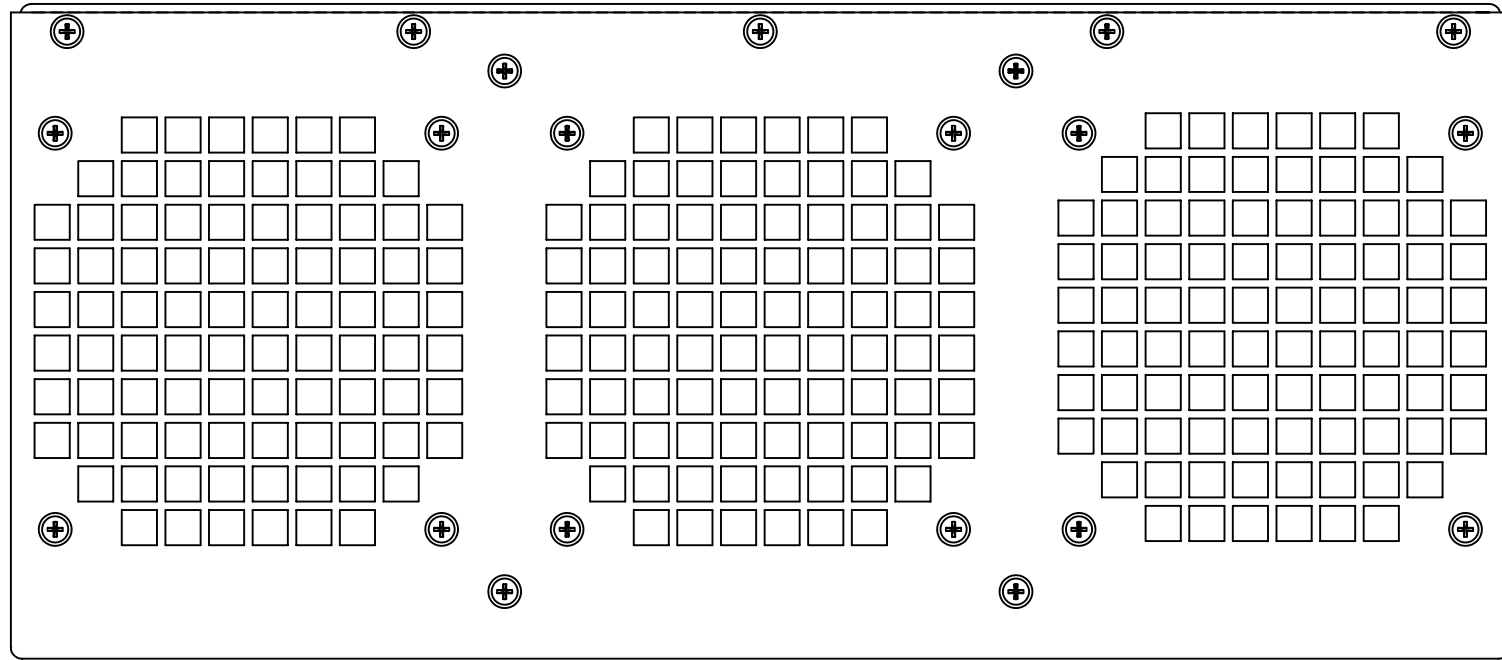
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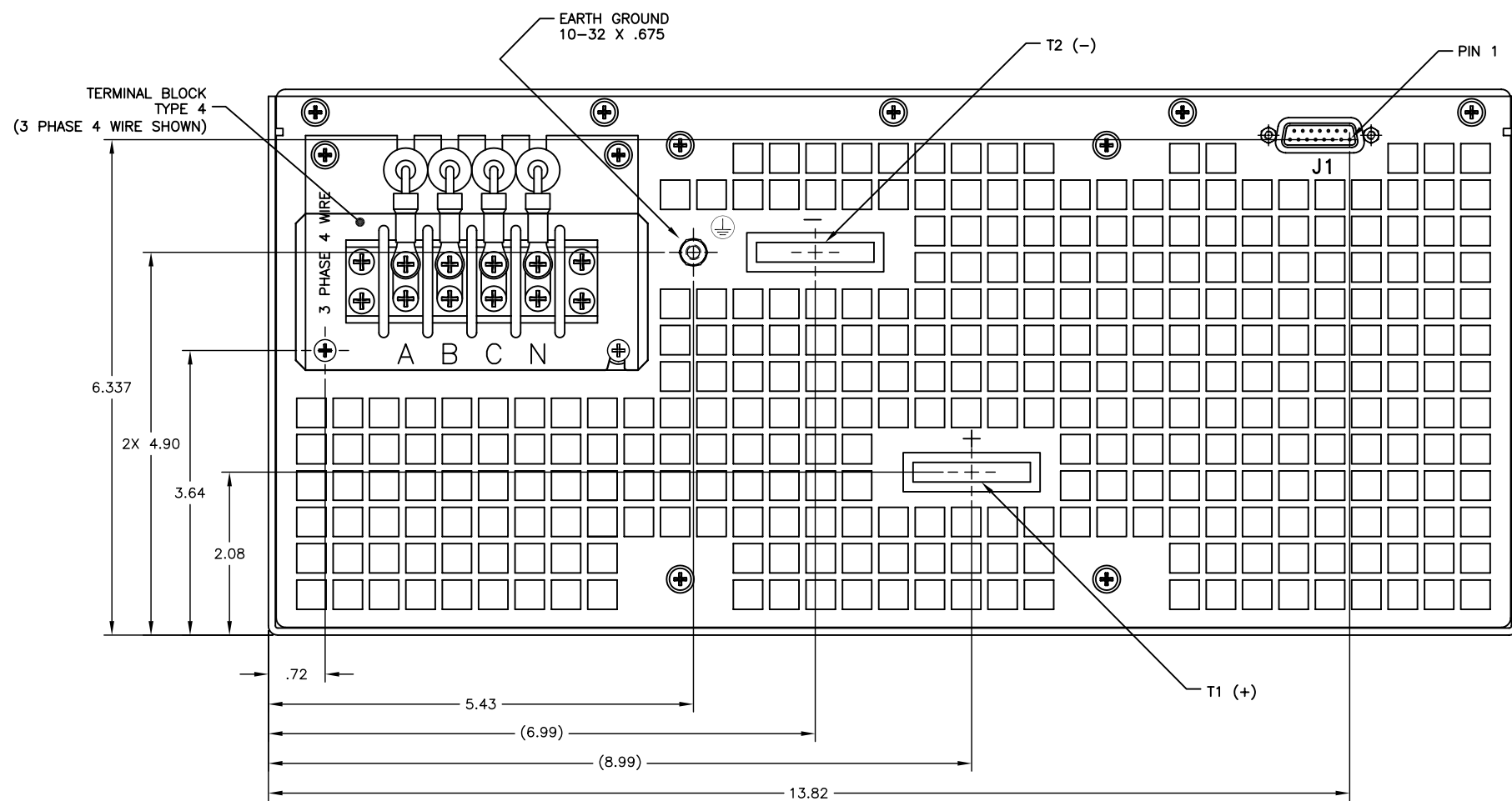
SIZE	CAGE CODE	DWG. NO.	REV.
D	1FWR8700-0176-XXX	B	
SCALE	1/1 F/N	700-0176-XXX-B-3	SHEET 3 OF 5

8 7 6 5 4 3 2 1

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REV	DESCRIPTION		
-	SEE SHEET 1		



FRONT VIEW



REAR VIEW

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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

