

4225 NE PORT DR.
 LEE'S SUMMIT, MO 64064
 PHONE: 816-795-6333 / FAX: 816-795-6030

CITY OF WICHITA WWTP - BULK BAG FEED SYSTEM
JOB NUMBER: 16037

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NOTES:

- CONTROL PANEL TO BE UL508A CERTIFIED
- IPM SYSTEMS TO PROVIDE ONLY THOSE ITEMS EXPRESSLY NOTED ON THESE DRAWINGS.
- WIRE NUMBERS CORRESPOND TO TERMINAL NUMBERS.
- DASHED LINES REPRESENTS WIRES TERMINATED IN THE FIELD AND/OR FIELD COMPONENTS.
- ALL WIRE TO BE MTW TYPE INSIDE CONTROL ENCLOSURES
- ALL FIELD WIRING TO BE THHN TYPE UNLESS OTHERWISE NOTED.

System is provided with integral disconnect switch. EC shall not install separate disconnect switch shown on plans.

MKEC ENGINEERING, INC.
 411 North Webb Road – Wichita, KS 67206

- Reviewed Reviewed As Noted
 Revise and Resubmit Rejected
 Not Required by the Contract Documents

Reviewed for conformance with the design concept of the project and compliance with the information given in the contract documents. Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to techniques of construction; and coordination of work of all other trades. If "Resubmit" or "Rejected" are not checked resubmission is neither desired or required.

By: Joel Wheeler Date: 08/19/2016

**** NOTICE ****

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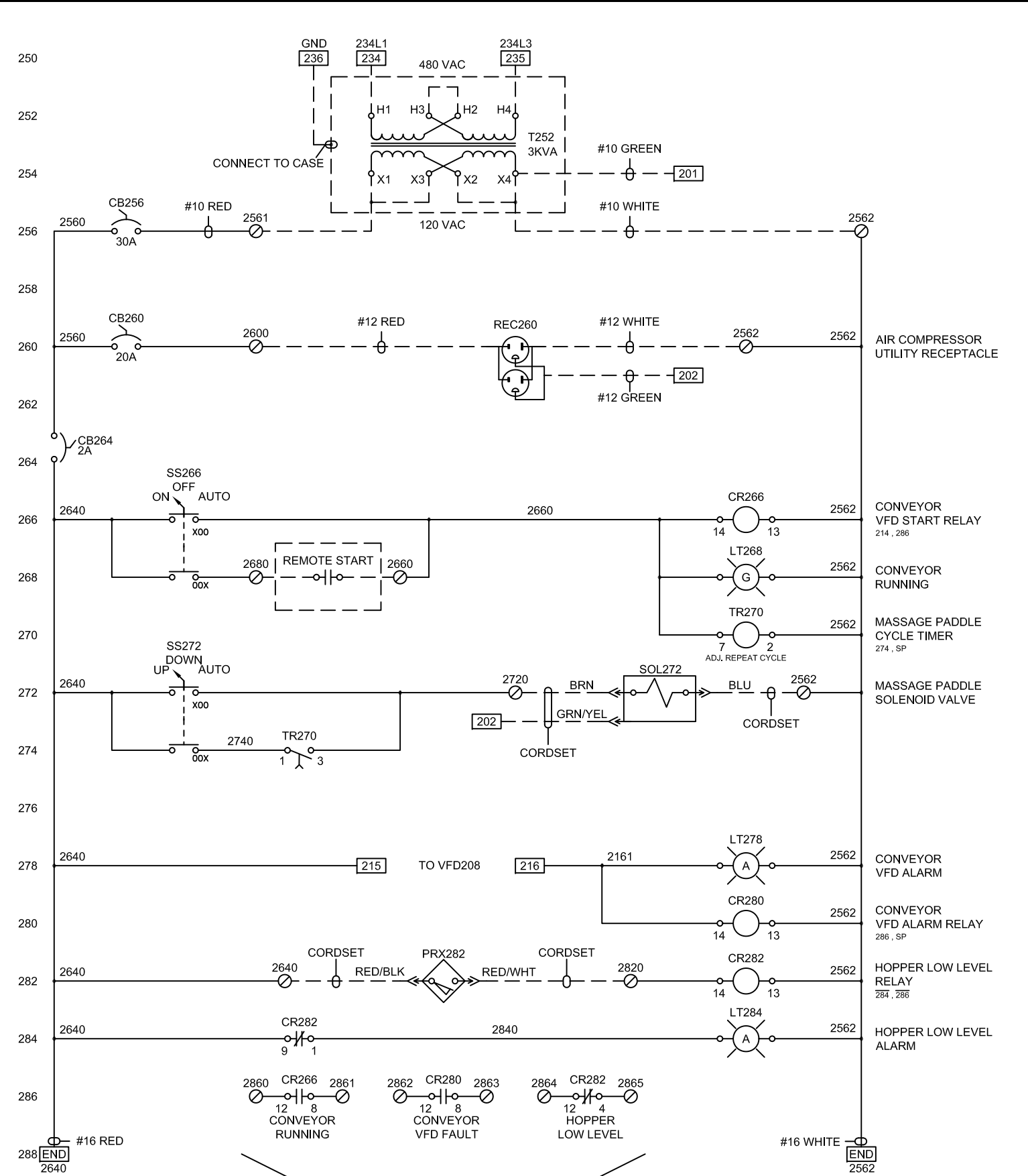
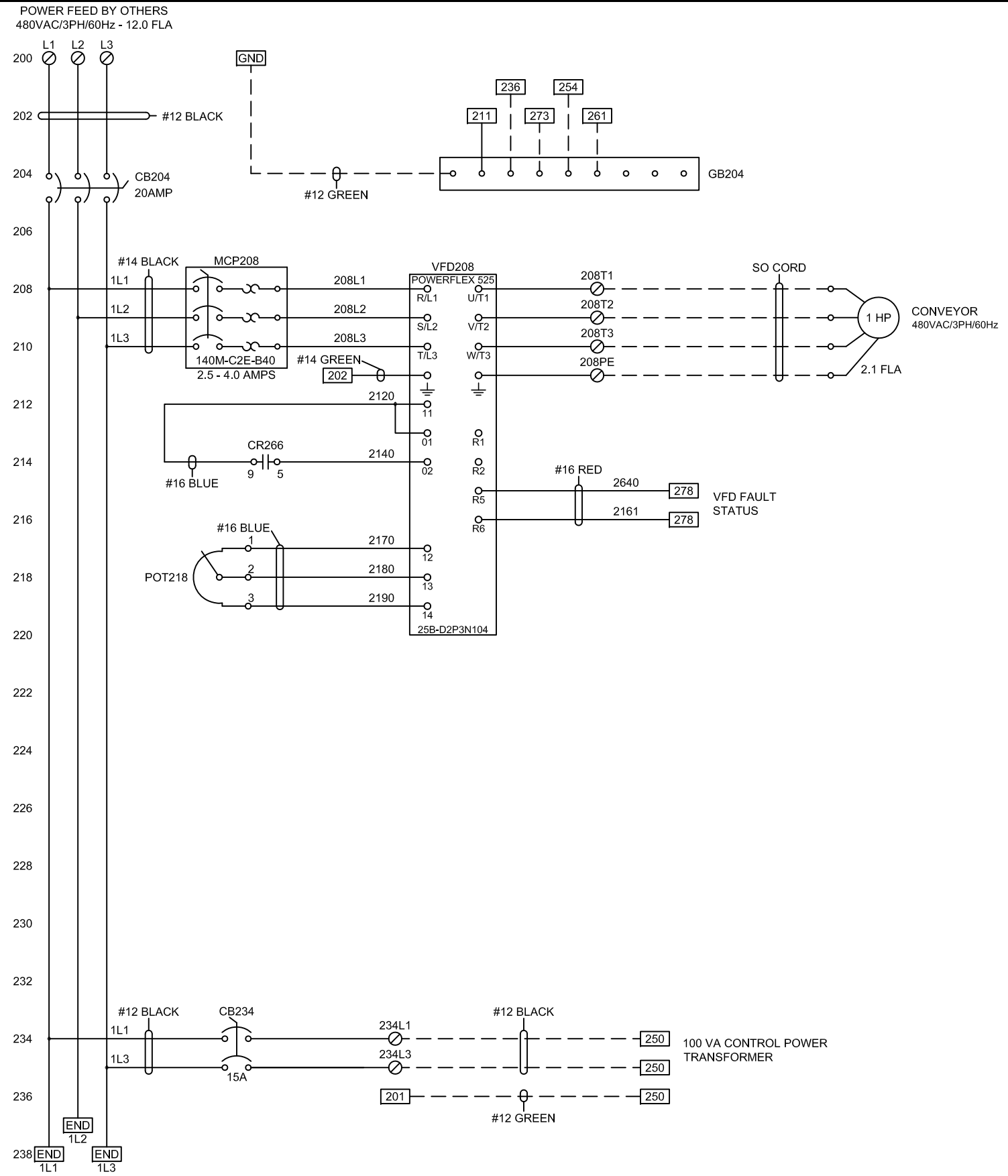
NO.	REVISION DESCRIPTION	DATE	BY	CK'D
B	ADDED AIR COMPRESSOR, CHANGED XMFR TO 3000VA	07/25/16	SL	
A	INITIAL DESIGN	06/27/16	TH	



16037 – CITY OF WICHITA WWTP
 BULK BAG FEED SYSTEM

TITLE PAGE & NOTES

DATE:	DRFTR:	SHEET:	DRAWING NUMBER	REV
06/27/16	TH	1 OF 4	050-2300-0005(1)	B



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16037 - CITY OF WICHITA WWTP
BULK BAG FEED SYSTEM

480VAC & 120VAC CIRCUITS

DATE:	DRFTR:	SHEET:	DRAWING NUMBER	REV
06/27/16	TH	2 OF 4	050-2300-0005(2)	B

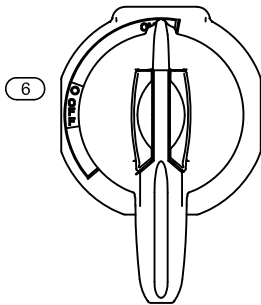
LOCATED ON SKID
SEE MECHANICAL DRAWINGS



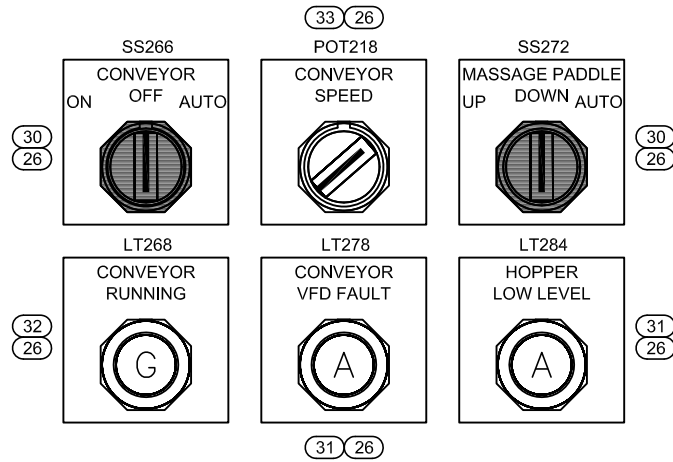
BULK BAG FEED SYSTEM

WIRING SCHEMATIC: 050-2300-0005
 POWER REQUIREMENTS: 480VAC/3PH/60HZ
 FULL LOAD AMPERES: 12.0 FLA
 RATING OF LARGEST MOTOR: 2.1 FLA
 SCCR RATING: 25,000 AMPS
 ENCLOSURE RATING: TYPE 4X

(22)



(6)



(30)
(26)

(32)
(26)

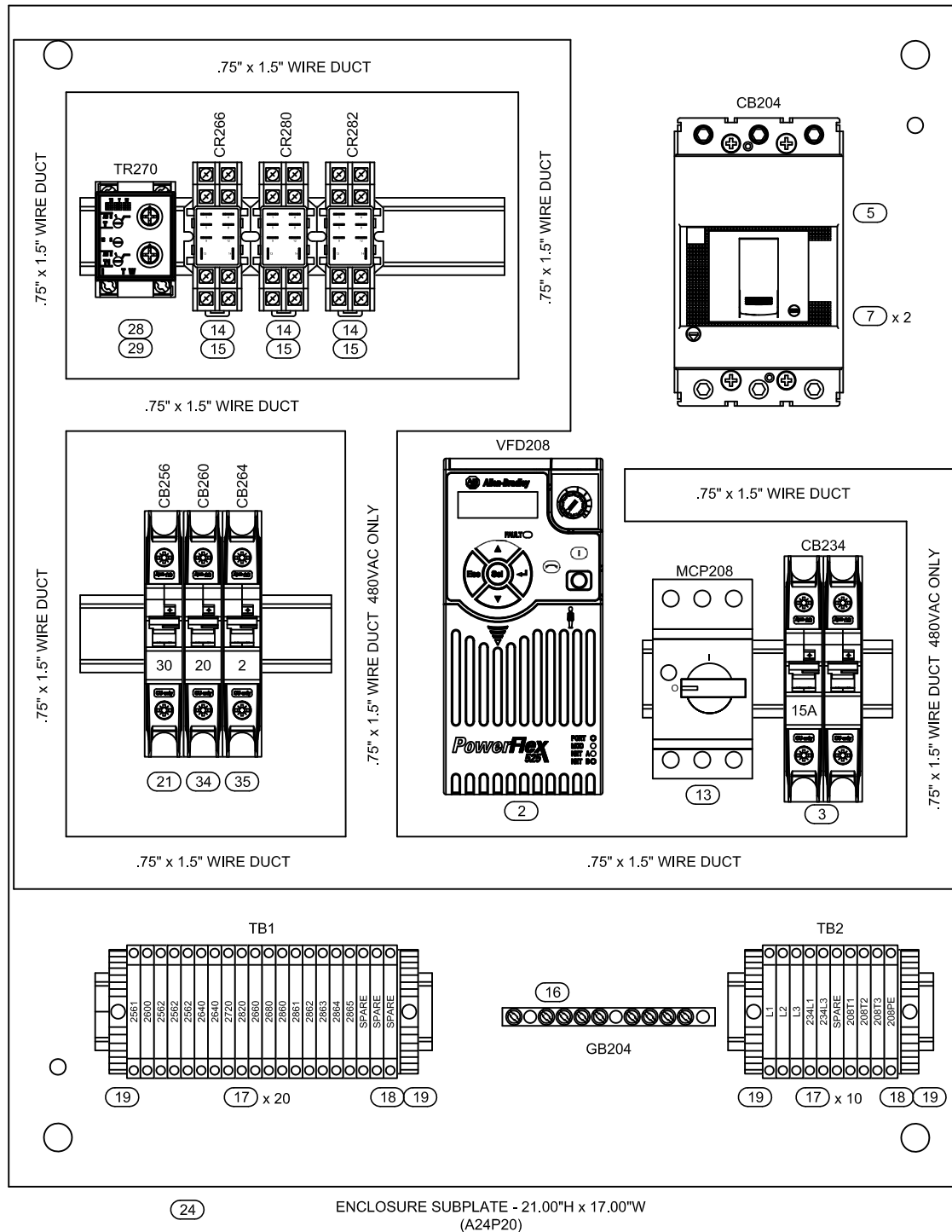
(30)
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NEMA 4X SS ENCLOSURE - 24.00"H x 20.00"W x 10.00"D
(A24H2010SSLP)

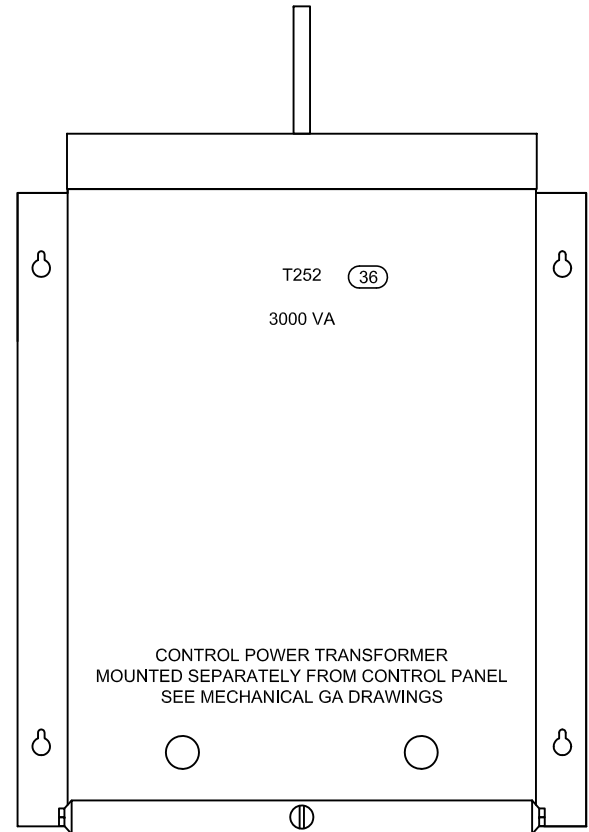
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(24)

TB1	
1	2561
2	2600
3	2562
4	2562
5	2562
6	2640
7	2640
8	2720
9	2820
10	2660
11	2680
12	2860
13	2861
14	2862
15	2863
16	2864
17	2865
18	SPARE
19	SPARE
20	SPARE

TB2	
1	L1
2	L2
3	L3
4	234L1
5	234L3
6	SPARE
7	208T1
8	208T2
9	208T3
10	208PE



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LAYOUT & DETAIL

DATE:	DRFTR:	SHEET:	DRAWING NUMBER	REV
06/27/16	TH	3 OF 4	050-2300-0005(3)	B

BILL OF MATERIAL

ITEM	QTY	MANUFACTURER	DESCRIPTION	CATALOG #
1				
2	1	Allen Bradley	PowerFlex 525 AC Drive, with Embedded EtherNet/IP and Safety, 480 VAC, 3 Phase, 1/2 HP, 5.5 kW, Frame C, IP20 NEMA / Open Type, No Filter	25B-D1P4N104
3	1	Allen Bradley	UL 1489 Circuit Breaker, 277VAC - 48VDC Max Voltage, 2-Pole, 15 AMP	1489-M2C150
4	2	Bussmann	Fuse, Class CC, 600 Volt, 1/2 AMP	LP-CC-1/2
5	1	Allen Bradley	Molded Case Circuit Breaker, Bulletin 140G, G-Frame, 600V, 3 Pole, 25 kA, Thermal-Magnetic, Fixed Thermal-Fixed Magnetic, 20 AMP	140G-G2C3-C20
6	1	Allen Bradley	Molded Case Circuit Breaker Rotary Handle, 12" Length, Red/Yellow	140G-G-RVM12R
7	2	Allen Bradley	Frame-G, Terminal Lug, FCCu 1x14-1/0(2.5-50), Package of 3	140G-G-TLC13
8				
9	2	Allen Bradley	Din Rail, Low Rise 35mm x 7.5mm x 1M long	1492-DR5
10	10	Panduit	Wire Duct- .75" X 1.5"- Narrow Slot - Gray - Without Cover, Per Foot	F.75X1.5LG6
11	10	Panduit	Wire Duct Cover- .75"- Gray -, Per Foot	C.75LG6
12				
13	1	Allen Bradley	Motor Protection Circuit Breaker, Adjustable Trip 2.5-4.0 amps	140M-C2E-B40
14	3	IDEC	Control Relay, Socket Mount, 10AMP Contacts, DPDT, 120VAC Coil, w/Indicator	RH2B-UL-AC110-120V
15	3	IDEC	Control Relay Socket, DIN Rail Mount, 2 Pole	SH2B-05
16	1	Square D	Ground Bar Assembly, 9 Hole	PK9GTA
17	30	Allen Bradley	Terminals, Din Style, 6mm, 30 AMP, Grey	1492-J4
18	2	Allen Bradley	Terminals, Din Style, 6mm, 30 AMP, End Barrier	1492-EBJ3
19	4	Allen Bradley	Terminals, Din Style, 6mm, 30 AMP, End Anchor	1492-EAJ35
20	1	Allen Bradley	Terminals, Din Style, 6mm, 30 AMP, Marker Card, Blank	1492-M6X12
21	1	Allen Bradley	UL 1489 Circuit Breaker, 277VAC - 48VDC Max Voltage, 1-Pole, 30 AMP	1489-M1C300
22	1	IPM	Custom Engraved Legend Plate, 2-3/4" x 6-1/4", Black with White Text	008-044-100-01
23	1	Hoffman	Enclosure, 304 Stainless-Steel, Single-Door, Continuous Hinge, Type 4X, Wall-Mount, 24.00"H x 20.00"W x 10.00"D	A24H2010SSLP
24	1	Hoffman	Enclosure Sub-Plate, 21.00"H x 17.00"W	A24P20
25	2	Allen Bradley	Screw Center Jumper, 6 mm Center to Center, 3 Pole, Gray	1492-CJ6-3
26	6	IPM	Custom Engraved Legend Plate, 2-1/2" x 2-1/2", Black with White Text	008-040-040-01
27				
28	1	IDEC	Control Relay Socket, Octal, Standard DIN Rail Mount, 8-Pin	SR2P-05
29	1	IDEC	Control Timing Relay,GT3W Series, DPDT, 5 AMP Contacts, 120VAC Coil, Repeat Cycle, Adjustable	GT3W-A11AF20N
30	2	Allen Bradley	30.5mm Type 4/4X/13, Selector Switch, 3-Position, Maintained, 2-N.O. & 2-N.C. Contacts	800H-JR2B
31	2	Allen Bradley	30.5mm Type 4/4X/13 Pilot Light, Xfmr, LED, Amber, 120V AC 50/60 Hz	800H-QRH16A
32	1	Allen Bradley	30.5mm Type 4/4X/13 Pilot Light, Xfmr, LED, Green, 120V AC 50/60 Hz	800H-QRH16G
33	1	Allen Bradley	30.5mm Type 4/4X/13 Potentiometer, 10k Ohm	800H-UR29
34	1	Allen Bradley	UL 1489 Circuit Breaker, 277VAC - 48VDC Max Voltage, 1-Pole, 20 AMP	1489-M1C200
35	1	Allen Bradley	UL 1489 Circuit Breaker, 277VAC - 48VDC Max Voltage, 1-Pole, 2 AMP	1489-M1C020
36	1	Square D	Control Power Transformer, Resin Encapsulated, 3000VA, 240x480V 60Hz Primary-120/240V Secondary	3S1F
37	1	Allen Bradley	Cordset, AC Micro (Dual Key), Female, Straight, 3-Pin, PVC Cable, Yellow, Unshielded, 18 awg, 5 meter	889R-F3AEA-5
38	1	Allen Bradley	DIN Valve Cable, DIN Valve A Style (18mm), 2 Pole + Dual gnd, Black PVC, Straight Wired, 0-250V, 5 meter	889V-RZ2DBE-5
39	1	Hubbell	Plug, Female, 15A, 125V	HBL5269C
40	3	Arlington	Strain-Relief Cord Connector, Non-metallic, Liquid-tight, 1/2" NPT Threads, .200-.472 Cord Range	LPCG50
41	2	Arlington	Strain-Relief Cord Connector, Non-metallic, Liquid-tight, 1/2" NPT Threads, .385-.750 Cord Range	LPCG507
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