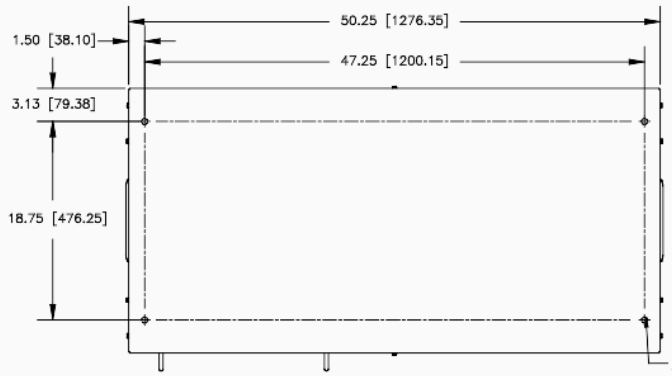


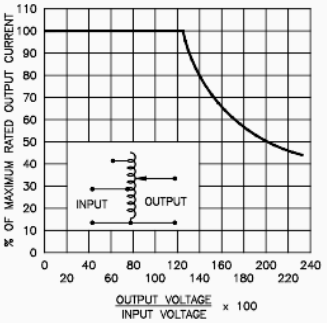
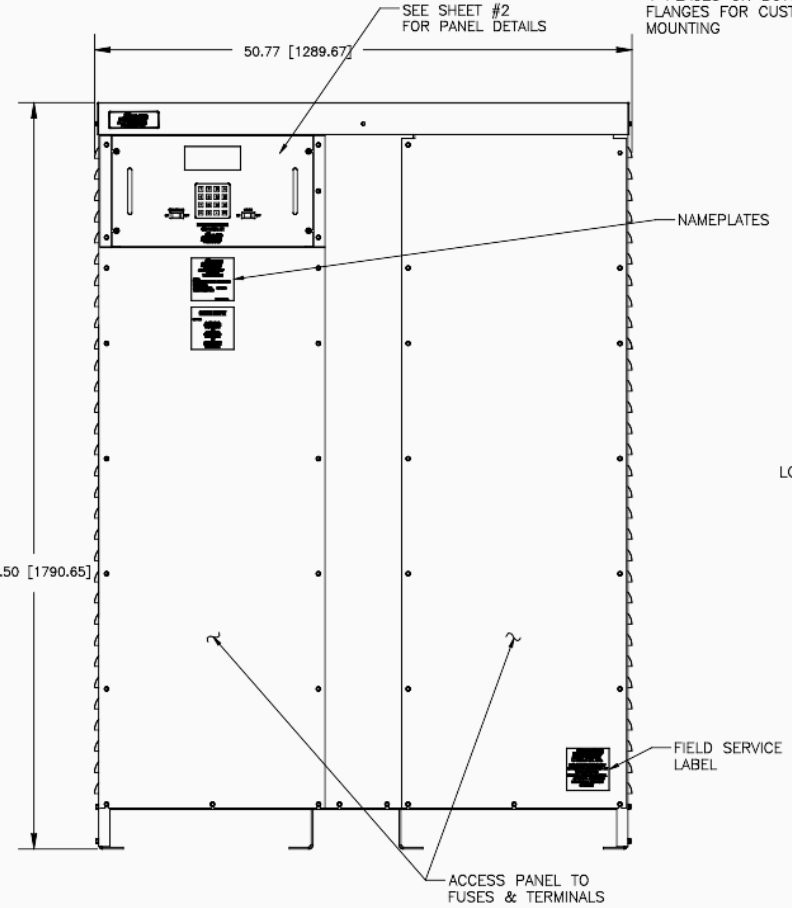
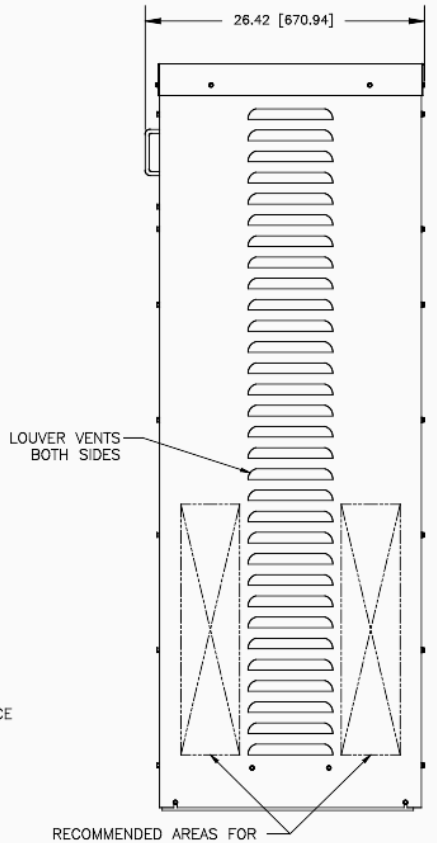


FIGURE A
MAXIMUM OUTPUT CURRENT OF ANY DUAL INPUT VOLTAGE OR VOLTAGE DOUBLER UNIT OPERATED AT LOWER INPUT VOLTAGE.





DWG SIZE	DWG NO.
D	032-8753

REVISIONS			
SYM.	E.C.O.	DATE	APVD.
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		RELEASED TO PRODUCTION	

THE MICROPROCESSOR (MP) CONTROLLED VARIABLE TRANSFORMER (MV) COMPRISES A MOTOR DRIVEN AUTOTRANSFORMER AND A MANUAL RAISE/LOWER SWITCH. THE MP CONTROLLER AUTOMATICALLY POSITIONS EACH AUTOTRANSFORMER TO HOLD THE OUTPUT CONSTANT. A RS-232 INTERFACE IS PROVIDED ALONG WITH THE "S" OPTION FOR PROCESS CONTROL SET POINT. SYSTEM INCLUDES AMP METER READING CAPABILITY USING CT INPUT CONNECTOR WITH A 5 AMP SECONDARY.

SPECIFICATIONS:
WAVEFORM DISTORTION---------- ZERO ADDED
FREQUENCY RANGE---------- 47Hz TO 63Hz
OUTPUT REGULATION---------- ±1%
CONTROL BAND (USER SELECTABLE)------- * ±0.5V, ±1.0V, ±2.0V, ±4.0V
INTERNAL IMPEDANCE---------- LESS THAN 1%
PHASE SHIFT---------- NEGLIGIBLE
EFFICIENCY---------- 97% TYPICAL
TEMPERATURE RANGE---------- 0°C (32°F) TO +40°C (104°F)
MOTOR SPEED---------- 60 SECONDS EACH PHASE
* FACTORY SET AT ±1.0V

WIRE RANGES FOR CUSTOMER WIRING
INPUT/OUTPUT TERMINALS: (2) (300MCM-#6 AWG) COMPRESSION PER PHASE
NEUTRAL TERMINALS: (4) (300MCM-#6 AWG) COMPRESSION, (2) INPUT, (2) OUTPUT
GROUND TERMINAL: (1) (1/0-#14 AWG) COMPRESSION

CONTROLS:
KEYPAD & LCD DISPLAY: THE KEYPAD & LCD DISPLAY ARE PROVIDED FOR LOCAL/REMOTE CONTROL OF THE UNIT WITH AN LCD DISPLAY FOR OUTPUT VOLTAGE AND CURRENT READINGS. SEE THE MPII USER'S HANDBOOK (FORM #003-2530) FOR DETAILED INFORMATION.
CONTROLLER ON/OFF SWITCH: THIS SWITCH TURNS OFF POWER TO THE MICROPROCESSOR CONTROLLER ONLY.
MOTOR ON/OFF SWITCH: THIS SWITCH TURNS OFF POWER FROM THE MICROPROCESSOR TO THE AUTOTRANSFORMER MOTORS.
RAISE/LOWER SWITCHES: THESE SWITCHES ARE LOCATED INTERNALLY AND ARE ACCESSIBLE FROM THE FRONT AND REAR VIA THE REMOVABLE ACCESS PANELS. THE SWITCHES ALLOW FOR EACH PHASE OF THE MV TO BE CONTROLLED INDIVIDUALLY.

MAXIMUM OUTPUT CURRENT IN OUTPUT VOLTAGE RANGE FROM 0 TO 25% ABOVE LINE VOLTAGE. AT HIGHER OUTPUT VOLTAGES, OUTPUT CURRENT MUST BE REDUCED ACCORDING TO RATING CURVE, FIGURE A.

++ MAXIMUM KVA AT MAXIMUM OUTPUT AND CORRESPONDING DE-RATED CURRENT. MAXIMUM KVA AT LOWER OUTPUT VOLTAGES MAY BE CALCULATED FROM RATING CURVE, FIGURE A.

V.D.= VOLTAGE DOUBLER.

SPECIFICATIONS

WIRING	INPUT VOLTS	INPUT HERTZ	OUTPUT VOLTS	CONSTANT CURRENT LOAD MAX. AMPS	CONSTANT CURRENT LOAD MAX. KVA	SHAFT ROTATION FOR VOLTAGE INCREASE	TERMINAL CONNECTIONS FOR INCREASING VOLTAGE AS VIEWED FROM TOP INPUT	TERMINAL CONNECTIONS FOR INCREASING VOLTAGE AS VIEWED FROM TOP OUTPUT
THREE PHASE	480/277	50/60	0-480	315	261.9	CW	4-4-4	D-D-D
		60	0-560	315	305.5	CW	2-2-2	D-D-D
	400/230	50	0-480	315	261.9	CW	2-2-2	D-D-D
	240	60	0-560	315#-135 V.D.	130.8++	CW	5-5-5	D-D-D

UNLESS OTHERWISE SPECIFIED, TOLERANCE IS A
DECIMALS .X ±.01 .XX ±.005 .XXX ±.005
HOLES ±.005
ANGLES ±1°
DRAFT 1-1/2°
UNITS IN [mm]
ALL DIMENSIONS APPLY AFTER PLATING
MATERIAL #

TITLE: SPEC. CONTROL DRAWING VARIABLE TRANSFORMER MV60M6020E-27YSA-IPC

STACO ENERGY PRODUCTS CO.

The information and design disclosed herein was originated by and is the property of STACO ENERGY PRODUCTS CO., which reserves all patent, proprietary, design, manufacturing, reproduction, use and sale rights thereto, and to any article disclosed therein except to the extent rights are expressly granted to others. The foregoing does not apply to vendor proprietary parts.

DRAWN BY	A.NEICK	DATE	4/30/26	FIRST USED ON
CHECKER		DATE		WEIGHT APPROX.
ENGINEER		DATE		SCALE NA

DO NOT SCALE DWG. | CAGE CODE 53008 | SHEET 1 OF 3

DWG SIZE D | DWG NO. 032-8753

DWG SIZE	DWG. NO.
D	032-8753

REVISIONS			
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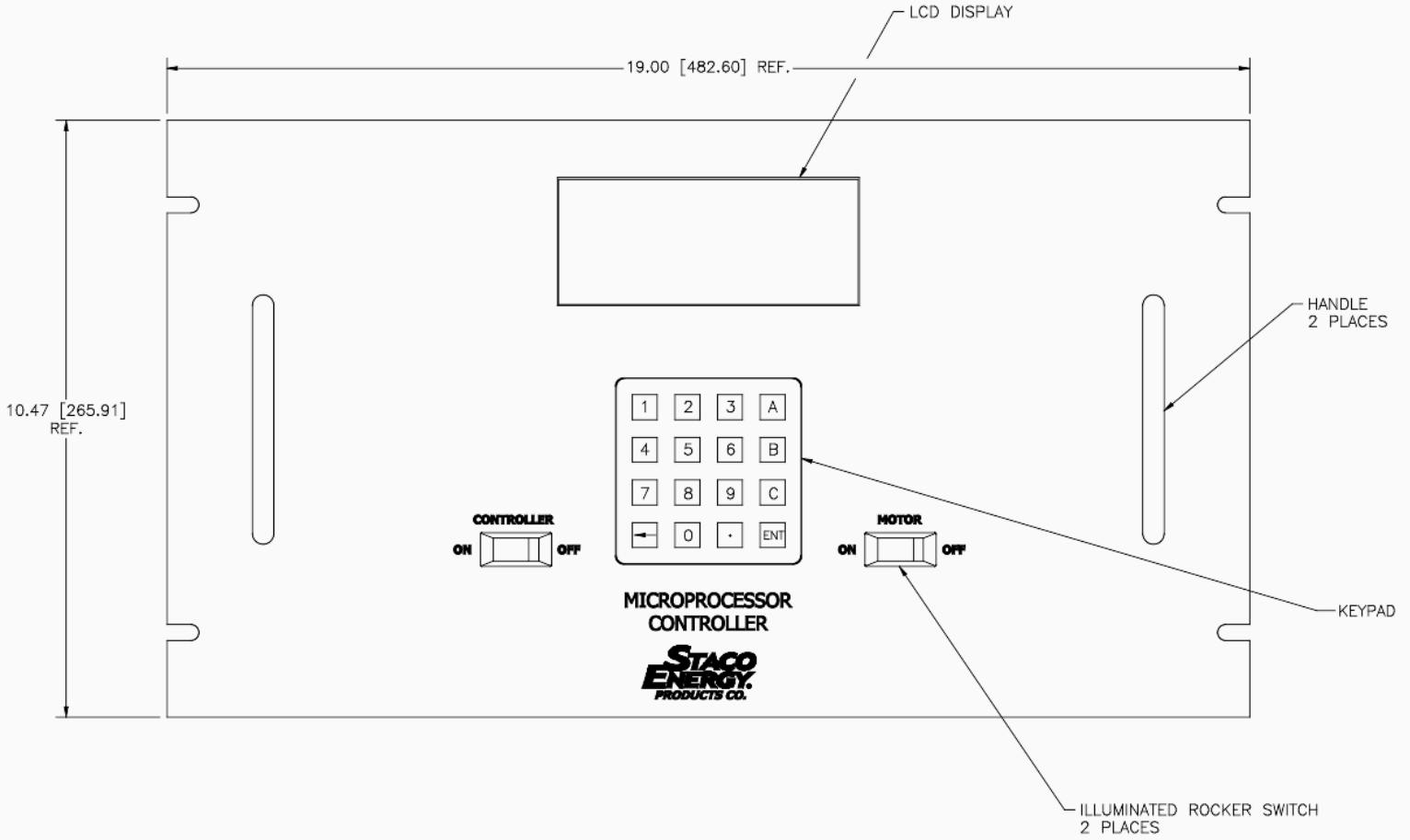
A		4/30/26	
RELEASED TO PRODUCTION			



UNLESS OTHERWISE SPECIFIED, TOLERANCE IS ± DECIMALS .XX .010 .XXX .005; HOLES .005; ANGLES 1°; DRAFT 1-1/2°	UNITS IN [mm]	TITLE: SPEC. CONTROL DRAWING VARIABLE TRANSFORMER MV60M6020E-27YSA-IPC	STACO ENERGY PRODUCTS CO.
MATERIAL:	ALL DIMENSIONS APPLY AFTER PLATING	DRAWN BY: A.NEICK; DATE: 4/30/26; FIRST USED ON; DO NOT SCALE DWG.	
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		ENGINEER; DATE; SCALE NA; SHEET 2 OF 3	SIZE D; DWG. NO. 032-8753

DWG. SIZE	DWG. NO.
D	032-8753

REVISIONS

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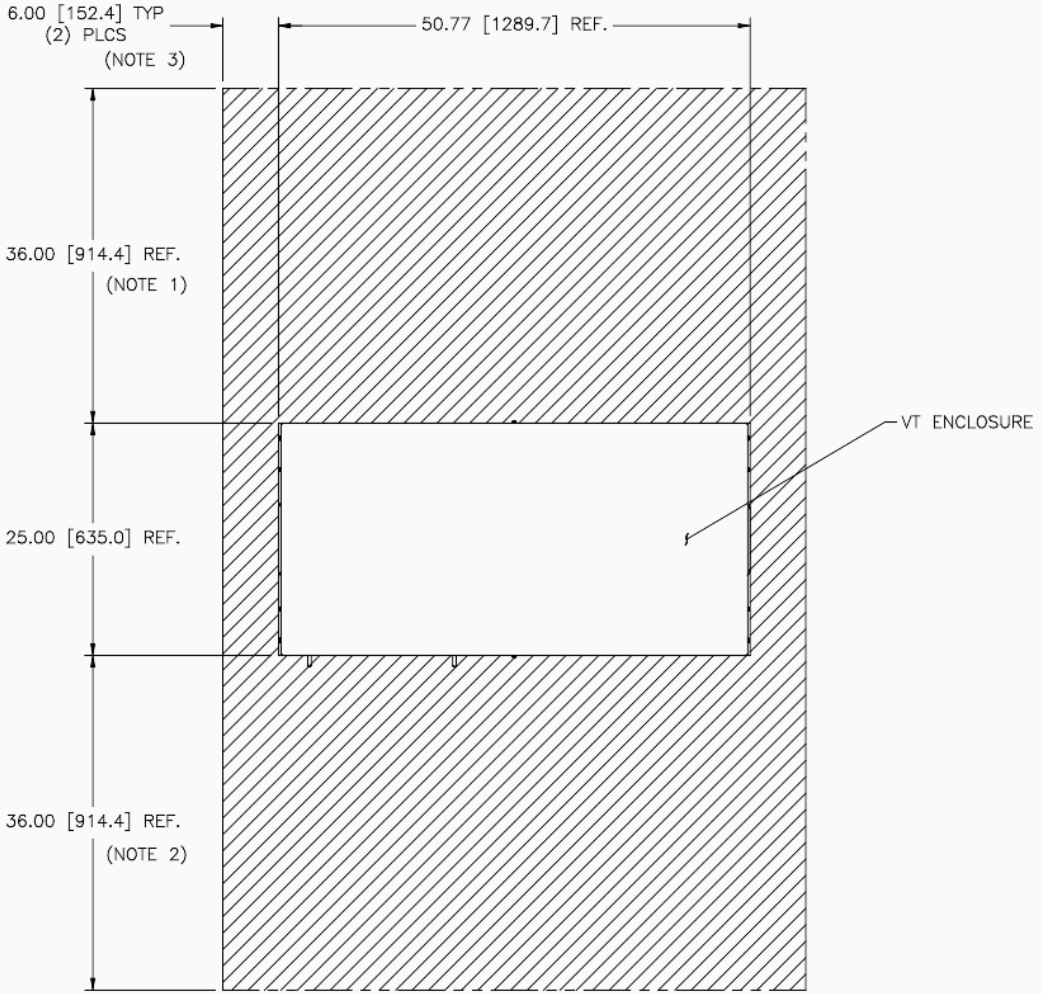
	RELEASED TO PRODUCTION		



NOTES:

1. REAR CLEARANCE REQUIRED FOR MAINTENANCE. 36" IS RECOMMENDED WITH 24" MINIMUM TO ASSIST IN BRUSH REPLACEMENT.
2. FRONT CLEARANCE REQUIRED PER CODE REQUIREMENTS. 36" IS TYPICAL REQUIREMENT. CHECK LOCAL CODES AS REQUIRED.
3. SIDE CLEARANCE REQUIRED FOR COOLING. 6" IS RECOMMENDED BUT 3" IS ABSOLUTE MINIMUM FOR PROPER COOLING.

UNLESS OTHERWISE SPECIFIED, TOLERANCE IS A
DECIMALS .XX .010 .XXX .005 HOLES .005 ANGLES 1° DRAFT 1-1/2°
MATERIAL:
UNITS IN [mm]
ALL DIMENSIONS APPLY AFTER PLATING

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TITLE: SPEC. CONTROL DRAWING
VARIABLE TRANSFORMER
MV60M6020E-27YSA-IPC

DRAWN BY	DATE	FIRST USED ON	DO NOT SCALE DWG.
A.NEICK	4/30/26		
CHECKER	DATE	WEIGHT APPROX.	CAGE CODE 83008
ENGINEER	DATE	SCALE NA	SHEET 3 OF 3

STACO ENERGY PRODUCTS CO.
A Government Organization of Aerospace Engineering
Dallas Texas Dallas Texas Dallas Texas

DWG. SIZE	DWG. NO.
D	032-8753