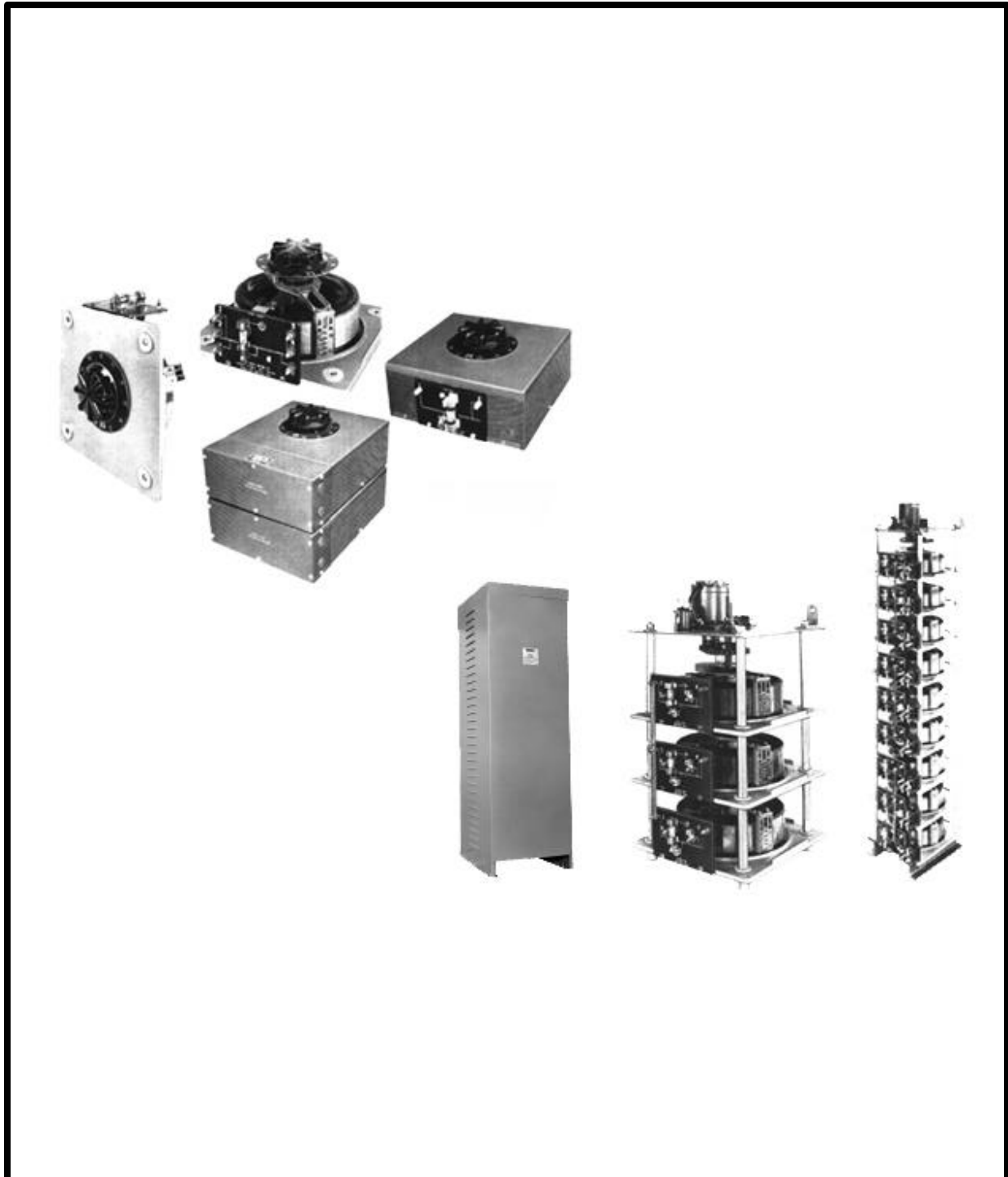


Variable Transformers
Series 5000 • 28.0 to 252.0 Amperes



5000 Series

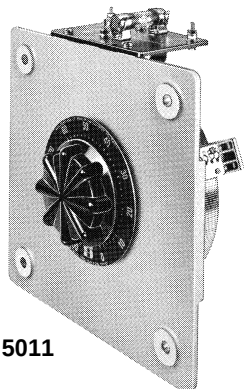
The 5011/5021 Series Variable transformers are designed to control large KVA requirements. The 5011 operates on 120 volts and is rated for constant current of 50 amperes. The 5021 operates on 240 volts and constant current of 28 amperes. The 5011 Series units have coil tapping arrangements allowing output voltage from 0-117% of line voltage, while the 5021 Series allows output voltage from 0 to line voltage or 17% above line voltage. They can be operated at frequencies between 50 and 400 Hertz with a rating at higher than rated frequency.

Adjustable shaft design on manually operated models permits back-of-panel or bench mounting. Terminals are 1/4" screw type. For single and two ganged units, case styles are available in either "C" style, which encloses only the coil, or the "CT" style,

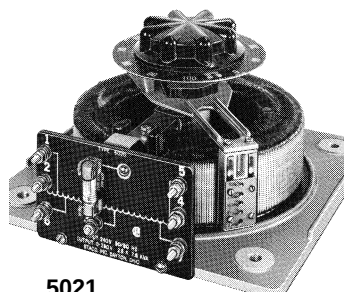
which provides protective housing for both the coil and terminal board. Knockouts are provided in the terminal board housing to accommodate conduit or cable connections. For three ganged and above, we offer our Nema 1, dripproof, fully front accessible "E" enclosure.

Motor-driven models are available from single thru 27 ganged assemblies; cased or uncased (identified with the prefix "M" in the part number). The synchronous motor is designed for operation on 120 volt, 50/60 Hertz, single phase lines and draws approximately 0.3 amperes. To meet a wide range of application requirements, standard motor speeds of 5, 15, 30 and 60 seconds are available depending upon the size of the variable transformer.

PART NUMBER		WIRING	INPUT		OUTPUT			SHAFT ROTATION FOR VOLTAGE INCREASE	TERMINAL CONNECTIONS For Increasing Voltage As Viewed from Rotor End		SCHE-MATIC (Pg 8 & 9)	NET WEIGHT IN LBS. (MAX)	
MANUALLY OPERATED	MOTOR DRIVEN		VOLTS	HERTZ	VOLTS	MAX AMPS	MAX KVA		INPUT	OUTPUT		MAN-UAL	MOTOR DRIVEN
5011 5011C 5011CT	M5011 M5011C M5011CT	Single Phase	120	50/60	0-140	50	7.0	CW	1-2	1-3	18	57	78
5021 5021C 5021CT	M5021 M5021C M5021CT	Single Phase	240	50/60	0-240	28	6.7	CW	2-4	2-3	19	57	78
					0-280	28	7.8	CCW	4-2	4-3			
			120	50/60	0-280	28*-12 V.D.	3.4±	CW	2-5	2-3			
								CCW	4-1	4-3			
								CW	2-6	2-3			
								CCW	4-7	4-3			
5011-2D 5011C-2D 5011CT-2D	M5011-2D M5011C-2D M5011CT-2D	Three Phase Open Delta	120	50/60	0-140	50	12.1	CW	2-1-2	3-1-3	20 & 5	134	155
5011-2P 5011C-2P 5011CT-2P	M5011-2P M5011C-2P M5011CT-2P	Single Phase Parallel	120	50/60	0-140	100	14.0	CW	1-2	1-B	21	136	157
5011-2S 5011C-2S 5011CT-2S	M5011-2S M5011C-2S M5011CT-2S	Single Phase Series	240	50/60	0-280	50	14.0	CW	2-2	3-3	20 & 4	134	155
5021-2D 5021C-2D 5021CT-2D	M5021-2D M5021C-2D M5021CT-2D	Three Phase Open Delta	240	50/60	0-240	28	11.6	CW	4-1-4	3-1-3	20 & 5	134	155
					0-280	28	13.6	CW	2-1-2	3-1-3			
5021-2P 5021C-2P 5021CT-2P	M5021-2P M5021C-2P M5021CT-2P	Single Phase Parallel	240	50/60	0-240	56	13.4	CW	1-4	1-B	21	136	157
					0-280	56	15.7	CW	1-2	1-B			
			120	50/60	0-280	56*-24 V.D.	6.8±	CW	1-5	1-B			
5021-2S 5021C-2S 5021CT-2S	M5021-2S M5021C-2S M5021CT-2S	Single Phase Series	480	50/60	0-480	28	13.5	CW	4-4	3-3	20 & 4	134	155
					0-560	28	15.7	CW	2-2	3-3			
			240	50/60	0-560	28*-12 V.D.	6.8±	CW	5-5	3-3			
5011-3P 5011E-3P	M5011-3P M5011E-3P	Single Phase Parallel	120	50/60	0-140	150	21.0	CW	1-2	1-D	22	216	237
5011-3Y 5011E-3Y	M5011-3Y M5011E-3Y	Three Phase Wye	240	60	0-280	50	24.2	CW	2-2-2	3-3-3	20 & 6	212	233



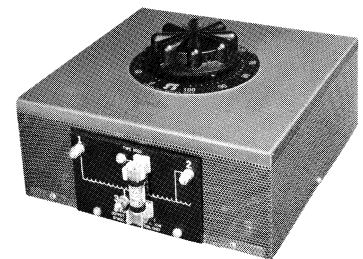
5011



5021



5021CT-2

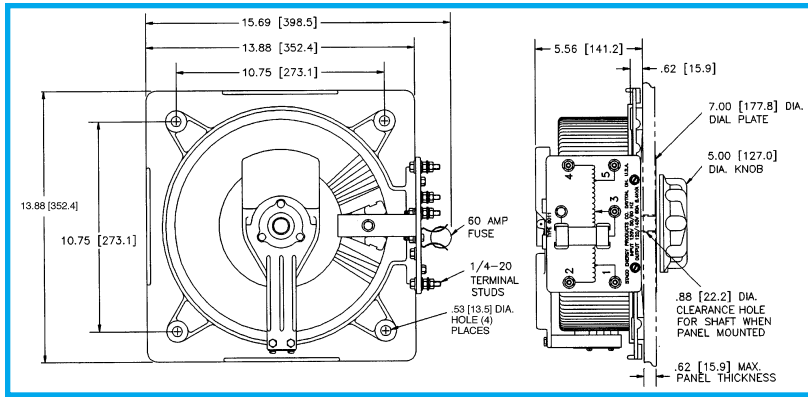


5011C

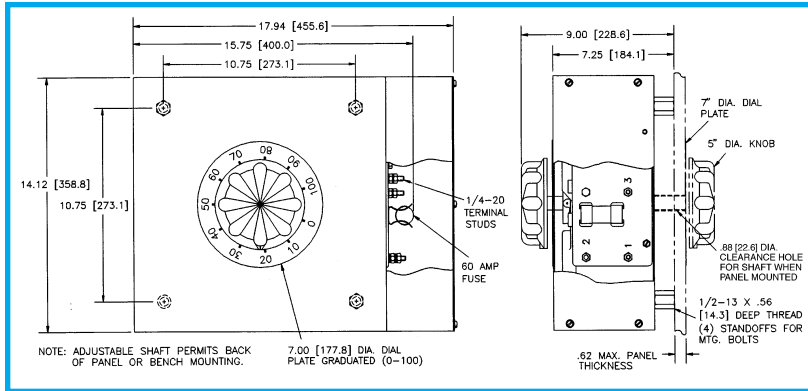
5000 Series

PART NUMBER		WIRING	INPUT		OUTPUT			SHAFT ROTATION FOR VOLTAGE INCREASE	TERMINAL CONNECTIONS For Increasing Voltage As Viewed from Rotor End		SCHE- MATIC (Pg 8 & 9)	NET WEIGHT IN LBS. (MAX)	
MANUALLY OPERATED	MOTOR DRIVEN		VOLTS	HERTZ	VOLTS	MAX AMPS	MAX KVA		INPUT	OUTPUT		MAN- UAL	MOTOR DRIVEN
5021-6D 5021E-6D	M5021-6D M5021E-6D	Three Phase Open Delta	240	50/60	0-240 0-280	84 84	34.9 40.7	CW CW	4-1-4 2-1-2	D-1-D D-1-D	22 & 5	481	502
			120	50/60	0-280	84*-36 V.D.	17.6†	CW	5-1-5	D-1-D			
5021-6P 5021E-6P	M5021-6P M5021E-6P	Single Phase Parallel	240	50/60	0-240 0-280	168 168	40.3 47.0	CW CW	1-4 1-2	1-D 1-D	22	483	504
			120	50/60	0-280	168*-72 V.D.	20.4†	CW	1-5	1-D			
5021-6PS 5021E-6PS	M5021-6PS M5021E-6PS	Single Phase Series Parallel	480	50/60	0-480 0-560	84 84	40.3 47.0	CW CW	4-4 2-2	D-D D-D	22 & 4	481	502
			240	50/60	0-560	84*-36 V.D.	20.4†	CW	5-5	D-D			
5021-6Y 5021E-6Y	M5021-6Y M5021E-6Y	Three Phase Wye	480	50/60 60	0-480 0-560	56 56	46.6 54.3	CW CW	4-4-4 2-2-2	B-B-B B-B-B	21 & 6	479	500
			240	60	0-560	56*-24 V.D.	23.5†	CW	5-5-5	B-B-B			
5011-7P 5011E-7P	M5011-7P M5011E-7P	Single Phase Parallel	120	50/60	0-140	350	49.0	CW	1-2	1-D	22	563	584
5021-7P 5021E-7P	M5021-7P M5021E-7P	Single Phase Parallel	240	50/60	0-240 0-280	196 196	47.0 54.9	CW CW	1-4 1-2	1-D 1-D	22	563	584
			120	50/60	0-280	196*-84 V.D.	23.5†	CW	1-5	1-D			
5011-8D 5011E-8D	M5011-8D M5011E-8D	Three Phase Open Delta	120	50/60	0-140	200	48.4	CW	2-1-2	D-1-D	22 & 5	640	661
5011-8P 5011E-8P	M5011-8P M5011E-8P	Single Phase Parallel	120	50/60	0-140	400	56.0	CW	1-2	1-D	22	642	663
5011-8PS 5011E-8PS	M5011-8PS M5011E-8PS	Single Phase Series Parallel	240	50/60	0-280	200	56.0	CW	2-2	D-D	22 & 4	640	661
5021-8D 5021E-8D	M5021-8D M5021E-8D	Three Phase Open Delta	240	50/60	0-240 0-280	112 112	46.6 54.3	CW CW	4-1-4 2-1-2	D-1-D D-1-D	22 & 5	640	661
			120	50/60	0-280	112*-48 V.D.	23.3†	CW	5-1-5	D-1-D			
5021-8P 5021E-8P	M5021-8P M5021E-8P	Single Phase Parallel	240	50/60	0-240 0-280	224 224	53.8 62.7	CW CW	1-4 1-2	1-D 1-D	22	642	663
			120	50/60	0-280	224*-96 V.D.	26.9†	CW	1-5	1-D			
5021-8PS 5021E-8PS	M5021-8PS M5021E-8PS	Single Phase Series Parallel	480	50/60	0-480 0-560	112 112	53.8 62.7	CW CW	4-4 2-2	D-D D-D	22 & 4	640	742
			240	50/60	0-560	112*-48 V.D.	26.9†	CW	5-5	D-D			
5011-9P 5011E-9P	M5011-9P M5011E-9P	Single Phase Parallel	120	50/60	0-140	450	63.0	CW	1-2	1-D	22	721	742
5011-9Y 5011E-9Y	M5011-9Y M5011E-9Y	Three Phase Wye	240	60	0-280	150	72.5	CW	2-2-2	D-D-D	22 & 6	717	738
5021-9P 5021E-9P	M5021-9P M5021E-9P	Single Phase Parallel	240	50/60	0-240 0-280	252 252	60.5 70.6	CW CW	1-4 1-2	1-D 1-D	22	721	742
			120	50/60	0-280	252*-108 V.D.	30.2†	CW	1-5	1-D			
5021-9Y 5021E-9Y	M5021-9Y M5021E-9Y	Three Phase Wye	480	50/60 60	0-480 0-560	84 84	69.8 81.5	CW CW	4-4-4 2-2-2	D-D-D D-D-D	22 & 6	717	738
			240	60	0-560	84*-36 V.D.	35.0†	CW	5-5-5	D-D-D			
—	M5011-10D M5011E-10D	Three Phase Open Delta	120	50/60	0-140	250	60.6	CW	2-1-2	D-1-D	22 & 5		812
—	M5011-10PS M5011E-10PS	Single Phase Series Parallel	240	50/60	0-280	250	70.0	CW	2-2	D-D	22 & 4		812
—	M5021-10D M5021E-10D	Three Phase Open Delta	240	50/60	0-240 0-280	140 140	58.2 67.9	CW CW	4-1-4 2-1-2	D-1-D D-1-D	22 & 5		812
			120	50/60	0-280	140*-60 V.D.	29.1†	CW	5-1-5	D-1-D			

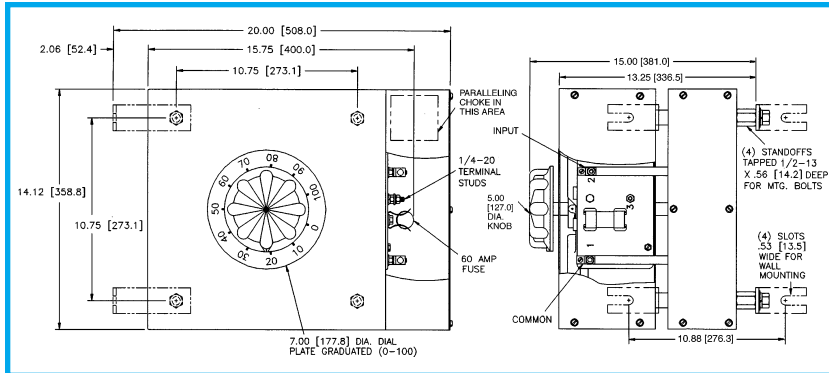
5000/6000 Series



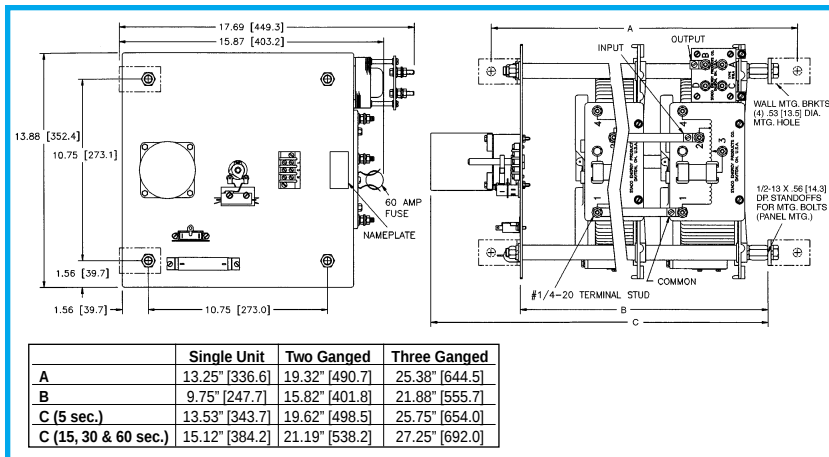
Manual Single, Uncased



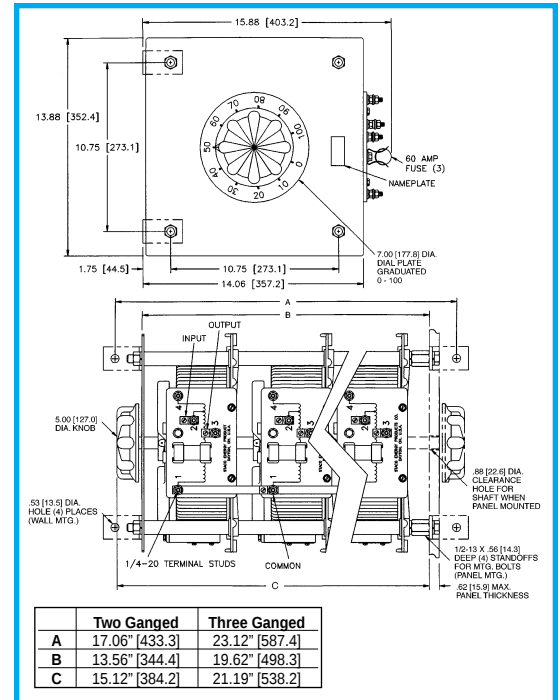
Manual Single, Cased



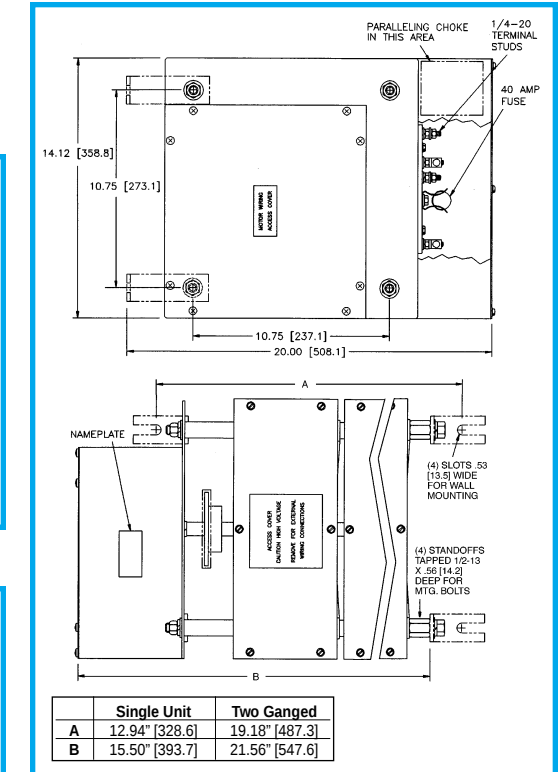
Manual Two-Ganged, Cased



Motor Driven, Single, Two and Three-Ganged, Uncased

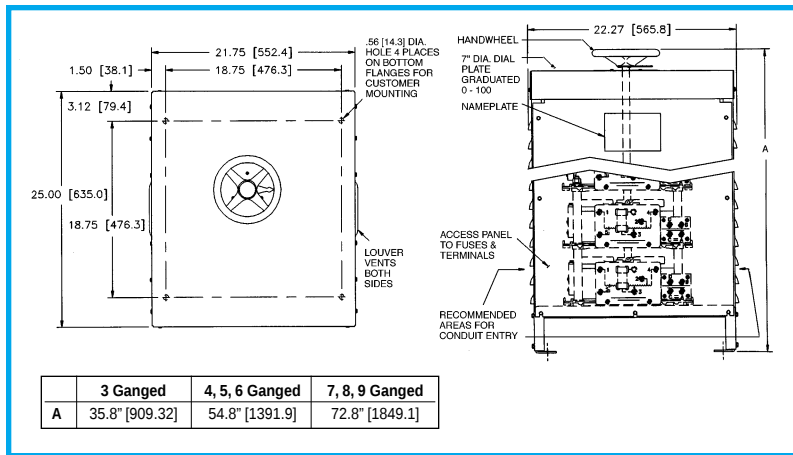


Manual Two and Three-Ganged, Uncased

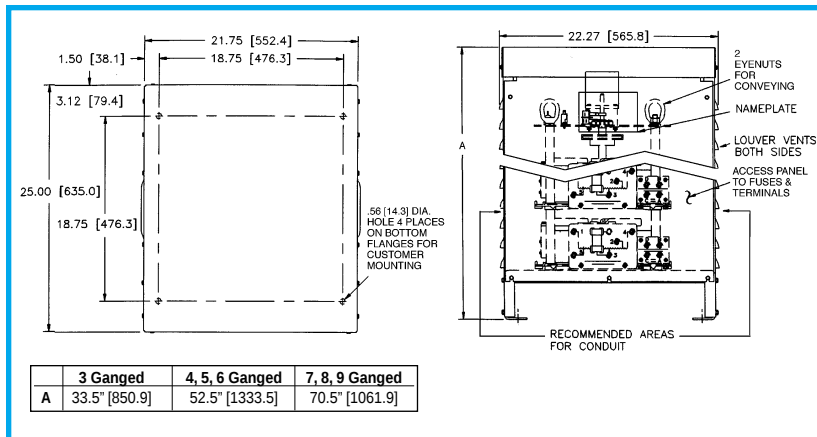


Motor Driven, Single and Two-Ganged, Cased

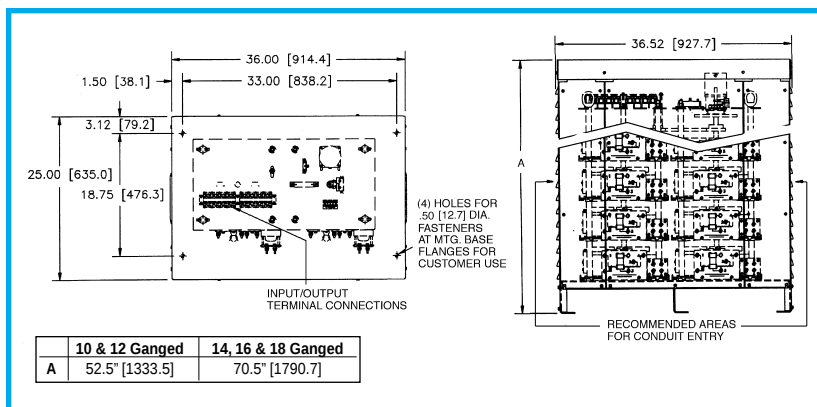
5000/6000 Series



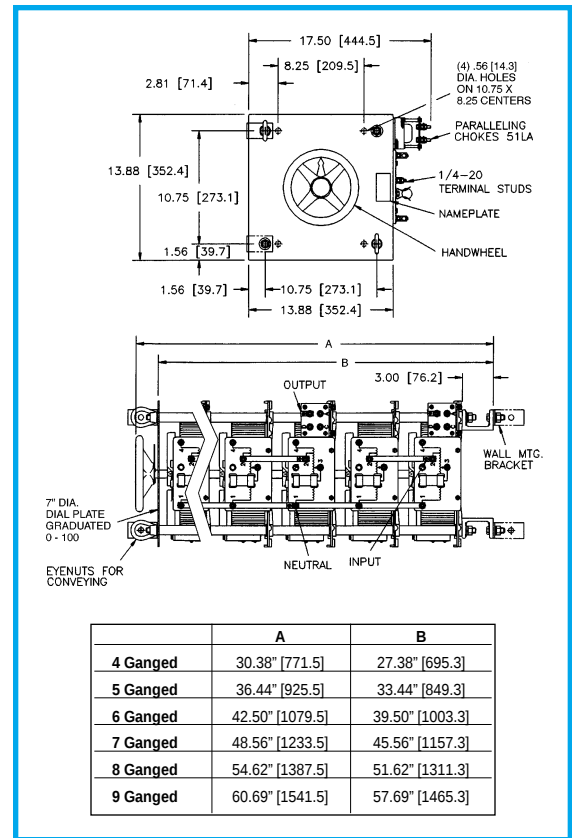
Manual Three to Nine-Ganged, Cased



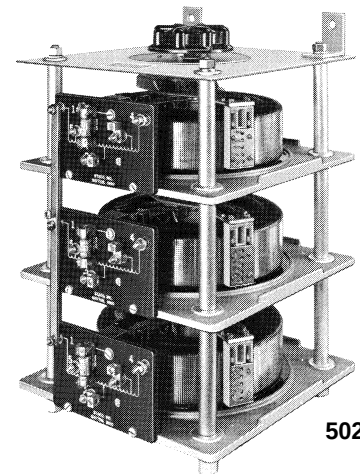
Motor-Driven Three to Nine-Ganged, Cased



Motor-Driven 10, 12, 14, 16 & 18-Ganged Open Delta and Parallel, Cased



Manual Four to Nine-Ganged, Uncased



5021-3Y

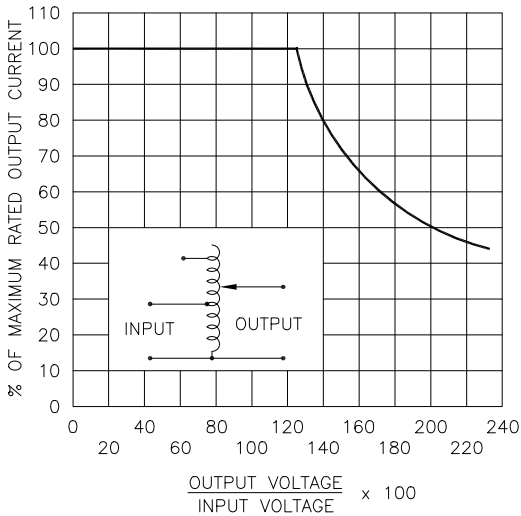
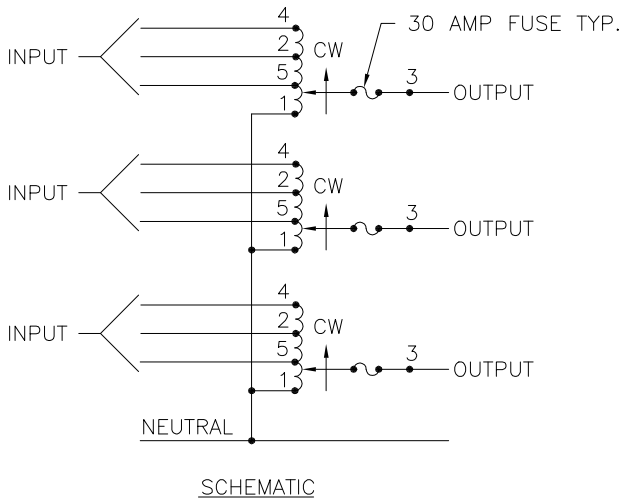
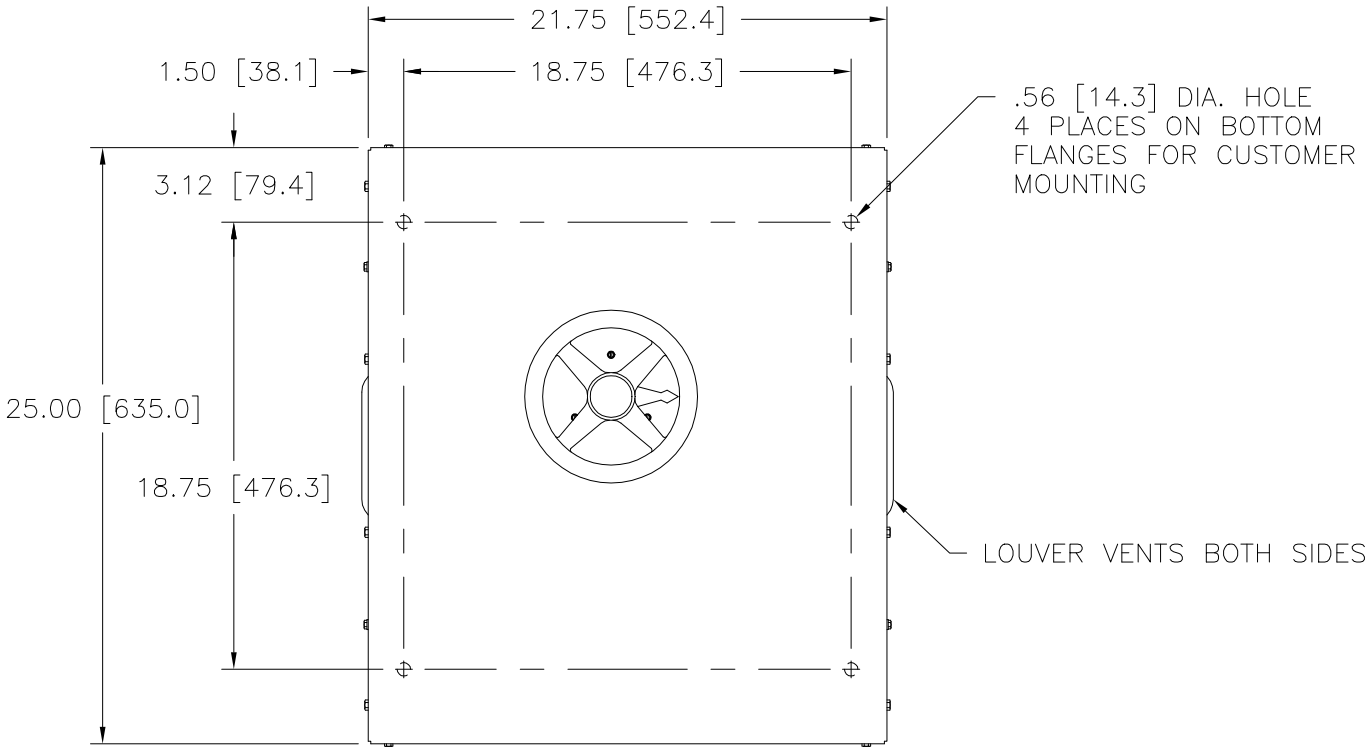
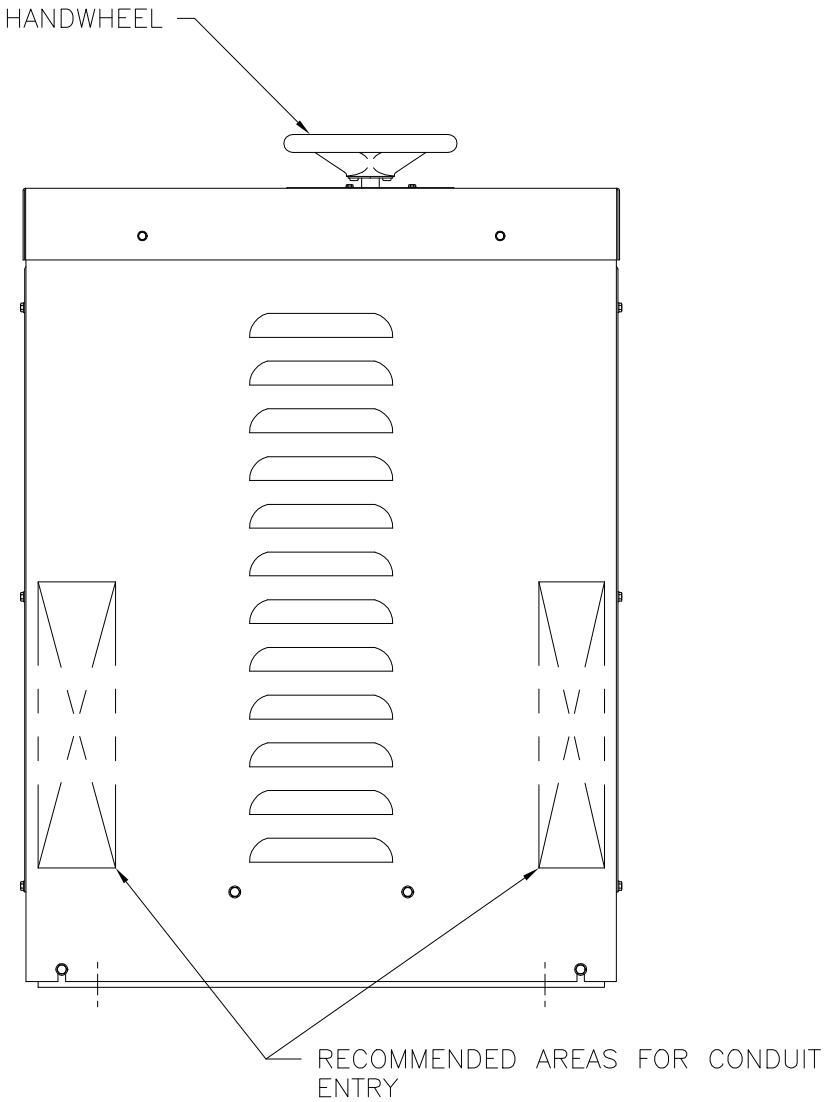
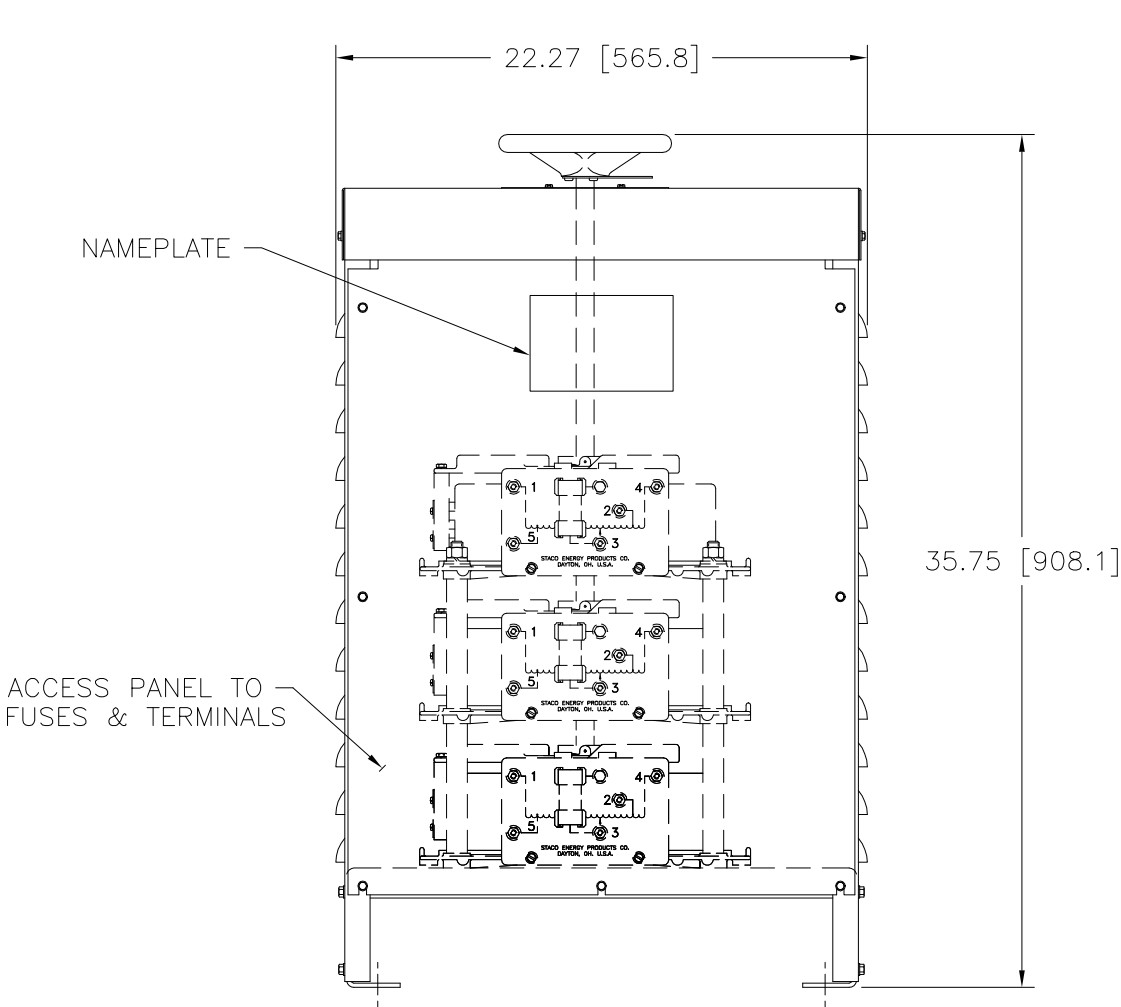


FIGURE A
MAXIMUM OUTPUT CURRENT OF ANY
DUAL INPUT VOLTAGE OR VOLTAGE DOUBLER
UNIT OPERATED AT LOWER INPUT VOLTAGE.

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

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

V.D. = VOLTAGE DOUBLER.



SPECIFICATIONS								
WIRING	INPUT		OUTPUT			SHAFT ROTATION FOR VOLTAGE INCREASE	TERMINAL CONNECTIONS FOR INCREASING VOLTAGE AS VIEWED FROM TOP	
	VOLTS	HERTZ	VOLTS	CONSTANT CURRENT LOAD			INPUT	OUTPUT
THREE PHASE WYE	480	50/60	0-480	28	23.3	CW	4-4-4	3-3-3
		60	0-560	28	27.2	CW	2-2-2	3-3-3
	240	60	0-560	28-12 V.D.	11.8 ++	CW	5-5-5	3-3-3
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS ± DECIMALS .XX, HOLES .12, ANGLES 1°, DRAFT 1-1/2°, UNITS IN [mm]			TITLE: SPECIFICATION CONTROL DRAWING VARIABLE TRANSFORMER 5021E-3Y					
MATERIAL: ALL DIMENSIONS APPLY AFTER PLATING			DRAWN BY S.A. SMITH		DATE 12/29/94	FIRST USED ON 5021E-3Y	DO NOT SCALE DWG.	CUSTOMER APPROVAL
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.			CHECKER	DATE	WEIGHT APPROX.	CODE IDENT. NO. 83008	DWG. NO. 031-7455	DATE
			ENGINEER	DATE	SCALE .25=1	SHEET 1 OF 1		