

Motor Drive Isolation Transformers

Dongan® Motor Drive Isolation Transformers are specifically designed to meet the requirements of SCR controlled variable speed motor drives. They are ruggedly constructed to withstand the high mechanical forces associated with SCR drive duty cycles. The double-wound construction isolates the line from most SCR generated voltage spikes and transient feedback. These transformers also assist in reducing some types of line transients that can cause SCR misfiring.

enclosure. No extra rainshields required for outdoor use.

- **11 - 145 kVA are aluminum wound and equipped with a UL 220°C insulation system.**

Features



- **Three Phase 3 - 145 kVA.**
- **Electrostatic shield between windings.**
- **Vibration dampening pads provide quiet operation.**
- **Wall Mounting brackets are available for sizes 11 kVA through 75 kVA (see page 29).**
- **Ground studs provided.**
- **Core and coil and nonstandard designs are available by consulting the factory or your Dongan® Representative.**
- **NEMA Type 3R, ventilated, wall mount**



11 - 145 kVA

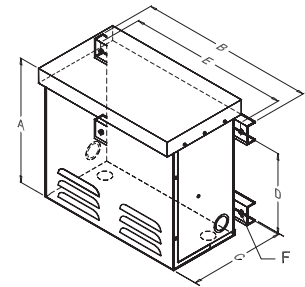
General Information									
Delta Pri.		230	230	460	460	575	575	Taps	Weight (lbs)
Wye Sec.		230Y/133	460Y/266	230Y/133	460Y/266	230Y/133	460Y/266		
kVA Cap.	Motor HP	Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number		
3	2	63-0103SH	63-0403SH	63-0503SH	63-0703SH	63-0803SH	63-0903SH	0	70
6	3	63-0106SH	63-0406SH	63-0506SH	63-0706SH	63-0806SH	63-0906SH	0	136
7.5	5	63-0107SH	63-0407SH	63-0507SH	63-0707SH	63-0807SH	63-0907SH	0	185
11	7.5	63-2111SH	63-2411SH	63-2511SH	63-2711SH	63-2811SH	63-2911SH	2	225
14	10	63-2114SH	63-2414SH	63-2514SH	63-2714SH	63-2814SH	63-2914SH	2	245
20	15	63-2120SH	63-2420SH	63-2520SH	63-2720SH	63-2820SH	63-2920SH	2	275
27	20	63-2127SH	63-2427SH	63-2527SH	63-2727SH	63-2827SH	63-2927SH	2	290
34	25	63-2134SH	63-2434SH	63-2534SH	63-2734SH	63-2834SH	63-2934SH	2	415
40	30	63-2140SH	63-2440SH	63-2540SH	63-2740SH	63-2840SH	63-2940SH	2	440
51	40	63-2151SH	63-2451SH	63-2551SH	63-2751SH	63-2851SH	63-2951SH	2	500
63	50	63-2163SH	63-2463SH	63-2563SH	63-2763SH	63-2863SH	63-2963SH	2	560
75	60	63-2175SH	63-2475SH	63-2575SH	63-2775SH	63-2875SH	63-2975SH	2	580
93	75	63-2193SH	63-2493SH	63-2593SH	63-2793SH	63-2893SH	63-2993SH	2	1000
118	100	63-2118SH	63-2418SH	63-2518SH	63-2718SH	63-2818SH	63-2918SH	2	1100
145	125	63-21145SH	63-24145SH	63-25145SH	63-27145SH	63-28145SH	63-29145SH	2	1200

Motor Drive transformers are exempt from the US DOE TP1 requirements. However they do not meet Canadian C802.22 energy requirements. If this is required you must order a 43- catalog number.

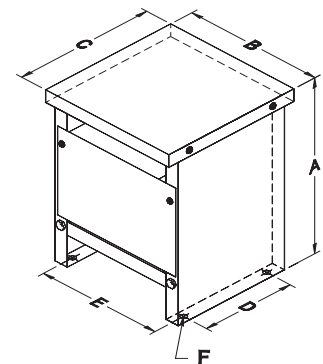
Motor Drive Isolation Transformers

Dimensions										
kVA	Motor HP	Physical			Mounting				Taps	Dwg. No.
		Height A	Width B	Depth C	D	E	F	Mtg Type*		
3	2	11.50	15.50	7.75	6.31	14.00	0.437	WM	0	1
6	3	14.00	18.50	9.00	8.50	17.00	0.437	WM	0	1
7.5	5	17.50	17.00	10.00	11.50	15.50	0.562	WM	0	1
11	7.5	23.50	18.87	18.50	13.00	16.87	0.437	FM	2	2
14	10	23.50	18.87	18.50	13.00	16.87	0.437	FM	2	2
20	15	29.00	24.25	20.87	15.37	22.25	0.437	FM	2	2
27	20	29.00	24.25	20.87	15.37	22.25	0.437	FM	2	2
34	25	29.00	24.25	20.87	15.37	22.25	0.437	FM	2	2
40	30	29.00	24.25	20.87	15.37	22.25	0.437	FM	2	2
51	40	32.00	27.25	26.25	20.75	25.25	0.562	FM	2	2
63	50	32.00	27.25	26.25	20.75	25.25	0.562	FM	2	2
75	60	32.00	27.25	26.25	20.75	25.25	0.562	FM	2	2
93	75	41.00	34.25	26.75	21.25	32.25	0.562	FM	2	2
118	100	41.00	34.25	26.75	21.25	32.25	0.562	FM	2	2
145	125	41.00	34.25	26.75	21.25	32.25	0.562	FM	2	2

*WM = WALL MOUNT FM = FLOOR MOUNT



Drawing 1
3 - 7.5 kVA
Wall Mount - Ventilated - NEMA Type 3R



Drawing 2
11 - 145 kVA
Floor Mount - Ventilated - NEMA Type 3R

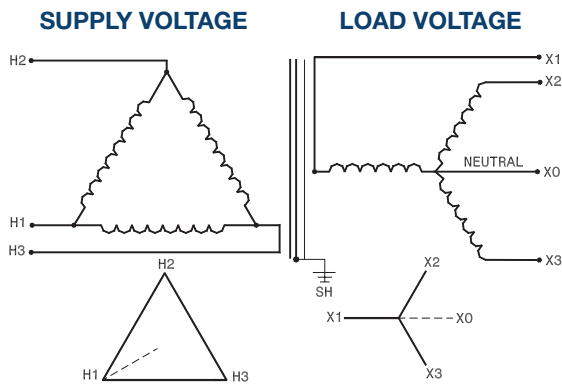


Diagram 1 (3 - 7.5 kVA)

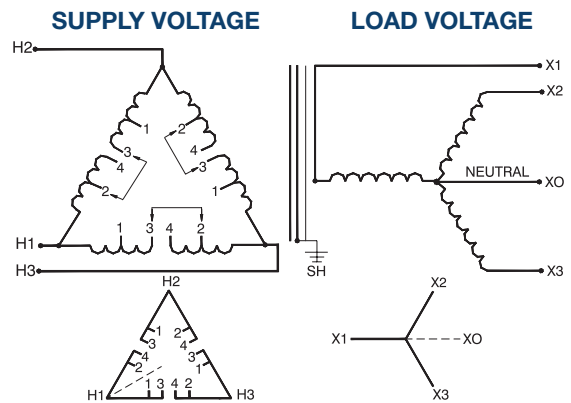


Diagram 2 (11 - 145 kVA)

K-Factor Transformers for Harmonic Loads

Domestic distribution systems and linear loads operate at the fundamental frequency of 60 Hz. Harmonic content in distribution systems means that there are integer multipliers of the fundamental 60 Hz frequency present. For instance, the second harmonic is 120 Hz, the third harmonic is 180 Hz, the fourth harmonic is 240 Hz, etc.

Dongan® K-Factor transformers are specifically engineered to operate at full load and full harmonic

Series LTF & LTH - Low temperature rise, 80°C and 115°C

Series LTF and LTH Transformers are three phase, low temperature rise, air cooled, general purpose distribution transformers. These transformers feature either an 80°C temperature rise or a 115°C temperature rise with a 220°C insulation system and all are shielded. They are designed for applications where cool operating temperatures or thermal overload requirements are demanded.

Three Phase - Specialty Applications

Three Phase Open Delta Autotransformer Connections

Single phase, general purpose transformers may be used to achieve a wide variety of nonstandard voltage combinations. These combinations are achieved by connecting two identical, 240/480 volt primary, 120

rating without exceeding the rated insulation system values - effectively neutralizing the dangerous effects of temperature and circulating currents. Windings and cores are designed to operate in the presence of triplen harmonics without overheating or forcing the core into saturation. These transformers will provide years of trouble free service to large office buildings, industrial plants, processing equipment and any load with a designated harmonic content.

Features



- NEMA Type 3R, indoor / outdoor enclosure.
- 80°C and 115°C temperature rise units.
- 220°C Insulation system.
- Featuring three phase, 480 volt Delta primary windings with a secondary winding of 208Y/120.

x 240 volt secondary, single phase transformers into three phase, autotransformer banks - much like the buck-boost configurations featured on pages 48 - 66 later in this catalog.

General Information			Pri. Volts - 600 Sec. Volts - 480			
kVA Cap.	Catalog Number	Qty. Req'd	Maximum Amps		Bank KVA	Conn. Dia. No.
			600	480		
.500	85-1025SH*	2	4.2	5.2	4.3	Dia-2038
.750	85-1030SH*	2	6.3	7.8	6.5	Dia-2038
1	85-1035SH*	2	8.3	10.4	8.6	Dia-2038
1.5	85-1040SH*	2	12.5	15.6	13.0	Dia-2038
2	85-1045SH*	2	16.6	20.8	17.3	Dia-2038
3	85-1050SH*	2	25	31	25.9	Dia-2038
5	85-1055SH*	2	41	52	43.2	Dia-2038
7.5	85-1060SH*	2	62	78	64.8	Dia-2038
10	61-1465SH	2	83	104	86.4	Dia-2039
15	41-1470SH	2	125	156	129	Dia-2039
25	41-1475SH	2	208	260	216	Dia-2039
37.5	41-1680SH	2	312	390	325	Dia-2040
50	41-1685SH	2	416	520	432	Dia-2040
75	41-1690SH	2	625	780	650	Dia-2040
100	41-1695SH	2	832	1040	865	Dia-2040

General Information			Pri. Volts - 480 Sec. Volts - 240			
kVA Cap.	Catalog Number	Qty. Req'd	Maximum Amps		Bank KVA	Conn. Dia. No.
			480	240		
.500	85-1025SH*	2	2.0	4.0	1.7	Dia-3080
.750	85-1030SH*	2	3.1	6.2	2.6	Dia-3080
1	85-1035SH*	2	4.1	8.2	3.4	Dia-3080
1.5	85-1040SH*	2	6.2	12.4	5.1	Dia-3080
2	85-1045SH*	2	8.2	16.4	6.8	Dia-3080
3	85-1050SH*	2	12	24	10	Dia-3080
5	85-1055SH*	2	20	40	17	Dia-3080
7.5	85-1060SH*	2	31	62	26	Dia-3080
10	61-1465SH	2	41	82	34	Dia-3081
15	41-1470SH	2	62	124	51	Dia-3081
25	41-1475SH	2	102	204	85	Dia-3081
37.5	41-1680SH	2	153	306	128	Dia-3082
50	41-1685SH	2	205	410	170	Dia-3082
75	41-1690SH	2	310	620	258	Dia-3082
100	41-1695SH	2	415	830	344	Dia-3082

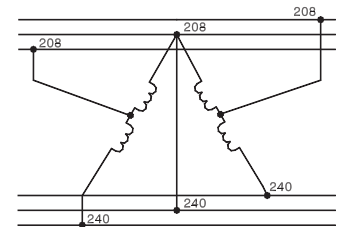
Three Phase - Specialty Applications

Series ODY - Factory Pre-Connected Autotransformers

Series ODY Autotransformers offer a fast, economical, factory pre-connected installation for transforming three phase lines from 208 to 240, or from 240 to 208. Simply bring in three wires on the line side and

take out three wires on the load side. Series ODY offer an economical method of bucking and boosting 208 and 240 volt lines where the presence of a fourth wire neutral is not needed.

General Information				Winding Specifications				Dimensions		
kVA Cap.	Catalog Number	Hz.	Wgt. Lbs	Taps	Maximum Amps		Conn Dia.	Height A	Width B	Depth C
					208	240				
2.8	84-280-ODY	60	21	0	7.8	6.7	ODY	9.75	4.63	4.06
5.6	84-560-ODY	60	37	0	15.6	13.5	ODY	12.25	5.31	4.75
8.4	84-840-ODY	60	54	0	23.4	20.2	ODY	15.50	5.31	4.75
11.2	84-1120-ODY	60	55	0	31.2	27.0	ODY	15.50	5.31	4.75
16.9	84-1690-ODY	60	65	0	46.8	40.5	ODY	16.13	7.19	5.81
22.5	84-2250-ODY	60	74	0	62.4	54.1	ODY	17.13	7.19	5.81
33.0	84-3300-ODY	60	127	0	93.6	81.1	ODY	20.50	7.69	6.75
56.0	84-5600-ODY	60	158	0	156.1	135.3	ODY	24.88	7.69	6.75



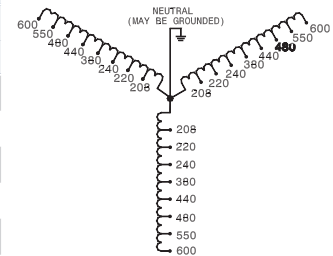
Wiring Diagram - ODY

Series 3PTT

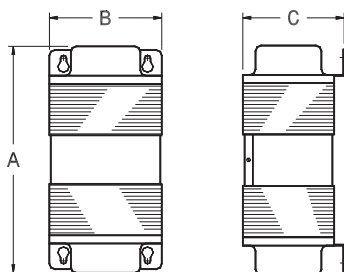
Series 3PTT Three Phase Auto Testing Transformers allow three phase line voltages to be transformed into various three phase voltages found around the world. Voltages include 208, 220, 240, 380, 440, 480, 550, and avv volts three phase. All taps are designed to carry full load current at rated voltage. All 3PTT Series transformers are copper wound.



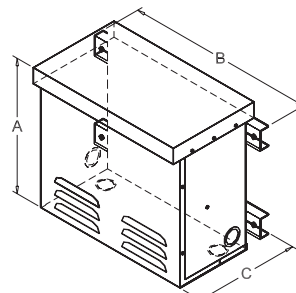
General Information				Winding Specifications								Dimensions				
kVA Cap.	Catalog Number	Hz.	Wgt. Lbs	Taps	Maximum Amps								Conn Dia.	Height A	Width B	Depth C
					208	220	240	380	440	480	550	600				
5	84-500-3PTT	50/60	70	0	13	13	12	7	6	6	5	4	3PTT	11.50	15.50	7.75
10	84-1000-3PTT	50/60	150	0	27	26	24	15	13	12	10	9	3PTT	21.88	25.00	18.13
15	84-1500-3PTT	50/60	180	0	41	39	36	22	19	18	15	14	3PTT	21.88	25.00	15.12
25	84-2500-3PTT	50/60	350	0	69	65	60	38	32	30	26	24	3PTT	21.88	25.00	15.12
37	84-3750-3PTT	50/60	430	0	104	98	90	57	49	45	39	36	3PTT	21.88	25.00	15.12
50	84-5000-3PTT	50/60	550	0	138	131	120	76	65	60	52	48	3PTT	29.00	24.25	20.88
75	84-7500-3PTT	50/60	650	0	208	197	180	114	98	90	78	72	3PTT	32.00	27.25	26.25
100	84-10000-3PTT	50/60	780	0	277	262	240	152	131	120	105	96	3PTT	32.00	27.25	26.25



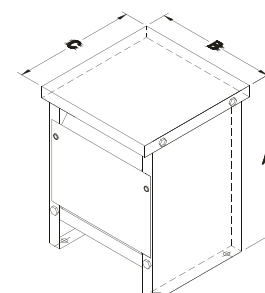
Wiring Diagram - 3PTT



Series ODY
Wall Mount - Ventilated - NEMA Type 3R



Series 3PTT, 5 - 37 kVA
Wall Mount - Ventilated - NEMA Type 3R

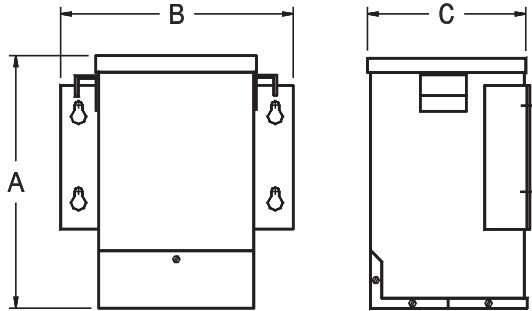


Series 3PTT, 50 - 100 kVA
Floor Mount - Ventilated - NEMA Type 3R

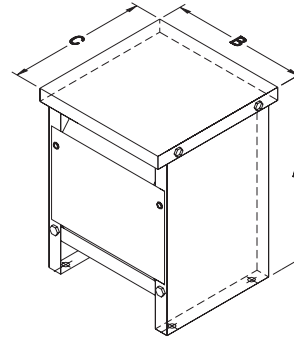
Dimensions & weights may change. Consult factory for certified drawings.

Three Phase Outline Drawings

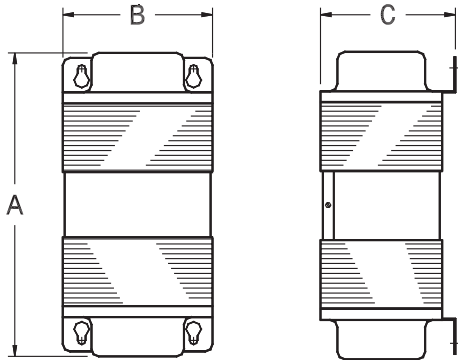
Outline Drawings



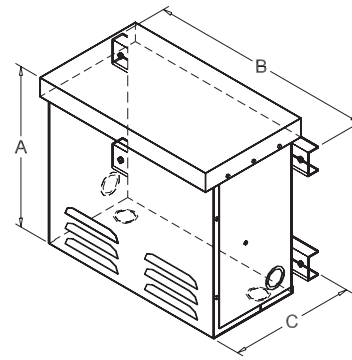
Outline Drawing 1 - Wall Mount



Outline Drawing 2 - Floor Mount



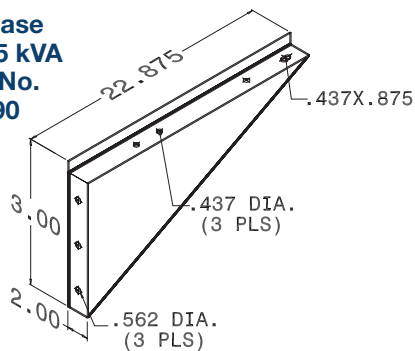
Outline Drawing 3 - Wall Mount



Outline Drawing 4 - Wall Mount

Wall Mounting Brackets - Three Phase 15 kVA - 75 kVA

Three Phase
15 kVA - 45 kVA
Catalog No.
BR - 890



Three Phase
75 kVA
Catalog No.
BR - 892

