The Ultimate in Durabillity and Dependability!



Control Transformers D0/DL/DC Series

The DO/DL/DC series of control transformers offers maximum flexibility for reduced inventory and multiple voltage applications. These general purpose control transformers offer superior performance, silent operation and rugged mechanical design for all types of applications.

Features

- V.V.I. (Vacuum Varnish Impregnated and Baked)
- D0 Series: Standard screw terminal
- · DL Series: Standard 10" lead out
- DC Series: Standard junction box enclosures
- · Insulation tested at a minimum of 2,500 Vrms Hi POT
- · Indicated additive polarity

Custom Options Available

- · Special voltage and VA's
- · Special lead lengths
- · Vertical mounting
- · Custom winding configurations
- · Electrostatic shield
- · Fuse holder

D VW XXXX YZ* Series Model Designations



Electrical Specifications

- · Single-phase
- Operating frequency: 50/60Hz
 Insulation class: 25-350 VA
 500-6000 VA
- Temperature rise:

25-350 VA	B (130 °C)
500-6000 VA	H (180 °C)
25-350 VA	< 80 °C
500-6000 VA	< 120 °C

• Noise level: < 40 dB



Туре	of const	ruction	Wir	Winding isolation						
V	: 0 C L	Open - screw terminal Closed Open - 10" lead out	W	:	A N/A	Autotransformer Isolated				

Secondary VA	Primary, secondary voltage designations	
XXXX : 0025 0250 1000 3000 0050 0350 1500 4000 0100 0500 2000 5000 0150 0750 2500 6000 0200	Y-Z : A 12 F 208 K 380 P 240/480 B 24 G 240 L 347/380 Q 600 C 12/24 H 120/240 M 416 S Special (specify) D 16/32 I 277 N 208/416 S Special (specify) E 120 J 347 O 480 S Special (specify)	

* Series: D = Series V = Construction W = Winding isolation XXXX = VA Secondary or Special# Y = Primary voltage Z = Secondary voltage

Winding Configurations



Custom winding configurations available upon request

TRANSFAB TMS INC.

Control Transformers D0/DL/DC Series



Mechanical Specifications

DO Se	eries		D	imensi	ons (inc	hes)		Weight				
VA	Fig.	A	В	C	D MTG	E MTG	F MTG	kg	lbs	Technic	al Data	
25	2	3.00	2.69	2.50	2.50	1.88	0.20*0.63	0.57	1.25	Figure 1	Figure 2	
50	2	3.00	3.06	2.50	2.50	2.25	0.20*0.63	0.98	2.16			
100	2	3.75	3.75	3.13	3.13	2.00	0.20*0.38	1.61	3.55			Т
150	2	3.75	4.22	3.13	3.13	2.25	0.20*0.38	1.98	4.36	C		C
200	2	3.75	5.00	3.13	3.13	2.75	0.20*0.38	2.70	5.95		o o	÷
250	2	4.50	4.50	3.75	3.75	2.50	0.20*0.38	3.40	7.48	- A →	← A →	
350	2	4.50	5.60	3.75	3.75	3.38	0.20*0.38	5.14	11.32		T. T	
500	2	5.25	5.48	4.38	4.38	3.13	0.28*0.41	6.24	13.75	F		
750	2	5.25	5.73	4.38	4.38	3.63	0.28*0.41	7.65	16.85			1
1000	2	6.75	6.00	5.88	5.00	4.25	0.28*0.63	12.08	26.61	δ D B	Е	в
1500	2	6.75	7.00	5.88	5.00	5.25	0.28*0.63	16.37	36.06			1
2000	2	6.75	8.00	5.88	5.00	6.25	0.28*0.63	20.00	44.05			•
2500	2	6.75	9.00	5.88	5.00	7.25	0.28*0.63	24.47	53.90	▲ D →	→ D ←	
3000	2	9.00	7.50	7.75	7.00	5.00	0.28*0.63	28.34	62.42			
4000	2	9.00	8.50	7.75	7.00	6.00	0.28*0.63	35.61	78.44			
5000	2	9.00	9.50	7.75	7.00	7.00	0.28*0.63	42.81	94.30			
6000	2	9.00	10.50	7.75	7.00	8.00	0.28*0.63	50.09	110.70			

DL Se	ries		D	imensi	ons (inc	hes)		We	ight		
VA	Fig.	A	В	C	D MTG	E MTG	F MTG	kg	lbs	Technica	al Data
25	4	3.00	2.69	2.50	2.50	1.88	0.20*0.63	0.57	1.25	Figure 3	Figure 4
50	4	3.00	3.06	2.50	2.50	2.25	0.20*0.63	0.98	2.16		
100	4	3.75	2.55	3.13	3.13	2.00	0.20*0.38	1.61	3.55		T I'
150	4	3.75	2.80	3.13	3.13	2.25	0.20*0.38	1.97	4.34	C	C
200	4	3.75	3.30	3.13	3.13	2.75	0.20*0.38	2.66	5.86		
250	4	4.50	3.10	3.75	3.75	2.50	0.20*0.38	3.41	7.51	▲ A →	< A →
350	4	4.50	4.00	3.75	3.75	3.38	0.20*0.38	5.14	11.32		01.2 2232 23
500	4	5.25	4.00	4.38	4.38	3.13	0.28*0.41	6.06	13.35	P	F
750	4	5.25	4.50	4.38	4.38	3.63	0.28*0.41	7.47	16.45		
1000	4	6.75	5.50	5.88	5.00	4.25	0.28*0.63	11.81	26.01		ЕВ
1500	4	6.75	6.50	5.88	5.00	5.25	0.28*0.63	15.77	34.74		
2000	4	6.75	7.50	5.88	5.00	6.25	0.28*0.63	20.00	44.10		
2500	4	6.75	8.50	5.88	5.00	7.25	0.28*0.63	24.66	54.49	← D →	- • D -
3000	4	9.00	6.25	7.75	7.00	5.00	0.28*0.63	26.93	59.32		
4000	4	9.00	7.25	7.75	7.00	6.00	0.28*0.63	35.45	78.08		
5000	4	9.00	8.25	7.75	7.00	7.00	0.28*0.63	42.64	93.92		
6000	4	9.00	9.25	7.75	7.00	8.00	0.28*0.63	48.90	107.70		

DC Se	DC Series		D	imensio	ons (inches)			We	ight	
VA	Fig.	A	В	C	D MTG	E MTG	F MTG	kg	lbs	Technical Data
25	5	3.06	5.16	2.82	1.75	3.62	0.25*0.50	0.89	1.95	Figure 5
50	5	3.06	5.54	2.82	1.75	4.00	0.25*0.50	1.30	2.82	
100	5	3.75	6.00	3.44	2.50	4.00	0.25*0.50	2.09	4.60	F
150	5	3.75	6.25	3.44	2.50	4.77	0.25*0.50	2.44	5.37	
200	5	3.75	6.78	3.44	2.50	5.28	0.25*0.50	3.13	6.89	
250	5	4.50	6.52	4.06	2.50	5.00	0.25*0.63	4.13	9.10	С Б
350	5	4.50	7.50	4.06	2.50	6.00	0.25*0.63	5.86	12.91	
500	5	5.25	8.50	4.69	3.75	7.00	0.25*0.63	7.16	15.78	
750	5	5.25	9.00	4.69	3.75	7.50	0.25*0.63	8.57	18.88	
1000	5	6.75	8.75	5.94	5.00	7.25	0.28*0.63	13.24	29.16	← A →
1500	5	6.75	9.75	5.94	5.00	8.25	0.28*0.63	17.19	37.86	
2000	5	6.75	10.75	5.94	5.00	9.25	0.28*0.63	21.42	47.18	
2500	5	6.75	11.75	5.94	5.00	10.25	0.28*0.63	25.89	57.03	
3000	5	9.00	11.00	7.88	7.00	9.50	0.28*0.77	30.38	66.92	
4000	5	9.00	12.00	7.88	7.00	10.50	0.28*0.77	33.69	85.22	
5000	5	9.00	13.00	7.88	7.00	11.50	0.28*0.77	45.89	101.10	
6000	5	9.00	14.00	7.88	7.00	12.50	0.28*0.77	52.03	114.60	

All weights and dimensions are subject to change without notice.

The Solution to Hazardous Applications!



Control Transformers

DX Series

The DX series of control transformers is specifically designed for indoor and outdoor use. Ideal for harsh, corrosive or dusty environments. Recommended for applications in mechanically hazardous locations such as conveyors and elevators. The DX series combines the electrical performance of the DO/DL/DC series with rugged protection for harsh environments.

Features

- V.V.I. (Vacuum varnish impregnated and baked)
- Standard weather proof 3R enclosure
- · Installation made easy with front and bottom terminal access
- · Standard 6" lead length
- · Indicated additive polarity
- · Insulation tested at a minimum of 2,500 Vrms Hi POT

Custom Options Available

- Leads
- Special voltages and VA's
- · Custom winding configurations
- · Electrostatic shield
- Autotransformer

D V W XXXX YZ* Series Model Designations



Electrical Specifications

- · Single-phase
- Operating frequency: 50/60 Hz Insulation class: 50-350 VA B (130 °C) 500-3,000 VA H (180 °C)
 Temperature rise: 50-350 VA < 80 °C
 - 500-3,000 VA
 H (180 °C)

 50-350 VA
 < 80 °C</td>

 500-3,000 VA
 < 120 °C</td>

 < 40 dB</td>
- Noise level:



Type of construction	Winding isolation
V : X Enclosed potted 3R	W : A Autotransformer N/A Isolated
Secondary VA	Primary, secondary voltage designations
XXXX : 0050 0250 1000 3000 0100 0500 1500 0150 0750 2000	Y-Z : A 12 F 208 K 380 P 240/480 B 24 G 240 L 347/380 Q 600 C 12/24 H 120/240 M 416 S Special (specify) D 16/32 I 277 N 208/416 S Special (specify) E 120 J 347 O 480 S Special (specify)

* Series: DX = Series V = Construction W = Winding isolation XXXX = VA Secondary or Special# Y = Primary voltage Z = Secondary voltage

Winding Configurations



Custom winding configurations available upon request

TRANSFAB TMS INC.

DX Series



Mechanical Specifications

DX Series		Dimensions (inches)				We	ight	
VA	A	В	C	D MTG	E MTG	kg	lbs	Technical Data
0050								⟨−−₩ −⊳
0100	CC	NSULT OU	JR CUSTO	MER SER	ICE DEPA	RTMENT		
0150								
0250	5.13	5.75	10.25	4.00	9.63	9.2	20.3	6
0500	5.13	5.75	10.25	4.00	9.63	10.9	24.0	
0750	5.13	5.75	10.25	4.00	9.63	11.4	25.0	
1000	5.13	5.75	10.25	4.00	9.63	11.4	25.0	o o 1
1500	7.65	7.35	11.75	5.50	11.13	22.0	48.5	0
2000	7.65	7.35	11.75	5.50	11.13	24.5	54.0	0 0 0 0 1
3000	7.65	7.35	11.75	5.50	11.13	26.5	58.4	
								B
All weigh	nts and dime	ensions are	e approxima	ite and sub	ject to char	nge withou	ut notice.	



Mounting holes: dia. = 0.25"

The Economical and Compact Solution!



Control Transformers

30/3L Series

The 30/3L series of control transformers offers electrical performance of control transformers in a compact three-phase design with terminal boards or lead out. The 30/3L transformers are suitable for space limited applications requiring superior electrical performance, cool operating temperatures and silent operation.

Features

- V.V.I. (Vacuum varnish impregnated and baked)
- Voltage < 100 V size to be confirmed with plant
- · Compact design
- · Insulation tested at a minimum of 2,500 Vrms Hi POT

Custom Options Available

- · Special voltages and VA's
- Custom winding configurations
- · Electrostatic shield
- Autotransformer
- · Fuse holder

3 VW XXXX YZ* Series Model Designations



50-1,000 VA

50-1,000 VA

< 40 dB

Electrical Specifications

- Three-phase
- Operating frequency: 50/60 Hz
- Insulation class:
- B (130 °C) 2,000-6,000 VA H (180 °C)
 - < 80 °C 2,000-6,000 VA < 120 °C
- · Noise level:

• Temperature rise:





* Series: 3 = Series V = Construction W = Winding isolation XXXX = VA Secondary or Special# Y = Primary voltage Z = Secondary voltage

Winding Configurations



Custom winding configurations available upon request

TRANSFAB TMS INC.

Control Transformers 30/3L Series



Mechanical Specifications

30/3L 9	Series		Dimen	Weight				
VA	Figure	A	В	C	D MTG	E MTG	kg	lbs
0050	1	4.89	2.75	3.77	4.38	1.75	1.55	3.43
0100	1	4.89	2.75	3.98	4.38	1.75	2.01	4.43
0200	1	4.89	3.00	3.98	4.38	2.00	2.57	5.66
0500	2	7.50	4.25	5.55	6.75	1.88	5.66	12.47
0750	2	7.50	4.50	5.55	6.75	2.13	6.57	14.47
1000	2	7.50	4.75	5.55	6.75	2.38	7.89	17.38
2000	2	9.00	7.00	7.00	8.00	4.00	16.10	35.47
3000	2	9.00	8.00	7.00	8.00	5.00	21.67	47.73
4000	2	11.00	6.25	8.39	9.00	4.37	30.87	68.00
5000	2	11.00	7.25	8.39	9.00	5.50	38.18	84.10
6000	2	11.00	7.63	8.39	9.00	6.00	43.43	95.66

All weights and dimensions are approximate and subject to change without notice.











Control Transformers

EXA Series

The EXA series has been developed specifically to meet the technical requirements of the OEM market. These transformers are ideal for electrical designs which require small economical transformers.

Features

- V.V.I. (Vacuum varnish impregnated and baked)
- · Standard screw terminals
- · Indicated additive polarity

Custom Options Available

- Leads
- · Special voltages and VA's
- Electrostatic shield



Electrical Specifications

- · Single-phase
- · Operating frequency: 60 Hz
- · Insulation class: 25-1,000 VA B (130 °C) 1,500-7,50

00 VA	H (180 °C)



EXA	Series															
Primary Volts	Secondary Volts	25 VA	50 VA	100 VA	150 VA*	200 VA	250 VA	350 VA	500 VA	750 VA	1000 VA	1500 VA	2000 VA	3000 VA	5000 VA	7500 VA
120	12	EXA002519	EXA005019	EXA010019	EXA015019	EXA020019	-	-		-	-	-	-	-	-	-
	24	EXA002520	EXA005020	EXA010020	EXA015020	EXA020020	EXA025020	EXA035020	EXA050020	EXA075020	EXA100020	EXA150020	EXA200020	EXA300020	EXA500020	EXA750020
	120	EXA002521	EXA005021	EXA010021	EXA015021	EXA020021	EXA025021	EXA035021	EXA050021	EXA075021	EXA100021	EXA150021	EXA200021	EXA300021	EXA500021	EXA750021
208	24	EXA002522	EXA005022	EXA010022	EXA015022	EXA020022	EXA025022	EXA035022	EXA050022	EXA075022	EXA100022	EXA150022	EXA200022	EXA300022	EXA500022	EXA750022
	120	EXA002523	EXA005023	EXA010023	EXA015023	EXA020023	EXA025023	EXA035023	EXA050023	EXA075023	EXA100023	EXA150023	EXA200023	EXA300023	EXA500023	EXA750023
240	24	EXA002524	EXA005024	EXA010024	EXA015024	EXA020024	EXA025024	EXA035024	EXA050024	EXA075024	EXA100034	EXA150024	EXA200024	EXA300024	EXA500024	EXA750024
	120	EXA002525	EXA005025	EXA010025	EXA015025	EXA020025	EXA025025	EXA035025	EXA050025	EXA075025	EXA100035	EXA150025	EXA200025	EXA300025	EXA500025	EXA750025
277	24	EXA002526	EXA005026	EXA010026	EXA015026	EXA020026	EXA025026	EXA035026	EXA050026	EXA075026	EXA100026	EXA150026	EXA200026	EXA300026	EXA500026	EXA750026
	120	EXA002527	EXA005027	EXA010027	EXA015027	EXA020027	EXA025027	EXA035027	EXA050027	EXA075027	EXA100027	EXA150027	EXA200027	EXA300027	EXA500027	EXA750027
	240	EXA002528	EXA005028	EXA010028	EXA015028	EXA020028	EXA025028	EXA035028	EXA050028	EXA075028	EXA100028	EXA150028	EXA200028	EXA300028	EXA500028	EXA750028
347	24	EXA002529	EXA005029	EXA010029	EXA015029	EXA020029	EXA025029	EXA035029	EXA050029	EXA075029	EXA100039	EXA150029	EXA200029	EXA300029	EXA500029	EXA750029
	120	EXA002530	EXA005030	EXA010030	EXA015030	EXA020030	EXA025030	EXA035030	EXA050030	EXA075030	EXA100030	EXA150030	EXA200030	EXA300030	EXA500030	EXA750030
	240	EXA002531	EXA005031	EXA010031	EXA015031	EXA020031	EXA025031	EXA035031	EXA050031	EXA075031	EXA100031	EXA150031	EXA200031	EXA300031	EXA500031	EXA750031
416	24	EXA002532	EXA005032	EXA010032	EXA015032	EXA020032	EXA025032	EXA035032	EXA050032	EXA075032	EXA100032	EXA150032	EXA200032	EXA300032	EXA500032	EXA750032
	120	EXA002533	EXA005033	EXA010033	EXA015033	EXA020033	EXA025033	EXA035033	EXA050033	EXA075033	EXA100033	EXA150033	EXA200033	EXA300033	EXA500033	EXA750033
	240	EXA002534	EXA005034	EXA010034	EXA015034	EXA020034	EXA025034	EXA035034	EXA050034	EXA075034	EXA100034	EXA150034	EXA200034	EXA300034	EXA500034	EXA750034
480	24	EXA002535	EXA005035	EXA010035	EXA015035	EXA020035	EXA025035	EXA035035	EXA050035	EXA075035	EXA100035	EXA150035	EXA200035	EXA300035	EXA500035	EXA750035
	120	EXA002536	EXA005036	EXA010036	EXA015036	EXA020036	EXA025036	EXA035036	EXA050036	EXA075036	EXA100036	EXA150036	EXA200036	EXA300036	EXA500036	EXA750036
	240	EXA002537	EXA005037	EXA010037	EXA015037	EXA020037	EXA025037	EXA035037	EXA050037	EXA075037	EXA100037	EXA150037	EXA200037	EXA300037	EXA500037	EXA750037
600	24	EXA002538	EXA005038	EXA010038	EXA015038	EXA020038	EXA025038	EXA035038	EXA050038	EXA075038	EXA100038	EXA150038	EXA200038	EXA300038	EXA500038	EXA750038
	120	EXA002539	EXA005039	EXA010039	EXA015039	EXA020039	EXA025039	EXA035039	EXA050039	EXA075039	EXA100039	EXA150039	EXA200039	EXA300039	EXA500039	EXA750039
	240	EXA002540	EXA005040	EXA010040	EXA015040	EXA020040	EXA025040	EXA035040	EXA050040	EXA075040	EXA100040	EXA150040	EXA200040	EXA300040	EXA500040	EXA750040

* 150 VA: Available in two sizes. Reduced size suffixe = R

TRANSFAB TMS INC.

Control Transformers

EXA Series

EXA Series		. [Dimensi	ons (inc	hes)		We	ight	
VA	A	В	C	D MTG	E MTG	F MTG	kg	lbs	Technical Data
0025	3.00	2.50	2.50	2.50	1.88	0.22 x 0.63	0.76	1.68	
0050	3.00	2.80	2.50	2.50	2.25	0.22 x 0.63	1.04	2.30	
0100	3.00	3.12	2.50	2.50	2.50	0.22 x 0.63	1.33	2.94	
0150	3.75	4.00	3.13	3.13	3.00	0.22 x 0.63	2.53	5.59	0 0
0150 R	3.75	3.50	3.13	3.13	2.50	0.22 x 0.63	2.08	4.60	
0200	3.75	4.50	3.13	3.13	3.25	0.22 x 0.63	2.91	6.43	▲— A —▶
0250	4.50	4.00	3.75	3.75	2.75	0.22 x 0.63	3.27	7.23	F
0350	4.50	5.00	3.75	3.75	3.75	0.22 x 0.63	5.30	11.71	
0500	5.25	4.75	4.38	4.38	3.13	0.22 x 0.63	5.93	13.11	
0750	5.25	5.75	4.38	4.38	4.13	0.28 x 0.56	8.53	18.85	
1000	5.25	6.75	4.38	4.38	5.13	0.28 x 0.56	10.95	23.98	E B
1500	7.50	7.00	6.75	5.50	3.50	0.28 x 0.56	13.12	29.00	
2000	7.50	8.00	6.75	5.50	4.50	0.28 x 0.56	17.65	39.00	
3000	7.50	9.00	6.75	5.00	6.50	0.28 x 0.56	27.53	60.83	→ D ←
5000	9.00	10.00	8.38	8.50	6.66	0.38	38.03	84.00	
7500	9.00	13.00	8.38	8.50	6.66	0.38	49.46	109.30	All weights and dimensions are approximate
									and subject to change without notice.



TRANSFAB magnetic solutions

V.V.I., The Quiet Solution!



Control Transformers

LVM Series

LOW VOLTAGE LIGHTING TRANSFORMERS

The LVM series of core and coil transformers offers lighting manufacturers a full range of economical and efficient units for their power conversion needs. These transformers are ideal for applications where high wattage, extreme temperature, or other special requirements demand the use of a magnetic transformer. The vacuum varnish impregnation process guarantees silent operation and provides maximum efficiency and cool operating temperatures for all your lighting needs.



Features

• V.V.I. (Vacuum varnish impregnated and baked)

Custom Options Available

- · Special voltages and VA's
- · Custom winding configurations (Reduced voltage taps, etc.)
- Operating frequencies: 50/60 Hz, 50 Hz
- Various terminations (Screw terminals, custon lead lengths, etc.)
- · Various mounting styles (Open, enclosed, end bell, bracket)
- Custom designs to suit size limitations
- Thermal protection
- · Electrostatic shield

Electrical Specifications

- · Single-phase
- Operating frequency: 60 Hz
- Primary voltage: 120 Vrms
- Secondary voltage: 11.6 Vrms
- Insulation class: B (130 °C)
- Temperature rise class: B < 80 °C H < 120 °C

H (180 °C)

- Noise level: < 40 dB
- · Insulation tested at a minimum of 2,500 Vrms Hi-Pot



TRANSFAB TMS INC.



Mechanical Specifications

LVM Series			Dimensions (inches)					ches)	Wei	aht			
	Output	Ohula	Insul.				D	E	F		Jha	Mounting Styles	
Model	VA	Style	Class	A	Б	U	MTG	MTG	MTG	ĸg	IDS		
LVA020H	20	Α	н	2.25	1.68	1.88	N/A	N/A	N/A	0.43	0.95	Stulo A	
LVC020H	20	C	Н	3.25	1.68	1.94	2.82	N/A	0.19	0.46	1.00	Sivie A	
LVN020H	20	N	Н	2.25	2.60	1.88	N/A	N/A	N/A	0.50	1.11	4.01	
LVA050H	50	A	н	2.63	1.92	2.19	N/A	N/A	N/A	0.66	1.46	The c	
LVA050H-1	50	Α	Н	2.25	1.96	1.88	N/A	N/A	N/A	0.60	1.32	le Ki	
LVA050H-2	50	Α	Н	2.25	2.44	1.88	N/A	N/A	N/A	0.79	1.73		
* LVA050DIH	50	A	Н	2.25	1.96	1.88	N/A	N/A	N/A	0.66	1.46	M	
* LVA050DIH-1	50	A	Н	2.63	1.92	2.19	N/A	N/A	N/A	0.68	1.50	0	
LVB050H	50	В	Н	2.63	2.13	2.19	2.13	1.63	0.16*0.44	0.72	1.59		
LVC050H	50	C	Н	3.69	1.92	2.25	3.13	N/A	0.19	0.70	1.53	Style B	
LVC050H-1	50	C	Н	3.25	1.96	1.94	2.81	N/A	0.19	0.64	1.41		
* LVC050DIH	50	С	Н	3.25	1.96	1.94	2.81	N/A	0.19	0.64	1.41		
* LVC050DIH-1	50	C	Н	3.69	1.92	2.25	3.13	N/A	0.19	0.71	1.57		
DC 8512ES	50	E	В	2.63	5.02	2.50	1.76	3.52	0.25*0.50	0.98	2.16		
LVN050H-1	50	N	Н	2.25	2.84	1.88	N/A	N/A	N/A	0.72	1.60		
LVN050H	50	N	Ĥ	2.63	2.94	2.19	N/A	N/A	N/A	0.72	1.59	A B S	
LVA075H	75	A	Н	2.25	2.44	1.88	N/A	N/A	N/A	0.98	2.15	\sim	
LVN075H	75	N	Н	2.63	3.44	2.19	N/A	N/A	N/A	1.13	2.49	Chula O	
LVA100H	100	A	Н	3.00	2.42	2.50	N/A	N/A	N/A	1.33	2.93	Style C	
LVN100H	100	N	Н	3.00	3.56	2.50	N/A	N/A	N/A	1.45	3.19		
LVB100H	100	В	Н	3.00	3.06	2.50	2.50	1.94	0.19*0.34	1.48	3.25	I Hall	
LVC100B	100	С	В	4.03	2.42	2.56	3.56	N/A	0.19	1.38	3.04		
LVC100H	100	C	Н	4.03	2.42	2.56	3.56	N/A	0.19	1.38	3.04		
DC 8513ES	100	E	В	3.75	6.03	3.44	2.50	4.53	0.25*0.50	2.09	4.60		
LVF100B	100	F	B	3.00	3.31	2.50	2.50	2.50	0.20*0.63	1.40	3.07		
LVF100H	100	F	Н	3.00	3.31	2.50	2.50	2.50	0.20*0.63	1.40	3.07		
DC 8514ES	150	E	В	3.75	6.25	3.44	2.50	4.77	0.25*0.50	2.44	5.37	Style F	
LVF150B	150	F	В	3.75	3.81	3.13	3.13	3.00	0.20*0.63	2.66	5.86		
LVN150H	150	N	Н	3.75	3.56	3.13	N/A	N/A	N/A	2.00	4.40		
LVF150H	150	F	Н	3.75	3.31	3.13	3.13	2.50	0.20*0.63	1.97	4.34		
DC 8515ES	200	E	В	3.75	6.75	3.44	2.50	5.28	0.25*0.50	3.13	6.89		
DC 8516ES	250	E	B	4.50	6.52	4.06	2.50	5.02	0.25*0.63	4.13	9.10		
DC 8517ES	300	E	B	4.50	7.41	4.06	2.50	5.91	0.25*0.63	5.86	12.91		
LVF300H-T	300	F	н	3.75	4.06	3.13	3.13	3.26	0.20*0.63	3.40	7.48		
LVN300H	300	N	н	4.50	5.44	3.75	N/A	N/A	N/A	5.63	12.40	-	
DC 8518ES	350	E	В	4.50	7.41	4.06	2.50	5.91	0.25*0.63	5.86	12.91	Style F	
DC 8519ES	500	E	Н	5.25	8.50	4.69	3.76	7.00	0.25*0.63	1.16	15.77	IFA	
LVF500H-T	500	F	н	4.50	4.56	3.75	3.75	3.75	0.20*0.63	5.53	12.18	HO	
												K AD 9	

All weights and dimensions are approximate and subject to change without notice.

() () ()

Mounting Styles

- A Open core coil
- B Dual end bell closed windings
- E Enclosed dual junction box
- F Mounting bracket
- N End bell C/W nipple mounting



The Ultimate Industrial



Control Transformers

TMB Series

ENCAPSULATED FINGER GUARD

Ultra-reliable industrial control transformer series is a high quality encapsulated transformer available with/out primary/secondary fusing capability for cooler and safer operation.

Features

- · Epoxy encapsulated coils for cooler, safer operation
- 10-32 screw terminals, molded terminal barriers
- · Molded terminals and phil-slot screws
- Safe touch terminals for additional safety available
- · 20-year warranty

Custom Options Available

- · Optional integral primary and/or secondary fusing
- · Special voltages available upon request



Electrical Specifications

- · Single-phase
- Operating frequency: 60 Hz
- Insulation class:
- Temperature rise: 25-1
- Noise level: < 40 dB
- 25-1,000 VA B (130 °C)
- 25-1,000 VA < 80 °C



	YZ*	vw	Series	Model	Designatio	ons	
							Ē

Secondary VA	Fusing options
XXXX : 0025 0100 0250 0750 0050 0150 0350 1000 0075 0200 0500	V=PPrimary 600V cc MidgetXN/AN/AW=KSecondary 600V cc MidgetXN/A
Primary, secondary voltage designations	

			S		Se 19	12. A.			
Y,	,z	: 4	12	F	208	к	380	Р	240/480
		E	3 24	G	240	L	347/380	Q	600
		C	12/24	Н	120/240	М	416	S	Special (specify)
		C	16/32	1	277	Ν	208/416		
		E	120	J	347	0	480		

* Series: TMB = Series XXXX = VA Secondary Y = Primary voltage Z = Secondary voltage V = Primary fusing option W = Secondary fusing option

Control Transformers

TMB Series



0.313*0.750 (2)

D Α

Mechanical Specifications

VA A B C D MTG E MTG kg lbs 0025 2.81 3.00 2.63 1.57 2.50 1.09 1.8 0050 3.13 3.00 2.63 2.00 2.50 1.09 2.4 0075 3.38 3.00 2.63 2.19 2.50 1.36 3.0 0100 3.38 3.38 2.94 2.19 2.81 1.72 3.8 0150 3.38 3.75 3.25 2.19 3.13 2.22 4.9 0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 5.03 11.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.3	TMB Series							
0025 2.81 3.00 2.63 1.57 2.50 1.09 1.8 0050 3.13 3.00 2.63 2.00 2.50 1.09 2.4 0075 3.38 3.00 2.63 2.19 2.50 1.36 3.0 0100 3.38 3.38 2.94 2.19 2.81 1.72 3.8 0150 3.38 3.75 3.25 2.19 3.13 2.22 4.9 0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.38 4.38 11.4 25.2 1000 7.00 5.25 4.50	VA							
0050 3.13 3.00 2.63 2.00 2.50 1.09 2.4 0075 3.38 3.00 2.63 2.19 2.50 1.36 3.0 0100 3.38 3.38 2.94 2.19 2.81 1.72 3.8 0150 3.38 3.75 3.25 2.19 3.13 2.22 4.9 0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.38 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0025							
0075 3.38 3.00 2.63 2.19 2.50 1.36 3.0 0100 3.38 3.38 2.94 2.19 2.81 1.72 3.8 0150 3.38 3.75 3.25 2.19 3.13 2.22 4.9 0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.38 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0050							
0100 3.38 3.38 2.94 2.19 2.81 1.72 3.8 0150 3.38 3.75 3.25 2.19 3.13 2.22 4.9 0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.38 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0075							
0150 3.38 3.75 3.25 2.19 3.13 2.22 4.9 0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.38 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0100							
0200 4.00 3.75 3.25 2.81 3.13 3.03 6.7 0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 5.38 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0150							
0250 4.00 4.50 3.88 2.44 3.75 3.67 8.1 0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 4.88 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0200							
0350 4.63 4.50 3.88 3.19 3.75 5.03 11.1 0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 4.88 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0250							
0500 5.25 4.50 3.88 3.75 3.75 6.79 15.0 0750 6.50 5.25 4.50 4.88 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0350							
0750 6.50 5.25 4.50 4.88 4.38 11.4 25.2 1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0	0500							
1000 7.00 5.25 4.50 5.38 4.38 13.1 29.0 All weights and dimensions are approximate and subject to change without notice Image: Comparison of the subject to change without notice Image: Comparison of the subject to change without notice Image: Comparison of the subject to change without notice	0750							
All weights and dimensions are approximate and subject to change without notice	1000							
An worghte and amonatoria are approximate and soujour to sharing minimut notice.	All weights and dimensions are approximate and subject to change without notice.							

в

Mounting holes (in.): (1) 50 - 500 VA

(2) 750 - 1000 VA

Evolution of Reactor Performance



UTILITY





KDR





DRIVE





KDR





KDR Optimized Drive Reactors

KDR Optimized Drive Reactors applied to the line and load sides of an Adjustable Frequency Drive can greatly improve the performance of the electrical system.



Prevent Drive Shutdown

Transient voltages, commonly caused by capacitor switching or the switching of large load blocks, can result in an overvoltage condition of the DC bus. This overvoltage condition will cause the drive to shut down in order to protect its components. These transients can sometimes be very severe and too quick for the drive to shut down. The addition of a KDR can prevent drive shutdown and even protect components from possible damage.

Reduce Harmonic Distortion

The addition of a KDR will reduce input line distortion which is caused by the non-linear characteristics of drives. The KDR will limit the inrush current to the rectifier, rounding the waveform, reducing the peak currents and lowering the harmonic current distortion. High peak currents may cause distortion of the voltage waveform. The reduction of those peak currents also reduces total harmonic voltage distortion at the point of common coupling.

Protect the drive on the Input:

- Reduce Nuisance Tripping
- Reduce Voltage Notching
- Reduce Harmonic Distortion
- Improve True Power Factor
- Reduce Cross-talk
- · Protect Components from Damage
- Improve voltage phase to phase imbalance

Extend the life of the motor on the Output:

- Dampen Overshoot Peak Voltage
- Reduce Motor Heating
- Reduce Audible Noise

Improve True Power Factor

Drive input currents rich in harmonics result in a decrease in total input power factor to the drive. The addition of a KDR will reduce the RMS current through the reduction in harmonic content, thereby improving the total power factor.

Protect the Diode Bridge

VFD's with internal magnetics reduce harmonics but leave the diode bridge exposed to transient voltages. The addition of a reactor not only aids harmonic reduction, but protects the diode bridge from the damaging effects of transient voltages.





KDR Optimized Drive Reactors

Characteristics

Impedance Protection:	Low "Z" and High "Z"
System Voltage:	208/240 VAC, 480 VAC, 575/600 VAC, 690 VAC
Insulation System:	Class H (180° C) or Class R (220° C)
Temperature Rise:	115° C or 155° C
Ambient Temperature:	50°C (122°F) - Open; 40°C (104°F) - Enclosed
Altitude (Maximum):	1,000 m (3,000 ft) Derating necessary above 1,000 meters
Fundamental Frequency:	50/60 hz
Short Term Overload Rating:	Tolerate 200% rated I for a minimum of 3 minutes
Agency Approvals:	UL/cUL Listed, UL/cUL Recognized, CE Marked
Inductance Characteristics:	Minimum 95%L at 110% Load Minimum 80%L at 150% Load
Input and Output:	Available for either the line or load side of a VFD
Inductance:	Distributed Gap™ Technology
Enclosures:	Open, Type 1, Type 3R enclosures available
Harmonics Reduction:	On a VFD without internal magnetics (line choke or reactor), the addition of an external KDR reactor can reduce harmonic distortion by more than 30%
Input Voltage Unbalance:	KDR Optimized Drive Reactor to the input of every drive will help balance the drive input line currents

Rated for Both Low "Z" (Low Impedance) and High "Z" (High Impedance) Choose KDR Optimized Drive Reactors from two ratings versions: Low "Z" and High "Z."

Use KDR Low "Z" Units For:

Any applications where traditionally either a 1.5% or 3% reactor would be applied.

Reduction of nuisance tripping caused by:

- Transient voltages caused by capacitor switching
- Line notching
- DC bus overvoltage tripping
- Inverter overcurrent and overvoltage
- Lower injected percentage of harmonic current
- Improving true power factor
- Reducing cross-talk between drives

Use KDR High "Z" Units For:

Any rugged application where traditionally a 5% reactor would be applied.

KDR High "Z" offers the same superior benefits as Low "Z" plus additional benefits which include:

- Helping prevent drive component damage
- Providing maximum harmonic mitigation without adding capacitance
- Further improving true power factor
- Adding impedance to drives with or without DC link chokes/reactors when more impedance is desired due to a relatively stiff source

KDR at the Output:

The addition of a KDR unit to the output of a drive will dampen overshoot peak voltage, reduce motor heating and audible noise, helping to extend the life of the motor. The units will also help prevent inverter instantaneous overcurrent trips because they provide needed inductance when the load on an inverter has an abnormally high capacitance.



© 2008 TCI, LLC Effective 02/02/07

Printed in USA

Part Number: 25391

Revision C

Superior dV/dT Protection for Motors



UTILITY

KDR

Ш

DRIVE

V1k

MOTOR

KLC-Series Motor Protection Filters



V1000

- High Performance
 Limit Peak Voltage
 Increase Voltage Rise Time
- Reduced Filter Size
 Smaller Mechanical Layout
- Common Mode Current Reduction of at least 30% Reduce Bearing, Pitting, and Fluting
- Manufacturer's Warranty V1000 Output Filters are warranted against Manufacturer's defect for one year from the date of original purchase
- Performance Guarantee
- Specific Applications can reach 3000 feet (individual results may vary)
- UL and CUL Listed
- Single Motor or Multiple Motor Capable
- Efficiency is greater than 98%

Superior Solutions: Reflected Wave Phenomenon

Variable Frequency Drives generate useful "fundamental" voltage and frequency using Pulse Width Modulation (PWM) for adjusting the speed of an AC motor. The Drive's inverter circuit "switches" (transitions from the off state to the on state) rapidly, producing a carrier containing the fundamental voltage and frequency. Voltage wave reflection is a function of the voltage rise time (dV/dT) and the length of the motor cables. The impedance on either end of the cable run does not match, causing voltage pulses to be reflected back in the direction from which it arrived. As these reflected waves encounter other waves. their values add, causing higher peak voltage. As wire length or carrier frequency increases, the overshoot peak voltage also increases. The dV/dT Motor Protecting Output Filters have been designed to limit peak voltage and increase voltage rise time. In specific applications, the V1000 has performed with cable runs of approximately 3,000 feet.

Unsuppressed dV/dT and Reflected Wave causes Motor failures

Peak Voltages on a 480V system can reach 1200 to 1600 V, causing rapid breakdown of motor insulation, leading to motor failure. On 600 V systems, the peak voltages can easily reach 2100 V. If this is left uncontrolled, insulation failure may occur. The same peak voltages that damage the motor can also damage the cable. Since the V1000 filters are designed to be placed at the output of the Drive, these units will also protect the cable runs.

The addition of a V1000 filter will also help reduce motor heating, motor noise, and motor vibration by reducing the current harmonics in the system.



TRANS-COIL, INC

V1k KLC-Series Motor Protection Filters

Characteristics

Current Rating:	2 - 750 Amps
Inverter Carrier Frequency:	Minimum - 900 Hz, Maximum - 8 kHz
Fundamental Frequency:	0 - 60 Hz (above 60 Hz subject to application review)
Efficiency:	> 98%
Insulation Rating:	600V Class
Insulation Class:	Class H (180° C or better)
Operating Temperature:	40° C Ambient
Altitude (Maximum):	1000 m (3,000 ft)
Agency Approvals:	CUL, UL
Enclosures:	Open, UL Type 1
Lead Length:	Specific applications can reach 3000 feet (individual results may vary)

Voltage Rise Time

While peak voltages can reach 1600V or more on a 480V system, it is important to note that these same spikes can have a rise time, dV/dT, in excess of 7500V/ms. Such high rise times can cause significant damage to the motor windings and the insulation system, resulting in premature motor failure. The life of the motor can be greatly extended by limiting both the magnitude of the voltage spikes to levels below 1000V and the dV/dT at the motor terminals to levels less than 1000V/ms on 480V systems.

Common Mode Reduction





Revision A



© 2005 Trans-Coil, Inc. Effective 07/01/05 Printed in USA

Proven Harmonic Mitigation Technology

Limited to 7% Distortion

High Quality Capacitors

Uninterrupted Operation

shut-down

Easy Installation

Flexible Options

• Superior Performance at 100% and 50% Load TDD levels are consistently held low 100 HP at 100% = 5.8% TDD; 50% = 7.6%

harmonically rich environments

Ships ready to install

Standard Package Option **Power Monitor Package Option Component Package Option**

Improve True Power Factor

Increase System Capacity

Protect Sensitive Equipment

Fits easily into motor control centers

Designed, built, and tested specifically for use in

The drive continues to operate in the event of an HG7







HG7





DRIVE





HarmonicGuard[®] Series HG7 Drive-Applied Harmonic Filters



- ≡≡≡≡
- Reduce Harmonic Distortion
- Reduce Voltage Distortion
- Improve System Uptime

Reduce Harmonic Distortion

Superior Solutions: Where Drives are a Significant

Portion of the Load

Prime candidates for filtering are installations of variable frequency drives or adjustable speed devices in facilities where those drives represent a significant portion of the load, or when specifications call for limited harmonics (like IEEE 519, 1992). Filtering would also benefit any application that utilizes sensitive electronic equipment that may be susceptible to harmonic distortion, such as capacitors, control devices, motors, etc. Some industrial examples include printing presses, extruders, machining, and pulp and paper. Commercial applications include waste water treatment, pumping and cooling, and HVAC.

HG7 Drive-Applied Harmonic Filters have been proven to be the most effective harmonic distortion mitigation technique available for drives.



Assist Applications in

adhering to IEEE 519

Standards





HG7 Drive-Applied Harmonic Filters

Characteristics

HP/kW Rating:	480V: 7.5 - 900 HP; 600V: 15 - 900 HP; 240V: 7.5 - 100 HP
Insertion Impedance:	+/- 10% at full load
Power Factor:	50% to 100% Load, Unity to .96 Leading, 100% Load Unity
Harmonic Reduction:	< 7% (Typically Better TDD) at full load
Efficiency:	> 98%
Voltage:	240, 480, and 600 VAC models available
Capicitors:	Oil filled design certified for harmonic rich environments
Fusing and protection:	All units have internal fuse protection for the harmonic circuit.
Operating Temperature:	50°C (122°F) - Open Panel; 40°C (104°F) - Enclosed Panel
Altitude (Maximum):	1,000 m (3,000 ft) Derating necessary above 1,000 meters
Fundamental Frequency:	60 Hz
Agency Approvals:	CUL, UL
Enclosures:	Open, UL Type 1

Typical Applications:

- Printers
- Extruders
- Machining
- Pulp & Paper
- Uninterruptible Power Supplies

Waste Water Treatment

Down Hole Pumping

• HVAC

- AC Variable Frequency Drives
- 6-pulse rectifiers
- Fans
- Other Mission Critical Applications

Package Options:

The HG7 has been designed with the customer in mind. From the Standard Package to the Power Monitor Package, TCI has the right solution for the application.

Standard Package

The Standard Package includes everything necessary for an application to meet IEEE 519 standards. From the highest quality harmonic grade capacitors on the market to the extraordinary reactors, this filter will meet the majority of application requirements found today.

Power Monitor Package

The Power Monitor package includes contactors and filter monitoring equipment. For those sensitive applications that require monitoring on a full time basis, this version of the high performance filter is the right choice.

Component Package

This package includes all of the major components that are found in the Standard Package. Ideal for integration into drive sections or other end-products, this option is perfect for the experienced drive integrator.

HG7 drive-applied harmonic filters, applied at the load, provide a low impedance path for the major harmonic currents demanded by the drive.



© 2006 Trans-Coil, Inc. Effective 03/30/06 Pri

Printed in USA

Part Number: 25284

Revision D