

Dry Type Transformers

Open Core and Coil Transformers

Machine Tool and Control Power

Product Description

Core and coil transformers for machine tools are used to provide voltage to control devices in applications where regulation and minimum space are important. Welded cores provide the highest quality electrical performance and quiet operation.

Standards: Type IP transformers conform to NEMA ST20

Listings: UL listed under UL-5085, File E2739
CSA Certified under C22.2, Number 66, File 3272

Insulation Classes: 150VA and below: 105°C insulation class, 55°C Rise

200VA and above: 185°C (NEMA)
180°C (UL) insulation class, 115°C Rise

Frequency: 60 Hz standard; 50 Hz optional.

Voltage Regulation: All designs 2.0 kVA and below are compensated for voltage drop. Compensation ranges from 10% in the smallest rating to 3% for the largest. All machine tool designs meet or exceed NMTBA regulation requirements.

Series-Multiple Secondary Connections: Transformers with 120/240 V secondaries (series-multiple) may be connected for 120 V, 240 V or 240/120 V three-wire. Jumpers are provided.

Overcurrent Protection: Type IP transformers are low impedance transformers that require overcurrent protection for most applications. They provide for optional integral primary and/or secondary fusing.

Mounting Dimensions: Type IP transformers are lightweight, small, and designed for minimum mounting dimensions. Many units will fit competitors mounting footprints.



Core and Coil Transformer
Terminal Board Connection



Core and Coil Transformer
Leads Out Connection

Advantages

- Finger-safe terminals offer added protection and safety
- Pressure plate terminals ensure secure connections
- Wide variety of fusing options. See page 10-66.

Key Features—Terminal Board Connection

- Rugged, high-impact plastic terminal board
- Full head #8 brass screws assure quick, easy terminations with maximum connection integrity
- Copper windings
- Flexible design allows input or output voltage to match any application
- CUL, CE, UL approvals
- Available fuse-blocks offer simple, low-cost fusing

Dry Type Transformers Open Core and Coil Transformers Machine Tool Applications Single-Phase, Fully-encapsulated Design

60 Hz Terminal Board Connection

Input Voltage	Output Voltage	kVA	Wiring Diagram No. ¹	Approx. Net Weight (Lbs)	Frame Size	Product Number
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.05	1	2.4	6100	9T58K0042
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.08	1	2.8	6125	9T58K0043
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.10	1	3.6	8100	9T58K0044
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.15	1	5.1	8150	9T58K0045
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.20	1	5.8	8175	9T58K0046
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.25	1	6.5	8200	9T58K0047
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.30	1	7.6	8250	9T58K0048
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.38	1	7.6	8250	9T58K0049
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.50	1	10.7	10225	9T58K0050
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	0.75	1	12	12225	9T58K0051
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	1	1	16.1	12300	9T58K0052
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	2	1	26.7	14225	9T58K0053
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	2	1	32.7	14300	9T58K0054
220x440, 230x460,240x480 Volts	110, 115, 120 Volts	3	1	47.4	14475	9T58K0055

50/60 Hz Terminal Board Connection

Input Voltage	Output Voltage	kVA	Wiring Diagram No. ¹	Approx. Net Weight (Lbs)	Frame Size	Product Number
230/460/575 Volts	115/95 Volts	0.05	2	3.1	6150	9T58K0062
230/460/575 Volts	115/95 Volts	0.08	2	3.6	8100	9T58K0063
230/460/575 Volts	115/95 Volts	0.10	2	5.1	8150	9T58K0064
230/460/575 Volts	115/95 Volts	0.15	2	6.5	8200	9T58K0065
230/460/575 Volts	115/95 Volts	0.20	2	6.5	8200	9T58K0066
230/460/575 Volts	115/95 Volts	0.25	2	7.6	8250	9T58K0067
230/460/575 Volts	115/95 Volts	0.30	2	10.7	10225	9T58K0068
230/460/575 Volts	115/95 Volts	0.38	2	10.7	10225	9T58K0069
230/460/575 Volts	115/95 Volts	0.50	2	10.7	10225	9T58K0070
230/460/575 Volts	115/95 Volts	0.75	2	16.1	12300	9T58K0071
230/460/575 Volts	115/95 Volts	1	2	26.7	14225	9T58K0072
230/460/575 Volts	115/95 Volts	1.5	2	32.7	14300	9T58K0073
230/460/575 Volts	115/95 Volts	2	2	47.4	14475	9T58K0074
208/277/380 Volts	115/95 Volts	0.05	3	3.1	6150	9T58K0082
208/277/380 Volts	115/95 Volts	0.08	3	3.6	8100	9T58K0083
208/277/380 Volts	115/95 Volts	0.10	3	5.1	8150	9T58K0084
208/277/380 Volts	115/95 Volts	0.15	3	6.5	8200	9T58K0085
208/277/380 Volts	115/95 Volts	0.20	3	6.5	8200	9T58K0086
208/277/380 Volts	115/95 Volts	0.25	3	7.6	8250	9T58K0087
208/277/380 Volts	115/95 Volts	0.30	3	10.7	10225	9T58K0088
208/277/380 Volts	115/95 Volts	0.38	3	10.7	10225	9T58K0089
208/277/380 Volts	115/95 Volts	0.50	3	10.7	10225	9T58K0090
208/277/380 Volts	115/95 Volts	0.75	3	16.1	12300	9T58K0091
208/277/380 Volts	115/95 Volts	1	3	26.7	14225	9T58K0092
208/277/380 Volts	115/95 Volts	1.5	3	32.7	14300	9T58K0093
208/277/380 Volts	115/95 Volts	2	3	47.4	14475	9T58K0094

¹See page 10-67 for wiring diagrams.

Factory- or Field-Installed Options

Secondary Fusing—Factory- or field-installed secondary fuse clips are available. They are restricted to units with terminal strips and a single secondary voltage or secondary with one tap.

Dual Primary and Secondary Fusing—Factory- or field-installed dual primary and secondary fuse clips are available on all units.

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Control

Single-Phase, Fully-encapsulated Design

Section 10

60 Hz Terminal Board Connection

Input Voltage	Output Voltage	kVA	Wiring Diagram No. ¹	Approx. Net Weight (Lbs)	Frame Size	Product Number
240x480 Volts	120/240 Volts	0.05	4	2.4	6100	9T58K2802
240x480 Volts	120/240 Volts	0.08	4	2.8	6125	9T58K2803
240x480 Volts	120/240 Volts	0.10	4	3.6	8100	9T58K2804
240x480 Volts	120/240 Volts	0.15	4	5.1	8150	9T58K2805
240x480 Volts	120/240 Volts	0.20	4	5.8	8175	9T58K2806
240x480 Volts	120/240 Volts	0.25	4	6.5	8200	9T58K2807
240x480 Volts	120/240 Volts	0.30	4	6.5	8200	9T58K2808
240x480 Volts	120/240 Volts	0.38	4	7.6	8250	9T58K2809
240x480 Volts	120/240 Volts	0.50	4	10.7	10225	9T58K2810
240x480 Volts	120/240 Volts	0.75	4	12	12225	9T58K2811
240x480 Volts	120/240 Volts	1	4	16.1	12300	9T58K2812
240x480 Volts	120/240 Volts	1.5	4	26.7	14225	9T58K2813
240x480 Volts	120/240 Volts	2	4	32.7	14300	9T58K2814
240x480 Volts	120/240 Volts	3	4	47.4	14475	9T58K2815
600 Volts	120/240 Volts	0.08	5	2.8	6125	9T58K2823
600 Volts	120/240 Volts	0.10	5	3.6	8100	9T58K2824
600 Volts	120/240 Volts	0.20	5	5.8	8175	9T58K2826
600 Volts	120/240 Volts	0.25	5	6.5	8200	9T58K2827
600 Volts	120/240 Volts	0.30	5	6.5	8200	9T58K2828
600 Volts	120/240 Volts	0.50	5	10.7	10225	9T58K2830
600 Volts	120/240 Volts	0.75	5	12	12225	9T58K2831
600 Volts	120/240 Volts	1	5	16.1	12300	9T58K2832
600 Volts	120/240 Volts	1.5	5	26.7	14225	9T58K2833
600 Volts	120/240 Volts	2	5	32.7	14300	9T58K2834
600 Volts	120/240 Volts	3	5	47.4	14475	9T58K2835
120x240 Volts	120/240 Volts	0.10	6	3.6	8100	9T58K2907
120x240 Volts	120/240 Volts	0.20	6	5.8	8175	9T58K2909
120x240 Volts	120/240 Volts	0.30	6	6.5	8200	9T58K2911
120x240 Volts	120/240 Volts	0.50	6	10.7	10225	9T58K2913
120x240 Volts	120/240 Volts	0.75	6	12	12225	9T58K2914
120x240 Volts	120/240 Volts	1	6	16.1	12300	9T58K2915
120x240 Volts	120/240 Volts	2	6	32.7	14300	9T58K2917
120x240 Volts	120/240 Volts	3	6	47.4	14475	9T58K2918

60 Hz Terminal Board Connection

Input Voltage	Output Voltage	kVA	Wiring Diagram No. ¹	Approx. Net Weight (Lbs)	Frame Size	Product Number
120 x 240 Volts	12/24 Volts	0.05	7	2.4	6100	9T58K2873
120 x 240 Volts	12/24 Volts	0.075	7	2.8	6125	9T58K2874
120 x 240 Volts	12/24 Volts	0.10	7	3.6	8100	9T58K2875
120 x 240 Volts	12/24 Volts	0.15	7	5.1	8150	9T58K2876
120 x 240 Volts	12/24 Volts	0.20	7	5.8	8175	9T58K2877
120 x 240 Volts	12/24 Volts	0.25	7	6.5	8200	9T58K2878
120 x 240 Volts	12/24 Volts	0.30	7	6.5	8200	9T58K2879
240 x 480 Volts	12/24 Volts	0.25	---	6.5	8200	9T58K3024
240 x 480 Volts	12/24 Volts	0.05	---	2.4	6100	9T58K3164
240 x 480 Volts	12/24 Volts	0.10	---	3.6	8100	9T58K4132
240 x 480 Volts	12/24 Volts	0.15	---	5.1	8150	9T58K4133
208 x 240 Volts	12/24 Volts	0.05	---	2.4	6100	9T58K4050
208 x 240 Volts	12/24 Volts	0.10	---	3.6	8100	9T58K4051
208 x 240 Volts	12/24 Volts	0.15	---	5.1	8150	9T58K4052
208 x 240 Volts	12/24 Volts	0.25	---	6.5	8200	9T58K4053

50/60 Hz Terminal Board Connection

Input Voltage	Output Voltage	kVA	Wiring Diagram No. ¹	Approx. Net Weight (Lbs)	Frame Size	Product Number
240 x 480 Volts	120/240 Volts	0.50	4	10.7	10225	9T58K2930
240 x 480 Volts	120/240 Volts	0.75	4	16.1	12300	9T58K2931
240 x 480 Volts	120/240 Volts	1	4	26.7	14225	9T58K2932
240 x 480 Volts	120/240 Volts	1.5	4	32.7	14300	9T58K2933
240 x 480 Volts	120/240 Volts	2	4	47.4	14475	9T58K2934
240 x 480 Volts	120/240 Volts	3	4	47.4	14475	9T58K2935
380/400/416 Volts	115/230 Volts	0.25	8	6.5	8200	9T58K2975
380/400/416 Volts	115/230 Volts	0.50	8	10.7	10225	9T58K2978
380/400/416 Volts	115/230 Volts	0.75	8	16.1	12300	9T58K2979
380/400/416 Volts	115/230 Volts	1	8	26.7	14225	9T58K2980
380/400/416 Volts	115/230 Volts	1.5	8	32.7	14300	9T58K2981
380/400/416 Volts	115/230 Volts	2	8	47.4	14475	9T58K2982
380/400/416 Volts	115/230 Volts	3	8	47.4	14475	9T58K2983

¹See page 10-67 for wiring diagrams.

²Secondary fusing not available.