HAMMOND

The Hammond 165, 166 and 167 series Transformers are designed for use in a wide range of applications from filament lighting circuits to low and medium voltage power supplies. The secondary voltage and current ratings listed are R.M.S. (A.C. not D.C.)

COLOUR CODE

PRIMARY
BLACK
BLACK
115 VOLTS, 60 CYCLE

SECONDARY
GREEN LEADS
GREEN-YELLOW C.T.
(on types listed with c.t.)

165 SERIES, OPEN HORIZONTAL FRAMES

Catalogue Number	Secondary Volts	Amps	Core Size	Wt. Lbs.
165 Z 3	3.0 ct	50	1¼ x 2¼	7.5
165 R 5	5.0 ct	8	1 x 1	2.4
165 S 5	5.0 ct	10	1 x 1¼	2.85
165 U 5	5.0 ct	15	1 x 1¾	3.75
165 V 5	5.0 ct	20	1 x 2	4.1
165 X 5	5.0 ct	30	1¼ x 2	6.7
165 Q 6	6.3 ct	6	1 x 1	2.4
165 S 6	6.3 ct	10	1 x 1½	3.25
165 U 7	7.5 ct	15	1¼ x 1¼	4.7
165 V 7	7.5 ct	21	1¼ x 2	6.7
165 N 10	10.0 ct	4	1 x 1	2.4
165 P 10	10.0 ct	5	1 x 1¼	2.85
165 R 10	10.0 ct	8	1 x 1¾	3.75
165 S 10	10.0 ct	10	1 x 2	4.1
165 U 10	10.0 ct	15	1¼ x 1¾	6.2
165 P 11	11.0 ct	5	1 x 1¼	2.85
165 S 11	11.0 ct	10	1¼ x 1¼	4.7
165 U 11	11.0 ct	15	1¼ x 2	6.7
165 N 12	12.6 ct	4	1 x 1¼	2.85
165 Q 12	12.6 ct	6	1 x 1¾	3.75
165 R 12	12.6 ct	8	1 x 2	4.1
165 S 12	12.6 ct	10	1¼ x 1½	5.5
165 V 12	12.6 ct	20	1½ x 2	10.0
165 Q 14	14.0 ct	6	1 x 2	4.1
165 M 18	18.0 ct	3	1 x 1⅜	3.2
165 P 18	18.0 ct	5	1 x 2	4.1
165 S 18	18.0 ct	10	1¼ x 2	6.7
165 U 18	18.0 ct	15	1½ x 2	10.0
165 V 18	18.0 ct	20	1½ x 3	15.0
165 T 22	22.0 ct	12	1½ x 2	10.0
165 V 22	22.0 ct	20	1½ x 3½	16.0
165 M 25	25.0 ct	3	1 x 1¾	3.75
165 P 25	25.0 ct	5	1¼ x 1½	5.5
165 S 25	25.0 ct	10	1½ x 2	10.0
165 P 30	30.0 ct	5	1¼ x 1¾	6.2
165 S 30	30.0 ct	10	1½ x 2	10.0
165 L 42	42.0 ct	2	1 x 2	4.1
165 L 50	50.0 ct	2	1 x 2	4.1
165 P 60	60.0 ct	5	1½ x 2½	12
165 N 80	80.0 ct	4	1½ x 2½	12.5

166 SERIES, CHANNEL BRACKET MTG.

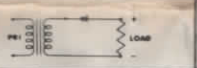
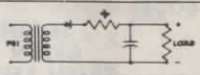
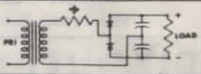
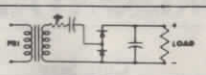
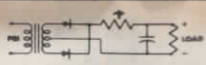
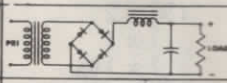
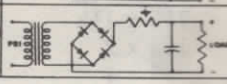
Insulated Flexible Leads, 6"-7" Long. Insulation Test — 2000 Volts

Catalogue Number	Secondary Volts	Amps	Core Size	Wt. Lbs.
166 L 2	2.5	2.5	5/8 x 5/8	0.5
•166 L 5	5.0	2.0	3/4 x 3/4	1.25
166 R 5	5.0 ct	8.0	1 x 1	2.4
166 E 6	6.3	0.15	3/8 x 3/8	0.25
166 F 6	6.3	0.3	1/2 x 1/2	0.3
166 G 6	6.3 ct	0.6	1/2 x 1/2	0.3
166 J 6	6.3	1.0	5/8 x 5/8	0.5
†166 K 6	6.3	1.2	3/4 x 3/4	1.0
•166 L 6	6.3 ct	2.0	3/4 x 3/4	1.0
166 N 6	6.3 ct	4.0	7/8 x 7/8	1.5
166 G 7	7.0	0.7	1/2 x 5/8	0.4
166 G 8	8.0 ct	0.5	.5 x .63	0.5
166 J 8	8.5	1.0	5/8 x 3/4	0.7
166 L 8	8.5	2.0	3/4 x 1	1.25
166 M 8	8.5	3.0	7/8 x 7/8	1.5
166 N 8	8.5	4.0	1 x 1	2.25
166 G 9	9.0	0.5	1/2 x 5/8	0.4
166 F 10	10.0 ct	0.3	.5 x .5	0.3
166 G 10	10.0 ct	0.5	5/8 x 5/8	0.5
166 J 10	10.0 ct	1.0	3/4 x 3/4	1.0
166 L 10	10.0 ct	2.0	7/8 x 7/8	1.5
166 M 10	10.0 ct	3.0	1 x 1	2.25
166 C 12	6.3 / 12.6	.1 / .05	1/4 x 1/2	0.2
166 F 12	12.6 ct	0.3	1/2 x 1/2	0.3
166 G 12	12.6 ct	0.5	.63 x .63	0.5
•166 J 12	12.6 ct	1.0	3/4 x 3/4	1.0
166 L 12	12.6 ct	2.0	7/8 x 7/8	1.5
166 N 12	12.6 ct	4.0	1 x 1 1/4	3.0
166 E 14	14.0 ct	0.15	3/8 x 1/2	0.3
166 G 14	14.0 ct	0.5	5/8 x 5/8	0.5
166 J 14	14.0 ct	1.0	3/4 x 3/4	1.0
166 L 14	14.0 ct.	2.0	7/8 x 1	1.7
166 F 16	16.0 ct	0.25	.5 x .63	0.5
166 G 16	16.0 ct	0.5	.63 x .75	0.8
166 J 16	16.0 ct	1.0	.75 x 1	1.25
166 L 16	16.0 ct	2.2	1 x 1	2.25
166 M 16	16.0 ct	3.0	1 x 1	2.25
166 B 18	9.0 / 18.0	.06 / .03	1/4 x 1/2	0.2
166 K 18	18.0 ct	1.5	7/8 x 1	1.7
166 D 20	20.0 ct	0.1	3/8 x 1/2	0.3
166 E 20	20.0 ct	0.15	1/2 x 1/2	0.3
166 F 20	20.0 ct	0.3	5/8 x 5/8	0.5
166 G 20	20.0 ct	0.5	3/4 x 3/4	1.0
166 J 20	20.0 ct	1.0	7/8 x 7/8	1.5
166 L 20	20.0 ct	2.0	1 x 1	2.25
166 A 24	12.6 / 25.2	.05 / .025	1/4 x 1/2	0.2
166 D 25	25.0 ct	0.1	1/2 x 1/2	0.3
166 E 25	25.0 ct	0.15	1/2 x 1/2	0.3
166 F 25	25.0 ct	0.3	5/8 x 5/8	0.5
•166 G 25	25.0 ct	0.5	3/4 x 3/4	1.0
166 J 25	25.0 ct	1.0	7/8 x 7/8	1.5
166 K 25	25.0 ct	1.5	1 x 1	2.25
166 F 28	28.0 ct	0.25	.63 x .75	0.8
166 G 28	28.0 ct	0.5	3/4 x 3/4	1.0
166 J 28	28.0 ct	1.0	7/8 x 7/8	1.5
166 J 33	33.0 ct	1.0	1 x 1	2.25
166 E 36	36.0 ct	0.150	5/8 x 5/8	0.5
166 F 36	36.0 ct	0.3	3/4 x 3/4	1.0
166 G 36	36.0 ct	0.5	3/4 x 1	1.25
166 J 36	36.0 ct	1.0	1 x 1	2.25
166 J 44	44.0 ct	1.0	1 x 1	2.25
166 C 50	50.0 ct	0.075	1/2 x 1/2	0.3
166 F 50	50.0 ct	0.3	3/4 x 3/4	1.0
166 G 50	50.0 ct	0.5	7/8 x 7/8	1.5
166 J 50	50.0 ct	1.0	1 x 1	2.25
166 G 60	60.0 ct	0.5	1 x 1	2.25
166 G 80	80.0 ct	0.5	1 x 1	2.25
166 G 100	100.0 ct	0.5	1 x 1	2.25
166 F 120	120.0 ct	0.3	1 x 1	2.25

† High voltage insulation (7000 volt rms test) for damper tube heater.

• Vertical Mtg. Brkts.

SINGLE PHASE RECTIFICATION INFORMATION

CIRCUIT DESIGNATION	CIRCUIT DIAGRAM	RATIO A.C. TO D.C. RELATIONSHIP					
		VOLTAGE			CURRENT		
		Secondary ★ (R.M.S.)		D.C.	Secondary (R.M.S.)		DC OUT
HALF-WAVE RESISTIVE LOAD		1.0	x	0.45	1.0	x	0.64
HALF-WAVE CAPACITIVE LOAD		1.0	x	1.16	1.0	x	0.38
FULL-WAVE DOUBLER		1.0	x	2.3	1.0	x	0.30
HALF-WAVE DOUBLER		1.0	x	2.3	1.0	x	0.22
FULL-WAVE CHOKE INPUT		1.0	x	0.88	1.0	x	1.41
FULL WAVE CAPACITIVE INPUT		1.0	x	1.25	1.0	x	1.0
BRIDGE INDUCTIVE INPUT		1.0	x	0.88	1.0	x	1.0
BRIDGE CAPACITIVE INPUT		1.0	x	1.25	1.0	x	0.56

* EACH SIDE OF CENTRE TAP WHERE APPLICABLE.

167 SERIES, "X" MOUNTING

Insulated Flexible Leads, 8"-10" Long. Insulation Test — 2500 Volts

Catalogue Number	Secondary Volts	Secondary Amps	Core Size	Wt. Lbs.
167 M 5	5.0 ct	3	1 x ½	1.8
167 Q 5	5.0 ct	6	1 x ¾	1.9
167 R 5	5.0 ct	8	1 x 1	2.4
167 S 5	5.0 ct	10	1 x 1¼	2.85
167 U 5	5.0 ct	15	1 x 1¾	3.75
167 V 5	5.0 ct	20	1 x 2	4.1
167 X 5	5.0 ct	30	1¼ x 2	6.7
167 N 6	6.3 ct	4	1 x ¾	1.9
167 Q 6	6.3 ct	6	1 x 1	2.4
167 R 6	6.3 ct	8	1 x 1¼	2.85
167 S 6	6.3 ct	10	1 x 1½	3.25
167 T 6	6.3 ct	12	1 x 1¾	3.75
167 U 6	6.3 ct	16	1¼ x 1¼	4.7
167 U 7	7.5 ct	15	1¼ x 1¼	4.7
167 V 7	7.5 ct	21	1¼ x 2	6.7
167 N 10	10.0 ct	4	1 x 1	2.4
167 P 10	10.0 ct	5	1 x 1¼	2.85
167 R 10	10.0 ct	8	1 x 1¾	3.75
167 S 10	10.0 ct	10	1 x 2	4.1
167 U 10	10.0 ct	15	1¼ x 1¾	6.2
167 P 11	11.0 ct	5	1 x 1¼	2.85
167 S 11	11.0 ct	10	1¼ x 1¼	4.7
167 U 11	11.0 ct	15	1¼ x 2	6.7
167 L 12	12.6 ct	2	1 x ¾	1.9
167 N 12	12.6 ct	4	1 x 1¼	2.85
167 Q 12	12.6 ct	6	1 x 1¾	3.75
167 R 12	12.6 ct	8	1 x 2	4.1
167 S 12	12.6 ct	10	1¼ x 1½	5.5
167 V 12	12.6 ct	20	1½ x 2	10.0
167 N 14	14.0 ct.	4.0	1 x 1¼	2.85
167 Q 14	14.0 ct	6	1 x 2	4.1
167 M 16	16.0 ct	3	1 x 1	2.4
167 P 16	16.0 ct	5	1 x 2	4.1
167 M 18	18.0 ct	3	1 x 1⅜	3.2
167 P 18	18.0 ct	5	1 x 2	4.1
167 S 18	18.0 ct	10	1¼ x 2	6.7
167 U 18	18.0 ct	15	1½ x 2	10.0
167 V 18	18.0 ct	20	1½ x 3	16.5
167 M 20	20.0 ct	3	1 x 1½	3.25
167 P 20	20.0 ct	5	1¼ x 1¼	4.7
167 T 22	22.0 ct	12	1½ x 2	10.0
167 V 22	22.0 ct	20	1½ x 3½	16.5
167 L 24	24.0 ct	2.0	1 x 1.25	2.85
167 J 25	25.0 ct	1	1 x ¾	1.9
167 K 25	25.0 ct	1.5	1 x 1	2.4
167 M 25	25.0 ct	3	1 x 1¾	3.75
167 N 25	25.0 ct	4	1 x 2	4.1
167 P 25	25.0 ct	5	1¼ x 1½	5.5
167 S 25	25.0 ct	10	1½ x 2	10.0
167 J 28	28.0 ct	1	1 x ¾	1.9
167 L 28	28.0 ct	2.0	1 x 1.75	2.85
167 K 30	30.0 ct	1.5	1 x 1¼	2.85
167 M 30	30.0 ct	3	1 x 2	4.1
167 P 30	30.0 ct	5	1¼ x 1¾	6.2
167 S 30	30.0 ct	10	1½ x 2	10.0
167 J 33	33.0 ct	1	1 x ¾	1.9
167 J 36	36.0 ct	1	1 x ¾	1.9
167 L 36	36.0 ct	2	1 x 1½	3.25
167 M 36	36.0 ct	3	1¼ x 1¼	4.7
167 P 36	36.0 ct	5	1¼ x 2	6.7
167 R 36	36.0 ct	8	1½ x 2¼	11.0
167 T 36	36.0 ct	12	1½ x 3¼	15.5
167 L 44	44.0 ct	2	1 x 2	4.1
167 J 50	50.0 ct	1	1 x 1	2.4
167 L 50	50.0 ct	2	1 x 2	4.1
167 P 50	50.0 ct	5	1½ x 1¾	9.0
167 G 55	55.0 ct	0.5	1 x ¾	1.9

167 J 55	55.0 ct	1	1 x 1¼	2.85
167 L 55	55.0 ct	2	1¼ x 1¼	4.7
167 G 60	60.0 ct	0.5	1 x ¾	1.9
167 J 60	60.0 ct	1	1 x 1½	3.25
167 L 60	60.0 ct	2	1¼ x 1¼	4.7
167 M 60	60.0 ct	3	1¼ x 2¼	7.0
167 P 60	60.0 ct	5	1½ x 2½	12.0
167 S 64	64.0 ct	10	2 x 2½	24.0
167 L 70	70.0 ct	2	1¼ x 2	6.7
167 N 70	70.0 ct	4	1½ x 2¼	11.0
167 G 80	80.0 ct	0.5	1 x 1	2.4
167 J 80	80.0 ct	1	1 x 2	4.1
167 L 80	80.0 ct	2	1¼ x 2	6.7
167 N 80	80.0 ct	4	1½ x 2½	12.5
167 G 100	100.0 ct	0.5	1 x 1	2.4
167 J 100	100.0 ct	1	1 x 2	4.1
167 P 100	100.0 ct	5	1½ x 3½	16.5
167 G 120	120.0 ct	0.5	1 x 1.5	3.25
167 H 200	200.0 ct	0.875	1¼ x 2	6.7

REQUIREMENTS OF THE CANADIAN STANDARDS ASSOCIATION ARE INCORPORATED IN HAMMOND TRANSFORMERS APPROVAL NO. 3902

MADE IN CANADA

Hammond Manufacturing Company Limited

GUELPH - ONTARIO - CANADA

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