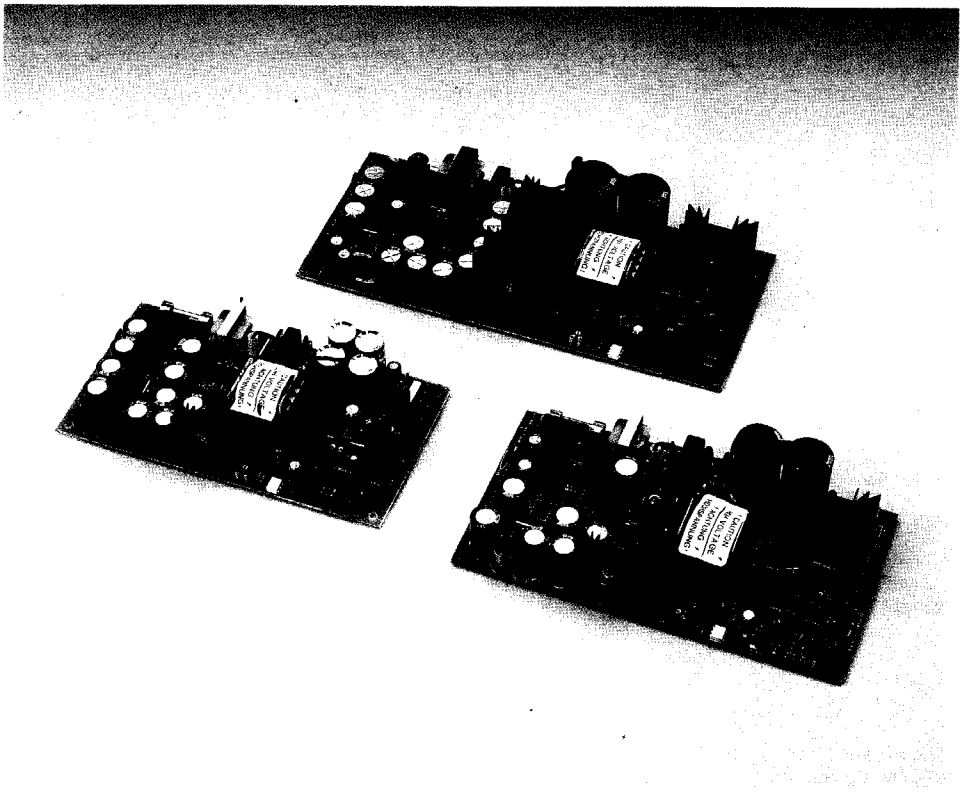
"V" SERIES MULTIPLE-OUTPUT SWITCHERS



FEATURES:

- 30 models . . . 7 power levels . . . 30 to 400 watts
- Multi-output . . . up to 5 outputs
- Clean, low cost, open-frame design
- VDE, IEC, UL, and CSA approved
- FCC Class A and VDE 0871 Class A conducted EMI filtering
- Industry standard packages with extra power
- Worldwide AC input ranges 90-132/180-264 VAC
- Full load burn-in and 2-year warranty
- High peak current disk drive outputs as well as 3-terminal-type closely regulated outputs
- Extremely versatile output configurations for tough applications

SPECIFICATIONS:

AC Input: 90-132/180-264 VAC user selectable, 47-63Hz single phase.

DC Outputs: See output rating chart.

Hold Up Time: 20mS minimum @ full load and nominal input voltage.

Output Regulation: See output rating chart for individual output regulation ratings. Regulation ratings shown are for combined line and load variations with the line varied from either 90-132 or 180-264 VAC and the load on the output under test varied from 50% to either 20% or 100% with the other loads held constant at 50%.

Minimum Load: A minimum load is required on the +5V output to maintain proper operation of the other outputs. VCA series: 0.8A; VFA series: 2A; VHA series: 2.5A; VKA series: 3A. Operation down to no load will not cause damage and the +5V output will generally remain within regulation (except on VCA and VEA models).

Output Noise and Ripple: 0.5% RMS, 1.5% P-P maximum on all outputs.

Transient Response: +5V output only. 1.0 milliseconds typical response time for a 50% to 100% or 100% to 50% load change. Maximum voltage deviation: 6.0%.

Temperature Coefficient: 0.03% typical for all outputs.

Overvoltage Protection: Built in on +5V with firing point set at 6.2V ±0.6V.

Voltage Adjustment: Built in potentiometer adjusts voltage from 4.5V to overvoltage firing point (6.2V nominal).

Current Limit Adjustment: Built in potentiometer set to begin current limiting at the following peak power outputs minimum under nominal line conditions. VCA series: 58W; VFA series: 130 watts; VHA series: 140 watts; VKA series: 155 watts.

Efficiency: 70% ±5% depending on model and load distribution. Measured at 100% of rated power.

Overshoot: No output overshoot on turn on or turn off.

Overload Protection: Fully protected against output overload and short circuit. Automatic recovery after removal of fault.

Reverse Voltage Protection: All outputs protected against inadvertent application of reverse voltage.

Input Protection: Internal AC fuse provided on all units.

Inrush Current: Inrush current is limited by an internal thermistor for maximum protection of input rectifiers. Peak inrush current averaged over first half cycle = 12A (115 VAC input), 24A (230 VAC input).

Temperature Rating: 0 to 50 °C at full rated output power with natural convection cooling in a non-restricted environment. For operation in a confined space moving air is recommended. For operation above 50 °C it is important that the cooling vs. load profile is such that the heat sinks do not operate above 100 °C for extended periods.

"V"SERIES MULTIPLE-OUTPUT SWITCHERS

45 WATTS (58W PK)

Model	Output	Voltage	Current	Initial Setting (+/−)	Output Regulation (+/−)	Notes
VCA 326	1	+ 5V	4.0A	ADJ.	1.5%	E
	2	+12V	3.0A (3.5A PK)	3.0%	1.5%	E
	3	−12V	0.8A	4.0%	1.0%	C
VCA 426	1	+ 5V	4.0A	ADJ.	1.5%	E
	2	+12V	3.0A (3.5A PK)	3.0%	1.5%	E
	3	−12V	0.8A*	4.0%	1.0%	C
	4	− 5V	0.2A	4.0%	1.0%	C
VCA 423	1	+ 5V	4.0A	ADJ.	1.5%	E
	2	+15V	2.0A (2.5A PK)	3.0%	1.5%	E
	3	−15V	0.7A*	4.0%	1.0%	C
	4	− 5V	0.15A	4.0%	1.0%	C
VCA 420	1	+ 5V	4.0A	ADJ.	1.5%	E
	2	+12V	3.0A (3.5A PK)	3.0%	1.5%	E
	3	−12V	1.8A	3.0%	4.0%	B
	4	− 5V	0.25A	4.0%	1.0%	C

*0.6A if −5V used.

100 WATTS (140W PK)

Model	Output	Voltage	Current	Initial Setting (+/−)	Output Regulation (+/−)	Notes
VHA 420	1	+ 5V	10.0A	ADJ.	0.5%	A
	2	+12V	3.0A (4.5A PK)	3.0%	4.0%	B
	3	+12V (ISO)	3.0A (4.5A PK)	3.0%	4.0%	B, D
	4	−12V	2.0A	3.0%	4.0%	B
	5	− 5V	0.5A	4.0%	1.0%	C
VHA 426	1	+ 5V	10.0A	ADJ.	0.5%	A
	2	+12V	3.0A (4.5A PK)	3.0%	4.0%	B
	3	+12V (ISO)	1.0A	4.0%	1.0%	C, D
	4	−12V	1.0A	4.0%	1.0%	C
	5	− 5V	0.2A	4.0%	1.0%	C
VHA 427	1	+ 5V	10.0A	ADJ.	0.5%	A
	2	+12V	3.0A (4.5A PK)	3.0%	4.0%	B
	3	+15V (ISO)	1.0A	4.0%	1.0%	C, D
	4	−15V	1.0A	4.0%	1.0%	C
	5	− 5V	0.2A	4.0%	1.0%	C
VHA 423	1	+ 5V	7.0A	ADJ.	0.5%	A
	2	+15V	2.5A (4.0A PK)	3.0%	4.0%	B
	4	−15V	2.5A (4.0A PK)	3.0%	4.0%	B
	5	− 5V	0.2A	4.0%	1.0%	C
VHA 428	1	+ 5V	13.0A	ADJ.	0.5%	A
	3	12V (ISO)	3.0A (4.5A PK)	3.0%	4.0%	B, D
	4	−12V	3.0A (4.5A PK)	3.0%	4.0%	B
	5	− 5V	0.5A	4.0%	1.0%	C
VHA 430	1	+ 5V	10.0A	ADJ.	0.5%	A
	2	+12V	3.0A (4.5)	3.0%	4.0%	B
	3	24V (ISO)	2.5A (4.0)	5.0%	4.0%	B, D
	4	−12V	2.0A	3.0%	4.0%	B
	5	− 5V	0.5A	4.0%	1.0%	C

85 WATTS (130W PK)

Model	Output	Voltage	Current	Initial Setting (+/−)	Output Regulation (+/−)	Notes
VFA 420	1	+ 5V	8.0A	ADJ.	0.5%	A
	2	+12V	2.5A (4.5A PK)	3.0%	4.0%	B
	3	12V (ISO)	2.5A (4.5A PK)	3.0%	4.0%	B, D
	4	−12V	2.5A	3.0%	4.0%	B
VFA 421	1	+ 5V	8.0A	ADJ.	0.5%	A
	2	+12V	2.5A (4.5A PK)	3.0%	4.0%	B
	3	12V (ISO)	2.5A (4.5A PK)	3.0%	4.0%	B, D
	4	− 5V	2.5A	5.0%	4.0%	B
VFA 423	1	+ 5V	6.0A	ADJ.	0.5%	A
	2	+15V	2.5A (3.5A PK)	3.0%	4.0%	B
	3	15V (ISO)	2.5A (3.5A PK)	3.0%	4.0%	B, D
	4	− 5V	2.5A	5.0%	4.0%	B
VFA 430	1	+ 5V	8.0A	ADJ.	0.5%	A
	2	+12V	2.5A (4.5)	3.0%	4.0%	B
	3	24V (ISO)	2.0A (4.0)	5.0%	4.0%	B, D
	4	−12V	2.5A	3.0%	4.0%	B

125 WATTS (155W PK)

Model	Output	Voltage	Current	Initial Setting (+/−)	Output Regulation (+/−)	Notes
VKA 420	1	+ 5V	15.0A	ADJ.	0.5%	A
	2	+12V	4.0A (6.0A PK)	3.0%	4.0%	B
	3	12V (ISO)	3.0A	3.0%	4.0%	B, D
	4	−12V	3.0A	3.0%	4.0%	B
	5	− 5V	0.5A	4.0%	1.0%	C
VKA 426	1	+ 5V	15.0A	ADJ.	0.5%	A
	2	+12V	4.0A (6.0A PK)	3.0%	4.0%	B
	3	12V (ISO)	1.0A	4.0%	1.0%	C, D
	4	−12V	1.0A	4.0%	1.0%	C
	5	− 5V	0.2A	4.0%	1.0%	C
VKA 427	1	+ 5V	15.0A	ADJ.	0.5%	A
	2	+12V	4.0A (6.0A PK)	3.0%	4.0%	B
	3	15V (ISO)	1.0A	4.0%	1.0%	C, D
	4	−15V	1.0A	4.0%	1.0%	C
	5	− 5V	0.2A	4.0%	1.0%	C
VKA 423	1	+ 5V	10.0A	ADJ.	0.5%	A
	2	+15V	3.0A (4.0A PK)	3.0%	4.0%	B
	4	−15V	3.0A (4.0A PK)	3.0%	4.0%	B
	5	− 5V	0.4A	4.0%	1.0%	C
VKA 430	1	+ 5V	15.0A	ADJ.	0.5%	A
	2	+12V	4.0A (6.0)	3.0%	4.0%	B
	3	24V (ISO)	3.0A (4.5)	5.0%	4.0%	B, D
	4	−12V	3.0A	3.0%	4.0%	B
	5	− 5V	0.5A	4.0%	1.0%	C

NOTES:

A. Fully regulated output. Voltage adjustable from 4.5V to OVP trip point. Initial setting of +5.0V is ±1.0%.

B. Quasi-regulated output requires 20% minimum load to meet regulation specs. An additional cross-regulation factor of ±3% must be added in those applications where the main +5V output varies ±25%. These outputs track the main 5V output load.

C. Fully regulated output utilizing fixed, 3-terminal regulator.

D. Fully isolated output. May be connected in series with any output for (−) or (+) output. May be paralleled when same output voltage and reg type. (Quasi-reg and 3-pin outputs will not share loads if connected together.)

E. Dual-sensed, regulated output. +5V and +12V outputs are sensed in combination to provide tighter regulation of the +12V output. An additional cross-regulation factor ±2.0% must be added in those applications where the +5V output varies ±25%. Initial setting of +5V output is ±1.0%.

VEA400 MULTIPLE-OUTPUT SWITCHERS

65 WATTS (80W PK)

Model	Output	Output Voltage	Output Current	Initial Setting	Output Regulation	Notes
VEA405	1	+ 5V	6.0A	Adjustable	1.5%	A
	2	+15V	2.0A (3.5A PK)	3.0%	1.5%	A
	3	−15V	0.7A	4.0%	1.0%	B
	4	− 5V	0.5A	4.0%	1.0%	B
VEA412	1	+ 5V	6.0A	Adjustable	1.5%	A
	2	+12V	2.5A (4.0A PK)	3.0%	1.5%	A
	3	−12V	1.0A	4.0%	4.0%	C
	4	+12V	0.7A	4.0%	1.0%	B
VEA417	1	+ 5V	6.0A	Adjustable	1.5%	A
	2	+12V	2.5A (4.0A PK)	3.0%	1.5%	A
	3	−12V	1.0A	4.0%	1.0%	C
	4	− 5V	0.5A	4.0%	1.0%	B
VEA424	1	+ 5V	6.0A	Adjustable	1.5%	A
	2	+15V	2.0A (3.5A PK)	3.0%	1.5%	A
	3	−15V	0.7A	4.0%	4.0%	B
	4	+24V	1.2A (2.0A PK)	4.0%	1.0%	C
VEA436	1	+ 5V	6.0A	Adjustable	1.5%	A
	2	+12V	2.0A (3.5A PK)	3.0%	1.5%	A
	3	−12V	0.7A	4.0%	4.0%	B
	4	+24V	1.2A (2.0A PK)	4.0%	1.0%	C

NOTES:

A. Dual-sensed regulated output +5V and No. 2 are sensed in combination to provide tighter regulation of output No. 2. An additional cross-regulation factor ±2.0% must be added in those applications where the main +5V output varies ±25%. Initial setting of +5V output is ±1%. Output No. 2 requires 20% minimum load.

B. Fully regulated output utilizing fixed, 3-terminal regulator.

C. Quasi-regulated output requires 20% minimum load to meet regulation specs. An additional cross-regulation factor of ±3% must be added in those applications where the main +5V output varies ±25%.

SPECIFICATIONS:

AC Input: 90-132/180-264VAC, 47-63Hz single phase.

DC Outputs: See output rating chart. Other combinations available, contact factory.

Hold Up Time: 20mSec minimum from loss of AC input at full load, 115VAC input.

Output Regulation: See output rating chart for individual output ratings. Regulation is defined as the maximum deviation from the nominal voltage for all steady-state conditions of initial voltage setting, input line voltage and output load.

Minimum Load: A 1.5A minimum load is required on the +5V output to maintain regulation of the other outputs.

Output Noise and Ripple: 0.5% RMS, 1.5% Pk-Pk, 20MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of power supply.

Transient Response: 1.0mSec typical response time for a 50 to 100% or 100 to 50% load change on the +5V output. Maximum voltage deviation: 6.0%.

Temperature Coefficient: 0.03%/°C for all outputs.

Overvoltage Protection: Built-in on +5V outputs, with firing point set at 6.2V ±0.6VDC.

Power Limit: Factory set to limit output power at 80W.

Efficiency: 70% ±5% depending upon load distribution.

Overshoot: No output overshoot on turn-on or turn-off.

Overload Protection: Fully protected against output overload and short circuit. Automatic recovery after removal of fault.

Reverse Voltage Protection: All outputs protected against inadvertent application of reverse voltage.

Input Protection: Internal AC fuse provided on all units.

Inrush Current: Inrush current is limited by an internal thermistor for maximum protection of input rectifiers.

Temperature Rating: 0 to 50 °C at full rated output power, with natural convection cooling in a nonrestricted environment. For operation in a confined space, moving air is recommended. For operation above 50 °C, it is important that the cooling vs. loading profile is such that the heat sinks do not operate above 100 °C for extended periods.

Safety: Approved to UL478, CSA1402C level 3, IEC950.

EMI Compliance: Include built-in EMI filtering to meet or exceed the conducted emissions requirements of FCC20870 Class B and VDE 0871 Class B (down to 10KHz).

VBA300 MULTIPLE-OUTPUT SWITCHERS

30 WATTS (35W PK)

Model	Output	Output Voltage	Output Current	Initial Setting	Output Regulation	Notes
VBA326	1	+ 5	3.0A	Adjustable	0.5%	A
	2	+12	0.5A	4.0%	1.0%	B
	3	−12	0.5A	4.0%	1.0%	B
VBA323	1	+ 5	3.0A	Adjustable	0.5%	A
	2	+15	0.5A	4.0%	1.0%	B
	3	−15	0.5A	4.0%	1.0%	B

NOTES:

A. Fully regulated output. Voltage adjustable from 4.5V to OVP trip point. Initial setting of + 5.0V, ± 1%.

B. Fully regulated output utilizing fixed, 3-terminal regulator.

SPECIFICATIONS:

AC Input: 90-264VAC, 47-63Hz single phase.

DC Outputs: See output rating chart. Other combinations available, contact factory.

Hold Up Time: 16mSec minimum from loss of AC input at full load, 115VAC input.

Output Regulation: See output rating chart for individual output ratings. Regulation is defined as the maximum deviation from the nominal voltage for all steady-state conditions of initial voltage setting, input line voltage and output load.

Minimum Load: A 0.5A minimum load is required on the + 5V output to maintain regulation of the other outputs.

Output Noise and Ripple: 0.5% RMS, 1% Pk-Pk, 20MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of power supply.

Transient Response: 1.0mSec typical response time for a 50 to 100% or 100 to 50% load change on the + 5V output. Maximum voltage deviation: 6.0%.

Temperature Coefficient: 0.03%/°C for all outputs.

Overvoltage Protection: Built-in on + 5V outputs, with firing point set at 6.2V ± 0.6VDC.

Power Limit: Factory set to limit output power at 35W.

Efficiency: 70% ± 5% depending upon load distribution.

Overshoot: No output overshoot on turn-on or turn-off.

Overload Protection: Fully protected against output overload and short circuit. Automatic recovery after removal of fault.

Reverse Voltage Protection: All output protected against inadvertent application of reverse voltage.

Input Protection: Internal AC fuse provided on all units.

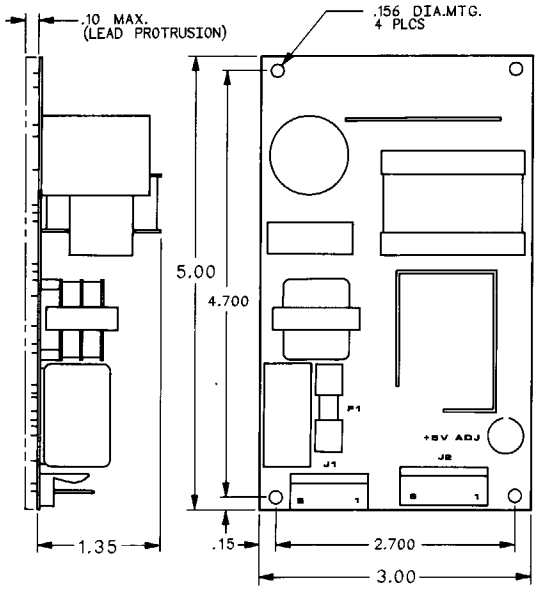
Inrush Current: Inrush current is limited by an internal thermistor for maximum protection of input rectifiers.

Temperature Rating: 0 to 50 °C at full rated output power, with natural convection cooling in a nonrestricted environment. For operation in a confined space, moving air is recommended. For operation above 50 °C, it is important that the cooling vs. loading profile is such that the heat sinks do not operate above 100 °C for extended periods.

Safety: Approved to UL478, CSA1402C level 3, IEC950.

EMI Compliance: Include built-in EMI filtering to meet or exceed the conducted emissions requirements of FCC20870 Class B and VDE 0871 Class B (down to 10KHz).

VBA300
(WT. 10 OZ.)



VBA300 MECHANICAL INFORMATION

INPUT: J1

UNIVERSAL INPUT: 90-264VAC, 47-63Hz
FUSE F1 AT 2A.

PIN 1)	AC LINE	PIN 4)	N/C
PIN 2)	N/C	PIN 5)	AC GND
PIN 3)	AC NEUTRAL		

OUTPUT: J2

PIN 1)	OUTPUT #2	PIN 4)	COMMON
PIN 2)	OUTPUT #1	PIN 5)	COMMON
PIN 3)	OUTPUT #1	PIN 6)	OUTPUT #3

J1 CONNECTOR:

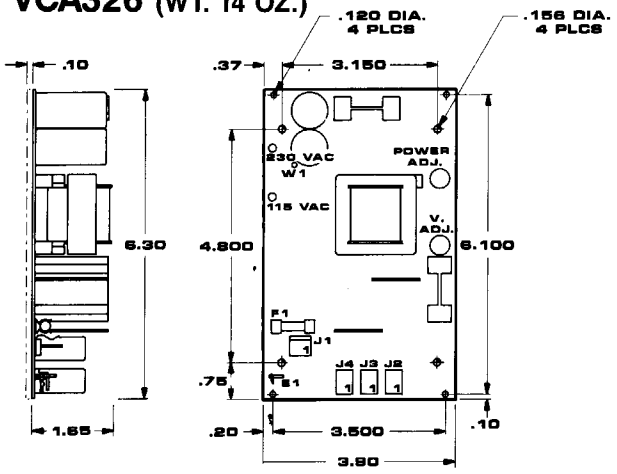
AMP P.C.B. HEADER P/N 640445-5 OR EQUIV.

J2 CONNECTOR:

AMP P.C.B. HEADER P/N 640445-6 OR EQUIV.

"V" SERIES MULTIPLE-OUTPUT SWITCHERS

VCA326 (WT. 14 OZ.)



INPUT: J1

90-132/180-264 47-63Hz

FOR 90-132 VAC INPUT CONNECT W1 TO TERMINAL 115 VAC. FUSE F1 AT 2.0A.

FOR 180-264 VAC INPUT CONNECT W1 TO TERMINAL 230 VAC. FUSE F1 AT 1.0A.

PIN 1) AC NEUTRAL
PIN 2) N/C
PIN 3) AC LINE

J1: CONNECTOR – MOLEX
P.C.B. HEADER P/N 09-65-1031
CONNECTOR MATE – MOLEX
HOUSING P/N 09-50-3031
CRIMP TERMINAL P/N 08-50-0106

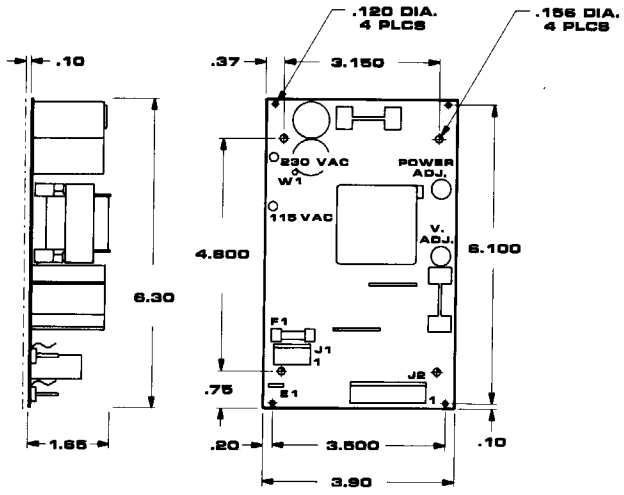
AC GND: E1
.250 FASTON MALE

OUTPUT: J2, 3, 4

PIN 1) OUTPUT 3
PIN 2) OUTPUT 2
PIN 3) COMMON
PIN 4) OUTPUT 1

J2, 3, 4: CONNECTOR – MOLEX
P.C.B. HEADER P/N 22-05-1042
CRIMP TERMINAL P/N 08-50-0114

VCA420, 423, 426 (WT. 14 OZ.)



INPUT: J1

90-132/180-264 VAC 47-63Hz

FOR 90-132 VAC INPUT CONNECT W1 TO TERMINAL 115 VAC. FUSE F1 AT 2.0A.

FOR 180-264 VAC INPUT CONNECT W1 TO TERMINAL 230 VAC. FUSE F1 AT 1.0A.

PIN 1) AC NEUTRAL
PIN 2) N/C
PIN 3) AC LINE
PIN 4) N/C
PIN 5) AC GND

AC GND: E1
.250 FASTON MALE

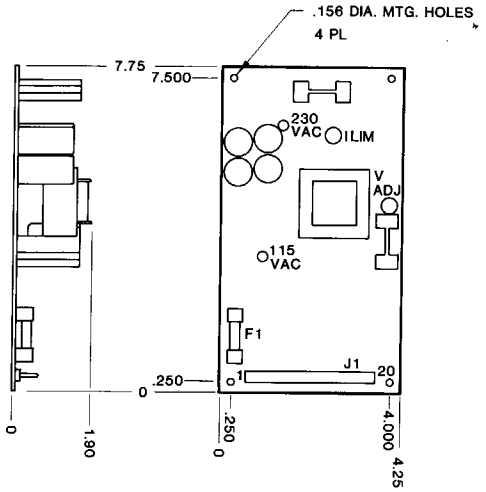
OUTPUT: J2

PIN 1)
PIN 2) OUTPUT 1
PIN 3)
PIN 4) COMMON
PIN 5)
PIN 6) OUTPUT 2
PIN 7) COMMON
PIN 8) OUTPUT 3
PIN 9) COMMON
PIN 10) OUTPUT 4

J2: CONNECTOR – MOLEX
P.C.B. HEADER P/N 09-65-1101
CRIMP TERMINAL P/N 08-50-0106

J1: CONNECTOR – MOLEX PCB
HOUSING P/N 09-50-3051
CRIMP TERMINAL P/N 08-50-0106

VFA 400 (WT. 1.5 LBS.)



INPUT: J1

90-132/180-264 VAC 47-63Hz

FOR 90-132 VAC INPUT CONNECT W1 TO TERMINAL 115VAC. FUSE F1 AT 3.0A.

FOR 180-264 VAC INPUT CONNECT W1 TO TERMINAL 230 VAC. FUSE F1 AT 1.5A.

PIN 1) AC HOT
PIN 2) N/C
PIN 3) AC NEUTRAL
PIN 4) N/C
PIN 5) AC GND

OUTPUT: J1

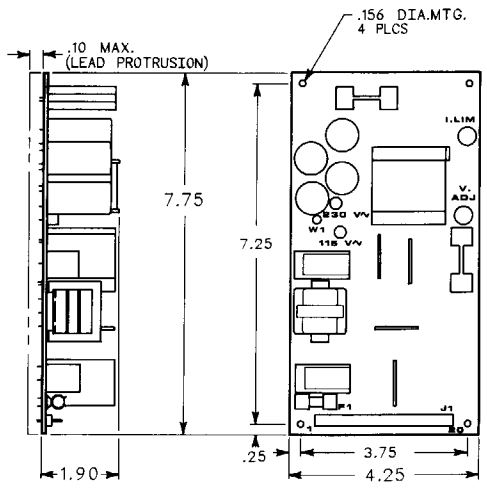
PIN 6) KEY
PIN 7) N/C
PIN 8) COMMON
PIN 9) OUTPUT #4 (–)
PIN 10) COMMON

J1: CONNECTOR
P.C.B. HEADER P/N 2-85830-0
CRIMP RECEPTACLE P/N 102104-3
KEY – P/N 87116-2

pins 11-20 missing. See different catalog

VEA MULTIPLE-OUTPUT SWITCHERS

VEA400 (WT. 1.2 LBS.)



INPUT: J1

90-132/180-264 47-63Hz

FOR 90-132 VAC INPUT CONNECT W1
TO TERMINAL 115 VAC. FUSE F1 AT 2.0A.

FOR 180-264 VAC INPUT CONNECT W1
TO TERMINAL 230 VAC. FUSE F1 AT 1.0A.

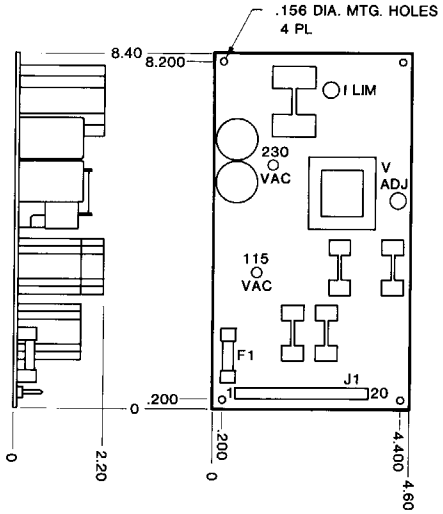
PIN 1) AC GND
PIN 2) N/C
PIN 3) AC HOT
PIN 4) N/C
PIN 5) AC NEUTRAL

OUTPUT: J1

PIN 6) KEY
PIN 7) N/C
PIN 8) COMMON
PIN 9) OUTPUT #4
PIN 10) OUTPUT #4
PIN 11) COMMON
PIN 12) COMMON
PIN 13) OUTPUT #3 (–)
PIN 14) OUTPUT #2 (+)
PIN 15) OUTPUT #2 (+)
PIN 16) COMMON
PIN 17) COMMON
PIN 18) OUTPUT #1 (+)
PIN 19) OUTPUT #1 (+)
PIN 20) OUTPUT #1 (+)

J1: CONNECTOR
P.C.B. HEADER P/N 2-85830-0
CRIMP RECEPTACLE P/N 102104-3
KEY – P/N 87116-2

VHA400 (WT. 1.6 LBS.)



INPUT: J1

90-132/180-264 VAC 47-63Hz

FOR 90-132 VAC INPUT CONNECT W1
TO TERMINAL 115VAC. FUSE F1 AT 5.0A.

FOR 180-264 VAC INPUT CONNECT W1
TO TERMINAL 230 VAC. FUSE F1 AT 2.5A.

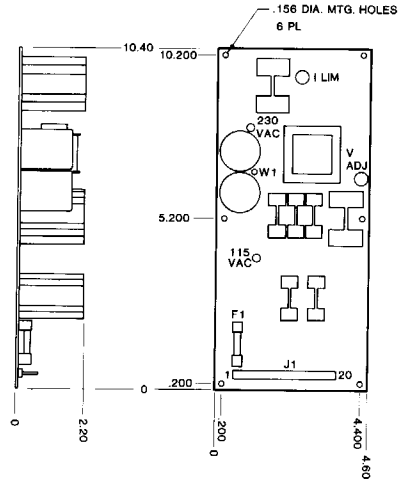
PIN 1) AC HOT
PIN 2) N/C
PIN 3) AC NEUTRAL
PIN 4) N/C
PIN 5) AC GND

OUTPUT: J1

PIN 6) KEY
PIN 7) OUTPUT #4 (–)
PIN 8) COMMON
PIN 9) OUTPUT #5 (–)
PIN 10) COMMON
PIN 11) OUTPUT #3 (RTN)
PIN 12) OUTPUT #3 (+)
PIN 13) COMMON
PIN 14)
PIN 15) OUTPUT #2 (+)
PIN 16)
PIN 17) COMMON
PIN 18)
PIN 19) OUTPUT #1 (+)
PIN 20)

J1: CONNECTOR
P.C.B. HEADER P/N 2-85830-0
CRIMP RECEPTACLE P/N 102104-3
KEY – P/N 87116-2

VKA400 (WT. 1.9 LBS.)



INPUT: J1

90-132/180-264 VAC 47-63Hz

FOR 90-132 VAC INPUT CONNECT W1
TO TERMINAL 115 VAC. FUSE F1 AT 3.0A.

FOR 180-264 VAC INPUT CONNECT W1
TO TERMINAL 230 VAC. FUSE F1 AT 1.5A.

PIN 1) AC HOT
PIN 2) N/C
PIN 3) AC NEUTRAL
PIN 4) N/C
PIN 5) AC GND

OUTPUT: J1

PIN 6) KEY
PIN 7) OUTPUT #4 (–)
PIN 8) COMMON
PIN 9) OUTPUT #5 (–)
PIN 10) COMMON
PIN 11) OUTPUT #3 (RTN)
PIN 12) OUTPUT #3 (+)
PIN 13) COMMON
PIN 14)
PIN 15) OUTPUT #2 (+)
PIN 16)
PIN 17) COMMON
PIN 18)
PIN 19) OUTPUT #1 (+)
PIN 20)

J1: CONNECTOR
P.C.B. HEADER P/N 2-85830-0
CRIMP RECEPTACLE P/N 102104-3
KEY – P/N 87116-2