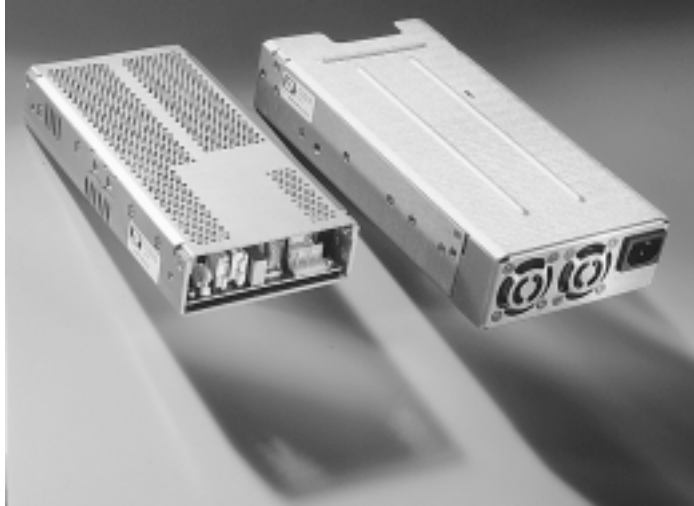


Single & Quad Output

KM SERIES

120-350 Watts



CE Marked - LVD

•

85 - 264 V AC Input

•

High MTBF

•

Single & Multi Outputs

•

Wide Output Adjustment

•

Logic Control

•

Remote Sense

Specification

(All specification are typical at nominal input, full load and 25 °C unless otherwise stated)

Input Voltage	85-132 V AC or 170 to 264 V AC Automatically selected KM150 85-264 V AC (120 to 370 V DC) KM120, KM250 & 350
Input Frequency	47-63 Hz (47-440 Hz for KM250 & KM350)
Inrush Current	20 A max for KM250 & KM350, 38 A max for KM150, 30 A max for KM120 - cold start
Power Factor	0.99 typical (not KM150)
Hold Up Time	20 ms at full load & 120 V AC
Earth Leakage	<0.5 mA @ 50/60 Hz 264 V AC (<0.75 mA KM120)
Output Voltage	See Tables
Line Regulation	See Tables
Load Regulation	See Tables
Ripple and Noise	See Tables
Overload Protection	S/C protected. Case overload protected at 110-145% > peak rating
Overvoltage Protection	3.3 V & 5 V outputs @ <135%. Other outputs @ <125% above nominal
Temperature Coefficient	± 0.04%/°C
Efficiency	75% typical at full load (65% KM120)
Operating Temperature	0 °C to +70 °C, derate at 2.5%/°C above +50 °C
Storage Temperature	-40 °C to +85 °C
Relative Humidity	5% to 90% operating, non-condensing
Vibration	Three orthogonal axis sweep at 1 Oct/min, 5 min dwell at four major resonances 0.75 G pk 5 Hz to 500 Hz
EMC	EN55022 class B conducted, & radiated
Safety Approvals	EN60950, UL1950, CSA 22.12-234 level 3
Power Fail	TTL signal goes "high" 50-500 ms after 5 V output. Signal goes "low" at least 4 ms before loss of regulation.
Remote Inhibit	Requires an external TTL high signal to inhibit outputs
Current Share	Standard on all models
MTBF	>550,000 hours at full load & 25 °C

Output Voltage & Current Ratings - 110-150 Watt Models

Output Voltage	Minimum Load ⁽⁵⁾	Maximum Load with Convection Cooling ⁽⁶⁾	Maximum Load with 30 CFM Forced Air ⁽⁶⁾	Peak Load ⁽¹⁾	Regulation ⁽²⁾	Ripple P/P (PARD) ⁽³⁾	Model Number
+3.3 V	0.0 A	14.0 A	25.0 A	28.0 A	±2%	50 mV	KM120PQ23
+5 V	2.0 A	12.5 A	24.0 A	28.0 A	±2%	50mV	
+12 V	0.0 A	1.0 A	2.0 A	3.0 A	±3%	120 mV	
-12 V	0.0 A	0.5 A	1.0 A	1.0 A	±3%	120 mV	
5 V	0.0 A	22.0 A	30.0 A	35.0 A	±2%	50 mV	KM150AS05-C
12-15 V ⁽⁷⁾	0.0 A	9.1 A	12.5 A	14.5 A	±2%	150 mV	KM150AS15-C
24-28 V ⁽⁷⁾	0.0 A	4.5 A	6.2 A	7.2 A	±2%	280 mV max	KM150AS24-C
36-48 V ⁽⁷⁾	0.0 A	2.3 A	3.1 A	3.6 A	±2%	480 mV max	KM150AS48-C
+5 V	2.0 A	15.0 A	22.0 A	30.0 A	±2%	50 mV	KM150AQ52-C
+12 V	0.1 A	6.0 A	8.0 A	10.0 A	±3%	120 mV	
-12 V	0.1 A	2.0 A	2.5 A	3.0 A	±3%	120 mV	
±5-25 V ⁽⁴⁾	0.0 A	2.5 A	3.0 A	3.0 A	±3%	240 mV max	
+5 V	2.0 A	15.0 A	22.0 A	30.0 A	±2%	50 mV	KM150AQ53-C
+15 V	0.1 A	4.8 A	6.4 A	8.0 A	±3%	150 mV	
-15 V	0.1 A	1.6 A	2.0 A	2.4 A	±3%	150 mV	
±5-25 V ⁽⁴⁾	0.0 A	2.5 A	3.0 A	3.0 A	±3%	240 mV max	
5 V	2.0 A	15.0 A	22.0 A	30.0 A	±2%	50 mV	KM150AQ54-C
+12 V	0.1 A	6.0 A	8.0 A	10.0 A	±3%	120 mV	
-12 V	0.1 A	2.0 A	2.5 A	3.0 A	±3%	120 mV	
24 V	0.5 A	3.5 A	4.5 A	5.0 A	+10/-5%	240 mV	

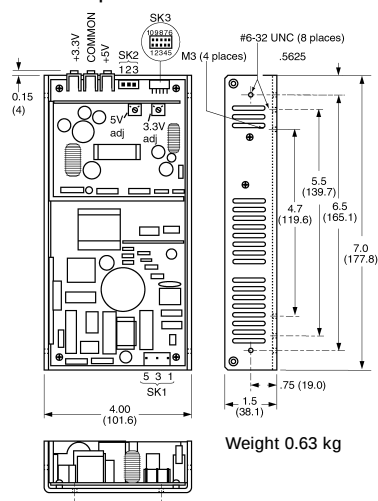
NOTES:

1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. 4th output adjustable 5-25 volts factory set at 5 V.
5. Minimum Loads are required
6. 110 Watts max. convection cooled, 150 Watts max forced air cooled.
7. Output voltage set @ lower level.

Note: -C suffix added to the model number indicates cover option, 75 W max. convection, 130 W max. forced air.

Mechanical Details - 110-150 Watt Models

Multi output KM120

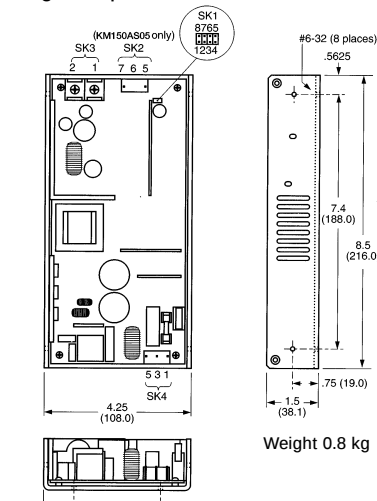


CONNECTOR	KM120
SK1	PIN 1 Ground PIN 3 Neutral PIN 5 Live
SK2	PIN 1 +12 V PIN 2 Common PIN 3 -12 V
SK3	PIN 1 +5 V + Sense PIN 2 + Sense PIN 3 + Inhibit PIN 4 - Inhibit PIN 5 Power Fail PIN 6 Common PIN 7 5 V SWP PIN 8 +3.3 V + Sense PIN 9 - Sense PIN 10 3.3 V SWP

MATING CONNECTORS

- (SK1) AC Input: Molex 09-91-0500
Pins: 08-50-0111
- (SK2) ±12 V: Molex 09-91-0300
Pins: 08-58-0111
- (SK3) Control Signals: Molex 90142-0010
Pins: 90119-2110 OR
Amp: 87977-3
Pins: 87309-8

Single output KM150

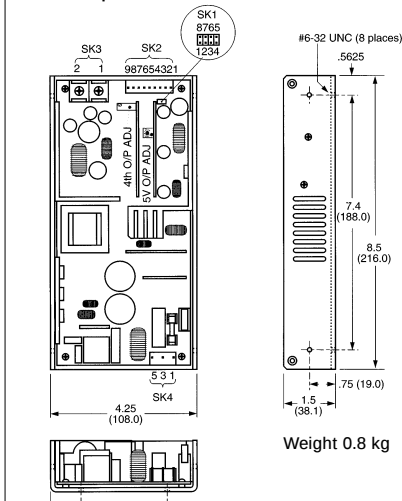


CONNECTOR	KM150
SK1	PIN 1 Inhibit -ve PIN 2 Inhibit +ve PIN 3 VCC PIN 4 No Connection PIN 5 Common PIN 6 -Sense PIN 7 +Sense PIN 8 C Share
SK2 (KM150S05 Only)	PIN 5 Common PIN 6 PIN Removed PIN 7 POK
SK3	TB-1 Common TB-2 +5 V
SK4	PIN 1 Ground PIN 3 Line PIN 5 Neutral

MATING CONNECTORS

- (SK1) Remote sense/Remote inhibit: Molex 51110-0850
Pins: 503-94-051
- (SK2) Power fail: Molex 26-03-4030
Pins: 08-58-0189
- (SK4) AC Input: Molex 26-03-4050
Pins: 08-50-0189

Multi output KM150



CONNECTOR	KM150
SK1	PIN 1 Inhibit -ve PIN 2 Inhibit +ve PIN 3 +12 V Fan PIN 4 No Connection PIN 5 Common PIN 6 -Sense PIN 7 +Sense PIN 8 C Share
SK2	PIN 1,2 O/P 2 PIN 3,4,5 Common PIN 6 O/P 3 PIN 7 POK PIN 8 O/P 4 PIN 9 Common
SK3	TB-1 Common TB-2 +5 V
SK4	PIN 1 Ground PIN 3 Line PIN 5 Neutral

MATING CONNECTORS

- (SK1) Remote sense/Remote inhibit: Molex 51110-0850
Pins: 503-94-051
- (SK2) Aux DC Output/Power fail: Molex 26-03-4090
Pins: 08-58-0189
- (SK4) AC Input: Molex 26-03-4050
Pins: 08-50-0189

Output Voltage & Current Ratings - 250 Watt Models

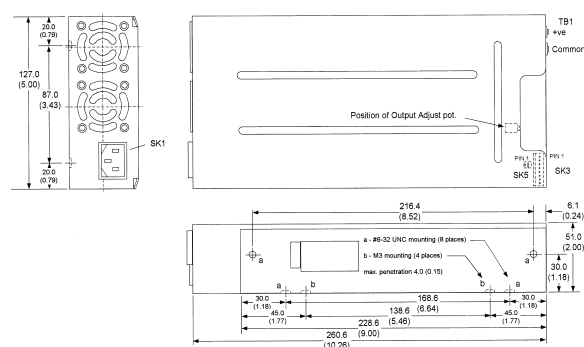
Output Voltage	Minimum Load ⁽⁵⁾	Maximum Load with 30 CFM Forced Air	Peak Load ⁽¹⁾	Regulation ⁽²⁾	Ripple P/P (PARD) ⁽³⁾	Model Number*
5 V (3-6 V)	1.50 A	50.0 A	60.0 A	±2%	50 mV	KM250PS05-CEF
12 V (6-12 V)	0.63 A	21.0 A	25.0 A	±2%	120 mV	KM250PS12-CEF
15 V (12-24 V)	0.50 A	16.7 A	20.0 A	±2%	150 mV	KM250PS15-CEF
24 V (24-48 V)	0.32 A	10.4 A	12.5 A	±2%	240 mV	KM250PS24-CEF
+5 V	3.00 A	35.0 A	40.0 A	±2%	50 mV	KM250PQ52-CEF
+12 V	0.00 A	10.0 A	12.0 A	±3%	120 mV	
-12 V	0.00 A	6.0 A	8.0 A	±3%	120 mV	
±5-25 V ⁽⁴⁾	0.00 A	6.0 A	8.0 A	±3%	240 mV max	
+5 V	3.00 A	35.0 A	40.0 A	±2%	50 mV	KM250PQ53-CEF
+15 V	0.00 A	10.0 A	12.0 A	±3%	150 mV	
-15 V	0.00 A	6.0 A	8.0 A	±3%	150 mV	
±5-25 V ⁽⁴⁾	0.00 A	6.0 A	8.0 A	±3%	240 mV max	

NOTES:

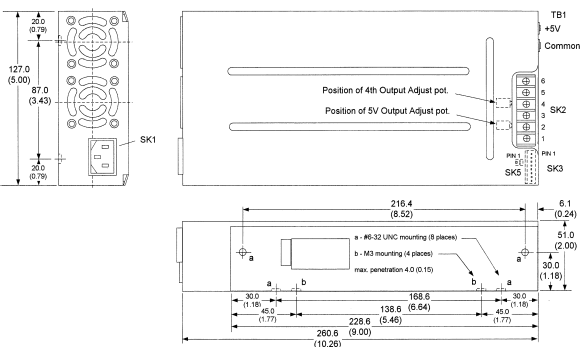
1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
 2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
 3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
 4. 4th output adjustable 5-25 volts factory set at 5 V.
 5. Minimum Loads are required.
 6. All units available with top mounted fan, replace suffix -CEF with CF.
- *Note: -CEF suffix indicates cover with end fan, fitted as standard.

Mechanical Details - 250 Watt Models

Single Output KM250 END FAN



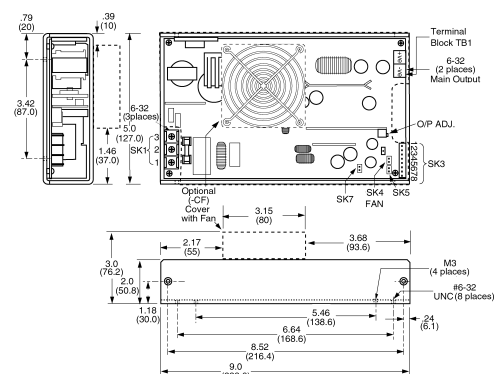
Multi Output KM250 END FAN



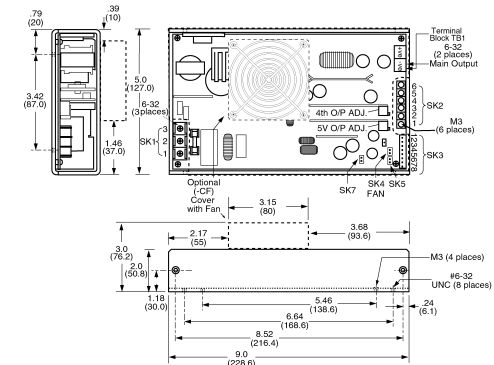
Pin Assignments

Connector	Pin	Assignment
SK1	PIN 1	Neutral
	PIN 2	Line
	PIN 3	Ground
SK2	PIN 1	+12 / 15 V
	PIN 2	Common
	PIN 3	Common
	PIN 4	-12 / 15 V
	PIN 5	5-25 V RET Float
	PIN 6	5-25 V Float
SK3	PIN 1	+ Remote sense
	PIN 2	- Remote sense
	PIN 3	Remote inhibit (N.O)
	PIN 4	Remote inhibit (N.C)
	PIN 5	Common
	PIN 6	Current sharing
	PIN 7	Power Fail
	PIN 8	DC Power Good
SK4	Fan's power source (12 V @ 150 mA)	
SK5	Supervisory output supply (5 V @ 100 mA)	

TOP FAN



TOP FAN



MATING CONNECTORS

(SK3) Molex 22-01-1084
Pins: 08-70-0057

(SK4) Molex 22-01-3027
Pins: 08-50-0114

(SK5) Molex 22-01-3027
Pins: 08-50-0114

NOTES:

1. All dimensions are in inches and (mm), tolerance is ±.01".
2. To enable normally closed remote inhibit, cut jumper J1
3. Mounting maximum insertion depth is 0.15".
4. Weight: 2.6 lb./1.19 kg single output
3.1 lb /1.41 kg multi output

Output Voltage & Current Ratings - 350 Watt Models

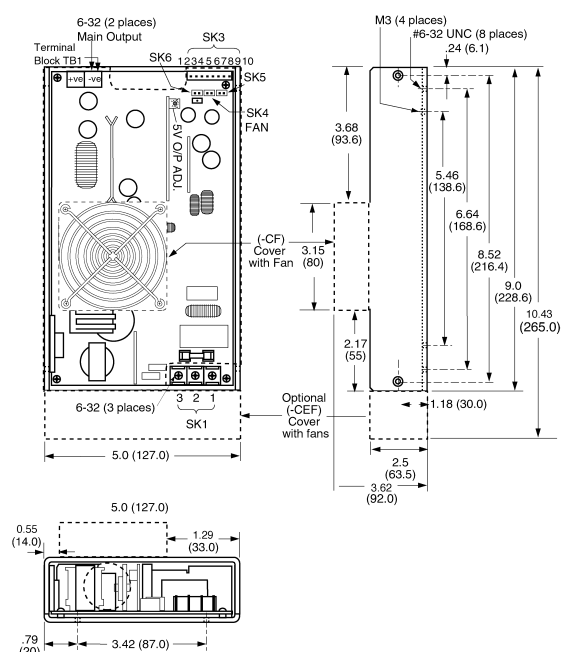
Output Voltage	Minimum Load ⁽⁵⁾	Max Load with 30 CFM Forced Air	Peak Load ⁽¹⁾	Regulation ⁽²⁾	Ripple P/P (PARD) ⁽³⁾	Model Number
5 V (3-6 V)	0 A	70.0 A	80 A	±2%	50 mV	KM350PS05-CEF
12 V (6-12 V)	0 A	29.2 A	33 A	±2%	120 mV	KM350PS12-CEF
15 V (12-24 V)	0 A	23.3 A	26 A	±2%	150 mV	KM350PS15-CEF
24 V (24-48 V)	0 A	14.6 A	16 A	±2%	240 mV	KM350PS24-CEF
+5 V	5 A	50.0 A	60 A	±2%	50 mV	KM350PQ52-CEF
+12 V	0 A	12.0 A	14 A	±3%	120 mV	
-12 V	0 A	6.0 A	8 A	±3%	120 mV	
±3.3-24 V ⁽⁴⁾	0 A	6.0 A	8 A	±3%	240 mV	
+5 V	5 A	50.0 A	60 A	±2%	50 mV	KM350PQ53-CEF
+15 V	0 A	12.0 A	14 A	±3%	150 mV	
-15 V	0 A	6.0 A	8 A	±3%	150 mV	
±3.3-24 V ⁽⁴⁾	0 A	6.0 A	8 A	±3%	240 mV	

NOTES:

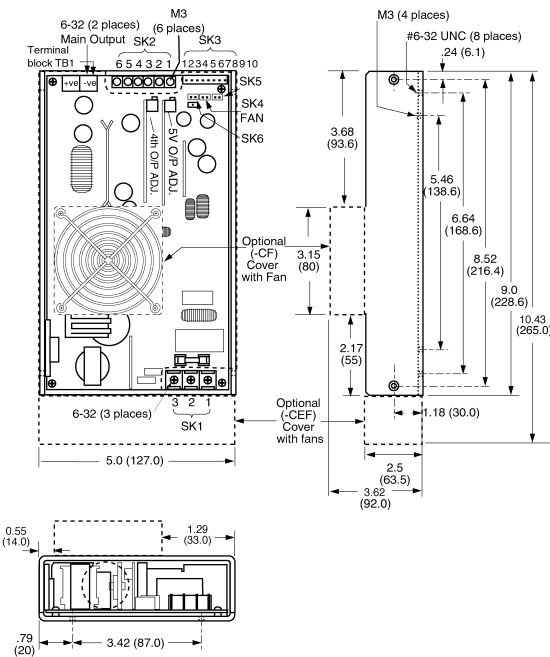
1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. 4th output 3.3-24 volts factory set to 5 V.
5. Minimum Loads are required.
6. All units available with top mounted fan, replace suffix -CEF with CF.

Mechanical Details - 350 Watt Models

Single Output KM350



Multi Output KM350

**Pin Assignments**

Connector	Single Output	Multi Output
SK1	PIN 1	Neutral
	PIN 2	Line
	PIN 3	Ground
TBI	+ve	+ Output
	-ve	Common
SK2	PIN 1	-
	PIN 2	-
	PIN 3	-
	PIN 4	-
SK3	PIN 5	3.3-25 V RET Float
	PIN 6	3.3-25 V Float
	PIN 1	+ Sense/F
	PIN 2	- Sense/F
	PIN 3	+ Sense
	PIN 4	- Sense
	PIN 5	POK
	PIN 6	Current sharing
	PIN 7	DC-OK
	PIN 8	Inhibit
SK4	PIN 9	Inhibit
	PIN 10	COM
SK5	Fan's power source (12 V @ 150 mA)	
SK6	Supervisory output supply (5 V @ 100 mA)	
	Fan's power source (12 V @ 150 mA)	

MATING CONNECTORS

(SK3) Molex 22-01-1084
Pins: 08-70-0057

(SK4) Molex 22-01-3027
Pins: 08-50-0114

(SK5) Molex 22-01-3027
Pins: 08-50-0114

(SK6) Molex 22-01-3027
Pins: 08-50-0114

NOTES:

1. All dimensions are in inches and (mm), tolerance is ±.02".
2. To enable normally closed remote inhibit, cut jumper J1
3. Mounting maximum insertion depth is 0.15".
4. Weight: 3.6 lb./1.64 kg single output
4 lb /1.8 kg multi output