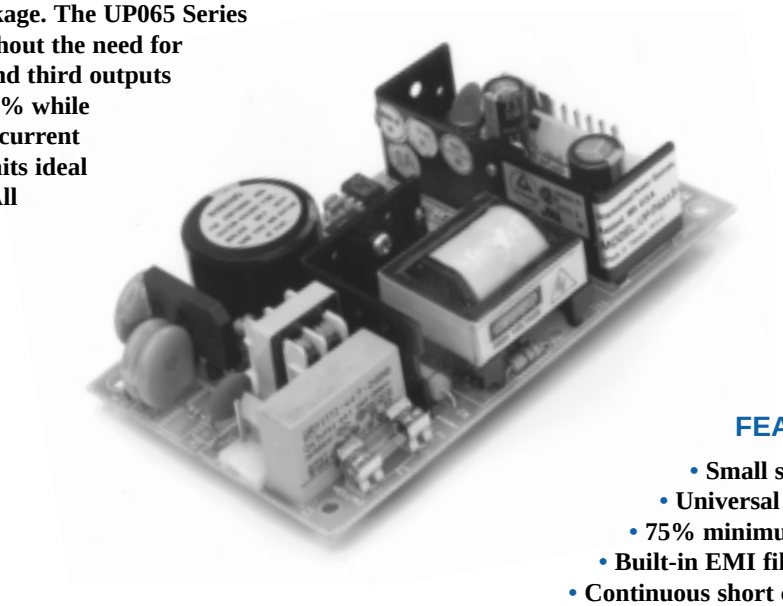
NEW • COMPACT 3”X 5” SIZE
• UNIVERSAL INPUT

65 WATT
SWITCHING POWER SUPPLY

DESCRIPTION

The UP065 Series are compact open PCB type 65 watt AC/DC switching power supplies. Utilizing the latest technology and components, these units deliver 65 watts of power in only a 3" x 5" package. The UP065 Series accepts a 90-264VAC input without the need for straps or jumpers. The main and third outputs are well regulated to within ±1 % while output #2 has significant pulse current capability which make these units ideal for a number of applications. All models are approved to UL, CSA and TUV (per IEC) requirements.



FEATURES

- **Small size 3” x 5” x 1.2”**
- **Universal input**
- **75% minimum efficiency**
- **Built-in EMI filter**
- **Continuous short circuit protection**

OUTPUT VOLTAGE/CURRENT RATINGS CHART

	Output #1					Output #2					Output #3				
Model	**Vnom**	**Imin**	**Imax**	**Imax**	**Imax[3]**	**Vnom**	**Imin**	**Imax**	**Imax**	**Imax[3]**	**Vnom**	**Imin**	**Imax**	**Imax**	**Imax[3]**
UP0651S-01	5V	0A	11A	N/A	14A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UP0651S-02	12V	0A	5.4A	N/A	6.5A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UP06515-03	15V	0A	4.3A	N/A	5.2A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UP0651S-04	24V	0A	2.7A	N/A	3.3A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
UP0653S-01	+5V	0A	5.0A[1]	6.0A[2]	9.0A	+12V	0A	2.0A[1]	2.5A[2]	3.75A[4]	-12V	0A	0.5A[1]	0.5A[2]	1.0A
UP0653S-02	+5V	0A	5.0A[1]	6.0A[2]	9.0A	+12V	0A	2.0A[1]	2.5A[2]	3.75A[4]	-5V	0A	0.5A[1]	0.5A[2]	1.0A
UP0653S-03	+5V	0A	5.0A[1]	6.0A[2]	9.0A	+15V	0A	1.6A[1]	2.0A[2]	3.0A	-15V	0A	0.5A[1]	0.5A[2]	1.0A
UP0653S-04	+5V	0A	5.0A[1]	6.0A[2]	9.0A	+24V	0A	1.0A[1]	1.25A[2]	1.9A[4]	-12V	0A	0.5A[1]	0.5A[2]	1.0A

NOTES:

1. Natural convection cooled with 55W max. total output power.
2. Forced air cooled 20CFM at 1 atmosphere with 65W max. total output power.
3. Peak output current lasting less than one minute with duty cycle less than 5%. Total output power must not exceed 80 watts during peak loading, output regulation may exceed rated limits.
4. The +12V output on all models will accept pulse load currents up to 5A for disk drive applications. The +24V will accept pulse load currents up to 2.5A (for less than 500mS at 10% duty cycle). The average current must be less than the maximum current.

GENERAL SPECIFICATIONS

All specifications are typical at nominal line, full load, and 25°C.

Efficiency:	75% minimum
Switching frequency:	80 kHz
Hi-pot isolation:	3750 VAC from input to output
Line regulation:	±0.5% (See note 3)
Load regulation:	±1% for outputs 1 and 3; ±3% for output 2 (See note 4)
Cross regulation:	±4% for output 2; ±1% for output 3 (See note 5)
Operating temperature:	0°C to +70°C
Derating (50°C to 70°C):	2%/°C
Temperature coefficient:	±0.02%/°C
Storage temperature:	-40°C to +85°C
Humidity, non-condensing:	0 to 95% RH
EMI filter (on board):	Meets VDE/FCC Class B conducted emission limits.

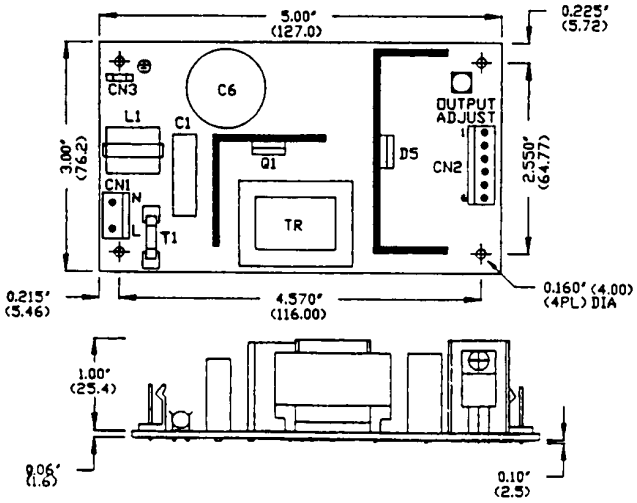
INPUT SPECIFICATIONS

Input voltage:	90 to 264 VAC
Input frequency:	47 to 63 Hz
Inrush current:	40A max. (cold start)
Hold-up time:	16ms

OUTPUT SPECIFICATIONS

Voltage adjustment:	
+5VDC primary output (V1)	Adjustable ±5%
Auxiliary output (V2,V3)	Fixed ±5% (See note 2)
Total output power:	
Convection cooled single output	65W
Convection cooled triple output	55W
Forced air triple output	65W @ 20CFM
Design topology:	Flyback
Overvoltage protecton:	Main output only
Overload protection:	120 to 200% of rated value
Short circuit protection:	Continuous
Ripple and noise:	1% peak-peak max. (See note 6)

MECHANICAL SPECIFICATIONS



CN1 INPUT CONNECTOR MOLEX 09-50-3031 WITH SECOND PIN REMOVED
CN2 OUTPUT CONNECTOR MOLEX 09-50-3061
MOLEX MATING CONNECTOR MOLEX 2139 SERIES
HOUSING WITH 2478 SERIES CRIMP TERMINALS
CN3 INPUT GROUND TAB. TAB SIZE 4.8 x 0.5(mm)

NOTES:

1. Replace input line fuse with the same type and rating. Recommended fuse is 3A/250VAC slo-blo.
2. Output tolerance is measured by setting the +5V output to its exact value (ie 5.000V). With the power supply output loaded as follows: +5V/6A, +12V/2.5A, +24V/1.25A, -12V/0.5A or -5V/0.5A any adjustment on the +5V will cause the auxillary outputs to rise or fall proportionally.
3. Line regulation is measured at nominal load and the input voltage varied from 90-132 VAC or 180-260 VAC.
4. Load regulation is measured at 115 VAC or 230 VAC input. The output being measured is varied from 30% to 100% of full load. All other outputs are loaded to 50% of full load.
5. Cross regulation is measured with a +5V at 6A load. Note: The effects of load and cross regulation are not cumulative and may actually act to cancel each other in an operating system environment.
6. Peak-to-peak and RMS metering equipment shall have a 20MHz response with probes and cables maintaining frequency response from 200Hz to 200MHz bandwidth. Output ripple and noise spikes are measured directly at the output pins of the power supply without the use of the probe ground clip.

ALL DIMENSIONS IN INCHES (mm) TOLERANCE .XX =+ 0.05
.XXX=+0.020

PIN CHART

Model PIN	1	2	3	4	5	6
UP0651S-XX	OUTPUT #1	OUTPUT #1	OUTPUT #1	COMMON	COMMON	COMMON
UP0653S-XX	OUTPUT #2	OUTPUT #1	OUTPUT #1	COMMON	COMMON	COMMON #3