FEATURES

- RoHS Compliant
- Withstand 5G Vibration Test
- Power ON with LED Indicator
- 100% Full Load Burn-In Tested
- Cooling by Free Air Convection
- Universal AC Input with Active PFC
- High Operating Temperature up to 70°C
- Brown-Out (Low AC Input Voltage) Protected
- High Efficiency, Long Life, and High Reliability
- All Using 105°C Long Life Electrolytic Capacitors
- Green Design, No Load Power Consumption < 0.5W
- Short Circuit, Over Load, and Over Voltage Protected

DESCRIPTION

The PSAK75 series of AC/DC switching power supplies provides 75 Watts of continuous output power in an enclosed design. All models have a single output and a universal input range. Some features include efficiency up to 89%, 0.98 typical power factor, active PFC, and < 0.5W no load power consumption. These supplies are Energy Star compliant and have brown-out, over load, over voltage, over temperature, and short circuit protection. All models are 100% full load burn-in tested.

SPECIFICATIONS: *PSAK75 Series*

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

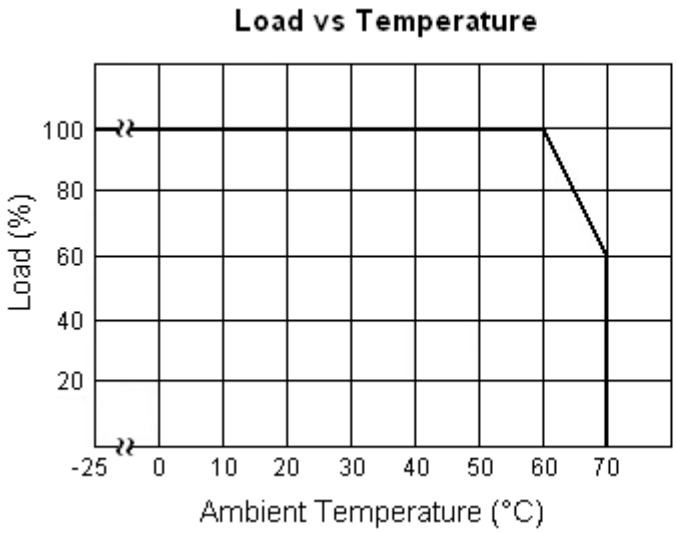
INPUT SPECIFICATIONS	
Input Voltage Range *(See Note 3)*	90 ~ 264VAC (127~370VDC)
Input Frequency	47 to 63Hz
AC Current (typical)	1A @ 115VAC; 0.4A @ 230VAC
Inrush Current (typical)	20A @ 115VAC; 35A @ 230VAC
Leakage Current	< 0.2mA @ 230VAC
Power Factor (typical)	0.98 @ 115VAC and full load; 0.93 @ 230VAC and full load
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Output Voltage Adjustability	±10%
Voltage Tolerance *(See Note 2)*	PSAK-75-5: ±2%; PSAK-75-7.5: ±1.5%; PSAK-75-12~48: ±1.0%
Line Regulation	PSAK-75-5 & PSAK-75-7.5: ±1.0%; PSAK-75-12~48: ±0.5%
Load Regulation	PSAK-75-5 & PSAK-75-7.5: ±1.0%; PSAK-75-12~48: ±0.5%
Output Current	See Table
Ripple & Noise *(See Note 1)*	See Table
Setup, Rise Time	300ms, 50ms at full load
Hold-Up Time (typical)	32ms @ 230VAC and full load
PROTECTION	
Over Voltage Protection	115% ~ 140% rated output voltage Protection Type: Latch-off mode
Over Load Protection	105% ~ 180% rated output power Protection Type: Hiccup mode, recovers automatically after fault condition is removed.
Over Temperature Protection	90°C ±5°C detect on Core of the Transformer Protection Type: Shutdown output voltage, after temperature goes down and re-power on to recover
GENERAL SPECIFICATIONS	
Efficiency	See Table
Withstand Voltage	3KVAC (input to output); 1.5KVAC (input to FG); 0.5KVAC (output to FG) all for one minute
Isolation Resistance	100MΩ/500VDC (input to output, input to FG, output to FG)
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-20°C to +70°C (refer to derating curve)
Storage Temperature	-40°C to +85°C
Working Humidity	20% to 90% RH (non-condensing)
Storage Humidity	10% to 95% RH
Vibration	10 ~ 500Hz, 5G 0.5Oct/min., Period of 60 min. each along X,Y,Z axis.
Cooling	Free air convection
Temperature Coefficient	±0.03% / °C (0 ~ 50°C)
MTBF	620,300 hours Compliance: MIL-HDBK-217F
PHYSICAL SPECIFICATIONS	
Packing	22.93oz (650g)
Dimensions (L x W x H)	6.18 x 3.86 x 1.65 inches (157 x 98 x 42 mm)
SAFETY & EMC *(See Note 4)*	
Safety Standards	Meet UL/cUL 60950-1, TUV EN60950-1
Green Energy	ENERGY STAR® Single Voltage External AC/DC and AC/AC power supplies Eligibility Criteria (Version 1.1)
EMI Conduction & Radiation	EN55022: 1998+A1: 2000+A2: 2003 Class B
Harmonic Current	EN61000-3-2: 2000+A2: 2005 Class A, EN61000-3-3: 1995+A1: 2001
EMS Immunity	EN61204-3: 2000 EN50204 1998+A1: 2001+A2: 2003 light industry level, criteria A

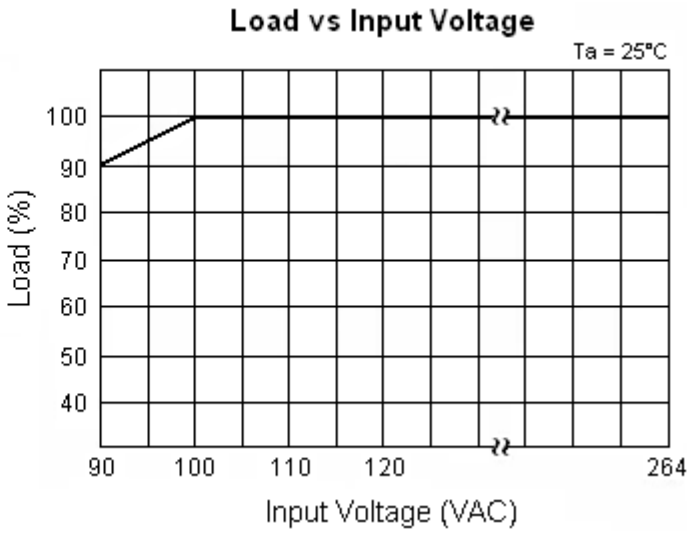
MODEL SELECTION TABLE						
Model Number	**Input Voltage**	**Output Voltage**	**Output Current**	**Ripple & Noise (1)**	**Output Power**	**Efficiency**
PSAK-75-5	90 ~ 264VAC (127 ~370VDC)	5 VDC	15A	90mVp-p	75W	83%
PSAK-75-7.5		7.5 VDC	10A	90mVp-p	75W	85%
PSAK-75-12		12 VDC	6.3A	90mVp-p	75.6W	85%
PSAK-75-13.5		13.5 VDC	5.6A	90mVp-p	75.6W	86%
PSAK-75-15		15 VDC	5A	90mVp-p	75W	88%
PSAK-75-24		24 VDC	3.2A	120mVp-p	76.8W	89%
PSAK-75-27		27 VDC	2.8A	120mVp-p	75.6W	89%
PSAK-75-48		48 VDC	1.6A	200mVp-p	76.8W	89%

NOTES

1. Ripple & noise is measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF capacitor and a 47μF capacitor in parallel.
2. Tolerances include set up tolerance, line regulation, and load regulation.
3. Derating may be needed under low input voltages; please check the derating curve for more details.
4. The power supply is considered a component, which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

DERATING CURVES





MECHANICAL DRAWING

Unit: inches [mm]