

AC-DC ITE Power Module

20 Watt

eAKC Series



- ◆ Power Module for PCB Mountable
- ◆ Universal Input: 90-264 VAC, 47-440 Hz Low Standby < 0.3W
- ◆ Regulated Output
- ◆ Low Ripple and Noise
- ◆ Optional with Screw Terminal
- ◆ CE, CB, UL Approvals
- ◆ 3-Year Warranty

| Input Specifications | |
|---|--|
| Voltage Range | 90 ~ 264 VAC or 100 ~ 375 VDC |
| Frequency | 47~440 Hz |
| Output Specifications | |
| Output Power | 20 Watt (max.) |
| Voltage Accuracy | ±2% (Full Load and Nominal Vin) |
| Minimum Load | 0% to 10% (at Full Load) |
| Line Regulation (LL to HL at Full Load) | Single, Dual ±5% (typ.) Triple: ±1% / ±5% (typ.) |
| Load Regulation | Single: ±1% (0% to 100% at Full Load) (typ.) Dual: ±3% (10% to 100% at Full Load) (typ.) Triple: ±2% / ±5% (20% to 100% at Full Load) (typ.) |
| Ripple (20MHz bandwidth) | <0.2% Vout +40mV (Vp-p) (max.) |
| Noise (20MHz bandwidth) | <0.5% Vout +50mV (Vp-p) (max.) |
| Temperature Coefficient | ±0.02% °C (max.) |
| Short Circuit Protection | Hiccup mode, indefinite (Automatic recovery) |
| General Specifications | |
| Efficiency (see table list) | 75% to 84% (typ.) |
| Isolation Voltage | 3000 VAC |
| Isolation Resistance | 10 ⁹ Ω (Input to Output) (min.) |
| Operating Temperature | 25 °C to + 70°C (with Derating) |
| Storage Temperature | -40 °C to +85°C |
| Humidity | 95% RH (max.) |
| Cooling | Free-air Convection |
| Physical Specifications | |
| Dimension | 69.5 x 47.5 x 21.7 mm |
| (Tolerance ±0.5 mm) | 2.73 x 1.87 x 0.85 inches |
| Weight | 110 g |
| Case Material | Plastic resin (flammability to UL 94V-0) |

Model

► eAKC Single Output

| Model & Ordering No | Input Voltage (V.AC) | Output Voltage (V.DC) | Output Current (m.A) max. | Eff (%) |
|---------------------|----------------------|-----------------------|---------------------------|---------|
| eAKC-3.3S | 90~264 | 3.3 | 4500 | 75 |
| eAKC-5S | 90~264 | 5 | 4000 | 79 |
| eAKC-7.35S | 90~264 | 7.5 | 2730 | 82 |
| eAKC-9S | 90~264 | 9 | 2230 | 82 |
| eAKC-12S | 90~264 | 12 | 1670 | 83 |
| eAKC-15S | 90~264 | 15 | 1340 | 83 |
| eAKC-24S | 90~264 | 24 | 840 | 82 |

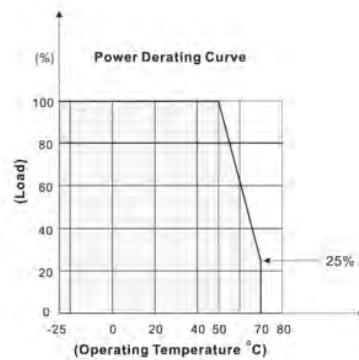
► eAKC Dual Output

| Model & Ordering No | Input Voltage (V.AC) | Output Voltage (V.DC) | Output Current (m.A) max. | Eff (%) |
|---------------------|----------------------|-----------------------|---------------------------|---------|
| eAKC-5D | 90~264 | ± 5 | ± 2000 | 79 |
| eAKC-12D | 90~264 | ± 12 | ± 833 | 82 |
| eAKC-15D | 90~264 | ± 15 | ± 667 | 82 |

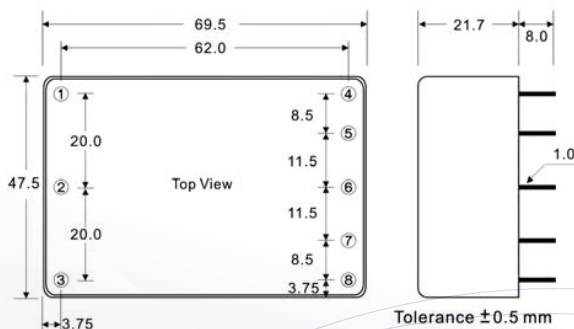
► eAKC Triple Output

| Model & Ordering No | Input Voltage (V.AC) | Output Voltage (V.DC) | Output Current (m.A) max. | Eff (%) |
|---------------------|----------------------|-----------------------|---------------------------|---------|
| eAKC-5S12D | 90~264 | 5/ ± 12 | 2800±250 | 81 |
| eAKC-5S15D | 90~264 | 5/ ± 15 | 2800±200 | 81 |

Derating



Outline Dimensions & Pin Connections



| Pin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------|----|-----------|-----------|---------|---------|---------|---------|---------|
| Single | FG | AC IN (N) | AC IN (L) | NO PIN | -DC OUT | NO PIN | +DC OUT | NO PIN |
| Dual | FG | AC IN (N) | AGIN (L) | NO PIN | -DC OUT | CO MMON | +DC OUT | NO PIN |
| Triple | FG | AC IN (N) | AC IN (L) | -DC OUT | COMMON | +DC OUT | +5V RTN | +5V OUT |