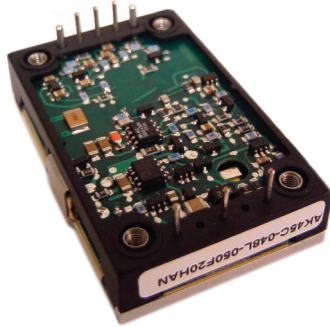


# 100 Watts

## AK45C-20/ AV45C-20 (1.5V, 5V)

High Efficiency



Total Power: 100 Watts  
Input Voltages: 48V  
No. of Outputs: Single

### Electrical Specs

#### Input

Input Range	36 to 75 VDC
Input Surge	100V /100ms
Efficiency	89% @5Vo Typ 86% @3.3Vo Typ 84% @2.5Vo Typ

#### Output

Load Regulation	0.2% typical down to no load (output 5V and above) 10mV typical down to no load (output below 5V)
Line Regulation	0.1% typical (output 5V and above) 10mV typical (output below 5V)
Voltage Tolerance	±1%
Noise/Ripple	100mV max typ
Remote sense	Up to 0.5V
Transient Response	5% max deviation with 25% to 75% full (output 5V and above) 200mV (output below 5V) 500µs (max) recovery
Overvoltage Protection	130% nominal output (output 5V and above) 160% nominal output (1.8V and 2V) 140% nominal output (3.3V output)
Current Limit	115% nominal output
Switching Frequency	375kHz (typ)

#### Control

Voltage Adjust	90 to 110% Vo (1.8 V) 80 to 110% Vo (2.5, 3.3, 5 V)
Enable	TTL compatible (positive & negative enable options)

### Special Features

- High efficiency
- -40°C to +100°C Baseplate operating temperature (with no derating)
- Industry standard package 1.45" x 2.28" x 0.5"
- High capacitive load limit on start-up
- Remote sense compensation
- Basic insulation
- Regulation to zero load
- Fixed frequency switching (375kHz)

### Environmental

Operating case temperature range:  
-40°C to +100°C

Storage temperature: -55°C to +105°C

Overtemperature protection: 110°C typical

MTBF: > 1 million hours

### Safety

<b>UL</b>	UL 1950 CSA22.2-950
<b>TUV</b>	EN60950

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## Ordering Information

Input Voltage	Output Voltage	Output Current	Efficiency	Model Number
48V	1.8V	20A	81% min (84% typ)	AV45C-048L-015F20HA
48V	1.8V	20A	81% min (84% typ)	AK45C-048L-018F20HA
48V	2.5V	20A	84% min (86% typ)	AK45C-048L-025F20HA
48V	3.3V	20A	86% min (88% typ)	AK45C-048L-033F20HA
48V	5V	20A	86% min (89% typ)	AV45C-048L-050F20HA

NOTES:

Enable Function

"N" = negative logic enable (without "N" = positive enable)

## Pin Assignments

### Single Output

1. -Vin
2. No Pin
3. Enable
4. No Pin
5. + Vin
6. Rtn
7. - Sense
8. Trim
9. +Sense
10. +Vout

Note: Pins 4 & 8 are .062" dia.  
 All other pins are .040" dia.

**Notes:**

Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.

Specifications subject to change without notice.

