

# CHEROKEE INTERNATIONAL

## APOLLO DC-DC Converters

Output: 1.2 to 3.3V dc @ 30A    Input: 36 to 75V dc

### Standard Single Output Quarter Brick

- 30A in a Quarter Brick Footprint
- Small Footprint (1.45" x 0.417" x 2.28")
- High Efficiency: 91% typical, 3.3V
- Constant Frequency Operation
- Over current, Over voltage, Overtemp protection, Remote on/ off
- Meets ETSI 300-321-2 Isolation
- Safety approvals: UL, cUL & TUV
- Optional Base plate available



Open Frame

Baseplate

#### Features

- Low Profile
- High Efficiency 91% at 3.3V
- Wide range of operation (-40 to 85°C)

#### Benefits

- Supports Tight Card Pitch requirements
- Reduce footprint area operation without heatsink
- Supports extreme temperature conditions for wireless applications

#### Key Market Segments & Applications

- Switching equipment
- Routers
- Networking
- Wireless local loop
- RF transmission
- ATE Test Equipment and Semiconductor fabrication

Specifications	QB3048XX DC-DC Converter, Single Output				
	A1	B1	C1	D1	E1
Output Model:	A1	B1	C1	D1	E1
Nominal Output Voltage (V)	3.3	2.5	1.8	1.5	1.2
Max Output Current (A)	30	30	30	30	30
Max Output Power (W)	100	75	54	45	36
Efficiency (typical at 48V DC input)	91%	89%	87%	85%	82%
Input Current (typical at 48V DC input)	2.29A	1.8A	1.30A	1.11A	0.92A
Input Voltage range	36 to 75V DC				
Input Reflected Ripple Current	20 mA				
Output Voltage Set Point	+/- 50 mV				
Line Regulation	0.1 % (36 to 75V DC; full load)				
Load Regulation	0.1 % (no load to full load; 48V input)				
Output Voltage Range (Trim)	+/- 10 %				
Max Ripple and Noise	100 mV pk-pk				
Transient Response	Max Deviation: 3 %; Settling Time < 100µS; 25 % step load change; 0.1A / µS				
Over Current Protection	Inception point: 110 to 135 %; Short Circuit - Hiccup Mode				
Remote On / Off	On / Off pin: Open (Logic High) = Unit On; Shorted to -Vin (Logic Low) = Unit Off Positive logic is Standard, Negative logic available as an option; 0.6 mA Sink Current				
Operating Temperature	- 40 to 85 deg C Ambient				
Output Overvoltage	Unit latches off between 120% to 130%. Recycle input or remote on/off to restart.				
Thermal Protection	Auto restart. Thermal shut down at approximately 125 deg c.				
Cooling	Convection Cooled / Forced Air (Refer to derating curve)				
Weight	35 g				
Dimensions	1.45" x 0.417" x 2.28" (36.8mm x 10.6mm x 57.9mm) without baseplate				

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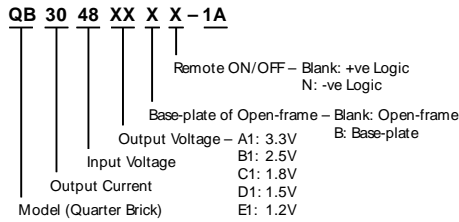
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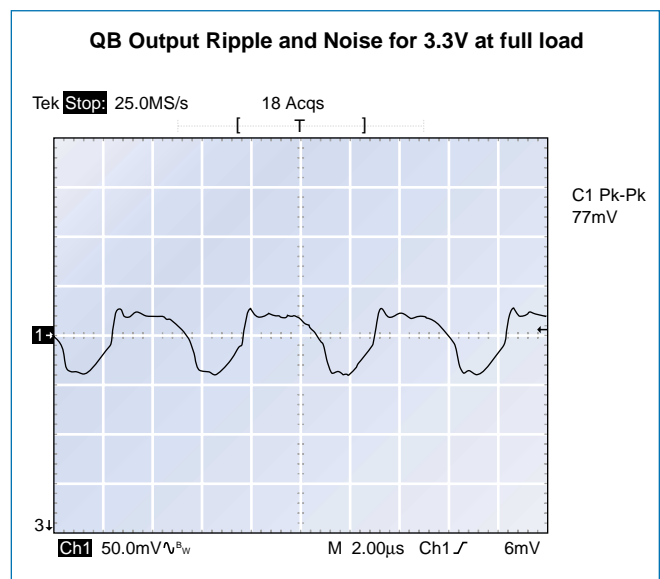
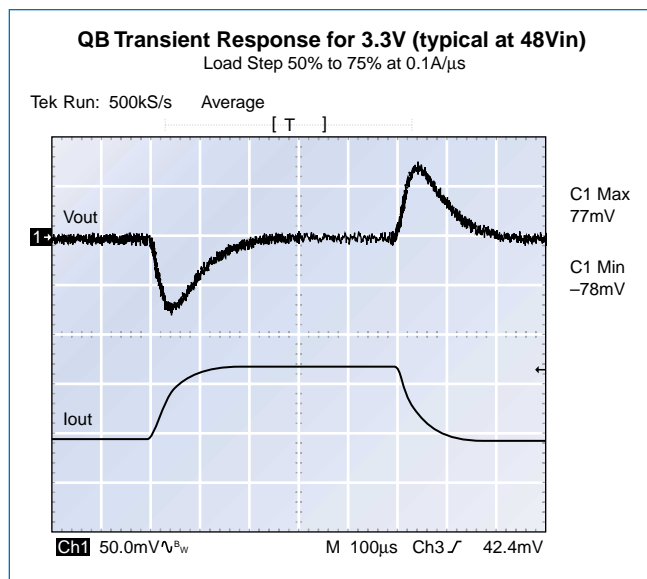
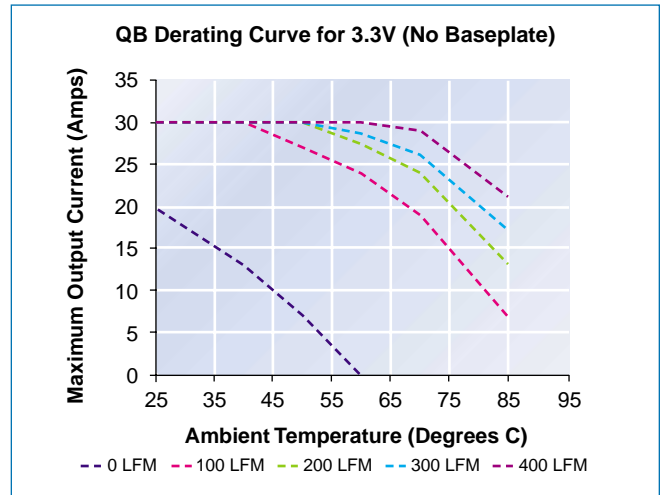
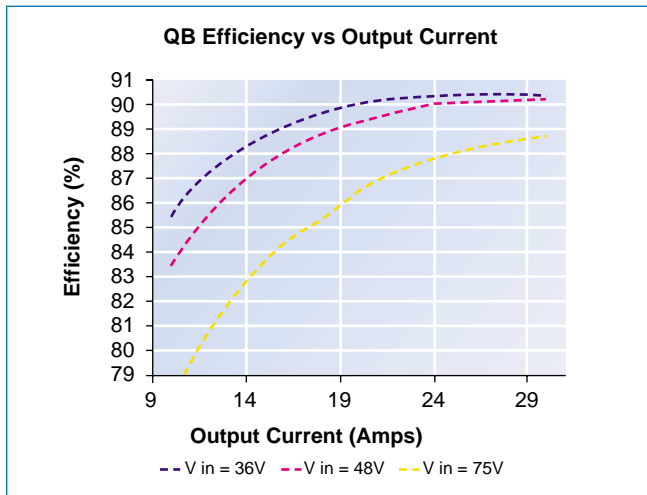
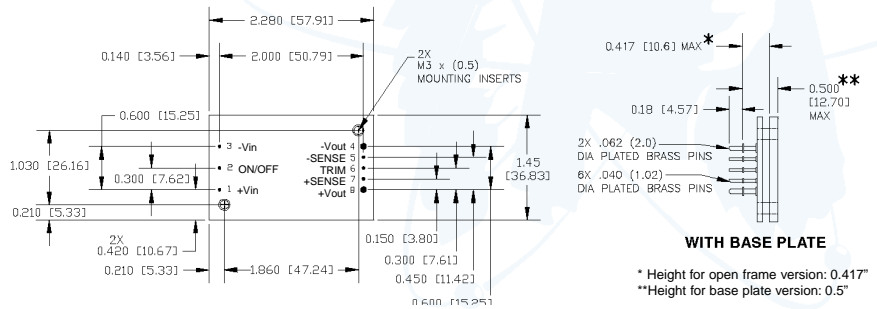
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### Apollo Model Selection Guide



Example: QB3048A1-1A  
3.3Vout, Open Frame, Positive Logic

### Outline Drawing



Cherokee reserves the right to make changes to the product described without notice. No liability is assumed as a result of its use nor for any infringement on the rights of others.

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