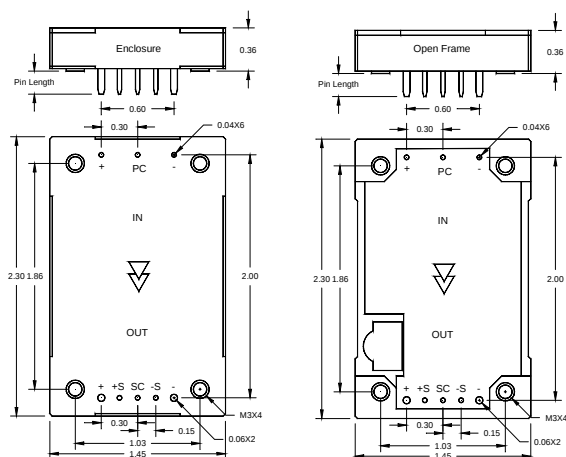




The CBQ series provides up to 125W/25A outputs with industry standard quarter brick package. The efficient SR stage combining with patented "Buck Reset" topology reduce power loss to achieve 104W/in³ power density, the 90% efficiency; creative design technology and highly thermal conductivity IMS base-plate eliminate the hot spot gives converter better thermal performance. Modules are designed for Telecom, Servers, Networking equipments and other applications that use a 24V or 48V (36~75V) input bus.

Part Number *	Maximum Input	Maximum Output	Efficiency
CBQ10048S5V0-LABC	36V~75V	141W 5.0V/25A 125W	90%
CBQ10048S3V3-LABC	36V~75V	95W 3.3V/25A 83W	89%
CBQ10048S2V5-LABC	36V~75V	74W 2.5V/25A 63W	87%
CBQ10048S2V0-LABC	36V~75V	59W 2.0V/25A 50W	85%
CBQ10048S1V8-LABC	36V~75V	54W 1.8V/25A 45W	85%
CBQ10048S1V5-LABC	36V~75V	46W 1.5V/25A 38W	83%

* Options for **CBQ Series** are as follows:

A (Enable Logic): **P**: Positive **N**: Negative.
B (Pin Dimension): **0**: 0.12" **1**: 0.16" **2**: 0.20" **3**: 0.24"
C (Package Option): **E**: Enclosure with silicone potting **O**: Open frame



Example: **CBQ10048S5V0-LP2E** is a **CBQ** series quarter brick size 48V to 5.0V/25A dc/dc converter with options of positive control logic, 0.20" pin length and metal enclosure with silicone potting.

ABSOLUTE MAXIMUM RATINGS

Temperature	Operation	-40°C to +120°C
	Storage	-55°C to +125°C
Input Voltage Range	Operation:	
	24V Models	-0.5V to +40Vdc
	48V Models	-0.5V to +80Vdc
	Transient (100mS):	
	24V Models	50V Maximum
	48V Models	100V Maximum
Isolation Voltage	Input to Output	1.5KV Minimum
	Input to Case	1.0KV Minimum
	Output to Case	1.0KV Minimum
Remote Control Voltage		-0.5V to +12Vdc

GENERAL SPECIFICATIONS

Conversion Efficiency	Typical	See table
Switching Frequency	Typical	300KHz
MTBF	Bellcore	4.94×10 ⁶ hrs @GB.
OTP	Internal	115°C
Weight		1.1 oz or 1.9 oz
Size		2.30"×1.45"×0.36"

CONTROL FUNCTIONS

Remote Control	Logic High	+3.0V to +6.5V
	Logic Low	0V to +1.0V
Input Current of Remote Control Pin		-0.5mA ~ +1.5mA

INPUT SPECIFICATIONS

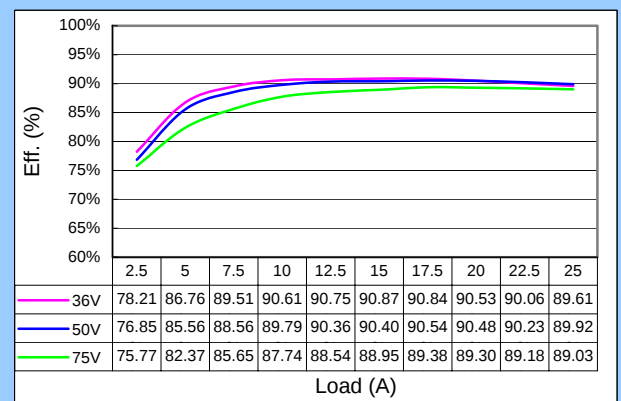
Operation Voltage Range	24V Models	+18V to +36Vdc
	48V Models	+36V to +75Vdc
Reflected Ripple Current	L _{EXT} = 10uH	20mA Max
Power ON Voltage Ranges	24V Models	+17.5V to +17.9Vdc
	48V Models	+35.0V to +35.8Vdc
Power OFF Voltage Ranges	24V Models	+17.0V to +17.4Vdc
	48V Models	+34.0V to +34.8Vdc
Off State Input Current	V _{NOM}	6mA Max
Latch-State Input Current	V _{NOM}	8mA Max
Input Capacitance	24V Models	33.0uF Max
	48V Models	6.8uF Max

OUTPUT SPECIFICATIONS

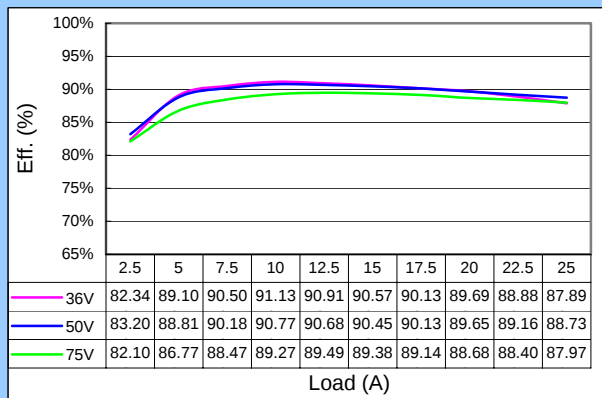
Voltage Accuracy	Typical	±1%
Line Regulation	Full Input Range	±0.2%
Load Regulation	10%~100%	±0.2%
Temperature Drift	-40°C ~100°C	±0.02%/°C
Output Tolerance Band	All Conditions	±3%
Ripple & Noise (20MHz)	Peak-Peak (RMS)	3% (1%) V _o
Over Voltage Protection	V _{NOM} , 10% Load	115~130 %Vo
Output Current Limits	V _{NOM}	105%~125%
Voltage Trim	V _{NOM} , 10% Load	±10%
Input Ripple Rejection (<1KHz)	V _{NOM} , Full Load	-50dB
Step Load (2.5A/uS)	50%~75% Load	300mV/500uS
Start-Up Delay Time	V _{NOM} , Full Load	20mS/250mS



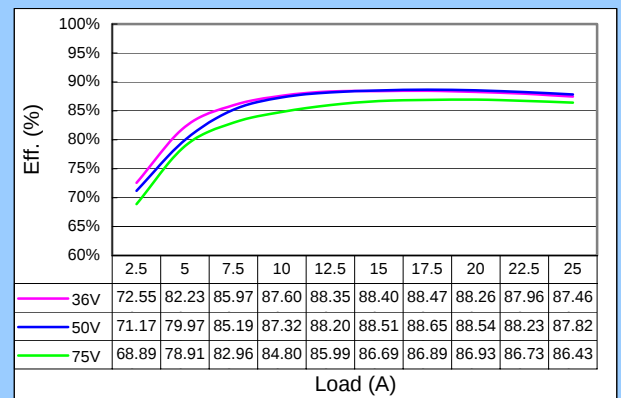
- High efficiency 90%@5.0V/25A
..... 89%@3.3V/25A
..... 85%@1.8V/25A
- High useable current (with no heat sink)
..... 5.0V/19A at 50°C 200LFM
..... 3.3V/25A at 50°C 200LFM
..... 1.8V/25A at 65°C 200LFM
- Open frame and metal enclosed package



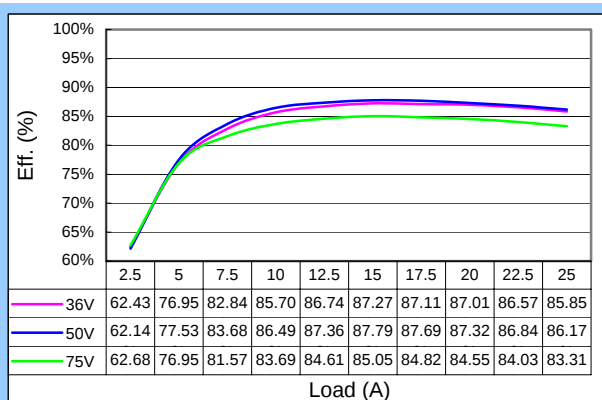
Efficiency Plot of CBQ48S050-LABC



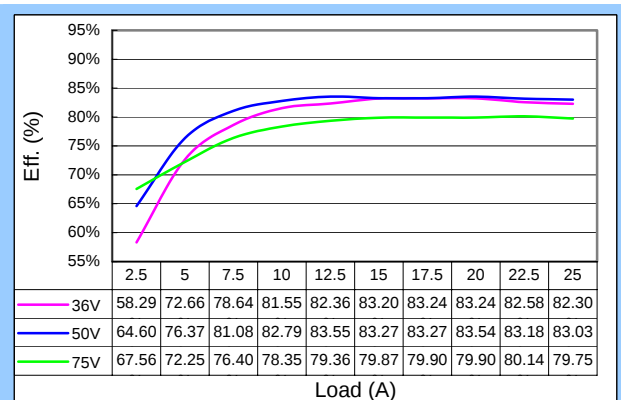
Efficiency Plot of CBQ48S033-LABC



Efficiency Plot of CBQ48S025-LABC



Efficiency Plot of CBQ48S018-LABC



Efficiency Plot of CBQ48S015-LABC

NOTE

1. 20MHz bandwidth current probe measured without an external filter.
2. Output ripple and noise is measured by using the proposed test method of Glary Power Technology Co. Ltd.
3. Input fusing is required and recommended to base on surge current and maximum input current.
4. Case and base-plate should be connected to AC ground to maintain good EMC performance.
5. Case and base-plate should be inaccessible to prevent the damage from highly operating temperature.
6. Contact Glary Power Technology for non-standard inquiry.