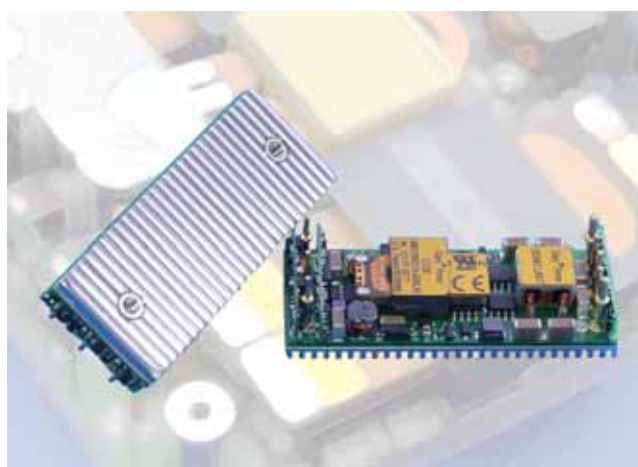


The COE series provides up to 132W/50A outputs with industry standard eighth brick package. The efficient SR stage combining with patented "Buck Reset" topology reduce power loss to achieve 177W/in³ power density, the single component side board designed with Sink-Plate technology eliminate the hot spot 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.



- High efficiency 91%@5.0V/25A
..... 89%@2.5V/40A
..... 87%@1.8V/50A
- High useable current (with 5.0mm sink-Plate)
..... 2.5V/21A at 70°C 200LFM
..... 1.8V/25A at 70°C 200LFM
..... 1.5V/25A at 70°C 200LFM
- Sink-Plate (SP) flexible thermal managing capability (see drawing)

Part Number *	Maximum Input	Maximum Output	Efficiency
COE48120ABCD-EF	36V~75V	145W	12.0V/11A 132W 92%
COE48050ABCD-EF	36V~75V	138W	5.0V/25A 125W 91%
COE48033ABCD-EF	36V~75V	111W	3.3V/30A 99W 90%
COE48025ABCD-EF	36V~75V	114W	2.5V/40A 100W 89%
COE48018ABCD-EF	36V~75V	106W	1.8V/50A 90W 87%
COE48015ABCD-EF	36V~75V	90W	1.5V/50A 75W 85%

Part Number *	Maximum Input	Maximum Output	Efficiency
COE24120ABCD-EF	18V~36V	133W	12.0V/10A 120W 91%
COE24050ABCD-EF	18V~36V	139W	5.0V/25A 125W 90%
COE24033ABCD-EF	18V~36V	111W	3.3V/30A 99W 89%
COE24025ABCD-EF	18V~36V	114W	2.5V/40A 100W 89%
COE24018ABCD-EF	18V~36V	106W	1.8V/50A 90W 87%
COE24015ABCD-EF	18V~36V	90W	1.5V/50A 75W 85%

* Options for **COE Series** are listed 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 (Standoff Height): **0**: 0.02" **1**: 0.08" **2**: 0.16"
D (Base-Plate/Module Thickness): **M**: 1.0mm Metal Plate/0.34" **A**: 3.0mm Sink-Plate/0.42" **B**: 5.0mm Sink-Plate/0.50"
EF (Output): **00** to **99** for output current rating

Example: **COE48033N00A-30** is a **COE** series eighth brick 48V to 3.3V/30A dc/dc converter with negative control logic, 0.12" pin length, 0.02" of standoff height and 3.0mm Sink-Plate. The total height of this module is 0.02"+0.42"=0.44"

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	2.0KV Minimum
	Input to Case	1.0KV Minimum
	Output to Case	1.0KV Minimum
Remote Control Voltage		-0.5V to +12Vdc

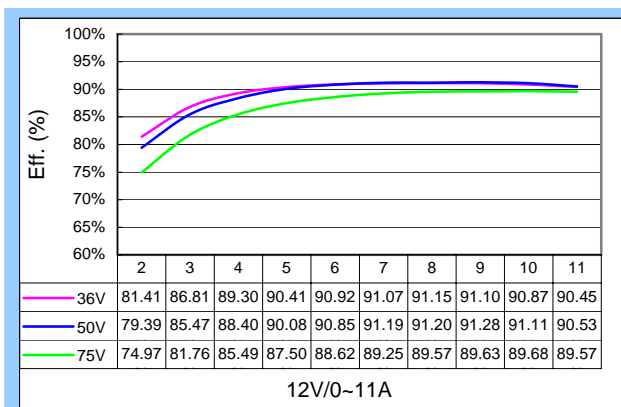
GENERAL SPECIFICATIONS		
Conversion Efficiency	Typical	See table
Switching Frequency	Typical	300KHz
MTBF	Bellcore	4.94×10 ⁶ hrs @GB.
OTP	Internal	115°C
Weight		1.0 oz
Size		2.30"x0.9"x0.36"

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

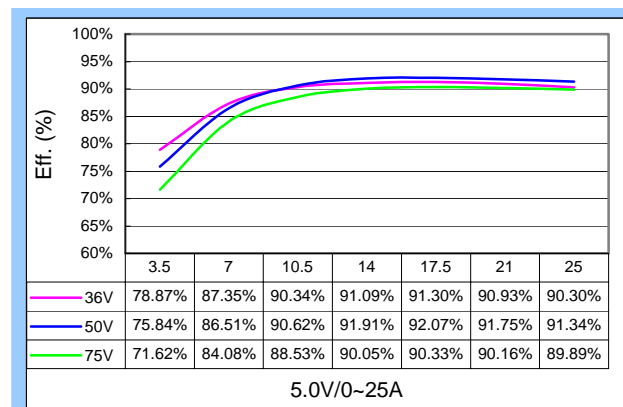
INPUT SPECIFICATIONS		
Operation Voltage Range	24V Models	+18V to +36Vdc
	48V Models	+36V to +75Vdc
Reflected Ripple Current	L _{EXT} = 10uH	20mA Max
Power ON Voltage Ranges	24V Models	+17.5V to +17.9Vdc
	48V Models	+35.0V to +35.8Vdc
Power OFF Voltage Ranges	24V Models	+17.0V to +17.4Vdc
	48V Models	+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

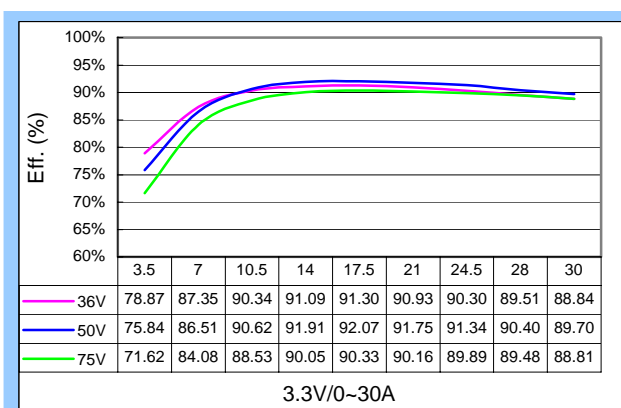




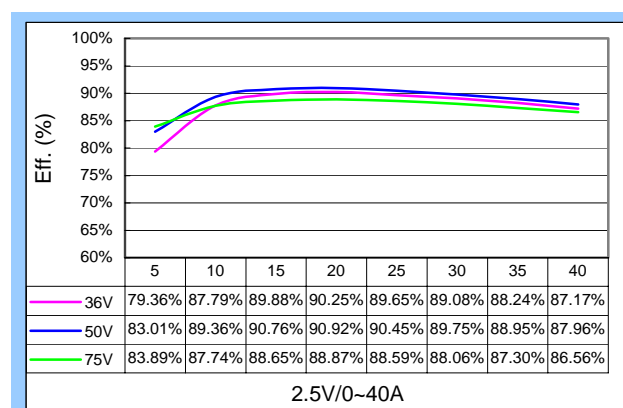
Efficiency Plot of COE48120ABCD-11



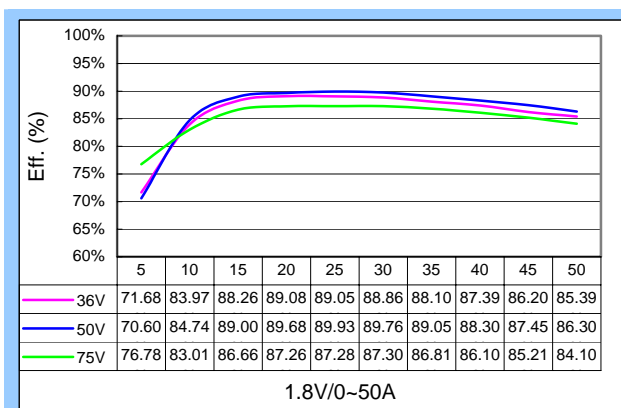
Efficiency Plot of COE48050ABCD-25



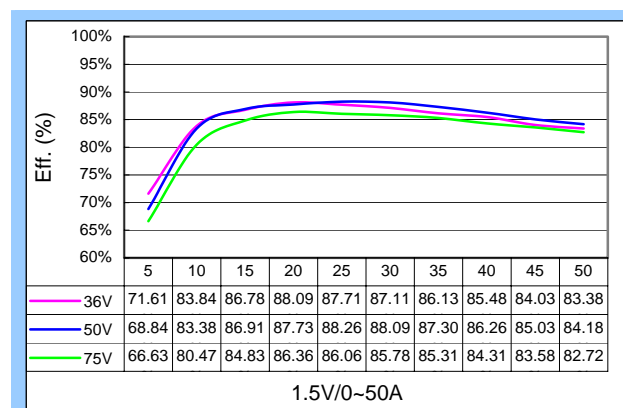
Efficiency Plot of COE48033ABCD-30



Efficiency Plot of COE48025ABCD-40



Efficiency Plot of COE48018ABCD-50



Efficiency Plot of COE48015ABCD-50

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.