CHE75W SERIES

75 WATT 4:1 INPUT DC-DC CONVERTERS SINGLE OUTPUT

FEATURES

* 75W Isolated Output
* Half-Brick Size, Six-Sided Shield Metal Case
* High Efficiency up to 92%
* Regulated Outputs
* 4 : 1 Input Range
* 250KHz Switching Frequency
* Continuous Short Circuit Protection
* Input under-voltage Protection
* Over Temperature/Voltage/Current Protection
* Remote ON/OFF
* Full Load Operation up to 65℃
  with Heat-sink M-C092 Natural Convention
* No Tantalum Capacitor Inside
* CE Mark Meets 2004/108/EC
* Safety Meets UL60950-1, EN60950-1, and IEC60950-1

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		EFF.(%)		CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD	(4)	(3)	
CHE75W-24S3V3	9-36 VDC	3.3 VDC	0mA	20A	200mA	3.14A	86	87.5	20000μF
CHE75W-24S05	9-36 VDC	5.0 VDC	0mA	15 A	200mA	3.47A	90	90	15000μF
CHE75W-24S12	9-36 VDC	12 VDC	0mA	6.25 A	200mA	3.43A	90.5	91	6250μF
CHE75W-24S15	9-36 VDC	15 VDC	0mA	5 A	150mA	3.43A	91	91	5000μF
CHE75W-24S24	9-36 VDC	24 VDC	0mA	3.12 A	100mA	3.49A	90	89.5	3130uF(2)
CHE75W-24S48	9-36VDC	48 VDC	0mA	1.56 A	100mA	3.53A	89.5	88.5	1560μF(2)
CHE75W-48S3V3	18-75VDC	3.3 VDC	0mA	20A	150mA	1.55A	87	88.5	20000μF
CHE75W-48S05	18-75VDC	5.0 VDC	0mA	15 A	150mA	1.70A	92	92	15000μF
CHE75W-48S12	18-75VDC	12 VDC	0mA	6.25 A	100mA	1.70A	92	92	6250μF
CHE75W-48S15	18-75VDC	15 VDC	0mA	5 A	100mA	1.70A	91.5	92	5000uF
CHE75W-48S24	18-75VDC	24 VDC	0mA	3.12 A	100mA	1.73A	91	90	3130μF(2)
CHE75W-48S48	18-75VDC	48 VDC	0mA	1.56 A	100mA	1.73A	91.5	90	1560μF(2)

NOTE : 1. Nominal Input Voltage 24, 48 VDC
2. Require a 10uF Aluminum Capacitor Connected Between +Vout and –Vout for 24 & 48Vout Models.
3. Measured at Nominal Input Voltage.
4. Measured at 12VDC for 24SXX, 24VDC for 48SXX.

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25℃ Unless Otherwise Noted

INPUT SPECIFICATIONS:

Input Voltage Range..... 24V..... 9-36V
48V..... 18-75V
Input Surge Voltage (100ms max.).....24V..... 50Vdc max
48V.....100Vdc max
Under voltage lockout ..... 24Vin power up 8.8V
24Vin power down 8.0V
48Vin power up 17V
48Vin power down 16V
Positive Logic Remote ON/OFF (see note 4 & 5)
Input Filter ..... PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy : ..... ±1.5% max.
Transient Response:25% Step Load Change .....<500u sec.
External Trim Adj. Range .... ±10%
Ripple & Noise, 20MHz BW (see note 3)
3.3V & 5V .....40mV RMS, 100mV pk-pk max.
12V & 15V.....60mV RMS, 120mV pk-pk max.
24V .....100mV RMS, 240mV pk-pk max.
48V .....200mV RMS, 480mV pk-pk max.
Temperature Coefficient..... ±0.03%/°C
Short Circuit Protection.....Continuous
Line Regulation(1) ..... ±0.2% max.
Load Regulation(2) ..... ±0.2% max.
Over Voltage Protection trip Range ,% Vo nom. 115-140%
Current Limit .....110% ~140% Nominal Output
Start up time.....10ms typ

GENRAL SPECIFICATIONS:

Efficiency.....See Table
Isolation Voltage .....Input/Output..... 1500VDC min.
Input/Case.....1500VDC min.
Output/Case..... 1500VDC min.
Isolation Resistance ..... 10^7 ohm min.
Isolation Capacitance.....1000pF Typ
Switching Frequency .....250KHz, Typ.
Operating Case Temperature ..... -40℃ to 100℃
Storage Temperature ..... -55℃ to +105℃
Thermal Shutdown, Case Temp. ..... 110℃ Typ.
Humidity .....95% RH max. Non condensing
MTBF .....MIL-STD-217F, GB, 25℃, Full Load.....T.B.D. hrs
Dimensions .....2.28×2.40x0.50 inches (57.9x61.0×12.7 mm)
Case Material ..... Aluminum with Non-Conducted Base
Weight ..... 95 g

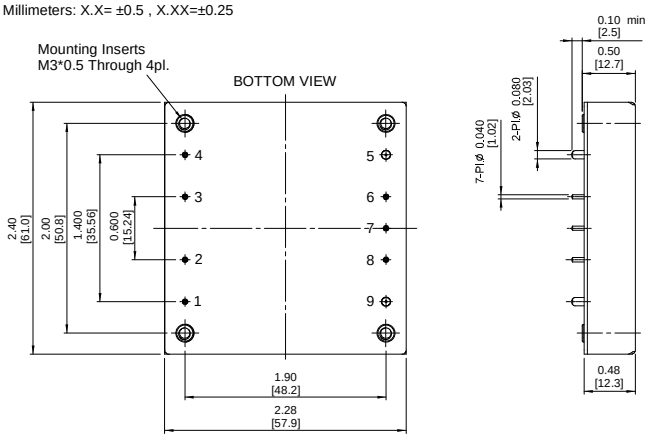
NOTE :

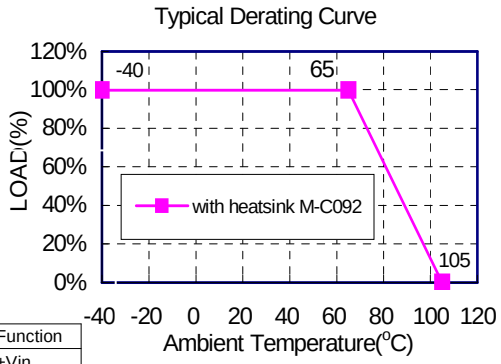
1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. Output Ripple and Noise measured with 10uF tantalum and 1uF ceramic capacitor across output
4. Logic Compatibility ..... Open Collector ref to -Input
   Module ON ..... >3.5Vdc to 75Vdc or Open Circuit
   Module OFF ..... < 1.2Vdc
5. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
   Module ON ..... < 1.2Vdc
   Module OFF ..... >3.5Vdc to 75Vdc or Open Circuit

CASE HB

Revision History

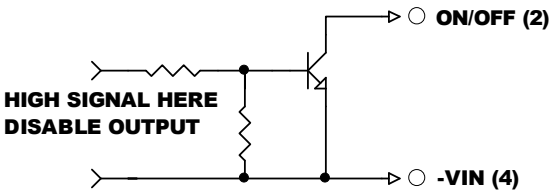
CASE HB
All Dimensions In Inches(mm)
Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
Millimeters: X.X= ±0.5 , X.XX=±0.25





Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM