

D H Q B 1 5 0

S E R I E S

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150 Watts Quarter Brick Type 2:1 High Input Voltage Isolated DC - DC Converters

FEATURES

- ◆ Fully Protected (OTP/OCP/OVP/Short circuit)
- ◆ 3000VAC I/O Isolation / Regulated Outputs
- ◆ Fixed 360KHz Switching Frequency
- ◆ Shock & Vibration Meets EN50155 (EN61373)
- ◆ Fire & Smoke Meets EN45545-2
- ◆ Low No Load Power Consumption
- ◆ -55°C Operating Available (Suffix "L")

SPECIFICATIONS

Input Voltage Range.....300V(Range 180-425V)
Undervoltage lockout ... power up: 170VDC / power down: 130VDC
Positive Logic Remote On/Off Logic.....See note
Input Filter.....Pi Typ.
Voltage Accuracy..... $\pm 1\%$ max.
External Load CapacitanceSee Model Number Table
External Trim Adj. Range..... $\pm 10\%$, -20%
R & N (20MHz BW).....5V: 60mV RMS, 100mVpK-pK max.
12 & 15V: 60mV RMS, 150mVpK-pK max.
24 & 28V: 100mV RMS, 280mVpK-pK max.
48V: 200mV RMS, 480mVpK-pK max.
Temperature Coefficient..... $\pm 0.02\%/^{\circ}\text{C}$ max.
Short Circuit Protection.....Continuous
Line Regulation (High Line to Low Line)..... $\pm 0.2\%$ max.
Load Regulation (Full Load to Zero Load)..... $\pm 0.2\%$ max.
OVP Trip Range, % Vo Nom.....115~140%
Current Limit.....110%~160% Nominal Output
Isolation Voltage..... Input to Output.....3000Vac
Input to Case(Base Plate).....2500Vac
Output to Case(Base Plate).....500Vac
Isolation Resistance.....100M Ω min.
Operating Case Temperature.....-40°C To +105°C
Storage Temperature Range.....-55°C To +105°C
Thermal Shutdown case Temperature..... 110°C
Case Material.....Aluminum Baseplate w/plastic Case

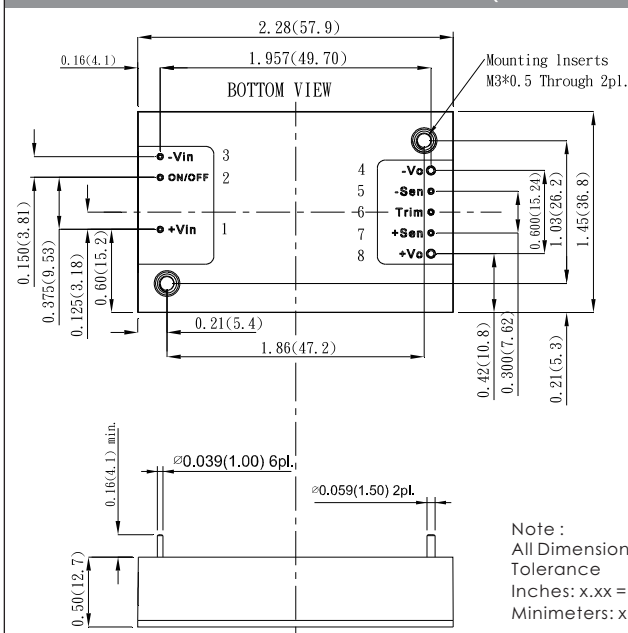


Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	No Load Input Current	EFF. Typ. %	Capacitor Load Max.
DHQB150-C1xyz	180-425	5	30.0	10mA	86.0	10000 μF
DHQB150-C2xyz	180-425	12	12.5	10mA	89.0	8800 μF
DHQB150-C3xyz	180-425	15	10.0	10mA	89.0	8800 μF
DHQB150-C9xyz	180-425	24	6.3	10mA	88.5	3300 μF
DHQB150-C9Cxyz	180-425	28	5.4	10mA	88.5	3300 μF
DHQB150-C9Bxyz	180-425	48	3.2	10mA	89.0	1000 μF

Note:

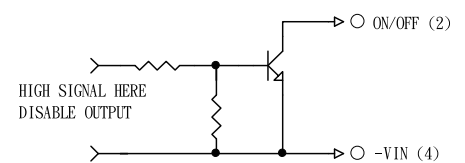
1. Measure at Nominal Input Voltage 300 VDC.
2. Require a Disc Ceramic Capacitor 1500pF (Type KX Class X1 Y1 Series Murata) Connected Between -Vin to Case for All Models.
3. An External Input Capacitor 68 μF for All Models are Recommended to Reduce Input Ripple Voltage.
4. Output Ripple & Noise Measured with 10 μF Aluminum & 1 μF Ceramic Capacitor Across for Output 48Vout and With 10 μF Tantalum & 1 μF Ceramic Capacitor for Others
5. Remote ON/OFF Logic Compatibility.....Open collector Ref. To -V Pin
Suffix **x** = blank stands for Positive Remote Logic.
Logic Low (Module OFF)..... $< 1.2\text{V}$
Logic High (Module ON)..... Open circuit 3.5~75V
Suffix **x** = N, Negative Remote Logic.
Logic High (Module OFF)..... Open circuit 3.5~75V
Logic Low (Module ON)..... $< 1.2\text{V}$
Suffix **y** = blank stands for M3x0.5 mounting inserts
Suffix **y** = C stands for Clear mounting insert (3.2mm DIA)
Suffix **z** = blank stands for -40~105°C operating temp.
Suffix **z** = L stands for -55~105°C operating temp.

MECHANICAL DRAWING (Unit: inch(mm))

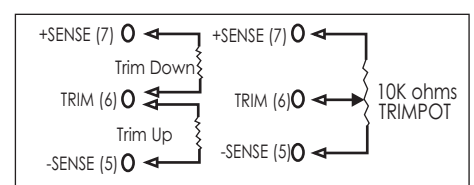


PIN	Function
1	+V Input
2	On/Off
3	-V Input
4	-V Output
5	-Sense
6	Trim
7	+Sense
8	+V Output

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM



Your Smart Choice in Power

Quality Products , Fast response , Low cost