

e D H Q B 1 5 0

S E R I E S



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

SPECIFICATIONS

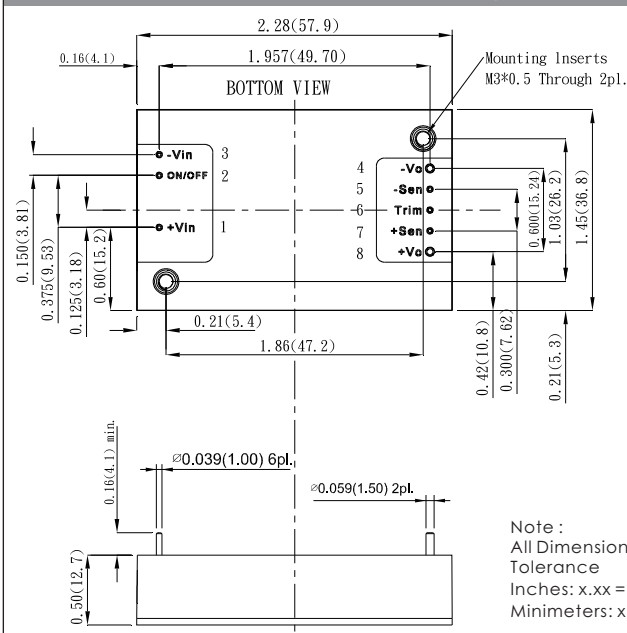
Input Voltage Range.....300V(Range 180-425V)
 Undervoltage lockout ... power up: 170VDC / power down: 130VDC
 Positive Logic Remote On/Off Logic.....See note
 Input Filter.....Pi Type
 Voltage Accuracy.....±1% max
 External Load Capacitance.....See Model Number Table
 External Trim Adj. Range.....+10%, -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.....± 0.02%/°C max
 Short Circuit Protection.....Continuous
 Line Regulation (High Line † Low Line).....± 0.2% max.
 Load Regulation (Full Load to Zero Load).....± 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.
eDHQB150-C1	180-425	5	30.0	10mA	86.0	10000µF
eDHQB150-C2	180-425	12	12.5	10mA	89.0	8800µF
eDHQB150-C3	180-425	15	10.0	10mA	89.0	8800µF
eDHQB150-C9	180-425	24	6.3	10mA	88.5	3300µF
eDHQB150-C9C	180-425	28	5.4	10mA	88.5	3300µF
eDHQB150-C9B	180-425	48	3.2	10mA	89.0	1000µF
eDHQB150-C1N	180-425	5	30.0	10mA	86.0	10000µF
eDHQB150-C2N	180-425	12	12.5	10mA	89.0	8800µF
eDHQB150-C3N	180-425	15	10.0	10mA	89.0	8800µF
eDHQB150-C9N	180-425	24	6.3	10mA	88.5	3300µF
eDHQB150-C9CN	180-425	28	5.4	10mA	88.5	3300µF
eDHQB150-C9BN	180-425	48	3.2	10mA	89.0	1000µF

Note:

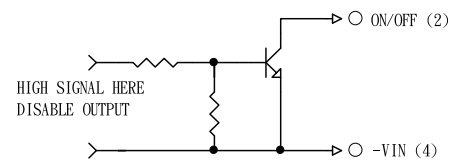
1. Measure at Nominal Input Voltage 300 VDC.
2. Require a Disc Ceramic Capacitor 1500pF(Type KX Class X1 Y1Series Murata) Connected Between -Vin to Case for All Models.
3. An External Input Capacitor 68µF for All Models are Recommended to Reduce Input Ripple Voltage.
4. Output Ripple & Noise Measured with 10µF Aluminum & 1µF Ceramic Capacitor Across for Output 48Vout and With 10µF Tantalum & 1µF Ceramic Capacitor for Others
5. Remote ON/OFF Logic Compatibility.....Open collector Ref. To -V Pin
 Suffix = Blank, Positive Remote Logic.
 Logic Low (Module OFF).....< 1.2V
 Logic High (Module ON)..... Open circuit 3.5~75V
 Suffix = N, Negative Remote Logic.
 Logic High (Module OFF)..... Open circuit 3.5~75V
 Logic Low (Module ON).....< 1.2V

MECHANICAL DRAWING (Unit: inch(mm))

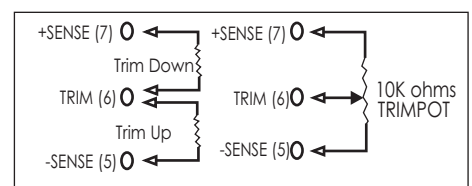


PIN CONNECTION	
PIN	Function
1	+V Input
2	On/Off
3	-V Input
4	-V Output
5	-Sense
6	Trim
7	+Sense
8	+V Output

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM



Note:
 All Dimensions in Inches [mm]
 Tolerance
 Inches: x.xx = ±0.02, x.xxx = ±0.010
 Millimeters: x.x = ±0.5, x.xx = ±0.25