

30-50 Watts Quarter Brick Type 12:1 High Input Voltage Isolated DC - DC Converters

FEATURES

- ♦ Fully Protected (OTP/OCV/OVP/UVLO) / 5000m Operating Altitude
- ♦ 3000Vac I/O Isolation / Regulated Outputs / Low No Load Consumption
- ♦ Fixed 240KHz Switching Frequency
- ♦ Shock & Vibration EN50155 (EN61373) Compliant
- ♦ Fire & Smoke EN45545-2 Compliant
- ♦ EN50155 Compliant With External Circuit

SPECIFICATIONS

Input Voltage Range 72V(Range 14-160V)
Undervoltage lockout Turn-on: 14.2~15VDC
Turn-off: 11.6~12.4VDC
Lockout Hysteresis: 2.6VDC

Remote On/Off Logic See note
Input Filter.....Pi Type
Voltage Accuracy..... $\pm 1\%$ max
External Load CapacitanceSee Model Number Table
Output Voltage Trim Range -20~+10%
R & N(5~20MHz BW) 100mVpK-pK max, 40mV/RMS
Temperature Coefficient $\pm 0.02\%/^{\circ}\text{C}$ max
Short Circuit Protection Continuous, Auto Recovery
Line Regulation (High line to Low line)..... $\pm 0.2\%$ max
Load Regulation (Full load to No Load)..... $\pm 0.2\%$ max
Over Voltage Protection 115~140%
OCP(Hiccup mode, Auto Recovery) 110~220%
Isolation Voltage Input to Output.....3000Vac
Input to Case(Base Plate).....2500Vac
Output to Case(Base Plate).....500Vac

Isolation Resistance.....200M Ω min
Operating Case Temperature.....-40°C To +100°C
Storage Temperature Range.....-55°C To +125°C
Over Temperature Shutdown, Recovery110°C , 100°C
Case Material.....Aluminum Baseplate w/plastic Case

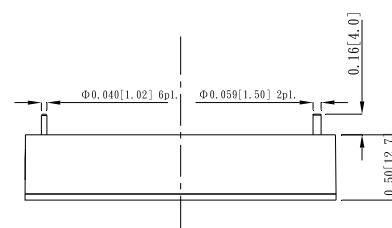
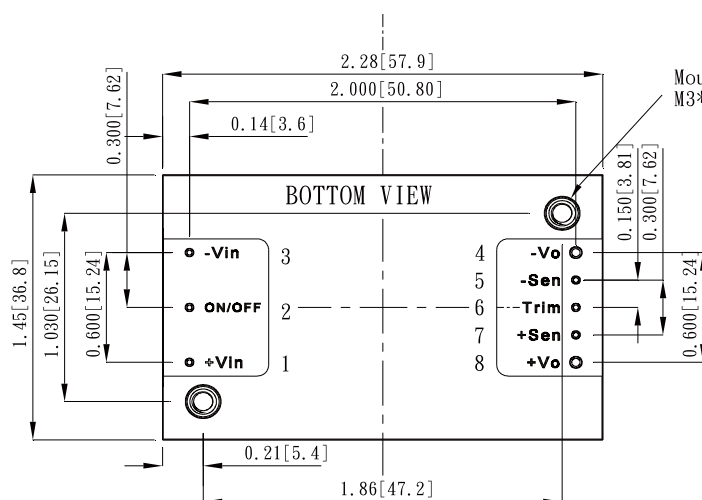


Model Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (A)	No Load Input Current	EFF. Typ. %	Capacitor Load Max.
DUQB050-91	14-160	5	6.0	5mA	83	10000 μF
DUQB050-92	14-160	12	4.2	5mA	87	6800 μF
DUQB050-99	14-160	24	2.1	5mA	89	3000 μF
DUQB050-99B	14-160	48	1.05	8mA	88	680 μF
DUQB050-91N	14-160	5	6.0	5mA	83	10000 μF
DUQB050-92N	14-160	12	4.2	5mA	87	6800 μF
DUQB050-99N	14-160	24	2.1	5mA	89	3300 μF
DUQB050-99BN	14-160	48	1.05	8mA	88	680 μF

Note

1. Nominal Input Voltage 72 VDC
2. An External Input Capacitor 68 μF for All Models are Recommended to Reduce Input Ripple Voltage
3. All Specifications are Typical at Nominal Input, Full Load at 25°C Unless Otherwise Noted.
4. Ripple and Noise are Measured at Full load, 22 μF aluminum solid capacitor and 1 μF ceramic capacitors
5. Remote ON/OFF Logic Compatibility.....Open collector Refer To -V Pin
Suffix = Blank, Positive Remote Logic.
Logic Low (Module OFF)..... 0 to < 1.2V
Logic High (Module ON)..... 3.5 to < 160V
Suffix = N, Negative Remote Logic.
Logic High (Module OFF)..... 4.0 to < 160V
Logic Low (Module ON)..... 0 to < 1.2V

MECHANICAL DRAWING (Unit: inch(mm))



Note : All Dimensions in Inches [mm]

Tolerance : Inches : x.xx = 0.02 , x.xxx = 0.010 ; Minimeters : x.x = 0.5 , x.xx = 0.25

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