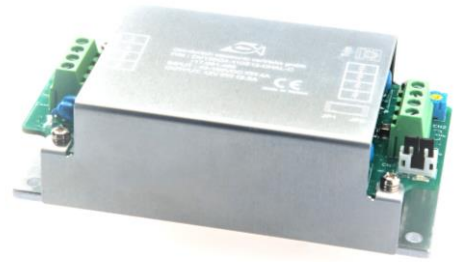




**150 Watt, 43 – 160VDC Wide Input  
DC/DC Converters  
Series DV150Q4-110-CHAL ( Chassis Mount )**



**Features**

- 150 Watt Isolated Output
- Regulated Outputs
- 4 : 1 Wide Input Range
- Fixed Switching Frequency
- Remote ON/OFF
- Shock & Vibration: Meets EN50155 (EN61373)
- Safety Meets UL/EN/IEC60950-1
- Approval UL60950-1 2<sup>nd</sup> (Basic Insulation)
- Build-In EMI Filter
- Efficiency to 91%
- Continuous Short Circuit Protection
- Over Temperature Protection
- Over Voltage / Current Protection
- Low No Load Power Consumption
- EMC: EN50155:2007, Environmental and Characteristic
- Meets Fire & Smoke EN45545-2

MODEL NUMBER	INPUT VOLTAGE [ VDC ]	OUTPUT VOLTAGE [ VDC ]	OUTPUT CURRENT Max. [ A ]	INPUT CURRENT NO LOAD [ mA ]	INPUT CURRENT FULL LOAD [ A ]	EFF. [ % ]	CAP. LOAD Max. [ µF ]	CASE
DV150Q4-110S3,3-CHAL	43 – 160	3,3	30	15	1,03	87	30000	Alu-Base
DV150Q4-110S05-CHAL		5	30	15	1,53	89	30000	
DV150Q4-110S12-CHAL		12	12,5	15	1,50	91	12500	
DV150Q4-110S15-CHAL		15	10	15	1,50	91	10000	
DV150Q4-110S24-CHAL		24	6,3	15	1,56	88	6300	
DV150Q4-110S28-CHAL		28	5,4	15	1,56	88	5400	
DV150Q4-110S48-CHAL		48	3,2	15	1,56	89	1000	
DV150Q4-110S3,3-CHAL-C	43 – 160	3,3	30	15	1,03	87	30000	Alu-Base With Cover
DV150Q4-110S05-CHAL-C		5	30	15	1,53	89	30000	
DV150Q4-110S12-CHAL-C		12	12,5	15	1,50	91	12500	
DV150Q4-110S15-CHAL-C		15	10	15	1,50	91	10000	
DV150Q4-110S24-CHAL-C		24	6,3	15	1,56	88	6300	
DV150Q4-110S28-CHAL-C		28	5,4	15	1,56	88	5400	
DV150Q4-110S48-CHAL-C		48	3,2	15	1,56	89	1000	

NOTE:  
1. Nominal Input Voltage 110 Vdc

## INPUT SPECIFICATIONS:

Input Voltage Range.....	110V	43-160V
Input Surge Voltage (100ms max.).....	110V	200Vdc max.
Undervoltage lockout:.....	110Vin power up	41,5V
	110Vin power down	38,5 V
Positive Logic Remote ON/OFF .....		see note 2 & 3

## OUTPUT SPECIFICATION:

Output Current Min.....		0 mA
Voltage Accuracy.....		±1,0%max.
Transient Response: 25% Step Load Change.....		<250µ sec.
Trim Adj. Range (By VR1 ).....		±10%
Ripple and Noise, 20 MHz BW ( Note 8 )		
3,3V & 5V & 12V .....		40mV RMS / 100mV pk-pk max.
24V & 28V .....		100mV RMS / 280mV pk-pk max.
48V .....		150mV RMS / 300mV pk-pk max.
Temperature Coefficient.....		±0,02%/°C max.
Short Circuit Protection .....		Continuous
Line Regulation ( From High Line to Low Line ) .....		±0,2% max.
Load Regulation ( From Full Load to Zero Load ) .....	5V	±0,5% max.
	Others	±0,2% max.
Over Voltage Protection trip Range, % Vo nom .....		115-140%
Current Limit .....		110-160% Nominal Output
Start up Time .....		100ms typ.
Hold up Time .....		See Application Note

## GENERAL SPECIFICATIONS:

Efficiency .....		See Table
Isolation Voltage.....	Input/Output.....	3000 VDC min.
	Input/Case.....	2250 VDC min.
	Output/Case.....	500 VAC min.
Isolation Resistance .....		10 <sup>8</sup> Ohm min.
Isolation Capacitance (DC Module) .....		1500pF typ.
Switching Frequency .....		300 KHz typ.
Operating Case Temperature Range .....		-40°C to +100°C
Storage Temperature Range .....		-55°C to +105°C
Thermal Shutdown, Case Temp (DC Module) .....		110°C typ.
Humidity .....		95% RH max. Non condensing
MTBF 25°C ( MIL-HDBK-217F, GB ).....		600Khrs typ.
Safety Meet.....		UL60950-1
EMC Meet .....	EN50155 ( EN50121-3-2:2008 ) / with External Output Filter EN50155 ( EN50121-3-2:2015 )	
Shock/Vibration Meet .....		EN50155 ( EN61373 )
Environmental Meet .....		EN50155 ( EN60068-2-1,2,30 )
Dimensions .....	CHAL .....	116,8 x 61,0 x 32,0 mm
	CHAL-C.....	116,8 x 63,4 x 34,2 mm
Material .....	CHAL .....	Aluminum Base
	CHAL-C.....	Aluminum Base and Aluminum Cover
Weight.....	CHAL .....	215g
	CHAL-C.....	300g

### NOTE:

2. Positive Logic Remote ON/OFF:
 

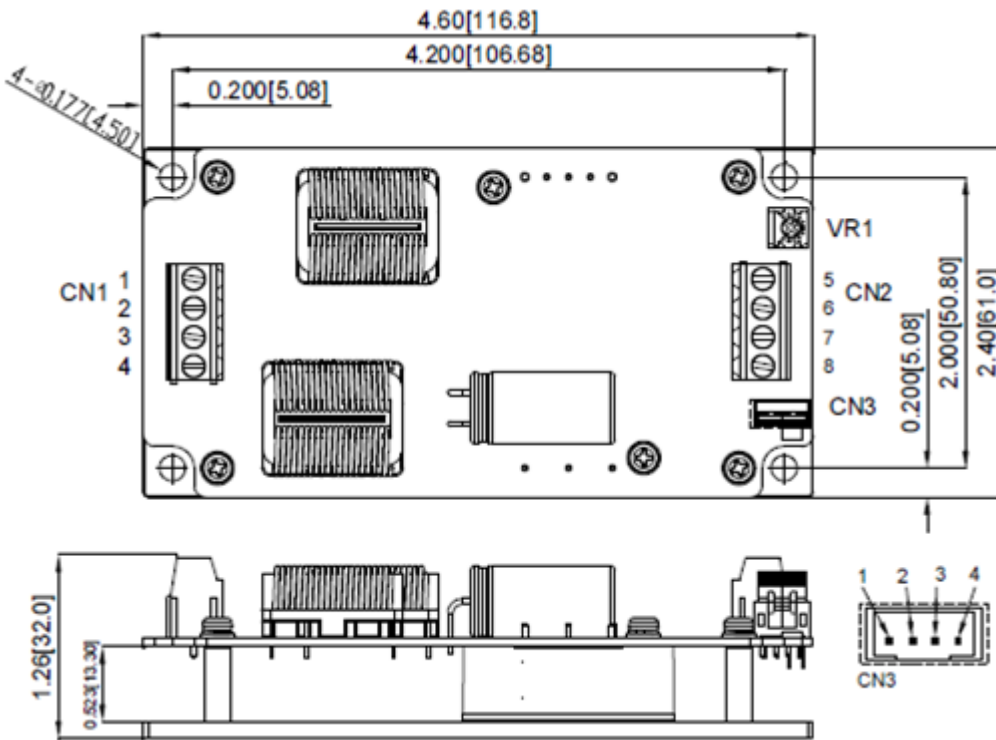
Logic Compatibility .....	Open Collector Ref. to -Input
Module ON.....	>3,5Vdc to 160Vdc or Open Circuit
Module OFF .....	0 to < 1,2Vdc
3. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF ( for Example DV43-160-05SA30QCHALN )
 

Module ON.....	0 to < 1,2Vdc
Module OFF .....	>3,5Vdc to 160Vdc or Open Circuit
4. VR1 is used for Output Voltage Adjustment.
5. Refer to application note for thermal resistance and derating informations.
6. TVS is included for input surge voltage protection.
7. Recommend an external fuse for input reverse polarity protection (shunt diode is include inside).
8. Output ripple and noise measured with 1uF ceramic capacitor across output.
9. Output connector CN3 wafer with TAIWAN KING PIN TERMINAL P110I series and mate with JST housing PH series or equivalent.
10. CN1 & CN2 Connection: DINKLE EK500V-04P series or equivalent, suitable electric wire: 24-12AWG( IEC 0.5-2.5mm<sup>2</sup> ).
11. All Specifications Typical at Nominal Line, Full Load and 25°C.

# Case Dimensions CHAL

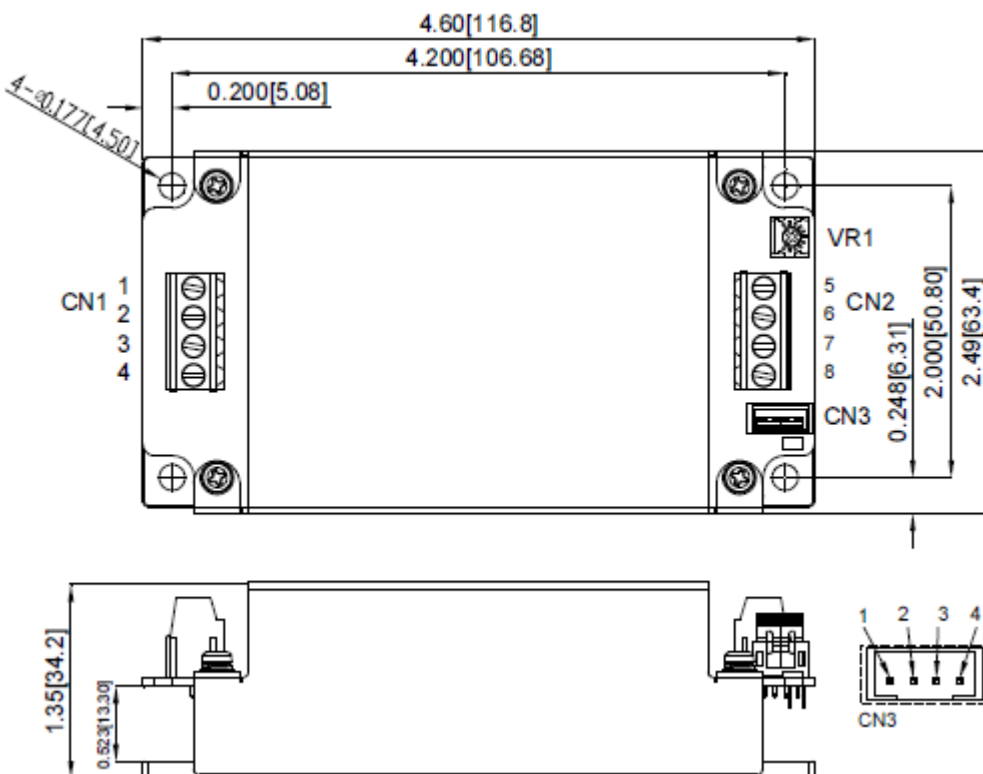
# Series DV150Q4-110-CHAL

All Dimensions in Inches (mm)  
 Tolerance Inches x.xx±0.02 x.xxx±0.010  
 Millimeters x.x±0.5 x.xx±0.25



CN1 & CN2 PIN CONNECTION	
Pin	Function
1	+V Input
2	-V Input
3	Remote
4	Case
5	+Vout
6	+Vout
7	-Vout
8	-Vout

## CHAL-C : With Cover



CN3 PIN CONNECTION	
Pin	Function
1	-Vout
2	-Sense
3	+Sense
4	+Vout

Technische Änderungen vorbehalten / Technical change reserved without notice