



**300 Watt, 43 – 160VDC Wide Input
DC/DC Converters
Series DV300H4-110-CHAL (Chassis Mount)**



Features

- 300 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
- Build-In EMI Filter
- Meets UL60950-1 2nd (Basic Insulation) Approval for DC Modules (Except 3,3 Vout)
- Efficiency to 90%
- Continuous Short Circuit Protection
- Over Temperature Protection
- Over Voltage / Current Protection
- Low No Load Power Consumption
- Baseplate Cooled
- Meets Fire & Smoke EN45545-2

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [A]	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT FULL LOAD [mA]	EFF. [%]	CAP. LOAD Max. [µF]	CASE
DV300H4-110S3,3-CHAL	43 – 160	3,3	60	15	2117	85	60000	Alu-Base
DV300H4-110S05-CHAL		5	60	15	3153	86	60000	
DV300H4-110S12-CHAL		12	25	15	3047	89	25000	
DV300H4-110S24-CHAL		24	12,5	15	3064	89	12500	
DV300H4-110S28-CHAL		28	10,7	15	3060	89	10700	
DV300H4-110S48-CHAL		48	6,25	15	3013	90	4700	
DV300H4-110S3,3-CHAL-C	43 – 160	3,3	60	15	2117	85	60000	Alu-Base With Cover
DV300H4-110S05-CHAL-C		5	60	15	3153	86	60000	
DV300H4-110S12-CHAL-C		12	25	15	3047	89	25000	
DV300H4-110S24-CHAL-C		24	12,5	15	3064	89	12500	
DV300H4-110S28-CHAL-C		28	10,7	15	3060	89	10700	
DV300H4-110S48-CHAL-C		48	6,25	15	3013	90	4700	

NOTE:
Nominal Input Voltage 110 Vdc

INPUT SPECIFICATIONS:

Input Voltage Range.....	110V.....	43-160 Vdc
Input Surge Voltage (100ms max.)		200 Vdc max.
Under Voltage Lockout	110Vin power up.....	42 Vdc
	110Vin power down.....	39,5 Vdc
Positive Logic Remote ON/OFF.....		Note 4 & 5

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 3):		
	3,3V & 5V.....	60mV RMS / 120mV pk-pk max.
	12V.....	80mV RMS / 150mV pk-pk max.
	24V & 28V.....	100mV RMS / 200mV pk-pk max.
	48V.....	150mV RMS / 300mV pk-pk max.
Temperature Coefficient.....		±0,02%/°C max.
Short Circuit Protection.....		Continuous
Line Regulation (Note 1).....		±0,2% max.
Load Regulation (Note 2).....	3,3V & 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.....		50ms typ.

GENERAL SPECIFICATIONS:

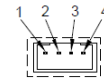
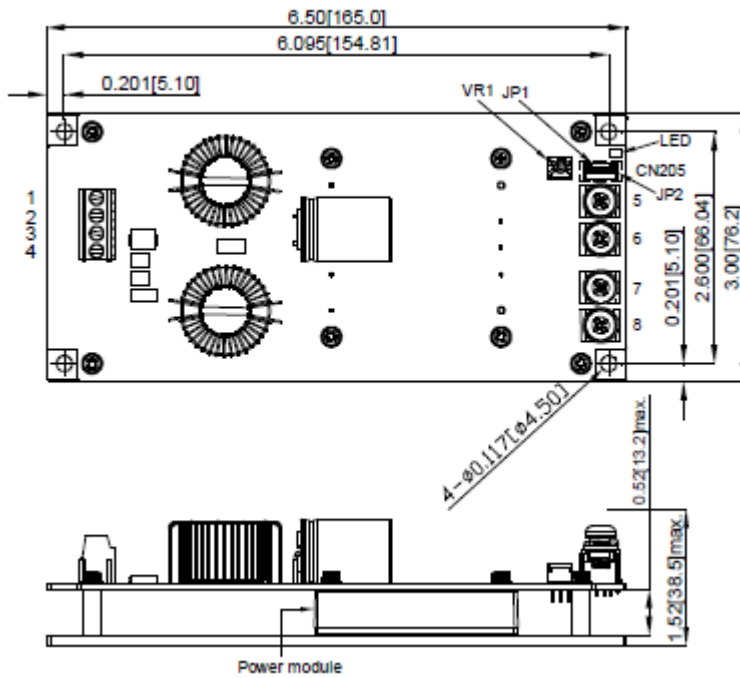
Efficiency.....		See Table
Isolation Voltage.....	Input/Output.....	3000 VDC min.
Input/Case.....		3000 VDC min.
Output/Case		500 VAC min.
Isolation Resistance		10 ⁸ Ohm min.
Isolation Capacitance	3,3V.....	10000pF typ.
	Others.....	8000pF typ.
Switching Frequency	3,3V.....	250KHz typ.
	Others.....	300KHz typ.
Operating Case Temperature Range.....		-40°C to +100°C
Storage Temperature Range.....		-40°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), Full Load.....		460Khrs typ.
Safety Meet.....		UL60950-1
EMC Meet.....		EN50155(EN50121-3-2:2008)
		With External Output Filter Meets EN50155(EN50121-3-2:2015)
Shock/Vibration Meet		EN50155(EN61373)
Environmental		EN50155 (EN60068-2-1,2,30)
Dimensions	CHAL.....	165,0 x 76,2 x 38,5 mm
	CHAL-C.....	165,0 x 78,6 x 40,0 mm
Material	CHAL.....	Aluminum Base
	CHAL-C.....	Aluminum Base and Aluminum Cover
Weight.....	CHAL.....	380g
	CHAL-C.....	435g

Note:

1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 1µF ceramic capacitor across output.
4. Logic Compatibility open collector ref to -input
Module on >3.5Vdc to 12Vdc
Module off 0 to < 1.2Vdc or open circuit
5. Suffix "N" to the model number with negative logic remote on/off.
Module on 0 to < 1.2Vdc or open circuit
Module off >3.5Vdc to 12Vdc
6. Input connectors PIN1-4 use DINKLE EK500V-04P series or equivalent, suitable electric wire: 24-10AWG (IEC 0,5-2,5mm²).
7. Connector CN205 wafer with TAIWAN KING PIN TERMINAL P110I series and mate with JST housing PH series or equivalent.
8. Output connectors PIN5-8 use M5 terminal Screw.
9. VR1 is used for Output Voltage Adjustment.
10. Refer to application note for thermal resistance and derating information's.
11. TVS is included for input surge voltage protection.
12. Recommend an external fuse for input reverse polarity protection (shunt diode is included inside).
13. All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

All Dimensions in Inches (mm)

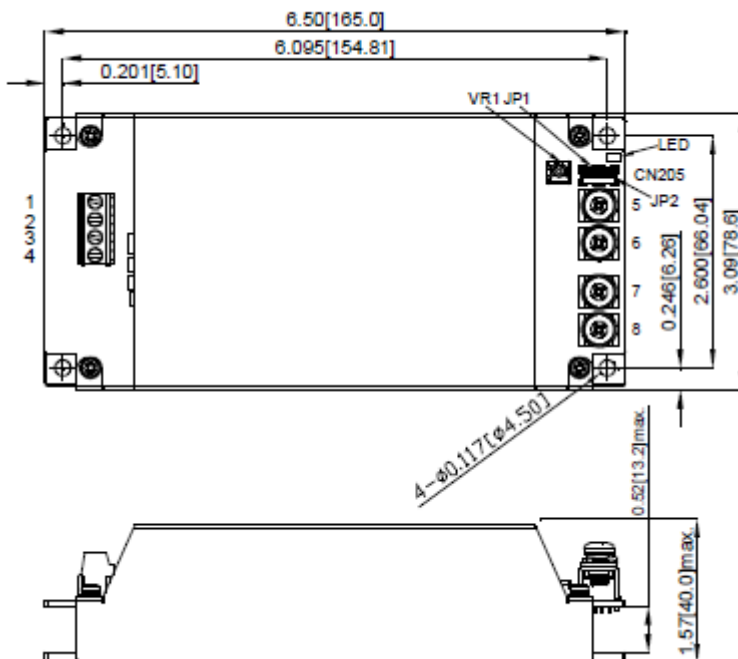
Tolerance	Inches	x.xx±0.02	x.xxx±0.010
	Millimeters	x.x±0.5	x.xx±0.25



CN205 PIN CONNECTION	
Pin	Function
1	+Sense
2	+V Output
3	-Sense
4	-V Output

*JP1: Short PIN1 & PIN2
*JP1: Short PIN3 & PIN4

CHAL-C : With Cover



PIN CONNECTION	
Pin	Function
1	Case
2	On/Off
3	-V Input
4	+V Input
5	NP/-V Output
6	-V Output
7	+V Output
8	NP/+V Output

*PIN5 & 8 for 3,3&5Vo Only