

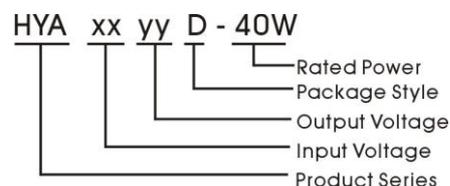
Features

- ★ Isolation Voltage 1000 VDC
- ★ DIP Package
- ★ UL94V-0 Inflamming retarding package
- ★ Temperature Range:-40°C to +71°C
- ★ MTBF>1million hours(25°C)
- ★ Short-circuit protection
- ★ Output Short Circuit Protection
- ★ Efficiency up to 89%



Applications

The HYA_D-40W series offer 25W of output, with 2:1 wide input voltage of 9.5-18VDC, 18-36VDC, 36~72VDC, 72~144VDC and features 1000VDC isolation and short-circuit. All models are particularly suited to tele -communications, industrial, test equipments power and other fields.



Model Detail List Specification

Model Number	Input Voltage range (nominal voltage)	Output Voltage	Output Current (mA)		Input Current Full load.(mA)		Efficiency	Max. Capacitive Load(μF)
			Min.	Max.	Max.	No.		
HYA1205D-40W	9.5~18VDC (12 VDC)	±5.0	±400	±4000	1960	52	85%	4200
HYA1212D-40W		±12.0	±166	±1666	1960		85%	
HYA1215D-40W		±15.0	±133	±1333	1937		86%	
HYA2405D-40W	18~36VDC (24 VDC)	±5.0	±400	±4000	957	48	87%	
HYA2412D-40W		±12.0	±166	±1666	946		88%	
HYA2415D-40W		±15.0	±133	±1333	936		89%	
HYA4805D-40W	36~72VDC (48 VDC)	±5.0	±400	±4000	478	36	87%	
HYA4812D-40W		±12.0	±166	±1666	473		88%	
HYA4815D-40W		±15.0	±133	±1333	468		89%	
HYA11005D-40W	72~144VDC (110 VDC)	±5.0	±400	±4000	211	28	86%	
HYA11012D-40W		±12.0	±166	±1666	206		88%	
HYA11015D-40W		±15.0	±133	±1333	208		87%	

1. Recommended circuit

All the HYA_D-40W Series have been tested according to the following recommended testing circuit before leaving factory.. This series should be tested under load. Never be tested under no load. If you want to further decrease the output ripple, you can increase a capacitance properly or choose capacitors with low DC/DC. However, the capacitance can't exceed the maximum capacitor load in the list.

2. Can not use in parallel and hot swap

HYAD-40W Series



Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power				40	W
Output Voltage accuracy			±1	±2	%
Line Regulation	Full load, Input voltage from low to high		±0.2	±0.5	
Load Regulation	10% to 100% load		±0.3	±0.5	
Ripple & Noise	20MHz Bandwidth		75	150	mVp-p
Transient RecoveryTime	Output without external capacitance		100	250	ms
Transient Response Deviation	10%~50%~10% load or 10% ~ 75% ~10% load step change		±2.5	±5	%
Temperature Drift	100% full load		±0.05		%/°C
Short Circuit Protection		Hiccup, Continuous, automatic recovery			
Input Filter		□ Filter			

Environmental Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing	5		95	%
Temp. rise at full load	Operating Temperature			105	°C
Environment Temperature		-40		+85	
Storage Temperature		-55		+125	
Soldering Temperature	1.5mm from case for 10 seconds			300	
Cooling		Free air convection			

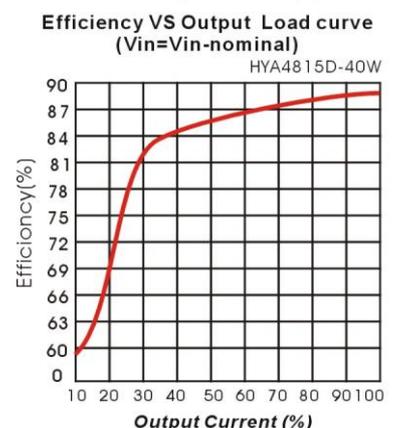
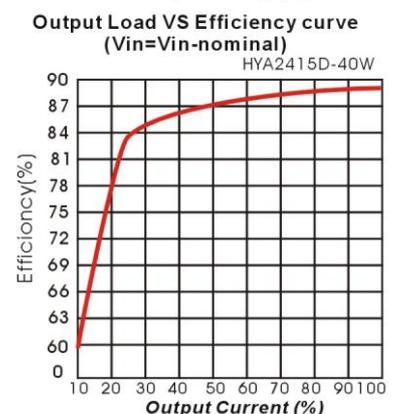
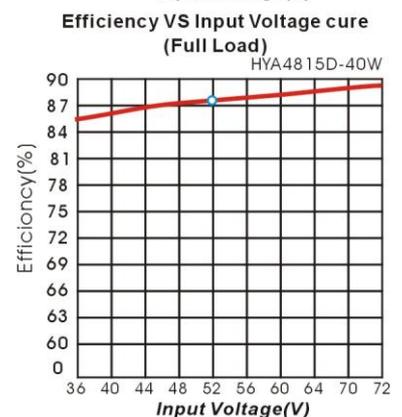
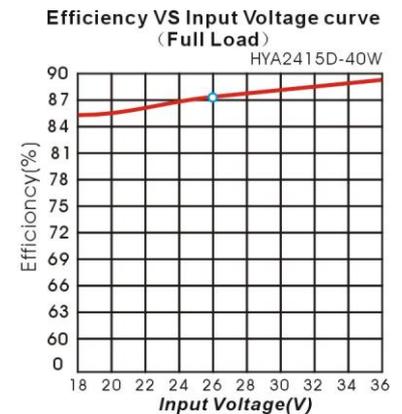
Common Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Tested for 1 minute and leakage current less than 1 mA	1000			VDC
Switching Frequency	Full load, nominal input	250	300	400	KHz
MTBF	MIL-HDBK-217F@25°C	1000			K hours
Isolation Capacitance	Input/Output , 100KHz/1V		1000		PF
Isolation Resistance	Test at 500VDC	1000			MΩ
Weight			50		g

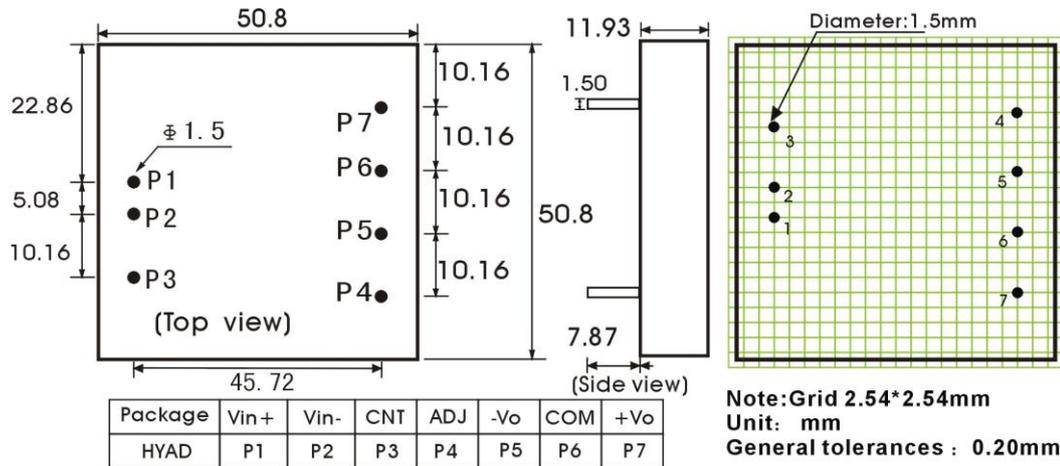
Input Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Input Max. voltage	12 VDC Input (9.5~18V)			19	VDC
	24 VDC Input (18~36V)			38	
	48 VDC Input (36~72V)			76	
	110 VDC Input (72~144V)			148	
Input surge voltage (1 sec. Max.)	12 VDC Input (9.5~18V)	-0.8		20	VDC
	24 VDC Input (18~36V)	-0.8		40	
	48 VDC Input (36~72V)	-0.8		80	
	110 VDC Input (72~144V)	-0.8		160	

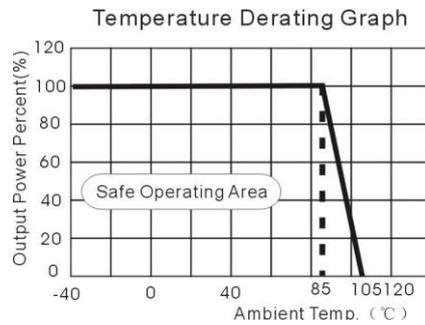
Product typical Curve



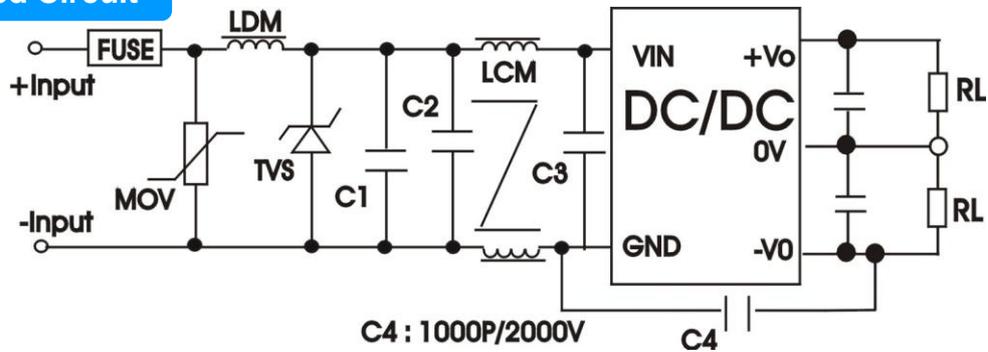
Mechanical Dimensions & Recommended Footprint



Temperature Derating Graph



EMC Recommended Circuit



EMC Module Application Circuit

