Característica M

Anchura de sólo 52,5 mm
(3SU) Gama de entrada ultraancha 4:1
-40 +85 "C amplia temperatura de trabajo
No requiere carga mínima
Salida CC ajustable (T 10%)
Refrigeración por convección de aire libre

- Puede instalarse en carril DIN TS-35/7,5 ó 15
  Protecciones: Cortocircuito / Sobrecarga / Sobretensión
  Polaridad inversa de entrada /
  Protección contra subtensión de entrada 4KVdc Aislamiento de E/S (aislamiento reforzado)
- 3 años de garantía

M Aplicaciones

Sistema de control industrial
Equipos de fabricación de semiconductores Automatización de fábricas
Electromecánica Red inalámbrica
Sistema de telecomunicaciones o datacom

Descripción

La serie DDR-60 es un convertidor CC-CC de 60W de tipo carril DIN con características principales como fácil instalación en carril DIN, anchura ultrafina (52,5 mm), voltaje de entrada ultraamplio 4:1, temperatura de funcionamiento amplia -40-+85'C, aislamiento de E/S 4KVdc, voltaje de salida ajustable (+ 1 0%) y funciones de protección completas...etc.

Esta serie tiene dos opciones de entrada: 9 36V /18 75V y varias opciones de salida: 5V / 12V / 15V / 24V y se puede utilizar para control industrial, control de seguridad, sistema de comunicación y otros campos. Las aplicaciones adecuadas son el regulador DC buck/boost, el aumento del nivel de aislamiento del sistema y la compensación de la caída de tensión a lo largo del cable...etc.

Modelo Codificación

DDR - 60 G - 24

- 24 — Tensión de salida (5/12/15/24Vcc)
- G — Tensión de entrada (G : 9 36Vcc, L:18 75Vcc)
- 60 — Potencia nominal
- DDR — Nombre de la serie

MEAN WELL

60W DIN Rail Type DC-DC Converter

DDR-60 series

SPECIFICATION

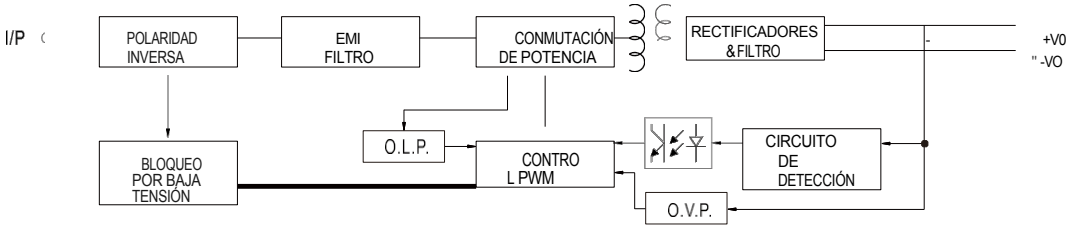
MODEL		DDR-60G-5	DDR-60G-12	DDR-60G-15	DDR-60G-24	DDR-60L-5	DDR-60L-12	DDR-60L-15	DDR-60L-24
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	5V	12V	15V	24V
	RATED CURRENT	10.8A	5A	4A	2.5A	12A	5A	4A	2.5A
	CURRENT RANGE	0 ~ 10.8A	0 ~ 5A	0 ~ 4A	0 ~ 2.5A	0 ~ 12A	0 ~ 5A	0 ~ 4A	0 ~ 2.5A
	RATED POWER	54W	60W	60W	60W	60W	60W	60W	60W
	RIPPLE & NOISE (max.) Note.2	60mVp-p				60mVp-p	75mVp-p	75mVp-p	100mVp-p
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5V	9 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 28V	4.5 ~ 5.5V	9 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 28V
	VOLTAGE TOLERANCE Note.3	±2.0%				±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.5%	±0.5%	±0.5%	±0.5%	±1.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	120ms, 85ms at full load							
		G-type: 5ms@24Vdc input				L-type: 10ms@48Vdc input			
	EXTERNAL CAPACITANCE LOAD (Max.)	6800μF	4700μF	3300μF	2200μF	6800μF	4700μF	3300μF	2200μF
INPUT	VOLTAGE RANGE Note.4	9 ~ 36Vdc				18 ~ 75Vdc			
	EFFICIENCY (Typ.)	87.5%	91%	91%	91%	87.5%	91%	92%	92%
		3A /24Vdc				1.5A /48Vdc			
	INRUSH CURRENT (Typ.)	20A /24Vdc				20A /48Vdc			
PROTECTION	OVERLOAD	105 ~ 135% rated output power							
		Protection type : Constant current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	5.75~ 7V	13.8~16.2V	17.25 ~ 20.25V	28.8~ 34V	5.75~ 7V	13.8~16.2V	17.25~ 20.25V	28.8~ 34V
		Protection type : Shut down o/p voltage, re-power on to recover							
	REVERSE POLARITY	By internal MOSFET, no damage, recovers automatically after fault condition removed							
	UNDER VOLTAGE LOCKOUT	24Vin (G-type):Power ON≥9V , OFF≤8.5V							
		48Vin (L-type):Power ON≥18V , OFF≤17V							
ENVIRONMENT	WORKING TEMP.	-40 ~ +85℃ (Refer to "Derating Curve")							
	WORKING HUMIDITY	5 ~ 95% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 5 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~60℃)							
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6							
	OPERATING ALTITUDE	2000 meters							
SAFETY & EMC (Note 5)	SAFETY STANDARDS	IEC 62368-1 (LVD), AS/NZS 62368.1 approved; Design refer to UL508							
	WITHSTAND VOLTAGE	I/P-O/P:4KVdc							
	ISOLATION RESISTANCE	I/P-O/P>100M Ohms / 500Vdc / 25℃/ 70% RH							
	EMC EMISSION	Parameter	Standard	Test Level/ Note					
		Conducted	EN55032	Class A					
		Radiated	EN55032	Class A for 1m I/O cable , Class B for 30cm I/O cable					
		Voltage Flicker	EN61000-3-3	----					
	EMC IMMUNITY	EN55024 , EN61000-6-2(EN50082-2)							
		Parameter	Standard	Test Level / Note					
		ESD	EN61000-4-2	Level 3, 8KV air ; Level 3, 6KV contact; criteria A					
		Radiated	EN61000-4-3	Level 3, 10V/m ; criteria A					
		EFT / Burst	EN61000-4-4	Level 3, 2KV ; criteria A					
		Surge	EN61000-4-5	Level 3, 1KV/Line-Line ; criteria A					
		Conducted	EN61000-4-6	Level 3, 10V ; criteria A					
		Magnetic Field	EN61000-4-8	Level 4, 30A/m ; criteria A					
OTHERS	MTBF	611K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION								
	PACKING	216g; 60pcs/14Kg/0.97CUFT							

NOTE

1. All parameters NOT specially mentioned are measured at normal input (G:24Vdc, L:48Vdc), rated load and 25℃ of ambient temperature
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μf & 47 μf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltage. Please check the derating curve for more details.
5. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)
6. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft)

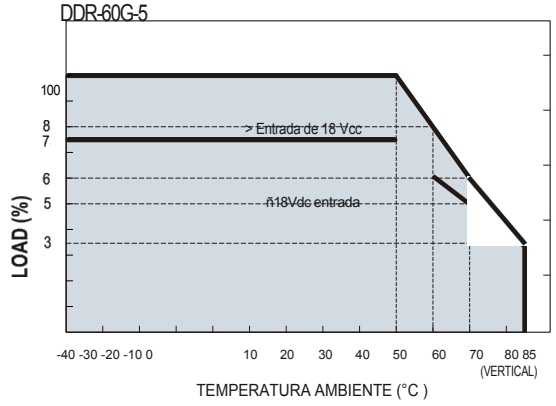
B Diagrama de bloques

fosc : 130KHz

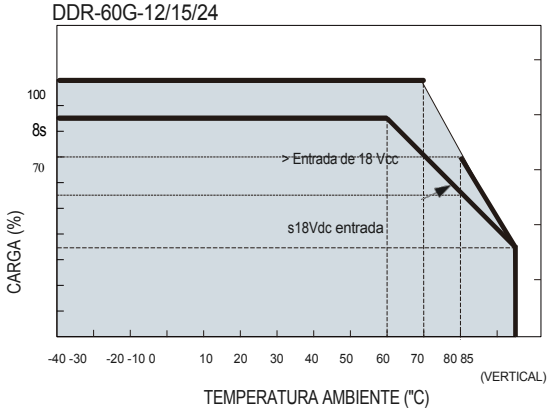


B Curva de reducción

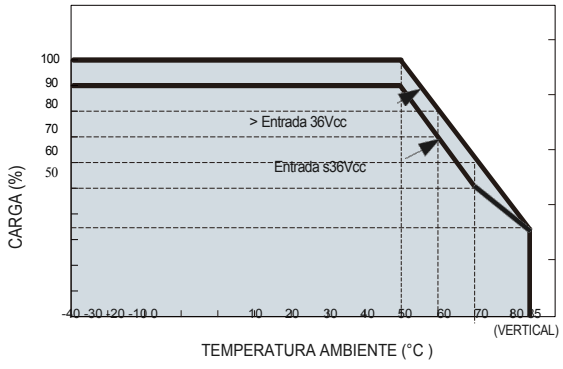
DDR-60G-5



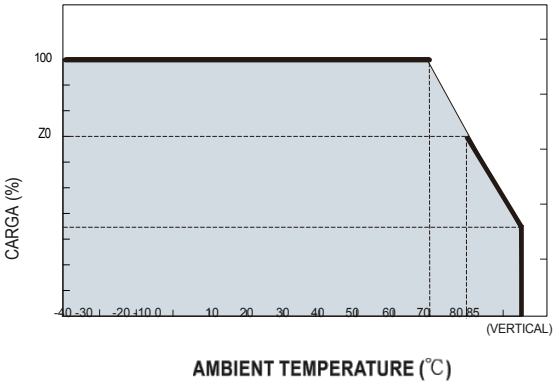
DDR-60G-12/15/24



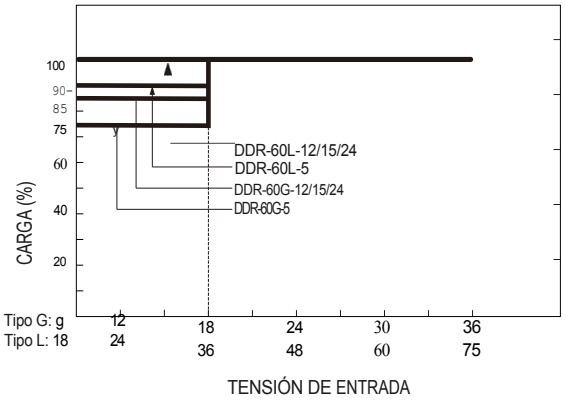
DDR-60L-5



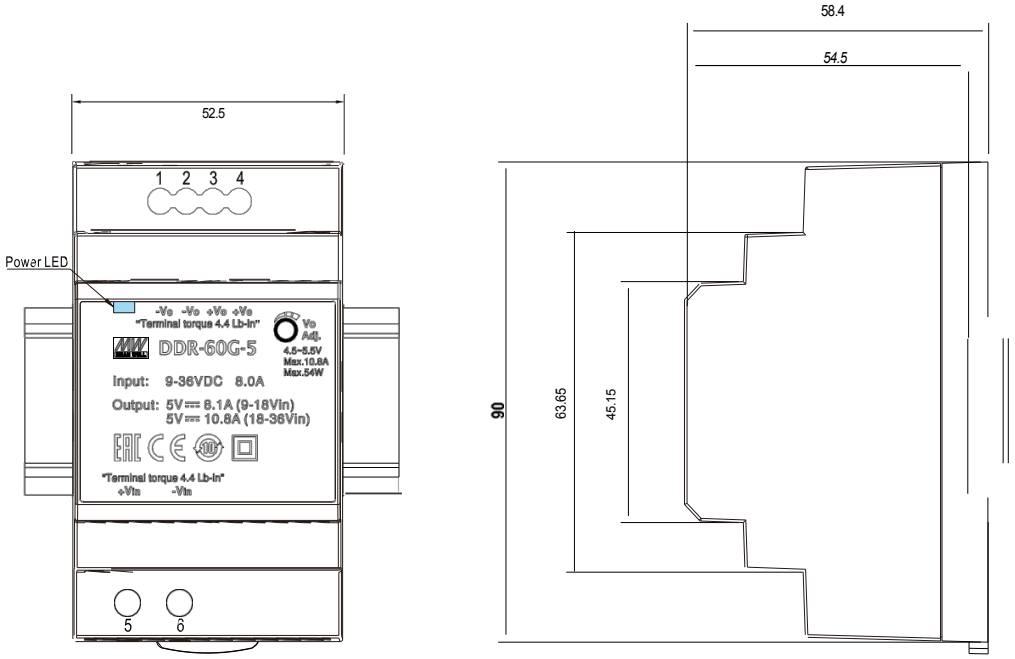
DDR-60L-12/15/24

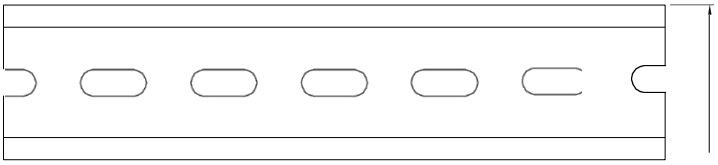


B Reducción de potencia de salida VS tensión de entrada



B Especificación mecánica





ADMISSIBLE DIN-RAIL:TS35/7.5 OR TS35/15

PinNo.	Asignación
1,2	Salida CC -Vo
3,4	Salida CC +Vo
5	Entrada CC +Vin
6	Entrada CC -Vin

B Manual de instalación

Consulte : http://www.meanwell.com/manual.html