

DIN RAIL MOUNTING POWER SUPPLIES AC-DC 240W



Power Supplies

53000 Series

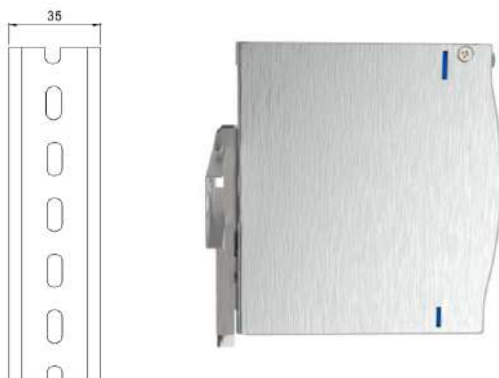


53000 is an economical slim 240W Din rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 40mm in width, which allows space saving inside the cabinets. The entire series adopts the full range AC input from 85VAC to 265VAC and conforms to EN61000-3-2, the norm the European Union regulates for harmonic current.

53000 series is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 90%, the entire series can operate at the ambient temperature between -20°C and 70°C under air convection. It is equipped with constant current mode for over-load protection, fitting various inductive or capacitive applications. The complete protection functions for industrial control apparatus make 53000 series a very competitive power supply solution for industrial applications.

Applications for 53000 Series Power Supplies:

- Factory control or automation apparatus
- Semi-conductor fabrication equipment
- Laser related machine
- Industrial control system
- Electro-mechanical



Admissible Din-Rail: TS35/7.5 or TS35/15, For reference only, not included with unit.

MAIN FEATURES

- Universal input voltage range 85-265Vac
- Built-in active PFC > 0.95
- Built-in DC OK relay contact
- Very low standby power consumption: meets requirements of Energy Star or EECODE of Conduct
- Can be installed on DIN rail TS-35/7.5 or 15

SAFETY STANDARDS

Meets all requirements of:

- IEC/EN62368-1
- IEC/EN60335-1
- IEC/EN61558-2-16
- UL62368-1
- CSA 22.2 N°62368-1-14
- CE UKCA Mark

EMC STANDARDS

Conducted and radiated emissions conform to

- EN55032, FCC Part15 Class B
- IEC/EN 61000-3-x

Immunity conform to

- EN 61000-4-x

ONE OUTPUT 240W



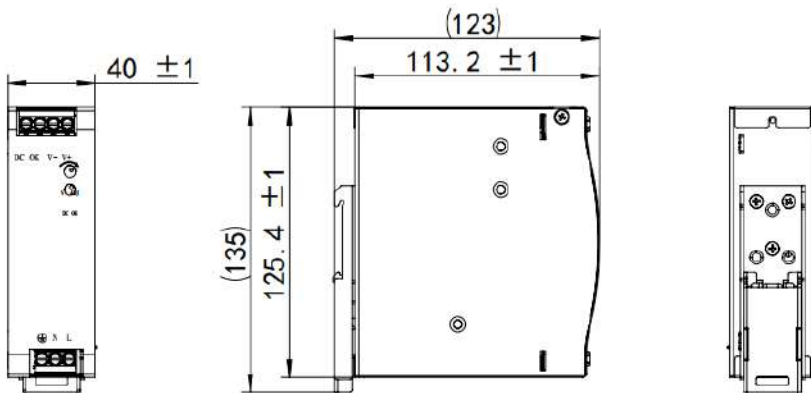
MAIN FEATURES

- Slim Size 40mm
- Single Output
- Regulated Output Range: 12VDC - 48VDC
- Built-in active PFC >0.95
- Input Range: 85VAC - 265VAC/47 - 63Hz Or 120VDC - 375VDC
- Very Low Standby Power Consumption < 0.2W
- Better Energetic Efficiency : Meet Requirements Of Energy Star And EC Code Of Conduct

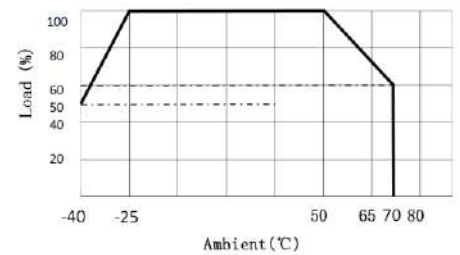
- Safety: Compliance with all requirements of IEC/EN61558-2-16 , IEC/EN60335-1, IEC/EN62368-1, UL62368-1, CSA22.2No.62368-1-14 CE, UKCA Mark
- EMC : Conducted And Radiated Emissions Conform To EN55032, FCC Part 15, CLASS B, IEC/EN61000-3-2 CLASS C, EN61000-3-3 without any additional components.
- Immunity Conform To: EN61000-4-2, IEC/EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

Part Number	Output Power (W)	Output Voltage (VDC)	Rated Output Current (A)	Output Voltage Range-ADJ(Vdc)	Max. Operating Ambient (°C)	Min. Part Efficiency(%)	Input Range
53103	240	12	20	11.40 ~ 13.80	70	91	85 ~ 265VAC (120-375VDC)
53104	240	15	16	14.25 ~ 18.50	70	91	
53105	240	18	13.3	17.50 ~ 20.50	70	91	
53106	240	24	10	22.80 ~ 28.80	70	92	
53107	240	36	6.7	34.20 ~ 39.60	70	92	
53108	240	48	5.0	43.20 ~ 52.80	70	92	

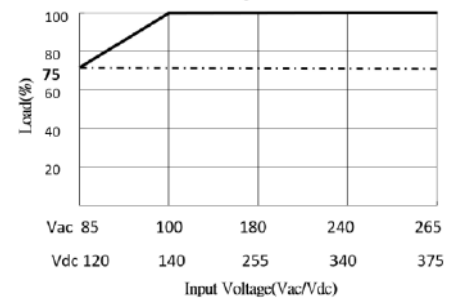
DIMENSIONS



Power Derating Graph



Vin VS Output Power



Model: 240 Watt		Specification
AC Input Characteristics	Rated AC input Voltage	100~240 VAC or 140VDC-340VDC
	AC Input Voltage Range	85~265VAC or 120VDC-375VDC
	AC Input Frequency Range	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	3.0A Max.
	Standby Power	0.2W Max.(Meet Requirements Of Energy Star And EC Code Of Conduct)
	Leakage Current	< 0.75mA/265VAC
DC Output Characteristics	Output Voltage Accuracy	± 2 %
	Output Voltage Line Regulation	± 0.5 %
	Output Voltage Load Regulation	± 1 %
	Ripple & Noise	Max. 180mVp-p@ Rated AC input, at nominal line (The measuring will be terminated with a 47uF ALE-Cap and a 0.1uF Ceramic-Cap. An oscilloscope set at 20MHz bandwidth)
	Dynamic Response	The output voltage shall not exceed ±10% rated output voltage @ 50%←→100% Load change, 1A/uS, 1KHz 50% duty cycle
	Hold Up Time	5mS min@ 100Vac ~240Vac, DC output with full load
	Turn On Delay	35 max. @ 85Vac~265Vac input and DC output with full load
	Rise Time	50ms max. @ 85Vac~265Vac input and DC output with full load
	Overshoot	The output voltage shall not exceed +10% rated output voltage @ Power on and 85Vac~265Vac input, and DC with full load
	Undershoot	The output voltage shall not exceed -10% rated output voltage @ Power off and 85Vac~265Vac input and DC output with full load
	Efficiency	See table (Meets Requirements Of Energy Star And EC Code Of Conduct)
Protection Characteristics	Over Current Protection	The power supply shall automatic protect. The power supply shall auto-recover normal operation after the deformation is removed. No excessive heat, odour, no safety hazard
	Output Short Circuit Protection	The power supply shall withstand a continuous output short without damage in 24 hours; The short may be applied before power on, or after power on; The power supply shall resume normal operation after the short is removed, no excessive heat, odour, no safety hazard
	Over voltage protection	Production type: shutdown O/P voltage and re-power on to recover.
DC OK Relay	DC OK Relay Contact Ratings	60Vdc/0.3A,30Vdc/1A,30Vac/0.5A resistive load
Environmental	Operation Temperature	-25°C ~+70 °C (Refer to DERATING GRAPH)
	Operation Humidity	10~ 90% RH(No Condensing) @ DC output with full load
	Storage Temperature	+5°C to +35°C
	Storage Humidity	< 75%RH
	Cooling Method	Ordinary or thermostat
Safety & EMC Requirement	Dielectric Strength	Input to Output : 3750VAC 5mA, 3 sec. Input to GND: 2000VAC 10mA, 3 sec. Output to GND: 1250VAC 10mA, 3 sec
	Insulation Resistance	100MΩ max @500Vdc
	Radiation/ Conduction	Meeting EN55032,FCC part 15, Class B
	Harmonic Current Disturbance	Meeting IEC/EN61000-3-2:2019, Class A
	Voltage Fluctuation And Flicker	Meeting EN61000-3-3:2013
	Electrostatic Discharge	Meeting EN61000-4-2:2009 Contact Discharge ±6KV,Air Discharge ±8KV
	RF Field Strength Susceptibility	Meeting IEC/EN61000-4-3:2019
	Electrical Fast Transient	Meeting EN61000-4-4:2012, ±4KV
	Lightning Surge	Meets EN61000-4-5:2014,±6KV common mode,±4KV diff.mode
	Conducted Susceptibility	Meeting EN61000-4-6 : 2014
	Voltage Dips And Interruptions	Meeting EN61000-4-11 : 2004
Safety Standards	Compliance with all requirements of : UL62368-1, CSA22.2No.62368-1-14, IEC/EN60335-1,IEC/EN61558-2-16, IEC/EN62368-1, CE, UKCA Mark	
Reliability Requirement	MTBF	>200K Hours @230VAC input at 50deg.C and DC output with full load >450K Hours @230VAC input at 25deg.C and DC output with full load Calculated in accordance with MIL-HDBK-217-F2
	Burn-In Test	The unit shall be burned in for 2~ 5hours under 230Vac input and DC with full load at an ambient temperature of 30~45 degrees C
Net Weight	About 480 grams per product unit	
Guarantee	This product is in accordance with the European RoHS & REACH directives	