AC/DC POWER SUPPLY-24W

DIN RAIL MOUNTING TYPE

myrra
Power Supplies

5300x SERIES

MAIN FEATURES:

- 12W To 24W Small Compact Size
- Built-in DC OK Active Signal and LED Indicator For Power On
- Regulated Output Range: 3.3VDC–48VDC
- Input Range: 85VAC – 265VAC/47 – 63Hz or 120VDC – 375VDC
- Very Low Standby Power Consumption ≤0.75W
- High Energetic Efficiency: Meets the requirements of Energy Star and the EC Code of Conduct
- Safety : Meets IEC/EN61558-2-16,IEC/EN61558-1, IEC/EN62368-1, UL62368-1, CSA C22.2NO.62368-1-14, CE, UKCA
- EMC: Conducted and Radiated Emission conform to EN55032, FCC Part 15, CLASS B, EN/IEC61000-3-2 CLASS A EN61000-3-3
- Immunity conforms to EN61000-4-2, EN/IEC61000-4-3,E61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

DATA SHEET

UK CA CE RoHS

Part No.	Power Rating Watts	Output Voltage (VDC)	Rated Output Current (A)	Output Voltage Range-ADJ(Vdc)	Ambient Temp. (°C)	Efficiency Typical	Input Range
53000	12	3.3	3.64	3.135 ~ 3.465	-25°C ~ +70°C	72%@230VAC	85 ~ 265VAC (120-375VDC)
53001	20	5.0	4.0	4.75 ~ 5.50	-25°C ~ +70°C	75%@230VAC	
53002	24	9.0	2.7	8.55 ~ 9.45	-25°C ~ +70°C	80%@230VAC	
53003	24	12	2.0	10.80 ~ 13.20	-25°C ~ +70°C	80%@230VAC	
53004	24	15	1.6	13.50 ~ 16.50	-25°C ~ +70°C	80%@230VAC	
53005	24	24	1.0	21.60 ~ 26.40	-25°C ~ +70°C	81%@230VAC	
53006	24	36	0.7	34.20 ~ 37.80	-25°C ~ +70°C	82%@230VAC	
53007	24	48	0.5	45.60 ~ 50.40	-25°C ~ +70°C	82%@230VAC	

NOTE : Other output voltage are available upon request.

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Model : 12W to 24 Watt		Specifications
AC Input Characteristics	Rated Input Voltage	100~240 VAC or 140VDC-340VDC
	Input Voltage Range	85~265VAC or 120VDC-375VDC
	AC Input Frequency Range	47Hz~63Hz
	Rated AC Input Frequency	50/60Hz
	Input Current	0.85A Max.
	Input Inrush Current	45A Max. @265VAC input, cold start, full load
	Standby Power	0.75W Max.
	Leakage Current	＜0.2mA/240VAC
DC Output Characteristics	Output Voltage Accuracy	±2% (Output Voltage ADJ Range See table)
	Output Voltage Line Regulation	± 0.5%
	Output Voltage Load Regulation	± 1%
	Ripple & Noise	Max. 150mVp-p@ Rated AC input, at nominal line (The measuring will be terminated with a 47µF AL E-Cap and a 0.1µF Ceramic-Cap. An oscilloscope set at 20MHz bandwidth)
	Dynamic Response	The output voltage shall not exceed ± 10% rated output voltage @ 50% ~ 90 % Load change, 1A/µS, 1KHz 50% duty cycle
	Hold Up Time	5mS min.@ 100 VAC~240VAC, DC output with full load
	Turn On Delay	3S 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

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	Efficiency	See table (Meets the requirements of Energy Star and the EC Code of Conduct)
Protection Characteristics	Over Current Protection	120% ~ 180% rated output power,the power supply shall automatic protection. The power supply shall auto-recovery normal operations 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.
	Output Over Voltage Protection	Protection type: shut down output voltage and re-power on to recover.
DC OK FUNCTION	DC OK Active Signal (max.)	50000: 2.475~3.96V/50mA; 50001: 3.75~6V/50mA; 50002: 6.75~10.8V/40mA; 50003: 9.0~13.5V/40mA; 50004: 11.5~16.5V/40mA; 50005: 18~27V/20mA; 50006: 27.0~43.9V/15mA; 50007: 36~54V/10mA
Environmental	Operation Temperature	-25°C~+70°C (Refer to« DERATING GRAPH »)
	Operation Humidity	10~90% RH (No Condensing) @ full load
	Storage Temperature	-40°C~ +85°C (Recommended +5°C~ +35°C)
	Storage Humidity	5%~95% (Recommended <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: 500VAC 10mA, 3 sec
	Insulation Resistance	100MΩ max @500Vdc/25°C /70%RH
	Radiation	Meets EN55032, FCC part 15 Class B. under 3dB margin
	Conduction	Meets EN55032, FCC part 15 Class B. under 3dB margin
	Harmonic Current Distance	Meets EN/IEC61000-3-2, Class A
	Voltage Fluctuation and Flicker	Meets EN61000-3-3
	Electrostatic Discharge	Meets EN61000-4-2 Contact Discharge ± 6KV, Air Discharges ± 8KV
	RF Field Strength Susceptibility	Meets EN/IEC61000-4-3, 10V/m
	Electrical Fast Transient	Meets EN61000-4-4, ± 4KV

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Safety & EMC Requirements	Lightning Surge	Meets EN61000-4-5, ±4KV common mode,±2KV diff.mode
	Conducted Susceptibility	Meets EN61000-4-6, 10Vr.m.s
	Power Frequency Magnetic Field Susceptibility Test	Meeting EN61000-4-8, 30A/m
	Voltage Dips and interruptions	Meets EN61000-4-11, 0%,70%
	Safety Standards	Meets all requirements of : UL62368-1, CSA C22.2 NO.62368-1-14 IEC/EC62368-1 IEC/EN61558-2-16, IEC/EN61558-1 CE,UKCA
Reliability Requirement	MTBF	>200K Hours @230VAC input at 50deg.C >450K Hours @230VAC input at 25deg.C Calculated in accordance with MIL-HDBK-217-F2
	Burn-in-Test	The unit shall be burned in 2~5hours under 230VAC input and DC with full load at and ambient temperature of 30~45 degrees C
Mechanical	Physical size	The units dimension is : (W)22.5*(H)90*(D)100mm (±1mm) (see appearance drawing)
	Net Weight	Approximately 150 grams per product unit
Guarantee	This product is in accordance with the European RoHS & REACH directives	

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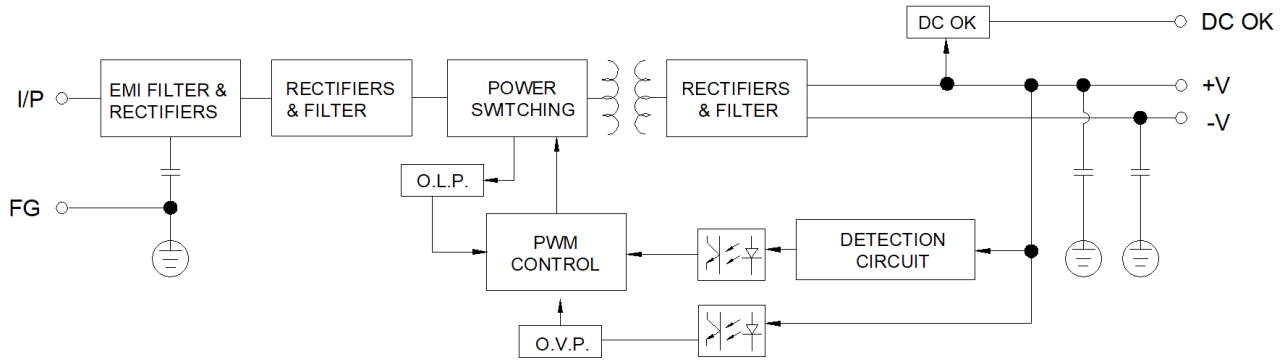
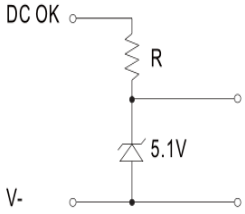
BLOCK DIAGRAM



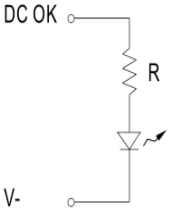
APPLICATION OF DC OK ACTIVE SIGNAL

(a) 5V signal



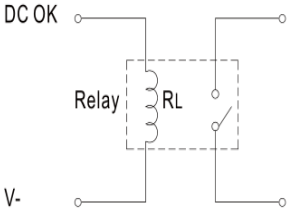
Model	R
5V	≧200Ω
12V	≧1.5KΩ
15V	≧2KΩ
24V	≧3.9KΩ

(b) LED



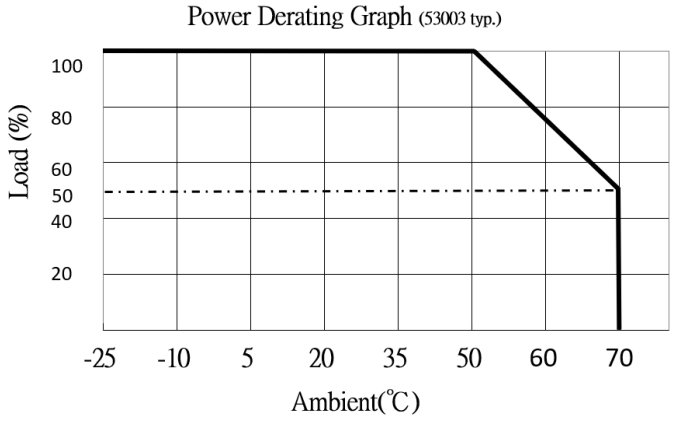
Model	R
5V	≧1KΩ
12V	≧2.4KΩ
15V	≧3KΩ
24V	≧4.7KΩ

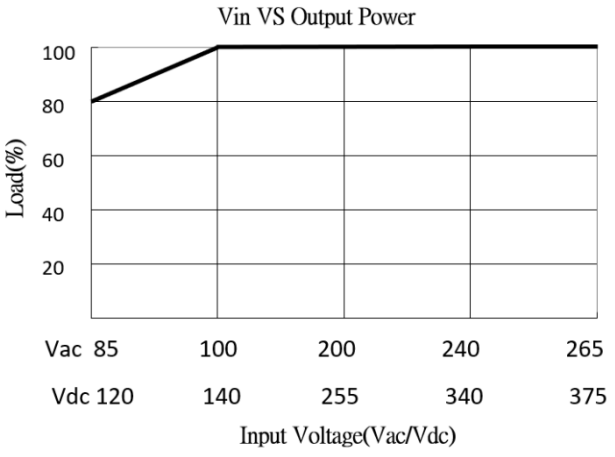
(c) Relay



Model	RL
5V	≧120Ω
12V	≧700Ω
15V	≧700Ω
24V	≧1.2KΩ

DERATING GRAPH





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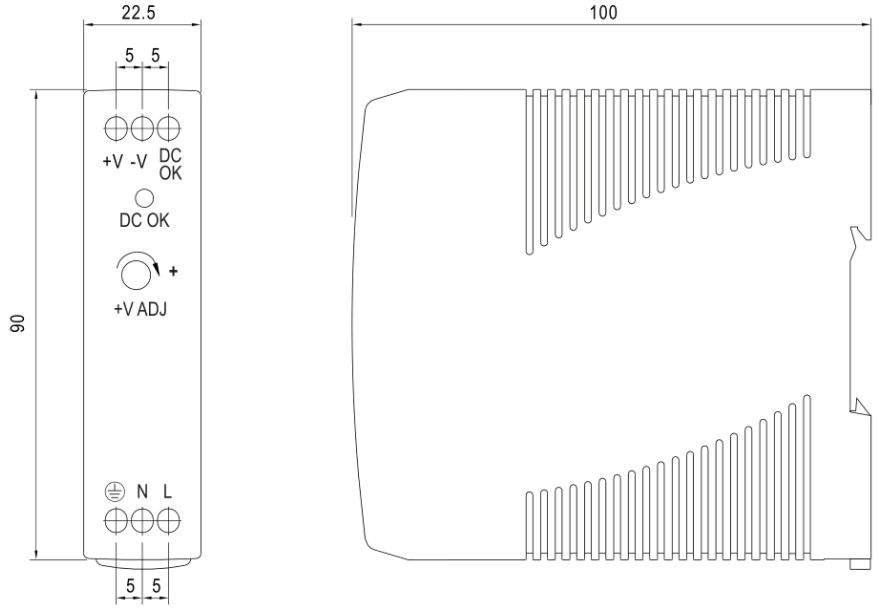
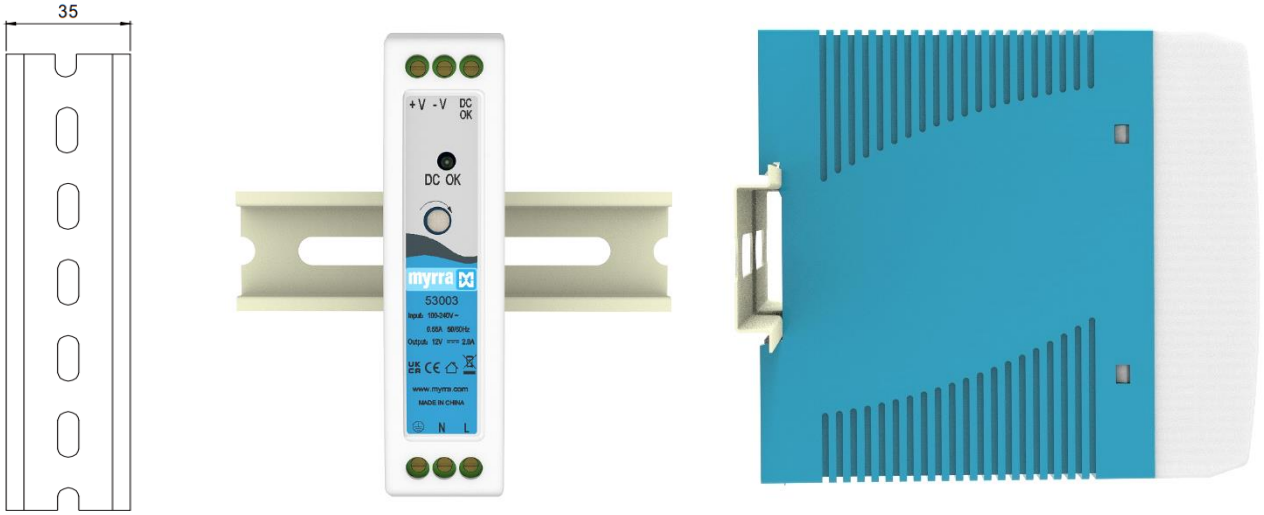
DIMENSIONS



INSTALLATION INSTRUCTION



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

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