

# AC/DC POWER SUPPLY-36W

## DIN RAIL MOUNTING TYPE



Power Supplies

### 5301x SERIES



## MAIN FEATURES:

- 20W To 36W Small Compact Size
- Built-in DC OK Relay Contact 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  $\leq 0.75W$
- 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, IEC/EN60335-1 ;CE, UKCA
- EMC: Conducted and Radiated Emission conform to EN55014-1, 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



Part No.	Power Rating Watts	Output Voltage (VDC)	Rated Output Current (A)	Output Voltage Range-ADJ(Vdc)	Ambient Temp. (°C)	Efficiency Typical	Input Range
53010	20	3.3	6.0	3.135 ~ 3.465	-25°C ~ +70°C	78%@230VAC	85 ~ 265VAC (120-375VDC)
53011	30	5.0	6.0	4.75 ~ 5.50	-25°C ~ +70°C	82%@230VAC	
53012	30	9.0	3.3	8.55 ~ 9.45	-25°C ~ +70°C	82%@230VAC	
53013	36	12	3.0	10.80 ~ 13.20	-25°C ~ +70°C	85%@230VAC	
53014	36	15	2.4	13.50 ~ 16.50	-25°C ~ +70°C	85%@230VAC	
53015	36	24	1.5	21.60 ~ 26.40	-25°C ~ +70°C	88%@230VAC	
53016	36	36	1.0	34.20 ~ 37.80	-25°C ~ +70°C	88%@230VAC	
53017	36	48	0.75	45.60 ~ 50.40	-25°C ~ +70°C	88%@230VAC	

NOTE : Other output voltage are available upon request.

Please refer to MYRRA's website and catalogue for MYRRA SMPS application notes.

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Model : 20W to 36 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	1.5A Max.
	Input Inrush Current	50A Max. @265VAC input, cold start, full load
	Standby Power	0.75W Max.
	Leakage Current	<0.15mA/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. 180mVp-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	100ms 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	Protection type: shut down output voltage and auto-recovery 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.
	Output Over Voltage Protection	Protection type: shut down output voltage and re-power on to recover.
DC OK FUNCTION	DC OK Signal	Relay contact rating(max.): 30V/1A resistive
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, EN55014-1, FCC part 15 Class B.
	Conduction	Meets EN55032, EN55014-1, FCC part 15 Class B.
	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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<b>Safety &amp; EMC Requirements</b>	Lightning Surge	Meets EN61000-4-5, $\pm 4\text{KV}$ common mode, $\pm 2\text{KV}$ 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 IEC/EN60335-1, clause 22.42, 24 and 30; CE,UKCA
<b>Reliability Requirement</b>	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
<b>Mechanical</b>	Physical size	The units dimension is : (W)40*(H)90*(D)100mm ( $\pm 1\text{mm}$ ) (see appearance drawing)
	Net Weight	Approximately 250 grams per product unit
<b>Guarantee</b>	This product is in accordance with the European RoHS & REACH directives	

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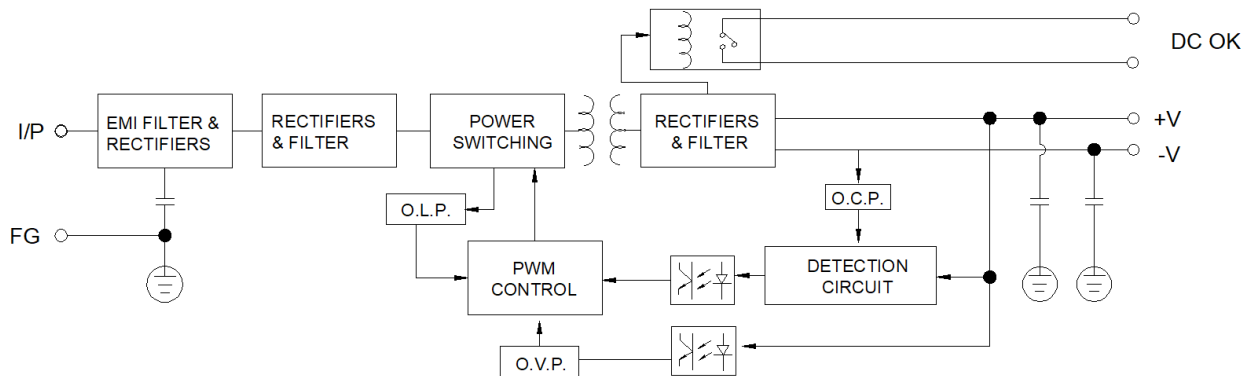
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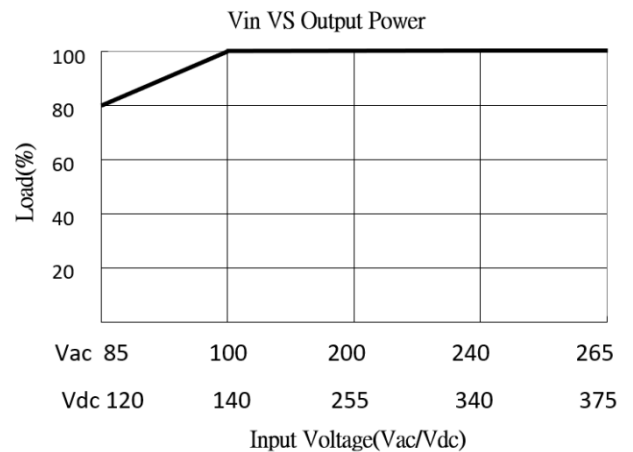
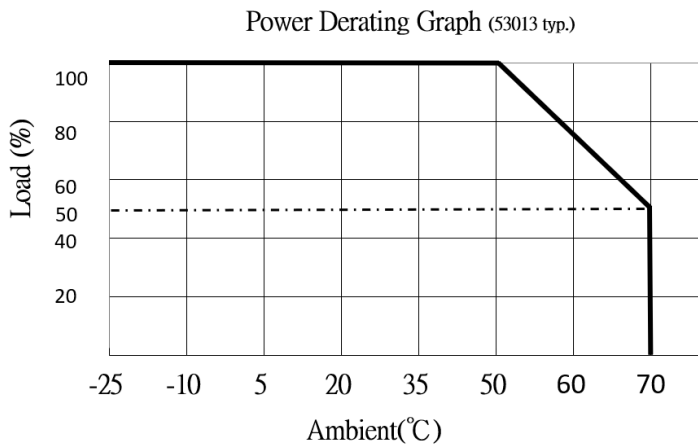
### BLOCK DIAGRAM



### DC OK RELAY CONTACT

- Contact Close: PSU Turns on/DC OK
- Contact Open: PSU Turns off/DC Fail
- Contact Ratings(max.): 30V/1A resistive load

### DERATING GRAPH



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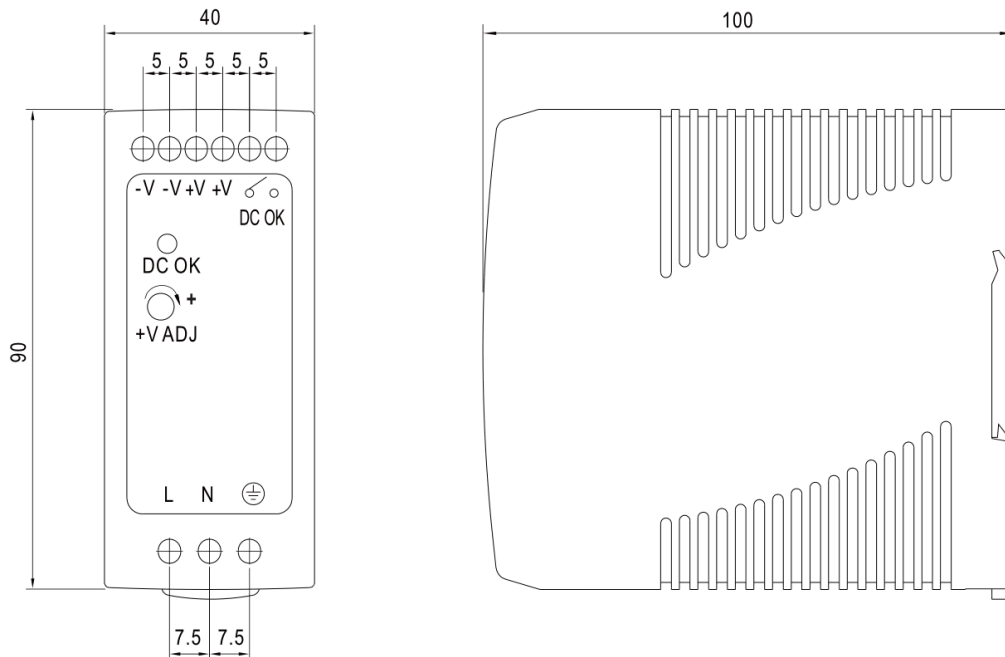
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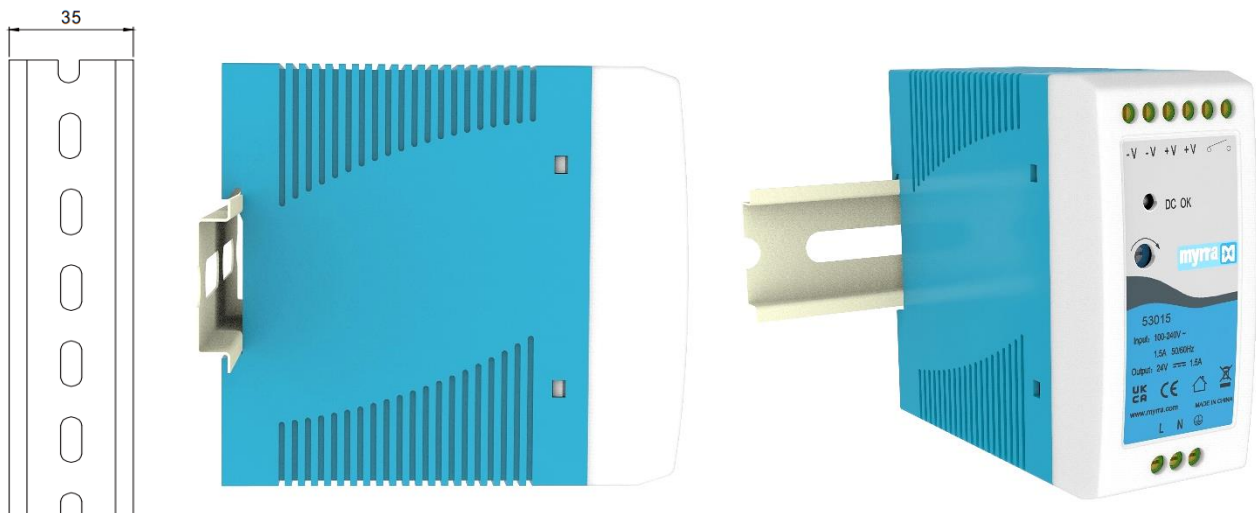


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### DIMENSIONS



### INSTALLATION INSTRUCTION



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

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