MEAN WELL

Open Frame

Single Output Power Supplies

Current Automation

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On Board Module & Open frame Series

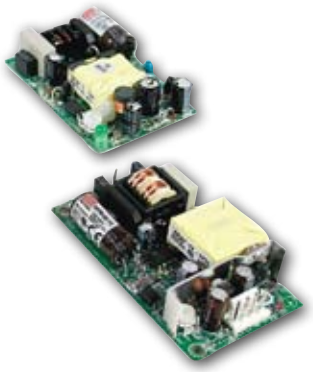
Features

- Universal AC input / Full range
- **Ultra-miniature size**
- Protections: Short circuit / Overload /Over voltage
- No load power consumption < 0.5W
- Fully isolated plastic case
- **Isolation Class II (5~15W)**
- Low leakage current < 200μA (20W)
- Cooling by free air convection
- Medical safety approved
- Meets Industrial, IT safety requirements

PM-series

NFM-series

Model	Watt	Input Voltage	Single Output Rated Current (A)					Dimension (LxWxH) (mm)
			3.3V	5V	12V	15V	24V	
PM-05-□	5	85～264VAC; 120～370VDC	1.25	1.00	0.42	0.33	0.23	62.85 x 50 x 19.7mm
PM-10-□	10	85～264VAC; 120～370VDC	2.50	2.00	0.85	0.67	0.42	70 x 50 x 22.7 mm
PM-15-□	15	85～264VAC; 120～370VDC	3.50	3.00	1.25	1.00	0.63	75 x 53 x 22.7 mm
PM-20-□	20	85～264VAC; 120～370VDC	4.50	4.50	1.80	1.40	0.92	94 x 56 x 22.7 mm
NFM-05-□	5	85～264VAC; 120～370VDC	1.25	1.00	0.42	0.33	0.23	58 x 45 x 19.1 mm
NFM-10-□	10	85～264VAC; 120～370VDC	2.50	2.00	0.85	0.67	0.42	65 x 45 x 22 mm
NFM-15-□	15	85～264VAC; 120～370VDC	3.50	3.00	1.25	1.00	0.63	70 x 48 x 22 mm
NFM-20-□	20	85～264VAC; 120～370VDC	4.50	4.50	1.80	1.40	0.92	89 x 51 x 19.3 mm



5~65W Single Output Open Frame Series

Features

- Universal AC input / Full range
- Protections: Short circuit / Overload /Over voltage /Over Temperature
- Cooling by free air convection
- **Fixed switching frequency**
- **Low leakage current < 0.5mA**
- Low cost, high reliability

PS-05

PS-15

Model	Watt	Input Voltage	Single Output Rated Current (A)									Dimension (LxWxH) (mm)
			3.3V	5V	7.5	12V	13.5	15V	24V	27	48V	
PS-05-□	5	85～264VAC; 120～370VDC	-	1.00	-	0.45	-	0.35	0.22	-	0.11	75 x 40 x 20 mm
PS-15-□	15	85～264VAC; 120～370VDC	-	2.80	-	1.25	-	1.00	0.625	-	0.313	94 x 49 x 25 mm
PS-25-□	25	85～264VAC; 120～370VDC	5.00	5.00	3.30	2.10	1.90	1.70	1.00	0.90	0.50	107 x 61 x 28 mm
PS-35-□	35	90～264VAC; 120～370VDC	6.00	6.00	4.70	3.00	2.60	2.40	1.50	-	0.75	101.6 x 50.8 x 24 mm
PS-45-□	45	90～264VAC; 120～370VDC	8.00	8.00	5.40	3.70	3.30	3.00	1.90	1.70	1.00	127 x 76 x 28 mm
PS-65-□	65	90～264VAC; 120～370VDC	12.00	12.00	8.00	5.20	4.70	4.20	2.70	2.40	1.35	127 x 76 x 42 mm

PS-25

PS-35

PS-45

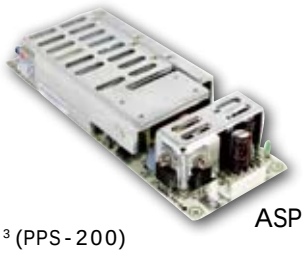
PS-65

Please refer to www.rectifier.co.za for detailed specifications.

125~200W Single Output Open Frame Series

Features

- Universal AC input / Full range
- **PF>0.93 @ 230VAC (PPS-125 & ASP-150) ; PF > 0.94 (PPS-200)**
- Protections: Short circuit / Overload /Over voltage /Over Temperature
- Cooling by free air convection
- High power density 6.117W / in^3 (PPS-125) ; 8.4W / in^3 (ASP-150) ; 9.78W / in^3 (PPS-200)
- Built-in remote sense for the PPS-125; PPS-200
- No load power consumption < 1W for the ASP-150
- ZCS / ZVS Technology to reduce power dissipation



ASP-150

PPS-125

PPS-200

▶▶ Quasiresonant ZCS/ZVS

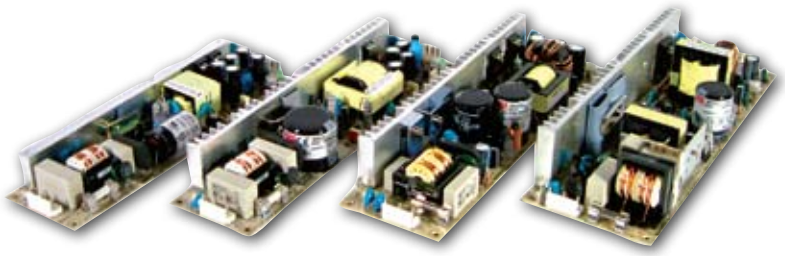
A quasiresonant ZCS/ZVS switch (Zero Current/Zero Voltage) is a design where "each switch cycle delivers a quantized 'packet' of energy to the converter output, and switch turn-on and turn-off occurs at zero current and voltage, resulting in an essentially lossless switch."

Model	Watt	Input Voltage	Single Output Rated Current (A)									Dimension (LxWxH) (mm)
			3.3V	5V	7.5	12V	13.5	15V	24V	27	48V	
PPS-125-□	125	90～264VAC; 127～370VDC	25	25	-	10.5	9.30	8.40	5.20	4.60	2.60	127 x 76.2 x 34.6 mm
ASP-150-□	150	90～264VAC; 127～370VDC	-	-	-	11	-	9.50	6.30	-	3.20	169 x 60.7 x 28.5 mm
PPS-200-□	200	90～264VAC; 127～370VDC	-	36	-	16.6	-	13.3	8.30	7.40	4.167	127 x 76.2 x 34.6 mm

50~150W LPS & LPP Series

Features

- Universal AC input / Full range
- ***Built-in active PFC function (LPP-100/150)***
- Protections: Short circuit / Overload /Over voltage
- Optional Over Temperature for the LPP-150
- Cooling by free air convection
- Built-in remote ON/OFF control for the LPS-50/75



▶▶ PFC- Power factor correction

The power factor of an AC electric power system is defined as the ratio of the real power flowing to the load to the apparent power, and is a number between 0 and 1 (frequently expressed as a percentage, e.g. 0.5 pf = 50% pf). Real power is the capacity of the circuit for performing work in a particular time. Apparent power is the product of the current and voltage of the circuit. Due to energy stored in the load and returned to the source, or due to a non-linear load that distorts the wave shape of the current drawn from the source, the apparent power can be greater than the real power.In an electric power system, a load with low power factor draws more current than a load with a high power factor for the same amount of useful power transferred. The higher currents increase the energy lost in the distribution system, and require larger wires and other equipment. Because of the costs of larger equipment and wasted energy, electrical utilities will usually charge a higher cost to industrial or commercial customers where there is a low power factor.

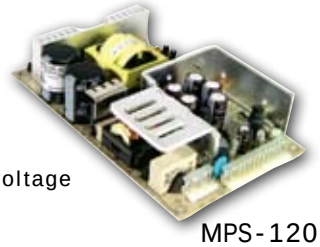
Model	Watt	Input Voltage	Single Output Rated Current (A)									Dimension (LxWxH) (mm)
			3.3V	5V	7.5	12V	13.5	15V	24V	27	48V	
LPS-50-□	50	90～264VAC	10	10	-	4.2	-	3.4	2.1	-	1.1	195 x 55 x 23 mm
LPS-75-□	75	90～264VAC	15	15	-	6.2	-	5.0	3.2	-	1.56	222 x 55 x 30 mm
LPS-100-□	100	115/230 Auto Switch	20	20	13.3	8.4	7.5	6.7	4.2	3.8	2.1	222 x 62 x 32 mm
LPP-100-□	100	85～264VAC with PFC	20	20	13.3	8.4	7.5	6.7	4.2	3.8	2.1	222 x 62 x 32 mm
LPP-150-□	150	85～264VAC with PFC	30	30	20	12.5	11.2	10	6.3	5.6	3.2	222 x 75 x 41 mm

Please refer to www.rectifier.co.za for detailed specifications.

30~200W Medical Approved Series

Features

- Universal AC input / Full range
- ***Medical Safety approved***
- Protections: Short circuit / Overload /Over voltage
- **Low leakage current ≤ 0.3mA**
- Cooling by free air convection
- Built-in remote ON/OFF control for the LPS-50/75

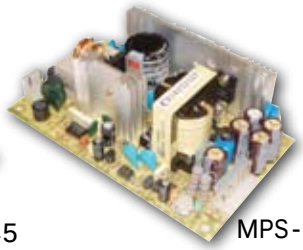


MPS-120

MPS-200

MPS-30

MPS-45



MPS-65

Model	Watt	Input Voltage	Single Output Rated Current (A)									Dimension (LxWxH) (mm)
			3.3V	5V	7.5	12V	13.5	15V	24V	27	48V	
MPS-30-□	30	88～264VAC; 120～370VDC	-	5.0	-	2.5	-	2.0	1.2	1.1	0.6	101.6 x 65.8 x 23.5 mm
MPS-45-□	45	90～264VAC; 120～370VDC	8.0	8.0	5.40	3.70	3.30	3.00	1.90	1.70	1.0	127 x 76 x 28 mm
MPS-65-□	65	90～264VAC; 127～370VDC	12	12	8.0	5.20	4.70	4.20	2.70	2.40	1.35	127 x 76 x 42 mm
MPS-120-□	120	90～264VAC; 127～370VDC	24	22	-	10	-	8.0	5.0	-	2.50	177.8 x 108 x 35.5 mm
MPS-200-□	200	90～264VAC; 127～370VDC	40	40	-	16.7	-	13.4	8.40	-	4.20	177.8 x 107.2 x 35.5 mm

▶▶ Medical Safety Approved Power supplies

EN 55 011 European limits and methods of measurement of radio disturbance characteristics for scientific and medical equipment

IEC 60601-1 has become the global benchmark for medical electrical equipment and many companies view compliance with IEC 60601-1 as a de facto requirement for most markets for: product registration; “CE” “UL” “CSA” marking; contract tenders; defence against claims in event of problems etc. Clause 1.3 in the latest edition IEC 60601-1:2005 requires compliance with all collateral standards in order to maintain compliance with the main standard IEC 60601-1.

60~160W Medical & Energy Savings Series

Features

- Universal AC input / Full range
- ***Medical Safety approved***
- Protections: Short circuit / Overload /Over voltage
- **Low leakage current ≤ 200 μA**
- **No load power consumption < 0.75W**
- Cooling by free air convection
- 110% Peak load capability
- Suitable for medical & IT applications
- Built-in remote sense function for 5~15V (RPS-160)
- Standby 5V @ 1A (optional)

RPS-65

RPS-75

RPS-160

Model	Watt	Input Voltage	Single Output Rated Current (A)							Dimension (LxWxH) (mm)
			3.3V	5V	12V	15V	24V	36	48V	
RPS-65-□	65	90～264VAC; 127～370VDC	11	11	5.50	4.40	2.75	-	1.375	101.6 x 50.8 x 29 mm
RPS-75-□	75	90～264VAC; 127～370VDC	20	18.7	8.30	6.70	4.20	2.80	2.10	127 x 76.2 x 31 mm
RPS-160-□	160	90～264VAC; 127～370VDC	-	30	12.90	10.30	6.50	-	3.25	127 x 76.2 x 33 mm

Please refer to www.rectifier.co.za for detailed specifications.