

# MORNSUN®

## Enclosed Switching Power Supply Selection Guide

15-1000W



mornsun website

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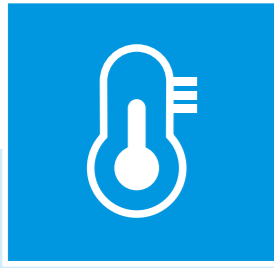
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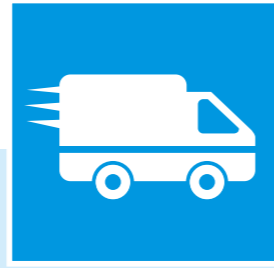
One-stop solutions of power supplies



Stronger Environmental Adaptability



Better Product Performance



Faster Delivery

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- › Established: 1998
- › Factory: 60000+ square meters
- › Employees: 3000+
- › Patents & IPRs: 1300+
- › Business Coverage: Global
- › Information Management: OA & ERP & CRM & EHR & PLM & ISP
- › Certifications: ISO9001, IATF16949, ISO14001, OHSAS18001

MORNSUN is a one-stop power supplies solutions manufacturer. With 23 years of experience in the area of power supply design and manufacture, MORNSUN has released onto the global market 5000+ high-quality products including AC/DC converter, DC/DC converter, AC/DC enclosed switching power supply, transceiver module, signal conditioning module, IGBT driver, LED driver, EMC auxiliary device, etc. for different applications and industries, such as industrial automation, charging station, photovoltaic, telecommunications, medical, smart home, automotive industry, and more. Guided by the service principle of "trustworthiness", MORNSUN offers the best products, fast and local service, and efficient pre-sales and after-sales support for the clients worldwide.

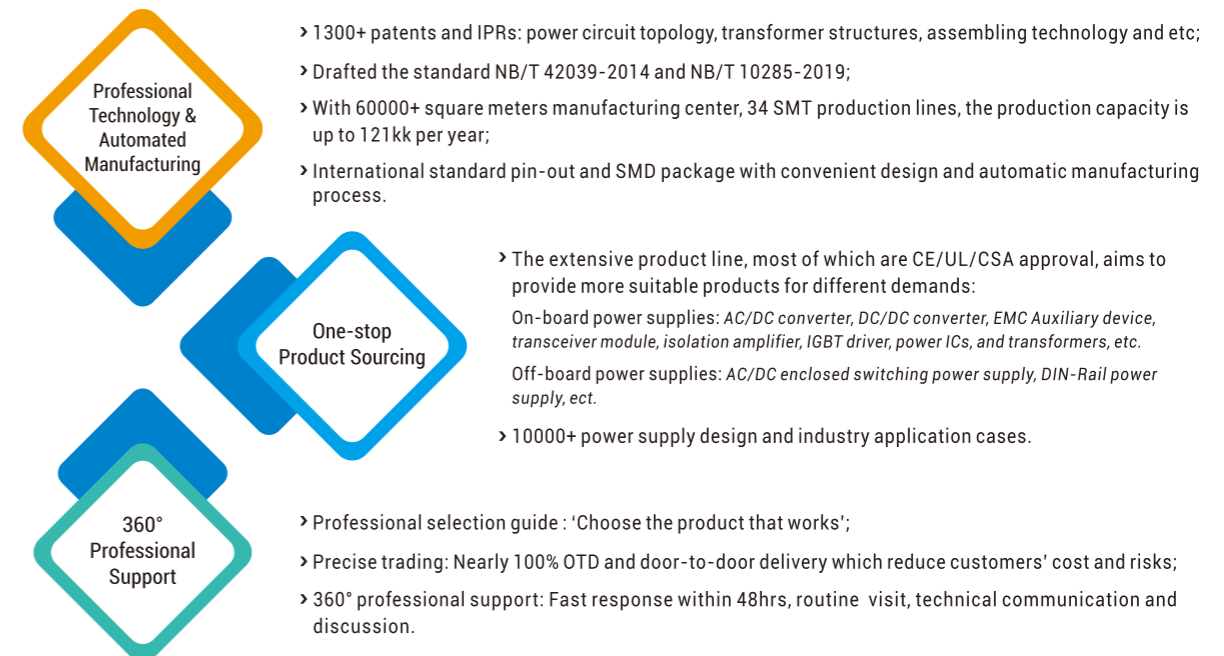


R&D Center in Guangzhou



Manufacturing Center in Huaihua

## One-stop solutions of power supplies

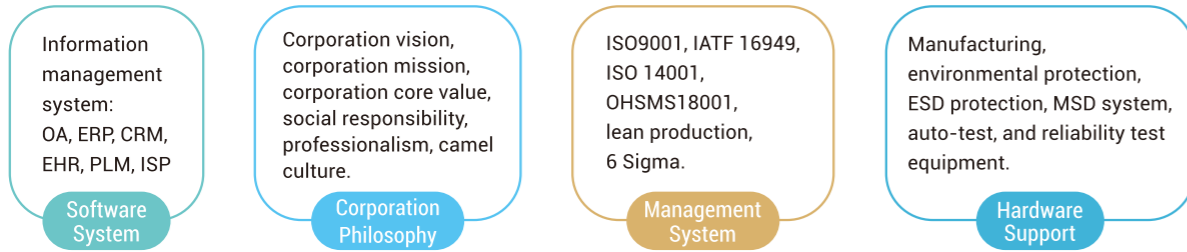


**Notes:**

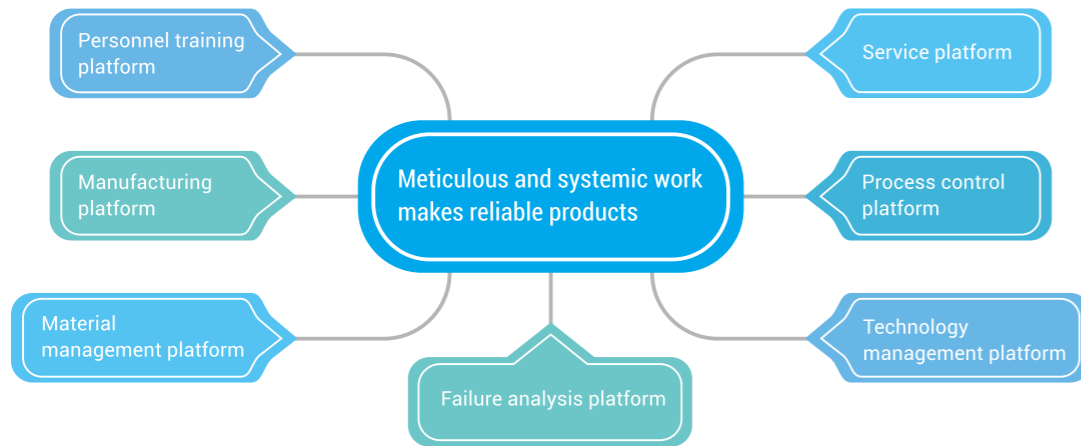
NB/T 42093-2014: Wide voltage input and regulated output isolated DC-DC model power supply

NB/T 10285-2019: Fixed voltage input and unregulated output isolated DC-DC model power supply

## MORNSUN's TQA System Architecture



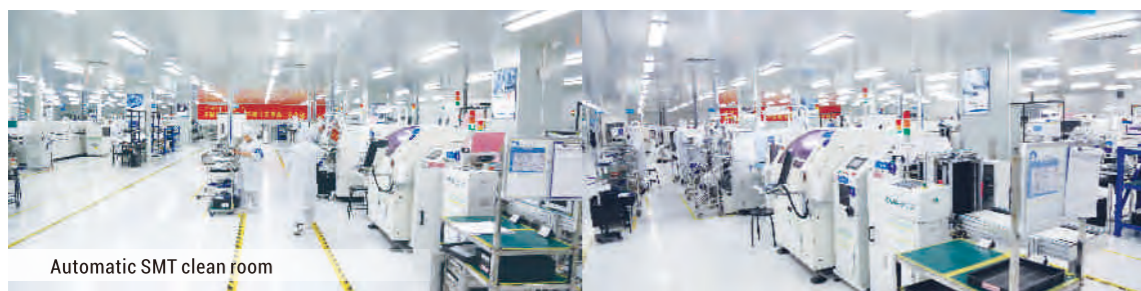
## MORNSUN's Reliability Assurance Systems



## Markings & Systems



IATF16949 ISO9001 ISO14001 OHSAS18001



## Enclosed Switching Power Supply Selection Guide


### 305VAC Input (15-320W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LM15-23Bxx	15	85-305VAC 100-430VDC	3.3V/3A, 5V/3A, 12V/1.3A, 15V/1A, 24V/0.625A, 48V/0.32A	2.85-3.6, 4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 42-54	4000	83%	1	UL, CE, CCC
LM25-23Bxx	25	85-305VAC 100-430VDC	3.3V/6A, 5V/5A, 12V/2.1A, 15V/1.7A, 24V/1.1A, 48V/0.57A	2.85-3.6, 4.5-5.5, 10.8-13.2, 13.5-16.5, 22-27.6, 42-54	4000	88%	1	UL, CE, CCC
LM35-23Bxx	35	85-305VAC 120-430VDC	5V/7A, 12V/3A, 15V/2.4A, 24V/1.5A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8	4000	87%	1	UL, CE, CCC
LM50-23Bxx	50	85-305VAC 120-430VDC	5V/10A, 12V/4.2A, 15V/3.4A, 24V/2.2A, 36V/1.45A, 48V/1.1A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	90%	1	UL, CE, CCC
LM75-23Bxx	75	85-305VAC 120-430VDC	5V/14A, 12V/6A, 15V/5A, 24V/3.2A, 36V/2.1A, 48V/1.6A, 55V/1.36A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8, 52-56	4000	90.5%	1	UL, CE, CCC
LMF75-23Bxx	75	85-305VAC 120-430VDC	5V/15A, 12V/6.3A, 15V/5A, 24V/3.2A, 48V/1.6A	4.75-5.5, 11.4-13.2, 14.3-16.5, 22.8-26.4, 45.6-52.8	4000	88%	1	CE
LM100-23Bxx	100	85-305VAC 120-430VDC	5V/18A, 12V/8.5A, 15V/7A, 24V/4.5A, 36V/2.8A, 48V/2.3A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	90.5%	1	UL, CE, CCC
LMF100-23Bxx	100	85-305VAC 120-430VDC	12V/8.5A, 15V/6.7A, 24V/4.2A, 48V/2.1A	11.4-13.8, 14.3-16.5, 22.8-27.6, 45.6-55.2	4000	87%	1	UL, CE, CCC
LM150-23Bxx	150	85-305VAC 120-430VDC	12V/12.5A, 15V/10A, 24V/6.5A, 36V/4.3A, 48V/3.3A, 55V/2.73A	10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8, 49.5-60.5	4000	90%	1	UL, CE, CCC
LMF150-23Bxx	150	85-305VAC 120-430VDC	12V/12.5A, 15V/10A, 24V/6.3A, 48V/3.2A	10.2-13.8, 13.5-18, 21.6-28.8, 45.6-55.2	4000	88%	1	UL, CE, CCC
LMF200-23Bxx	200	85-305VAC 120-430VDC	5V/40A, 12V/16.7A, 15V/13.4A, 24V/8.4A, 48V/4.2A	4.5-5.5, 11.4-12.6, 14.25-15.75, 22.8-25.2, 45.6-50.4	4000	90%	1	UL, CE, CCC
LMF320-23Bxx	320	85-305VAC 120-430VDC	4V/60A, 5V/60A, 12V/26.7A, 15V/21.4A, 24V/13.4A, 27V/11.9A, 48V/6.7A	3.6-4.4, 4.5-5.5, 10-13.2, 13.5-18, 20-26.4, 26-31.5, 41-56	4000	89%	1	UL, CE, CCC





### 264VAC Input (35-50W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LM35-20Bxx	35	85-264VAC 120-370VDC	5V/7A, 12V/3A, 15V/2.4A, 24V/1.5A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8	4000	89%	1	UL, CE, CCC
LM35-22Bxx	35	165-264VAC 180-370VDC	5V/7A, 12V/3A, 15V/2.4A, 24V/1.5A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8	4000	89%	1	UL, CE, CCC
LM50-20Bxx	50	85-264VAC 120-370VDC	5V/10A, 12V/4.2A, 15V/3.4A, 24V/2.2A, 36V/1.45A, 48V/1.1A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	90%	1	UL, CE, CCC
LM50-22Bxx	50	165-264VAC 180-373VDC	5V/10A, 12V/4.2A, 15V/3.4A, 24V/2.2A, 36V/1.45A, 48V/1.1A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	90%	1	UL, CE, CCC














## 264VAC Input (75-1000W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LM75-20Bxx	75	85-264VAC 120-370VDC	5V/14A, 12V/6A, 15V/5A, 24V/3.2A, 36V/2.1A, 48V/1.6A	4.5-5.5, 10.2-13.8, 13.5-18, 2 1.6-28.8, 32.4-39.6, 43.2-52.8	4000	91.5%	1	  
LM75-22Bxx	75	165-264VAC 200-370VDC	5V/14A, 12V/6A, 15V/5A, 24V/3.2A, 36V/2.1A, 48V/1.6A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	91.5%	1	  
LMF75-20Bxx	75	85-264VAC 120-370VDC	5V/15A, 12V/6.3A, 15V/5A, 24V/3.2A, 48V/1.6A	4.75-5.5, 11.4-13.2, 14.3-16.5, 22.8-26.4, 45.6-52.8	4000	89%	1	  
LM100-20Bxx	100	85-264VAC 120-370VDC	5V/18A, 12V/8.5A, 15V/7A 24V/4.5A, 36V/2.8A, 48V/2.3A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	91%	1	  
LM100-22Bxx	100	165-264VAC 200-370VDC	5V/18A, 12V/8.5A, 15V/7A, 24V/4.5A, 36V/2.8A, 48V/2.3A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	91%	1	  
LM150-12M1224-Q	150	180-264VAC 240-370VDC	12V/12.5A, 24V/6.25A	/	3000	84%	1	
LM150-20Bxx	150	85-264VAC 120-370VDC	12V/12.5A, 15V/10A, 24V/6.5A, 36V/4.3A, 48V/3.3A	10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	89%	1	  
LM150-22Bxx	150	165-264VAC 180-370VDC	12V/12.5A, 15V/10A, 24V/6.5A, 36V/4.3A, 48V/3.3A	10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	4000	89%	1	  
LM200-10Bxx	200	90-132VAC/180-264VAC 240-370VDC	5V/30A, 12V/17A, 15V/14A, 24V/8.8A, 36V/5.9A, 48V/4.4A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	3000	89.5%	1	  
LM200-12Bxx	200	176-264VAC 240-370VDC	5V/30A, 12V/17A, 15V/14A, 24V/8.8A, 36V/5.9A, 48V/4.4A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	3000	89.5%	1	  
LM350-10Bxx	350	90-132VAC/180-264VAC 240-370VDC	5V/60A, 12V/29A, 15V/23.2A, 24V/14.6A, 36V/9.7A, 48V/7.3A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	3000	88.5%	1	  
LM350-12Bxx	350	176-264VAC 240-370VDC	5V/60A, 12V/29A, 15V/23.2A, 24V/14.6A, 36V/9.7A, 48V/7.3A	4.5-5.5, 10.2-13.8, 13.5-18, 21.6-28.8, 32.4-39.6, 43.2-52.8	3000	89%	1	  
LM450-12Bxx	450	176-264VAC 240-373VDC	12V/37.5A, 15V/30A, 24V/18.8A, 27V/16.7A, 36V/12.5A, 48V/9.4A	10.2-13.8, 13.5-18, 21.6-28.8, 24.3-29.7, 32.4-39.6, 43.2-52.8	3000	88%	1	 
LM600-12Bxx	600	176-264VAC 240-370VDC	12V/50A, 15V/40A, 24V/25A, 27V/22.2A, 36V/16.6A, 48V/12.5A	10-13.5, 13.5-16.5, 22-26.4, 24-30, 32-40, 43-56	3000	88%	1	 
LMF600-20Bxx	600	80-277VAC 110-390VDC	12V/50A, 15V/40A, 24V/25A, 27V/22.3A, 36V/16.7A, 48V/12.5A	11.8-12.6, 14.7-15.8, 23.5-25.2, 26.4-28.4, 35.3-37.8, 47.0-50.4	4000	94%	1	
LMF1000-20Bxx	1000	90-264VAC 120-370VDC	Main output: 12V/80A, 15V/64A, 24V/42A, 27V/37.3A, 36V/28A, 48V/21A, 54V/18.7A Auxiliary output: 5V/2A	Main output: 12-14.4, 15-18, 24-28.8, 27-32.4, 36-43.2, 48-56, 54-58 Auxiliary output: /	4000	94%	1	  
















## Multiple outputs (30-35W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LM30-00J0512-03E	<b>Electric power</b> 30	85-264VAC 100-370VDC	5V/2A, 12V/0.3A, -12V/0.3A, 24V/0.5A	/	2000	83%	4	-
LM35-10Axx	35	85-264VAC 120-373VDC	5V/4A, 12V/1A 5V/2.2A, 24V/1A	4.75-5.50	3000	80%	2	
LM35-10Cxx	35	85-264VAC 120-373VDC	5V/3A, 12V/1A, -12V/0.5A 5V/2.5A, 15V/1A, -15V/0.5A 5V/2.5A, 24V/0.5A, 12V/1A	4.75-5.50	3000	81%	3	
LM35-10Dxx	35	85-264VAC 120-373VDC	5V/4A, 12V/1A 5V/2.2A, 24V/1A	4.75-5.50	3000	83%	2	 

## Multiple outputs (50-150W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LM50-10A12	50	85-264VAC 120-370VDC	12V/2.1A, -12V/2.1A	/	3000	83%	2	
LM50-10Axx	50	90-264VAC 120-373VDC	5V/6A, 12V/2A 5V/4A, 24V/1.4A	4.75-5.50	3000	81%	2	
LM50-10Cxx	50	85-264VAC 120-373VDC	5V/4A, 12V/2A, -12V/0.5A 5V/4A, 15V/1.5A, -15V/0.5A 5V/3A, 24V/1A, 12V/1A	4.75-5.50	3000	85%	3	
LM50-10Dxx	50	85-264VAC 120-373VDC	5V/6A, 12V/2A 5V/4A, 24V/1.4A	4.75-5.50	3000	84%	2	
LM60-12A15	<b>Laser applications</b> 60	165-264VAC 180-370VDC	+15V/2A, -15V/2A	14.25-15.75	3000	82%	2	
LM75-10Axx	75	90-264VAC 120-373VDC	5V/7A, 12V/3A 5V/4A, 12V/4A 5V/5A, 12V/2A	4.75-5.50	3000	81%	2	
LM75-10Cxx	75	90-264VAC 120-370VDC	5V/6A, 12V/2.8A, -12V/0.5A 5V/6A, 15V/2.3A, -15V/0.5A 5V/5A, 24V/1.5A, 12V/1A	4.75-5.50	3000	84%	3	
LM75-10Dxx	75	90-264VAC 120-373VDC	5V/7A, 12V/3A, 5V/5A, 24V/2A	4.75-5.50	3000	84%	2	 
LM90-12A15	<b>Laser applications</b> 90	165-264VAC 180-370VDC	+15V/3A, -15V/3A	14.25-15.75	3000	82%	2	
LM100-10Cxx	100	90-264VAC 120-370VDC	5V/8A, 12V/3.5A, -12V/1A 5V/7A, 15V/3A, -15V/1A 5V/6A, 24V/2A, 12V/1.5A	4.75-5.50	3000	85%	3	
LM100-10Dxx	100	90-264VAC 120-370VDC	5V/5A, 24V/3A 12V/4A, 24V/2A	4.75-5.50, 11.4-13.2	3000	87%	2	
LM150-12A15	<b>Laser applications</b> 150	165-264VAC 180-370VDC	+15V/5A, -15V/5A	13.5V-16.5V	3000	85%	2	
LM150-12D0512-40	150	176-264VAC 250-373VDC	+5V/20A, +12V/4.17A	/	3000	80%	2	-

## DIN-Rail Power Supply (15-120W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LI15-20Bxx-PR2	15	85-264VAC (277VAC available) 120-370VDC (390VDC available)	5V/2.4A, 12V/1.25A, 15V/1A 24V/0.63A, 48V/0.32A	4.5-5.5, 10.8-13.8, 13.5-18.0 21.6-29.0, 43.2-55.2	4000	87%	1	
LI30-20Bxx-PR2	30	85-264VAC 120-370VDC	5V/3A, 12V/2A, 15V/2A, 24V/1.5A, 48V/0.75A	4.9-5.5, 10.8-13.8, 13.5-18.0, 21.6-29.0, 43.2-55.2	4000	90%	1	 
LI60-20BxxPR2	60	85-264VAC 120-370VDC	5V/6.5A, 12V/4.5A, 15V/4.0A, 24V/2.5A, 48V/1.25A	4.9-5.5, 10.8-13.8, 13.5-18.0, 21.6-29.0, 43.2-55.2	4000	91%	1	 
LI75-20BxxR2S	75	90-264VAC 120-370VDC	12V/6.3A, 24V/3.2A, 48V/1.6A	12-14, 24-28, 48-53	4000	90%	1	
LI100-20BxxPR2	100	85-264VAC 120-370VDC	12V/7.5A, 15V/6.5A, 24V/4.2A, 48V/2.1A	12-13.8, 13.5-18.0, 21.6-29.0, 43.2-55.2	4000	90%	1	 
LI120-20BxxR2	120	90-264VAC 127-370VDC	12V/10A, 24V/5A, 48V/2.5A	12-14, 24-28, 48-55	4000	89%	1	
LI120-20BxxR2S	120	90-264VAC 120-370VDC	12V/10A, 24V/5A, 48V/2.5A	12-14, 24-28, 48-55	4000	89%	1	 
LIF120-10BxxR2	120	85-264VAC 120-370VDC	12V/10A, 24V/5A, 48V/2.5A	11.8-14, 23.5-28, 47-53	3000	94%	1	 
LIF120-10BxxR2S-EX	120	85-264VAC 120-370VDC	12V/10A, 24V/5A, 48V/2.5A	11.8-14, 23.5-28, 47-53	3000	93.5%	1	<b>ATEX IECEx</b>  

## ▼ DIN-Rail Power Supply (150-480W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
L150-20BxxPR2	150	85-264VAC (277VAC available) 120-370VDC (390VDC available)	12V/11.3A, 15V/9.5A, 24V/6.25A, 48V/3.2A	10.8-13.8, 13.5-18, 21.6-29, 43.2-52.8	4000	91.5%	1	CE
LIF240-10BxxR2	240	85-264VAC 120-370VDC	12V/16A, 24V/10A, 48V/5A	12-14, 24-28, 48-53	3000	94%	1	UL IS CE
LIF240-10BxxR2S	240	85-264VAC 120-370VDC	12V/16A, 24V/10A, 48V/5A	12-14, 24-28, 48-53	3000	94%	1	UL IS CE
LIF480-10BxxR2	480	85-264VAC 120-370VDC	24V/20A, 48V/10A	24-28, 48-55	3000	94%	1	UL IS CE

## ▼ Open Frame Power Supply (120-550W)

Series	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Output voltage adjustable range (VDC)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
LOF120-20Bxx LOF120-20Bxx-C	120	85-264VAC 120-370VDC	12V/9.5A, 15V/7.6A, 19V/6.3A, 24V/5A, 27V/4.44A, 36V/3.3A, 48V/2.5A, 54V/2.2A	11.4-12.6, 14.3-15.8, 17.3-19.8, 22.8-25.2, 25.6-28.4, 35.28-37.8, 45.6-50.4, 51.3-55.5	4000	95%	1	UL IS CE 2xMOPP
LOF225-20Bxx LOF225-20Bxx-C	225	85-264VAC 120-370VDC	12V/18.75A, 15V/15A, 24V/9.4A, 27V/8.35A, 36V/6.25A, 48V/4.7A, 54V/4.17A	11.8-12.6, 14.7-15.8, 23.5-25.2, 26.5-28.4, 35.28-37.8, 47.1-50.4, 52.5-55.5	4000	94%	1	UL IS CE 2xMOPP
LOF350-20Bxx LOF350-20Bxx-C	350	90-264VAC 127-370VDC	12V/25A, 15V/21.67A, 24V/14.6A, 27V/13A, 36V/9.73A, 48V/7.3A, 54V/6.5A	11.4-12.6, 14.25-15.75, 22.8-25.2, 25.65-28.35, 34.2-37.8, 45.6-50.4, 51.3-56.7	4000	94%	1	UL IS CE 2xMOPP
LOF450-20Bxx LOF450-20Bxx-C LOF450-20Bxx-CF	450	90-264VAC 127-370VDC	12V/33.3A, 15V/26.7A, 24V/18.75A, 27V/16.7A, 36V/12.5A, 48V/9.4A	11.4-12.6, 14.25-15.75, 22.8-25.2, 25.65-28.35, 34.2-37.8, 45.6-50.4	4000	94%	1	UL IS CE 2xMOPP
LOF550-20Bxx LOF550-20Bxx-C LOF550-20Bxx-CF	550	90-264VAC 127-370VDC	12V/41.6A, 15V/33.3A, 24V/22.9A, 27V/20.4A, 36V/15.3A, 48V/11.46A	11.4-12.6, 14.25-15.75, 22.8-25.2, 25.65-28.35, 34.2-37.8, 45.6-50.4	4000	94%	1	UL IS CE 2xMOPP

Metal case series: with the suffix "-C" (LOFxx-20Bxx-C), auxiliary power supply for external fan;  
with the suffix "-CF" (LOFxx-20Bxx-CF), auxiliary power supply for build-in fan available.

## ▼ Bus Power Supply (20W)

Model number	Power (W) (Max.)	Input voltage	Nominal output voltage and current (Vo/Io)	Isolation voltage (VAC)	Efficiency (Max.)	No. of outputs	Markings
KNX20-22A640	19.2	180-264VAC/254-370VDC	30V/0.64A	4000	86%	1	CE



## 305VAC Input Enclosed Switching Power Supply

1. Single Output Series (15-150W) ..... 8-11
2. With PFC Function Series (75-320W) ..... 12-14

# Enclosed Switching Power Supply: 15-150W LM Series

(Single Output, 305VAC Input)



- ▶ Compact size with 30mm thickness low profile
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Over-voltage class III (designed to meet EN61558)
- ▶ Withstand 5G vibration test
- ▶ Operating altitude up to 5000m
- ▶ LED indicator for power on
- ▶ Meets IEC/EN60335-1, IEC/EN61558-1, 2-16 standards, suitable for home appliances
- ▶ Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LM15-23B	LM25-23B	LM35-23B	LM50-23B	LM75-23B	LM100-23B	LM150-23B
<b>Input Voltage</b>	85-305VAC/100-430VDC		85-305VAC/120-430VDC				
<b>Inrush Current (@230VAC)</b>	50A	Cold start, 40A	Cold start, 50A	Cold start, 60A	Cold start, 75A	Cold start, 65A	Cold start, 60A
<b>Standby Power Consumption</b>	<0.5W	3.3-24V Output: <0.3W 48V Output: <0.5W	<0.3W	<0.5W		5-24V Output: <0.3W 36-48V Output: <0.5W	<0.5W
<b>Over-current Protection (Self-recovery)</b>	≥110% I <sub>o</sub>	110%-300% I <sub>o</sub>	110%-200% I <sub>o</sub>			110%-160% I <sub>o</sub>	110%-150% I <sub>o</sub>
<b>Short Circuit Protection</b>	Hiccup, continuous, self-recovery		Hiccup or turning off, continuous, self-recovery	Hiccup, continuous, self-recovery			
<b>Isolation Voltage</b> <small>(Electric strength test for 1 min., leakage current &lt;10mA)</small>	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 1.25kVAC						
<b>Operating Temperature</b>	-30°C to +70°C						
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B		CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A			
	<b>EMS</b>	IEC/EN61000-4-2 Contact ±6KV, IEC/EN61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11					
<b>Safety Standard</b>	IEC/UL62368-1, GB4943.1 & EN62368-1	IEC/EN/UL62368 GB4943	IEC/EN/UL62368, En60335, En61558, GB4943				
<b>MTBF</b>	MIL-HDBK-217F @25°C > 700,000 h	MIL-HDBK-217F @25°C > 450,000 h	MIL-HDBK-217F@25°C > 300,000 h				
<b>Dimension (LxWxH)(mm)</b>	65 x 55 x 25	80 x 55 x 25	99 x 82 x 30	99 x 97 x 30	129 x 97 x 30	159 x 97 x 30	
<b>Packaging</b>	120pcs/13.3kg	85pcs/11.7kg	52pcs/10.8kg	48pcs/12.5kg	36pcs/12.8kg	28pcs/13.9kg	

15-25W

## Enclosed Switching Power Supply LM Series: 305VAC Input

- Input voltage: 85-305VAC/100-430VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Efficiency up to 88%
- Low standby power consumption (<0.5w)
- Isolation up to 4000VAC
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, GB4943 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



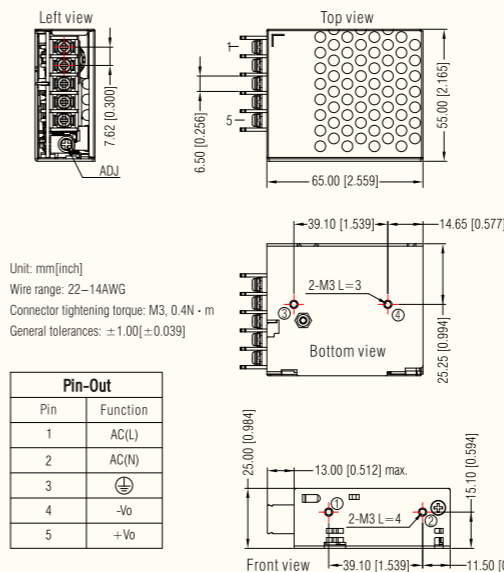
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
15W	LM15-23B03	9.9W	85-305VAC	3.3V/3A	73	
	LM15-23B05	15W		5V/3A	78	
	LM15-23B12	15.6W		12V/1.3A	82	
	LM15-23B15	15W		15V/1A	82	
	LM15-23B24	15W		24V/0.625A	83	
	LM15-23B48	15.36W		48V/0.32A	83	
25W	LM25-23B03	19.8W	85-305VAC	3.3V/6A	78	
	LM25-23B05	25W		5V/5A	81	
	LM25-23B12	25.2W		12V/2.1A	85	
	LM25-23B15	25.5W		15V/1.7A	86	
	LM25-23B24	26.4W		24V/1.1A	87	
	LM25-23B48	27.36W		48V/0.57A	88	

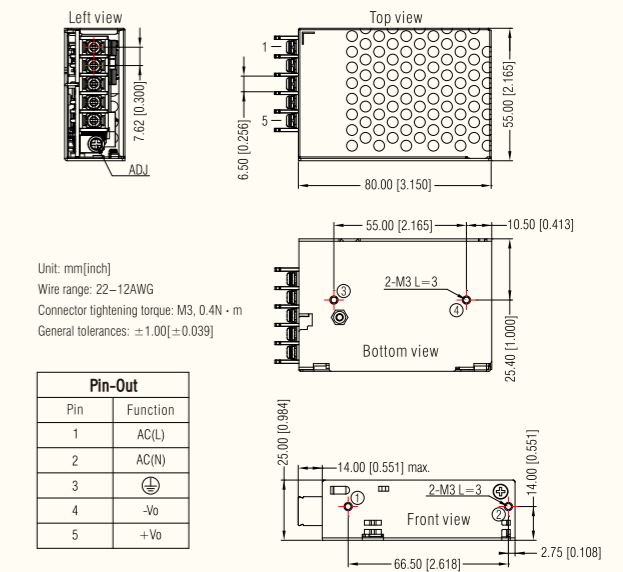
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

1 LM15-23Bxx Series: LxWxH: 65×55×25(mm)



2 LM25-23Bxx Series: LxWxH: 80×55×25(mm)



### Enclosed Switching Power Supply LM Series: 305VAC Input

- Input voltage: 85-305VAC/120-430VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



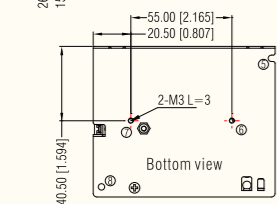
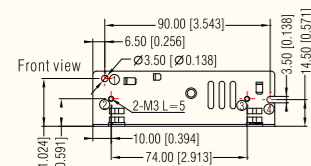
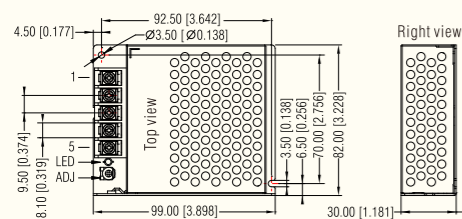
#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
35W	LM35-23B05	35W	85-305VAC	5V/7A	86	UL US CE CCC
	LM35-23B12	36W		12V/3A	88	
	LM35-23B15	36W		15V/2.4A	86	
	LM35-23B24	36W		24V/1.5A	87	
50W	LM50-23B05	50W	85-305VAC	5V/10A	83	UL US CE CCC
	LM50-23B12	50.4W		12V/4.2A	86	
	LM50-23B15	51W		15V/3.4A	87	
	LM50-23B24	52.8W		24V/2.2A	88	
	LM50-23B36	52.2W		36V/1.45A	89	
	LM50-23B48	52.8W		48V/1.1A	90	
75W	LM75-23B05	70W	85-305VAC	5V/14A	85	UL US CE CCC
	LM75-23B12	72W		12V/6A	87	
	LM75-23B15	75W		15V/5A	87	
	LM75-23B24	76.8W		24V/3.2A	89	
	LM75-23B36	75.6W		36V/2.1A	89	
	LM75-23B48	76.8W		48V/1.6A	90.5	
	LM75-23B55	75W		55V/1.36A	90.5	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

#### Package Dimension

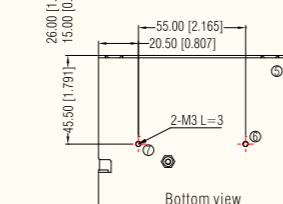
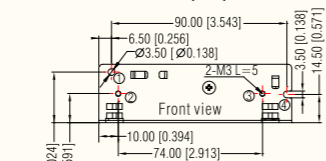
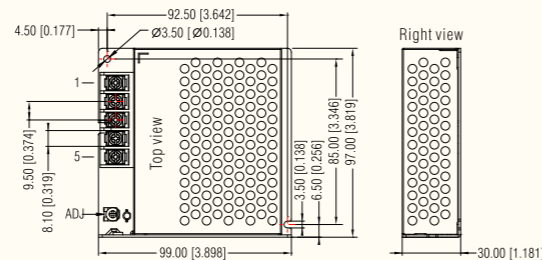
##### 1 LM35/50-23Bxx Series: LxWxH:99×82×30(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	-Vo
5	+Vo

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M3.5, 0.8N·m  
General tolerances: ±1.00[±0.039]

##### 2 LM75-23Bxx Series: LxWxH:99×97×30(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	-Vo
5	+Vo

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M3.5, 0.8N·m  
General tolerances: ±1.00[±0.039]

### Enclosed Switching Power Supply LM Series: 305VAC Input

- Input voltage: 85-305VAC/120-431VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



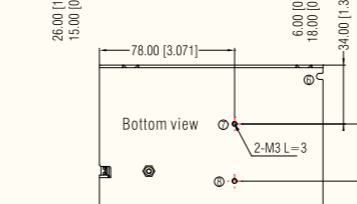
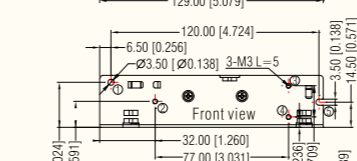
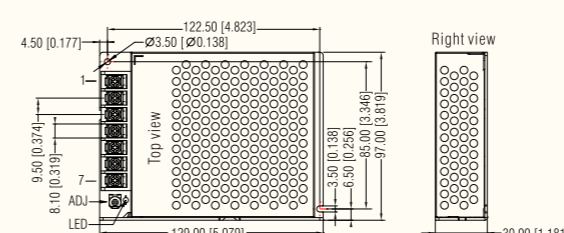
#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
100W	LM100-23B05	90W	85-305VAC	5V/18A	85.5	UL US CE CCC
	LM100-23B12	102W		12V/8.5A	87	
	LM100-23B15	105W		15V/7A	87	
	LM100-23B24	108W		24V/4.5A	89.5	
	LM100-23B36	100.8W		36V/2.8A	89.5	
	LM100-23B48	110.4W		48V/2.3A	90.5	
150W	LM150-23B12	150W	85-305VAC	12V/12.5A	86	UL US CE CCC
	LM150-23B15	150W		15V/10A	87	
	LM150-23B24	156W		24V/6.5A	88	
	LM150-23B36	154.8W		36V/4.3A	88	
	LM150-23B48	158.4W		48V/3.3A	89	
	LM150-23B55	150.15W		55V/2.73A	90	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

#### Package Dimension

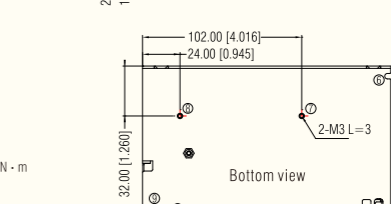
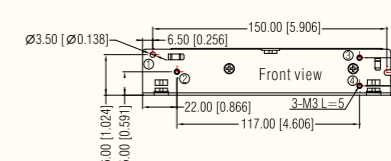
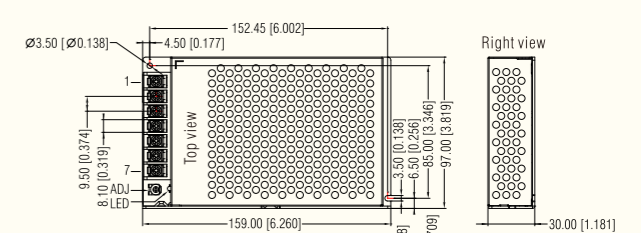
##### 1 LM100-23Bxx Series: LxWxH:129×97×30(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	-Vo
5	-Vo
6	+Vo
7	+Vo

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M3.5, 0.8N·m  
General tolerances: ±1.00[±0.039]

##### 2 LM150-23Bxx Series: LxWxH:159×97×30(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	-Vo
5	-Vo
6	+Vo
7	+Vo

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M3.5, 0.8N·m  
General tolerances: ±1.00[±0.039]

# Enclosed Switching Power Supply: 75-320W LMF Series

(Single Output, PFC Function, 305VAC Input)



- ▶ Compact size with 30mm thickness low profile
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Over-voltage class III (designed to meet EN61558)
- ▶ Low standby power consumption, high efficiency, low ripple & noise
- ▶ LED indicator for power on (320W)
- ▶ Forced air cooling by built-in DC fan (320W)
- ▶ Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LMF75-23B	LMF100-23B	LMF150-23B	LMF200-23B	LMF320-23B
<b>Input Voltage</b>	85-305VAC/120-430VDC				
<b>Output Voltage</b>	5V 12V 15V 24V 48V	12V 15V 24V 48V	5V 12V 15V 24V 48V	4V 5V 12V 15V 24V 27V 48V	
<b>Inrush Current (@230VAC)</b>	Cold start, 35A	Cold start, 45A	Cold start, 65A		
<b>Over-current Protection</b>	≥105% I <sub>o</sub> , self-recovery	105%-150% I <sub>o</sub>	105% -200% I <sub>o</sub>	105% -150% I <sub>o</sub>	
<b>Short Circuit Protection</b>	Constant current, continuous, self-recovery			Hiccup, continuous, self-recovery	
<b>Isolation Voltage</b> <small>(Electric strength test for 1 min., leakage current &lt;10mA)</small>	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC				
<b>Operating Temperature</b>	-30°C to +70°C				
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A, IEC/EN61000-3-3		CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A and Class D, IEC/EN61000-3-3	
	<b>EMS</b>	IEC/EN 61000-4-2 Contact ±6KV IEC/EN61000-4-3 10V/m IEC/EN61000-4-6 10 Vr.m.s IEC/EN61000-4-4,5,11	IEC/EN 61000-4-2 Contact ±6KV IEC/EN61000-4-3 3V/m IEC/EN61000-4-6 10 Vr.m.s IEC/EN61000-4-4,5,11	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN 61000-4-3 10V/m, IEC/EN 61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11	
<b>Safety Standard</b>	IEC/EN/UL62368, En60335, GB4943	IEC/EN/UL62368, IEC/EN60335, GB4943, IEC/EN61558	IEC/EN/UL62368, En60335, EN61558, GB4943	IEC/EN/UL62368, En60335, GB4943	IEC/EN/UL62368-1, GB4943.1, IEC60950-1, EN60335-1
<b>MTBF</b>	MIL-HDBK-217F@25°C > 300,000 h			MIL-HDBK-217F@25°C > 250,000 h	
<b>Dimension (LxWxH)(mm)</b>	159 x 97 x 30	179 x 99 x 30		215 x 115 x 30	
<b>Packaging</b>	28pcs/12.37kg	26pcs/13.71kg	26pcs/14.75kg	26pcs/14.1kg	19pcs/16.0kg

75-150W

## Enclosed Switching Power Supply LMF Series: 305VAC Input & PFC Function

- Input voltage: 85-305VAC/120-430VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Built-in active PFC function
- Isolation voltage 4000VAC
- Efficiency up to 88%
- Output short circuit, over-current, over-voltage, over-temperature protection (built-in constant current limiting circuit)
- Remote ON-OFF control
- Meets IEC/EN/UL62368, IEC/EN60335, GB4943, IEC/EN61558 standards



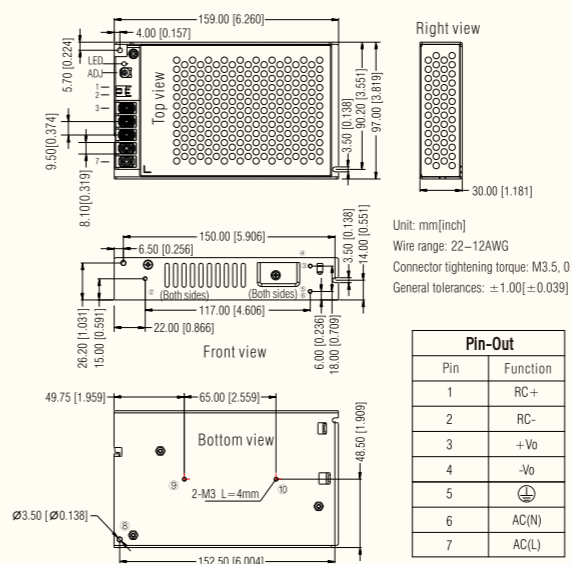
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
75W	LMF75-23B05	75W	85-305VAC	5V/15A	81	CE
	LMF75-23B12	75.6W		12V/6.3A	84	
	LMF75-23B15	75W		15V/5A	85	
	LMF75-23B24	76.8W		24V/3.2A	86	
	LMF75-23B48	76.8W		48V/1.6A	88	
100W	LMF100-23B12	102W	85-305VAC	12V/8.5A	85	UL, CE, CCC
	LMF100-23B15	100.5W		15V/6.7A	86	
	LMF100-23B24	100.8W		24V/4.2A	86	
	LMF100-23B48	100.8W		48V/2.1A	87	
150W	LMF150-23B12	150W	85-305VAC	12V/12.5A	85.5	UL, CE, CCC
	LMF150-23B15	150W		15V/10A	86	
	LMF150-23B24	151.2W		24V/6.3A	87	
	LMF150-23B48	153.6W		48V/3.2A	88	

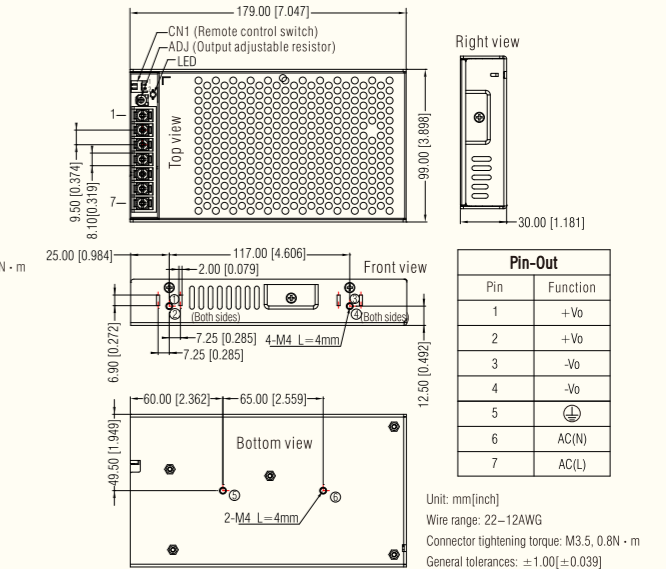
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

① LMF75-23Bxx Series: LxWxH: 159×97×30(mm)



② LMF100/150-23Bxx Series: LxWxH: 179×99×30(mm)





# 200-320W

## Enclosed Switching Power Supply LMF Series: 305VAC Input & PFC Function

- Input voltage: 85-305VAC/120-430VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Built-in active PFC function
- Isolation voltage 4000VAC
- Output short circuit, over-current, over-voltage, over-temperature protection
- Forced air cooling by built-in DC fan (320W)
- 1U low profile
- LED indicator for power on
- EMI meets CISPR32/EN55032 CLASS B



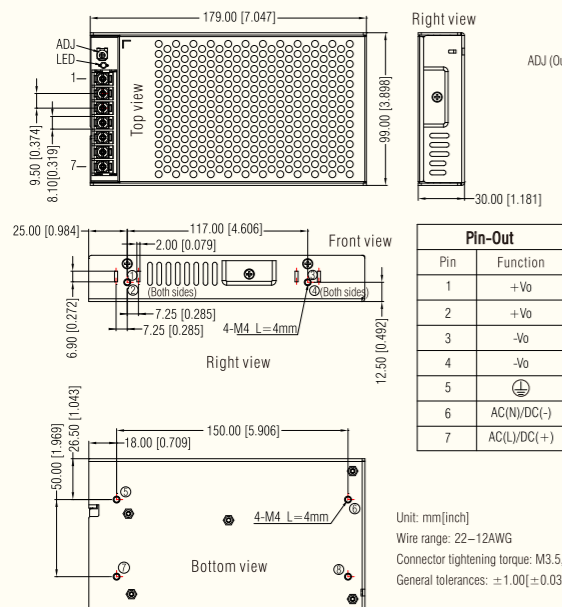
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
200W	LMF200-23B05	200W	85-305VAC	5V/40A	85	
	LMF200-23B12	200.4W		12V/16.7A	88	
	LMF200-23B15	201W		15V/13.4A	88	
	LMF200-23B24	201.6W		24V/8.4A	90	
	LMF200-23B36	201.6W		36V/5.6A	89	
	LMF200-23B48	201.6W		48V/4.2A	89	
320W	LMF320-23B04	240W	85-305VAC	4V/60A	83	
	LMF320-23B05	300W		5V/60A	84	
	LMF320-23B12	320.4W		12V/26.7A	86.5	
	LMF320-23B15	321W		15V/21.4A	89	
	LMF320-23B24	321.6W		24V/13.4A	88.5	
	LMF320-23B27	321.3W		27V/11.9A	88	
	LMF320-23B48	321.6W		48V/6.7A	89	

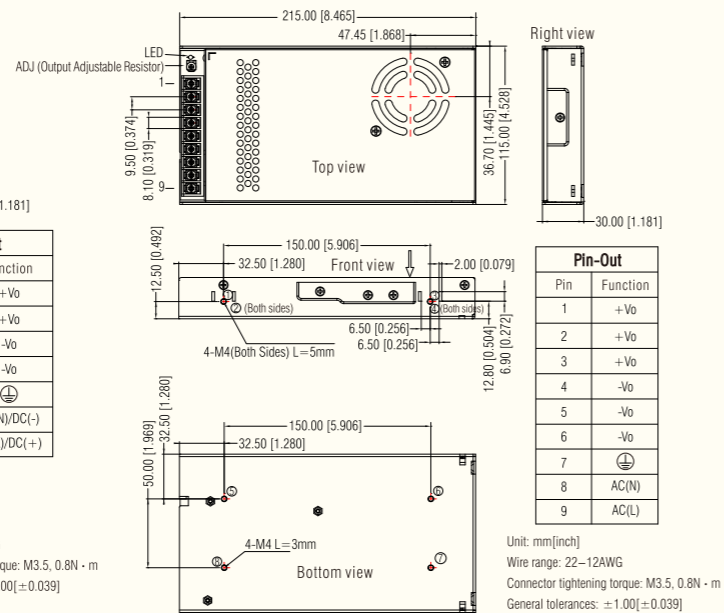
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

1 LMF200-23Bxx (Except 5V) Series: LxWxH: 179x99x30 (mm)



2 LMF200-23B05 LMF320-23Bxx Series: LxWxH: 215x115x30 (mm)



## Part II 264VAC Input Enclosed Switching Power Supply

1. Single Output Series (35-600W) ..... 16-25  
Narrow range input series  
Full range input series
2. PFC Function Series (75-1000W) ..... 26-28

# Enclosed Switching Power Supply: 35-150W LM Series

(Single Output, 264VAC Input)



- ▶ Compact size with 30mm thickness low profile
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Over-voltage class III (designed to meet EN61558)
- ▶ Withstand 5G vibration test, operating altitude up to 5000m
- ▶ Low standby power consumption (<0.3W), high efficiency (up to 91.5%)
- ▶ LED indicator for power on
- ▶ Meets IEC/EN60335-1 (PD3), IEC/EN61558-1,2-16 standards, suitable for home appliances
- ▶ Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

# Enclosed Switching Power Supply: 200-600W LM Series

(Single Output, 264VAC Input)



- ▶ Compact size with 30mm thickness low profile
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Over-voltage class III (designed to meet EN61558)
- ▶ Withstand 5G vibration test, operating altitude up to 5000m
- ▶ Low standby power consumption (<0.3W), high efficiency (up to 91.5%)
- ▶ LED indicator for power on
- ▶ Forced air cooling by built-in DC fan (350/450/600W)
- ▶ Meets IEC/EN60335-1 (PD3), IEC/EN61558-1,2-16 standards, suitable for home appliances
- ▶ Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Narrow Input	Series	LM35-22B	LM50-22B	LM75-22B	LM100-22B	LM150-22B	LM150-12M1224-Q
	Input Voltage	165-264VAC 180-370VDC	165-264VAC 180-373VDC	165-264VAC 200-370VDC		165-264VAC 180-370VDC	180-264VAC 240-370VDC
Full Input	Series	LM35-20B	LM50-20B	LM75-20B	LM100-20B	LM150-20B	/
	Input Voltage	85-264VAC/120-370VDC					
Inrush Current (@230VAC)	Cold start, 45A (LM35/50-22B) Cold start, 50A (LM35/50-20B)		Cold start, 65A		Cold start, 60A		Cold start, 80A
Over-current Protection (Self-recovery)	110%-200% I <sub>o</sub> 110%-150% I <sub>o</sub> (LM75-22B, LM150-20B) 110%-160% I <sub>o</sub> (LM100-20B)						110%-300% I <sub>o</sub>
Short Circuit Protection	Hiccup, continuous, self-recovery						
Isolation Voltage (Electric strength test for 1 min., leakage current <10mA)	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 1.25kVAC					Input-Output: 3kVAC Input-PE: 1.5kVAC Output-PE: 0.5kVAC	
Operating Temperature	-30°C to +70°C						
EMC	EMI	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A				CISPR32/EN55032 Class A, IEC/EN61000-3-2 Class A	
	EMS	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-4,5,11					
Safety Standard	IEC/EN/UL62368, IEC/EN60335, Gb4943, IEC/EN61558		IEC/EN/UL62368, En60335, En61558, GB4943 (LM100-22B: IEC/EN/UL62368, IEC/EN60335, IEC/EN61558, Gb4943; LM150-22B: IEC/EN/UL62368, En60335, IEC/EN61558, GB4943)			IEC/EN/UL62368, GB4943	
MTBF	MIL-HDBK-217F@25°C > 300,000 h						
Dimension (LxWxH)(mm)	99 x 82 x 30		99 x 97 x 30	129 x 97 x 30	159 x 97 x 30	199 x 99 x 50	
Packaging	52pcs/10.8kg		48pcs/12.5kg	36pcs/12.8kg	28pcs/13.9kg	14pcs/10.27kg	

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Narrow Input	Series	LM200-12B	LM350-12B	LM450-12B	LM600-12B
	Input Voltage	176-264VAC/240-370VDC			176-264VAC/240-373VDC
Full Input	Series	LM200-10B	LM350-10B	/	
	Input Voltage	90-132VAC/180-264VAC (available) 240-373VDC			/
Inrush Current (@230VAC)	Cold start, 60A				
Over-current Protection (Self-recovery)	110%-185% I <sub>o</sub>	110%-180% I <sub>o</sub>	≥110% I <sub>o</sub>	105%-180% I <sub>o</sub>	
Short Circuit Protection	Hiccup, continuous, self-recovery				
Isolation Voltage (Electric strength test for 1 min., leakage current <10mA)	Input-Output: 3kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC			Input-Output: 3kVAC Input-PE: 1.5kVAC Output-PE: 0.5kVAC	
Operating Temperature	-30°C to +70°C				-20°C to +60°C
EMC	EMI	CISPR32/EN55032 Class A			
	EMS	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN 61000-4-3 10V/m (200-450W), IEC/EN 61000-4-3 3V/m (600W), IEC/EN61000-4-4,5,11			
Safety Standard	IEC/EN/UL62368, EN60335, Gb4943, EN61558	IEC/EN/UL62368, GB4943, EN60335(LM350-10B)	IEC/EN/UL62368, GB4943		
MTBF	MIL-HDBK-217F@25°C > 300,000 h				
Dimension (LxWxH)(mm)	179 x 99 x 30	215 x 115 x 30	215 x 115 x 30	267.3 x 106 x 40	
Packaging	26pcs/15.3kg	19pcs/15kg	19pcs/16 kg	8pcs/10.6 kg	

# 35W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Input voltage: 85-264VAC/120-370VDC, 165-264VAC/180-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, IEC/EN60335, GB4943, IEC/EN61558 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



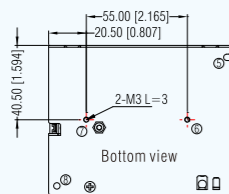
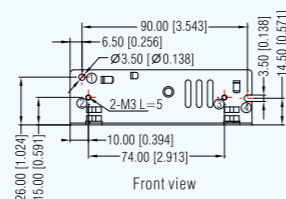
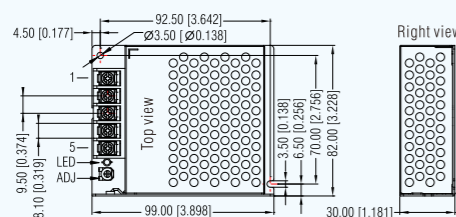
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%)(typ.)	Markings
35W	LM35-20B05	35W	85-264VAC	5V/7A	86	
	LM35-20B12	36W		12V/3A	88	
	LM35-20B15	36W		15V/2.4A	89	
	LM35-20B24	36W		24V/1.5A	88	
	LM35-22B05	35W	165-264VAC	5V/7A	86	
	LM35-22B12	36W		12V/3A	87	
	LM35-22B15	36W		15V/2.4A	89	
	LM35-22B24	36W		24V/1.5A	88	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

LM35-20/22Bxx Series: LxWxH:99×82×30(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊥
4	-Vo
5	+Vo

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M3.5, 0.8N·m  
General tolerances: ±1.00[±0.039]

# 50W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Input voltage: 85-264VAC/120-370VDC, 165-264VAC/180-373VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, IEC/EN60335, GB4943, IEC/EN61558 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



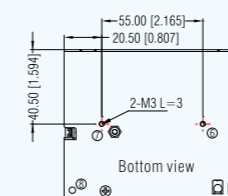
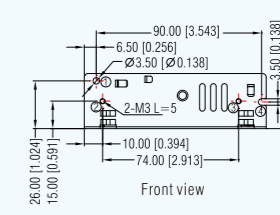
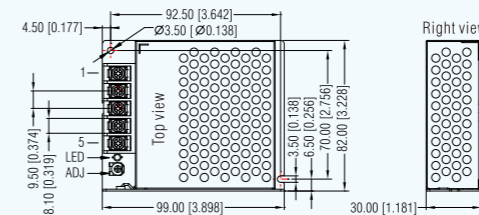
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%)(typ.)	Markings
50W	LM50-20B05	50W	85-264VAC	5V/10A	86	
	LM50-20B12	50.4W		12V/4.2A	87	
	LM50-20B15	51W		15V/3.4A	88	
	LM50-20B24	52.8W		24V/2.2A	89	
	LM50-20B36	52.2W		36V/1.45A	89	
	LM50-20B48	52.8W		48V/1.1A	90	
	LM50-22B05	50W	165-264VAC	5V/10A	86	
	LM50-22B12	50.4W		12V/4.2A	87	
	LM50-22B15	51W		15V/3.4A	88	
	LM50-22B24	52.8W		24V/2.2A	89	
	LM50-22B36	52.2W		36V/1.45A	89	
	LM50-22B48	52.8W		48V/1.1A	90	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

LM50-20/22Bxx Series: LxWxH:99×82×30(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊥
4	-Vo
5	+Vo

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M3.5, 0.8N·m  
General tolerances: ±1.00[±0.039]

# 75W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Input voltage: 85-264VAC/120-370VDC, 165-264VAC/200-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, EN60335, GB4943 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



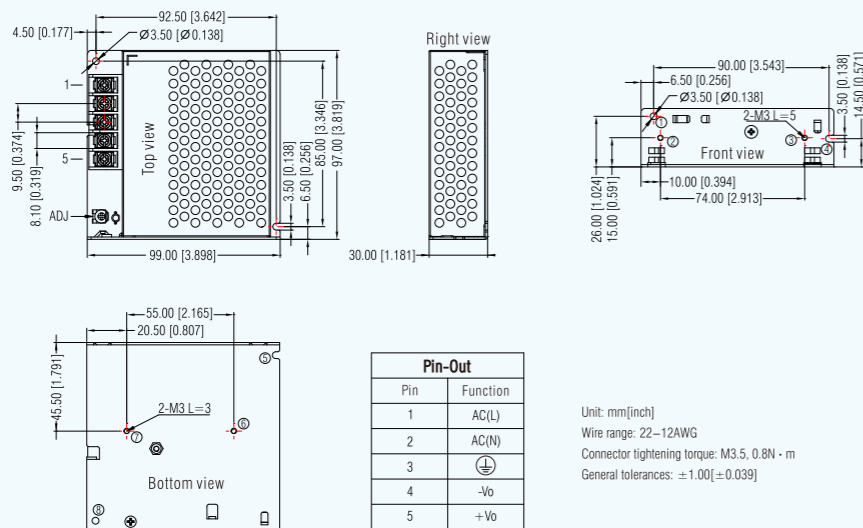
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
75W	LM75-20B05	70W	85-264VAC	5V/14A	86	
	LM75-20B12	72W		12V/6A	88	
	LM75-20B15	75W		15V/5A	88	
	LM75-20B24	76.8W		24V/3.2A	90	
	LM75-20B36	75.6W		36V/2.1A	90	
	LM75-20B48	76.8W		48V/1.6A	91.5	
	LM75-22B05	70W	165-264VAC	5V/14A	86	
	LM75-22B12	72W		12V/6A	88	
	LM75-22B15	75W		15V/5A	88	
	LM75-22B24	76.8W		24V/3.2A	90	
	LM75-22B36	75.6W		36V/2.1A	90	
	LM75-22B48	76.8W		48V/1.6A	91.5	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

LM75-20/22Bxx Series: LxWxH:99×97×30(mm)



# 100W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Input voltage: 85-264VAC/120-370VDC, 165-264VAC/200-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, EN60335, GB4943, EN61558 standards
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



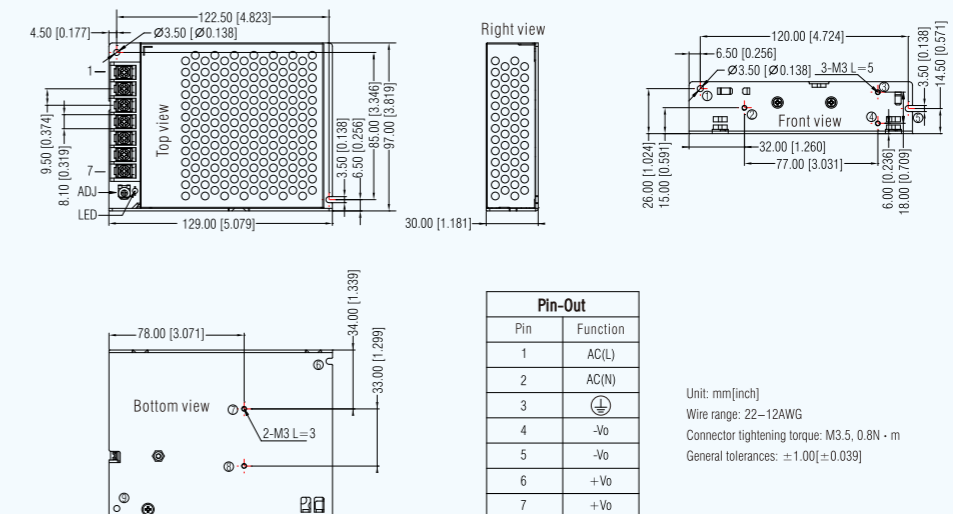
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
100W	LM100-20B05	90W	85-264VAC	5V/18A	86	
	LM100-20B12	102W		12V/8.5A	87.5	
	LM100-20B15	105W		15V/7A	87.5	
	LM100-20B24	108W		24V/4.5A	90	
	LM100-20B36	100.8W		36V/2.8A	90	
	LM100-20B48	110.4W		48V/2.3A	91	
	LM100-22B05	90W	165-264VAC	5V/18A	86	
	LM100-22B12	102W		12V/8.5A	87.5	
	LM100-22B15	105W		15V/7A	87.5	
	LM100-22B24	108W		24V/4.5A	90	
	LM100-22B36	100.8W		36V/2.8A	90	
	LM100-22B48	110.4W		48V/2.3A	91	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

LM100-20/22Bxx Series: LxWxH:129×97×30(mm)



# 150W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Input voltage: 85-264VAC/120-370VDC, 165-264VAC/180-370VDC, 180-264VAC/240-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- Output short circuit, over-current, over-voltage protection
- Over-voltage class III (designed to meet EN61558)
- Operating altitude up to 5000m



### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
150W	LM150-12M1224-Q	150W	180-264VAC	12V/12.5A	81	CE
				24V/6.25A	84	

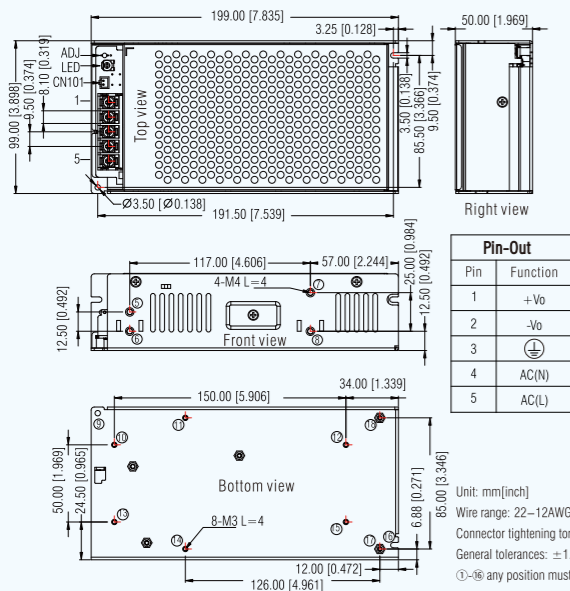
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
150W	LM150-20B12	150W	85-264VAC	12V/12.5A	86	UL US CE CCC
	LM150-20B15	150W		15V/10A	87	
	LM150-20B24	156W		24V/6.5A	88	
	LM150-20B36	154.8W		36V/4.3A	88	
	LM150-20B48	158.4W		48V/3.3A	89	
	LM150-22B12	150W		165-264VAC	12V/12.5A	
	LM150-22B15	150W	15V/10A		87	
	LM150-22B24	156W	24V/6.5A		88	
	LM150-22B36	154.8W	36V/4.3A		88	
	LM150-22B48	158.4W	48V/3.3A		89	

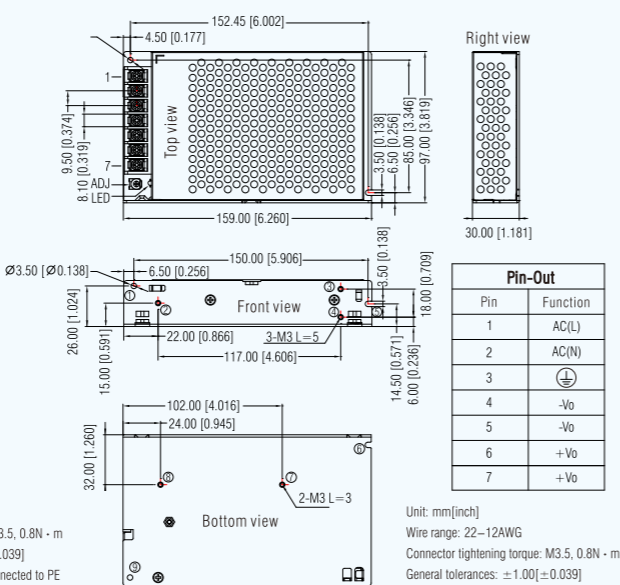
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

#### 1 LM150-12M1224-Q Series: LxWxH: 199×99×50(mm)



#### 2 LM150-20/22Bxx Series: LxWxH: 159×97×30(mm)



# 200W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Selectable AC input voltage: 90-132VAC/180-264VAC, 176-264VAC (LM200-12B)
- DC input range: 240-373VDC (switch is set in the position of 230)
- Low standby power consumption (<0.75W @230VAC)
- Operating temperature: -30°C to +70°C
- High efficiency, high reliability
- LED indicator for power on
- Output short circuit, over-current, over-voltage, over-temperature protection
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards
- Operating altitude up to 5000m



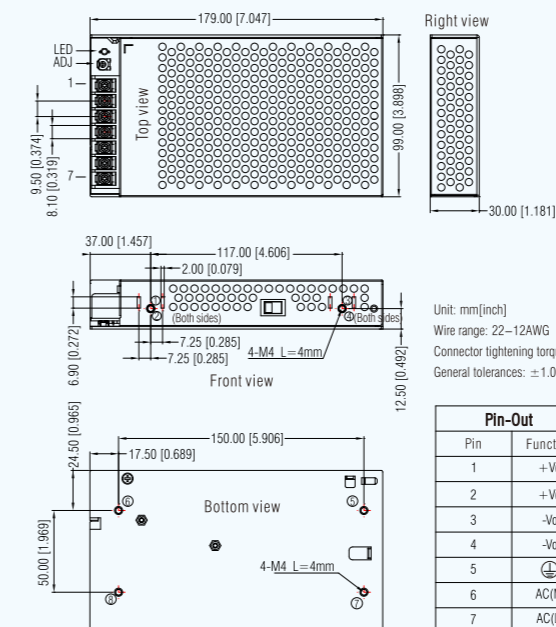
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
200W	LM200-10B05	150W	90-132VAC 180-264VAC	5V/30A	87	UL US CE CCC
	LM200-10B12	204W		12V/17A	87.5	
	LM200-10B15	210W		15V/14A	88	
	LM200-10B24	211.2W		24V/8.8A	88.5	
	LM200-10B36	212.4W		36V/5.9A	89	
	LM200-10B48	211.2W		48V/4.4A	89.5	
	LM200-12B05	150W	176-264VAC	5V/30A	87	
	LM200-12B12	204W		12V/17A	87.5	
	LM200-12B15	210W		15V/14A	88	
	LM200-12B24	211.2W		24V/8.8A	88.5	
	LM200-12B36	212.4W		36V/5.9A	89	
	LM200-12B48	211.2W		48V/4.4A	89.5	

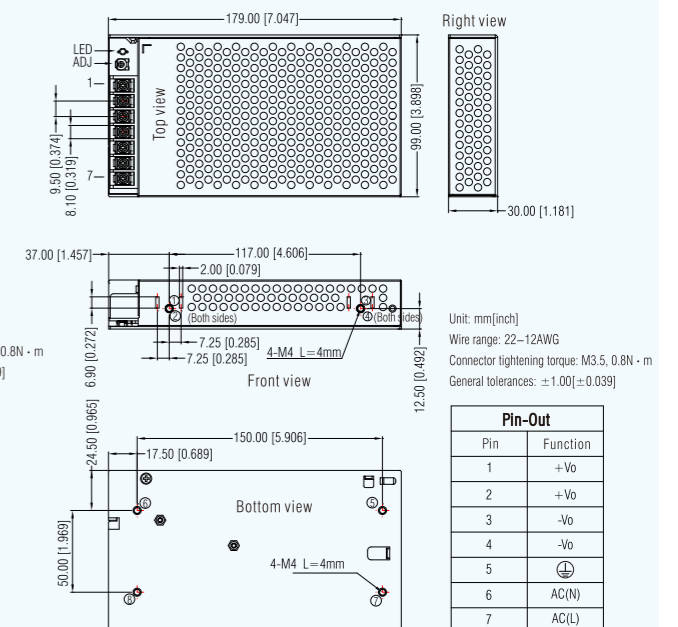
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

#### 1 LM200-10Bxx Series: LxWxH: 179×99×30(mm)



#### 2 LM200-12Bxx Series: LxWxH: 179×99×30(mm)



# 350W

# 450-600W

## Enclosed Switching Power Supply LM Series: 264VAC Input

- Selectable AC input voltage: 90-132VAC/180-264VAC, 176-264VAC (LM350-12B)
- DC input range: 240-373VDC
- Low standby power consumption (<0.75W @230VAC)
- Operating temperature: -30°C to +70°C
- 1U low profile
- LED indicator for power on
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards
- Forced air cooling by built-in DC fan
- Output short circuit, over-current, over-voltage, over-temperature protection
- Operating altitude up to 5000m



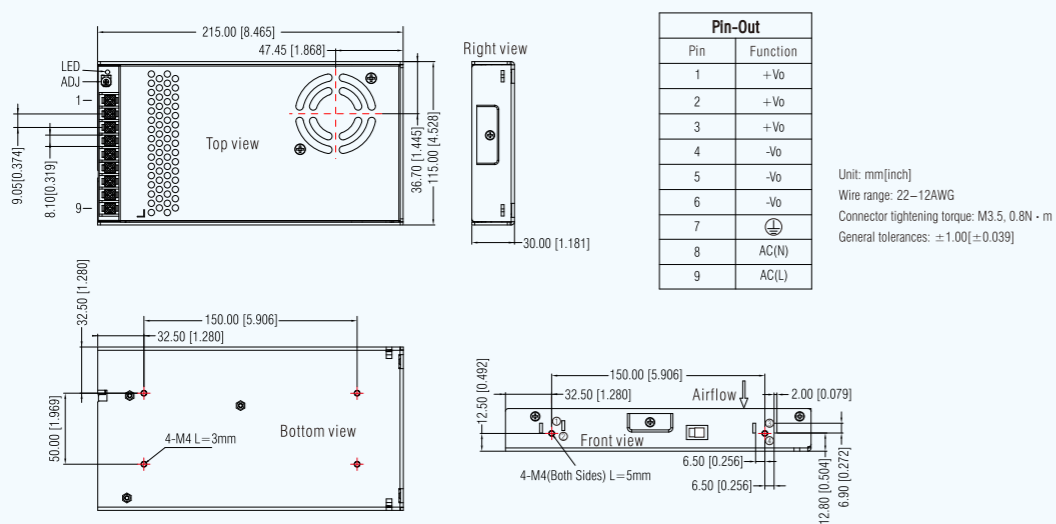
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
350W	LM350-10B05	300W	90-132VAC 180-264VAC	5V/60A	83.5	
	LM350-10B12	348W		12V/29A	85	
	LM350-10B15	348W		15V/23.2A	86	
	LM350-10B24	350.4W		24V/14.6A	87	
	LM350-10B36	349.2W		36V/9.7A	88	
	LM350-10B48	350.4W		48V/7.3A	88.5	
	LM350-12B05	300W	176-264VAC	5V/60A	84	
	LM350-12B12	348W		12V/29A	85.5	
	LM350-12B15	348W		15V/23.2A	87.5	
	LM350-12B24	350.4W		24V/14.6A	87	
	LM350-12B36	349.2W		36V/9.7A	88	
	LM350-12B48	350.4W		48V/7.3A	89	

Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

LM350-10/12Bxx Series: LxWxH:215×115×30(mm)



## Enclosed Switching Power Supply LM Series: 264VAC Input

- Input voltage: 176-264VAC/240-370VDC(600W)  
176-264VAC/240-373VDC(450W)
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C (450W)  
-20°C to +60°C (600W)
- 1U low profile
- LED indicator for power on
- Operating altitude up to 5000m
- Output short circuit, over-current, over-voltage, over-temperature protection
- Meets IEC/EN/UL62368, GB4943 standards
- Forced air cooling by built-on DC fan
- Remote sense function(600W)



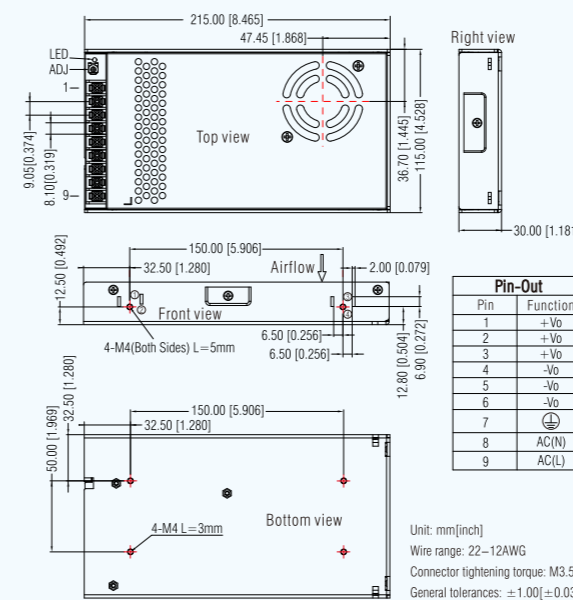
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
450W	LM450-12B12	450W	176-264VAC	12V/37.5A	85	
	LM450-12B15	450W		15V/30A	86	
	LM450-12B24	451.2W		24V/18.8A	87	
	LM450-12B27	450.9W		27V/16.7A	87	
	LM450-12B36	450W		36V/12.5A	87.5	
	LM450-12B48	451.2W		48V/9.4A	88	
600W	LM600-12B12	600W	176-264VAC	12V/50A	85	
	LM600-12B15	600W		15V/40A	86	
	LM600-12B24	600W		24V/25A	87	
	LM600-12B27	599.4W		27V/22.2A	87	
	LM600-12B36	597.6W		36V/16.6A	87	
	LM600-12B48	600W		48V/12.5A	88	

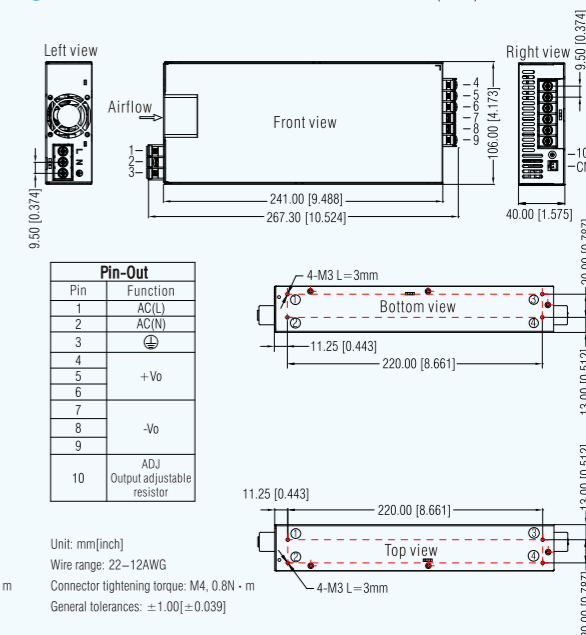
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

1 LM450-12Bxx Series: LxWxH:215×115×30(mm)



2 LM600-12Bxx Series: LxWxH:267.3×106×40(mm)



# Enclosed Switching Power Supply: 75-1000W LMF Series

(Single Output, PFC Function, 264VAC Input)



- ▶ Compact size with 30mm thickness low profile (75W)
- ▶ 1U low profile (600/1000W)
- ▶ Accept AC or DC input (dual-use of same terminal)
- ▶ Low standby power consumption, high efficiency
- ▶ Isolation voltage 4000VAC
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Remote ON-OFF control
- ▶ Force air cooling by built-in DC fan (600/1000W)

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LMF75-20B	LMF600-20B	LMF1000-20B	
<b>Input Voltage</b>	85-264VAC/120-370VDC	80-277VAC/110-390VDC	90-264VAC/120-370VDC	
<b>Output Voltage</b>	5V, 12V, 15V, 24V, 48V	12V, 15V, 24V, 27V, 36V, 48V	Main outputs: 12V, 15V, 24V, 27V, 36V, 48V, 54V Auxiliary output: 5V	
<b>Inrush Current (@230VAC)</b>	Cold start, 35A	Cold start, 40A	40A	
<b>Over-current Protection</b>	≥105% Io, self-recovery	110%–160% Io, self-recovery	≥110% Io, self-recovery	
<b>Short Circuit Protection</b>	Constant current, continuous, self-recovery	Hiccup, continuous, self-recovery		
<b>Isolation Voltage</b> <small>(Electric strength test for 1 min., leakage current &lt;10mA)</small>	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC	Input-Output: 4kVAC, Input-PE: 1.5kVAC, Output-PE: 1.5kVAC	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 1.5kVAC	
<b>Operating Temperature</b>	-25°C to +70°C	-40°C to +70°C	-40°C to +70°C (No condensation)	
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A and Class D	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A, IEC/EN61000-3-3
	<b>EMS</b>	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11	IEC/EN 61000-4-2 Contact ±8KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11
<b>Safety Standard</b>	IEC/EN/UL62368 EN60335, EN61558 GB4943	IEC/EN/UL62368-1, EN60335-1, EN61558-1, IEC/EN60601-1, GB4943.1	IEC/UL/EN62368-1, IEC/ES/EN60601-1	
<b>MTBF</b>	MIL-HDBK-217F@25°C > 300,000 h		MIL-HDBK-217F@25°C ≥250,000 h	
<b>Dimension (LxWxH)(mm)</b>	159 x 97 x 30	203.1 x 101.6 x 40.6	190 x 127 x 40.5	
<b>Packaging</b>	28pcs/13.4kg	18pcs/19.6kg	14pcs/19.3kg	

75-600W

## Enclosed Switching Power Supply LMF Series: 264VAC Input & PFC Function

- Input voltage: 85-264VAC/120-370VDC (75W)  
80-277VAC/110-390VDC (600W)
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -25°C to +70°C (75W)  
-40°C to +70°C (600W)
- Output short circuit, over-current, over-voltage, over-temperature protection
- Remote ON-OFF control
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards



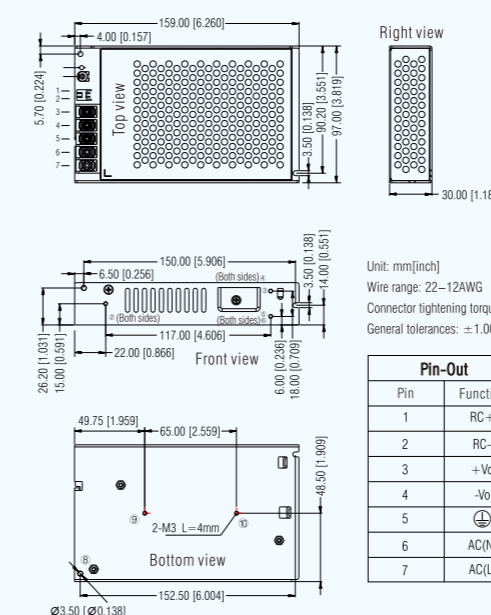
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
75W	LMF75-20B05	75W	85-264VAC	5V/15A	82	
	LMF75-20B12	75.6W		12V/6.3A	85	
	LMF75-20B15	75W		15V/5A	86	
	LMF75-20B24	76.8W		24V/3.2A	87	
	LMF75-20B48	76.8W		48V/1.6A	89	
600W	LMF600-20B12	600W	80-277VAC	12V/50A	92	
	LMF600-20B15	600W		15V/40A	92	
	LMF600-20B24	600W		24V/25A	94	
	LMF600-20B27	600W		27V/22.3A	94	
	LMF600-20B36	600W		36V/16.7A	94	
	LMF600-20B48	600W		48V/12.5A	94	

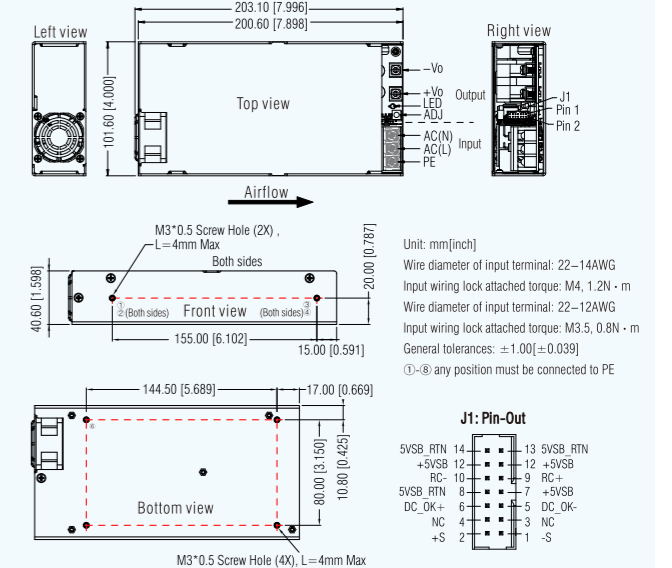
Note: use suffix "C" for terminal with protective cover and suffix "Q" for conformal coating.

### Package Dimension

1 LMF75-20Bxx Series: LxWxH: 159×97×30(mm)



2 LMF600-20Bxx Series: LxWxH: 203.1×101.6×40.6(mm)



# 1000W

## Enclosed Switching Power Supply LMF Series: 264VAC Input & PFC Function

- Input voltage: 90-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +70°C (no condensation)
- High reliability, efficiency up to 94%
- 1U low profile
- Wide output voltage adjustable range
- Output short circuit, over-current, over-voltage protection
- Supporting for 3+1 parallel redundancy
- Active PFC
- Operating altitude up to 5000m
- Variable speed fan control



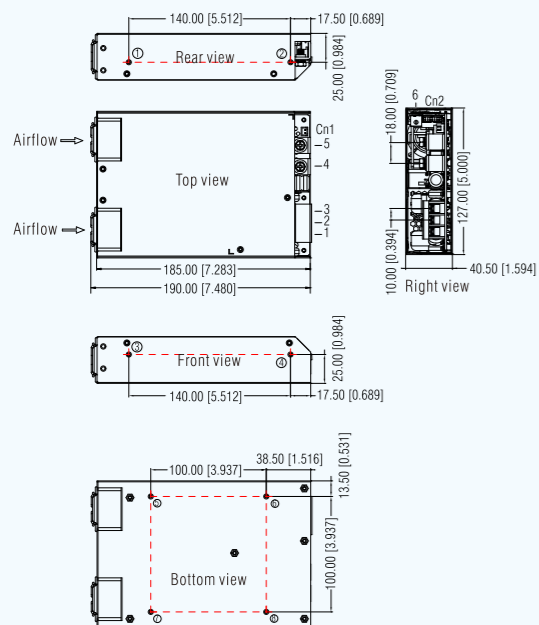
### Product Program

Power range	Model number	Power	Input voltage	Main output voltage/current	Auxiliary output voltage/current	Efficiency (%) (typ.)	Markings
1000W	LMF1000-20B12	Main: 960W Auxiliary: 10W	90-264VAC	12V/80A	5V/2A	92	
	LMF1000-20B15	Main: 960W Auxiliary: 10W		15V/64A	5V/2A	92	
	LMF1000-20B24	Main: 1008W Auxiliary: 10W		24V/42A	5V/2A	94	
	LMF1000-20B27	Main: 1007W Auxiliary: 10W		27V/37.3A	5V/2A	94	
	LMF1000-20B36	Main: 1008W Auxiliary: 10W		36V/28A	5V/2A	94	
	LMF1000-20B48	Main: 1008W Auxiliary: 10W		48V/21A	5V/2A	94	
	LMF1000-20B54	Main: 1009W Auxiliary: 10W		54V/18.7A	5V/2A	94	

Note: use suffix "Q" for conformal coating.

### Package Dimension

LMF1000-20Bxx Series: LxWxH: 190 × 127 × 40.5 (mm)



Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	-Vo
5	+Vo
6	ADJ Output adjustable resistor

Unit: mm[inch]  
Wire range: 22-12AWG  
Connector tightening torque: M5, 2.3N·m  
General tolerances: ±1.00[±0.039]

Pin	Function	Client Connector
1	-S	Housing: XHS2.5-2Y (Kang Dao) or equivalent Contact: XH2.5-TE (Kang Dao) or equivalent
2	+S	

Pin-Out				Client Connector
Pin	Function	Pin	Function	
1	VS+	8	VS-	Housing: JST PHDR-14VS or equivalent
2	CURRENT SHARE	9	ADDRESS0	
3	DC OK	10	ADDRESS1	Contact: JST SPHD-002T-P0.5 or equivalent
4	SCL	11	ADDRESS2	
5	SDA	12	RXD	
6	PS_ON	13	TXD	
7	GND	14	GND	

## Part III

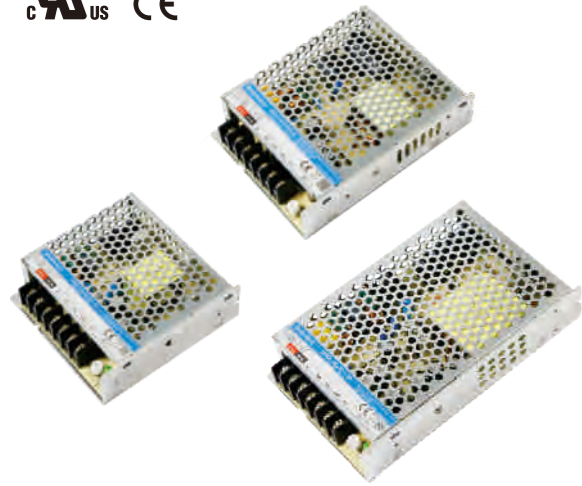
# Multiple Outputs Enclosed Switching Power Supply

35-150W LM Series .....	30-34
Power Supply For Electric Power Industry .....	35
Power Supply For Laser Applications .....	36



# Enclosed Switching Power Supply: 35-100W LM Series

(Triple outputs)



- ▶ Compact size with 30mm thickness low profile
- ▶ Output short circuit, over-current, over-voltage protection
- ▶ Withstand 300VAC surge input for 5s
- ▶ Withstand 5G vibration test
- ▶ Operating altitude up to 5000m
- ▶ High efficiency, high reliability, long lifetime
- ▶ LED indicator for power on
- ▶ Meets IEC/EN60335-1(PD3), IEC/EN61558-1, 2-16 standards, suitable for home appliances
- ▶ Note: use suffix "Q" for conformal coating.

# Enclosed Switching Power Supply: 35-150W LM Series

(Dual Outputs)



- ▶ Compact size with 30mm thickness low profile
- ▶ Output short circuit, over-current, over-voltage protection
- ▶ Withstand 300VAC surge input for 5s
- ▶ Withstand 5G vibration test
- ▶ Operating altitude up to 5000m
- ▶ High efficiency, high reliability, long lifetime
- ▶ LED indicator for power on
- ▶ Meets IEC/EN60335-1(PD3), IEC/EN61558-1, 2-16 standards, suitable for home appliances
- ▶ Note: use suffix "Q" for conformal coating.

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LM35-10C	LM50-10C	LM75-10C	LM100-10C
<b>Input Voltage</b>	85-264VAC/120-373VDC		90-264VAC/120-370VDC	
<b>Output Voltage</b>	Triple outputs: 5V/±12V, 5V/±15V, 5V/24V/12V			
<b>Inrush Current (@230VAC)</b>	Cold start, 50A		Cold start, 45A	Cold start, 50A
<b>Over-current Protection (Self-recovery)</b>	110%≤I <sub>o</sub> ≤180%	110%≤I <sub>o</sub> ≤230%	110%≤I <sub>o</sub>	≥110%I <sub>o</sub>
<b>Short Circuit Protection</b>	Hiccup, continuous, self-recovery			
<b>Isolation Voltage</b> <small>(Electric strength test for 1 min., leakage current &lt;10mA)</small>	Input-Output: 3kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC			
<b>Operating Temperature</b>	-30°C to +70°C			
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B		
	<b>EMS</b>	IEC/EN61000-4-2 Contact ±6KV, IEC/EN61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11		
<b>Safety Standard</b>	IEC/EN/UL62368, EN60335, GB4943			
<b>MTBF</b>	MIL-HDBK-217F@25°C > 300,000 h			
<b>Dimension (LxWxH)(mm)</b>	99 x 97 x 30		129 x 97 x 30	159 x 97 x 30
<b>Packaging</b>	48pcs/12.1kg		36pcs/13.4kg	28pcs/13.9kg

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LM35-10A	LM50-10A	LM75-10A	LM50-10A12	LM35-10D	LM50-10D	LM75-10D	LM100-10D	LM150-12D
<b>Input Voltage</b>	85-264VAC 120-370VDC	90-264VAC 120-370VDC		85-264VAC 120-370VDC	85-264VAC 120-373VDC		90-264VAC 120-373VDC		176-264VAC 250-373VDC
<b>Output Voltage</b>	Dual Outputs: 5V/12V ;5V/24V			Dual Outputs: 12V/-12V	Dual Outputs: 5V/12V 5V/24V				Dual Outputs: 5V/12V
<b>Inrush Current (@230VAC)</b>	50A			Cold start, 50A			Cold start, 45A	Cold start, 50A	Cold start, 60A
<b>Over-current Protection (Self-recovery)</b>	110%-220%I <sub>o</sub>	110%-230%I <sub>o</sub>	110%-200%I <sub>o</sub>	110%≤I <sub>o</sub> ≤230%	110%≤I <sub>o</sub> ≤220%	110%≤I <sub>o</sub> ≤230%	110%≤I <sub>o</sub>	≥110%I <sub>o</sub>	110%≤I <sub>o</sub>
<b>Short Circuit Protection</b>	Hiccup, continuous, self-recovery								
<b>Isolation Voltage</b> <small>(Electric strength test for 1 min., leakage current &lt;10mA)</small>	3000VAC			Input-Output: 3kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC	Input-Output: 3kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC, Output-Output: 0.5kVAC				Input-Output: 3kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC
<b>Operating Temperature</b>	-30°C to +70°C								
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B			CISPR32/EN55032 class B, IEC/EN61000-3-2 Class A				
	<b>EMS</b>	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s IEC/EN61000-4-4,5,11			IEC/EN 61000-4-2 Contact ±6KV, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN 61000-4-3 10V/m, IEC/EN61558-4-4,5,11				
<b>Safety Standard</b>	IEC/EN62368			IEC/EN/UL62368, EN60335, GB4943					
<b>MTBF</b>	MIL-HDBK-217F@25°C > 300,000 h								
<b>Dimension (LxWxH)(mm)</b>	99 x 97 x 30	99 x 97 x 30	129 x 97 x 30	99 x 97 x 30		129 x 97 x 30	159 x 97 x 30	179 x 99 x 30	
<b>Packaging</b>	-	48pcs/13.23kg	-	48pcs/13.3kg		36pcs/13kg	28pcs/13.4kg	26pcs/15.4kg	

### Enclosed Switching Power Supply LM Series: Multiple Outputs

- Input voltage: 85-264VAC/120-373VDC
- Operating temperature: -30°C to +70°C
- High efficiency, high reliability, long lifetime
- LED indicator for power on
- Output short circuit, over-current, over-voltage protection
- Withstand 300VAC surge input for 5s
- Isolation voltage 3000VAC
- Meets IEC/EN/UL62368, EN60335, GB4943 standards
- EMI performance meets CISPR32/EN55032 CLASS B
- Withstand 5G vibration test
- Operating altitude up to 5000m



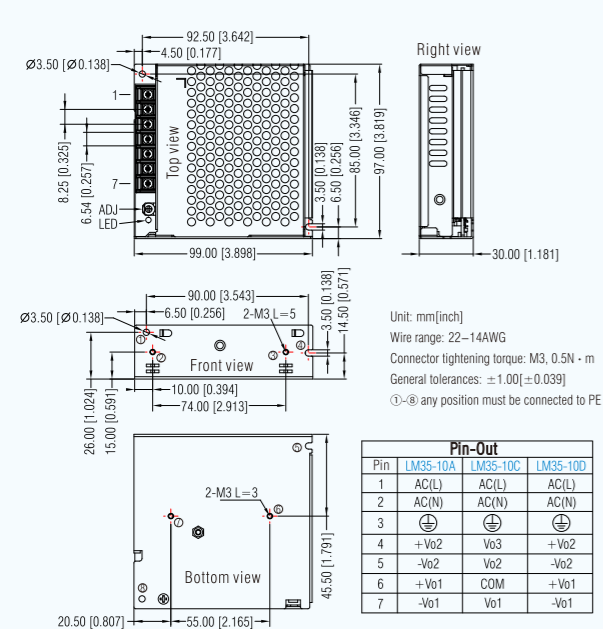
#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/current			Efficiency (%) (typ.)	Markings
				Vo1/Io1	Vo1/Io2	Vo1/Io3		
35W	LM35-10A0512-10	32W	85-264VAC	5V/4A	12V/1A	/	78	CE
	LM35-10A0524-10	35W		5V/2.2A	24V/1A	/	80	
	LM35-10C051212-10	33W		5V/3A	12V/1A	-12V/0.5A	81	CE
	LM35-10C051515-10	35W		5V/2.5A	15V/1A	-15V/0.5A	81	
	LM35-10C052412-05	36.5W		5V/2.5A	24V/0.5A	12V/1A	81	
	LM35-10D0512-10	32W		5V/4A	12V/1A	/	81	
50W	LM35-10D0524-10	35W	90-264VAC	5V/4A	12V/1A	/	81	UL CE
	LM35-10D0524-10	35W		5V/2.2A	24V/1A	/	83	
	LM50-10A0512-20	54W	85-264VAC	5V/6A	12V/2A	/	79	CE
	LM50-10A0524-14	53.6W		5V/4A	24V/1.4A	/	81	
	LM50-10A12	50.4W		12V/2.1A	-12V/2.1A	/	83	CE
	LM50-10C051212-20	50W		5V/4A	12V/2A	-12V/0.5A	81	
	LM50-10C051515-15	50W		5V/4A	15V/1.5A	-15V/0.5A	83	
	LM50-10C052412-10	51W		5V/3A	24V/1A	12V/1A	85	
	LM50-10D0512-20	54W		5V/6A	12V/2A	/	83	
	LM50-10D0524-14	53.6W		5V/4A	24V/1.4A	/	84	

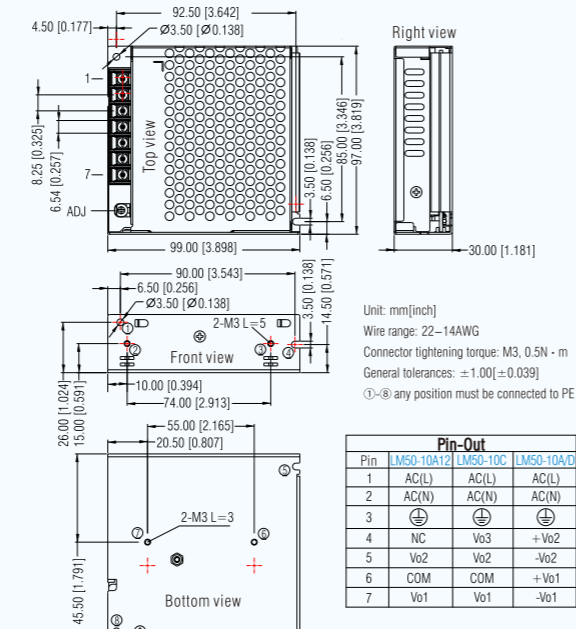
Note: use suffix "Q" for conformal coating.

#### Package Dimension

##### 1 LM35-10C/Dxx Series: LxWxH:99×97×30(mm)



##### 2 LM50-10A/C/Dxx Series: LxWxH:99×97×30(mm)



### Enclosed Switching Power Supply LM Series: Multiple Outputs

- Input voltage: 90-264VAC/120-373VDC
- Operating temperature: -30°C to +70°C
- High efficiency, high reliability, long lifetime
- LED indicator for power on
- Output short circuit, over-current, over-voltage protection
- Withstand 300VAC surge input for 5s
- Isolation voltage 3000VAC
- Meets IEC/EN/UL62368, EN60335, GB4943 standards
- EMI performance meets CISPR32/EN55032 CLASS B
- Withstand 5G vibration test
- Operating altitude up to 5000m



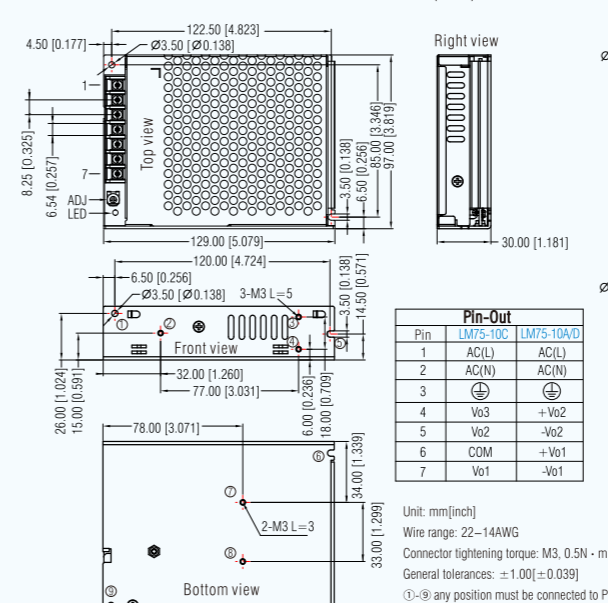
#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/current			Efficiency (%) (typ.)	Markings		
				Vo1/Io1	Vo1/Io2	Vo1/Io3				
75W	LM75-10A0512-40	71W	90-264VAC	5V/7A	12V/3A	/	80	CE		
	LM75-10A0512-30	68W		5V/4A	12V/4A	/	80			
	LM75-10A0524-20	73W		5V/5A	24V/2A	/	81	CE		
	LM75-10C051212-28	69.6W		5V/6A	+12V/2.8A	-12V/0.5A	82			
	LM75-10C051515-23	72W		5V/6A	+15V/2.3A	-15V/0.5A	82			
	LM75-10C052412-15	73W		5V/5A	+24V/1.5A	12V/1.0A	84			
	100W	LM75-10D0512-30		71W	90-264VAC	5V/7A	12V/3A	/	82	UL CE
		LM75-10D0524-20		73W		5V/5A	24V/2A	/	84	
		LM100-10C051212-35		94W		5V/8A	12V/3.5A	-12V/1A	84	
100W		LM100-10C051515-30	95W	90-264VAC	5V/7A	15V/3A	-15V/1A	85	CE	
		LM100-10C052412-20	96W		5V/6A	24V/2A	-12V/1.5A	85		
		LM100-10D0524-30	97W		5V/5A	24V/3A	/	85		
		LM100-10D1224-20	96W		12V/4A	24V/2A	/	87		

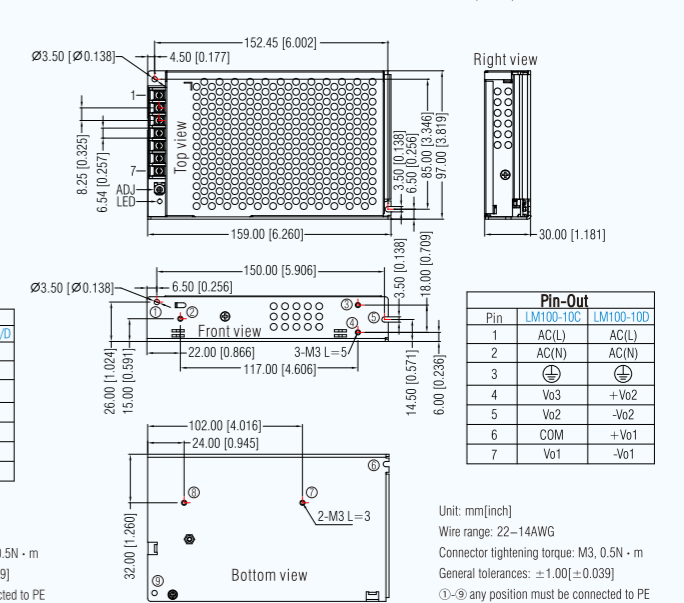
Note: use suffix "Q" for conformal coating.

#### Package Dimension

##### 1 LM75-10C/Dxx Series: LxWxH:129×97×30(mm)



##### 2 LM100-10C/Dxx Series: LxWxH:159×97×30(mm)



# 150W

## Power Supply For Electric Power Industry : 30W LM Series

### Enclosed Switching Power Supply LM Series: Multiple Outputs

- Input voltage:176-264VAC/250-373VDC
- Operating temperature:-30°C to +70°C
- High efficiency, high reliability
- Output short circuit, over-current, over-voltage protection
- Isolation voltage 3000VAC
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards
- EMI performance meets CISPR22/EN55022 CLASS B
- Operating altitude up to 5000m
- Low ripple & noise
- 105°C high temperature long life capacitor



#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/current		Efficiency (%) (typ.)	Markings
				Vo1/Io1	Vo2/Io2		
150W	LM150-12D0512-40	150W	176-264VAC	5V/20A	12V/4.17A	80	-

### Enclosed Switching Power Supply LM Series specialized for Electric Power Industry

- Input voltage:85-264VAC/100-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Multiple outputs
- Low standby power consumption, high efficiency, isolation voltage 2000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- EMC performance meets IEC/EN61000-4, CISPR22/EN55022

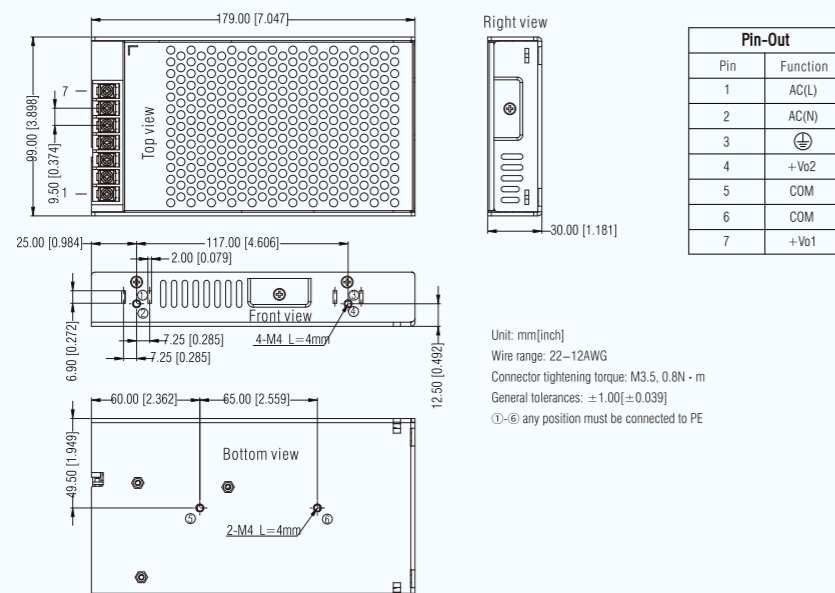


#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/current				Efficiency (%) (typ.)	Markings
				Vo1/Io1	Vo2/Io2	Vo2/Io2	Vo2/Io2		
150W	LM30-00J0512-03E	30W	85-264VAC	5V/2A	12V/0.3A	-12V/0.3A	24V/0.5A	83	-

#### Package Dimension

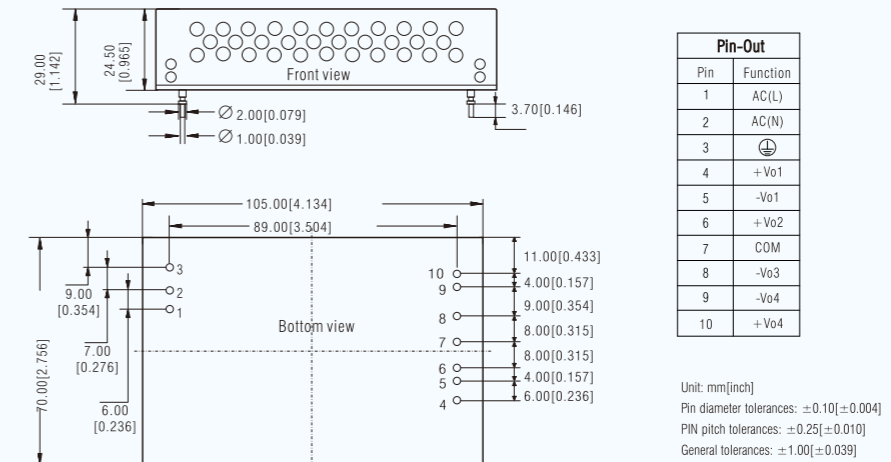
LM150-12D0512-40 Series: LxWxH:179x99x30(mm)



Pin-Out	
Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	+Vo2
5	COM
6	COM
7	+Vo1

#### Package Dimension

LM30-00J0512-03E Series: LxWxH:105x70x24.5(mm)



Pin-Out	
Pin	Function
1	AC(L)
2	AC(N)
3	⊕
4	+Vo1
5	-Vo1
6	+Vo2
7	COM
8	-Vo3
9	-Vo4
10	+Vo4

# Power Supply For Laser Applications : 60-150W LM Series

## Enclosed Switching Power Supply LM Series specialized for Laser Applications

- Input voltage:165-264VAC/180-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature:-30°C to +70°C
- Isolation voltage 3000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Meets IEC/EN/UL62368, EN60335, EN61558, GB4943 standards
- Operating altitude up to 5000m



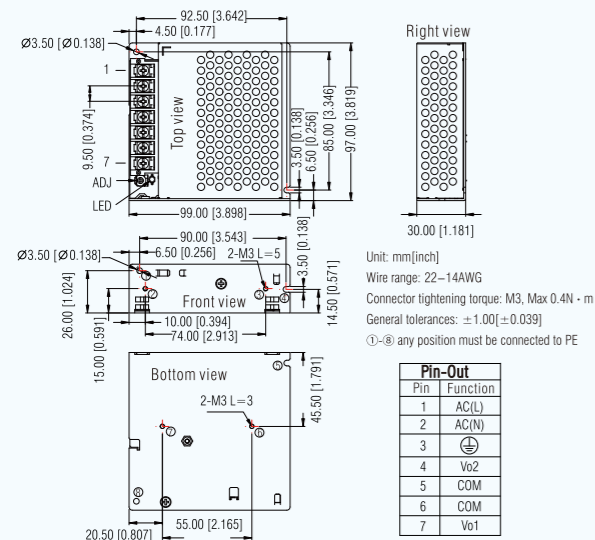
### Product Program

Power range	Model number	Power	Input voltage	Output voltage/current		Efficiency (%) (typ.)	Markings
				Vo1/Io1	Vo2/Io2		
60W	LM60-12A15	60W	165-264VAC	15V/2A	-15VDC/2A	82%	CE
90W	LM90-12A15	90W	165-264VAC	15V/3A	-15VDC/3A	82%	
150W	LM150-12A15	150W	165-264VAC	15V/5A	-15VDC/5A	85%	

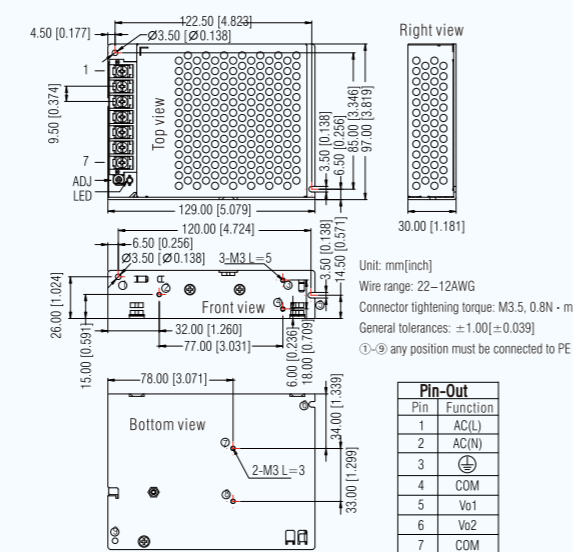
## Part IV DIN-Rail AC/DC Power Supply

### Package Dimension

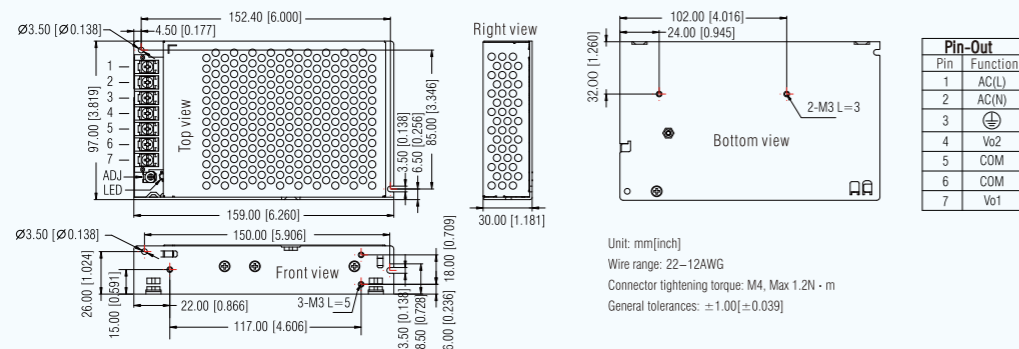
#### 1 LM60-12A15 Series: LxWxH:99×97×30(mm)



#### 2 LM90-12A15 Series: LxWxH:129×97×30(mm)



#### 3 LM150-12A15 Series: LxWxH:159×97×30(mm)



1. 15-150W LI Series (Plastic case) .....	38-41
2. 75-120W LI Serie (Metal case) .....	42-44
3. 120-480W LIF Series .....	45-48
(Metal case with PFC function)	
4. AC/DC Explosion-proof Power Supply .....	49
(Metal case with PFC function)	

# AC/DC Power Supply: 15-150W LI Series

(DIN-Rail, Plastic Case)

15-30W



- ▶ Accepts AC or DC input (dual-use of same terminal)
- ▶ Efficiency up to 91%
- ▶ Low ripple & noise
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Compact size: suitable for small chassis and narrow space installation
- ▶ LED indicator for power on
- ▶ Operating altitude up to 5000m
- ▶ Meets IEC61000-3-2 harmonic requirements, suitable for lighting circuits



## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LI15-20BxxPR2	LI30-20BxxPR2	LI60-20BxxPR2	LI100-20BxxPR2	LI150-20BxxPR2
<b>Input Voltage</b>	85-264VAC (277VAC available) 120-370VDC (390VDC available)	85-264VAC/120-370VDC			85-264VAC (277VAC available) 120-370VDC (390VDC available)
<b>Output Voltage</b>	5V, 12V, 15V, 24V, 48V			12V, 15V, 24V, 48V	
<b>Inrush Current</b> (@230VAC)	25A	45A	60A	Cold start, 70A	70A
<b>Over-current Protection</b>	<b>Range</b>	≥110%Io	≥120%Io	110% - 200%Io	≥105%Io
	<b>Type</b>	Self-recovery			
<b>Short Circuit Protection</b>	Hiccup, continuous, self-recovery				
<b>Isolation Voltage</b> (Electric strength test for 1 min., leakage current <10mA)	Input-Output: 4kVAC				
<b>Operating Temperature</b>	-40°C to +70°C			-30°C to +70°C (-40°C can be started)	
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B IEC/EN61000-3-2 Class A	CISPR32/EN55032 Class B		CISPR32/EN55032 Class B IEC/EN61000-3-2 Class A
	<b>EMS</b>	IEC/EN 61000-4-2 Contact ±4KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11		IEC/EN 61000-4-2 Contact ±4KV, IEC/EN 61000-4-3 10V/m, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN61000-4-4,5,11
<b>Safety Standard</b>	UL62368-1, IEC62368-1, EN62368-1, IEC/EN61010-1, IEC/EN61558-1, IEC60335-1	UL62368-1, IEC62368-1, EN62368-1			UL/EN/IEC62368, IEC/EN60335, IEC61558, UL61010
<b>Package</b>	Stepped flame retardant plastic enclosure				
<b>Dimension</b> (LxWxH)(mm)	17.5 x 90 x 58	35 x 92.66 x 58	52 x 92.66 x 58	70 x 92.66 x 58	105 x 90 x 55.4
<b>Packaging</b>	135pcs/10.9kg	54pcs/8.8kg	36pcs/8.9kg	24pcs/8.2kg	27pcs/11.31kg

## AC/DC Power Supply LI Series: DIN-Rail

- Wide input voltage range: 85-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +70°C
- Isolation voltage 4000VAC (input-output)
- Industrial product technology design
- Over-voltage class III (designed to meet EN61558-1)
- Low standby power consumption, high efficiency
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- DIN rail TS35X7.5/TS35X15 mountable



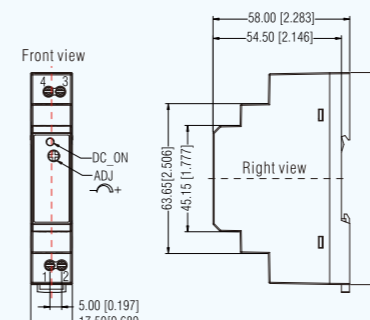
## Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%)(typ.)	Markings
15W	LI15-20B05PR2	12W	85-264VAC (277VAC available)	5V/2.4A	80	CE
	LI15-20B12PR2	15W		12V/1.25A	85	
	LI15-20B15PR2	15W		15V/1A	85.5	
	LI15-20B24PR2	15.2W		24V/0.63A	86	
	LI15-20B48PR2	15.4W		48V/0.32A	87	
30W	LI30-20B05PR2	15W	85-264VAC	5V/3A	82	UL CE
	LI30-20B12PR2	24W		12V/2A	88	
	LI30-20B15PR2	30W		15V/2A	89	
	LI30-20B24PR2	36W		24V/1.5A	89	
	LI30-20B48PR2	36W		48V/0.75A	90	

## Package Dimension

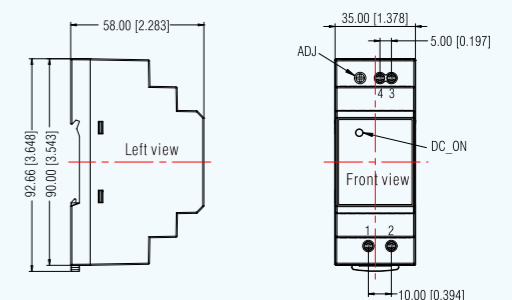
① LI15-20BxxPR2 Series: LxWxH:17.5 x 90 x 58 (mm)

② LI30-20BxxPR2 Series: LxWxH:35x92.66x58(mm)



Pin	Function
1	AC(L)
2	AC(N)
3	-Vo
4	+Vo

Unit: mm[inch]  
ADJ: adjustable resistance to change output voltage  
Wire diameter: 24-12AWG  
Tightening torque: Max 0.4 N·m  
Mounting rail: TS35  
General tolerances: ±1.00[±0.039]



Pin	Function
1	AC(L)
2	AC(N)
3	-Vo
4	+Vo

Unit: mm[inch]  
ADJ: adjustable resistance to change output voltage  
Wire diameter: 24-12AWG  
Tightening torque: Max 0.4 N·m  
Mounting rail: TS35  
General tolerances: ±1.00[±0.039]

60-100W

150W

### AC/DC Power Supply LI Series: DIN-Rail

- Wide input voltage range: 85-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +70°C
- Isolation voltage 4000VAC (input-output)
- Industrial product technology design
- Over-voltage class III (designed to meet EN61558-1)
- Low standby power consumption, high efficiency
- Low ripple & noise
- Output short circuit, over-current, over-voltage protection
- Withstand 300VAC surge input for 5s
- DIN rail TS35X7.5/TS35X15 mountable
- Meets UL/EN/62368 standards



#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
60W	LI60-20B05PR2	32.5W	85-264VAC	5V/6.5A	84	
	LI60-20B12PR2	54W		12V/4.5A	88	
	LI60-20B15PR2	60W		15V/4.0A	89	
	LI60-20B24PR2	60W		24V/2.5A	90	
	LI60-20B48PR2	60W		48V/1.25A	91	
100W	LI100-20B12PR2	90W	85-264VAC	12V/7.5A	88	
	LI100-20B15PR2	97.5W		15V/6.5A	89	
	LI100-20B24PR2	100.8W		24V/4.2A	90	
	LI100-20B48PR2	100.8W		48V/2.1A	90	

### AC/DC Power Supply LI Series: DIN-Rail

- Wide input voltage range: 85-264VAC (277VAC available) / 120-370VDC (390VDC available)
- Withstand 300VAC surge input for 5s
- Operating temperature: -30°C to +70°C (-40°C can be started)
- Isolation voltage 4000VAC (input-output)
- Over-voltage class III (designed to meet EN61558)
- Low standby power consumption, high efficiency
- Low ripple & noise
- Output short circuit, over-current, over-voltage, over-temperature protection
- Meets UL/EN/IEC62368, IEC/EN60335, IEC61558, UL61010 standards
- DIN rail TS35X7.5/TS35X15 mountable

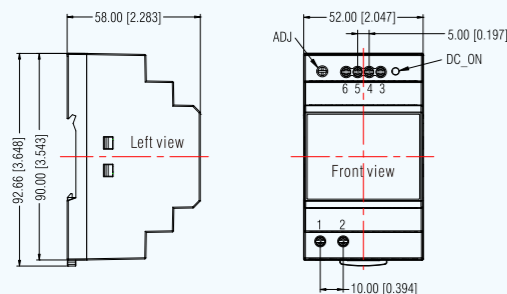


#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
150W	LI150-20B12PR2	135.6W	85-264VAC (277VAC available)	12V/11.3A	89	
	LI150-20B15PR2	142.5W		15V/9.5A	89.5	
	LI150-20B24PR2	150W		24V/6.25A	91.5	
	LI150-20B48PR2	153.6W		48V/3.2A	91	

#### Package Dimension

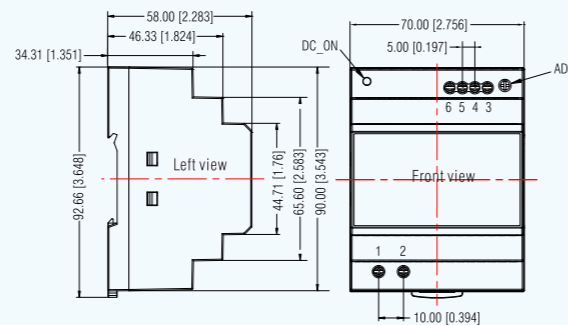
1 LI60-20BxxPR2 Series: LxWxH:52x92.66x58(mm)



Pin-Out	
Pin	Function
1	AC(L)
2	AC(N)
3	+Vo
4	-Vo
5	-Vo
6	-Vo

Unit: mm[inch]  
 ADJ: adjustable resistance to change output voltage  
 Wire diameter: 24-12AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35  
 General tolerances: ±1.00[±0.039]

2 LI100-20BxxPR2 Series: LxWxH:70x92.66x58(mm)

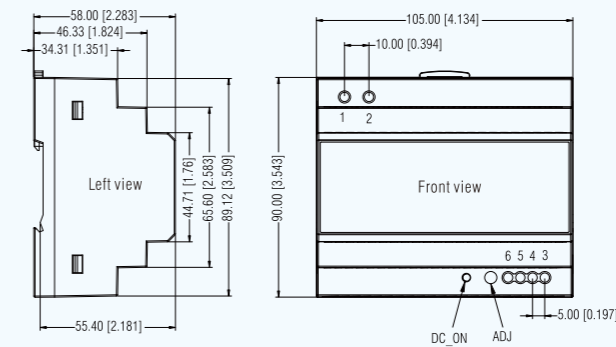


Pin-Out	
Pin	Function
1	AC(L)
2	AC(N)
3	+Vo
4	+Vo
5	-Vo
6	-Vo

Unit: mm[inch]  
 ADJ: adjustable resistance to change output voltage  
 Wire diameter: 24-12AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35  
 General tolerances: ±1.00[±0.039]

#### Package Dimension

LI150-20BxxPR2 Series: LxWxH:105 x 90 x 55.4 (mm)



Pin-Out	
Pin	Function
1	AC(L)
2	AC(N)
3	-Vo
4	-Vo
5	+Vo
6	+Vo

Unit: mm[inch]  
 ADJ: adjustable resistance to change output voltage  
 Wire diameter: 24-12AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35  
 General tolerances: ±1.00[±0.039]

# AC/DC Power Supply: 75-120W LI Series

(DIN-Rail, Metal Case)

75W



- ▶ Accepts AC or DC input (dual-use of same terminal)
- ▶ Efficiency up to 91%
- ▶ Low ripple & noise
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Compact size: suitable for small chassis and narrow space installation
- ▶ LED indicator for power on
- ▶ Operating altitude up to 5000m
- ▶ Meets IEC61000-3-2 harmonic requirements, suitable for lighting circuits

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LI75-20BxxR2	LI120-20BxxR2	LI120-20BxxR2S	
Input Voltage	90-264VAC/120-370VDC	90-264VAC/127-370VDC		
Output Voltage	12V, 24V, 48V			
Inrush Current (@230VAC)	Cold start, 45A	Cold start, 40A	Cold start, 55A	
Over-current Protection	Range	105% -150% I <sub>o</sub>		
	Type	Constant current, self-recovery after abnormal load condition is removed		
Short Circuit Protection	Constant current, continuous, self-recovery			
Isolation Voltage (Electric strength test for 1 min., leakage current <10mA)	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC			
Operating Temperature	-30°C to +70°C	-20°C to +60°C		
EMC	EMI	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A	CISPR32/EN55032 Class A, IEC/EN61000-3-3	CISPR32/EN55032 Class A, IEC/EN61000-3-2 Class A
	EMS	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN 61000-4-3 10V/m, IEC/EN61558-4-4,5,11		
Safety Standard	UI61010, En62368	IEC/EN/UL62368, EN60335, GB4943	UL61010-1, UL508, EN62368-1	
Package	Metal (AL1100, SGCC)	Metal (AL1050, SGCC) & Plastic (PC940)	Metal (AL1100, SGCC)	
Dimension (LxWxH)(mm)	32 x 125 x 87.5	35 x 125 x 112.7	36 x 125 x 100	
Packaging	28pcs/10.8kg	22pcs/14.2kg	18pcs/9.8 kg	

## AC/DC Power Supply LI Series: DIN-Rail

- Input voltage: 90-264VAC/120-373VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Isolation voltage 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage, over-temperature protection
- DIN rail TS-35/7.5/15 mountable
- Compact size (30mm thickness): suitable for small chassis and narrow space installation
- Safety according to UL61010, EN62368

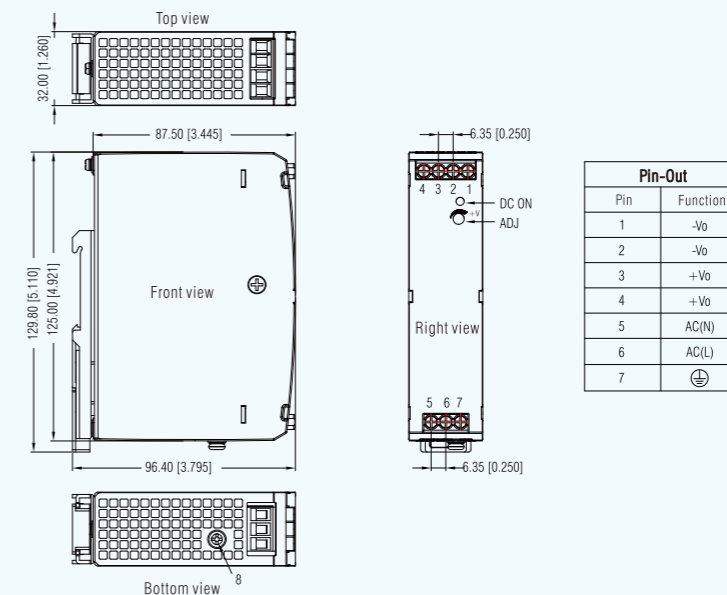


## Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
75W	LI75-20B12R2S	75.6W	90-264VAC	12V/6.3A	86	CE
	LI75-20B24R2S	76.8W		24V/3.2A	89	
	LI75-20B48R2S	76.8W		48V/1.6A	90	

## Package Dimension

LI75-20BxxR2S Series: LxWxH:32x125x87.5(mm)



# 120W

## AC/DC Power Supply: 120-480W LIF Series

(DIN-Rail, Metal Case, PFC Function)

### AC/DC Power Supply LI Series: DIN-Rail

- Input voltage: 90-264VAC/127-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -20°C to +60°C
- Low ripple & noise
- Output short circuit, over-current, over-voltage, over-temperature protection
- DIN rail TS-35/7.5/15 mountable
- Compact size (36mm thickness): suitable for small chassis and narrow space installation
- EN62368-1 safety approved, safety according to UL61010-1, UL508



- ▶ Accepts AC or DC input (dual-use of same terminal)
  - ▶ Efficiency up to 94%
  - ▶ Built-in active PFC function
  - ▶ LED indicator for power on (LIF series)
  - ▶ Output short circuit, over-current, over-voltage, over-temperature protection
  - ▶ DC OK function
  - ▶ Continuous output of 150% peak load
- Safety according to IEC/EN/UL62368, UL61010, UL508

#### Product Program

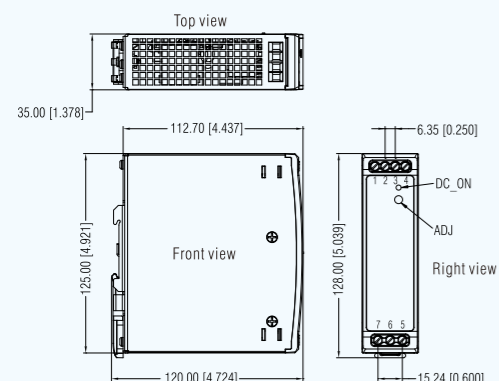
Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
120W	LI120-20B12R2	120W	90-264VAC	12V/10A	85	CE
	LI120-20B24R2	120W		24V/5A	88	
	LI120-20B48R2	120W		48V/2.5A	89	
120W	LI120-20B12R2S	120W	90-264VAC	12V/10A	85	UL US CE
	LI120-20B24R2S	120W		24V/5A	88	
	LI120-20B48R2S	120W		48V/2.5A	89	

#### Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LIF120-10BxxR2	LIF240-10BxxR2	LIF240-10BxxR2S	LIF480-10BxxR2
<b>Input Voltage</b>	85-264VAC/120-370DC			
<b>Output Voltage</b>	12V, 24V, 48V			24V, 48V
<b>Inrush Current</b> (@230VAC)	Cold start, 30A			Cold start, 40A
<b>Over-current Protection</b>	<b>Range</b>	105%-200% I <sub>o</sub>	110%-200% I <sub>o</sub>	110%-150% I <sub>o</sub>
	<b>Type</b>	Self-recovery		
<b>Short Circuit Protection</b>	Constant current hiccup mode (constant current mode works 1s and stops 10s), continuous, self-recovery		Constant current hiccup mode, continuous, self-recovery	Constant current hiccup mode (constant current mode works 1s), continuous, self-recovery
<b>Isolation Voltage</b>	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 0.5kVAC			
<b>Operating Temperature</b>	-40°C to +70°C			-30°C to +70°C
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class A, IEC/EN61000-3-2 Class A and Class D		
	<b>EMS</b>	IEC/EN 61000-4-2 Contact ±6KV, IEC/EN61000-4-6 10 Vr.m.s, IEC/EN 61000-4-3 10V/m, IEC/EN61558-4-4,5,11		
<b>Safety Standard</b>	IEC/EN/UL62368, UL61010, UL508		IEC/EN/UL62368-1, UL61010-1, UL508	IEC/EN/UL62368, UL61010, UL508
<b>Package</b>	Metal (AL1100, SGCC), plastic (PC940)			
<b>Dimension</b> (LxWxH)(mm)	32 x 124 x 110	41 x 124 x 110	54 x 124 x 110	48 x 125 x 131.5
<b>Packaging</b>	18pcs/10.5kg	18pcs/13.5kg	12pcs/8.4kg	12pcs/13.1kg

#### Package Dimension

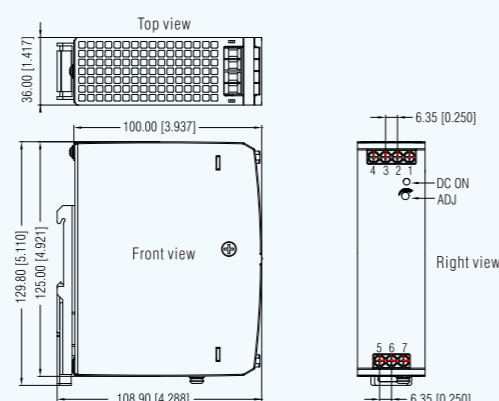
① LI120-20BxxR2 Series: LxWxH: 35×125×112.7(mm)



Pin	Function
1	+Vo
2	+Vo
3	-Vo
4	-Vo
5	AC(N)
6	AC(L)
7	⊕

Unit: mm[inch]  
 ADJ: adjustable resistance to change output voltage  
 Wire diameter: 26-10AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35, rail needs to connect safety grounded  
 General tolerances: ±1.00[±0.039]

② LI120-20BxxR2S Series: LxWxH: 36×125×100(mm)



Pin	Function
1	-Vo
2	-Vo
3	+Vo
4	+Vo
5	AC(N)
6	AC(L)
7	⊕

Unit: mm[inch]  
 ADJ: adjustable resistance to change output voltage  
 Wire diameter: 26-10AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35, rail needs to connect safety grounded  
 General tolerances: ±1.00[±0.039]



# 120W

# 240W

## AC/DC Power Supply LIF Series: DIN-Rail & PFC Function

- Input voltage: 85-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +70°C
- Efficiency up to 94%, high reliability
- DC OK function
- Active PFC
- 150% peak load output for 3 seconds
- LED indicator for power on
- Output short circuit, over-current, over-voltage, over-temperature protection
- Meets IEC/EN/UL62368, UL61010, UL508 standards



### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
120W	LIF120-10B12R2	120W	85-264VAC	12V/10A	93.5	
	LIF120-10B24R2	120W		24V/5A	94	
	LIF120-10B48R2	120W		48V/2.5A	94	

## AC/DC Power Supply LIF Series: DIN-Rail & PFC Function

- Input voltage: 85-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +70°C
- High efficiency, high reliability
- Active PFC
- 150% peak load output for 3 seconds
- LED indicator for power on
- Output short circuit, over-current, over-voltage, over-temperature protection
- Meets IEC/EN/UL62368, UL61010, UL508 standards

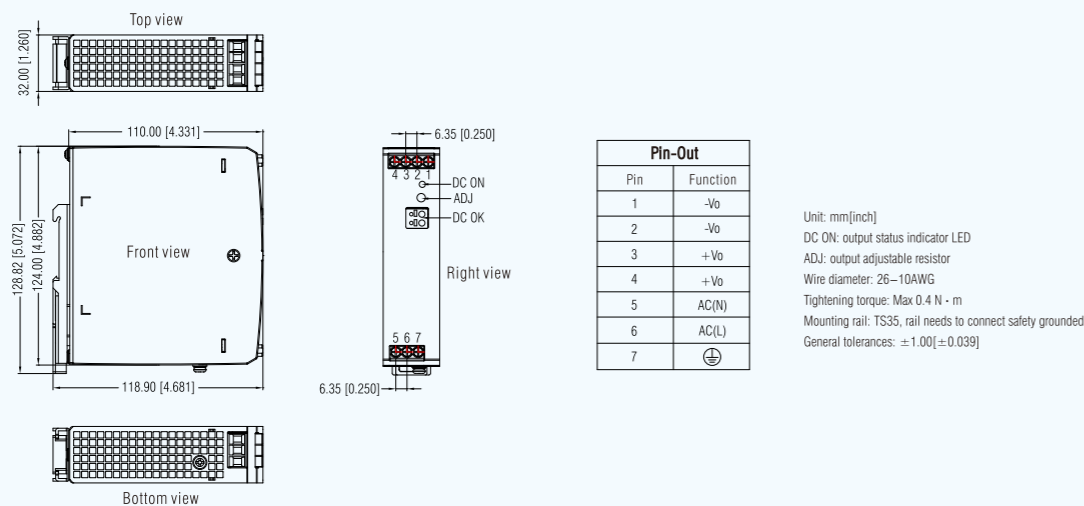


### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
240W	LIF240-10B12R2	192W	85-264VAC	12V/16A	92	
	LIF240-10B24R2	240W		24V/10A	94	
	LIF240-10B48R2	240W		48V/5A	94	
240W	LIF240-10B12R2S	192W	85-264VAC	12V/16A	93	
	LIF240-10B24R2S	240W		24V/10A	94	
	LIF240-10B48R2S	240W		48V/5A	94	

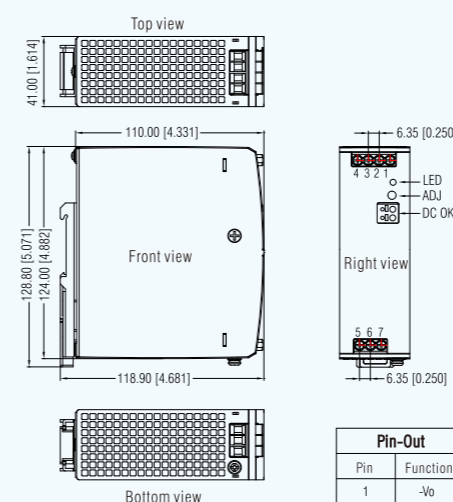
### Package Dimension

LIF120-10BxxR2 Series: LxWxH:32x124x110(mm)

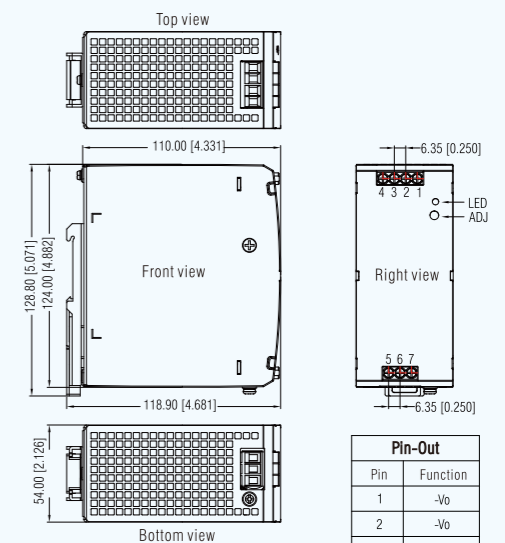


### Package Dimension

1 LIF240-10BxxR2 Series: LxWxH:41x124x110(mm)



2 LIF240-10BxxR2S Series: LxWxH:54x124x110(mm)



# 480W

## AC/DC Explosion-proof Power Supply: 120W LIF-EX Series

(DIN-Rail, Metal Case, PFC Function)

### AC/DC Power Supply LIF Series: DIN-Rail & PFC Function

- Input voltage: 85-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -30°C to +70°C
- Efficiency up to 94%
- Isolation voltage 3000VAC
- DC OK function
- Active PFC, PFC>0.95
- Low ripple & noise
- Output short circuit, over-current, over-voltage, over-temperature protection
- DIN rail TS-35/7.5/15 mountable
- Compact size (48mm thickness)
- Meets IEC/EN/UL62368, UL61010, UL508 standards



#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
480W	LIF480-10B24R2	480W	85-264 VAC	24V/20A	94	
	LIF480-10B48R2	480W		48V/10A	94	

### AC/DC Explosion-proof Power Supply LIF Series: DIN-Rail & PFC Function

- Input voltage: 85-264VAC/120-370VDC
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +85°C
- High efficiency, high reliability
- DC OK function
- DC ON output status indicator LED
- Built-in active PFC function
- Output short circuit, over-current, over-voltage, over-temperature protection
- ATEX, IECEx increased safety type explosion-proof certification approved

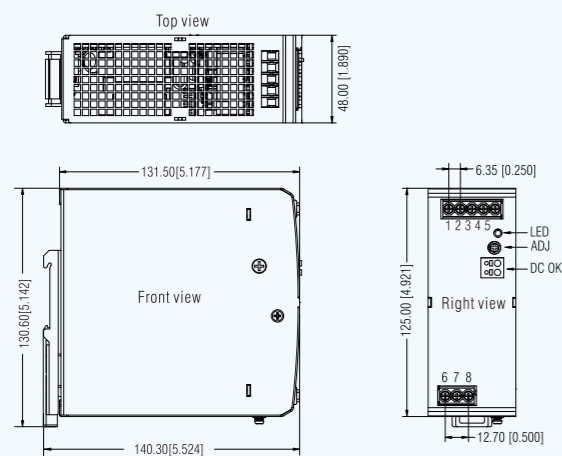


#### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
120W	LIF120-10B12R2S-EX	120W	85-264VAC	12V/10A	92	
	LIF120-10B24R2S-EX	120W		24V/5A	93	
	LIF120-10B48R2S-EX	120W		48V/2.5A	93.5	

#### Package Dimension

LIF480-10BxxR2 Series: LxWxH: 48×125×131.5 (mm)

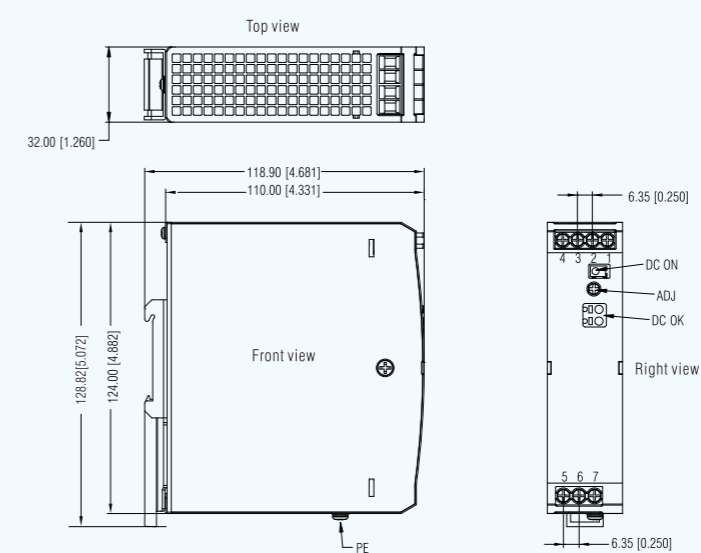


Pin	Function
1	-Vo
2	-Vo
3	-Vo
4	+Vo
5	+Vo
6	AC(N)
7	AC(L)
8	⊕

Unit: mm[inch]  
 ADJ: adjustable resistance to change output voltage  
 Wire diameter: 28-10AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35, rail needs to connect safety grounded  
 General tolerances: ±1.00 [±0.039]

#### Package Dimension

LIF120-10BxxR2-EX Series: LxWxH: 32×124×110 (mm)



Pin	Function
1	-Vo
2	-Vo
3	+Vo
4	+Vo
5	AC(N)
6	AC(L)
7	⊕

Unit: mm[inch]  
 DC ON: output status indicator LED  
 ADJ: output adjustable resistor  
 Wire diameter: 26-10AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35, rail needs to connect safety grounded  
 General tolerances: ±1.00 [±0.039]

# AC/DC Power Supply: 120-550W LOF Series

(Open Frame, PFC Function)

UL US CE 2xMOPP



- ▶ Compact size with height lower to 1 inch
- ▶ High efficiency up to 95%
- ▶ Output short circuit, over-current, over-voltage, over-temperature protection
- ▶ Operating altitude up to 5000m
- ▶ Low standby power consumption ( $\leq 0.5W$ )
- ▶ LED indicator for power on
- ▶ Meets IEC/EN61000, IEC/UL/EN62368, GB4943, EN60335, EAC TP TC 004, EN60601-1 standards
- ▶ Metal enclosure series: series with the suffix "-C" & "-CF"

Part V

## Open Frame AC/DC Power Supply

120-550W LOF Series..... 51-56  
 Open frame  
 Metal case

### Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

Series	LOF120-20B LOF120-20B-C	LOF225-20B LOF225-20B-C	LOF350-20B LOF350-20B-C	LOF450-20B LOF450-20B-C LOF450-20B-CF	LOF550-20B LOF550-20B-C LOF550-20B-CF	
<b>Input Voltage</b>	85-264VAC/120-370VDC		90-264VAC/127-370VDC			
<b>Standby Power Consumption</b>	0.5W		$\leq 0.5W$			
<b>Inrush Current</b> (@230VAC)	Cold start, 75A			Cold start, 80A		
<b>Over-current Protection</b> (Self-recovery)	$\geq 130\%I_o$	$\geq 110\%I_o$		$\geq 105\%I_o$		
<b>Short Circuit Protection</b>	Hiccup, continuous, self-recovery					
<b>Isolation Voltage</b> (Electric strength test for 1 min., leakage current <10mA)	Input-Output: 4kVAC, Input-PE: 1.5kVAC, Output-PE: 1.5kVAC		Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 1.5kVAC			
<b>Operating Temperature</b>	-40°C to +85°C		-40°C to +70°C			
<b>EMC</b>	<b>EMI</b>	CISPR32/EN55032 Class B, CISPR32/EN55032 (category I Class B, category II Class A), IEC/EN61000-3-2 Class A and Class D, IEC/EN61000-3-3	CISPR32/EN55032 Class B, CISPR32/EN55032 (category I Class B, category II Class A), IEC/EN61000-3-2 Class A and Class D	CISPR32/EN55032 Class B, CISPR32/EN55032 (category I Class B, category II Class A), IEC/EN61000-3-2 Class A and Class D, IEC/EN61000-3-3	CISPR32/EN55032 Class B, IEC/EN61000-3-2 Class D, IEC/EN61000-3-3	
	<b>EMS</b>	EN61000-4-2 Contact $\pm 8KV$ , EN61000-4-3 10V/m, EN61000-4-6 10 Vr.m.s, EN61000-4-4,5,11				
<b>Safety Standard</b>	IEC/EN/UL62368-1, GB4943-1, IEC/EN60335-1, EN61558-1, EN/ES60601-1		IEC/EN/UL62368-1, GB4943-1, IEC/EN60335-1, IEC/EN61558-1, IEC/EN/ES60601-1		IEC/EN/UL62368, EN60335, GB4943	
<b>MTBF</b>	MIL-HDBK-217F@25°C $\geq 300,000$ h			MIL-HDBK-217F@25°C > 200,000 h		
<b>Dimension</b> (LxWxH)(mm)	3"*2"*1.22"inch 76.2 x 50.8 x 31mm	4"*2"*1"inch 101.6 x 50.8 x 25.4mm	5"*3"*1"inch 127 x 76.2 x 25.4mm	5"*3"inch 127x76.2x38.5mm	5"*3"inch 127x76.2x40.5mm	

• This brochure displays the latest products. If products in the brochure are not able to meet your needs, please contact our sales.

# 120W

# 225W

## AC/DC Power Supply LOF Series: Open Frame & PFC Function

- Input voltage: 85-264VAC/120-370VDC
- High power density, compact size: 3" x 2" x 1.22"
- Operating temperature: -40°C to +85°C
- Active PFC
- High isolation voltage up to 4000VAC
- Operating altitude up to 5000m
- Extremely low leakage current <0.1mA
- Stand-by power consumption 0.5W Typ.
- The base plate with conformal coating
- Output short circuit, over-current, over-voltage, over-temperature protection
- Efficiency up to 95%
- Suitable for BF application
- Installing in system of safety class I/II is available
- Meets IEC/EN/UL62368-1, GB4943-1, IEC/EN60335-1, EN61558-1, EN/ES60601-1 standards



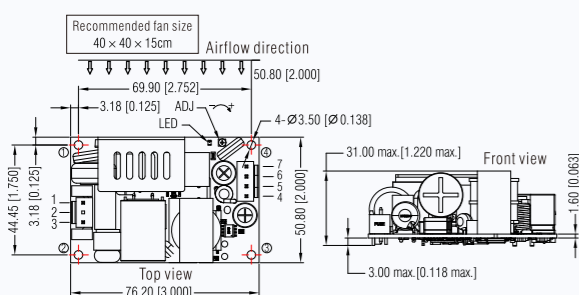
### Product Program

Power range	Model number	Input voltage	Cool mode	Rated power	Output voltage/ current	Output voltage adjustable range	Efficiency (%) (typ.)	Markings
120W	LOF120-20B12	85-264VAC	Air cooling	114W	12V/9.5A	11.4-12.6	94	
	LOF120-20B15		Air cooling	114W	15V/7.6A	14.3-15.8	94	
	LOF120-20B19		Air cooling	119.7W	19V/6.3A	17.3-19.8	93	
	LOF120-20B24		Air cooling	120W	24V/5A	22.8-25.2	95	
	LOF120-20B27		Air cooling	119.9W	27V/4.44A	25.6-28.4	95	
	LOF120-20B36		Air cooling	120W	36V/3.3A	35.28-37.8	94	
	LOF120-20B48		Air cooling	120W	48V/2.5A	45.6-50.4	94.5	
	LOF120-20B54		Air cooling	120W	54V/2.22A	51.3-55.5	94	

Metal case series: with the suffix "-C" (LOFxx-20Bxx-C), auxiliary power supply for external fan.

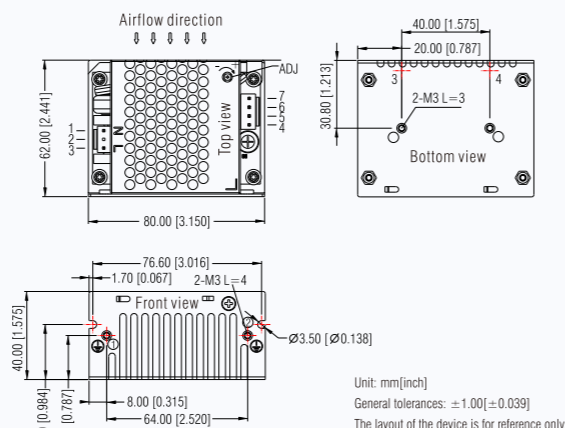
### Package Dimension

#### 1 LOF120-20Bxx Series: LxWxH: 76.2x50.8x31 (mm)



Pin-Out			
Pin	Function	Product Connector	Client Connector
1	AC(N)	JST B3P-VH or equivalent	Housing: JST VHR Contact: JST SVH-21T-P1.1 or equivalent
2	NC		
3	AC(L)		
4, 5	-Vo	JST B4P-VH or equivalent	Housing: JST VHR Contact: JST SVH-21T-P1.1 or equivalent
6, 7	+Vo		

#### 2 LOF120-20Bxx-C Series: LxWxH: 80.0x62.0x40.0 (mm)



1. A safe distance between the PCB board and the customer device must be reserved, 10mm is recommended
2. Class I system ①, ④ The two positions must be connected to the earth (⊕)
3. Class II system ①, ④ The two positions must be shorted

## AC/DC Power Supply LOF Series: Open Frame & PFC Function

- Input voltage: 85-264VAC/120-370VDC
- Compact size: 4" x 2" x 1"
- Operating temperature: -40°C to +70°C
- Active PFC
- High isolation voltage up to 4000VAC
- Operating altitude up to 5000m
- Very low leakage current <0.1mA
- Stand-by power consumption 0.5W Typ.
- The base plate with conformal coating
- Output short circuit, over-current, over-voltage, over-temperature protection
- Suitable for BF application
- Installing in system of safety class I/II is available
- Meets IEC/EN/UL62368-1, GB4943-1, IEC/EN60335-1, EN61558-1, EN/ES60601-1 standards



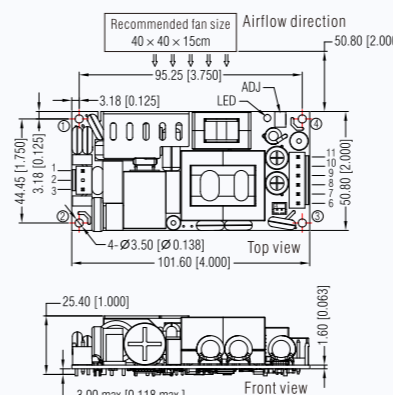
### Product Program

Power range	Model number	Input voltage	Cool mode	Rated power	Output voltage/ current	Output voltage adjustable range	Efficiency (%) (typ.)	Markings
225W	LOF225-20B12	85-264VAC	Air cooling	140W	12V/11.67A	11.8-12.6	93	
			13CFM	225W	12V/18.75A			
	LOF225-20B15		Air cooling	140W	15V/9.33A	14.7-15.8	93	
			13CFM	225W	15V/15A			
	LOF225-20B24		Air cooling	140W	24V/5.83A	23.5-25.2	94	
			13CFM	225W	24V/9.4A			
	LOF225-20B27		Air cooling	130W	27V/4.81A	26.5-28.4	94	
			13CFM	225W	27V/8.35A			
	LOF225-20B36		Air cooling	140W	36V/3.88A	35.28-37.8	94	
			13CFM	225W	36V/6.25A			
	LOF225-20B48		Air cooling	140W	48V/2.91A	47.1-50.4	94	
			13CFM	225W	48V/4.7A			
	LOF225-20B54		Air cooling	140W	54V/2.59A	52.5-55.5	94	
			13CFM	225W	54V/4.17A			

Metal case series: with the suffix "-C" (LOFxx-20Bxx-C), auxiliary power supply for external fan.

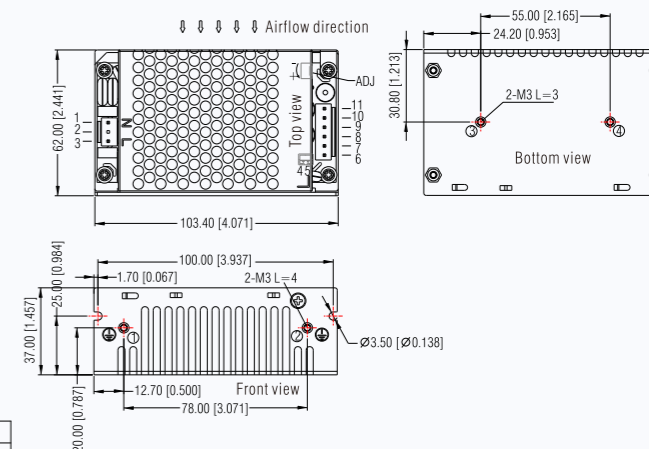
### Package Dimension

#### 1 LOF225-20Bxx Series: LxWxH: 101.6x50.8x25.4 (mm)



Pin-Out			
Pin	Function	Product Connector	Client Connector
1	AC(N)/DC-	JST B3P-VH or equivalent	Housing: JST VHR Contact: JST SVH-21T-P1.1 or equivalent
2	NC		
3	AC(L)/DC+		
4	Fan-	JST B2B-PH-K-S or equivalent	Housing: JST PHR-2 Contact: JST SPH-002T-P0.56 or equivalent
5	Fan+		
6, 7, 8	-Vo	JST B6P-VH or equivalent	Housing: JST VHR Contact: JST SVH-21T-P1.1 or equivalent
9, 10, 11	+Vo		

#### 2 LOF225-20Bxx-C Series: LxWxH: 103.4x62.0x37.0 (mm)



1. Unit: mm[inch]
2. General tolerances: ±1.00[±0.039]
3. Please do not use fan power to power other devices
4. The layout of the device is for reference only, please refer to the actual product
5. A safe distance between the PCB board and the customer device must be reserved, 10mm is recommended
6. Class I system ①, ③ The two positions must be connected to the earth (⊕)
7. Class II system ①, ③ The two positions must be shorted

# 350W

## AC/DC Power Supply LOF Series: Open Frame & PFC Function

- Input voltage: 90-264VAC/127-370VDC
- Compact size: 5" x 3" x 1"
- Accepts AC or DC input (dual-use of same terminal)
- Operating temperature: -40°C to +70°C
- Built-in active PFC function
- High isolation voltage up to 4000VAC
- Extremely low leakage current <0.1mA
- Stand-by power consumption <0.5W
- The base plate with conformal coating
- Output short circuit, over-current, over-voltage, over-temperature protection
- Suitable for BF application
- Installing in system of safety class I/II is available
- Meets IEC/EN/UL62368-1, GB4943-1, IEC/EN60335-1, IEC/EN61558-1, IEC/EN/ES60601-1 standards
- Operating altitude up to 5000m



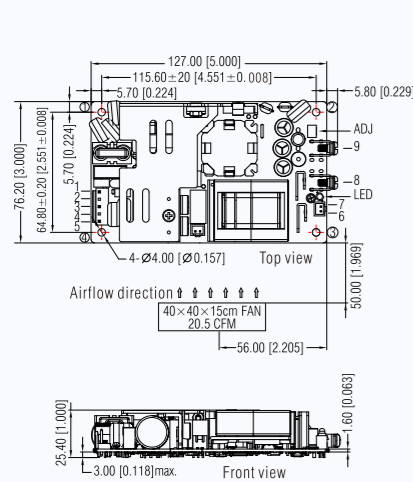
### Product Program

Power range	Model number	Input voltage	Cool mode	Rated power	Output voltage/current	Output voltage adjustable range	Efficiency (%) (typ.)	Markings
350W	LOF350-20B12	90-264VAC	Air cooling	180W	12V/15A	11.4-12.6	92	 2xMOPP
			20.5CFM	300W	12V/25A			
	LOF350-20B15		Air cooling	180W	15V/12A	14.25-15.75	92	
			20.5CFM	325W	15V/21.67A			
	LOF350-20B24		Air cooling	199.9W	24V/8.33A	22.8-25.2	93	
			20.5CFM	350.4W	24V/14.6A			
	LOF350-20B27		Air cooling	199.8W	27V/7.4A	25.65-28.35	93	
			20.5CFM	351W	27V/13A			
	LOF350-20B36		Air cooling	200.1W	36V/5.56A	34.2-37.8	93	
			20.5CFM	350.3W	36V/9.73A			
	LOF350-20B48		Air cooling	200.1W	48V/4.17A	45.6-50.4	94	
			20.5CFM	350.4W	48V/7.3A			
LOF350-20B54	Air cooling	199.8W	54V/3.7A	51.3-56.7	94			
	20.5CFM	351W	54V/6.5A					

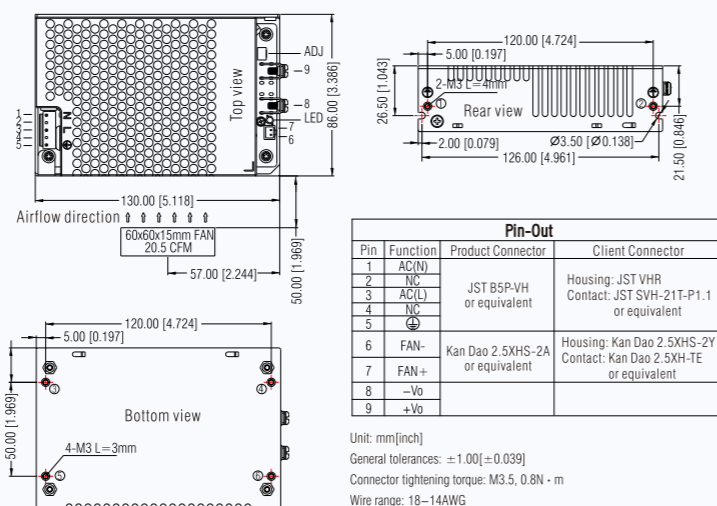
Metal case series: with the suffix "-C" (LOFxx-20Bxx-C), auxiliary power supply for external fan.  
with the suffix "-CF" (LOFxx-20Bxx-CF), auxiliary power supply for build-in fan available.

### Package Dimension

1 LOF350-20Bxx Series: LxWxH: 127x76.2x25.4(mm)



2 LOF350-20Bxx-C Series: LxWxH: 130.0x86.0x35.0(mm)



1. A safe distance between the PCB board and the customer device must be reserved, 10mm is recommended
2. Class I system ①, ②, ④ The two positions must be connected to the earth (⊕)
3. Class II system ①, ②, ④ The two positions must be shorted

# 450W

## AC/DC Power Supply LOF Series: Open Frame & PFC Function

- Input voltage: 90-264VAC/127-370VDC
- Compact size 5" x 3"
- Operating temperature: -40°C to +70°C
- Built-in active PFC function
- Output short circuit, over-current, over-voltage protection, over-temperature protection
- 250W with natural air cooling, 450W with forced air cooling
- 5VDC standby output, 12VDC fan supply, power good
- Power fail and remote sense
- Suitable for BF application
- Meets IEC/EN/UL62368, IEC/EN61558, GB4943, IEC/EN/ES60601-1 (3th Edition), medical safety certification (2 x MOPP), IEC60601-1-2: 2014 (4th Edition) standards
- Operating altitude up to 5000m



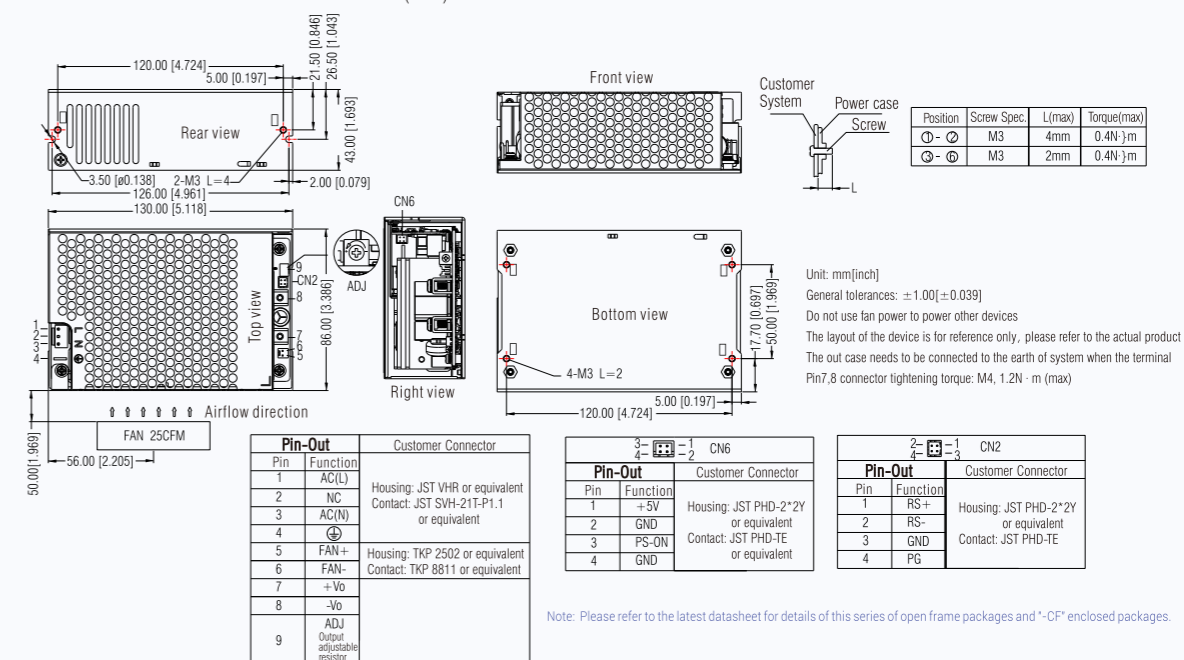
### Product Program

Power range	Model number	Input voltage	Cool mode	Rated power	Output voltage/current	Output voltage adjustable range	Efficiency (%) (typ.)	Markings
450W	LOF450-20B12	90-264VAC	Natural air cooling	250W	12V/20.8A	11.4-12.6	91	 2xMOPP
			25CFM	400W	12V/33.3A			
	LOF450-20B15		Natural air cooling	250W	15V/16.7A	14.25-15.75	92	
			25CFM	400W	15V/26.7A			
	LOF450-20B24		Natural air cooling	250W	24V/10.5A	22.8-25.2	93	
			25CFM	450W	24V/18.75A			
	LOF450-20B27		Natural air cooling	250W	27V/9.3A	25.65-28.35	93.5	
			25CFM	450W	27V/16.7A			
	LOF450-20B36		Natural air cooling	250W	36V/6.95A	34.2-37.8	93	
			25CFM	450W	36V/12.5A			
	LOF450-20B48		Natural air cooling	250W	48V/5.3A	45.6-50.4	94	
			25CFM	450W	48V/9.4A			

Metal case series: with the suffix "-C" (LOFxx-20Bxx-C), auxiliary power supply for external fan.  
with the suffix "-CF" (LOFxx-20Bxx-CF), auxiliary power supply for build-in fan available.

### Package Dimension

LOF450-20Bxx-C Series: LxWxH: 130x86x43(mm)



Note: Please refer to the latest datasheet for details of this series of open frame packages and "-CF" enclosed packages.

# 550W

## AC/DC Power Supply LOF Series: Open Frame & PFC Function

- Input voltage: 90-264VAC/127-370VDC
- Compact size 5" x 3"
- Operating temperature: -40°C to +70°C
- Built-in active PFC function
- Output short circuit, over-current, over-voltage protection, over-temperature protection
- 320W with natural air cooling, 550W with forced air cooling
- 5VDC standby output, 12VDC fan supply, power good
- Power fail and remote sense
- Suitable for BF application
- Meets IEC/EN/UL62368, IEC/EN61558, GB4943, IEC/EN/ES60601-1(3th Edition), medical safety certification (2 x MOPP), IEC60601-1-2: 2014 (4th Edition) standards
- Operating altitude up to 5000m



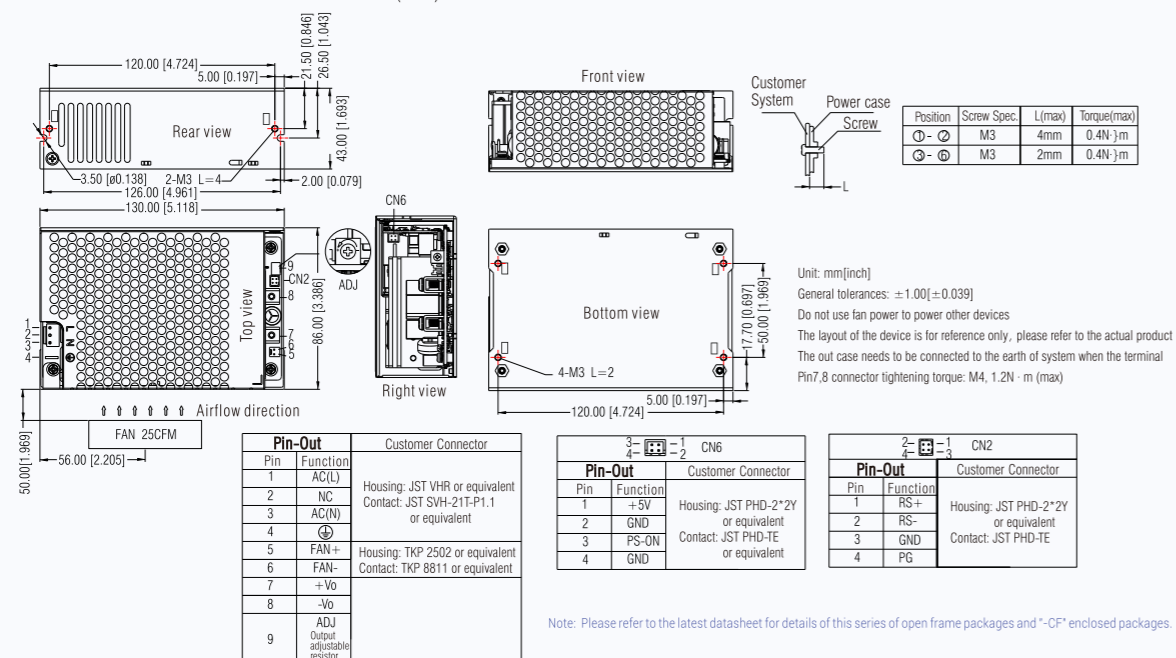
### Product Program

Power range	Model number	Input voltage	Cool mode	Rated power	Output voltage/current	Output voltage adjustable range	Efficiency (%) (typ.)	Markings
550W	LOF550-20B12	90-264VAC	Natural air cooling	320.4W	12V/26.7A	11.4-12.6	91	 2xMOPP
			25CFM	499.2W	12V/41.6A			
	LOF550-20B15		Natural air cooling	319.5W	15V/21.3A	14.25-15.75	92	
			25CFM	499.5W	15V/33.3A			
	LOF550-20B24		Natural air cooling	321.6W	24V/13.4A	22.8-25.2	93	
			25CFM	549.6W	24V/22.9A			
	LOF550-20B27		Natural air cooling	321.3W	27V/11.9A	25.65-28.35	93.5	
			25CFM	550.8W	27V/20.4A			
	LOF550-20B36		Natural air cooling	320.4W	36V/8.9A	34.2-37.8	94	
			25CFM	550.8W	36V/15.3A			
	LOF550-20B48		Natural air cooling	321.6W	48V/6.7A	45.6-50.4	94	
			25CFM	550W	48V/11.46A			

Metal case series: with the suffix "-C" (LOFxx-20Bxx-C), auxiliary power supply for external fan  
with the suffix "-CF" (LOFxx-20Bxx-CF), auxiliary power supply for build-in fan available.

### Package Dimension

LOF550-20Bxx-C Series: LxWxH: 130x86x43(mm)



Note: Please refer to the latest datasheet for details of this series of open frame packages and "-CF" enclosed packages.

## Part VI

## AC/DC Bus Power Supply

20W KNX Bus Power Supply..... 58-59

# AC/DC Power Supply: 20W KNX Series

(DIN-Rail)

20W

CE



- ▶ Compact dimensions, Din-rail design, din rail TS-35/7.5 or TS-35/15 mountable
- ▶ Output short circuit, over-current, over-voltage protection
- ▶ Bus reset function
- ▶ LED indicator for working status, over-load and reset
- ▶ Over-voltage class III
- ▶ Safety extra low voltage (SELV)

## Specification (For more information, please visit [www.mornsun-power.com](http://www.mornsun-power.com))

<b>Model number</b>	<b>KNX20-22A640</b>	
<b>Input Voltage</b>	180-264VAC/254-370VDC	
<b>Inrush Current</b> (@230VAC)	Cold start, ≤45A	
<b>Over-current Protection</b> (Self-recovery)	205%-235% I <sub>o</sub>	
<b>Short Circuit Protection</b>	Constant current, long-term short circuit protection, self-recovery	
<b>Isolation Voltage</b> (Electric strength test for 1 min., leakage current <10mA)	Input-Output: 4kVAC, Input-PE: 2kVAC, Output-PE: 1.25kVAC	
<b>Operating Temperature</b>	-30°C to +70°C	
<b>EMC</b>	<b>EMI</b>	CISPR22/EN55032 Class B, EN50491-5-2:2010
	<b>EMS</b>	EN61000-4-2 Contact ±4KV, EN61000-4-3 10V/m, EN61000-4-6 3 Vr.m.s, EN61000-4-4,5,11
<b>Safety Standard</b>	EN62368, EN61558-2-16, IEC63044-3:2018	
<b>MTBF</b>	MIL-HDBK-217F@25°C > 300,000 h	
<b>Dimension</b> (LxWxH)(mm)	52.0 x 90.0 x 58.2	

## AC/DC KNX Bus Power Supply

- Input voltage: 180-264VAC/254-370VDC
- Operating temperature: -30°C to +70°C
- Low standby power consumption, high efficiency
- High isolation voltage up to 4000VAC
- Output short circuit, over-current, over-voltage protection
- EN62368 safety approved, safety according to EN61558, EN50491
- Bus reset function
- LED indicator for working status, over-load and reset
- Internal integrated choke
- Compact dimensions, Din-rail design, din rail TS-35/7.5 or TS-35/15 mountable
- Over-voltage class III
- Safety extra low voltage (SELV)
- 10-year life design

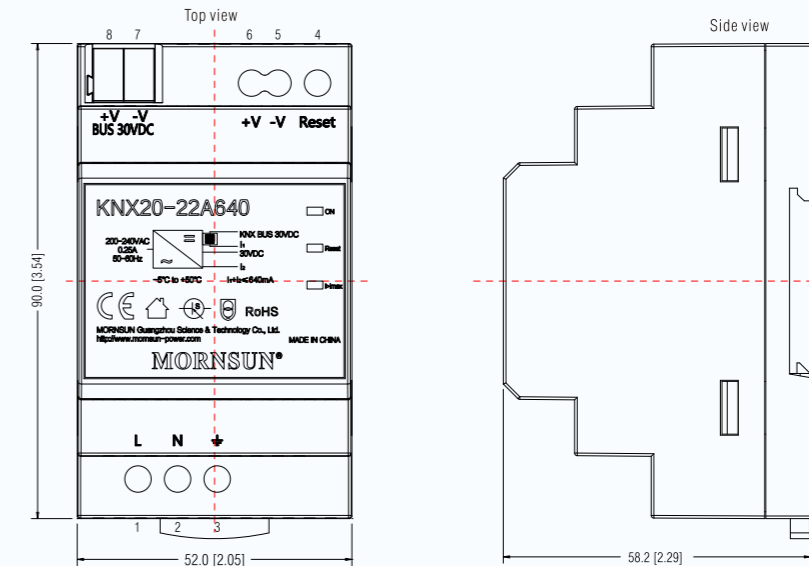


### Product Program

Power range	Model number	Power	Input voltage	Output voltage/ current	Efficiency (%) (typ.)	Markings
19.2W	KNX20-22A640	19.2W	180-264VAC	30V/640mA	86	CE

### Package Dimension

KNX20-22A640 Series: LxWxH: 52x90x58.2 (mm)



Pin-Out			
Port	Function	Port	Function
1	L	4	Reset
2	N	5	-Vo2
3	⊕	6	+Vo2
Led1	ON(G)	7	KNX Bus -Vo1
Led2	Reset(R)	8	KNX Bus +Vo1
Led3	I>I <sub>max</sub> (R)		

Unit: mm[inch]  
General tolerances: ±0.5[±0.02]

## Enclosed Switching Power Supply Applications



Numerical control machines



DCS



Variable-frequency drive



Refrigeration equipment



Video surveillance system



Entrance guard system



Fire monitoring system



Fire alarm system



Low voltage SVG



Power distribution system



APF



Electric power monitoring system



Dust online monitor



Water quality monitoring buoy



Atmospheric particle analyzer



Online monitoring analyzers for VOCs in water



Intelligent express cabinets



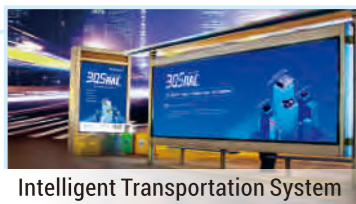
Vending machines



Shared massage chairs



Sharable chargers



Charging station



ETC antenna communication system



Electronic bus stop signage



LED traffic signage

## Industrial Control Industry

**Typical application:** Numerical control machines

**User pain points:** The interference between equipment is serious in the harsh industrial environment, and therefore good EMC performance of the AC/DC components along with its long-term reliability plays a vital role in machine operations.

**Power solution:** Using MORN SUN LM100-20B24 enclosed switching power supply. The product has passed multiple environmental reliability tests and has good EMC performance, which is making it more adaptable to the harsh industrial environment.



LM100-20B24

## Security Industry

**Typical application:** Fire fighting equipment power monitoring system

**User pain points:** The fire fighting equipment power monitoring system is in a standby state and needs to ensure low standby power consumption. The sensors are susceptible to interference from the ripple & noise. And therefore high quality and reliability for the fire fighting equipment are required.

**Power solution:** Using MORN SUN LM200-10B24 enclosed switching power supply. The product features ultra-low standby power consumption  $<0.75W@230VAC$ , low ripple & noise that can directly supply power to the sensor and is friendly to sensor sensitivity. With a three-year warranty and a professional FAE team to provide technical support, MORN SUN is able to solve our customers' worries.



LM200-10B24

## Automation Industry

**Typical application:** Robotic arm control system

**User pain points:** Loads of the robotic arm control system are mostly fans, electric motors and other inductive components, which have high requirements for output transient power and large interference. Meanwhile, the load status changes greatly which has high requirements for output stability.

**Power solution:** Using MORN SUN LM600-12B24 enclosed switching power supply. It has a strong output capacitive load and transient power, while the output is stable, which can be used reliably for a long time.



LM600-12B24

• The recommended model is for reference only, please contact FAE of MORN SUN for details.



## Environmental Protection Industry

**Typical application:** Dust online monitor

**User pain points:** The monitoring terminal system integrates multiple environmental parameters such as PM10, PM2.5, temperature, humidity, wind direction, wind speed and atmospheric pressure, rainfall, etc. However, there are many internal components, which can easily cause interference. At the same time, the outdoor environment is relatively harsh, the input voltage fluctuates, and the outdoor temperatures vary greatly. All-weather continuous monitoring has a high requirement in long-term reliability and lifetime for power supply.

**Power solution:** Use MORN SUN **LM150-23B12** enclosed switching power supply to convert the mains supply into 12V output. This series features an industrial input voltage range of 85-305VAC, an operating temperature of -30°C to +70°C, and excellent EMC performance. On the other hand, MORN SUN's enclosed switching power supply has stable performance, and the MTBF is as high as 300K hours.



LM150-23B12

## IoT Industry

**Typical application:** Intelligent express cabinet

**User pain points:** Outdoor application scenarios have terrible environments, large temperature differences between day and night, and high requirements for high-temperature reliability. Meanwhile, the various modules in the intelligent express cabinet are complicatedly connected to each other, so the number of power sources needs to be minimized.

**Power solution:** MORN SUN's narrow range **LM150-22B12** enclosed switching power supply is recommended, which is more cost-effective. At the same time, **LM350 series** enclosed switching power supplies can be used to reduce the number of power supplies as well as the costs.



LM150-22B12



LM350 Series

## Intelligent Transportation Industry

**Typical application:** DC charging station

**User pain points:** There are many electromagnetic interference factors in the working environment, and the input voltage fluctuates greatly. In addition, the outdoor temperatures vary greatly, the environment is dusty and humid.

**Power solution:** Using MORN SUN **LM150-23Bxx** enclosed switching power supply. With a wide input voltage range of 85-305VAC, the product meets voltage fluctuations working conditions. It features an operating temperature of -30°C to +70°C and enables long-term use in high and low temperature environments. In addition, the lightning surge immunity is as high as 4KV, and it has a three-proof function.



LM150-23Bxx Series

# 15-1000W Enclosed Switching Power Supply



Website



Reliable performance



Low cost



Fast delivery



20+ years experience

# 305RAC

Reliable under All Conditions

## RAC (Reliable under All Conditions) • AC/DC Converter

Best-in-class performance. Handle the voltage fluctuation easily. High-input-voltage capability, high-low-temperature reliability, high-humidity reliability, high-altitude reliability and good EMC performance under almost any harsh conditions.



Handle voltage fluctuations easily with 85-305VAC input



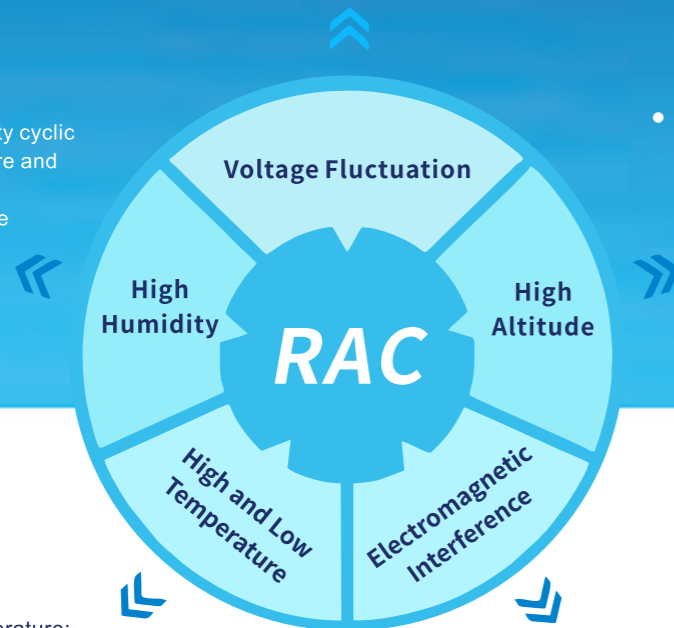
Best-in-class performance



Widely used in almost any harsh conditions

- Input voltage may rise above 264VAC when voltage fluctuation caused by load change or power source as generator

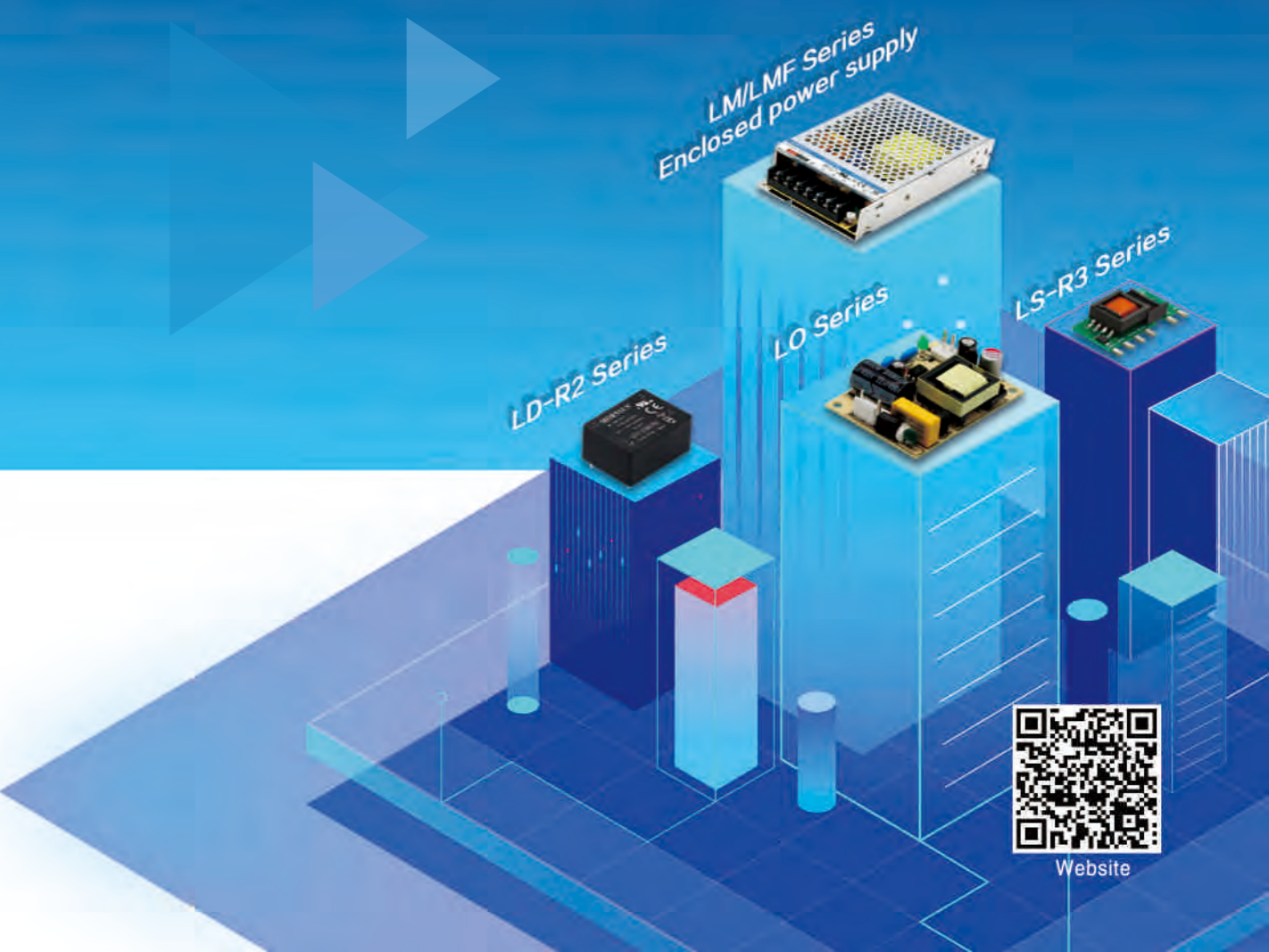
- Humidity test: Temperature/humidity cyclic test, high temperature and high humidity test, constant temperature & humidity test



- Operation altitude up to 5000m  
Altitude simulation test: high temperature test, low temperature test, aging test, etc

- Low temperature: -25°C to -40°C  
High temperature: +70°C to +80°C

- Lightning/Surge immunity  
EMI: CISPR32/EN55032 CLASS A/B



Website