

SWITCH-MODE POWER SUPPLIES MF320A Series

Features

- Compact size, high performance, high reliability
- Universal AC input/full range: 85-264VAC or 120-370VDC
- 5~48V manually adjustable output voltage
- Vertical terminal is standard (horizontal terminal/connector modes as options)
- Peak current for motor applications: models 24V, 27V, 30V, 36V, 48V (optional)
- Protection: short circuit, overload, over voltage, over temperature
- LED indicator for power on
- Remote ON/OFF control (optional)
- 100% full load burn-in test
- Active PFC build-in, PF>0.95, compliance to EN61000-3-2
- Safety: UL/TUV/CB/CE
- RoHS compliant
- 2-year warranty



Electrical Specifications

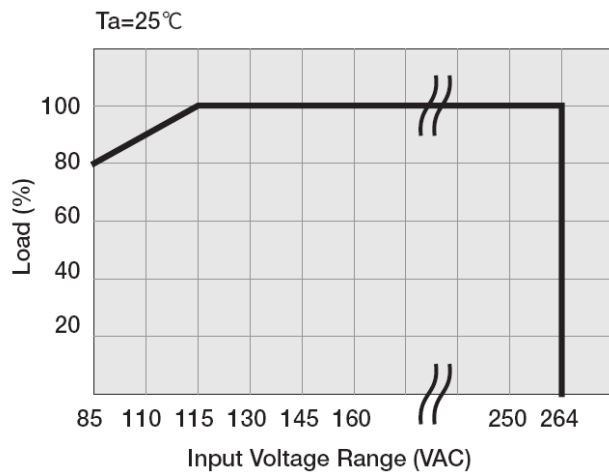
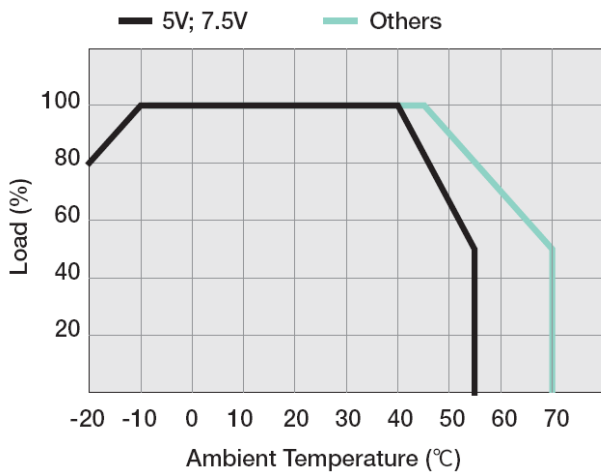
	MF320A 5AG	MF320A 7AG	MF320A 12AG	MF320A 15AG	MF320A 24AG	MF320A 27AG	MF320A 30AG	MF320A 36AG	MF320A 48AG
Rated output voltage	5V	7.5V	12V	15V	24V	27V	30V	36V	48V
Output current range	0~50A	0~40A	0~26A	0~21A	0~13A	0~12A	0~10.8A	0~9A	0~6.7A
Peak output current (optional)	-	-	-	-	17.3A	17A	13A	11.5A	8.7A
Rated output power	250W	300W	312W	315W	312W	324W	324W	324W	321W
Output voltage Adj. range *1	3.0~5.5V	6.75~8.25V	10.8~13.2V	13.5~16.5V	21.6~26.4V	24.3~29.7V	27.0~33.0V	30.0~40.0V	43.2~52.8V
Ripple & noise (p-p) *1, *2	100mV	100mV	100mV	120mV	150mV	150mV	200mV	200mV	240mV
Line regulation *2	20mV	30mV	48mV	48mV	48mV	54mV	60mV	72mV	96mV
Load regulation *2	40mV	60mV	96mV	120mV	120mV	150mV	180mV	180mV	240mV
Output voltage tolerance *2	±1 %								
Hold-up time (typical) *1	16ms / 20ms								
Input voltage range	85 ~ 264VAC (47-63Hz) or 120 ~ 370VDC								
Input current (typical) *1	3.2A / 1.6A	3.6A / 1.8A							
Inrush current (typical) *1	20A / 40A (cold start)								
Power factor (typical) *1	0.99 / 0.95								
Efficiency (typical) *1	74% / 78%	79% / 83%	82% / 86%			83% / 87%			
Leakage current (typical) *1	0.25mA / 0.5mA (MAX 0.75)								
Over current protection *3	105% - 150%								
Over voltage protection *4	5.75~6.95V	8.62~10.13	13.8~16.2V	17.2~20.3V	27.6~32.4V	31.1~36.5V	34.5~40.5V	41.4~48.6V	55.2~64.8V
Over temp. Protection *4	90°C±5 (Detect on heat sink of power transistor)								
Temperature co-efficient	< 0.02% /°C (0-50°C)								
Operating temperature	- 20 ~ + 70°C (Refer to output derating curve)								
Operating humidity	20 ~ 90%RH (Non-condensing)								
Storage temperature	- 30 ~ +85°C								

Pin Assignment and Description

Pin Configuration	
Pin No.	Output
1	AC input / L
2	AC input / N
3	FG
4, 5	DC output -V
6, 7	DC output +V

CN3: JST S8B_PHDSS or Equivalent (optional)			
Pin No.	Output	Pin No.	Output
1	COM	8	PF
2	RC+	7	RC-
3	VO-	6	-S
4	VO+	5	+S

Derating Curve



Part Number Configuration

<u>M</u>	<u>F</u>	<u>320</u>	<u>A</u>	<u>24</u>	<u>A</u>	<u>G</u>	<u>0</u>	-	<u>V/RC</u>
①	②	③	④	⑤	⑥	⑦	⑧		⑨
Metal case	Input voltage 85~264 VAC	Rated output power	PFC function (active)	Rated output voltage	Single Output channel	Series #	Factory ref.		Options (if applicable)