

Open Frame

5~20W AC/DC On Board Type



Features

- Universal AC input / Full range
- Ultra-miniature size, light weight
- Protections:
Short circuit / Overload / Over voltage / Over temp.
- No load power consumption <0.5W (<0.75W for 20W models)
- Isolation class II (5~15W)
- On-board type version available for 20W (optional)
- Low leakage current < 200uA (20W)
- Cooling by free air convection
- Medical safety approved
- Meet industrial, IT safety requirements
- 100% full load burn-in test
- 3 years warranty



NFM-05 / 10 / 15 Series			NFM-20 Series																																										
<table border="1"> <thead> <tr> <th></th><th>5W</th><th>10W</th><th>15W</th></tr> </thead> <tbody> <tr> <td>A</td><td>1.77" (45mm)</td><td>1.77" (45mm)</td><td>1.89" (48mm)</td></tr> <tr> <td>B</td><td>0.689" (17.5mm)</td><td>0.689" (17.5mm)</td><td>0.788" (20mm)</td></tr> <tr> <td>C</td><td>0.21" (5.33mm)</td><td>0.22" (5.5mm)</td><td>0.157" (4mm)</td></tr> <tr> <td>D</td><td>1.85" (47mm)</td><td>2.13" (54mm)</td><td>2.441" (62mm)</td></tr> <tr> <td>E</td><td>2.28" (57.9mm)</td><td>2.56" (65mm)</td><td>2.75" (69.85mm)</td></tr> <tr> <td>F</td><td>0.491" (12.47mm)</td><td>0.491" (12.47mm)</td><td>0.492" (12.5mm)</td></tr> <tr> <td>G</td><td>0.789" (20.04mm)</td><td>0.789" (20.04mm)</td><td>0.906" (23.01mm)</td></tr> <tr> <td>H</td><td>0.196" (5mm)</td><td>0.196" (5mm)</td><td>0.157" (4mm)</td></tr> <tr> <td>I</td><td>0.75" (19.1mm)</td><td>0.87" (22mm)</td><td>0.87" (22mm)</td></tr> </tbody> </table>				5W	10W	15W	A	1.77" (45mm)	1.77" (45mm)	1.89" (48mm)	B	0.689" (17.5mm)	0.689" (17.5mm)	0.788" (20mm)	C	0.21" (5.33mm)	0.22" (5.5mm)	0.157" (4mm)	D	1.85" (47mm)	2.13" (54mm)	2.441" (62mm)	E	2.28" (57.9mm)	2.56" (65mm)	2.75" (69.85mm)	F	0.491" (12.47mm)	0.491" (12.47mm)	0.492" (12.5mm)	G	0.789" (20.04mm)	0.789" (20.04mm)	0.906" (23.01mm)	H	0.196" (5mm)	0.196" (5mm)	0.157" (4mm)	I	0.75" (19.1mm)	0.87" (22mm)	0.87" (22mm)			
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General Specification

AC input voltage range	85~264VAC; 120~370VDC
Frequency range	47~440Hz
AC inrush current (max.)	Cold start, 25A at 115VAC, 45A at 230VAC (NFM-15: 30A at 115VAC, 50A at 230VAC) (NFM-20: 30A at 115VAC, 65A at 230VAC)
DC adjustment range	±10% rated output voltage
Overload protection	>105% hiccup mode, auto recovery
Over voltage protection	115%~135% rated output voltage, shut off, AC recycle to re-start
Over temp. protection	U1,Tj: 140~160°C, power shutdown, recovers automatically after temperature goes down
Setup, rise, hold up time	1000ms, 20ms, 100ms @ 230VAC (NFM-20: 500ms, 20ms, 50ms @ 230VAC)
Withstand voltage	I/P-O/P: 4.0KVAC, 1 minute
Working temperature	-20°C~70°C (refer to output derating curve)
Safety standards	UL60601-1, TUV EN60601-1, UL60950-1 (NFM-15) approved
EMC standards	EN55011, EN55022 Class B, EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11, EN50204, EN55024, EN60601-1-2, EN61204-3 Medical level, criteria A
Connection	4 industrial pins for 5~15W 3P / 4P / 3.96mm pitch, Molex 41791-03/04 for 20W
Packing	0.03kg ; 120pcs / 4.6kg / 0.97CUFT(NFM-05) 0.045kg ; 120pcs / 6.4kg / 0.97CUFT(NFM-10) 0.065kg ; 120pcs / 8.8kg / 0.97CUFT(NFM-15) 0.09kg ; 105pcs / 10.5kg / 0.97CUFT(NFM-20)

Energy Saving —

We care about energy saving. This logo represents
that this model has "low no load power consumption"!

NFM-05 Series

Model No.	Output	Tol.	R&N	Effi.
NFM-05-3.3	3.3V, 0~1.25A	±2%	80mV	67%
NFM-05-5	5V, 0~1.00A	±2%	80mV	71%
NFM-05-12	12V, 0~0.42A	±1%	150mV	73%
NFM-05-15	15V, 0~0.33A	±1%	150mV	74%
NFM-05-24	24V, 0~0.23A	±1%	240mV	76%

NFM-10 Series

Model No.	Output	Tol.	R&N	Effi.
NFM-10-3.3	3.3V, 0~2.50A	±2%	80mV	66%
NFM-10-5	5V, 0~2.00A	±2%	80mV	74%
NFM-10-12	12V, 0~0.85A	±1%	150mV	78%
NFM-10-15	15V, 0~0.67A	±1%	150mV	79%
NFM-10-24	24V, 0~0.42A	±1%	240mV	79%

NFM-15 Series

Model No.	Output	Tol.	R&N	Effi.
NFM-15-3.3	3.3V, 0~3.50A	±2%	80mV	73%
NFM-15-5	5V, 0~3.00A	±2%	80mV	76%
NFM-15-12	12V, 0~1.25A	±1%	150mV	78%
NFM-15-15	15V, 0~1.00A	±1%	150mV	79%
NFM-15-24	24V, 0~0.63A	±1%	240mV	81%

NFM-20 Series

Model No.	Output	Tol.	R&N	Effi.
NFM-20-3.3	3.3V, 0~4.50A	±2%	80mV	71%
NFM-20-5	5V, 0~4.40A	±2%	80mV	75%
NFM-20-12	12V, 0~1.80A	±1%	150mV	81%
NFM-20-15	15V, 0~1.40A	±1%	150mV	83%
NFM-20-24	24V, 0~0.92A	±1%	240mV	84%