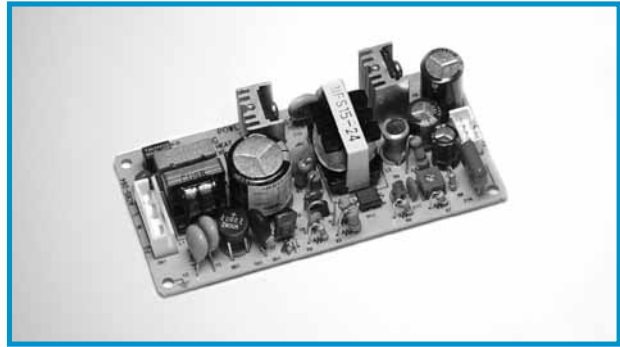


# NF 15

## NF 15 Series AC/DC Converters

**Total power** 15 Watts  
**Input voltages** AC85~264V or DC110~340V  
**#of outputs** Single, Dual, Triple output



### SPECIAL FEATURES

- Cost effective unit
- Small, compact footprint
- High efficiency
- Universal input
- Built - in EMI filter
- Inrush current limit
- Adjustable output voltage (output1)
- Output over current protection
- Low output ripple & noise
- Isolated output
- 2 Years warranty

### ENVIRONMENTAL

- Operating temperature range ..... -10℃~60℃
- Storage temperature range ..... -20℃~70℃
- Humidity ..... 20%~90%RH
- Vibration ..... 10~55Hz at 2G 3minutes period
- Impact ..... 20G for 11ms, once on each X, Y and Z-axis
- Cooling method ..... Natural air
- MTBF .....  $2.0 \times 10^6$  hrs
- Safety ..... CB standard design
- Noise ..... Meets FCC class B

### ELECTRICAL SPECIFICATIONS

#### INPUT

- Voltage ..... AC85~264V (or DC 110~340V)
- Current ..... 0.31A max. @ 110VAC / 0.16A max. @ 220VAC
- Frequency ..... 47~440Hz max. (50~60Hz typ.)
- Efficiency ..... 70% min.
- Inrush current (at cold start) ..... 30A max. @ 110VAC / 60A max. @ 220VAC
- Leakage current ..... 0.5mA max. @ 110VAC / 0.75mA max. @ 220VAC

#### OUTPUT

- Voltage Set t adj. Range .....  $\pm 10\%$  typ. @ Output1
- Ripple and noise ..... 1% max.
- Line regulation .....  $\pm 1\%$  max.
- Load regulation .....  $\pm 1\%$  max. @ Output1, 3 /  $\pm 2\%$  max. @ Output2
- Dynamic load regulaion .....  $\pm 3\%$  max. @ Output1
- Temperature drift .....  $\pm 1\%$  typ.
- Rising time ..... 100ms max.
- Holding time ..... 10ms min.

#### PROTECTION CIRCUIT

- Over current protection ..... Work at over 105% of rating & recovers automatically

#### ELECTRICALLY ISOLATED

- Input - Output ..... AC 3kV, 1 minute, 10mA / DC 500V, 100MOhms min.
- Input - FG ..... AC 2kV, 1 minute, 10mA / DC 500V, 100MOhms min.
- Output - FG ..... AC 0.5kV, 1 minute, 10mA / DC 500V, 70MOhms min.

## Ordering Information

Input	Output1	Output2	Output3	Maximum Power	Ripple&Noise max	Efficiency Typ.	Model Number
AC 85 ~ 264V or DC 110 ~340V	5V@3.00A 8.4V@1.8A 12V@1.25A 15V@1.00A 24V@0.65A			15.00W 15.12W 15.00W 15.00W 15.60W	80mVp-p 80mVp-p 120mVp-p 150mVp-p 240mVp-p	70% 71% 73% 73% 73%	<b>NFS15-5</b> <b>NFS15-8R4</b> <b>NFS15-12</b> <b>NFS15-15</b> <b>NFS15-24</b>
	5V@2.0A 5V@2.0A 5V@2.0A	+12V@0.50A +15V@0.35A +24V@0.20A		16.00W 15.25W 14.80W	80/120mVp-p 80/150mVp-p 80/240mVp-p	72% 72% 73%	<b>NFD15-52</b> <b>NFD15-5F</b> <b>NFD15-54</b>
	5V@1.5A 5V@1.5A	+12V@0.30A +15V@0.25A	-12V@0.30A -15V@0.25A	14.70W 15.00W	80/120/120mVp-p 80/150/150mVp-p	70% 70%	<b>NFT15-522</b> <b>NFT15-5FF</b>

## Mating connectors

Output type	Name	I/O Connector	Mating Connector	Terminal
Single	CN 1	YPW500-03	YPH500-03	YLT-500
	CN 2	YW025-04	YH025-04	YST-025
Dual	CN 1	YPW500-03	YPH500-03	YLT-500
	CN 2	YW025-06	YH025-06	YST-025
Triple	CN 1	YPW500-03	YPH500-03	YLT-500
	CN 2	YW025-06	YH025-06	YST-025

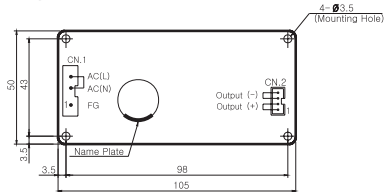
## Pin assignments

Connector	Input
CN 1 (input)	1. FG 2. AC(N) 3. AC(L)

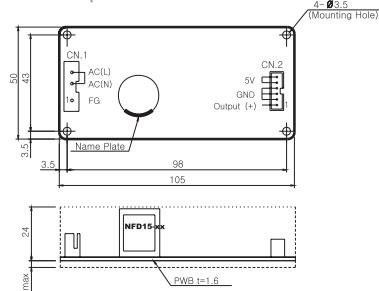
Connector	Single	Dual	Triple
CN 2 (output)	1. Output1 2. Output1 3. Gnd 4. Gnd	1. Output2 2. Gnd 3. Gnd 4. Gnd 5. Output1 6. Output1	1. Output1 2. Gnd 3. Output2 4. Gnd 5. Gnd 6. Output3

## Dimensions

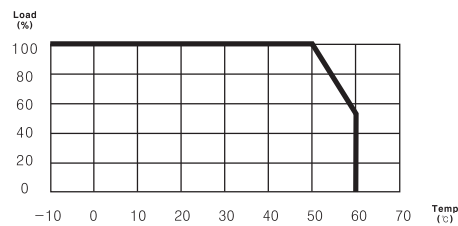
### ▶ Single Output



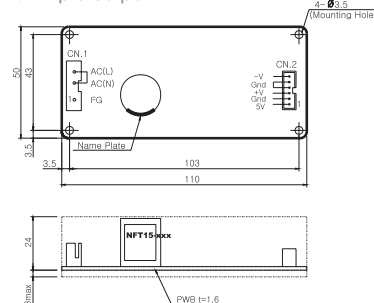
### ▶ Dual Output



## Derating curve



### ▶ Triple output



## NOTES

- All dimensions are mm.
- Weight : 85g or less (single, dual output)  
95g or less (triple output)