

## KEY FEATURES

- Non-Isolation Output
- Synchronous-rectifier Topologies
- High Efficiency
- High Power Density
- 2-Years Product Warranty



## ELECTRICAL SPECIFICATIONS

Model No.	NI20-5-1.5S	NI20-5-1.8S	NI20-5-2.1S	NI20-5-2.5S	NI20-5-3.3S
Max. Output Wattage (W)	12W	14.4W	16.8W	20W	26.4W
Input Voltage (V.DC.)	5V (4.5-5.5V)	5V (4.5-5.5V)	5V (4.5-5.5V)	5V (4.5-5.5V)	5V (4.5-5.5V)
Output Voltage (V.DC.)	1.5V / 8000mA	1.8V / 8000mA	2.1V / 8000mA	2.5V / 8000mA	3.3V / 8000mA
Efficiency	82%	86%	88%	89%	91%

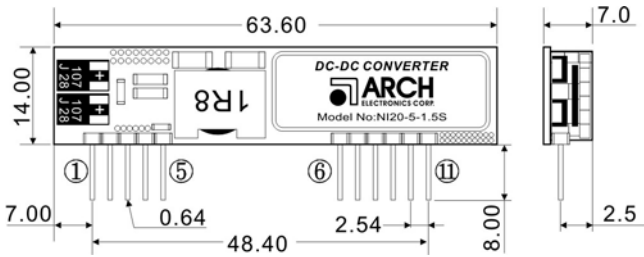
Model No.	NI20-12-1.5S	NI20-12-1.8S	NI20-12-2.1S	NI20-12-2.5S	NI20-12-3.3S
Max. Output Wattage (W)	12W	14.4W	16.8W	20W	26.4W
Input Voltage (V.DC.)	12V (4.5-13.5V)	12V (4.5-13.5V)	12V (4.5-13.5V)	12V (4.5-13.5V)	12V (4.5-13.5V)
Output Voltage (V.DC.)	5V / 8000mA	1.8V / 8000mA	2.1V / 8000mA	2.5V / 8000mA	3.3V / 8000mA
Efficiency	81%	84%	85%	86%	89%

Model No.	NI20-12-5S
Max. Output Wattage (W)	20W
Input Voltage (V.DC.)	12V (7-13.5V)
Output Voltage (V.DC.)	5V / 4000mA
Efficiency	92%

Model No.	NI20-5-1.5S	NI20-5-1.8S	NI20-5-2.1S	NI20-5-2.5S	NI20-5-3.3S	NI20-12-5S	
Max output wattage (W)	12W	14.4W	16.8W	20W	26.4W	20W	
Input	Capacitor						
Output	Input Filter	Capacitor					
	Voltage (V.DC.)	1.5	1.8	2.1	2.5	3.3	5
	Voltage Accuracy	±2%					
	Current (mA) max	8000	8000	8000	8000	8000	4000
	Line Regulation (LL-HL) (typ.)	±0.5%					
	Load Regulation (10-100%) (typ.)	±1%					
	Ripple	200mV max (Vp-p)					
Noise	200mV max (Vp-p)						
Switching Frequency	200KHz						
Protection	Over Power Protection	Works over 120% of rating and shut down					
	Short Circuit Protection	Current limit, shut down					
Environment	Operating Temperature	-25°C...+50°C (with derating)					
	Storage Temperature	-55°C...+105°C					
	Temperature Coefficient	±0.02% Per°C					
	Humidity	95% RH					
MTBF	>1,000,000 h @ 25°C (MIL-HDBK-217F)						
Physical	Dimension (L x W x H)	2.5 x 0.275 x 0.55 Inches ( 63.6 x 7.0 x 14.0 mm ) Tolerance ±0.5 mm					
	Case Material	Open Frame					
	Weight	10.5 g					
	Cooling Method	Free-air convection					

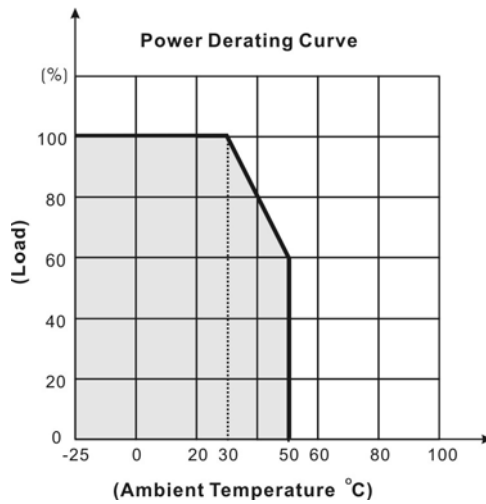
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

## MECHANICAL DIMENSION ( Top View )



PIN#	Single
1	+VOUT
2	+VOUT
3	NC
4	+VOUT
5	GND
6	GND
7	+VIN
8	+VIN
9	NC
10	NC
11	NC

## DERATING



## BLOCK DIAGRAM

