

NI20 SERIES

20 Watts

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%

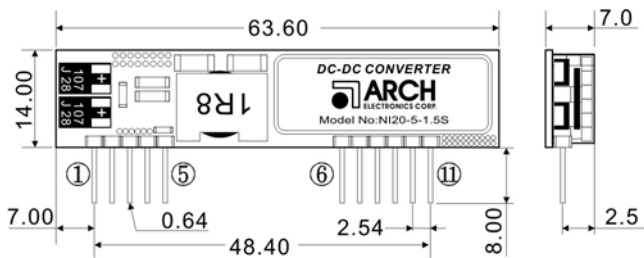
Model No.	NI20-12-1.5S	NI20-12-1.8S	NI20-12-2.1S	NI20-12-2.5S	NI20-12-3.3S
Max. Output Wattage (W)	12W	14.4W	16.8W	20W	26.4W
Input Voltage (V.DC.)	12V (4.5-13.5V)	12V (4.5-13.5V)	12V (4.5-13.5V)	12V (4.5-13.5V)	12V (4.5-13.5V)
Output Voltage (V.DC.)	5V / 8000mA	1.8V / 8000mA	2.1V / 8000mA	2.5V / 8000mA	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 NI20-12-1.5S	NI20-5-1.8S NI20-12-1.8S	NI20-5-2.1S NI20-12-2.1S	NI20-5-2.5S NI20-12-2.5S	NI20-5-3.3S NI20-12-3.3S	NI20-12-5S
Max output wattage (W)	12W	14.4W	16.8W	20W	26.4W	20W
Input	Capacitor					
Output	Input Filter					
	Voltage (V.DC.)	1.5	1.8	2.1	2.5	3.3
	Voltage Accuracy	±2%				
	Current (mA) max	8000	8000	8000	8000	4000
	Line Regulation (LL-HL) (typ.)	±0.5%				
	Load Regulation (10-100%) (typ.)	±1%				
	Ripple	200mV max (Vp-p)				
Protection	Noise	200mV max (Vp-p)				
	Switching Frequency	200KHz				
	Over Power Protection	Works over 120% of rating and shut down				
Environment	Short Circuit Protection	Current limit, shut down				
	Operating Temperature	-25°C...+50°C (with derating)				
	Storage Temperature	-55°C...+105°C				
	Temperature Coefficient	±0.02% Per°C				
	Humidity	95% RH				
Physical	MTBF	>1,000,000 h @ 25°C (MIL-HDBK-217F)				
	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				

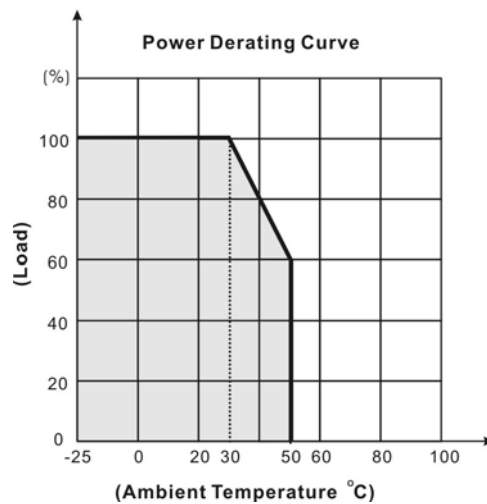
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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

