

Description

The N5 series is specifically designed for industrial lighting applications, non-isolated design, operating in constant current with high power factor and a universal input voltage range of 180~265Vac. The compact housing and high efficiency allow the drivers to operate with high reliability, while featuring input surge, output over voltage, short circuit and over temperature protection.



Product Features

- Universal input voltage: 180~265Vac ;
- Rated Input voltage: 200~240Vac;
- Constant current design, Efficiency up to 92.5%;
- High surge protection: 4KV line-line, 6KV line-earth;
- Protections: input OVP 400Vac for 1 hour, SCP / OVP / OTP;
- IP67 design for indoor and outdoor applications;
- 7 years warranty;

Application

Road and street lighting
Tunnel lighting
Area and flood lighting
High-bay lighting

Models

Model Number	Input Voltage Range (Vac)	MAX Output Power (W)	Output Voltage Range (Vdc)	Adjustable Current Range (A)	Default Current(A)	Eff. (Typ.)	PF(Typ.)	THD(Typ.)
N5-020V260	180~265	20	180~260	0.05~0.10	0.10	92.5%	0.95	10%

Notes:

[1]. All specifications are measured at 25°C ambient temperature, input voltage 230Vac, and the typical value tested at full load, if no specific note.

Input Specifications

Parameter	Min	Typ.	Max	Notes
Input Voltage Range	180Vac	-	265Vac	
Rated Input voltage	200Vac	-	240Vac	Refer to Output Power vs. Input Voltage curve
Input Frequency AC	47Hz	50/60Hz	63Hz	
Max Input Current	-	-	0.13A	230Vac & 100% load
Max Input Power	-	-	30W	230Vac & 100% load
Leakage Current	-	-	0.70mA	IEC 60598-1; 240Vac/50Hz
Inrush Current	-	-	50A	230Vac, 100% load
Power Factor (PF)	0.90	0.95	0.99	200-240Vac , 50/60Hz , 100% load
Total Harmonic Distortion (THD)	-	5%	10%	200-240Vac , 50/60Hz , 85%-100% load
MCB(B16)	-	17	-	230Vac; 100%load

Output Specifications

Parameter	Min	Typ.	Max	Notes
Output Voltage Range	180Vdc	-	260Vdc	
Open Circuit Voltage	-	-	300Vdc	
Output Current Range	0.05A	-	0.10A	
Full Power Current Range	0.08A	-	0.10A	
Current Accuracy	-5%	-	+5%	
Total Output Current Ripple (pk-pk)	-	10%	15%	20MHz BW full load & LED load the LED load ripple is slightly different for different LEDs
Startup Overshoot Current	-	-	10%	180-265Vac full load condition, LED load
Line Regulation	-5%	-	+5%	25°C±10°C ambient temperature, input changes from 180Vac to 265Vac
Load Regulation	-5%	-	+5%	Load varies from 70% to 100% with 230Vac Input at 25°C±10°C ambient temperature
Turn-on Delay Time	-	-	1.0s	180-265Vac, 100% load

General Specifications

Parameter	Min	Typ.	Max	Notes
Efficiency@230Vac	91.5%	92.5%	-	100% load
Mean Time Between Failure	-	200Khours	-	25°C±10°C ambient temperature , 230Vac , 80% load condition (MIL-HDBK-217/SR-332)
Lifetime	-	50Khours	-	230Vac & 100% load , Tc 85°C , refer to lifetime vs. case temperature curve
Operating Temperature Ta	-40°C	-	+50°C	
Operating Tc for Safety Tc_s	-40°C	-	+90°C	
Operating Tc for Warranty Tc_w	-40°C	-	+85°C	7-year warranty shell temperature, humidity: 10% to 95% RH
Storage Temperature Ta	-40°C	-	+75°C	Humidity: 5% to 100% RH
Altitude	-60m	-	4000m	
Over Temperature Protection Tc	90°C	95°C	100°C	Decreases output current, returning to normal after over temperature is removed.
Short Circuit Protection	-	-	15W	Constant current mode. The output shall return to normal when the fault condition is removed.
Dimensions (L*W*H)	136*47*26mm			
Net Weight	310g			
Package (L*W*H)	366*306*142mm; 16PCS/Ctn, Gross Weight: 6.8Kg			

Safety Specification

Parameter	Min	Typ.	Max	Notes
Dielectric Strength (Input-Ground)	-	1600Vac	-	60s , Current not exceeding 5mA
Grounding Resistance	-	-	0.1Ω	25°C±10°C Ambient Temperature, pass 25A Current, 60s.
Insulation Resistance	10MΩ	-	-	Input-PE, 500Vdc/60s/25°C

Safety Compliance

Safety Category	Standards	Approved	Notes
CCC	GB19510.1,GB19510.14		
CE	EN61347-1, EN61347-2-13, EN62493	√	
ENEC	EN61347-1, EN61347-2-13, EN62384		
CB	IEC61347-1, IEC61347-2-13	√	
BIS	IS 15885(PART 2/SEC 13)		
UL	UL 8750		
CUL	CSA C22.2 No.250.13		
KC	K61347-1, K61347-2-13		
PSE	J61347-1, J61347-2-13		
SAA	AS/NZS IEC 61347.2.13		
SAA	AS/NZS 61347.1		

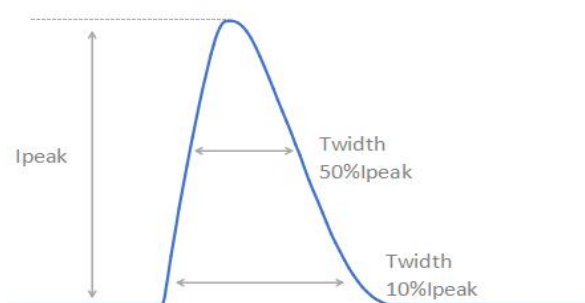
EMC Compliance

EMC Category	Standards	Approved	Notes
CCC	GB/T 17743, GB 17625.1		
CE	EN 55015	√	
CE	EN 61000-3-2, EN 61000-3-3	√	
CE	EN61000-4-2,3,4,5,6,11	√	
CE	EN 61547	√	
KC	K61547		
KC	K00015		
PSE	J55015		
FCC	FCC part 15		
Surge Shock Immunity	ANSI/C82.77-5-2017		
Ringing Wave			

RoHS

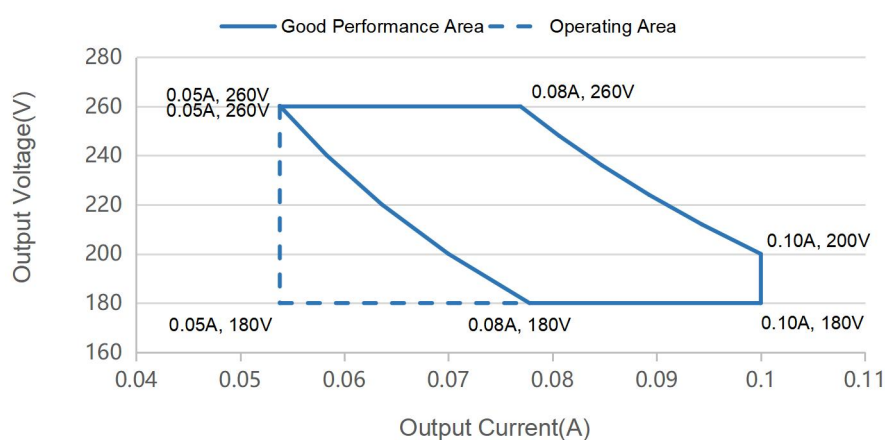
Our products comply with reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.

Inrush Current

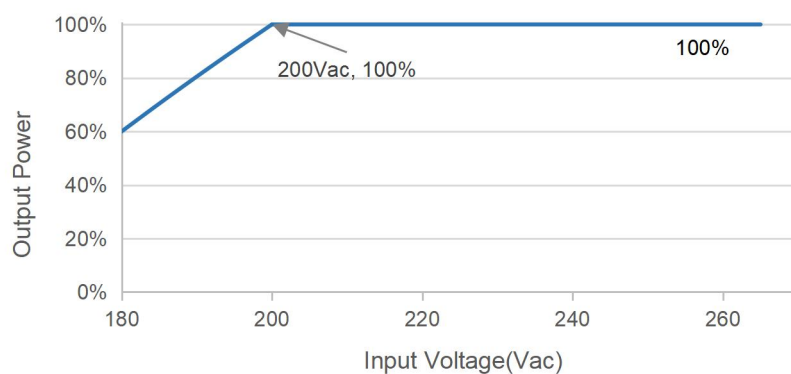


V_{in}	I_{peak}	$T(@10\% \text{ of } I_{peak})$	$T(@50\% \text{ of } I_{peak})$
230Vac	35A	200 μ s	100 μ s

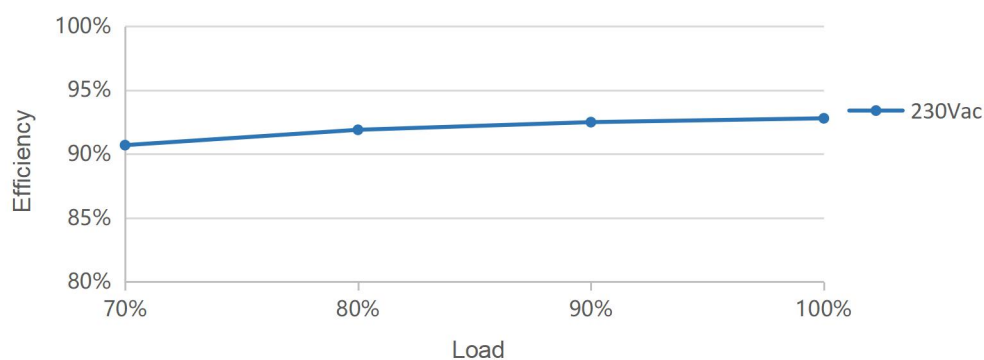
Output Voltage vs. Output Current

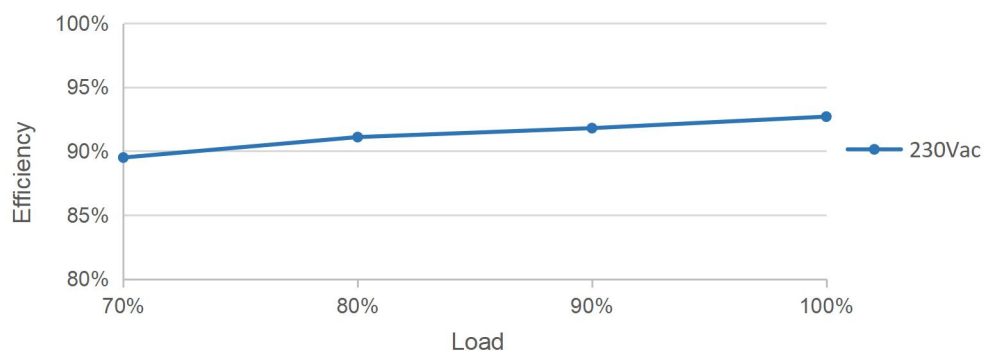
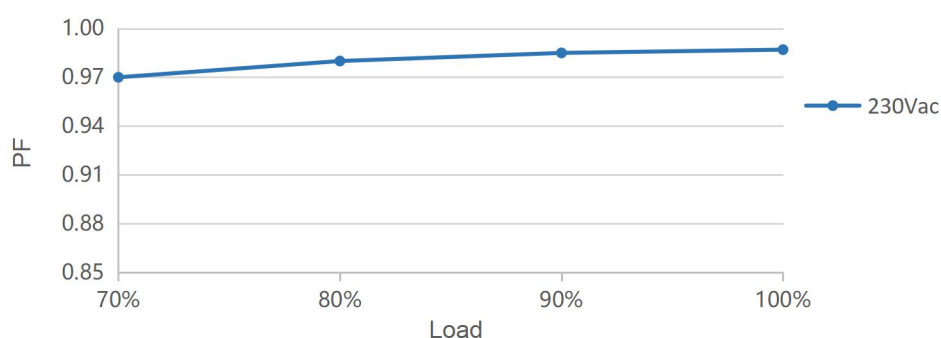
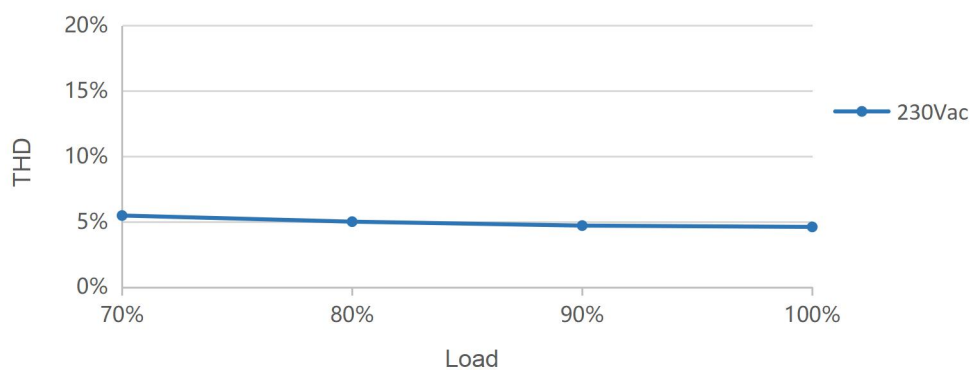
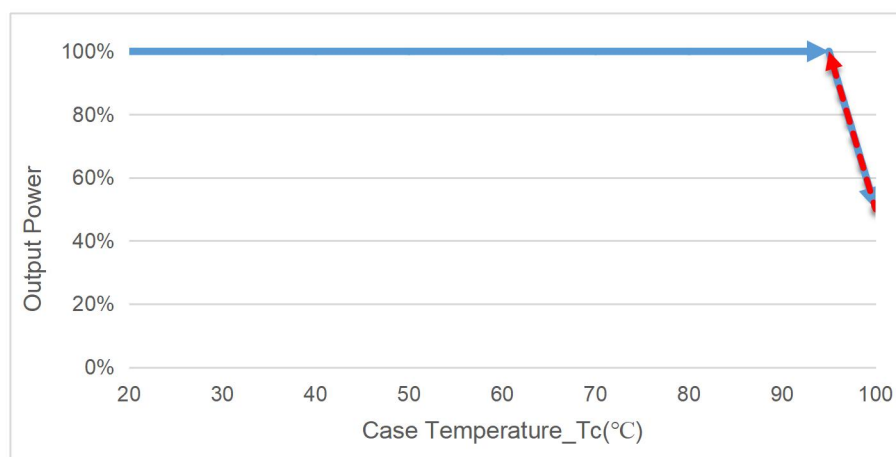


Output Power vs. Input Voltage

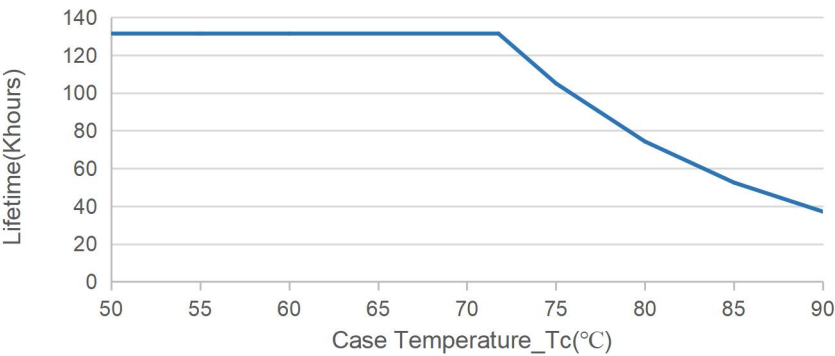


Efficiency vs. Load ($I_o=0.08A$)

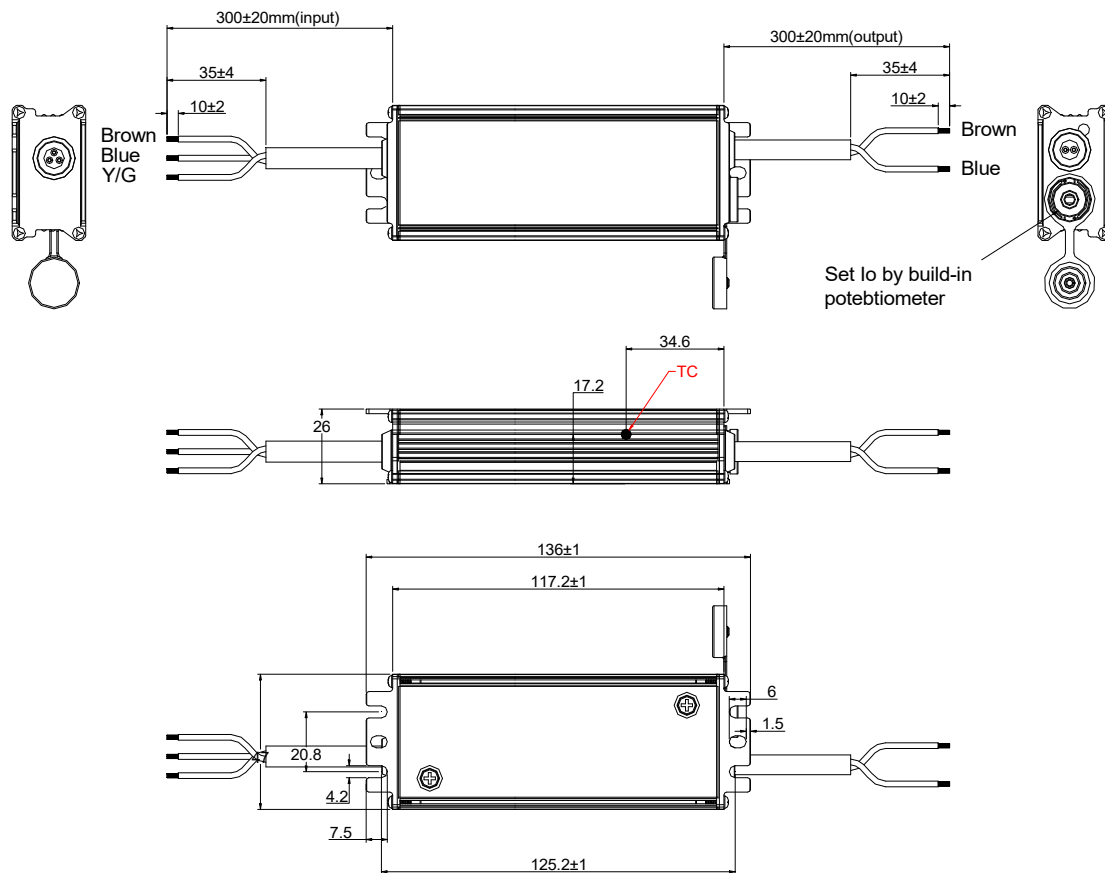


Efficiency vs. Load (Io=0.1A)**PF vs. Load****THD vs. Load****Output Power vs. Case Temperature**

Lifetime vs. Case Temperature



Mechanical Outline



Specification

Input	CCC+VDE 3x1.0mm ² L=300±20mm	CCC/CE
Output	CCC+VDE 2x1.0mm ² L=300±20mm	CCC/CE

Label



Version

A.2	First release	2025/10/21