

MINDSERIESLED DRIVER

Mind-50-1500

Features

- Class II structure
- Input voltage 100-277 V 50/60 Hz
- Efficiency 95%(Type)
- Metal shell structure, protection grade IP65
- Lightning protection level differential mode 6kV
- Can pass the double 85 test (15 days) @ 230Vac full load
- The LED drives I/P-O/P to withstand voltage up to 1500Vac for 60s
- Lifetime design: 6 years
- Appliance class II 

Applications

Outdoor lighting lamps such as street lamps, spotlights, wall washing lamps, etc.

Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff.	T.H.D	PF
Mind-50-600	100-277Vac 50/60Hz	51.6W	26-45Vdc	600mA	>95%	<15%	>0.95
Mind-50-700-MPC		42W	25-56Vdc	750mA			
Mind-50-900-MPC		50.4W	25-56Vdc	900mA			
Mind-50-1050		52.5W	25-50Vdc	1050mA			
Mind-50-1200-MPC		45.6W	20-38Vdc	1200mA			
Mind-50-1350-MPC		51.3W	20-38Vdc	1350mA			
Mind-50-1400-MPC		50.4W	20-36Vdc	1400mA			
Mind-50-1500C		50W	26-45Vdc	1420mA			

Note :

1. Test conditions of the above parameters: Ta=60 °C , 230Vac input, working at full load for 30 minutes.

Input characteristics

Parameter	Min	Typ.	Max	Note
Rated input voltage	100Vac	230Vac	277Vac	
Input voltage range	90Vac	230Vac	305Vac	
Rated frequency	47Hz	50/60Hz	63Hz	
Power factor	-	0.95	-	@230Vac full load
T.H.D.	-	-	14.99%	@230Vac full load
Input current	-	-	0.7A	@100Vac full load
Inrush current	-	-	70A	230Vac, cold start (25℃)

Output characteristic

Parameter	Min	Typ.	Max	Note
Rated current				
Mind-50-600	0.558A	0.6A	0.642A	
Mind-50-700-MPC	0.697A	0.75A	0.803A	
Mind-50-900-MPC	0.837A	0.9A	0.963A	
Mind-50-1050	0.976A	1.05A	1.124A	
Mind-50-1200-MPC	1.116A	1.2A	1.284A	
Mind-50-1350-MPC	1.255A	1.35A	1.445A	
Mind-50-1400-MPC	1.302A	1.4A	1.498A	
Mind-50-1500	1.395A	1.5A	1.605A	
Output current range				
Mind-50-600	40V	-	86V	
Mind-50-700-MPC	25V	-	56V	
Mind-50-900-MPC	25V	-	56V	
Mind-50-1050	25V	-	50V	
Mind-50-1200-MPC	20V	-	38V	
Mind-50-1350-MPC	20V	-	38V	
Mind-50-1400-MPC	20V	-	36V	
Mind-50-1500	20V	-	36V	

Output characteristic

Parameter	Min	Typ.	Max	Note
Rated power(100-277Vac)				
Mind-50-600	24W	-	51.6W	
Mind-50-700-MPC	18.75W	-	42W	
Mind-50-900-MPC	22.5W	-	50.4W	
Mind-50-1050	26.25W	-	52.5W	
Mind-50-1200-MPC	24W	-	45.6W	
Mind-50-1350-MPC	27W	-	51.3W	
Mind-50-1400-MPC	28W	-	50.4W	
Mind-50-1500	30W	-	54W	
No-load voltage				
Mind-50-600	-	-	98V	
Mind-50-700-MPC	-	-	68V	
Mind-50-900-MPC	-	-	68V	
Mind-50-1050	-	-	68V	
Mind-50-1200-MPC	-	-	55V	
Mind-50-1350-MPC	-	-	55V	
Mind-50-1400-MPC	-	-	55V	
Mind-50-1500	-	-	55V	
Efficiency@230Vac				
Mind-50-600	89%	91%		
Mind-50-700-MPC	89%	90%		
Mind-50-900-MPC	89%	90.5%		
Mind-50-1050	89%	90%	-	
Mind-50-1200-MPC	89%	90%		
Mind-50-1350-MPC	89%	89%		
Mind-50-1400-MPC	89%	89%		
Mind-50-1500	94%	95%		
Accuracy of output current	-7%	-	+7%	
Line regulation	-5%	-	+5%	
Load regulation	-5%	-	+5%	
Starting time	500ms	-	1000ms	Full load @100-277Vac

Protection

Function	Function instructions
Output overload protection	Protection mode:hiccup mode,recovers automatically after fault condition is removed.
Output short circuit protection	Hiccup mode:recovers automatically after fault condition is removed.
Output over-voltage protection	Protection mode: Hiccup mode or clamped in output highest voltage , the product is not damaged. LED driver works normally after fault condition is removed.

Note:

1. Unless otherwise specified, all specifications and parameters shall be measured at the conditions of 230Vac (50Hz), rated load and 25℃ of ambient temperature;
2. Including setting error, line regulation and load regulation.

Environmental

Environmental categories	Parameter
Working temperature	-25 ~ +90℃ @100-277Vac (refer to "Life Curve ")
Working humidity	20 ~ 95% RH, non condensing
Storage temperature、	-25~+90℃, 10 ~ 90% RHhumidity
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	100Khrs min. MIL-HDBK-217F (Ta=25℃)

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Safety and EMC

Safety categories	Standard
Safety	/
EMC	/
Surge protection	Differential mode L-N ±6KV (2 ohm) ; Refer to IEC61000-4-5 2014 Criterion B
High-pot test	I/P-O/P:1.5KVac
Insulation impedance	I/P-O/P:100MΩ / 500VDC / 25℃/ 80% RH
Leakage current	<0.7mA@230Vac

Note:

1.The driver is considered as a component that will be operated in combination with the final equipment. Since EMC performance will be affected by the complete installation,the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

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