40W High Efficiency Driver

1. Product description

Isolated LED driver designed for class I LED luminaires.

Category: AC100-277V linear metal case, flicker-free version.
Product properties: active PFC, high PF, high efficiency, low THD, flicker-free.
Application: tri-proof lights, grid lights and other linear shape lights.
Warranty: 3 years (please refer to the warranty condition).

2. Technical data (1)

	Full model number	FSP040IUCS040M(60)	FSP040IUCS040M(70)	FSP040IUCS040M(80)	FSP040IUCS040M(90)
Output	Output voltage	27-40 VDC			
	Output current	600mA	700mA	800mA	900mA
	Ripple voltage	< 2V			
	Current tolerance	±5%			
	Time to light	100Vac<1S 230Vac <0.5S 277ac <0.5S			
	Temperature drift	±10%			
	Output Line regulation	±5%			
Input	Input Line regulation	±5%			
	Rated input voltage	100-240 Vac, 277 Vac (Max input voltage: 90-305Vac)			
	Frequency	47Hz-63Hz			
	Input current	0.7A Max			
	Power factor	≥0.96/100Vac			
		≥0.92/230Vac			
		≥0.90/277Vac			
	THD	≤20% at AC230V			
	Efficiency	≥84%/100Vac			
		≥85%/230Vac			
		≥85%/277Vac			
	In-rush current (peak /duration)	I<60A/250uS@230Vac			
	Typ. power input on stand-by	Pin<1W			
Protective features	No-load	Max. output voltage (no-load voltage) 55V			
	Short-circuit	Hiccup mode (auto-recovery)			
Environment condition	Working temperature	-30℃ - +50℃			
	Working humidity	20-90%RH (no condensation)			
	Storage temperature/humidity	-40℃ ~ +80℃ (6 months under the class I environment); 10-90%RH (no condensation)			
	Atmospheric pressure	86-106KPa			
Safety and norms	Certifications	CB, TUV, CE, RCM, UL, FCC			
	Hi-pot test	I/P-O/P: 3.75KVac, <5mA, 60S I/P-PG:1.6KVac, < 5mA,60S			
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ			
	Surge level	Comply with IEC61000-4-5(L/N:2KV,L/PG:4KV,N/PG:4KV)			
	EMI	Comply with EN55015, EN61000-3-2.			
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.			
Others	Packing (weight)	Net weight: 195g±5%/pc; 36pcs/carton; 8.0KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).			
	IP level	/			
	Warranty condition	3 years (Max. case temperature must not exceed 70℃).			
Test conditions	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% output load.				
Additional Remark	1. In the power supply circuit, it is recommended that the customer should install an over-under-voltage protection and surge protection device to ensure the safety of using electricity.				

	2. The PC cover, shell, end caps used together with the LED driver inside the LED lamp must meet the UL94V-0 fire rating level or above. 3. As a part of the LED lamp, the LED driver is not the only factor determining the EMC performance of the LED lamp. And the EMC performance is also related to the LED lamp's structure and the wire routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps.

Technical data (2)

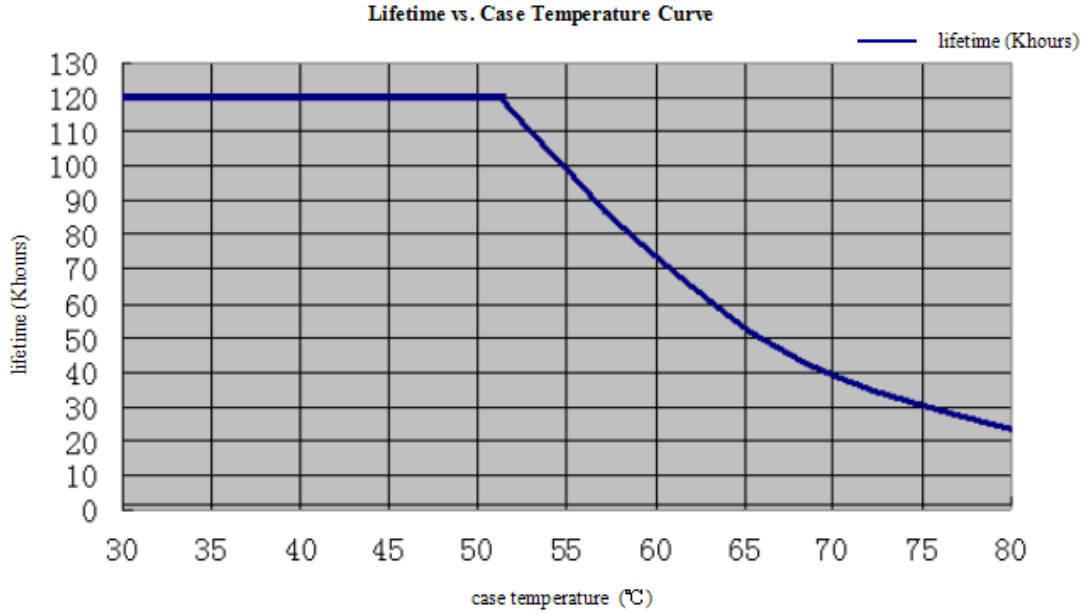
	Full model number	FSP040IUCS040M(95)	FSP040IUCS040M(A0)	
Output	Output voltage	27-40 VDC		
	Output current	950mA	1000mA	
	Ripple voltage	< 2V		
	Current tolerance	±5%		
	Time to light	100Vac<1S 230Vac <0.5S 277ac <0.5S		
	Temperature drift	±10%		
	Output Line regulation	±5%		
Input	Input Line regulation	±5%		
	Rated input voltage	100-240 Vac, 277 Vac (Max input voltage: 90-305Vac)		
	Frequency	47Hz-63Hz		
	Input current	0.7A Max		
	Power factor	≥0.96/100Vac		
		≥0.95/230Vac		
		≥0.92/277Vac		
	THD	≤20% at AC230V		
	Efficiency	≥85%/100Vac		
		≥86%/230Vac		
		≥85%/277Vac		
	In-rush current (peak /duration)	I<60A/250uS@230Vac		
	Typ. power input on stand-by	Pin<1W		
Protective features	No-load	Max. output voltage (no-load voltage) 55V		
	Short-circuit	Hiccup mode (auto-recovery)		
Environment condition	Working temperature	-30℃ - +50℃		
	Working humidity	20-90%RH (no condensation)		
	Storage temperature/humidity	-40℃ ~ +80℃ (6 months under the class I environment); 10-90%RH (no condensation)		
	Atmospheric pressure	86-106KPa		
Safety and norms	Certifications	CB, TUV, CE, RCM, UL, FCC		
	Hi-pot test	I/P-O/P: 3.75KVac, <5mA, 60S I/P-PG:1.6KVac, < 5mA,60S		
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ		
	Surge level	Comply with IEC61000-4-5(L/N:2KV,L/PG:4KV,N/PG:4KV)		
	EMI	Comply with EN55015, EN61000-3-2.		
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.		
Others	Packing (weight)	Net weight: 195g±5%/pc; 36pcs/carton; 8.0KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).		
	IP level	/		
	Warranty condition	3 years (Max. case temperature must not exceed 70℃).		
Test conditions	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% output load.			
Additional Remark	1. In the power supply circuit, it is recommended that the customer should install an over-under-voltage protection and surge protection device to ensure the safety of using electricity. 2. The PC cover, shell, end caps used together with the LED driver inside the LED lamp must meet the UL94V-0 fire rating level or above. 3. As a part of the LED lamp, the LED driver is not the only factor determining the EMC performance of the LED lamp. And the EMC performance is also related to the LED lamp's structure and the wire routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps.			

Technical data (3)

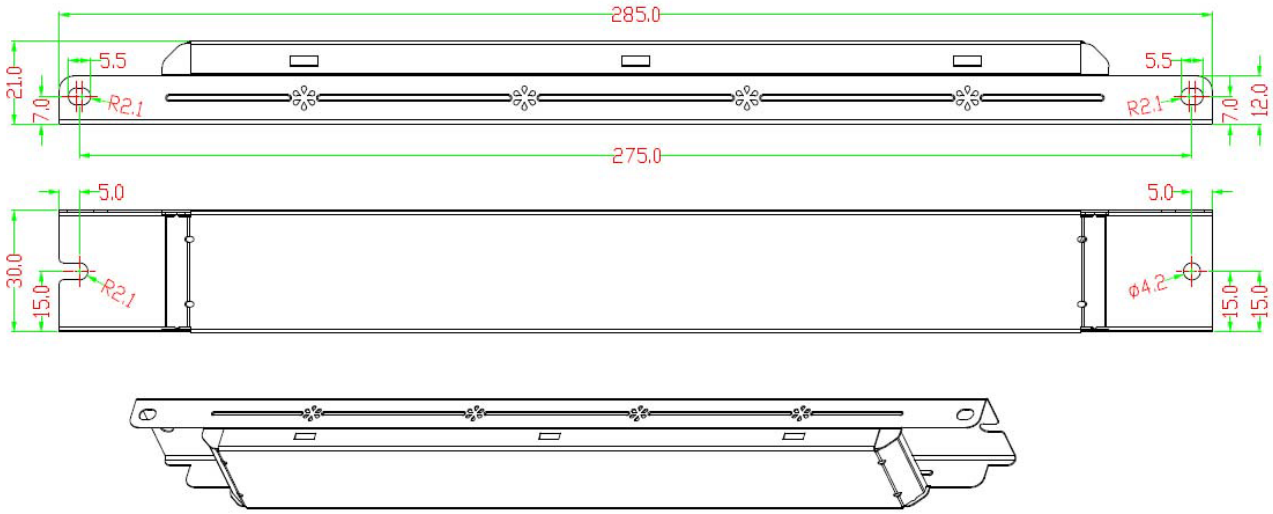
	Full model number	FSP040IUCS055M(50)	FSP040IUCS040M(60)	FSP040IUCS055M(75)
Output	Output voltage	35-55VDC		
	Output current	500mA	600mA	750mA
	Ripple voltage	< 1.5V		
	Current tolerance	±5%		
	Time to light	100Vac<1S 230Vac <0.5S 277ac <0.5S		
	Temperature drift	±10%		
	Output Line regulation	±5%		
Input	Input Line regulation	±5%		
	Rated input voltage	100-240 Vac, 277 Vac (Max input voltage: 90-305Vac)		
	Frequency	47Hz-63Hz		
	Input current	0.7A Max		
	Power factor	≥0.96/100Vac		
		≥0.94/230Vac		
		≥0.91/277Vac		
	THD	≤20% at AC230V		
	Efficiency	≥84%/100Vac		
		≥85%/230Vac		
		≥85%/277Vac		
	In-rush current (peak /duration)	I<60A/250uS@230Vac		
	Typ. power input on stand-by	Pin<1W		
Protective features	No-load	Max. output voltage (no-load voltage) 70V		
	Short-circuit	Hiccup mode (auto-recovery)		
Environment condition	Working temperature	-30℃ - +50℃		
	Working humidity	20-90%RH (no condensation)		
	Storage temperature/humidity	-40℃ ~ +80℃ (6 months under the class I environment); 10-90%RH (no condensation)		
	Atmospheric pressure	86-106KPa		
Safety and norms	Certifications	CB, TUV, CE, RCM		
	Hi-pot test	I/P-O/P: 3.75KVac, <5mA, 60S I/P-PG:1.6KVac, < 5mA,60S		
	Insulation resistance	I/P-O/P: 500VDC, >100MΩ		
	Surge level	Comply with IEC61000-4-5(L/N:2KV,L/PG:4KV,N/PG:4KV)		
	EMI	Comply with EN55015, EN61000-3-2.		
	EMS	Comply with EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547.		
Others	Packing (weight)	Net weight: 195g±5%/pc; 36pcs/carton; 8.0KG±5%/carton. Carton size: 39 x 29 x 21 cm (L xWxH).		
	IP level	/		
	Warranty condition	3 years (Max. case temperature must not exceed 70℃).		
Test conditions	The parameters above including the power factor, THD, efficiency are all tested under the ambient temperature 25℃ and humidity 50%, AC input 230V and 90% output load.			
Additional Remark	1. In the power supply circuit, it is recommended that the customer should install an over-under-voltage protection and surge protection device to ensure the safety of using electricity. 2. The PC cover, shell, end caps used together with the LED driver inside the LED lamp must meet the UL94V-0 fire rating level or above. 3. As a part of the LED lamp, the LED driver is not the only factor determining the EMC performance of the LED lamp. And the EMC performance is also related to the LED lamp's structure and the wire routing. Thus we strongly recommend the manufacturer of the finished LED lamp must re-confirm the EMC of the LED lamps.			

3. Product Referenced Lifetime Curve

The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40℃, 45℃, 50℃, 55℃, 60℃, 70℃ and 80℃.



4. Dimensional Drawing (unit: mm)



5. Wire Connection Diagram: