

PWM series 40~90W

Features

- Constant voltage PWM style output mode
- Universal AC input (90 to 305VAC) / Full range
- High efficiency up to 90.5%
- No load power consumption <0.5W
- Fully isolated plastic case with IP67 level
- Isolation class II, no F.G.
- Class 2 power unit (except for PWM-90-12 & PWM-120)
- Type HL LED Driver for use in Class I, Division 2 hazardous location luminaires (except for PWM-90)
- Built-in 3 in 1 dimming function (0~10VDC, PWM signal or resistance)
- Built-in DALI/DALI-2(for PWM-60/90)/IOT/Bluetooth mesh interface (except for PWM-40)
- IP67 Suitable for dry, damp, and wet location
- Suitable for LED strip lighting
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 5 years warranty

	PWM-40	NEW PWM-60(DA/DA2/IOT) PWM-60-KN	PWM-90 NEW PWM-90(DA/DA2)
INPUT			
OUTPUT (PWM-40/60)			
OUTPUT (PWM-90/120)			
AC input voltage range	90~305VAC; 127~431VDC		
AC inrush current (max.)	Cold start, 50A at 230VAC		Cold start, 60A at 230VAC
Overload protection	108%~130% hiccup mode, auto-recovery		
Over voltage protection	113%~142% rated output voltage (116%~142% rated output voltage for PWM-60-KN)		
Over temp. protection	Shut down o/p voltage, re-power on to recover		
Setup time	500ms / 115VAC or 230VAC		
Total harmonic distortion	THD<20%		
PWM output frequency	1.47kHz (200~4000Hz user changable via ETS for PWM-60-KN)		
Withstand voltage	I/P-O/P: 3.75kVAC		
Working temperature	Tcase= -40~+85°C(-35~+85°C for PWM-60-KN) (refer to "OUTPUT LOAD vs TEMPERATURE")		Tcase= -40~+90°C
Safety standards	UL8750(except for DA-Type & PWM-60-KN), UL879(PWM-40/60-12/24 only), CSA C22.2 No.250.13-12 (except for PWM-60-KN); ENEC BS EN61347-1,BS EN61347-2-13 independent,BS EN62384, IP67 (except for PWM-60-KN),BIS IS 15885 (for 12,24,48, Blank Type only), EAC TP TC 004, GB19510.1,GB19510.14 approved; Design refer to BS EN60335-1(except for PWM-60-KN),According to BS EN61347-2-13 appendix J suitable for emergency installations(except PWM-40)		
EMC standards	BS EN55015, BS EN61000-3-2 Class C (@load≥60%); BS EN61000-3-3,GB17743 and GB17625.1, EAC TP TC 020, BS EN61000-4-2,3,4,5,6,8,11; BS EN61547, light industry level (surge immunity Line-Line 2KV)		
Connection	Input	UL rated, SJTW 18AWGx2C (30cm)	
	Output	UL2464 18AWG x2C (30cm)+ 22AWG x2C (30cm)	PWM-60(DA): UL2464 18AWG x2C (30cm)+22AWG x2C (30cm) PWM-60-KN: UL2464 18AWG x2C (30cm)+20AWG x2C (35cm)
Dimension (LxWxH) (mm)	150x 53x 35	150x 53x 35	171x 63x 37.5

PWM-40 Series

Item Code	Model No.	Output	Tol.	Effi.
MW 812	PWM-40-12	12V, 0~3.34A	±4%	86.0%
MW 8D3	PWM-40-24	24V, 0~1.67A	±3%	89.0%
-	PWM-40-36	36V, 0~1.12A	±2%	90.0%
-	PWM-40-48	48V, 0~0.84A	±1%	90.0%

PWM-60 Series

Item Code	Model No.	Output	Tol.	Effi.
MW 822	PWM-60-12	12V, 0~5A	±4%	86.0%
MW 813	PWM-60-24	24V, 0~2.5A	±3%	89.0%
-	PWM-60-36	36V, 0~1.67A	±2%	90.0%
-	PWM-60-48	48V, 0~1.25A	±1%	90.0%

PWM-60-KN Series

Model No.	Output	Tol.	Effi.
PWM-60-12 □	12V, 0~5A	±4%	86.0%
PWM-60-24 □	24V, 0~2.5A	±3%	89.0%

□ = KN, KNBST; KN: KNX control technology
KNBST: KNX control technology with BST14 connector

PWM-90 Series

Item Code	Model No.	Output	Tol.	Effi.
MW 832	PWM-90-12	12V, 0~7.5A	±4%	88.0%
MW 8E3	PWM-90-24	24V, 0~3.75A	±3%	90.5%
-	PWM-90-36	36V, 0~2.5A	±2%	90.5%
-	PWM-90-48	48V, 0~1.88A	±1%	90.5%

○ = Blank, DA, IoT; Blank: with 3 in 1 dimming function, DA: with DALI/Bluetooth mesh function (12V/24V only)

PWM series 120~200W

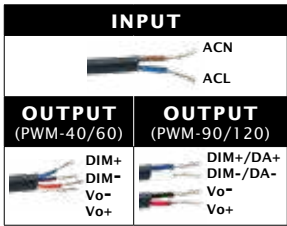


Features

- Constant voltage PWM style output mode
- Universal AC input (90 to 305VAC) / Full range
- High efficiency up to 94%
- No load power consumption <0.5W
- Fully isolated plastic case with IP67 level
- Isolation class II, no F.G.
- Type HL LED Driver for use in Class I, Division 2 hazardous location luminaires
- Built-in 3 in 1 dimming function
- (0~10VDC, PWM signal or resistance)
- Built-in DALI/DALI-2 Push Dim/KNX/IOT/Bluetooth mesh Dimming
- IP67 Suitable for dry, damp, and wet location
- Suitable for LED strip lighting
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 5 years warranty

NEW PWM-120(DA/DA2/IOT) PWM-120-KN

PWM-200(DA/DA2/IOT) PWM-200-KN



AC input voltage range	90~305VAC; 127~431VDC	100~305VAC; 141~431VDC
AC inrush current (max.)	Cold start, 60A at 230VAC	Cold start, 65A at 230VAC
Overload protection	PWM-120(DA):108%~120% hiccup mode, auto-recovery PWM-120-KN: 108%~130% hiccup mode, auto-recovery	108%~135% hiccup mode, auto-recovery
Over voltage protection	113%~142% rated output voltage	
Over temp. protection	Shut down o/p voltage, re-power on to recover	
Setup time	500ms / 115VAC or 230VAC	500ms / 230VAC
Total harmonic distortion	THD<20%	
PWM output frequency	1.47kHz PWM-KN Series: 200~4000Hz user changable via ETS for PWM-KN Series	4kHz
Withstand voltage	I/P-O/P: 3.75kVAC; I/P-DA:1.5KVAC; O/P-DA:1.5KVAC	
Working temperature	Tcase= -40~+90°C (refer to "OUTPUT LOAD vs TEMPERATURE")	
Safety standards	UL8750(except for PWM-120-12DA-Type & PWM-120-KN), CSA C22.2 No. 250.13-12(except for PWM-120-KN); ENEC BS EN61347-1,BS EN62384, BS EN61347-2-13 independent, IP67(except for PWM-120-KN),BIS IS15885(for PWM-120-12,24only), EAC TP TC 004, GB19510.1,GB19510.14 approved; Design refer to BS EN60335-1;According to BS EN61347-2-13 appendix J suitable for emergency installations for DA2 type only	
EMC standards	BS EN55015, BS EN61000-3-2 Class C (@load≥60%) ; BS EN61000-3-3,GB17743 and GB17625.1,EAC TP TC 020, BS EN61000-4-2,3,4,5,6,8,11; BS EN61547, light industry level (surge immunity Line-Line 2KV)	
Connection	Input	Blank-Type/PWM-KN Series: UL rated, SJTW 18AWGx2C (30cm) DA-Type: SJOW 17AWGx2C (30cm) & H05RN-F 1.0mm ²
	Output	Blank-Type: SJTW 14AWGx2C (30cm)+ UL2464 18AWGx2C (30cm) DA-Type: SJOW 17AWGx2C (30cm) & H05RN-F 1.0mm ² +UL2464 18AWGx2C (30cm) PWM-KN Series: SJOW 17AWGx2C (30cm)+ UL2464 20AWGx2C (35cm)
Dimension (LxWxH) (mm)	191x 63x 37.5	195x 68x 39.5

PWM-120 Series

PWM-200 Series

Item Code	Model No.	Output	Tol.	Effi.
MW 842	PWM-120-12 ○	12V, 0~10A	±4%	88.0%
MW 823	PWM-120-24 ○	24V, 0~5A	±4%	90.0%
-	PWM-120-36	36V, 0~3.4A	±2%	90.0%
-	PWM-120-48	48V, 0~2.5A	±1%	90.5%

Item Code	Model No.	Output	Tol.	Effi.
MW 862	PWM-200-12 ○	12V, 0~16.6A	±4%	92.0%
MW 843	PWM-200-24 ○	24V, 0~8.3A	±4%	93.0%
-	PWM-200-36	36V, 0~5.5A	±2%	93.5%
-	PWM-200-48	48V, 0~4.16A	±1%	94%

○ = Blank, DA,DA2, IoT, KN, KNBST;
Blank: with 3 in 1 dimming function, DA/DA2: with DALI function, IoT: with Bluetooth mesh, KN: KNX control technology, KNBST: KNX control technology with BST14 connector