

CHANNEL LETTER LED MODULES

ALPHAMAX SERIES 2



PRODUCT DESCRIPTION:

The LED Sign modules offers a full range of one, two, three and four LED modules designed for new construction or retrofit of small, medium and large channel letters. Available in white and red, as well as an array of wattages and wire lengths, the modules are easily customized to meet any customer specification. Installation with double-sided VHB 3M tape, and an integral pre-tapped fastener hole ensure these modules will stand the test of time. An IP65, ultrasonically welded body also guarantees water resistance in signage applications.

FEATURES:

- Available in 1-4 LED modules
- Available in normal and high output lumens
- IP65 rated
- 160-degree batwing distribution optics
- High efficiency Osram 2835 LED chip
- Suitable for 3.15"-7.87" depth signage
- Cover Material: Polycarbonate, UL-94 - protection design from Sulfur Dioxide (SO₂)
- Case Material: ABS, UL-94
- L70 Lifetime: 50,000 Hrs

CONSTRUCTION:

- Ultrasonically welded ABS and PC body
- Uses Class II driver (separate)
- UL rated low voltage wire (12V DC)

APPLICATIONS:

- Signs, channel letters and displays

ORDERING:

ORDER CODE	MODEL #	POWER PER MODULE (W) ¹	VOLTAGE (DC)	LUMENS PER MODULE	CCT	MODULES PER FOOT	LUMENS PER FOOT
1-LED Modules							
14099006	SM1N65	0.36	12	30	6500K	3	83
14099007	SM1H65	0.54	12	50	6500K	3	92
2-LED Modules							
14099008	SM2N65	0.72	12	70	6500K	3	97
14099009	SM2H65	1.08	12	100	6500K	2	92
3-LED Modules							
14099010	SM3N65	1.00	12	100	6500K	2	100
14099011	SM3H65	1.62	12	150	6500K	2	92
4-LED Modules							
14099012	SM4N65	1.44	12	140	6500K	2	97
14099013	SM4H65	2.16	12	200	6500K	1	92

NOTES:

1. Nominal ratings at ambient of 25°C. Actual data may differ depending on variances in the manufacturing process.
2. All power supplies can be remotely mounted up to 32 feet. Although it is possible to exceed the remote mounting distance, the installer and/or end user must take precautions to prevent and/or test the effects of EMI (electromagnetic interference).
3. **Must order in quantity of 100s except models SM1N65 and SM4H65. SM1N65 must be ordered in quantity of 200pcs & SM4H65 in quantity of 50pcs**

1 MODULE SPECIFICATIONS:

MODEL		
Model #	SM1N65	SM1H65
Order Code	14099006	14099007
Intended Applications	Standard Channel Letters, Sign Cabinets	
# LEDs per Module	1	
Dimensions (L" x W" x H")	1.18" L x 0.57" W x 0.32" H	1.52" L x 0.75" W x 0.32" H
Weight per Module (lbs)	0.009 lbs	0.019 lbs

APPLICATION		
# Modules per Foot	3	
Lumens per Module	100	150
Efficacy per Module (lm/W)	97	92
CRI	≥80	
Application Method	Pre-attached 3M tape and screw hole	

ELECTRICAL		
Wattage per Module (W)	1.00W	1.62W
Wattage per Foot (W)	1.08W	1.62W
Input Voltage	12V DC	
Forward Current	30mA	45mA
Beam Angle	160 deg. Batwing Optic	
Operating Temperature at Tc point	-13-140°F	
Storage Temperature Range	-13-158°F	
Cable Wire	20AWG	

COLORS	
Color Temperature	6500K

CERTIFICATIONS	
Waterproof Rating	IP65
Warranty	5 Years
Certifications	rUL, CE, RoHS

DRIVER			
Model #	DR60W/12V	DR100W/12V	DR150W/12V
Order Code	14099106	14099107	14099108

MODULES LOAD WITH DRIVER						
Model #	SM1N65	SM1H65	SM1N65	SM1H65	SM1N65	SM1H65
Max module per driver	48pcs	29pcs	80pcs (40pc/ch)	48pcs (24pc/ch)	120pcs (40pc/ch)	72pcs (24pc/ch)

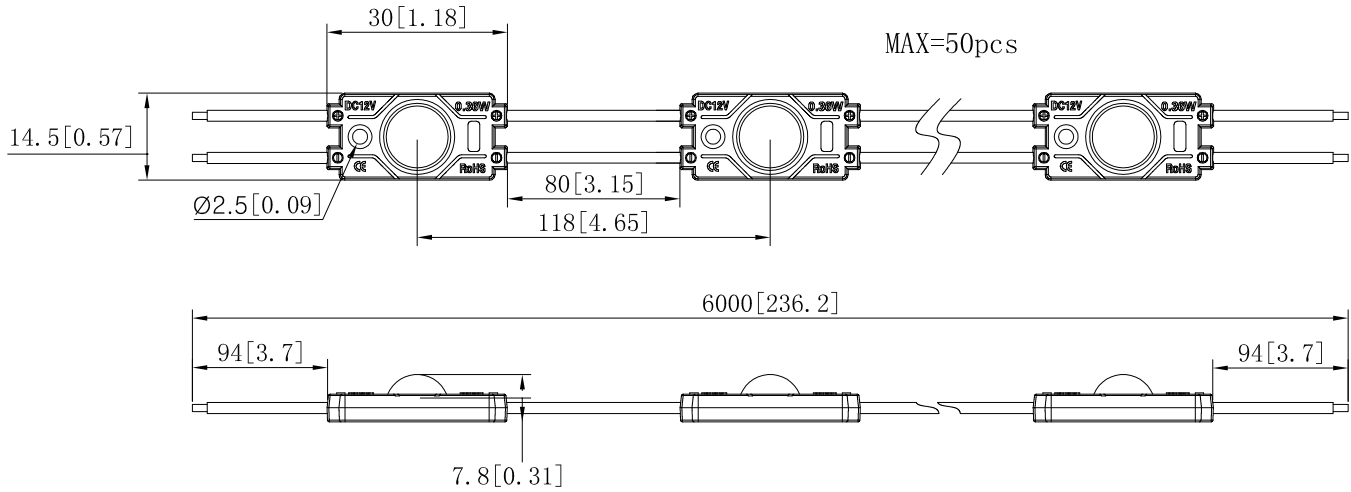
1 MODULE SHIPPING INFORMATION:

MODEL		
Model #	SM1N65	SM1H65
Order Code	14099006	14099007
Master Carton Quantity	3200pcs	1200pcs
Master Carton Gross Weight	34.22 lbs	27.62 lbs

1 MODULE DIMENSIONS:

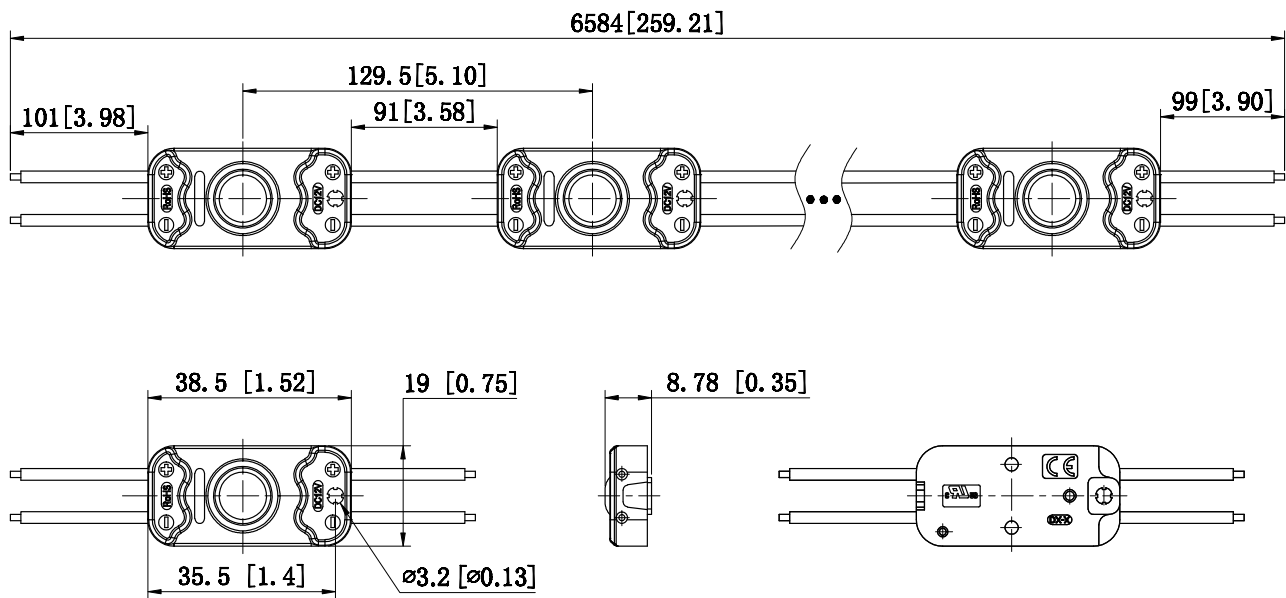
SM1N65

mm (inches)



SM1H65

mm (inches)



2 MODULE SPECIFICATIONS:

MODEL		
Model #	SM2N65	SM2H65
Order Code	14099008	14099009
Intended Applications	Standard Channel Letters, Sign Cabinets	
# LEDs per Module	2	
Dimensions (L" x W" x H")	1.93" L x 0.57" W x 0.31" H	2.03" L x 0.75" W x 0.32" H
Weight per Module (lbs)	0.013 lbs	0.024 lbs
APPLICATION		
# Modules per Foot	3	2
Lumens per Module	70	100
Efficacy per Module (lm/W)	97	93
CRI	≥80	
Application Method	Pre-attached 3M tape and screw hole	
ELECTRICAL		
Wattage per Module (W)	0.72W	1.08W
Wattage per Foot (W)	2.16W	2.16W
Input Voltage	12V DC	
Forward Current	60mA	90mA
Beam Angle	160 deg. Batwing Optic	
Operating Temperature at Tc point	-13-140°F	
Storage Temperature Range	-13-158°F	
Cable Wire	20AWG	
COLORS		
Color Temperature	6500K	
CERTIFICATIONS		
Waterproof Rating	IP65	
Warranty	5 Years	
Certifications	rUL, CE	

DRIVER			
Model #	DR60W/12V	DR100W/12V	DR150W/12V
Order Code	14099106	14099107	14099108

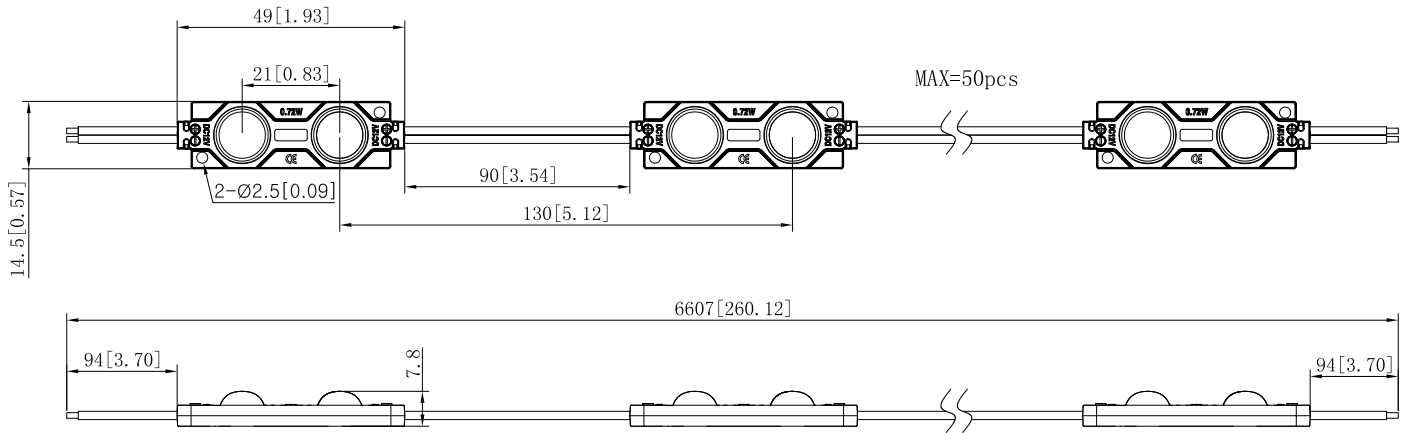
MODULES LOAD WITH DRIVER						
Model #	SM2N65	SM2H65	SM2N65	SM2H65	SM2N65	SM2H65
Max module per driver	66pcs	44pcs	110pcs (55pc/ch)	37pcs	165pcs (55pc/ch)	111pcs (37pc/ch)

2 MODULE SHIPPING INFORMATION:

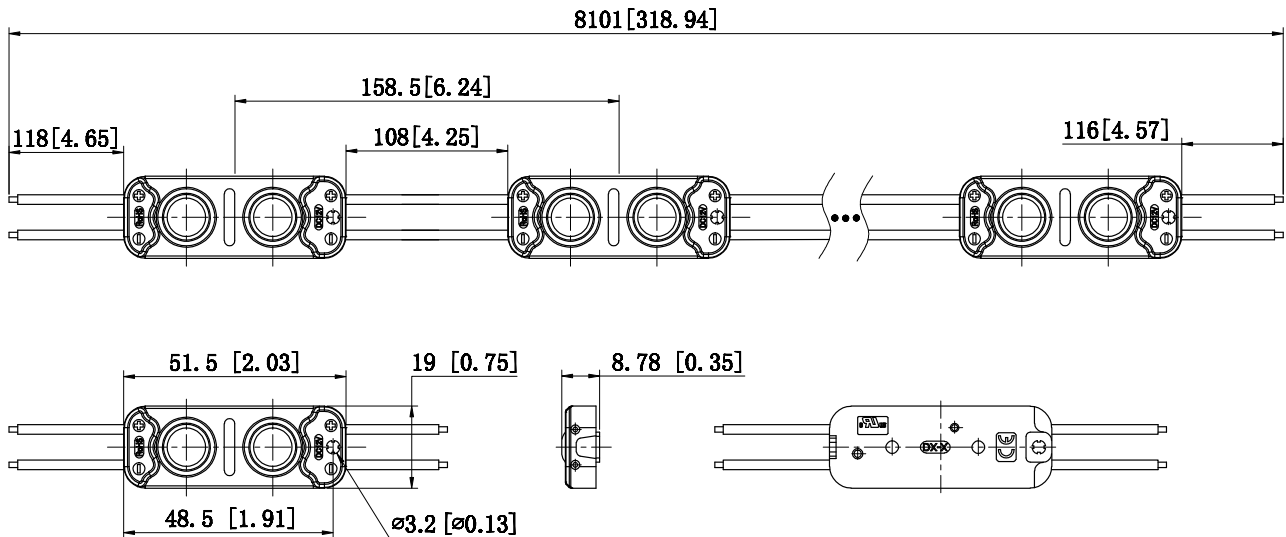
MODEL		
Model #	SM2N65	SM2H65
Order Code	14099008	14099009
Master Carton Quantity	2,000pcs	1,200pcs
Master Carton Gross Weight	31.30 lbs	32.84 lbs

2 MODULE DIMENSIONS:

SM2N65
mm (inches)



SM2H65
mm (inches)



3 MODULE SPECIFICATIONS:

MODEL		
Model #	SM3N65	SM3H65
Order Code	14099010	14099011
Intended Applications	Standard Channel Letters, Sign Cabinets	
# LEDs per Module	3	
Dimensions (L" x W" x H")	2.80" L x 0.57" W x 0.31" H	2.72" L x 0.75" W x 0.31" H
Weight per Module (lbs)	0.02 lbs	0.03 lbs

APPLICATION		
# Modules per Foot	2	2
Lumens per Module	100	150
Efficacy per Module (lm/W)	100	93
CRI	≥80	
Application Method	Pre-attached 3M tape and screw hole	

ELECTRICAL		
Wattage per Module (W)	1.00W	1.62W
Wattage per Foot (W)	2.00W	3.24W
Input Voltage	12V DC	
Forward Current	83mA	135mA
Beam Angle	160 deg. Batwing Optic	
Operating Temperature at Tc point	-13-140°F	
Storage Temperature Range	-13-158°F	
Cable Wire	20AWG	

COLORS	
Color Temperature	6500K

CERTIFICATIONS	
Waterproof Rating	IP65
Warranty	5 Years
Certifications	rUL, CE

DRIVER			
Model #	DR60W/12V	DR100W/12V	DR150W/12V
Order Code	14099106	14099107	14099108

MODULES LOAD WITH DRIVER						
Model #	SM3N65	SM3H65	SM3N65	SM3H65	SM3N65	SM3H65
Max module per driver	48pcs	29pcs	80pcs (40pc/ch)	48pcs (24pc/ch)	120pcs (40pc/ch)	72pcs (24pc/ch)

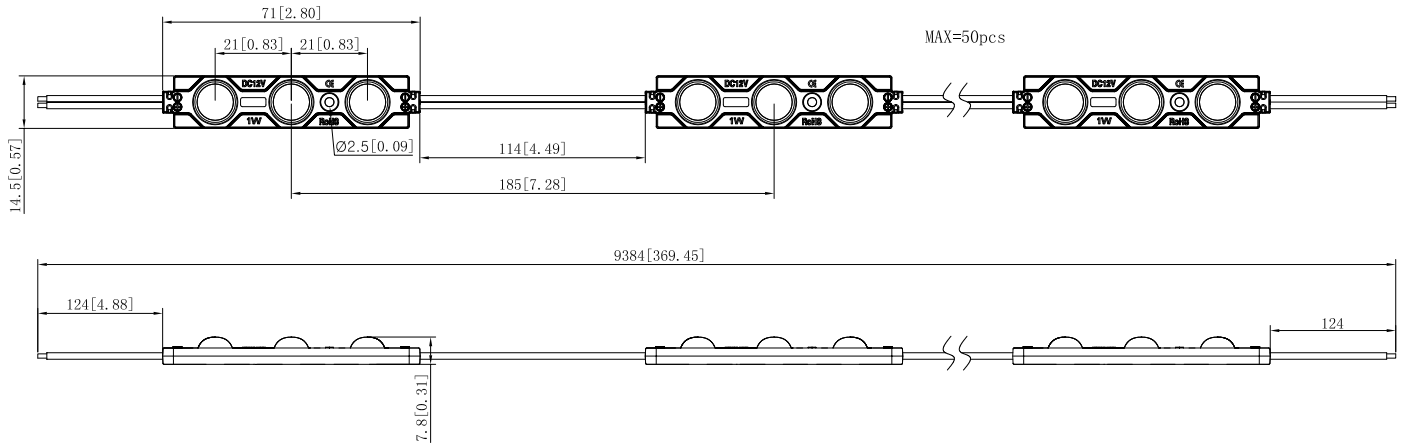
3 MODULE SHIPPING INFORMATION:

MODEL		
Model #	SM3N65	SM3H65
Order Code	14099010	14099011
Master Carton Quantity	1,400pcs	800pcs
Master Carton Gross Weight	32.4 lbs	28.44 lbs

3 MODULE DIMENSIONS:

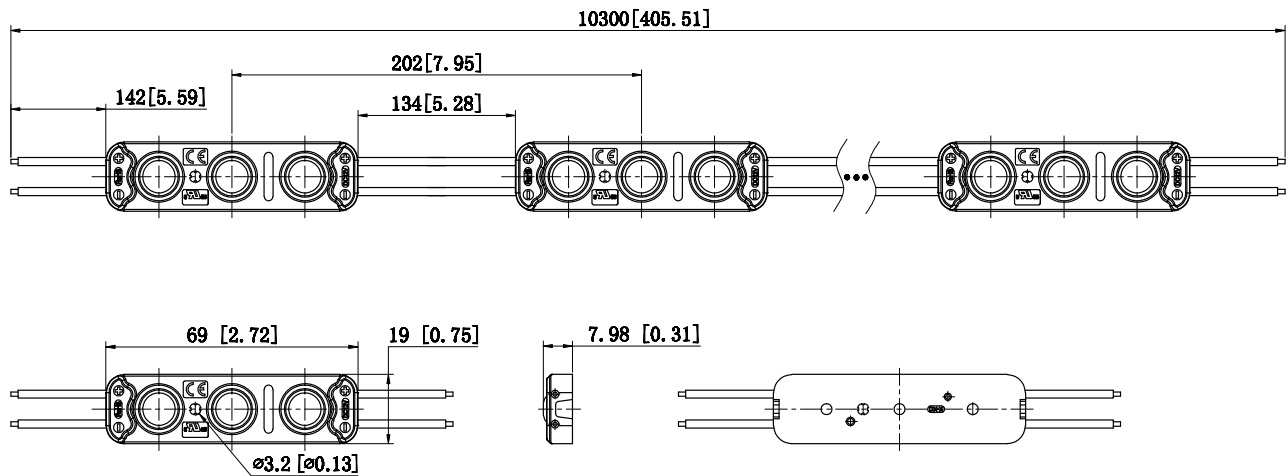
SM3N65

mm (inches)



SM3H65

mm (inches)



4 MODULE SPECIFICATIONS:

MODEL		
Model #	SM4N65	SM4H65
Order Code	14099012	14099013
Intended Applications	Standard Channel Letters, Sign Cabinets	
# LEDs per Module	4	
Dimensions (L" x W" x H")	1.61" L x 1.38" W x 0.31" H	1.73" L x 1.60" W x 0.31" H
Weight per Module (lbs)	0.025 lbs	0.039 lbs

APPLICATION		
# Modules per Foot	2	2
Lumens per Module	140	200
Efficacy per Module (lm/W)	97	92
CRI	≥80	
Application Method	Pre-attached 3M tape and screw hole	

ELECTRICAL		
Wattage per Module (W)	1.44W	2.16W
Wattage per Foot (W)	2.88W	4.32W
Input Voltage	12V DC	
Forward Current	120mA	180mA
Beam Angle	160 deg. Batwing Optic	
Operating Temperature at Tc point	-13-140°F	
Storage Temperature Range	-13-158°F	
Cable Wire	20AWG	

COLORS	
Color Temperature	6500K

CERTIFICATIONS	
Waterproof Rating	IP65
Warranty	5 Years
Certifications	rUL, CE

DRIVER			
Model #	DR60W/12V	DR100W/12V	DR150W/12V
Order Code	14099106	14099107	14099108

MODULES LOAD WITH DRIVER						
Model #	SM4N65	SM4H65	SM4N65	SM4H65	SM4N65	SM4H65
Max module per driver	33pcs	22pcs	54pcs (27pc/ch)	36pcs (18pc/ch)	81pcs (27pc/ch)	54pcs (18pc/ch)

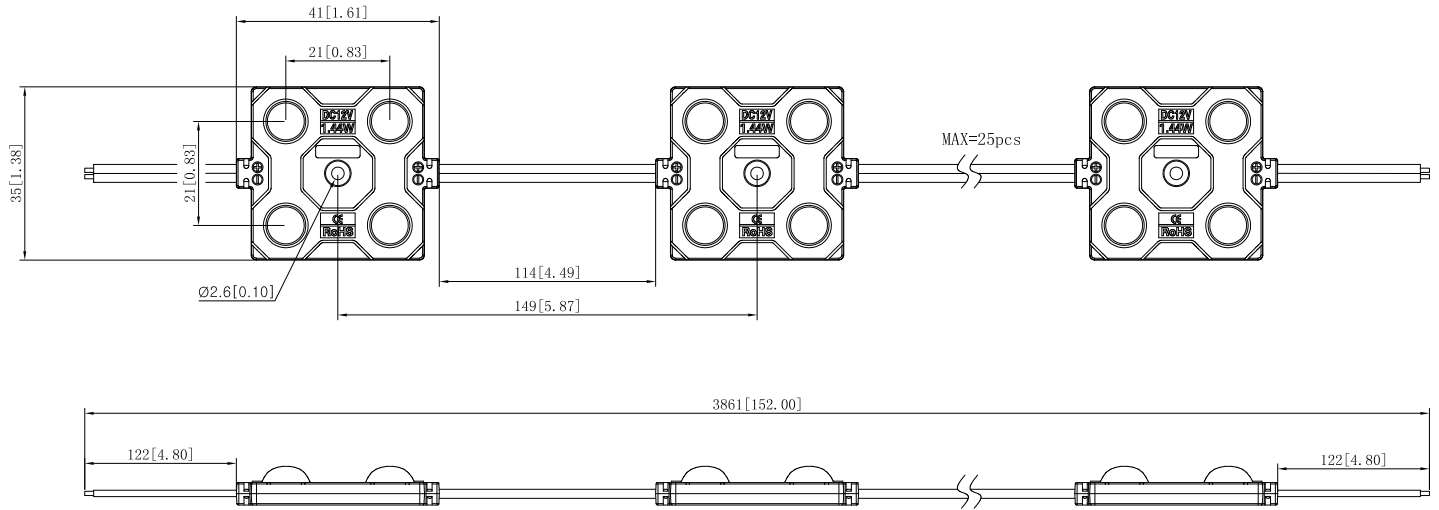
4 MODULE SHIPPING INFORMATION:

MODEL		
Model #	SM4N65	SM4H65
Order Code	14099012	14099013
Master Carton Quantity	1.000pcs	500pcs
Master Carton Gross Weight	30.54 lbs	23.48 lbs

4 MODULE DIMENSIONS:

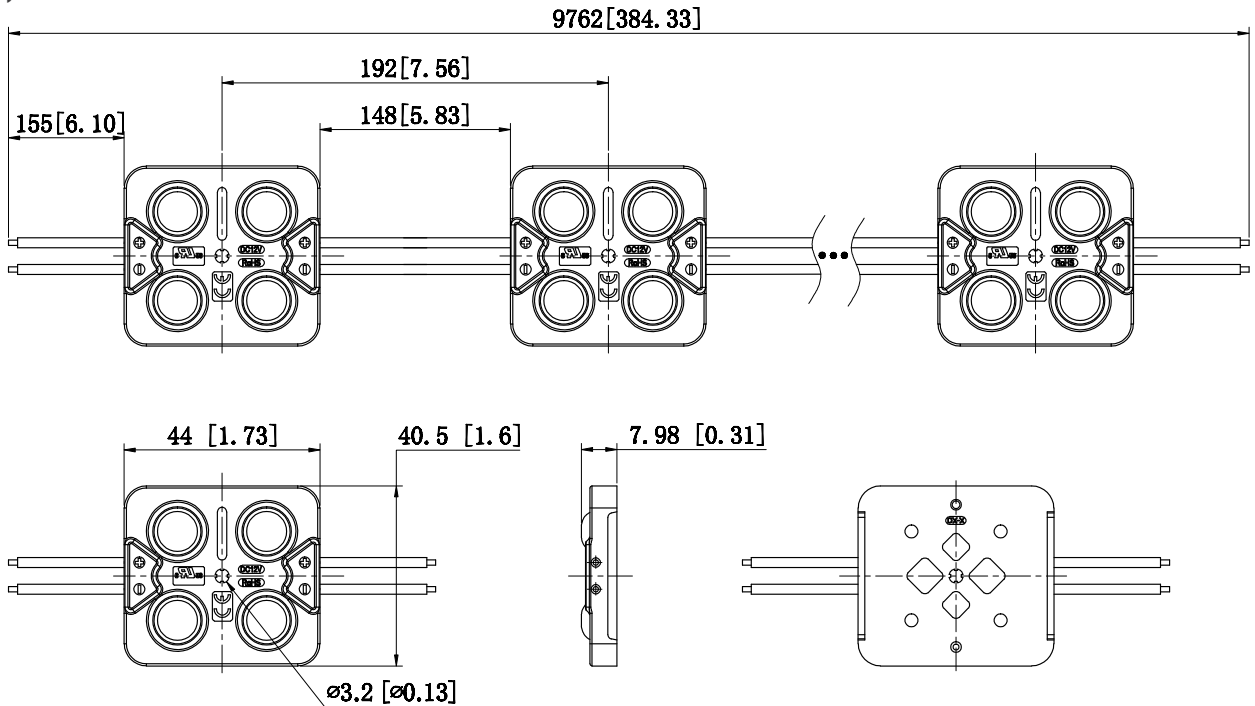
SM4N65

mm (inches)



SM4H65

mm (inches)



60W POWER SUPPLY:

NON DIMMABLE DRIVER								
Order Number	Model	Nominal Input Voltage (V)	Nominal Input Current (A)	Nominal Output Current (A)	Power Factor	Output Voltage (Voc)	Output Power Range (W)	Max Line Ripple (V)
14099106	DR60W/12V	120	0.80	5	0.95	12	58.5-61.5	150mV
		277						
WIRING (LEADS ONLY NO CONNECTORS)				DIMENSIONS			WEIGHT	
input		Output		Height	Width	Length		
18AWG (black & white wires)		18AWG (red + & blue - wires)		1.34"	1.73"	6.30"	1.15 lbs	

*MAX LOAD: 48W

100W POWER SUPPLY:

NON DIMMABLE DRIVER								
Order Number	Model	Nominal Input Voltage (V)	Nominal Input Current (A)	Nominal Output Current (A)	Power Factor	Output Voltage (Voc)	Output Power Range (W)	Max Line Ripple (V)
14099107	DR100W/12V	120	1.10	3.9A×2	0.95	12	91.26-93.6	150mV
		277						
WIRING (LEADS ONLY NO CONNECTORS)				DIMENSIONS			WEIGHT	
input		Output		Height	Width	Length		
18AWG (black & white wires)		18AWG (red + & blue - wires)		1.38"	2.64"	6.85"	1.94 lbs	

*MAX LOAD: 40W PER CHANNEL

150W POWER SUPPLY:

NON DIMMABLE DRIVER								
Order Number	Model	Nominal Input Voltage (V)	Nominal Input Current (A)	Nominal Output Current (A)	Power Factor	Output Voltage (Voc)	Output Power Range (W)	Max Line Ripple (V)
14099108	DR150W/12V	120	1.83	3.9A×3	0.95	12	133.38-147.42	150mV
		277						
WIRING (LEADS ONLY NO CONNECTORS)				DIMENSIONS			WEIGHT	
input		Output		Height	Width	Length		
18AWG (black & white wires)		18AWG (red + & blue - wires)		1.38"	2.66"	8.27"	2.43 lbs	

*MAX LOAD: 40W PER CHANNEL