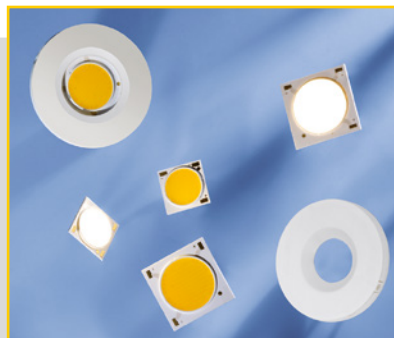


LED MODULES

LUGA SHOP GEN. 6
1000 LM TO 15,000 LM



LUGA SHOP GEN. 6 – RETAIL AND INDUSTRIAL LIGHTING

Typical Applications

DMS124***H

- Integration in reflector luminaires
- Residential lighting
- Furniture lighting

DMS125/126/128***H

DMS120/12C***H

- Integration in reflector luminaires
- Retail lighting
- Downlights

DMS18B***H

- Integration in outdoor and street luminaires
- Industrial lighting for:
 - Production halls
 - Warehouses
- Petrol station lighting
- Lighting for sports facilities

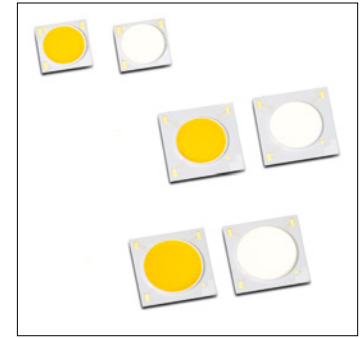
LUGA Shop Gen. 6

- **LONG SERVICE LIFETIME: UP TO 100,000 HOURS**
- **NARROW COLOUR TOLERANCES:
2 STEP MACADAM (CRI 85/95)**
- **HIGHLY EFFICIENT: UP TO 190 LM/W**
- **HIGH ELECTRICAL ISOLATION DUE TO
CERAMIC COB TECHNOLOGY**
- **SPECIAL COLOURS:
FOOD, PEARL WHITE AND CLEAR WHITE**
- **READY-TO-ASSEMBLE VARIANT:
MODULE + TIM + HOLDER AS ONE UNIT**

LUGA Shop Gen. 6 – up to 2000 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 13.5x13.5 mm
- Light emitting surface (LES): Ø 9 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65\text{ °C}$

Type	Typ. voltage DC			Typ. power consumption		
	250 mA V	350 mA V	500 mA V	250 mA W	350 mA W	500 mA W
DMS124***H	33.7	34.7	35.9	8.4	12.1	17.9

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		Storage temperature range		Max. allowed repetitive peak current mA
		°C min.	°C max.	°C min.	°C max.	
DMS124***H	250	-40	+115	-40	+105	800
	350		+110			
	500		+105			

Operating Life

at $t_p = 65\text{ °C}$

Lumen maintenance	250 mA in hours	350 mA in hours	500 mA in hours
	DMS124***H (at I_f)		
L90/B10	88,000	83,000	77,000
L80/B10	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 6 – up to 2500 lm

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI R_a	Photo-metric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS124C27H	564880	warm white	2700	1200	143	1630	135	2220	124	120	82	827/249
DMS124C30H	564881	warm white	3000	1300	155	1760	145	2395	134	120	85	830/249
DMS124C40H	564882	neutral white	4000	1345	160	1820	150	2480	139	120	85	840/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80

Minimum order quantity: 90 pcs.

LUGA Shop Gen. 6 – up to 2000 lm – HiCRI

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI R_a	Photo-metric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS124S30H	564883	warm white	3000 (below BBL)	1015	121	1375	114	1875	105	120	95	930/249
DMS124S40H	564884	neutral white	4000 (below BBL)	1120	133	1520	126	2065	115	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 90

Minimum order quantity: 90 pcs.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 6 – up to 5000 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 19x19 mm
- Light emitting surface (LES): Ø 14 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65\text{ °C}$

Type	Typ. voltage DC				Typ. power consumption			
	350 mA V	500 mA V	700 mA V	1050 mA V	350 mA W	500 mA W	700 mA W	1050 mA W
DMS125***H	34.1	35.2	36.4	—	11.9	17.6	25.5	—
DMS126***H	33.6	34.6	35.7	37.2	11.8	17.3	25.0	39.1
DMS128***H	33.0	33.7	34.7	36.0	11.5	16.9	24.3	37.8

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		Storage temperature range		Max. allowed repetitive peak current mA	
		°C min.	°C max.	°C min.	°C max.		
DMS125***H	350	-40	+120	-40	+105	1000	
	500						+115
	700						+110
DMS126***H	≤ 500	-40	+120	-40	+105	1200	
	700						+115
	1050						+100
DMS128***H	≤ 500	-40	+120	-40	+105	1600	
	700						+115
	1050						+105

Operating Life

at $t_p = 65\text{ °C}$

Lumen maintenance	350 mA in hours	500 mA in hours	700 mA in hours	1050 mA in hours	350 mA in hours	500 mA in hours	700 mA in hours	1050 mA in hours
	DMS125***H (at I_f)				DMS126***H (at I_f)			
L90/B10	95,000	90,000	82,000	—	95,000	91,000	86,000	77,000
L80/B10	> 100,000	> 100,000	> 100,000	—	> 100,000	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000	—	> 100,000	> 100,000	> 100,000	> 100,000
	DMS128***H (at I_f)							
L90/B10	95,000	90,000	84,000	72,000				
L80/B10	> 100,000	> 100,000	> 100,000	> 100,000				
L70/B10	> 100,000	> 100,000	> 100,000	> 100,000				

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LUGA Shop Gen. 6 – up to 5000 lm

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle °	Typ. CRI R _a	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS125C27H	564885	warm white	2700	1785	150	2455	139	3260	128	—	—	120	82	827/249
DMS125C30H	564886	warm white	3000	1920	161	2640	150	3505	137	—	—	120	85	830/249
DMS125C35H	564889	neutral white	3500	1945	163	2675	152	3550	139	—	—	120	85	835/249
DMS125C40H	564890	neutral white	4000	1990	167	2730	155	3625	142	—	—	120	85	840/249
DMS125C50H	564891	cool white	5000	2005	168	2755	157	3660	144	—	—	120	85	850/249
DMS126C27H	564897	warm white	2700	1800	153	2490	144	3340	134	4655	119	120	82	827/249
DMS126C30H	564898	warm white	3000	1940	164	2680	155	3600	144	5010	128	120	85	830/249
DMS126C30HB	564899	warm white	3000 (below BBL)	1865	158	2585	149	3465	139	4830	124	120	85	830/249
DMS126C35H	564902	neutral white	3500	1965	167	2720	157	3650	146	5085	130	120	85	835/249
DMS126C40H	564903	neutral white	4000	2000	169	2770	160	3720	149	5175	132	120	85	840/249
DMS126C40HB	564904	neutral white	4000 (below BBL)	1940	164	2680	155	3600	144	5010	128	120	85	840/249
DMS126C50H	564905	cool white	5000	2025	172	2800	162	3755	150	5230	134	120	85	850/249
DMS128C27H	564508	warm white	2700	1815	158	2520	149	3400	140	4775	126	120	82	827/249
DMS128C30H	564509	warm white	3000	1955	170	2715	161	3660	151	5140	136	120	85	830/249
DMS128C30HB	564510	warm white	3000 (below BBL)	1845	160	2560	151	3450	142	4845	128	120	85	830/249
DMS128C35H	564513	neutral white	3500	1980	172	2745	162	3705	153	5200	138	120	85	835/249
DMS128C40H	564514	neutral white	4000	2025	176	2805	166	3785	156	5315	141	120	85	840/249
DMS128C40HB	564515	neutral white	4000 (below BBL)	1925	167	2670	158	3600	148	5060	134	120	85	840/249
DMS128C50H	564516	cool white	5000	2040	177	2830	167	3815	157	5360	142	120	85	850/249

* Colour tolerance: 2 MacAdam (CRI > 80) | ** Production tolerance of luminous flux and efficiency: ± 10 % | Min. CRI R_a: > 80

Minimum order quantity: 60 pcs.

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LUGA Shop Gen. 6 – up to 5000 lm Pearl White / Clear White

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle °	Typ. CRI R _a	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS125C31HP	564887	pearl white	3100	1870	157	2570	146	3410	134	—	—	120	85	831/249
DMS125C32HC	564888	clear white	3200	1880	158	2580	147	3425	134	—	—	120	85	832/249
DMS125S31HP	564894	pearl white	3100	1575	132	2165	123	2875	113	—	—	120	95	931/249
DMS125S32HC	564895	clear white	3200	1585	133	2175	124	2890	113	—	—	120	95	932/249
DMS126C31HP	564900	pearl white	3100	1890	160	2615	151	3505	140	4885	125	120	85	831/249
DMS126C32HC	564901	clear white	3200	1895	161	2620	151	3520	141	4900	125	120	85	832/249
DMS126S31HP	564908	pearl white	3100	1535	130	2125	123	2855	114	3975	102	120	95	931/249
DMS126S32HC	564909	clear white	3200	1550	131	2140	124	2875	115	4000	102	120	95	932/249
DMS128C31HP	564511	pearl white	3100	1910	166	2650	157	3570	147	5015	133	120	85	831/249
DMS128C32HC	564512	clear white	3200	1915	167	2655	157	3580	148	5030	133	120	85	832/249
DMS128S31HP	564519	pearl white	3100	1600	139	2220	131	2995	123	4205	111	120	95	931/249
DMS128S32HC	564520	clear white	3200	1605	140	2230	132	3005	124	4220	112	120	95	932/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a: > 90 / > 80

Minimum order quantity: 60 pcs.

LUGA Shop Gen. 6 – up to 4500 lm – HiCRI

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle °	Typ. CRI R _a	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS125D27H	564892	warm white	2700	1485	125	2035	116	2705	106	—	—	120	95	927/249
DMS125S30H	564893	warm white	3000 (below BBL)	1535	129	2105	120	2795	110	—	—	120	95	930/249
DMS125S40H	564896	neutral white	4000 (below BBL)	1685	142	2315	132	3075	121	—	—	120	95	940/249
DMS126D27H	564906	warm white	2700	1420	120	1965	114	2635	105	3670	94	120	95	927/249
DMS126S30H	564907	warm white	3000 (below BBL)	1500	127	2070	120	2780	111	3875	99	120	95	930/249
DMS126S40H	564910	neutral white	4000 (below BBL)	1650	140	2285	132	3065	123	4270	109	120	95	940/249
DMS128D27H	564517	warm white	2700	1520	132	2110	125	2845	117	3995	106	120	95	927/249
DMS128S30H	564518	warm white	3000 (below BBL)	1575	137	2185	129	2945	121	4135	109	120	95	930/249
DMS128S35H	564521	neutral white	3500 (below BBL)	1660	144	2305	136	3105	128	4365	115	120	95	935/249
DMS128S40H	564522	neutral white	4000 (below BBL)	1720	150	2385	141	3220	133	4520	120	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a: > 90

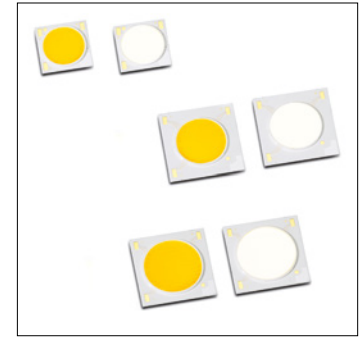
Minimum order quantity: 60 pcs.

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LUGA Shop Gen. 6 – up to 15,000 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 28x28 mm
- Light emitting surface (LES): Ø 17 mm, Ø 20 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Typ. voltage DC					Typ. power consumption				
	700 mA V	1050 mA V	1400 mA V	1700 mA V	2100 mA V	700 mA W	1050 mA W	1400 mA W	1700 mA W	2100 mA W
DMS120***H	34.0	35.3	36.3	37.0	—	23.8	37.0	50.8	62.8	—
DMS12C***H	33.5	34.5	35.4	36.1	36.9	23.4	36.2	49.6	61.4	77.4
DMS18B***H	49.9	51.5	52.9	53.9	54.9	34.9	54.0	74.0	91.6	115.4

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		Storage temperature range		Max. allowed repetitive peak current mA	
		$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.		
DMS120***H	700	-40		+120	-40	+105	2000
	1050			+110			
	1400			+105			
	1700			+95			
DMS12C***H	700	-40		+120	-40	+105	2500
	1050			+115			
	1400			+110			
	1700			+105			
	2100			+100			
DMS18B***H	700	-40		+115	-40	+105	2400
	1050			+110			
	1400			+100			
	1700			+95			
	2100			+85			

Operating Life

at $t_p = 65^\circ\text{C}$

Lumen maintenance	700 mA in hours	1050 mA in hours	1400 mA in hours	1700 mA in hours	2100 mA in hours	700 mA in hours	1050 mA in hours	1400 mA in hours	1700 mA in hours	2100 mA in hours
	DMS120***H (at I_f)					DMS12C***H (at I_f)				
L90/B10	90,000	83,000	75,000	67,000	—	94,000	89,000	83,000	78,000	72,000
L80/B10	> 100,000	> 100,000	> 100,000	> 100,000	—	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000	> 100,000	—	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000
	DMS18B***H (at I_f)									
L90/B10	87,000	81,000	73,000	67,000	58,000					
L80/B10	> 100,000	> 100,000	> 100,000	> 100,000	87,000					
L70/B10	> 100,000	> 100,000	> 100,000	> 100,000	> 100,000					

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LUGA Shop Gen. 6 – up to 15,000 lm

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI R_a	Photo-metric code
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS120C27H	564523	warm white	2700	3595	151	5135	139	6520	128	7580	121	—	—	120	82	827/249
DMS120C30H	564524	warm white	3000	3870	163	5530	149	7020	138	8160	130	—	—	120	85	830/249
DMS120C30HB	564525	warm white	3000 (below BBL)	3650	153	5220	141	6625	130	7705	123	—	—	120	85	830/249
DMS120C35H	564528	neutral white	3500	3925	165	5615	152	7125	140	8285	132	—	—	120	85	835/249
DMS120C40H	564529	neutral white	4000	4000	168	5720	155	7265	143	8440	134	—	—	120	85	840/249
DMS120C40HB	564530	neutral white	4000 (below BBL)	3810	160	5445	147	6915	136	8035	128	—	—	120	85	840/249
DMS120C50H	564531	cool white	5000	4035	170	5770	156	7325	144	8510	136	—	—	120	85	850/249
DMS120B50H	564532	cool white	5000	4325	182	6185	167	7855	155	9125	145	—	—	120	70	750/569
DMS12CC27H	564539	warm white	2700	3690	158	5335	147	6855	138	8070	131	9550	123	120	82	827/249
DMS12CC30H	564540	warm white	3000	3970	170	5740	159	7385	149	8685	141	10280	133	120	85	830/249
DMS12CC30HB	564541	warm white	3000 (below BBL)	3750	160	5425	150	6975	141	8210	134	9715	126	120	85	830/249
DMS12CC35H	564544	neutral white	3500	4030	172	5825	161	7490	151	8810	143	10430	135	120	85	835/249
DMS12CC40H	564545	neutral white	4000	4105	175	5935	164	7630	154	8980	146	10630	137	120	85	840/249
DMS12CC40HB	564546	neutral white	4000 (below BBL)	3905	167	5650	156	7265	146	8550	139	10115	131	120	85	840/249
DMS12CC50H	564547	cool white	5000	4150	177	5995	166	7710	155	9075	148	10740	139	120	85	850/249
DMS12CB50H	564548	cool white	5000	4445	190	6425	177	8265	167	9725	158	11505	149	120	70	750/569
DMS18BC30H	564911	warm white	3000	5615	161	8075	150	10325	140	12080	132	14185	123	120	85	830/249
DMS18BC40H	564913	neutral white	4000	5835	167	8395	155	10735	145	12560	137	14750	128	120	85	840/249
DMS18BC50H	564914	cool white	5000	5905	169	8500	157	10865	147	12715	139	14925	129	120	85	850/249
DMS18BB40H	564915	neutral white	4000	6045	173	8700	161	11120	150	13015	142	15280	132	120	70	740/349
DMS18BB50H	564916	cool white	5000	6265	180	9010	167	11520	156	13480	147	15825	137	120	70	750/569

* Colour tolerance: 2 MacAdam (CRI > 80) | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80 / > 65

Minimum order quantity: 36 pcs.

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LUGA Shop Gen. 6 – up to 14,000 lm Pearl White / Clear White

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI R_a	Photo-metric code
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS120C31HP	564526	pearl white	3100	3770	158	5390	146	6840	135	7950	127	—	—	120	85	831/249
DMS120C32HC	564527	clear white	3200	3785	159	5410	146	6870	135	7985	127	—	—	120	85	832/249
DMS120S31HP	564535	pearl white	3100	3170	133	4530	122	5750	113	6685	106	—	—	120	95	931/249
DMS120S32HC	564536	clear white	3200	3185	134	4555	123	5780	114	6720	107	—	—	120	95	932/249
DMS12CC31HP	564542	pearl white	3100	3865	165	5590	154	7185	145	8455	138	10005	129	120	85	831/249
DMS12CC32HC	564543	clear white	3200	3885	166	5620	155	7225	146	8500	138	10060	130	120	85	832/249
DMS12CS31HP	564551	pearl white	3100	3270	140	4730	131	6080	123	7155	117	8470	109	120	95	931/249
DMS12CS32HC	564552	clear white	3200	3300	141	4770	132	6135	124	7220	118	8545	110	120	95	932/249
DMS18BC31HP	564912	pearl white	3100	5500	158	7915	147	10120	137	11840	129	13900	120	120	85	831/249
DMS18BS31HP	564918	clear white	3200	4525	130	6505	120	8320	112	9735	106	11430	99	120	85	832/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : $> 90 / > 80$

Minimum order quantity: 36 pcs.

LUGA Shop Gen. 6 – up to 12,000 lm HiCRI

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI R_a	Photo-metric code
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS120D27H	564533	warm white	2700	3010	126	4305	116	5460	107	6350	101	—	—	120	95	927/249
DMS120S30H	564534	warm white	3000 (below BBL)	3110	131	4445	120	5645	111	6560	104	—	—	120	95	930/249
DMS120S35H	564537	neutral white	3500 (below BBL)	3285	138	4695	127	5960	117	6930	110	—	—	120	95	935/249
DMS120S40H	564538	neutral white	4000 (below BBL)	3400	143	4865	131	6175	122	7175	114	—	—	120	95	940/249
DMS12CD27H	564549	warm white	2700	3050	130	4415	122	5675	114	6680	109	7905	102	120	95	927/249
DMS12CS30H	564550	warm white	3000 (below BBL)	3200	137	4630	128	5950	120	7000	114	8285	107	120	95	930/249
DMS12CS35H	564553	neutral white	3500 (below BBL)	3405	146	4925	136	6330	128	7450	121	8820	114	120	95	935/249
DMS12CS40H	564554	neutral white	4000 (below BBL)	3535	151	5110	141	6570	132	7730	126	9145	118	120	95	940/249
DMS18BS30H	564917	warm white	3000 (below BBL)	4405	126	6335	117	8100	109	9480	103	11130	96	120	95	930/249
DMS18BS40H	564919	neutral white	4000 (below BBL)	4885	140	7030	130	8985	121	10515	115	12345	107	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 90

Minimum order quantity: 36 pcs.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 6 – up to 5500 lm Food

Optical Characteristics

at $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* (K)	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI R _a	Photo-metric code
				1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS12CP19H	564555	"pink effect"	2000	2575	71	3310	67	3895	63	4610	60	120	82	820/349
DMS12CP40H	564556	"white effect"	4000	3065	85	3940	79	4635	75	5490	70	120	70 (spec. spectrum: HiGa)	740/349

* Colour tolerance: 3 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

Minimum order quantity: 36 pcs.

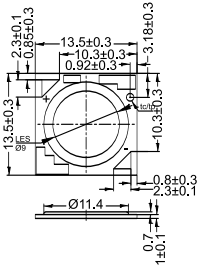
Typical Applications

DMS12CP19H 564555 "pink effect"	DMS12CP40H 564556 "white effect"
• Meat	• Meat

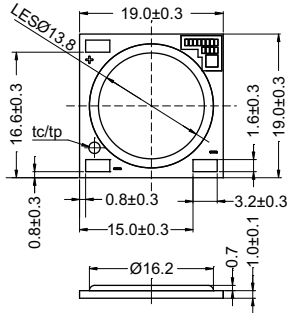
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 6

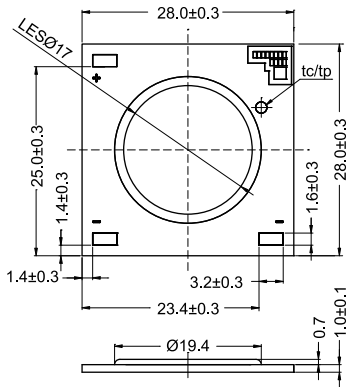
DMS124



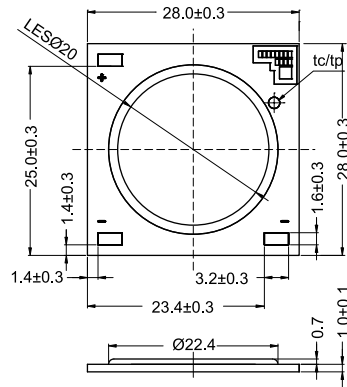
DMS125/126/128



DMS120



DMS12C / DMS18B



The clearance and creepage distances are designed for working voltages up to:

Type	Basic insulation	Reinforced insulation
DMS 124/125/126/128***H	235 V DC	60 V DC
DMS 120/12C/18B***H	330 V DC	175 V DC

Thickness of PCB is included in calculation.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

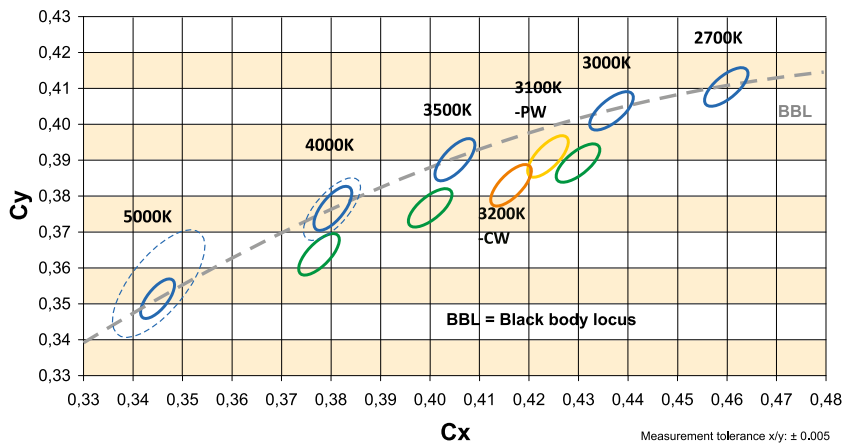
LUGA Shop Gen. 6

Product Code

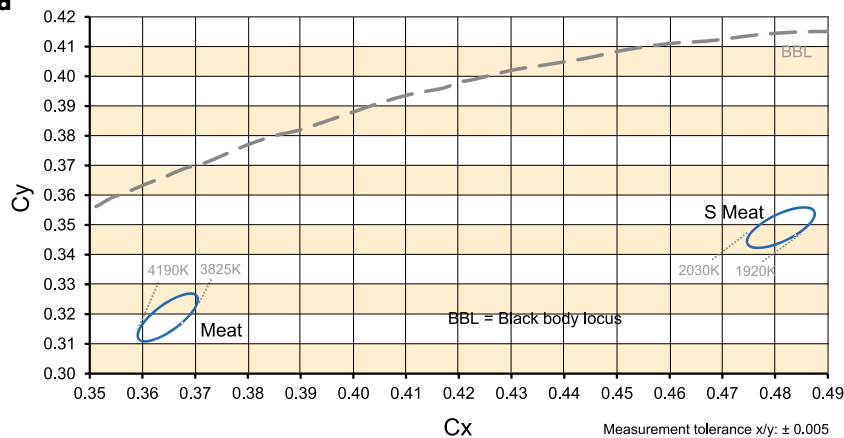
CCT	CRI	Type							
		DMS124	DMS125	DMS126	DMS128	DMS120	DMS12C	DMS18B	
2700K	82	24C27H	25C27H	26C27H	28C27H	20C27H	2CC27H	-	
3000K	85	24C30H	25C30H	26C30H	28C30H	20C30H	2CC30H	8BC30H	
3000K*	85	-	-	26C30h	28C30h	20C30h	2CC30h	-	
3100K**	85	-	25C31H	26C31H	28C31H	20C31H	2CC31H	8BC31H	
3200K***	85	-	25C32H	26C32H	28C32H	20C32H	2CC32H	-	
3500K	85	-	25C35H	26C35H	28C35H	20C35H	2CC35H	-	
4000K	85	24C40H	25C40H	26C40H	28C40H	20C40H	2CC40H	8BC40H	
4000K*	85	-	-	26C40h	28C40h	20C40h	2CC35h	-	
5000K	85	-	25C50H	26C50H	28C50H	20C50H	2CC50H	8BC50H	
4000K	70	-	-	-	-	-	-	8BB40H	
5000K	70	-	-	-	-	20B50H	2CB50H	8BB50H	
2700K	95	-	25D27H	26D27H	28D27H	20D27H	2CD27H	-	
3000K*	95	24S30H	25S30H	26S30H	28S30H	20S30H	2CS30H	8BS30H	
3100K**	95	-	25S31H	26S31H	28S31H	20S31H	2CS31H	8BS31H	
3200K***	95	-	-	26S32H	28S32H	20S32H	2CS32H	-	
3500K*	95	-	-	-	28S35H	20S35H	2CS35H	-	
4000K*	95	24S40H	25S40H	26S40H	28S40H	20S40H	2CS40H	8BS40H	
FOOD 2000K	-	-	-	-	-	-	2CP19H	-	
FOOD 4000K	-	-	-	-	-	-	2CP40H	-	

* Below BBL
 ** Pearl White
 *** Clear White

Bins LUGA Shop



Bins LUGA Shop Food



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LUGA Shop Gen. 6 – Ready-to-Assemble

Technical Notes

- LED module for integration into luminaires
- Dimensions: Ø 44 mm or Ø 50 mm
- TIM (Thermal Interface Material) integrated
- Use of external LED constant current driver



Electrical Characteristics / Operating Life / Bins

Datas are mentioned on the product pages of LED modules in this data sheet.

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

The mentioned maximum ratings are listed on the product pages of the LED modules. The operating and storage temperature are different.

Operating temperature: -40 to +105 °C / storage temperature: -20 to +40 °C

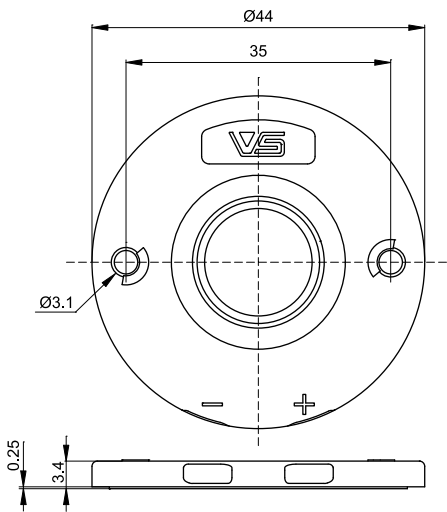
Optical Characteristics

The optical characteristics are mentioned on the product pages of LED modules in this data sheet.

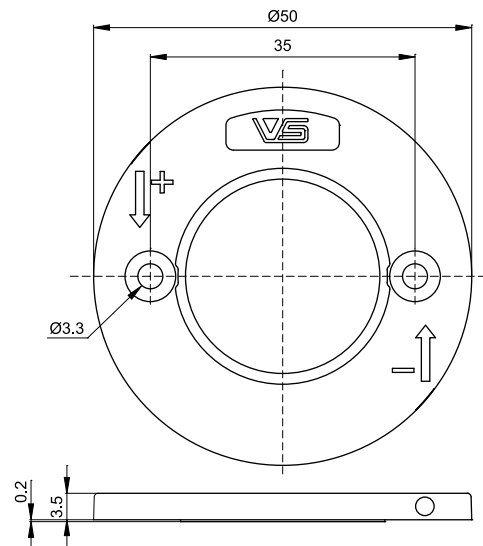
The typical luminous flux differs for the Ready-to-Assemble modules: -1%

Mechanical Dimensions

U-DMS 125/126/128



U-DMS 120/12C/18B



Assembly Instructions

Step 1: Put in the leads into the push-in terminals.

U-DMS 125/126/128:

- Conductor cross-section: 0.34–0.75 mm², solid or stranded conductor with tinned lead ends
- Stripped length: 10–12 mm

U-DMS 120/12C/18B:

- Conductor cross-section: 0.5–0.75 mm², solid or stranded conductor with tinned lead ends
- Stripped length: 7–8 mm

Step 2: Remove the transparent protection film on the rear side of the module.

Step 3: Screw the module with M3 screws onto the heat sink.

- Min. torque: 0.3 Nm
- Max. torque: 0.5 Nm

Step 1 (electrical connection) can also be done optional as final step.

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LUGA Shop Gen. 6 – Ready-to-Assemble

Ready-to-Assemble – LUGA Shop Gen. 6 – up to 5000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS125C27H	565608
U-DMS125C30H	565609
U-DMS125C35H	565612
U-DMS125C40H	565613
U-DMS125C50H	565614
U-DMS126C27H	565620
U-DMS126C30H	565621
U-DMS126C30HB (below BBL)	565622
U-DMS126C35H	565625
U-DMS126C40H	565626
U-DMS126C40HB (below BBL)	565627
U-DMS126C50H	565628
U-DMS128C27H	565634
U-DMS128C30H	565635
U-DMS128C30HB (below BBL)	565636
U-DMS128C35H	565639
U-DMS128C40H	565640
U-DMS128C40HB (below BBL)	565641
U-DMS128C50H	565642

Pearl White / Clear White – up to 5000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS125C31HP (PearlWhite)	565610
U-DMS125C32HC (ClearWhite)	565611
U-DMS125S31HP (PearlWhite)	565617
U-DMS125S32HC (ClearWhite)	565618
U-DMS126C31HP (PearlWhite)	565623
U-DMS126C32HC (ClearWhite)	565624
U-DMS126S31HP (PearlWhite)	565631
U-DMS126S32HC (ClearWhite)	565632
U-DMS128C31HP (PearlWhite)	565637
U-DMS128C32HC (ClearWhite)	565638
U-DMS128S31HP (PearlWhite)	565645
U-DMS128S32HC (ClearWhite)	565646

Hi-CRI – up to 4500 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS125D27H	565615
U-DMS125S30H (below BBL)	565616
U-DMS125S40H (below BBL)	565619
U-DMS126D27H	565629
U-DMS126S30H (below BBL)	565630
U-DMS126S40H (below BBL)	565633
U-DMS128D27H	565643
U-DMS128S30H (below BBL)	565644
U-DMS128S35H (below BBL)	565647
U-DMS128S40H (below BBL)	565648

Ready-to-Assemble – LUGA Shop Gen. 6 – up to 15,000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS120C27H	565649
U-DMS120C30H	565650
U-DMS120C30HB (below BBL)	565651
U-DMS120C35H	565654
U-DMS120C40H	565655
U-DMS120C40HB (below BBL)	565656
U-DMS120C50H	565657
U-DMS120B50H	565658
U-DMS12CC27H	565665
U-DMS12CC30H	565666
U-DMS12CC30HB (below BBL)	565667
U-DMS12CC35H	565670
U-DMS12CC40H	565671
U-DMS12CC40HB (below BBL)	565672
U-DMS12CC50H	565673
U-DMS12CB50H	565674
U-DMS18BC30H	565683
U-DMS18BC40H	565685
U-DMS18BC50H	565686
U-DMS18BB40H	565687
U-DMS18BB50H	565688

Pearl White / Clear White – up to 14,000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS120C31HP (PearlWhite)	565652
U-DMS120C32HC (ClearWhite)	565653
U-DMS120S31HP (PearlWhite)	565661
U-DMS120S32HC (ClearWhite)	565662
U-DMS12CC31HP (PearlWhite)	565668
U-DMS12CC32HC (ClearWhite)	565669
U-DMS12CS31HP (PearlWhite)	565677
U-DMS12CS32HC (ClearWhite)	565678
U-DMS18BC31HP (PearlWhite)	565684
U-DMS18BS31HP (ClearWhite)	565690

Hi-CRI – up to 12,000 lm

Ready-to-Assemble module	
Type	Ref. No.
U-DMS120D27H	565659
U-DMS120S30H (below BBL)	565660
U-DMS120S35H (below BBL)	565663
U-DMS120S40H (below BBL)	565664
U-DMS12CD27H	565675
U-DMS12CS30H (below BBL)	565676
U-DMS12CS35H (below BBL)	565679
U-DMS12CS40H (below BBL)	565680
U-DMS18BS30H (below BBL)	565689
U-DMS18BS40H (below BBL)	565691

Food

Ready-to-Assemble module	
Type	Ref. No.
U-DMS12CP19H (Meat "pink effect")	565681
U-DMS12CP40H (Meat "white effect")	565682

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LUGA Shop Gen. 6

Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - do not touch the yellow phosphorus layer
- The module must be fixed onto a thermally conductive surface.
- Safe operation only possible by the use of external constant current sources (I_{max} , see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
 - SELV (Safety Extra Low Voltage); $U_{max.} \leq 60\text{ V}$
 - $I_{max.}$ (see table "Maximum Ratings") must not be exceeded.
- When operating devices will be selected care has been taken to ensure that the maximum values (see table "Maximum Ratings") will not be exceeded.
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- Measurement tolerances:
 - luminous flux: $\pm 7\%$
 - voltage: $\pm 3\%$
 - CRI: $\pm 1\%$
- Maximum allowed number of switching cycles: 15,000
- A parallel connection of the modules is not allowed.
- To ensure problem-free operation, the specified maximum temperature at the t_c point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.

- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognised as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure. Detailed information can be found in our "Chemical Incompatibility" PDF on our website www.vossloh-schwabe.com
- The photobiological safety of the LED modules must be classified into risk groups in accordance with EN 62471
Rating in accordance with IEC / TR 62778: risk group 1
Except the following products at the mentioned operating current are classified into risk group 2:

> 400 mA	> 900 mA	> 1500 mA
DMS124C40H	DMS126C40HB	DMS120C40H
	DMS128C40HB	DMS120C40HB
	DMS18BB50H	DMS12CC50H
		DMS12CB50H
		DMS18BC40H
> 750 mA	> 1050 mA	
DMS126C50H	DMS120C50H	
DMS128C50H	DMS120B50H	
	DMS18BC50H	
	DMS18BB40H	

Product Guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com).
We will be happy to send you these conditions upon request.

LUGA Trademark



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LUGA Shop Gen. 6

Reflectors:

- ACL-Lichttechnik GmbH
www.reflektor.com
- Jordan Luxar GmbH & Co. KG
www.jordan-luxar.de
- JORDAN REFLEKTOREN GmbH & Co. KG
www.jordan-reflektoren.de
- LEDIL
www.ledil.com

Heat sinks with active cooling:

- AVC
www.avc-europa.de
- Nuventix, Inc.
www.nuventix.com
- Sunon
www.sunon.com
- MechaTronix
www.led-heatsink.com
- Colliance, Inc.
www.cooliance.eu

Heat sinks with passive cooling:

- AVC
www.avc-europa.de
- Fischer Elektronik GmbH & Co. KG
www.fischerelektronik.de
- Frigo Dynamics
www.frigodynamics.com
- MechaTronix
www.led-heatsink.com

LED Constant Current Drivers

Please visit our homepage for details for suitable

LED constant current drivers: www.vossloh-schwabe.com