

## Metal Series

Housing and Trim: Die-cast aluminium  
 Mounting type: Surface  
 Heat Management: Die-cast aluminium heat sink  
 Reflector: Aluminium  
 Diffuser: Clear PMMA or Frosted Glass

LED Modules  
 GERMAN Technology  
 Comfort COB - Up to 2800lm  
 Long service life time : 50,000 hours (L80/B10)  
 Ambient temperature - 40°C to +40°C

Drivers: 250mA / 300mA / 350mA / 500mA  
 (optional: Dimmable available)  
 Power factor at full load : 0.97  
 SELV , Low Ripple current < 1% ,THD <15%  
 Warranty: 5 years



Standards  
 EN 620301: LED modules for general lighting - Safety specification  
 EN 62471: Photobiological safety of lamps and systems  
 EN 55015: Radio disturbance emissions  
 EN 61000-3-2 Limited for harmonic emissions  
 EN 61547: Immunity requirements

Powered by:



Application: Commercial Building, Lobby, Conventional Hall, Ballroom, Concourse

Model	Wattage	Voltage	Frequency	Power Factor	Colour	Colour Temperature	Module Luminous Flux (Lm)	Module Efficacy Lm/W	Typ. Beam Angle	Typ. CRI Ra	Energy Efficiency	Dimension (Dia x H) mm
M1-3-8W	8.9W	220-240	50/60Hz	0.95	Warm white	2700K	1125	126	15° 24° 45°	>82	A+	110 x 120
		220-240	50/60Hz	0.95	Warm white	3000K	1180	132	15° 24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	1220	137	15° 24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	1230	138	15° 24° 45°	>82	A+	
M1-3-10W	10.6W	220-240	50/60Hz	0.95	Warm white	2700K	1270	120	15° 24° 45°	>82	A+	110 x 120
		220-240	50/60Hz	0.95	Warm white	3000K	1340	126	15° 24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	1380	130	15° 24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	1390	131	15° 24° 45°	>82	A+	
M1-3-12W M1-4-12W	12.2W	220-240	50/60Hz	0.95	Warm white	2700K	1720	141	15° 24° 45°	>82	A+	110 x 120 133 x 153
		220-240	50/60Hz	0.95	Warm white	3000K	1810	149	15° 24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	1865	153	15° 24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	1885	155	15° 24° 45°	>82	A+	
M1-4-17W	17.3W	220-240	50/60Hz	0.95	Warm white	2700K	2585	149	24° 45°	>82	A+	133 x 153
		220-240	50/60Hz	0.95	Warm white	3000K	2725	158	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	2805	162	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5000K	2860	165	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	2830	164	24° 45°	>82	A+	

\*Colour tolerance: 3 MacAdam    \*\*Production tolerance of luminous flux and efficiency: ±10%    \*\*\*Min. CRI ±3%    \*\*\*\*Power consumption: ±10%  
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LED Modules  
 GERMAN Technology  
 Comfort COB - Up to 6100lm  
 Long service life time : 50,000 hours (L80/B10)  
 Ambient temperature - 40°C to +40°C

Drivers: 600mA / 900mA / 1500mA / 1200mA  
 (optional: Dimmable available)  
 Power factor at full load : 0.97  
 SELV , Low Ripple current < 1% ,THD <15%  
 Warranty: 5 years



Standards  
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Model	Wattage	Voltage	Frequency	Power Factor	Colour	Colour Temperature	Module Luminous Flux (Lm)	Module Efficacy Lm/W	Typ. Beam Angle	Typ. CRI Ra	Energy Efficiency	Dimension(Dia x H) mm
M1-4-21W	21.2	220-240	50/60Hz	0.95	Warm white	2700K	3030	143	24° 45°	>82	A+	130 x 152
		220-240	50/60Hz	0.95	Warm white	3000K	3185	151	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	3280	155	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5000K	3345	158	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	3315	157	24° 45°	>82	A+	
M1-5-32W	32.0W	220-240	50/60Hz	0.95	Warm white	2700K	4455	139	24° 45°	>82	A+	170 x 185
		220-240	50/60Hz	0.95	Warm white	3000K	4690	147	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	4830	151	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5000K	4920	154	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	4875	152	24° 45°	>82	A+	
M1-6-38W	38.0W	220-240	50/60Hz	0.95	Warm white	2700K	5045	133	24° 45°	>82	A+	196 x 198
		220-240	50/60Hz	0.95	Warm white	3000K	5310	140	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	5465	144	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5000K	5575	147	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	5520	145	24° 45°	>82	A+	
M1-6-44W	44.2W	220-240	50/60Hz	0.95	Warm white	2700K	5590	127	24° 45°	>82	A+	196 x 198
		220-240	50/60Hz	0.95	Warm white	3000K	5885	133	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Neutral white	4000K	6060	137	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5000K	6175	140	24° 45°	>82	A+	
		220-240	50/60Hz	0.95	Cool white	5700K	6120	139	24° 45°	>82	A+	

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