

SCHILLING Megalight™ LASERS TECHNICAL SPECIFICATIONS

LASER MODEL	Megalight 6 Compact				Megalight V40			
Laser medium	Nd:YVO ₄ (Vanadate)				Nd:YVO ₄ (Vanadate)			
Wavelength	1064 nm				1064 nm			
Nominal power	6.5W ±5 % @50kHz				10W ±5% @CW			
Beam quality	M ² <3				M ² <2			
Repetition rate range	15-200kHz				10-200kHz			
Pump system	Diode Laser				Diode Laser			
Warranty	2 years				Laser system 2 years/Diode module 3 years			
Aiming beam	Red Diode Laser to display the size and position of marking job, second red pointer for focussing				Red Diode Laser to display the size and position of marking job			
Marking head	Objective different focal lengths				Miniscan 8 (Objective different focal lengths)			
Objective F-theta mm	100S	160L (standard)	254S	other focal lengths upon request	100L	160L (standard)	254L	other focal lengths upon request
Working distance mm	114±2	175±3	282±5		97±2	175±3	297±5	
Marking area (mm x mm)	50x50	110x110	170x170*		60x60	120x120	180x180*	
Min. Laser spot Ø		75 µm			25 µm	40 µm	65 µm	
Typ. marking speed					0.7 m/s			
Output voltage power supply/Supply	DC 24V				DC 24V-28V ±5%			
Power consumption	typical 200W, max. 300W				typical 450W, max. 600W			
Communications	-				RS232, I/O signal, Ethernet for monitoring (opt.)			
Cooling system	Air cooled (integrated)				Air cooled (integrated)			
	Overall Dimensions DxWxH (mm)				Overall Dimensions DxWxH (mm)			
Rack	426x154x170				499x437x87			
Power supply	-				260x130x46			
Resonator	integrated				454x120x114			
Marking head	integrated				141x120x164 (incl. Standard objective)			
Laser safety cabinet	790x550x750 (other dimensions on request)				925x638x871 (other dimensions on request)			
Max. part size	255x475x285				255x475x285			
	approx. Weight (kg)				approx. Weight (kg)			
Rack	7.8 (17.2 lbs)				12 (26.5 lbs)			
Resonator	integrated				10 (22 lbs)			
Marking head	integrated				3.8 (8.4 lbs)			
System compl. with Laser safety cabinet	63 (139 lbs)				105 (231 lbs)			
	Protection Class				Protection Class			
Rack	IP 21				IP 20			
Resonator	IP 54				IP 54			
Marking head	IP 54				IP 54			
Laser safety cabinet	Laser safety class 1				Laser safety class 1			
	Environmental				Environmental			
Operating temperature	Min. 15°C (59°F) / Max. 35°C (95°F)				Min. 10°C (50°F) / Max. 35°C (95°F)			
Humidity	< 90 % without condensation				< 90 % without condensation			
Operating altitude	< 1000m (3,330 feet)				< 2000m (6,660 feet)			
Suspended matter	> 3 mg/m ³				> 3 mg/m ³			
Vibrations	No vibrations permitted				No vibrations permitted			
Max. acceleration	0.5 G				0.5 G			
Noise	< 70 dB				< 70 dB			
Storage temperature	Min. -5°C (23°F) / Max. +55°C (131°F) Non condensing				Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing			
Conformance to EC machinery directives	2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"				2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"			
Conformance to EC Standards	EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products				EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products			
Laser Class	Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW				Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW			
Applications	Through to extreme compactness ideal in stand-alone configurations as well as in industrial production lines.				Best results on steel, titanium, aluminium (bare, anodized or coated) as well as on plastics such as ABS, PP, PES, PET, PVC and many others.			
NOTE:	Specifications are subject to change without notice				Specifications are subject to change without notice			
*Effective marking area subjected to approval, depending on the application!								

SCHILLING Megalight™ LASERS TECHNICAL SPECIFICATIONS

LASER MODEL	Megalight V60				Megalight V80			
Laser Medium	Nd:YVO ₄ (Vanadate)				Nd:YVO ₄ (Vanadate)			
Wavelength	1064 nm				1064 nm			
Nominal power	15W ±5% @CW				20W ±5% @CW			
Beam quality	M ² <2				M ² <2			
Repetition rate range	10-200kHz				20-200kHz			
Pump system	Diode Laser				Diode Laser			
Warranty	Laser system 2 years/Diode module 3 years				Laser system 2 years/Diode module 3 years			
Aiming beam	Red Diode Laser to display the size and position of marking job				Red Diode Laser to display the size and position of marking job			
Marking head	Miniscan 8 (Objective different focal lengths)				Miniscan 8 (Objective different focal lengths)			
Objective F-theta mm	100L	160L (standard)	254L	other focal lengths upon request	100L	160L (standard)	254L	other focal lengths upon request
Working distance mm	97±2	175±3	297±5		97±2	175±3	297±5	
Marking area (mm x mm)	60x60	120x120	180x180*		60x60	120x120	180x180	
Min. Laser spot Ø		75 µm				135 µm		
Typ. marking speed	0.7 m/s				0.7 m/s			
Output voltage power supply	DC 24V-28V ±5%				DC 24V-28V ±5%			
Power consumption	typical 450W, max. 600W				typical 450W, max. 600W			
Communications	RS232, I/O signal, Ethernet for monitoring (opt.)				RS232, I/O signal, Ethernet for monitoring (opt.)			
Cooling system	Air cooled (integrated)				Air cooled (integrated)			
	Overall Dimensions DxWxH (mm)				Overall Dimensions DxWxH (mm)			
Rack 19"	499x437x87				499x437x87			
Power supply	260x130x46				260x130x46			
Resonator	454x120x114				454x120x114			
Marking head	141x120x164 (incl. Standard objective)				141x120x164 (incl. Standard objective)			
Laser safety cabinet	925x638x871 (other dimensions on request)				925x638x871 (other dimensions on request)			
Max. part size	255x475x285				255x475x285			
	Approx. Weight (kg)				Approx. Weight (kg)			
Rack 19"	12 (26.5 lbs)				12 (26.5 lbs)			
Resonator	10 (22 lbs)				10 (22 lbs)			
Marking head	3.8 (8.4 lbs)				3.8 (8.4 lbs)			
System compl. with Laser safety cabinet	105 (231 lbs)				105 (231 lbs)			
	Protection Class				Protection Class			
Rack 19"	IP 20				IP 20			
Resonator	IP 54				IP 54			
Marking head	IP 54				IP 54			
Laser safety cabinet	Laser safety class 1				Laser safety class 1			
	Environmental				Environmental			
Operating temperature	Min. 10°C (50°F) / Max. 35°C (95°F)				Min. 10°C (50°F) / Max. 35°C (95°F)			
Humidity	< 90 % without condensation				< 90 % without condensation			
Operating altitude	< 2000m (6,660 feet)				< 2000m (6,660 feet)			
Suspended matter	> 3 mg/m ³				> 3 mg/m ³			
Vibrations	No vibrations permitted				No vibrations permitted			
Max. acceleration	0.5 G				0.5 G			
Noise	< 70 dB				< 70 dB			
Storage temperature	Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing				Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing			
Conformance to EC machinery directives	2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"				2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"			
Conformance to EC Standards	EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products				EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products			
Laser Class	Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW				Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW			
Applications	Best results on steel, titanium, aluminium (bare, anodized or coated) as well as on plastics such as ABS, PP, PES, PET, PVC and many others.				Best results on steel, titanium, aluminium (bare, anodized or coated) as well as on plastics such as ABS, PP, PES, PET, PVC and many others.			
NOTE:	Specifications are subject to change without notice				Specifications are subject to change without notice			
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SCHILLING Megalight™ LASERS TECHNICAL SPECIFICATIONS

LASER MODEL	Megalight GREEN Lase 4W				Megalight GREEN Lase 10W			
Laser Medium	Nd:YVO ₄ (Vanadate) / L.B.O.				Nd:YVO ₄ (Vanadate) / L.B.O.			
Wavelength	532 nm				532 nm			
Nominal power	4W ±5% @50kHz				10W ±5% @50kHz			
Beam quality	M ² <1.2 (max. resolution)		M ² <3 (greater uniformity)		M ² <1.2 (max. resolution)		M ² <3 (greater uniformity)	
Repetition rate range	15-200kHz				20-100kHz			
Pump system	Diode Laser				Diode Laser			
Warranty	2 years				2 years			
Aiming beam	Red Diode Laser to display the size and position of marking job				Red Diode Laser to display the size and position of marking job			
Marking head	Miniscan 8 GREEN (Objective different focal lengths)				Miniscan 8 GREEN (Objective different focal lengths)			
Objective F-theta mm	63S	160L (standard)	254L	other focal lengths upon request	63S	160L (standard)	254L	other focal lengths upon request
Working distance mm	71±2	180±4	300±5		71±2	180±4	300±5	
Marking area (mm x mm)	35x35	110x110	180x180		35x35	110x110	180x180	
Min. Laser spot Ø		30 µm				40 µm		
Marking speed	0.7 m/s				0.7 m/s			
Output voltage power supply	DC 24V-28V ±5%				DC 24V-28V ±5%			
Power consumption	typical 450W, max. 600W				typical 450W, max. 600W			
Communications	RS232, I/O signal, Ethernet for monitoring (opt.)				RS232, I/O signal, Ethernet for monitoring (opt.)			
Cooling system	Air cooled (integrated)				Air cooled (integrated)			
	Overall Dimensions DxWxH (mm)				Overall Dimensions DxWxH (mm)			
Rack 19"	499x437x87				499x437x87			
Power supply	260x130x46				260x130x46			
Resonator	526x119x114				526x119x114			
Marking head	141x120x164 (incl. Standard objective)				141x120x164 (incl. Standard objective)			
Laser safety cabinet	925x638x871 (other dimensions on request)				925x638x871 (other dimensions on request)			
Max. part size	255x475x285				255x475x285			
	Approx. Weight (kg)				Approx. Weight (kg)			
Rack 19"	12 (26.5 lbs)				12 (26.5 lbs)			
Resonator	7 (15.4 lbs)				7 (15.4 lbs)			
Marking head	3.8 (8.4 lbs)				3.8 (8.4 lbs)			
System compl. with Laser safety cabinet	102 (225 lbs)				102 (225 lbs)			
	Protection Class				Protection Class			
Rack 19"	IP 20				IP 20			
Resonator	IP 54				IP 54			
Marking head	IP 54				IP 54			
Laser safety cabinet	Laser safety class 1				Laser safety class 1			
	Environmental				Environmental			
Operating temperature	Min. 10°C (50°F) / Max. 35°C (95°F)				Min. 10°C (50°F) / Max. 35°C (95°F)			
Humidity	< 90 % without condensation				< 90 % without condensation			
Operating altitude	< 2000m (6,660 feet)				< 2000m (6,660 feet)			
Suspended matter	> 3 mg/m ³				> 3 mg/m ³			
Vibrations	No vibrations permitted				No vibrations permitted			
Max. acceleration	0.5 G				0.5 G			
Noise	< 70 dB				< 70 dB			
Storage temperature	Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing				Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing			
Conformance to EC machinery directives	2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"				2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"			
Conformance to EC Standards	EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products				EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products			
Laser Class	Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW				Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW			
Applications	Solar cell manufacturing, Solar cell scribing, LCD scribing, Semiconductor wafer dicing, PCB marking, Electronic components, Glass marking, Plastics marking.				Solar cell manufacturing, Solar cell scribing, LCD scribing, Semiconductor wafer dicing, PCB marking, Electronic components, Glass marking, Plastics marking.			
NOTE:	Specifications are subject to change without notice				Specifications are subject to change without notice			

SCHILLING Megalight™ LASERS TECHNICAL SPECIFICATIONS

LASER MODEL	Megalight UV Lase 3W		
Laser Medium	Nd:YVO ₄ (Vanadate) / L.B.O.		
Wavelength	355 nm		
Nominal power	3W ±5% @30kHz		
Beam quality	M ² <1.3		
Repetition rate range	20-80kHz		
Pump system	Diode Laser		
Warranty	1 year/10.000 operating hours		
Aiming beam	Red Diode Laser to display the size and position of marking job		
Marking head	Miniscan 8 UV (Objective different focal lengths)		
Objective F-theta mm	103 Telecentric	160L (standard)	other focal lengths upon request
Working distance mm	139±2		
Marking area (mm x mm)	50x50	100x100	
Min. Laser spot Ø	7 µm	15 µm	
Marking speed	up to 400 char./s		
Output voltage power supply	DC 24V-28V ±5%		
Power consumption	typical 450W, max. 600W		
Communications	RS232, I/O signal, Ethernet for monitoring (opt.)		
Cooling system	Air cooled (integrated)		
Overall Dimensions DxWxH (mm)			
Rack 19"	499x437x87		
Power supply	260x130x46		
Resonator	557x165x130		
Marking head	141x120x164 (incl. Standard objective)		
Laser safety cabinet	925x638x871 (other dimensions on request)		
Max. part size	255x475x285		
Approx. Weight (kg)			
Rack 19"	12 (26.5 lbs)		
Resonator	8.5 (18.7 lbs)		
Marking head	2.2 (4.8 lbs)		
System compl. with Laser safety cabinet	105 (231 lbs)		
Protection Class			
Rack 19"	IP 20		
Resonator	IP 54		
Marking head	IP 54		
Laser safety cabinet	Laser safety class 1		
Environmental			
Operating temperature	Min. 10°C (50°F) / Max. 35°C (95°F)		
Humidity	< 90 % without condensation		
Operating altitude	< 1000m (3,330 feet)		
Suspended matter	> 3 mg/m ³		
Vibrations	No vibrations permitted		
Max. acceleration	0.5 G		
Noise	< 70 dB		
Storage temperature	Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing		
Conformance to EC machinery directives	2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"		
Conformance to EC Standards	EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products		
Laser Class	Working Laser @ 1064nm: Class IV Pumping Laser @ 808nm: Class IV Aiming Beam @ 635nm: Class 2M; 3mW		
Applications	Less mechanical distortion and less heat affected zones (HAZ) in comparison with longer laser radiations. Ideal for the very-demanding marking and material process applications, such as glass and non-doped plastics and others.		
NOTE:	Specifications are subject to change without notice		

SCHILLING Megalight™ LASERS TECHNICAL SPECIFICATIONS

LASER MODEL	Megalight F10				Megalight F20			
Laser Medium	Fiber Laser				Fiber Laser			
Wavelength	1060 – 1080 nm				1060 – 1080 nm			
Nominal power	10W				20W			
Repetition rate range	20-100kHz				20-100kHz			
Pulse width	100 ns				100 ns			
Warranty	Laser system 2 years				Laser system 2 years			
Aiming beam	Red Diode Laser to display the size and position of marking job				Red Diode Laser to display the size and position of marking job			
Head cable length	3 m				3 m			
Marking head	Objective different focal lengths				Objective different focal lengths			
Objective F-theta mm	100L	160S (Standard)	254L	other focal lengths upon request	100L	160S (Standard)	254L	other focal lengths upon request
Working distance mm	97±2	177±4	297±5		97±2	177±4	297±5	
Marking area (mm x mm)	60x60	100x100	180x180*		60x60	100x100	180x180*	
Marking speed	0,7 m/s, dynamic conditions Marking On Fly up to 75 m/min object linear speed				0,7 m/s, dynamic conditions Marking On Fly up to 75 m/min object linear speed			
Integrated power supply	90-230 VAC 50/60 Hz				90-230 VAC 50/60 Hz			
Power consumption	typical 450W, max. 600W				typical 450W, max. 600W			
Communication	RS232 – Ethernet – USB 2.0				RS232 – Ethernet – USB 2.0			
Cooling system	Air cooled (integrated)				Air cooled (integrated)			
	Overall Dimensions DxWxH (mm)				Overall Dimensions DxWxH (mm)			
Rack (embedded)	370x430x106				370x430x106			
Power supply	260x130x46				260x130x46			
Marking head	298x112x90				298x112x90			
Laser safety cabinet	925x638x871 (other dimensions on request)				925x638x871 (other dimensions on request)			
Max. part size	255x475x285				255x475x285			
	Approx. Weight (kg)				Approx. Weight (kg)			
Rack	<15 (33 lbs)				<15 (33 lbs)			
Marking head	4 (8.8 lbs)				4 (8.8 lbs)			
	Protection Class				Protection Class			
Rack	IP 20				IP 20			
Marking head	IP 64				IP 64			
Laser safety cabinet	Laser safety class 1				Laser safety class 1			
	Environmental				Environmental			
Operating temperature	Min. 10°C (50°F) / Max. 35°C (95°F)				Min. 10°C (50°F) / Max. 35°C (95°F)			
Humidity	< 90 % without condensation				< 90 % without condensation			
Operating altitude	< 2000m (6,660 feet)				< 2000m (6,660 feet)			
Suspended matter	> 3 mg/m ³				> 3 mg/m ³			
Vibrations	No vibrations permitted				No vibrations permitted			
Max. acceleration	0.5 G				0.5 G			
Noise	< 70 dB				< 70 dB			
Storage temperature	Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing				Min. 0°C (32°F) / Max. 50°C (122°F) Non condensing			
Conformance to EC machinery directives	2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"				2004/108/EEC "Electromagnetic Compatibility" 2006/95/EEC "Low Voltage"			
Conformance to EC Standards	EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products				EN 61000-6-4 Radiation standard EN 61000-6-2 Immunity standard EN 60204-1 Safety of machinery EN 60825-1 Safety of laser products			
Laser Class	Working Laser @ 1060-1080nm: Class IV Aiming Beam @ 635nm: Class 2M; 1mW				Working Laser @ 1060-1080nm: Class IV Aiming Beam @ 635nm: Class 2M; 1mW			
Applications	Ultra compact marking head allows ease installations into automatic production lines. Excellent and fine marking results. Short marking times. Suitable for marking of automotive parts made of steel, casting and plastics. For electronic parts like substrates, lead frames, packages, PCBs and other components.				Ultra compact marking head allows easy installations into automatic production lines. Excellent and fine marking results. Short marking times. Suitable for marking of automotive parts made of steel, casting and plastics. For electronic parts like substrates, lead frames, packages, PCBs and other components.			
NOTE:	Specifications are subject to change without notice				Specifications are subject to change without notice			
*Effective marking area subjected to approval, depending on the application!								