




FAYb laser marker specifications

		FAYb Laser Markers							
Item	Model	LP-V10U-C	LP-V15U-C	LP-Z130-C	LP-Z250-C	LP-Z256-C	LP-S200-C	LP-S500-C	
									
Work distance		190mm (± 2mm)	350mm (± 2mm)	190mm ± 25mm		330mm ± 25mm		190mm (± 7mm)	
Marking range		90mm x 90mm	160mm x 160mm	120mm x 120mm		330mm x 330mm		90mm x 90mm	
Scanning speed max.		12,000m/s		12,000m/s		8000m/s		12,000m/s	
Line speed		up to 240m/min		170m/min		120m/min		240m/min	
Beam diameter		60µm	95µm	75µm		140µm		53µm	
Ave. output		12W		13W	25W		20W	42W	
Pulse width		30ns		30, 100, 200ns	50, 100, 200ns		120ns at 500kHz, 180ns at 50kHz depend on pulse cycle		
Pulse cycle		10 to 50µs		10 to 40µs		2 to 20µs			
Ambient temp.		0 to +40°C		0 to +35°C		0 to +40°C			
Storage temp.		-10 to + 60°C (no condensation or frost)							
Ambient humidity		35 to 85% RH (no condensation or frost)							
Marking method		Galvanometer scanning method							
Wave length		$\lambda = 1.06\mu\text{m}$, laser class 4							
Guide laser		Semiconductor $\lambda = 650\text{nm}$, laser class 2; 1mW							
Character size (height & width)		0.2 to full marking field height and width (adjustable in increments of 0.001mm)							
Marking spacing (spacing & pitch)		0 to full marking field height and width (adjustable in increments of 0.001mm) Fan-like: +/-180° (adjustable in increments of 0.01°)							
Array of character		Straight line, fan-like, proportional/typewriter fonts, tilted and fan-like							
Type of characters		Capital & small characters, figures, katakana, hiragana, kanji (JIS level 1 & level 2), symbols, user-defined characters (up to 50 types)							
Bar codes/2D codes		CODE39, CODE128, ITF2/5, NW-7, JAN/UPC/EAN, RSS 14, RSS limited, RSS expanded (GS1 Databar), 2D codes: QR, Micro QR, Data Matrix (ECC200)							
Logo/shape		BMP / DXF / HPGL / JPEG					VEC, DXF, BMP, HPGL, JPEG, AI, EPS		
Cooling method		Forced-aired cooling					Head: natural cooling, no fan		
Supply voltage		90 to 132VAC or 180 to 264VAC (auto-changing), 50/60Hz							
Power consumption		420W or less (at 200VAC)					510W or less	650W or less	
Input		Remote, trigger, encoder (A), encoder (B), shutter control, laser pumping, alarm reset, emergency stop, laser stop, number							
Output		Power supply (+12V), remote (RS232C, I/O), marking ready, marking, marking finished, laser pumping, warning, alarm, confirmation end, counter finish							
Marking condition		Stationary and marking on the fly							
Functions		Marking order optimizing • correction of intersection • counter marking • current date/time marking • expiry date • lot marking • logos/pictures • bold marking • logo data USB transfer • I/O monitor • system offset • common setting • laser pointer • font select • proportional marking • marking image display • operator adjustment • error code display • work image display • guide laser • power speed setting per line/logo file • step & repeat • time delay • serial data processing & marking • multilayered marking • backup • various processing functions • dual pointer • marking time measurement • font creation/editing • power check/correction							
Emergency switch		Provided on the controller							
Weight head		Approx. 9kg	Approx. 10kg	Approx. 9.5kg		Approx. 7.5kg			
Weight controller		Approx. 22kg		Approx. 24kg		Approx. 24kg			
Life time		Marking time: 30,000 hours (minimum) (note)							
Degrees of protection		Not specified					Head: IP67G		



Note: Lifetime indicates operating hours expected under normal operating conditions. It is the period of time between starting to use the device and the beginning of the wear-out phase. For Panasonic devices, only the real marking time and not the turn on time has to be considered. This is determined by the life expectancy of components used in assembly of the unit. The weakest component with the shortest life expectancy determines the life of the whole product.

MTBF represents the statistical approximation of how long a number of units should operate before a failure can be expected. It does not represent how long the unit will last. Due to the non-representative figures of MTBF, Panasonic gives only lifetime indications. In certain cases a maximum power drop of 20% can happen after the lifetime period.

