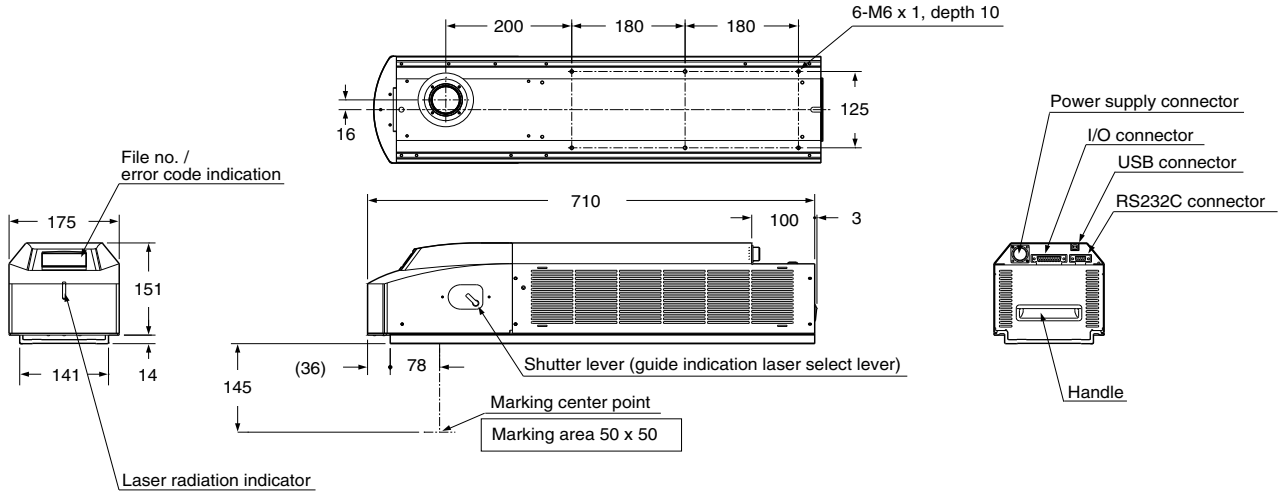
CO_2 laser marker specifications

Item		General-purpose type			Small spot type			Type for large marking range		
	Standard	LP-430U-C	LP-420S9U-C	LP-410U-C	LP-431U-C	LP-421S9U-C	LP-411U-C	LP-425S9U-C	LP-435U-C	LP-310-C
	Tower	LP-430TU-C	LP-420S9TU-C	LP-410TU-C	LP-431TU-C	LP-421S9TU-C	LP-411TU-C	LP-425S9TU-C	LP-435TU-C	
Work distance		185mm (+2mm)			111mm (+2mm)			262mm (+2mm)		145mm
Marking range		110mm x 110mm			55 mmx 55mm			160mm x 160mm		50mm x 50mm
Scanning speed		Max. 12,000mm/s			Max. 6000mm/s			Max. 12,000mm/s		2000mm/s
Line speed, up to		240m/min		170m/min	120m/min		85m/min	240m/min		not available
Marking laser		CO_2 laser, laser class 4								
	Beam diameter	190µm	160µm	190µm	110µm	95µm	110µm	225µm	265µm	310µm
	Ave. output	30W	20W	10W	30W	20W	10W	20W	30W	12W
Ambient temperature		0 to +40°C (no condensation or frost), storage: -10 to 60°C								0-40, -10-50°C
Ambient humidity		35 to 85%RH (no condensation or frost)								
Guide laser		Semiconductor λ = 655nm, laser class 2, 1mW								
Character size (height & width)		0.2 to 110mm (adjustable in increments of 0.001mm)			0.2 to 55mm (adjustable in increments of 0.001mm)			0.2 to 160mm (adjustable in increments of 0.001mm)		0.2 to -50m (adjustable in increments of 0.001mm)
Wave length		10.6µm	9.3µm	10.6µm	10.6µm	9.3µm	10.6µm	9.3µm	10.6µm	10.6µm
Marking method		Stationary, on-the-fly (for moving objects)								Stationary
Marking spacing (spacing & pitch)		0 to 110mm (adjustable in increments of 0.001mm) Fan-like: ± 180° (adjustable in increments of 0.001°)			0 to 55mm (adjustable in increments of 0.001mm) Fan-like: ± 180° (adjustable in increments of 0.001°)			0 to 160mm (adjustable in increments of 0.001mm) Fan-like: ± 180° (adjustable in increments of 0.001°)		0 to -50m (adjustable in increments of 0.001mm) Fan-like: ± 180° (adjustable in increments of 0.001°)
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, symbols, user-defined characters (up to 50 types)								
Bar codes		CODE39, CODE128, ITF2/5, NW-7, JAN/UPC/EAN, RSS 14, RSS limited, RSS expanded (GS1 Databar)								not available
2D codes		QR, Micro QR, Data Matrix (ECC200)								
Composite codes		RSS 14CC-A, RSS 14 stacked CC-A, RSS limited CC-A								
Logo/shape		BMP / DXF / HPGL / JPEG								
Cooling method		Forced-aired cooling								
Supply voltage		100 to 120VAC ±10%, 200 to 240VAC ±10%, 50/60Hz								
Power consumpt.	200VAC	1200W		700W	1200W		700W	1200W		700VA
Input		Remote, trigger, shutter control, laser pumping, alarm reset, emergency stop, laser stop, file number, interlook...								
Output		Power supply (+12V), remote (RS232C, I/O), marking ready, marking, marking finished, laser pumping, warning, alarm, confirmation end, counter finish								Alarm, counter end, ...
Marking condition		On the fly and stationary								Stationary
Functions		• Correction of intersection • font creation/editing • current date/time marking • expiry date • logos/pictures • counter marking • system offset • time delay • various processing functions • common setting • guide laser • bold marking • marking of moving objects • font select • marking image display • marking time measurement • work image display • power speed setting per line/logo file • error code display • backup								
		• laser pointer • proportional marking • multilayered marking • serial data processing & marking • step & repeat • I/O monitor step & repeat								not available
Emergency stop		Provided on the controller								ext. needed
Weight	Standard head	20kg		16kg	20kg		16kg	20kg		13kg
	Tower head									
	Controller	12kg		11kg	12kg		11kg	12kg		Powersp. 5kg
Lifetime		Marking time: 12,000 hours (minimum) (note)								

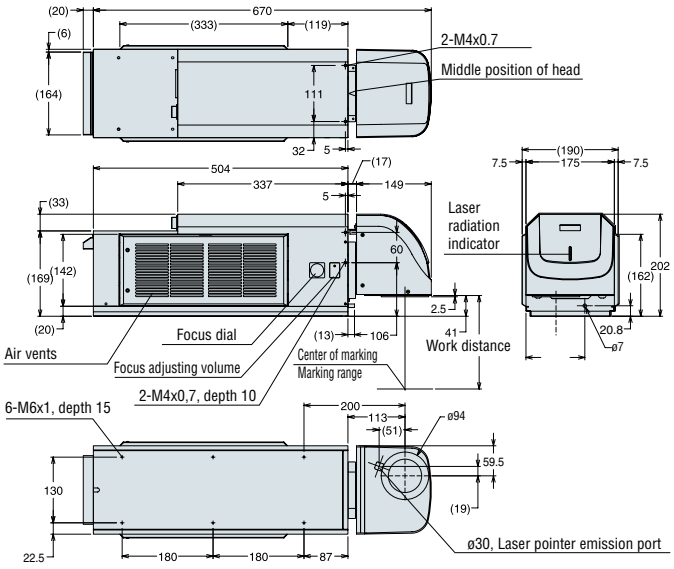
Note: Lifetime indicates operating hours expected under normal operating conditions. It is the period of time between starting to use the device and the beginning of the wear-out phase. ForPanasonic devices, only the real marking time and not the turn on time has to be considered. This is determined 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.

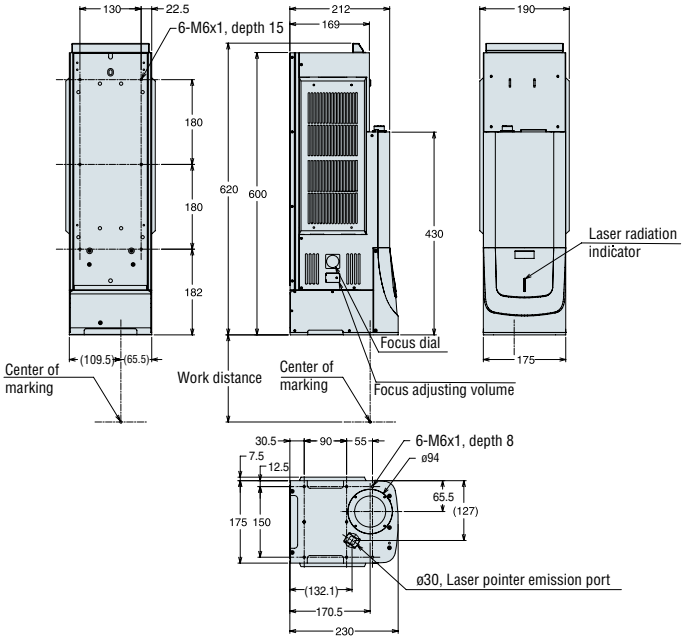
■ LP300



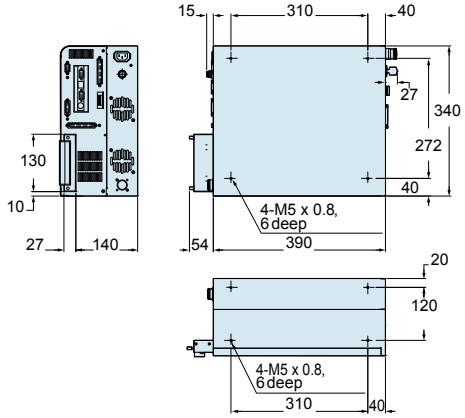
■ LP400 STANDARD TYPE



■ LP400 TOWER TYPE



■ LP400 CONTROLLER



■ HANDHELD TOUCH SCREEN (OPTIONAL)