

INDUSTRIAL SEWING MACHINES

PLK-G wide area series

- PLK-G4030
- PLK-G6030
- PLK-G5050
- PLK-G10050



Advanced G Series—Equipped with Industry-leading Machine Specifications—Now Offers the Wide Area Models!

1

Powerful penetration force even at the start of stitching and thread trimming
750W direct servo motor increases sewing applications

(As of March 2011)

Industry's top-class penetration force

2

Quicker processing of pattern data with high stitch count
Pattern creation time minimized up to **one-tenth**
Work efficiency increased by **3 to 10-fold**
(Comparison with PLK-E series)

USB memory & High-speed processing

3

Direct-drive method reduces power consumption by **approximately 40%**
(Comparison with PLK-E series)

Power consumption reduced in consideration of the environment

4

Easy expandability for customization and automation

Superior **compatibility** with **host control units** (Mitsubishi Electric programmable controller)

Automation support functions



G series



Beautiful stitches made in easy steps

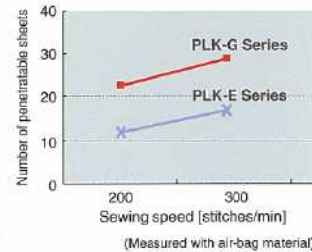
Beautiful Stitches

The improved presser foot mechanism and feed mechanism rigidity together with the latest feed control (feedback control) realize beautiful stitches, from low to high speeds, in all areas including corners which follow the sewing data and stitch linearity.



Industry Top-class Penetration Force (As of March 2011)

The increased power of the 750W direct-drive servo motor provides the industry top-class penetration force. Low-speed sewing (200 stitches/min) at the start of sewing and thread cutting, which was conventionally difficult to carry out, can now be performed with ease.

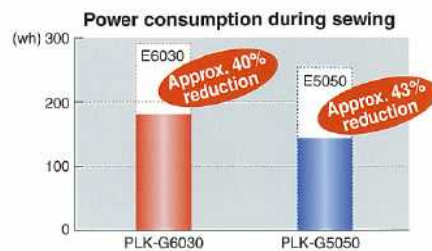


Increased applications!! Improved stability!! Improved quality!!

Reduced Power Consumption

The direct-drive method helps to reduce the power consumed during sewing by approximately 43% (for G5050).

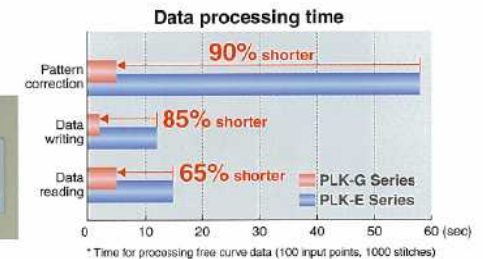
Power consumed while waiting is also reduced by approximately 38% (compared with the PLK-E series) by incorporating the XY drive feedback control, which suppresses vibration and noise.



Improved Work Efficiency

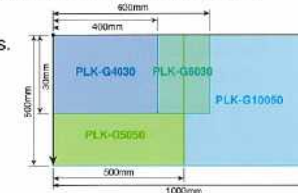
Adoption of a USB memory and high-speed processing system has greatly shortened the time required to input and correct data for patterns with many stitches.

The inching key greatly improves the speed during clamp movement, and improves work efficiency.



Wide Sewing Area

Sewing can be performed on small to large material in high accuracy. With the wide sewing area, a user can easily perform checks at material setup and during sewing, and make high-quality stitches.



Large, High-visibility, Easy-to-use LCD Touch-type Operation Panel

In addition to the basic sewing machine operations*1, this panel can be used to process patterns*2, confirm the status of the various sensor input and solenoid output signals, and individually set the sewing machine functions and input/output ports.

- Frequently used switching patterns can be selected quickly with the shortcut button.
- A simple explanation function is incorporated to display the application of each screen button when the button is touched.
- When inputting patterns, the clamp frame movement speed can be selected from three different settings.
- An easy-to-carry and use shape has been adopted.



*1: Home position return, jog, speed change, pattern call, up/down counter, bobbin winding, etc.
 *2: Pattern call, write, input, correction, conversion, etc.



Wide area pattern sewing machine

PLK-G4030

Sewing area
400 x 300mm



PLK-G6030

Sewing area
600 x 300mm



Extra-wide area pattern sewing machine

PLK-G5050

Sewing area
500 x 500mm



PLK-G10050

Sewing area
1,000 x 500mm



Option

•PC Software (Note)

Powerful Automation Support Functions

PTN-G

•Sewing data creation software

PTN-G

Stitching data can be created easily using a personal computer.
CAD data can also be read.

•Sewing machine parameter setting software

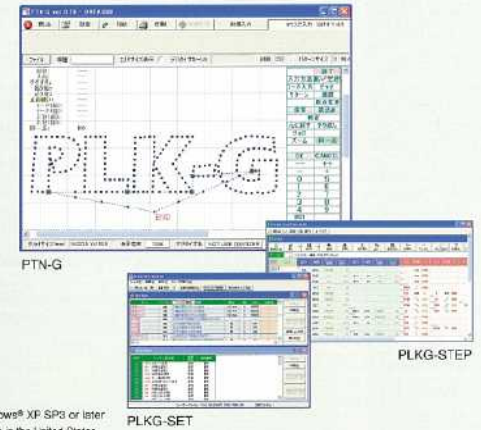
PLKG-SET

Settings made using the sewing machine's operation panel can be set using a personal computer.

•Sewing machine sequence software

PLKG-STEP

The sewing machine and external device operations can be programmed.



(Note) Supported operating system: Windows® 2000 SP2 or later or Windows® XP SP3 or later.
* Microsoft® Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.

•Chucking function



Chucking function is provided in all wide area models. This function serves a variety of needs. During stitching, next material can be prepared to be stitched. Also a user can handle several sewing machines, improving the work efficiency and productivity.

•Optional Devices



MP-G40-AT
Pneumatic 2-step tensioner



MP-G40-TS
Upper-thread breakage detector



MP-G40-TE
I/O expansion unit

Part name	Type	G4030	G6030	G5050	G10050	Application
Pneumatic 2-step tensioner	MP-G40-AT	●	●	●	●	Differences in the thread tension, caused by changes in the stitching direction or thickness, are eliminated.
Upper-thread holding device	MP-G40-TH	●	●	—	—	Holds trimmed needle thread, preventing the thread from tangling at the start of stitching.
	MP-G50-TH	—	—	●	●	
Upper-thread breakage detector	MP-G40-TS	●	●	—	—	Stops the sewing machine when needle thread breakage is detected.
	MP-G50-TS	—	—	●	●	
I/O expansion unit	MP-G40-TE	●	●	—	—	The number of input/output ports which can be connected to the sewing machine are expanded. (12 extra input ports, 12 extra output ports)
	MP-G50-TE	—	—	●	●	

•Specifications

Model	PLK-G4030	PLK-G6030	PLK-G5050	PLK-G10050
Stitching style	Single needle lockstitch			
Hook type	Large-size shuttle hook			
Sewing area (XxY)	400mm x 300mm	600mm x 300mm	500mm x 500mm	1,000mm x 500mm
Maximum sewing speed (Note)	Intermittent: 2,000rpm Continuous: 2,000rpm		Intermittent: 1,600rpm Continuous: 2,000rpm	
Feed method	Intermittent or continuous (switchover method)			
Stitching pitch	0.1mm to 20.0mm (resolution 0.1mm)			
Maximum no. of stitches	20,000 stitches/pattern			
Maximum no. of stored patterns	520 patterns (control panel internal memory)			
Enlargement/reduction function	10 to 200% for both X and Y axes (variable in 0.1% steps)			
Memory medium	USB flash memory (not included with sewing machine) (USB-connected FDD can also be connected)			
Total weight	420kg	440kg	470kg	500kg
Work holder lift stroke	30mm			
Work holder method	Pneumatic			
Chucking device	Special specification			
Presser foot lift stroke	15mm (Max 18mm) 2-step adjustment			
Presser foot stroke	4 to 10mm			
Spindle motor	Mitsubishi Electric 750W direct servo motor			
Applicable needle	DP x 17 #18 (standard)			
Operation panel	5.7" LCD touch panel, white LED backlight			
Outline dimensions	1,081mm (W) x 1,572mm (D) x 1,234mm (H) (excluding thread stand)	1,350mm (W) x 1,572mm (D) x 1,234mm (H) (excluding thread stand)	1,384mm (W) x 1,855mm (D) x 1,234mm (H) (excluding thread stand)	2,105mm (W) x 1,855mm (D) x 1,234mm (H) (excluding thread stand)
Power supply	200 to 240V, single-phase/3-phase 100 to 120V, 380 to 415V (option unit required)			

(Note) Sewing speed may be limited by the operation, material or champ mass.



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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