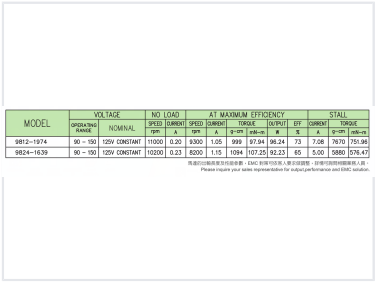
MERHEIN
Technical Datasheet

17 April 2026

Brushed DC Motor for Sewing Machines

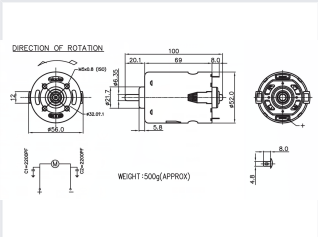
This carbon-brush DC motor is commonly used in sewing machines and other small appliances. It features a cylindrical metal housing with ventilation slots for cooling and utilizes carbon brushes to conduct current, enabling continuous rotation.



MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY				STALL	
	SPEED&TEST RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE	OUTPUT	EFF	CURRENT	TORQUE
			rpm	A	rpm	A	g-cm	watt	%	A	g-cm
9812-1974	90 ~ 150	125V CONSTANT	11000	0.20	9300	1.05	999	97.94	96.24	73	7.08	7670	751.96
9824-1639	90 ~ 150	125V CONSTANT	10200	0.23	8200	1.15	1094	107.25	92.23	85	5.00	5880	576.47

Please inquire your sales representative for output performance and EMC solution.

ADDITIONAL IMAGES



Overview

High-Performance Sewing Machine Motor

This brushed DC motor is engineered specifically for sewing machine applications, offering reliable power and consistent performance. The unit features a robust cylindrical metal housing with integrated ventilation slots to ensure effective cooling during operation. Designed for versatility, it supports a wide operating voltage range and provides multiple performance configurations to suit various sewing machine requirements.

Mechanical Dimensions

Motor Diameter	56 mm
Shaft Diameter	6.35 mm
Body Length	100 mm
Shaft Length	21.7 mm
Mounting Hole Specification	M5x0.8 (ISO)
Approximate Weight	500 g

Electrical Specifications

Operating Voltage Range	90-150V
Nominal Voltage	125 V
Suppression Capacitors	C1=2200PF, C2=2200PF

Rooms 05–15, 13A/F South Tower, World Finance Centre, Harbour City, 17 Canton Rd, Tsim Sha Tsui, Kowloon, Hong Kong

Performance Data

Performance Comparison

Model	No-Load Speed (rpm)	Max Efficiency Speed (rpm)	Max Efficiency Torque (mN-m)	Efficiency (%)
9812-1974	11000	9300	97.94	73
9824-1639	10200	8200	107.25	65