

## FEATURES

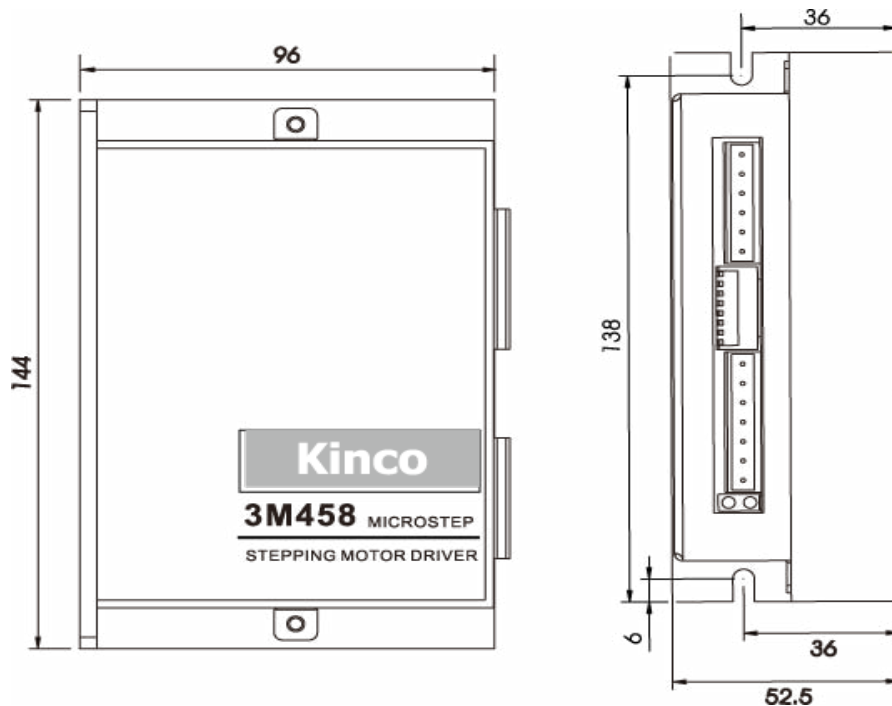
- Supply Voltage 24 ~ 40 VDC
- Output Phase Current 3.0 ~5.8A
- Control Signal Input Current 6 ~ 16mA
- Cooling Method (Natural Air Cooling)
- Operating Temperature -10° C ~ 45° C
- Operating Humidity 85%  
(Non-Condensing or Water Drops)
- Weight 0.7Kg



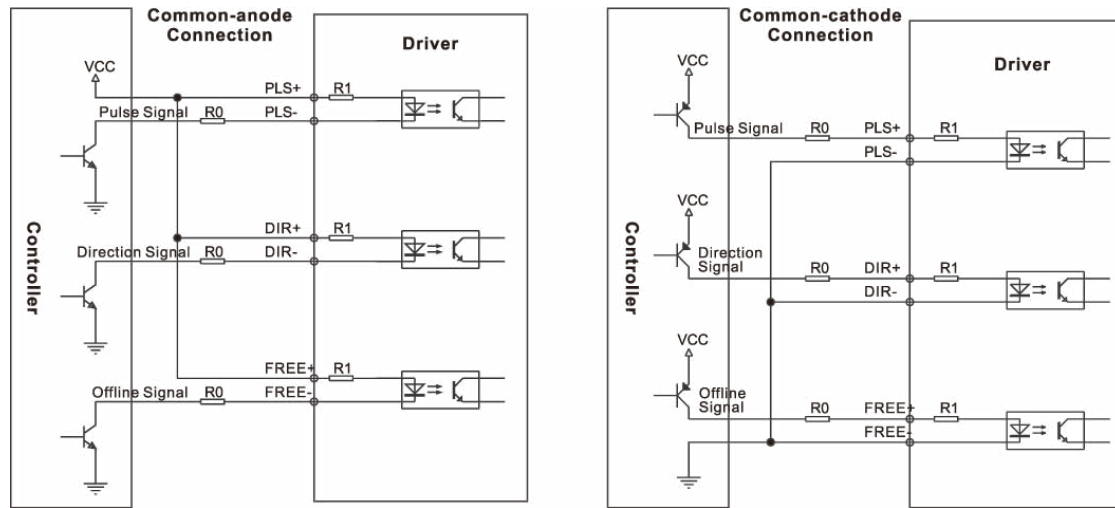
## DESCRIPTION

The 3M458 Series Stepper Driver provides improved dynamic drive performance. This series drive accepts 24~40VDC input, with up to 5.8 Amps per phase, and provides users with a step resolution of up to 10,000 steps per revolution. As an additional feature, this drive provides users with the ability to select an auto reduce current setting which helps reduce power consumption and motor heat, while improving motor lifetime. Also, the isolation inputs help minimize interference from external electrical equipment as well as improving performance..

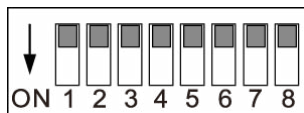
## DIMENSIONS



(Units Are In mm)



Technical Specifications (Environment)	
Cooling Method	Fan Cooling
Operation Environment	Avoid the Environment with Great Amount of Metallic Powder, Oil Mist, or Erosive Gases
Operation Humidity	85%, (Non-Condensing or Water Drops)
Operation Temperature	-10 C to +40 C
Protection	Over-Voltage, Under-Voltage, Over-Current, Overheat
Weight (Net)	0.7Kg
Control Signal Input Current	6 - 16mA
Output Phase Current	3.0 to 5.8A
Supply Voltage	24 to 40V DC



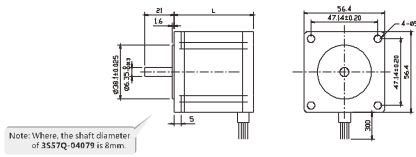
Serial Number	Function of ON	Function of OFF
DIP1-DIP3	Subdivision Setting	Subdivision Setting
DIP4	Full Current of Static Current	Half Current of Static Current
DIP5-DIP8	Output Current Setting	Output Current Setting

The Subdivision Setting Table			
DIP1	DIP2	DIP3	Subdivision
ON	ON	ON	400 Steps/Revolution
ON	ON	OFF	500 Steps/Revolution
ON	OFF	ON	600 Steps/Revolution
ON	OFF	OFF	1000 Steps/Revolution
OFF	ON	ON	2000 Steps/Revolution
OFF	ON	OFF	4000 Steps/Revolution
OFF	OFF	ON	5000 Steps/Revolution
OFF	OFF	OFF	10000 Steps/Revolution
Pulse/Rev	10000	12800	20000

The Output Phase Current Stting Table				
DIP5	DIP6	DIP7	DIP8	Outout Current
OFF	OFF	OFF	OFF	3.0A
OFF	OFF	OFF	ON	4.0A
OFF	OFF	ON	ON	4.5A
OFF	ON	ON	ON	5.2A
ON	ON	ON	ON	5.8A

# Three-phase stepper motor/57 series

## Dimensions (Unit : mm)



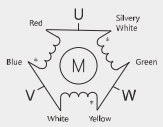
## Specification

Technical Specifications	3S57Q-04079	3S57Q-04056
Step angle	1.2°	1.2°
Phase current (A)	5.8	5.6
Holding torque (Nm)	1.5	0.9
Damping torque (Nm)	0.07	0.04
Winding resistance (Ω)	1.05±10%	0.7±10%
Winding inductance (mH)	2.4±20%	1.7±20%
Motor inertia (kg.cm <sup>2</sup> )	0.48	0.3
Motor length L (mm)	79	56
Shaft diameter (mm)	8	6.35
Number of lead wires	6	
Insulation class	B	
Withstand voltage level	600VAC 1S 5mA	
Max. axial load (N)	15	
Max. radial load (N)	75	
Operating temperature	-20°C ~ +50°C	
Surface temperature rise	Max.80°C (Working with rated phase current)	
Insulation impedance	Minimum 100MΩ, 500V DC	
Weight (kg)	1	0.72
Startup freq. with no load(Hz)*	2.1K	2.4K

Note: The startup freq. is tested under condition of 2000 steps/round, only for reference.

## Motor cable

Three-phase 6-wire motor



## Torque-frequency curve

