10. Troubleshooting

· If any abnormality is found in the gearmotor, refer to Table 14 below and take appropriate measures as soon as possible. If the abnormality cannot be eliminated, contact our nearest agent, dealer or sales office.

Table 14 Troubleshooting

Type of Trouble			Cause	Remedy
The motor does not run in the unloaded condition.			Power failure	Contact the power supply company.
			Defective electric circuit	Check the defective portion of electric circuit.
			Fusing	Replace the fuse.
			Safety device at work	Eliminate a cause of incorrect safety device actuation.
			Locking of the load	Check and investigate the load and the safety device.
			Poor contact of swich	Adjust the contact.
			Disconnection of motor stator wiring	Repair at a specialized workshop.
			Broken bearing	Repair at a specialized workshop.
			Defective cover switch (0.1–0.75kW single-phase motor)	Repair at specialized workshop.
			Broken capacitor(single-phase motor)	Replacement of capacitor at specialized workshop.
			Three-phase motor acting as single-phase motor (3-phase motor)	Check the power sorce using a voltmeter. Repair or replace the motor, transformer coils, contactors and fuses.
			Brake :Rust on friction surface	Cleaning of brake (lining) at special workshop
			Brake :Poor gap adjustment	Fine adjustment of brake gap. (P. 39–41)
The motor works but the output shaft does not work.			Defective gear drives due to overloading etc.	Repair at specialized workshop.
The output shaft rotates without loading, but	When loaded	Switch is overheated.	Insufficient switch capacity	Replace the switch with one having the specified capacity.
			Overloading	Reduce the load to the specified level.
		Fuse is cut.	Insufficient fuse capacity	Replace the fuse with one having a specified capacity.
			Overloading	Reduce the load to the specified level.
			Defective governor switch (0.1—0.75kW single-phase motor)	Repair at specialized workshop.
		Rotating speed does not increase and overheated.	Voltage drop	Consult with the power supply company.
			Overloading	Reduce the load to the specified level.
			Drop in capacitance (single-phase motor)	Replace capacitor at specialized workshop
			Short circuit of motor stator winding	Repair the stator at a specialized workshop.
		Motor stops.	The key is not set on the shaft	Set the key.
			Burned bearing	Repair at a specialized workshop.
			Defective adjustment of the safety device	Adjust the safety device.
	The motor rotates reversely.		Wrong connection	Connect correctly.
	Disconnected fuse.		Short-circuit of the lead wire	Replace the fuse.
			Poor connection of the motor with the starter	Connect firmly.
Excessive rise in temperature			Overloading	Reduce the load to a specified level.
			Increased or decreased voltage	Consult with the power supply company.
			Defective governor switch (in 0.1–0.75kW single-phase motor)	Repair at a specialized workshop.
			Deteriorated condenser capacity (single-phase motor)	Replace the condenser.
			Ambient temperature is too high.	Improve the ventilation method.
			Failure due to overloading to shaft and gear	Repair at a specialized workshop.

Table 14 Troubleshooting

Type of Trouble		Cause	Remedy
Grease leakage	Grease leakage from the output section	Damaged oil seal.	Replace the oil seal.
	Grease leakage from the casing seam	Slacked bolts.	Tighten the bolts.
Abnormal noise or excessive vibration		Damaged gear.	Repair at a specialized workshop.
		Distortion of the housing due to rough bed surface.	Flatten the bed surface or adjust the bed with the liner.
		Resonance resulting from insufficient rigidity of the bed.	Improve rigidity of the bed by reinforcement.
		Misalignment of connecting shafts.	Realign or use flexible coupling.
		Vibration transferred from the connected machine.	Detect vibration sources by running the gearmotor independently.
Abnormal noise in the motor		Foreign substances inside the motor.	Eliminate the foreign substances.
		Damaged bearing.	Repair at a specialized workshop.
		Improper brake gap adjustment.	Adjust the brake gap. (Refer to page 39–41)
		Worn brake lining.	Replace the brake lining. (Refer to page 41)
		Burned magnetic coil in the brake assembly.	Replace the magnetic coil.
		Failure of the rectifier	Replace the rectifier.
		Disengagement or failure of leaf spring in the brake boss.	Replace the leaf spring.
		Defective governor switch (0.1-0.75kW single-phase motor)	Repair at a specialized workshop.
Ineffective braking function	Brake does not work.	Releasing bolt not returned to the original position.	Return the bolt to the original position and readjust the gap.
	The brake slips. Braking response is slow.	A fast braking circuit is not working.	Shift to the fast braking action (Refer to page 25–30)
		Foreign substances or oil are adhered to the brake lining.	Remove foreign substances and clean the lining surface with a dry cloth.
		Worn brake lining.	Adjust the brake gap. Replace the brake lining.
		Uneven brake gap.	Adjust the brake gap.
		Overloading.	Reduce the load or apply a larger brake frame.
		Insufficient recovery of the releasing bolt.	Reset the releasing bolt to the original position and readjust the gap.
Inverter tripping	Shut-off due to overcurrent	Sudden acceleration / deceleration	Make the acceleration / deceleration time longer.
		Sudden change in load	Decrease the load.
	Grounding overcurrent	Grounding on the output side	Make correction to eliminate grounding
	DC overcurrent	Short - circuiting on the output side	Make correction to eliminate short -circuiting. Check cables.
	Shut-off due to regenerative overvoltage	Sudden deceleration	Make the deceleration time longer. Reduce the braking frequency.
	Thermal relay operation	Overloading	Decrease the load to the specified value.