

**NEW  
CE  
APPROVED**

# Panasonic G-series AC geared motors

## Fitting and operating instructions

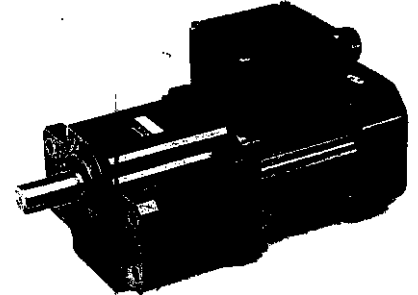
Publication  
No.

**391**

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June 2002

**Panasonic** AC geared motors comprise a totally enclosed standard motor with grease lubricated bearings and a grease-filled gearbox, neither of which will require any maintenance during the running of the unit under normal operating conditions. On installation, the mounting of the motor must allow a free flow of cooling air over the surface of the motor. This condition must be maintained under all circumstances. The method of mounting should also limit the radial force applied to the gearbox output shaft.



### Fitting instructions

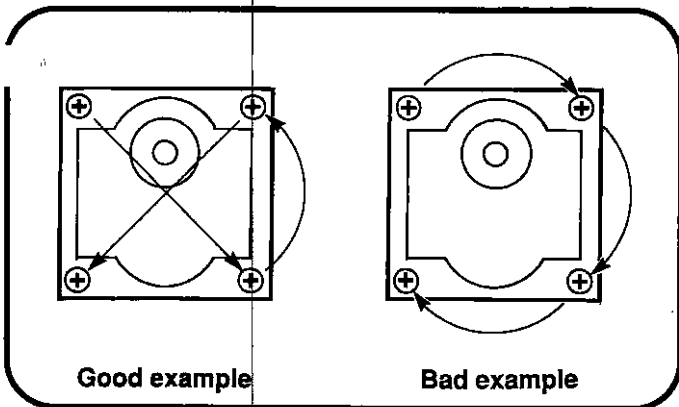
For models 40W and below, it is recommended that the output shaft bearing housing should be used as a locating spigot for mounting the unit. Firstly, remove the four fixing nuts, taking care that the motor and gearbox do not separate. The four fixing bolts should be used to secure the unit to the machine.

Alternatively, foot mounts can be supplied to ease mounting. Refer to our Stockline catalogue or contact the Bedford office for further details.

For models 60W and above, it is recommended that the shaft spigot is used for location, with the four mounting clearance holes on the gearbox used for securing the unit to the machine.

When tightening the fixing bolts ensure the following procedure is followed.

### Tightening of bolts

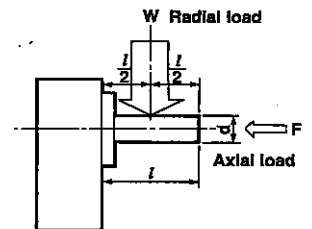


In the event of the unit being separated, this may invalidate the warranty.

It is recommended that a new O-ring is then fitted to ensure proper sealing

### Radial and axial loads

Radial load shows how much bending load may be applied to the output shaft of the gearbox at 1/2 length position. This applies to the application when the motor and machine are connected with a chain or belt but does not apply when a soft flexible coupling is used. Since excessive radial and axial loads affect the life of the geared motor, please do not exceed the maximum stated loads.



Type	Permissible radial load (N)	Permissible axial load (N)
60 mm <sup>2</sup> 6W	98	29
70 mm <sup>2</sup> 15W	196	39
80 mm <sup>2</sup> 25W	294	49
90 mm <sup>2</sup> 40W	392	98
90 mm <sup>2</sup> 60-90W	588	147
90 mm <sup>2</sup> HT	784	147

### Spare 'O' rings

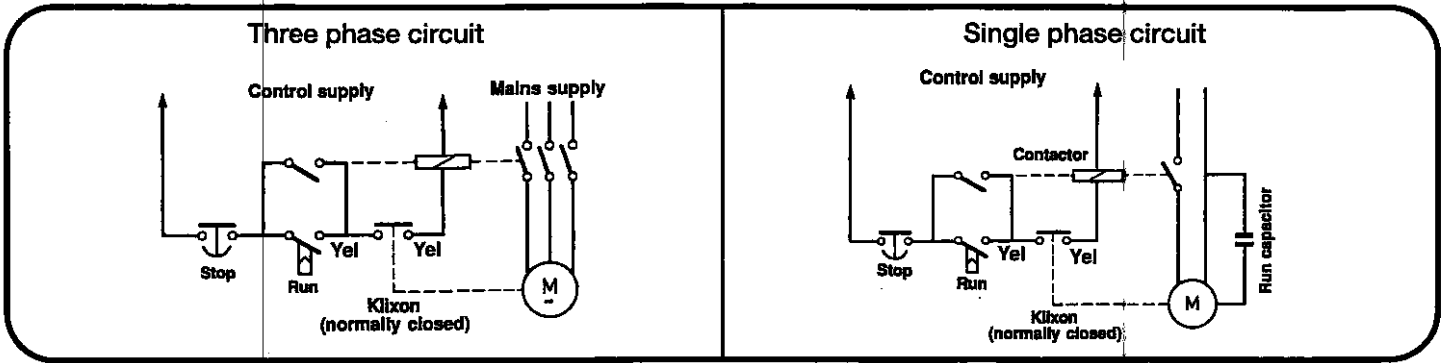
Motor size	Stock no.
60 mm <sup>2</sup>	P9-110 750
70 mm <sup>2</sup>	P9-110 769
80 mm <sup>2</sup>	P9-110 986
90 mm <sup>2</sup>	P9-112 617

## IMPORTANT

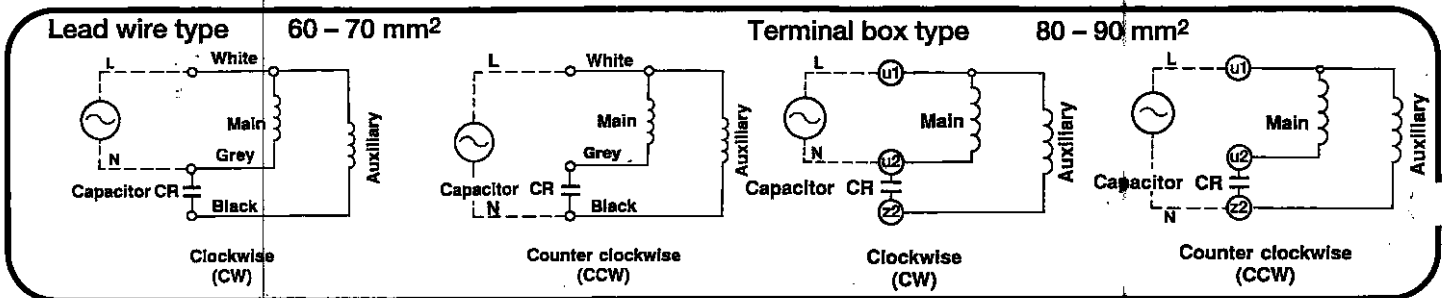
When face mounting the geared motor to an assembly, **DO NOT** remove or twist the gearhead from or on the motor. This will cause the O-ring to deform resulting in grease leakage when reassembled.

60 mm<sup>2</sup> motors are impedance protected.

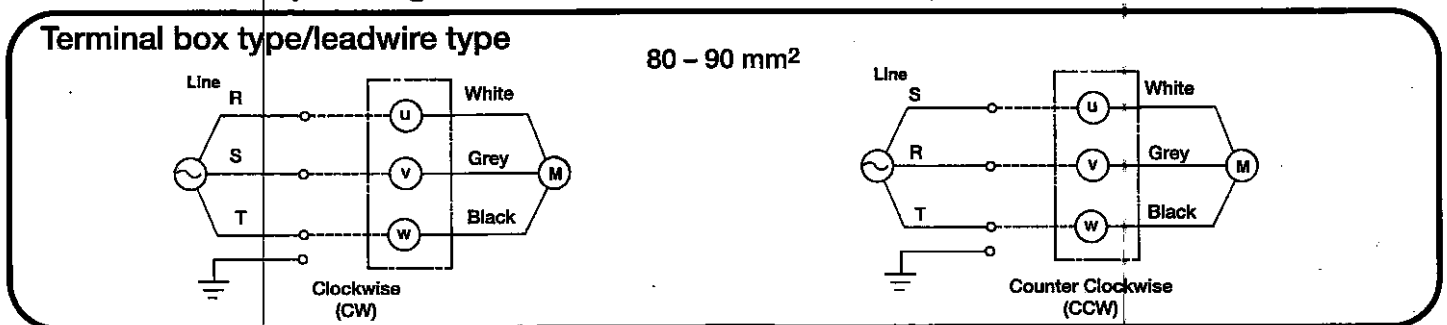
**IMPORTANT:** For 70/80/90mm motors the thermal switch is no longer in series with motor windings. Please ensure that thermal switch is wired as in our recommendations (see diagram below).



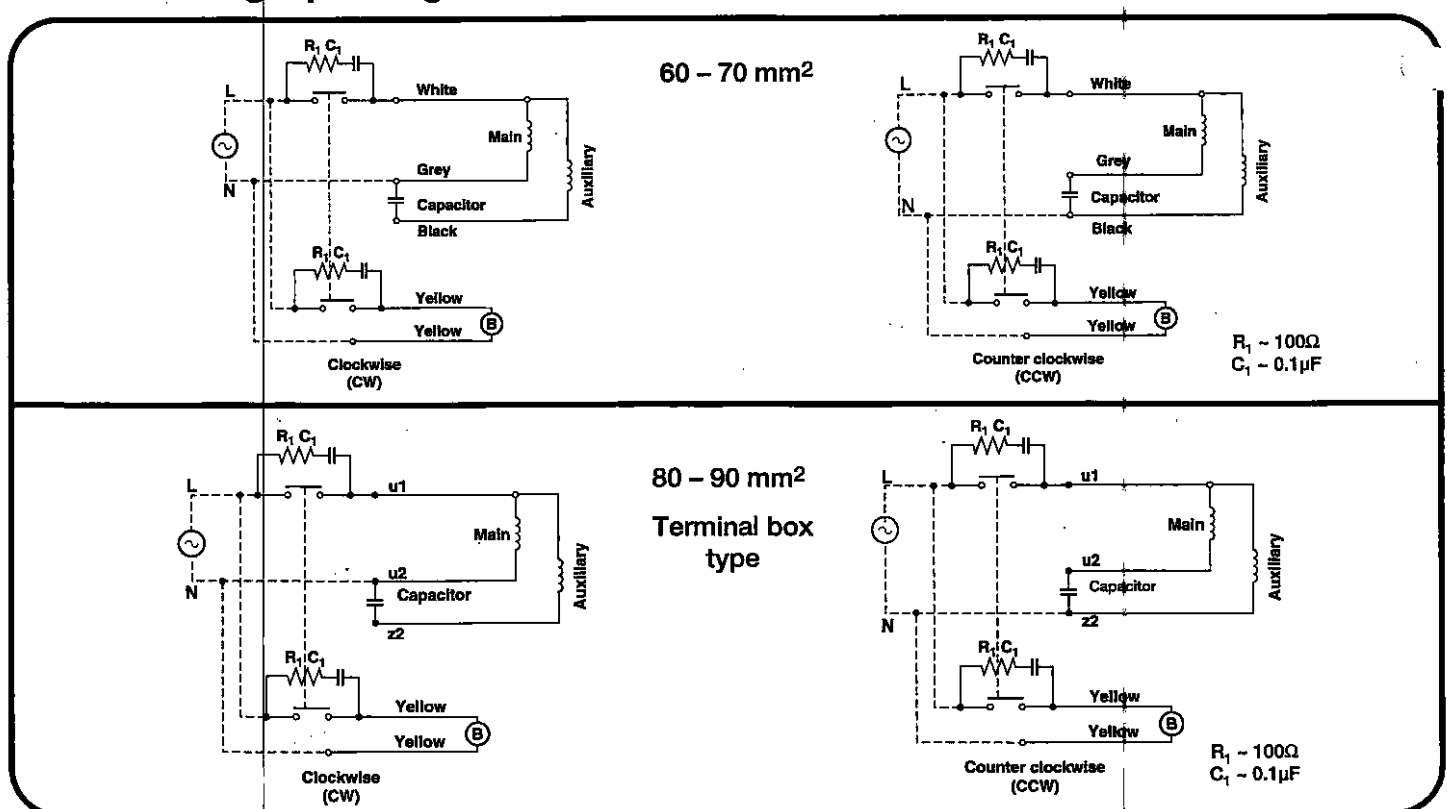
**Panasonic single phase geared motors 230V/1 ph/50Hz or 110V/1 ph/50-60Hz**



**Panasonic three phase geared motors 230V or 400V/3ph/50-60Hz**

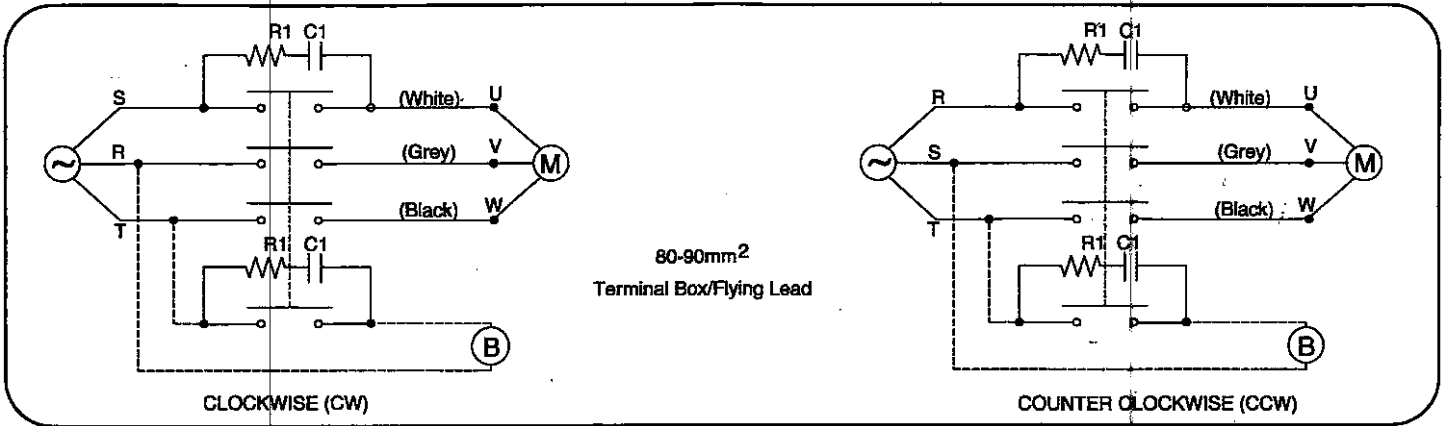


**Panasonic single phase geared brake motors 230/1/50 or 115/1/50-60 Hz**

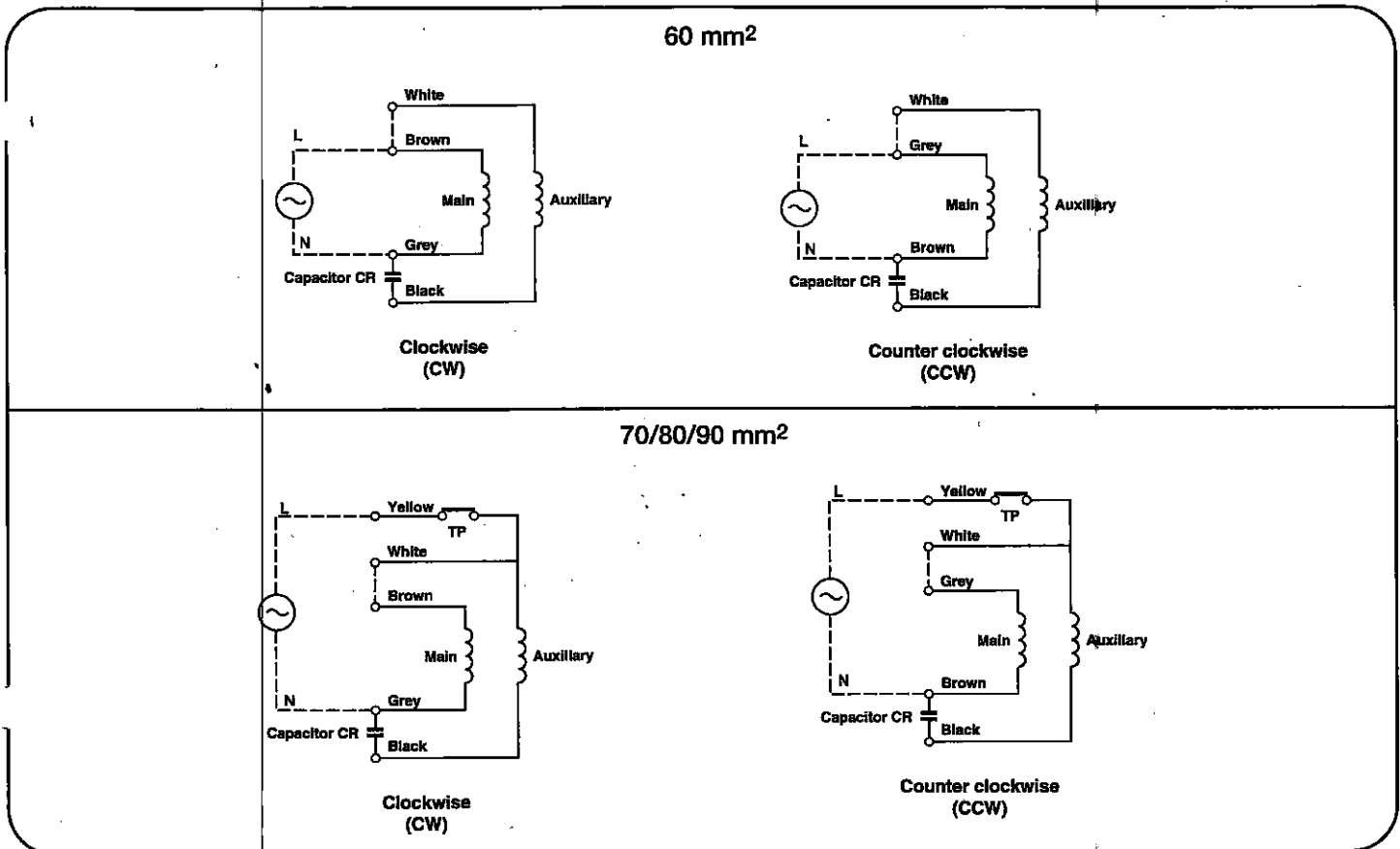


# Panasonic G-series AC geared motors

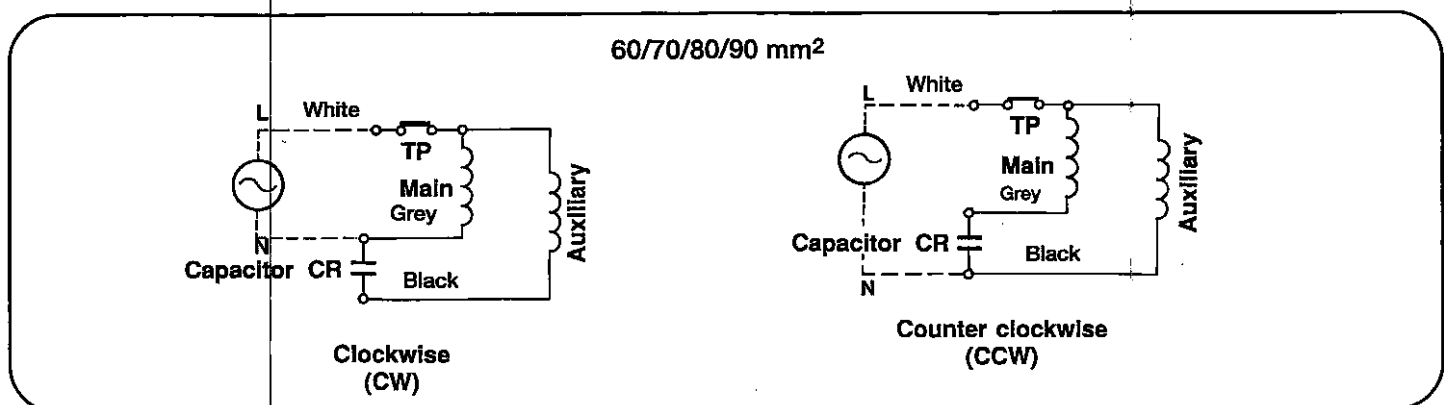
## Panasonic three phase 230V/400V geared brake motors



## Panasonic single phase geared motors 115-120V/1ph/50-60Hz standard induction



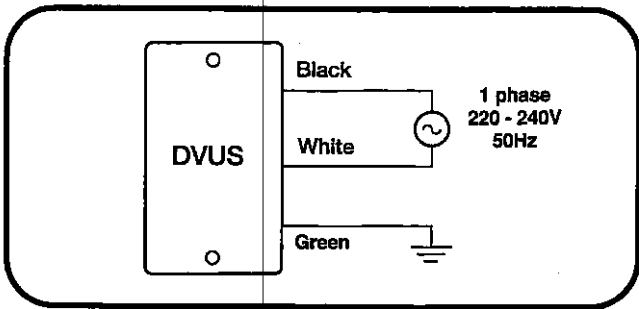
## Panasonic single phase geared motors 115-120V/1ph/50-60Hz – Quick reversible



### IMPORTANT

NOTE: Check rotation before installing. Direction may vary with gearbox ratio.

## Wiring diagram for DVUS controllers



## IMPORTANT

### Thermal protection

For protection against damage by overheating as a result of overloading, some motors may be fitted with a thermal switch (a Klixon). The extra wires in the terminal box should be connected into the motor start/stop circuit to eliminate any motor damage when overheating occurs.

Extension cables are required for these controllers. One end plugs straight into controller. The other is terminated as specified in instructions. Wiring for the mains supply cabling is shown opposite. For further details contact our Bedford office.

## EC Conformity

The **Panasonic G-series** product range complies with the required EC directives.

The standards for compliance, which are considered appropriate for electric motors and controllers are detailed in the manufacturers declaration below. Further copies are available on request.

## National/Panasonic

### EC CONFORMITY DECLARATION

01DEC.98

#### Manufacturer:

MATSUSHITA ELECTRIC INDUSTRIAL Co., LTD.  
INDUSTRIAL MOTOR DIVISION  
7-1-1 MOROFUKU, DAITO -SHI, OSAKA 574, JAPAN

#### Approval office:

TUV RHEINLAND Product Safety GmbH

We confirm the compliance to the following standards scheduled and in force the product groups mentioned below.

Matsushita Electric Industrial manufacture components for industrial power transmission. The electronic drives and motors listed are called "devices" in terms of industrial language, but they are not ready to use devices or machines in the sense of the "safety regulations for devices", the EMC regulations or the "EC machine directives". The final function is only determined when integrated into the control system of the final user.

The compliance of the user system to the legal regulations applicable remains the responsibility of the user. The technical descriptions of the Matsushita Electric Industrial products give advice and recommendations for the use of electronic equipment under consideration of the standards listed below.

#### Product groups :

- Panasonic G series geared motors
- Panasonic G series speed controllers

#### Applicable Directives and standards applied :

Low Voltage Directive (73/23/EEC amended and supplemented by 93/68/EEC)

#### Motors:

- EN60034-1/02.96
- EN60950/08.99 : Annex B
- EN60204-1/10.92 : Clause 16
- IEC684-1/10.92
- IEC34-5 : 1991
- IEC34-8:1972

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

**DIVISION**  
INDUSTRIAL MOTOR DIVISION  
APPLIANCE AND AUTOMOTIVE MOTOR DIVISION  
ELECTRONICS EQUIPMENT MOTOR DIVISION

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## National/Panasonic

#### Controllers:

- DIN VDE 0180 / A1 / 04.89
- DIN VDE 0180 / 05.88
- DIN VDE 0110 PART1 JANUARY 1989

These products should be installed by qualified personnel in accordance with our fitting and operating instructions. The machine into which they are incorporated should not be put into service until it has been declared to be in conformity with the applicable Directive(s).

Matsushita Electric Industrial will continue to consider all relevant standards and legal regulations for the design and manufacture of its products. Concerning EC guidelines, it is the intention that Matsushita Electric Industrial will comply with the EC directives as and when each becomes effective. Also original technical construction files are kept in Matsushita Electric Industrial Osaka Japan.

*H. Tamae*  
**HIROAKI TAMAE**  
General Manager of Engineer Department  
Industrial Motor Division

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

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INDUSTRIAL MOTOR DIVISION  
APPLIANCE AND AUTOMOTIVE MOTOR DIVISION  
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