

International Standard Motors

UL Standard Gearmotors

What are UL Standards?

Underwriters Laboratories Inc. (UL) is an independent, not-for-profit product safety testing and certification organization founded in 1894 by the association of American fire insurance with the aim to protect human lives and properties from fire, disasters and accidents. UL performs testing and certification for all kinds of products, parts, and materials. Most of the American states are employing the UL standards as the safety standards.

About CSA Standards

In Canada, all products must conform to CSA standards by law. UL is authorized as a certification organization for CSA standards. When a product is certified as CSA conformable, it can also be allowed to display cUL mark and used domestically.

Relevant Standards

Phase No.	UL Standards
1ph	UL1004 (Electric Motors) UL2111 (Overheating Protection for Motors)
3ph	UL1004 (Electric Motors)

Relevant Standards

Phase No.	CSA Standards
1ph	C22.2 No.100 (Motors and Generators) C22.2 No.77 (Motors with Inherent Overheating Protection)
3ph	C22.2 No.100 (Motors and Generators)

Both NISSEI's single-phase and three-phase gearmotors bear the UL and cUL Marks.

UL Certified Gearmotors

*Three-phase gearmotors are tested and evaluated only under UL1004 (Electric Motors), but not under UL2111 (Overheating Protection for Motors).

Phase No.	Motor Capacity	Voltage[V], Frequency [Hz]	Model and Series
1ph	15W~90W	100/100V, 50/60Hz 115V, 60Hz 120V, 60Hz 200/200V, 50/60Hz 220V, 60Hz 230V, 60Hz 240V, 60Hz	Hollow Shaft GTR-U Mini F2 Series Right Angle Shaft GTR-U Mini Series Parallel Shaft GTR-U Mini Series
3ph	15W~90W	200/200/220V, 50/60/60Hz 208/230V, 60Hz 220V, 50Hz 240V, 60Hz 380/400/400/440V, 50/50/60/60Hz 380V, 60Hz 460V, 60Hz 480V, 60Hz	
3ph	0.1kW~2.2kW	200/200/220V, 50/60/60Hz 208V/230V, 60Hz 220/230/240/240V, 50/50/50/60Hz 380/400/400/440V, 50/50/60/60Hz 380V, 60Hz 415/460V, 50/60Hz 420/440/480V, 50/50/60Hz 575V, 60Hz	Hollow Shaft / Solid Shaft GTR-U F Series / F2 Series Right Angle Shaft GTR-U H2 Series Parallel Shaft GTR-U G3 Series

Note:

- The models with motors or brake-motors are available.
- The following models are not UL-certified.
1ph: 15W, 240V/50Hz, 240V/60Hz, 3ph: 15W, 480V/60Hz 3ph: 25W, 480V/60Hz
- As for the three-phase / 0.1 - 2.2kW, dual voltage motors are also available.
- Consult us for the other voltage spec motors.

UL File Number

Single-phase: E141674
Three-phase: E172621

For more details, consult us.

■ Differences from the Japanese-standard Models

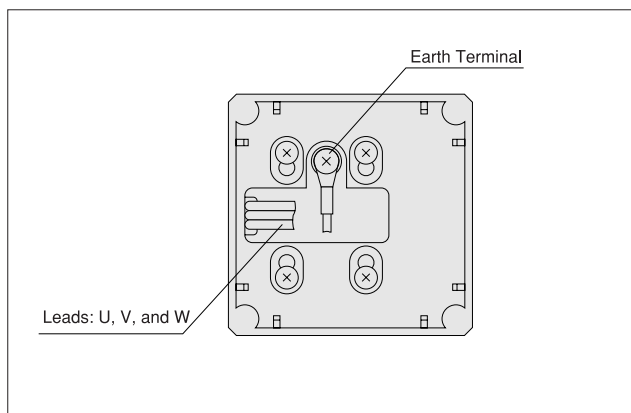
The UL-certified gearmotors are different from the Japanese-standard models; therefore any manufacturing, modifying and repairing of motors outside our factories are not permitted.

When no request is given on wiring for power supply, flying leads will be employed for the motors: 1ph/15-90W, 3ph/15-90W and 3ph/0.1-0.4kW .

If the optional terminal box is required, the wiring will be arranged as below:

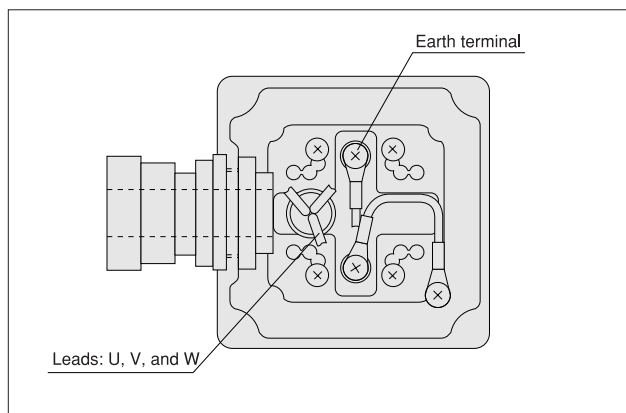
● C-type Terminal Box

Three-phase / Single-phase 15W-90W (Models with motors / with brake-motors)



● A-type Terminal Box

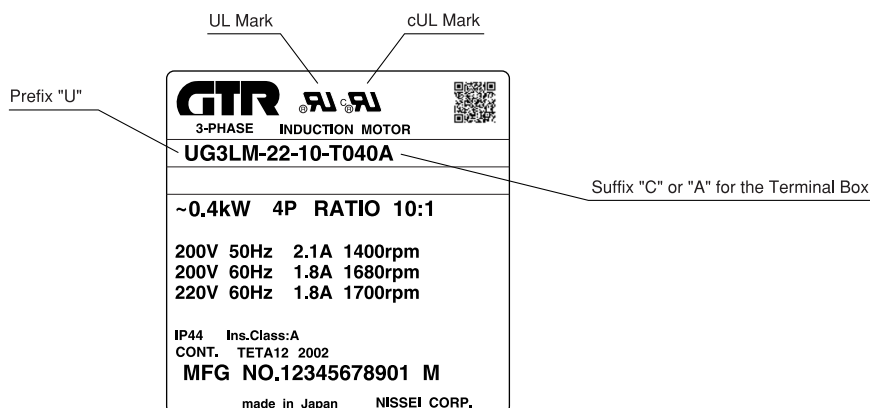
Three-phase 0.1kW-0.4kW, (Models with motors / with brake-motors)



Note:

The three-phase 0.75kW-2.2kW motors are normally provided with terminal boxes as Japanese-standard models.

● Nameplate



● Frame No. (Shaft Diameter or Bore)

Mini F2 Series F2S Type (Hollow Shaft) #12 of 40W/60W will be replaced with #15.

Mini Series H type (Right Angle Shaft) #15 of 40W/60W will be replaced with #18.

G type (Parallel Shaft) #12 of 40W/60W will be replaced with #15.

The frame numbers of some models differ from that of Japanese-standard models at the reduction ratio over 1/300. For details, consult us. As for international standard motors, including UL standard, CE marking and TÜV certified gearmotors, some of them are not available. Please consult us for details.

International Standard Motors

CE Marking Gearmotors

What is CE Marking?

CE Marking is a conformity marking and obligatory for the products imported to the European market. (CE: “Conformité Européenne”, French for “European Conformity”) According to the European CE Directives, the manufacturer or importer of a product must be able to prove conformity with the relevant European requirements. For most products, this means that compliance testing according to European harmonized standards (EN: European Norm) is required.

●CE Marking

NISSEI affixes the CE marking on the gearmotors, which conform to EC directives (Low Voltage Directive).

■Relevant Directives/Standards

EC Directives	73/23/EEC Low Voltage Directive
EN Standards	EN60034-1 Rotating Electrical Machines / Rating and Performance

■CE Marking Gearmotors

Phase No.	Motor Capacity	Voltage[V], Frequency [Hz]	Model and Series
1ph	15W~90W	100/100V, 50/60Hz 110V, 50Hz 115V, 50Hz 120V, 50Hz 200/200V, 50/60Hz 220V, 50Hz 230V, 50Hz 240V, 50Hz	Hollow Shaft Mini F2 Series Right Angle Shaft Mini Series Parallel Shaft Mini Series
		200/200/220V, 50/60/60Hz 220V, 50Hz 230V, 50Hz 240V, 50Hz	
3ph	0.1kW~2.2kW	200/200/220V, 50/60/60Hz 220V, 50Hz 230V, 50Hz 240V, 50Hz 380V, 50Hz 400/400/440V, 50/60/60Hz 415V, 50Hz 420V, 50Hz 440V, 50Hz	Hollow Shaft, Solid Shaft F Series, F2 Series Right Angle Shaft H2 Series Parallel Shaft G3 Series

For more details, consult us.

Note:

1. The models with motors or brake-motors are available.
2. Consult us for the other voltage spec motors.

■ Differences from the Japanese-standard Models

● Nameplate



● Frame No. (Shaft Diameter or Bore)

Mini F2 Series F2S type (Hollow Shaft) 12 of 40W and 60W will be 15.

Mini Series H type (Right Angle Shaft) 15 of 40W and 60W will be 18.

G type (Parallel Shaft) 12 of 40W and 60W will be 15.

As for international standard motors, including UL standard, CE marking and TÜV certified gearmotors, some of them are not available. Please consult us for details.

International Standard Motors

TÜV Certified Gearmotors

About TÜV certification

CE Marking is a conformity marking and obligatory for the products imported to the European market. (CE: "Conformité Européenne", French for "European Conformity") According to the European CE Directives, the manufacturer or importer of a product must be able to prove conformity with the relevant European requirements. For most products, this means that compliance testing according to European harmonized standards (EN: European Norm) is required.

NISSEI gearmotors were certified as conformable to the EN/IEC standards from the German certification organization: TÜV Product Service; therefore we can help our customers to acquire CE Marking.

Relevant Standards

Phase No.	EN/IEC Standards
1ph	EN60034-1 (Rotating Electrical Machines / Rating and Performance) IEC34-5 (Degrees of protection provided by the integral design of rotating electrical machines) IEC34-11 (Built-in thermal protection)
3ph	EN60034-1 (Rotating Electrical Machines / Rating and Performance) IEC34-5 (Degrees of protection provided by the integral design of rotating electrical machines)

TÜV Certified Gearmotors

Phase No.	Motor Capacity	Voltage[V], Frequency [Hz]	Model and Series
1ph	15W~90W	100/100V, 50/60Hz 110V, 50Hz 115V, 50Hz 120V, 50Hz 200/200V, 50/60Hz 220V, 50Hz 230V, 50Hz 240V, 50Hz	Hollow Shaft GTR-E Mini F2 Series Right Angle Shaft GTR-E Mini Series Parallel Shaft GTR-E Mini Series
3ph	15W~90W	200/200/220V, 50/60/60Hz 220V, 50Hz 230V, 50Hz 240V, 50Hz	
3ph	0.1kW~2.2kW	200/200/220V, 50/60/60Hz 220V, 50Hz 230V, 50Hz 240V, 50Hz 380V, 50Hz 400/400/440V, 50/60/60Hz 415V, 50Hz 420V, 50Hz 440V, 50Hz	Hollow Shaft, Solid Shaft GTR-E F Series, F2 Series Right Angle Shaft GTR-E H2 Series Parallel Shaft GTR-E G3 Series

Note:

- The models with motors or brake-motors are available.
- When using the brake gearmotors with following voltage specs, the customer should prepare the power supply of 100V/200V for the brake.
1ph/115V/50Hz, 1ph/230V/50Hz, 1ph/240V/50Hz,
3ph/230V/50Hz, 3ph/240V/50Hz
Regarding the brake gearmotors with 400V or over that spec, the customer should prepare the power supply for the brake because the 200V leads for the brake supply are not provided.
- Consult us for the other voltage spec motors.

TÜV License No.

GTR-E No.: B 00 10 25470 001

For more details, consult us.

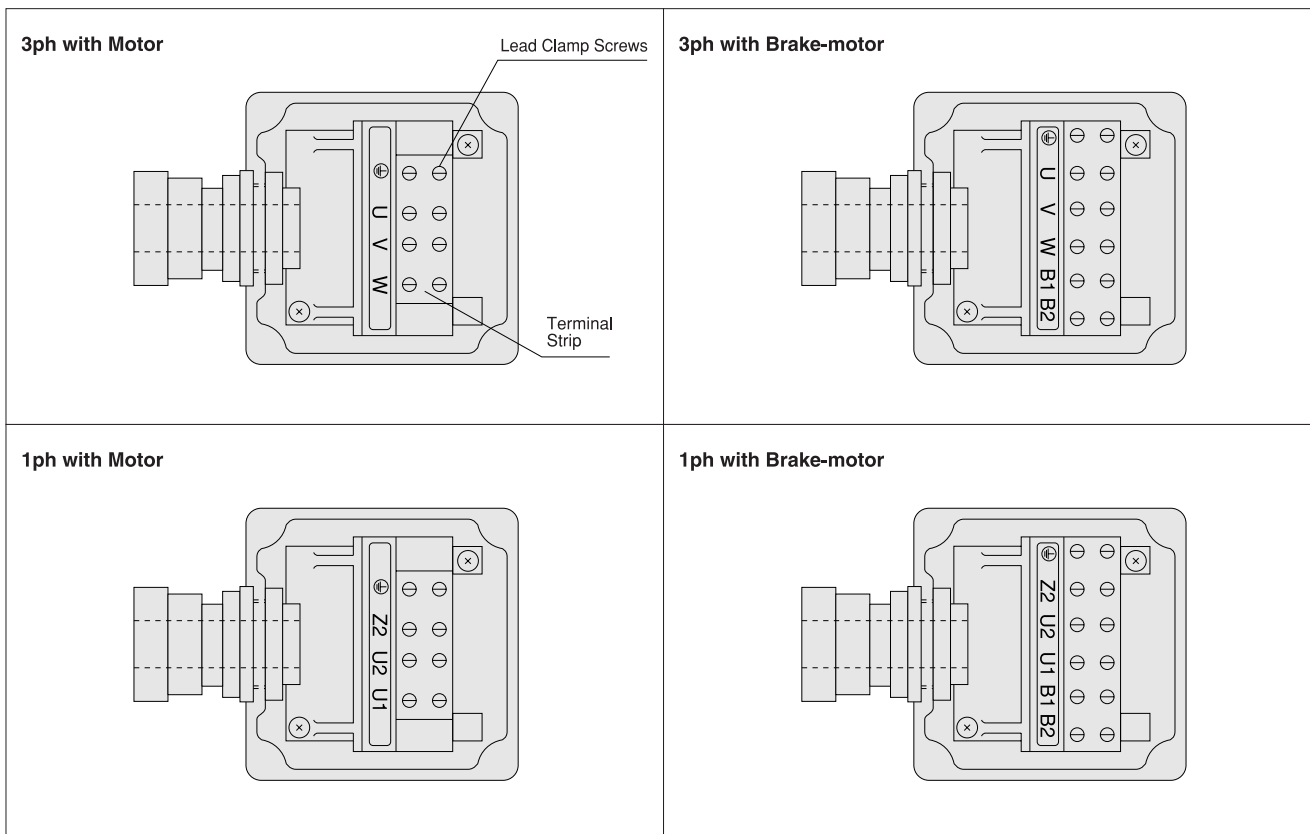
■ Differences from the Japanese-standard Models

The TÜV certified gearmotors are different from the Japanese-standard models; therefore any manufacturing, modifying and re-paring of motors outside our factories are not permitted.

● Terminal Boxes

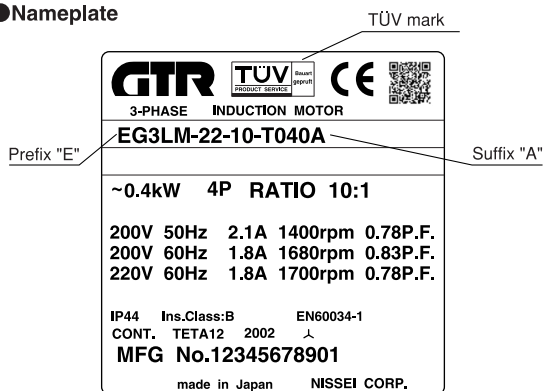
3ph or 1ph/15W-90W, 3ph/0.1kW-0.4kW

A-type Terminal Boxes



Note:
The three-phase 0.75kW-2.2kW motors are normally provided with terminal boxes as Japanese-standard models.

● Nameplate



● Frame No. (Shaft Diameter or Bore)

Mini F2 Series F2S type (Hollow Shaft) 12 of 40W and 60W will be 15.
 Mini Series H type (Right Angle Shaft) 15 of 40W and 60W will be 18.
 G type (Parallel Shaft) 12 of 40W and 60W will be 15.

The frame numbers of some models differ from that of Japanese-standard models at the reduction ratio over 1/300. For details, consult us. As for international standard motors, including UL standard, CE marking and TÜV certified gearmotors, some of them are not available. Please consult us for details.