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July 1, 2015

Motor Business Unit, Smart Factory Solutions Business Division, Automotive & Industrial Systems Company, Panasonic Corporation

Shin-G Series Compact AC Geared Motors Notice on Dealing with Chinese Energy Efficiency Standards and Additional Release of Compliant Types

Thank you for your continued cooperation and support over the summer period.

GB 25958-2010, the "Minimum allowable values of energy efficiency and energy efficiency grades for low-power motors," was enacted on July 1, 2011 as energy efficiency standards in China, and covers stand-alone motors and motors incorporated into devices manufactured and sold in China.

The energy efficiency grade of this standard will be lifted from Grade 3 to Grade 2 as of July 1, 2015. Accordingly, motors to be exported to China, including those incorporated into devices, must meet Grade 2 or higher of these standards.

This notice covers our progress to meet this standard, and the additional release of models compliant with Grade 2 for products not currently meeting this level.

We hope for your greater support and cooperation as we seek to expand sales of our products.

■ Scope of GB25958-2010

Panasonic's Shin-G Series Compact AC Geared Motors are for motors of 10 Watts or higher. As a result of confirmation through studies by Panasonic, we have judged that short-time rated motors are excluded.

Accordingly, reversible type and single-phase electromagnetic brake types are not applicable.

Note: This is through confirmation through studies by Panasonic, and is not clearly stated in the GB25958-2010 standards.

O Applicable models

The status of compliance with the GB25958-2010 energy efficiency standards Grade 2 of our Shin-G Series Compact Geared Motors is shown in Chart 1 (pp.2-3).

Panasonic is seeking to comply with the efficiency standards for single phase 220 V / 50 Hz and three phase 380 V / 50 Hz specifications source voltage and frequency to be used in China, for CCC certified products that are considered to be in use in China.

Chart 1 contains compliant products and those that cannot be made compliant. Current products that cannot be made compliant will have different attributes for models to be additionally released (with model suffixes of GGC). Please pay attention to this point (refer to p.4).

O Label contents

No label system has been released as of yet for this standard. Accordingly, no efficiency label is placed on the product or any statement given on the nameplate about the energy grade.



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Chart 1: List of models compliant to the Chinese efficiency standards

Types of Motors	Model No.	Grade 2 compliance	Part No. compliant to Grade 2 to be newly released	Comments		
Induction	M71X15S4GG	0	_			
	M81X25G4GG	0	_			
	M81X25S4GG	0	_			
	M91X40G4GG	0	_			
	M91X40S4GG	0	_			
	M91Z60G4GG	Х	M91Z60G4GGC	*		
	M91Z60S4GG	Х	M91Z60S4GGC	*		
	M91Z90G4GGC	0	_			
	M91Z90S4GGC	0	_			
	M81X25GK4GG	0	_			
	M81X25SK4GG	0	_			
	M91X40GK4GG	0	_			
	M91X40SK4GG	0	_			
	M91Z60GK4GG	Х	M91Z60GK4GGC	*		
	M91Z60SK4GG	Х	M91Z60SK4GGC	*		
	M91Z90GK4GGC	0	_			
	M91Z90SK4GGC	0	_			
Three phase	M8MX25GK4CG	0	_			
	M8MX25SK4CG	0	_			
	M9MX40GK4CG	0	_			
	M9MX40SK4CG	0	_			
	M9MZ60GK4CG	0	_			
	M9MZ60SK4CG	0	_			
	M9MZ90GK4CG	0	_			
	M9MZ90SK4CG	0	_			
Variable speed	M71X15GV4GG	0	_			
	M71X15SV4GG	0	_			
	M81X25GV4GG	0	_			
	M81X25SV4GG	0	_			
	M91X40GV4GG	0	_			
	M91X40SV4GG	0	_			
	M91Z60GV4GGC	0	_			



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Chart 1 cont.

Types of Motors	Model No.	Grade 2 compliance	Part No. compliant to Grade 2 to be newly released	Comments
Variable speed	M91Z60SV4GGC	0	_	
	M91Z90GV4GGC	0	_	
	M91Z90SV4GGC	0	_	
2-pole round	M81X40S2GG	0	_	
shaft	M81X60S2GG	X	No alternative model	*
	M91X60S2GG	0	_	
	M91Z90S2GG	0	_	
	M91ZA5S2GG	0	_	

<Regarding Products Unable to Comply with Grade 2> (those with an "X" in the "Grade 2 compliance" section in Chart 1)

OApplicable models

4 models: M91Z60G4GG, M91Z60S4GG, M91Z60GK4GG, M91Z60SK4GG
 Compliance with Grade 2 of the Chinese energy efficiency standards will be required for motor production lots from July 2015.

Products unable to comply with Grade 2 can be used for export to China for production lots up to June 2015.

The method of checking the motor production month is given on page 6.

2) M81X60S2GG

There is no alternative model (marked with an asterisk in the comment section of Chart 1). This model cannot be exported to China from July onward. Please make a note of this fact.

- <Additionally Released Models Compliant to Grade 2> (marked with a star in the comments section of Chart 1)
- ■Order received date: treated as ordered product from July 1, 2015.
- ■Model No. and price: refer to page 2 for the model No. (marked with a star). For the price, inquire to our sales staff.
- ■Attributes and external dimensions: stated only for additionally sold models.
- Attributes and external dimensions: see page 4.
- Capacitor specifications: see page 5.

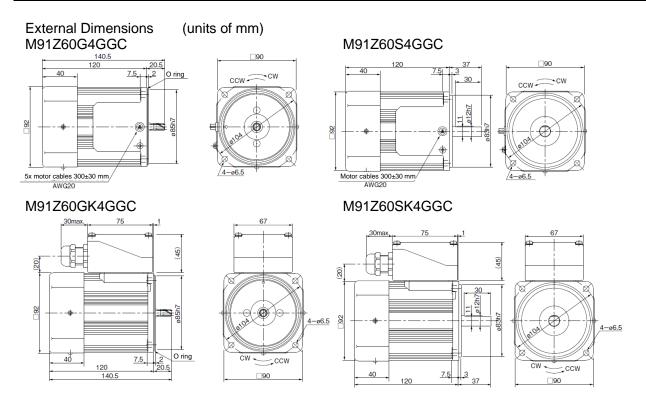


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Chinese efficiency standard specifications

(comparison of previous products and products marked with a star in the comments section of Chart 1) Only 220 V / 50 Hz is applicable in the efficiency standards

		Previous	products		Grade 2 compliant products (marked with a star)				
Model name		M91Z6 M91Z60	0G4GG 0S4GG 0GK4GG 0SK4GG		M91Z60G4GGC M91Z60S4GGC M91Z60GK4GGC M91Z60SK4GGC				
Number of poles			P		W912603K4GGC 4P				
Output (W)		6	0		60				
Capacitor capacitance (µF)	4.5 (450 V)				4.5 (450 V)				
Voltage (V)	22	20	23	30	22	20	230		
Frequency (Hz)	50	60	50	60	50	60	50	60	
Rated input (W)	121	120	129	126	106	123	112	128	
Rated current (A)	0.58	0.55	0.61	0.55	0.48	0.59	0.49	0.59	
Rated revolving speed (r/min)	1275	1600	1300	1625	1350	1650	1375	1675	
Rated torque (Nm)	0.45	0.36	0.44	0.35	0.42	0.34	0.42	0.34	
Starting current (A)	1.1	1.1	1.1	1.1	1.0	0.97	1.1	1.0	
Starting torque (Nm)	0.49	0.49	0.53	0.53	0.40	0.40	0.43	0.43	
Speed torque curve	(N·m) 230 V 50 Hz 230 V 60 Hz 0.8 0.6 220 V 50 Hz 220 V 60 Hz 0.2 0.0 0 500 1000 1500 2000 Revolving speed (r/min)				0.8 9 0.6 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0				

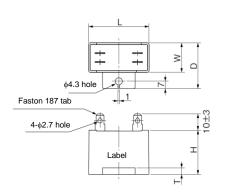


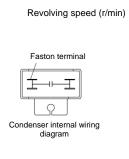


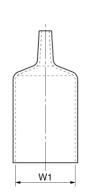
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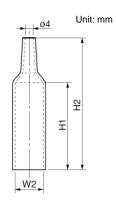
Capacitor (accessory)

Capacitor cap (accessory)









Capacitor external dimensions (mm)

Motor model No.	Capacitor model No. (Accessory)	L	W	D	Н	Т	Capacitor cap (Accessory)	W1	W2	H1	H2
M91Z60G4GGC M91Z60S4GGC M91Z60GK4GGC M91Z60SK4GGC	M0PC4.5M45G	58	23.5	38.5	37	4	M0PC5823G	58	23.5	55	78



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■How to check the motor production month

