

## SPECIFICATIONS

1. Rated voltage : 1 $\phi$  - 230V $\pm$ 10% - 50/60Hz
2. Ampacity : 110/90mA (230V - 50/60Hz) max.
3. Input watts : 10.5/9W (230V - 50/60Hz) max.
4. Working fluid : Drain water
5. Working temperature :
  - 1) Fluid temperature 0~40 $^{\circ}$ C
  - 2) Ambient temperature 0~40 $^{\circ}$ C
  - Humidity 95% RH or less
6. Storage temperature : -20 $^{\circ}$ C ~ +70 $^{\circ}$ C
7. Mounted style : Mount vertically with motor assembly upward.  
(Slant : within 5 $^{\circ}$ )
8. Motor assembly : Type - Single phase , 2 pole , shaded pole motor  
Insulation class - class E
9. Discharge : When the motor is operated at water head of 500m , water level of 13mm and the rated voltage , it shall be 36 $\ell$ / hr (600cc / min) or more.  
(The water level refers to dimensions from the top to the water surface of the motor side.)
10. Discharge possible limit water level : When the motor is operated at water head of 500mm and the rated voltage x 90% , the discharge possible water level shall be 6mm or less.
11. Noise : When the motor is operated at water head of 500mm water level of 13mm and the rated voltage , noise shall be less than 38 dB(A) 1m away from the top of a pump drive motor.
12. Insulation resistance : 100Mohm or more with a 500V dc megger.
13. Dielectric strength : When the voltage of 1500Vac is applied for 1 minute(or 1800V for 1 sec), insulation shall not be broken.
14. Moisture resistance : When the motor is stood in the atmosphere of 40 $\pm$ 5 $^{\circ}$ C , 95% RH for 96 hours , the insulation resistance shall be more than 10Mohm.  
At the same time , the dielectric strength shall be withstand 1500Vac for 1 minute (or 1800Vac for 1 sec).
15. Temperature rise rate of winding : When the motor is operated at the rated voltage , the temperature of winding shall be less than 75 deg.
16. Motor constraint : The rated voltage x 110% , 50Hz is applied to the motor to be locked.  
When it was stood in the room of 30 $^{\circ}$ C and the temperature was stabilized,
  - 1) there shall be free of abnormality such as smoking or burn-out.
  - 2) the insulation resistance shall be 10Mohm or more.
17. Vibration resistance : When vibration of total amplitude 2mm and frequency 6 to 20Hz is applied to 3 directions of upper and lower , front and back , right and left for 2 hours, there shall be no problem in each part and then the item 9 shall be satisfied.
18. Impact resistance : When the impact of the total 3 times, each one time to X , Y and Z direction of 40G , there shall be no problem in each part and then the item 9 shall be satisfied.
19. Each strength : For the tension strength of the lead wire of motor assembly , there is no problem at 29.4N(3 kgf) x 1 min.  
The caulking strength between lead wire and contact shall be more than 78.4N(8 kgf) per one lead wire.  
The retention strength between contact and connector shall be more than 39.2N(4 kgf) per one lead wire.
20. Durability : When the motor is operated continuously by city water at water head of 500m , water level of 13mm and the rated voltage of 50Hz in the atmosphere of room temperature and humidity , it must withstand this condition for 15,000 hours.  
After operation , water discharge shall be more than 80% of the value given in the above item 9.

