

FACTORY TEST REPORT AS PER IS 8034 : 2002

| | | | | | |
|------------------------|----------|-------------|-----------|----------------------|-----------|
| Date of Mfg. : | 6/3/2017 | Sr.No. : | QA005 | Nominal Head : | 40.0 m |
| Date of Inspection : | 100 mm | Model : | PGIO 410 | Nominal Discharge : | 1.00 lps |
| Bore Size, Min. : | 32 mm | Stages : | 10 | Overall Efficiency : | 22.0 % |
| Delivery size : | 2790 rpm | Conn. : | CSR | Head Range : | 30 - 44 m |
| Rated Speed : | 50 % | Voltage : | 220 Volts | Motor rating : | 0.75 kW |
| Motor Effi. Factor : | 41 % | Capacitor : | 36 mfd | Max. Current : | 7.0 A |
| Pump Effi. Factor : | 50 mA | Duty : | S1 | Full Load Torque : | 0.262 kgm |
| Max. Leakage Current : | | | | | |

| General construction / Earthing Connection/ Balancing of the Rotor & Terminal marking | Hydrostatic test at 1.5 times of the max. discharge pressure | I.R. test before & After HV test (Min. 5 MΩ) | HV Test at 1.5kV for 30 sec. | Length of Supply Cable (Min. 2m) | NO LOAD TEST | | | | | | Shaft extension runout (Max. 35µm) | Eccentricity of mounting Spigot & shaft (Max. 80µm) | Perpendicularity of mounting face of flange to shaft/Face runout (Max. 80µm) | Surface Finish of Shaft or Protective Sleeve (Max. 0.75µmRa) |
|---|--|--|------------------------------|----------------------------------|-----------------|-----------------------|-------------|---------------------|-------------|-----------------------------|------------------------------------|---|--|--|
| | | | | | Voltage (Volts) | Supply Frequency (Hz) | Current (A) | Power Input (Watts) | Speed (rpm) | Leakage Current (Max. 50mA) | | | | |
| Satisfactory | W/S | >100 | W/S | 2.24 | 220 | 50.14 | 3.42 | 5.82 | 2978 | 0.5 | 20 | 40 | 50 | Satisfactory |

| Stator Resistance : | | 5.93 Ω | | 26.8 °C | | Performance at Rated Frequency | | | | | | | | | |
|---------------------|-------------------------|------------------------|-----------------------|------------------------------------|--------------------------|--------------------------------------|-------|-------------|--------------------|-----------------------|---------------------|-----------------|----------------|--------------------|------------------------|
| Sl No | Speed of pump set (rpm) | Draw down head (Z) (m) | Delivery head (h) (m) | Velocity Correction Head (VCH) (m) | Total Head (Z+h+VCH) (m) | Folw meter Reading (discharge) (lpm) | (lps) | Current (A) | Pumpset input (kW) | Supply Frequency (Hz) | Pumpset output (kW) | Discharge (lps) | Total Head (m) | Pumpset Input (kW) | Overall Efficiency (%) |
| 1 | 2736 | 1.25 | 8.5 | 0.260 | 10.01 | 109.6 | 1.83 | 6.48 | 1.416 | 50.06 | 0.18 | 1.82 | 9.99 | 1.41 | 12.66 |
| 2 | 2748 | 1.25 | 16.0 | 0.229 | 17.48 | 102.8 | 1.71 | 6.42 | 1.398 | 50.06 | 0.29 | 1.71 | 17.44 | 1.39 | 21.00 |
| 3 | 2762 | 1.25 | 24.0 | 0.188 | 25.44 | 93.1 | 1.55 | 6.34 | 1.376 | 50.08 | 0.39 | 1.55 | 25.36 | 1.37 | 28.12 |
| 4 | 2770 | 1.25 | 32.0 | 0.143 | 33.39 | 81.2 | 1.35 | 6.22 | 1.344 | 50.05 | 0.44 | 1.35 | 33.33 | 1.34 | 32.97 |
| 5 | 2785 | 1.25 | 40.0 | 0.095 | 41.35 | 66.3 | 1.11 | 6.06 | 1.297 | 50.07 | 0.45 | 1.10 | 41.23 | 1.29 | 34.53 |
| 6 | 2806 | 1.25 | 48.0 | 0.045 | 49.30 | 45.6 | 0.76 | 5.84 | 1.213 | 50.10 | 0.37 | 0.76 | 49.10 | 1.21 | 30.28 |
| 7 | 2842 | 1.25 | 58.0 | 0.000 | 59.25 | 0.0 | 0.00 | 5.06 | 1.016 | 50.12 | 0.00 | 0.00 | 58.97 | 1.01 | 0.00 |

| LOCK ROTOR TEST | | | | | | |
|-----------------|----------------|------------------|-----------|----------------|--------------|--------------------------------------|
| Voltage (Volts) | Current (Amp.) | Power Input (kW) | Load (kg) | Arm length (m) | Torque (kgm) | Torque in % of FLT (Min. 30% of FLT) |
| 216 | 7.8 | 0.83 | 0.58 | 0.30 | 0.18 | 68.9 |

| TEMPRETURE RISE TEST | | | | | | |
|----------------------|-------------------------|---------------------|------------------------|--------------------------------|---|---------------------|
| Voltage (Volts) | Cold resistance R1 in Ω | Cold temp. T1 in °C | Hot resistance R2 in Ω | Hot temp. T2 in °C (Max. 45°C) | Temp. rise of stator winding by resistance method | Max. Current (Amp.) |
| 220 | 5.93 | 26.8 | 6.36 | 27.6 | Max. 35°C | 6.26 |
| 187 | 5.93 | 26.8 | | | 18.2 | |

Max. Outside diameter of pump set : 96.8 mm
 Reduced Voltage running up test at no load (at 75% of rated Voltage) : 165 V, 50.01 Hz, 2.67A, 2964 rpm
 Max. current consumption in head range shall be Min. 4.88A (75% of declared FLC) & Max. 6.83A (1.05 times of declared FLC) :

TESTED BY : 6.26 A
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