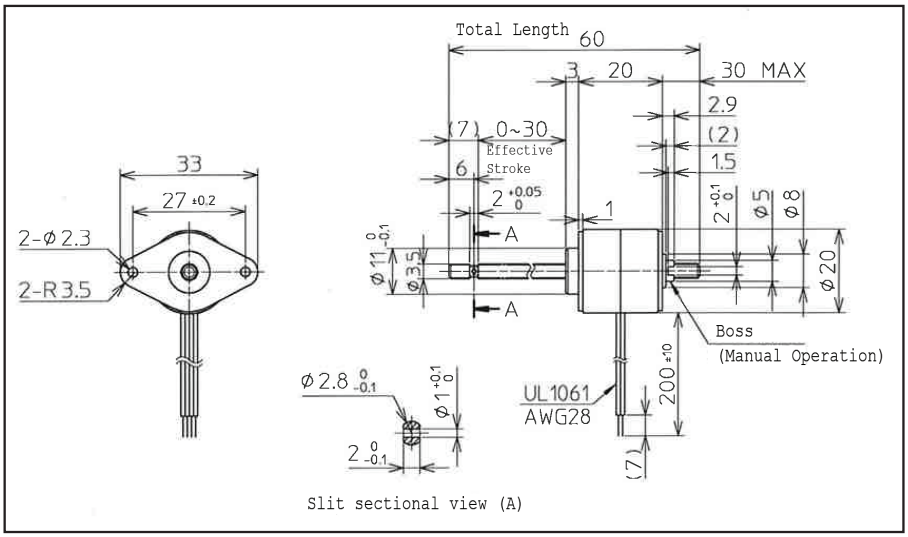
Nippon Pulse
*Your Partner in Motion Control*

# PFL20
## 20mm LinearStep

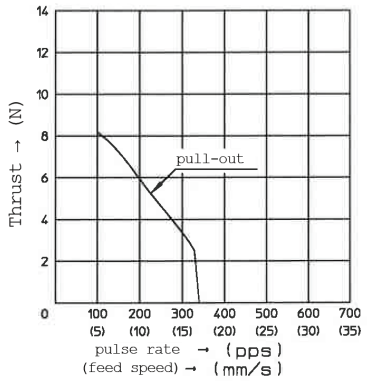

Features:

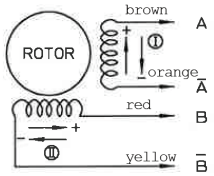
- Linear stepper motor with long lifespan
- Simple structure, with linear movement of the screw shaft through rotor hub.
- Easy control, with same methods of drive and control as other stepper motors.
- High efficiency and thrust performance

| Specifications | PFL20-24Q4 |
|---|---|
| Number of Phase | 2 (PM Type) Linearstep |
| Excitation Mode | 2-2 |
| Screw Pitch/Step Size | 0.05mm/step (1.2mm/revolution) |
| Operating Temperature Range | -10°C ~ 50°C |
| Dielectric Strength | AC500V (1 min.) |
| Insulation Resistance | 100MΩ (DC 500V) |
| Insulation Class | E |
| Max. Operating Temperature | +80°C (at the case) |
| Res. Per Winding | 33Ω ± 7% |
| Ind. Per Winding | 12mH (1 Vrms, 1 KHz) |
| Starting Pulse Rate | 330 pps (No Load) |
| Slewing Pulse Rate | 340 pps (No Load) |
| Temperature Rise (Res. Method) | 70K (0 pps) |
| Mass | 31g |
| Ambient Temperature Range (Operating) | See Max. Operating Temperature |
| Operating Humidity | RH85% (Non Dewdrop) |
| Ambient Temperature Range (Storage) | -30°C ~ +80°C |

1. Resistance/inductance per winding and starting/slewing pulse rate are tested at the terminal voltage (5V ± 2%) and the environment is normal temp. (20°C ± 5°C), humidity range (65% ± 20%).
2. Dynamic thrust characteristics are value measured by using force gauge.
3. Test D.U. is AD1411 (bipolar constant voltage).
4. Above coil winding is one example from our standard configuration. Please contact an applications engineer if your application requires different drive conditions.

### Dynamic Thrust Characteristics




Direction of rotation viewed from shaft end

| NO | ① | ② |
|---|---|---|
| 1 | + | + |
| 2 | - | + |
| 3 | - | - |
| 4 | + | - |

← Extend (CW)
→ Retract (CCW)