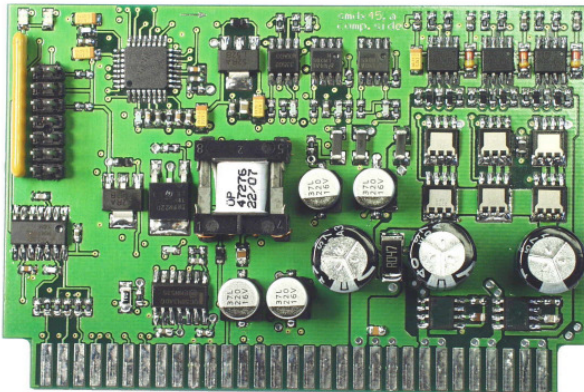


Product Info *smdx55*

- **2(3)-Phase-Stepper Motor Drive**
- **OEM-module for integration into your application**
- **All essential functionality on board**
- **24...50 Volt, 1,0...5,0 Amps**



- **200 to 10000 steps / revolution**
- **Automatic motor set up at power on**
- **Automatic operating parameter setup**
- **Inputs:** (CMOS 3,3V...5V)
PULSE, DIRECTION, IN1[OFF, RESET, GATE]
4 Bit Current Setting (Amps)
3 Bit Step Resolution (Steps/ Rev)
1 Bit Current Reduction (On/Off)
- **Outputs:** (CMOS 3,3V, Ri=750ohm)
READY, BALLAST, Auxiliary Output
- **Break out of all connections**
- **Low noise and low resonance run**
- **High and constant torque from step to step**
- **Protected against over-current, over-temperature, over-voltage and low voltage**
- **Extensive device status information with LEDs**
- **Automatic current reduction at stand still**
- **Variable current boost function at acceleration**
- **Active ballast circuit protects from over-voltage**
- **Dimensions : Height : Width :Depth (in mm)**
90 : 60 : 12(mm) without connectors

Variants / Order Code

smd255.50xx000 2-phase power drive
smd355.50xx000 3-phase power drive

.-x--- 0/1: without heat sink / with heat sink
---x--- 0/1: slot connector / pin row



Power-module for your application

This power drive sets new standards for the digital control of stepping motors. Utilizing a state-of-the-art digital signal processor (DSP) made it possible to develop new procedures and control technologies. The result is a low cost power drive especially suitable for OEM markets. The module is fully equipped and contains all necessary hardware components so that no additional peripheral circuitry is needed. All required supply voltages are generated on board with an internal power supply. Furthermore auxiliary voltages are available to supply the user application as well. Preferably the drive is integrated and connected with a slot connector or optionally with a pin row connector. The target group are end users or OEMs with application oriented controls such as for (hose) pumps, pin(needle) stampers, lab devices, measurement equipment etc. The power drive is simply integrated as a complete module into the user circuit.

Automatic Controller Setup At power on, the drive electronically analyzes the motor. Next the operating parameters are automatically tuned to achieve optimal dynamic and smooth run drive performance. Consequently the power drive adjusts itself to the respective motor. Specific power drive know how is therefore not required.

Boost and Current Reduction A variable boost function is enabled depending on the actual acceleration rate, i.e. an additional current offset is added to the set current value. With this, higher acceleration rates are possible. The current reduction reduces the motor current at stand still to 60% of the set current value.

Dynamic Operating Parameter Adjustment

Several conditions are continuously monitored during operation and the operating parameters are automatically adjusted. As a result the constant motor torque range stretches and dynamic positioning moves are also possible in the higher speed range.

StandBy Mode With lower speeds down to stand still the power drive gradually switches to the stand by mode. The motor is absolutely quiet and this with full torque. A big advantage for office and lab environments.

Digital Phase Current Controller The power drive design is fully digital and the phase current is measured directly in the motor windings. The strict focus was here to achieve optimal operating performance such as low resonance run, high step angle accuracy and high and constant torque from step to step.