

Sub-micro Drives

Flexible, simple, rugged, robust!



Lenze



SCM: Basic and Beyond

Feature-rich for motor control applications that require variable speed, and cost-effective enough for those that do not. The SCM Series drive virtually eliminates the need for 2-speed motors and starters and reversing starters, and it can be applied as a “phase-converter” to operate a three-phase motor from a single-phase supply.

The SCM is typically a better solution than mechanical variable speed, DC control or eddy-current drives.

- IP 20 enclosure with power terminals on top, motor terminals on the bottom
- Optional footprint filter
- 0-10 VDC or 4-20 mA speed reference
- One relay and one open-collector output
- Up to 8 selectable preset speeds
- Isolated start/stop plus 3 programmable inputs
- DC injection braking on stop (up to 1 hr)

SCL: Basically European

Based on the SCM drive, the SCL targets European single-phase applications that require conformance to the European Union standard for noise immunity: EN 61800-3, Class A.

The SCL has a line filter built-in to meet the rigorous European standard for EMI and RFI noise suppression.

- IP 20 enclosure with power terminals on top, motor terminals on the bottom
- Integral line filter
- 0-10 VDC or 4-20 mA speed reference
- Up to 8 selectable preset speeds
- Isolated start/stop plus 3 programmable inputs
- DC injection braking on stop (up to 1 hr)

SCF: Full Featured

When your application requires more functionality, the SCF has the additional I/O to meet your needs.

2-wire RS485 network communication using Modbus RTU protocol is standard. The SCF allows for either 2-wire or 3-wire start/stop without programming!

The SCF has optional models that offer set-point (PI) control or control for high-speed motors up to 1000Hz output frequency.

- IP 20 enclosure with power terminals on top, motor terminals on the bottom
- Optional footprint filter
- 0-10 VDC or 4-20 mA speed reference
- Two open-collector outputs w/ internal power supply, can drive external relays
- Up to 8 selectable preset speeds
- Isolated start/stop plus 3 programmable inputs
- DC injection braking on stop (up to 1 hr)
- 2 analog outputs (speed & load)
- Modbus Communication

EPM - The “Blue Chip” Investment

The Electronic Programmable Module or EPM makes your investment in AC Tech Sub-micro drives an even better value. The EPM is the drive's memory and allows you to copy a program from one AC Tech Sub-micro drive to another in less than two seconds with the optional EPM Programmer, and does not require the drive to be powered to perform the operation!



The EPM allows an Original Equipment Manufacturer's factory parameters to become the drive's default parameters, providing a safe backup for the OEM's machines. Last but not least, if your machine operates in several modes or processes different product, requiring the drive to be reprogrammed, you save time and eliminate errors by using AC Tech Sub-micro drives and switching pre-programmed EPMs as needed.

EPM Programmer

Program AC Tech Sub-micro drives quickly using the 16 character English language display. The battery powered Programmer allows you to:

- Copy one EPM in 2 seconds
- Store up to 30 programs
- Copy from file to an EPM
- Edit and create programs
- Create and save programs on your PC using AC Tech's TechLink software



Features:

- UL Approved Thermal O/L
- 8 Preset Speeds
- 0-10 VDC + 4-20mA Speed Reference
- DC Braking
- Relay or Transistor Output(s) depending on model
- 3 or more Programmable Inputs
- Current Limit to 180% with Foldback
- Fault History (last 8)
- Programming via:
 - Drive Face
 - Remote Keypad
 - PC with TechLink
 - EPM Programmer
- Isolated Control Terminals
- Highly visible 3 digit LED Display
- Quiet Motor Operation
- Forward/Reverse
- EPM
- Two Year Warranty

Available Options:

- **Remote Keypad**
 - NEMA-4, 4X construction
 - Start/Stop; FWD/REV; speed control; programming
- **Dynamic Braking (DB) Kit**
 - Resistor modules w/ control electronics
 - Easy mounting within control cabinet
- **CE Filters**
 - Single and Three Phase footprint filters
- **DIN Rail Mounting**
 - Mount Drive & DB option on standard DIN rail
- **PI Setpoint Control**
 - SCF drive only
- **High Frequency Output**
 - 1000 Hz, SCF drive only
- **Through-hole Mounting**
 - Heatsink outside drive enclosure
 - Anodized heatsink w/ gasket meets NEMA 4, 4X
 - No fans or electronics needed outside drive enclosure
- **EPM Programmer**
 - Sidebar description, opposite page

SCM

| HP | kW | 120V 1Ø | | 208-240V 1Ø | | 208-240V 3Ø | | 400-480V 3Ø | |
|------|------|---------|------|-------------|------|-------------|------|-------------|------|
| | | Model# | Size | Model# | Size | Model# | Size | Model# | Size |
| 0.33 | 0.25 | SM004S | A5 | SM204S | A5 | | | | |
| 0.5 | 0.37 | SM005S | A5 | SM205S | A5 | SM205 | A5 | SM405 | A1 |
| 0.75 | 0.55 | | | SM208S | A6 | | | | |
| 1 | 0.75 | SM010S | B5 | SM210S | A6 | SM210 | A6 | SM410 | A2 |
| 1.5 | 1.1 | SM015S | B5 | SM215S | B5 | SM215 | A7 | SM415 | A3 |
| 2 | 1.5 | | | SM220S | B5 | SM220 | A7 | SM420 | A3 |
| 3 | 2.2 | | | SM230S | B6 | SM230 | B6 | SM430 | B7 |
| 5 | 4.0 | | | | | SM250 | B2 | SM450 | B2 |
| 7.5 | 5.5 | | | | | SM275 | C1 | SM475 | B2 |
| 10 | 7.5 | | | | | SM2100 | C1 | SM4100 | C1 |
| 15 | 11 | | | | | SM2150 | D1 | SM4150 | C1 |

SCF

| HP | kW | 208-240V 1Ø or 3Ø | | 208-240V 3Ø | | 400-480V 3Ø | | 480-590V 3Ø | |
|-----|------|-------------------|------|-------------|------|-------------|------|-------------|------|
| | | Model# | Size | Model# | Size | Model# | Size | Model# | Size |
| .25 | 0.18 | SF203Y | A1 | | | | | | |
| .5 | 0.37 | SF205Y | A1 | | | SF405 | A1 | | |
| 1 | 0.75 | SF210Y | A2 | SF210 | A2 | SF410 | A2 | SF510 | A2 |
| 1.5 | 1.1 | SF215Y | B1 | SF215 | A3 | SF415 | A3 | | |
| 2 | 1.5 | SF220Y | B2 | SF220 | A3 | SF420 | A3 | SF520 | A3 |
| 3 | 2.2 | SF230Y | B2 | SF230 | A3 | SF430 | A3 | SF530 | B2 |
| 5 | 4.0 | SF250Y | C1 | SF250 | B2 | SF450 | B2 | SF550 | B2 |
| 7.5 | 5.5 | | | SF275 | C1 | SF475 | C1 | SF575 | C1 |
| 10 | 7.5 | | | SF2100 | C1 | SF4100 | C1 | SF5100 | C1 |
| 15 | 11 | | | SF2150 | D1 | SF4150 | D1 | SF5150 | D1 |
| 20 | 15 | | | SF2200 | D1 | SF4200 | D1 | SF5200 | D1 |
| 25 | 18.5 | | | | | SF4250 | D1 | SF5250 | D1 |
| 30 | 22 | | | | | SF4300 | D1 | | |

SCL

| HP | kW | 208-240V 1Ø | |
|------|------|-------------|------|
| | | Model# | Size |
| 0.33 | 0.25 | SL204S | A5 |
| 0.5 | 0.37 | SL205S | A5 |
| 0.75 | 0.55 | SL208S | A6 |
| 1 | 0.75 | SL210S | A6 |
| 1.5 | 1.1 | SL215S | B5 |
| 2 | 1.5 | SL220S | B5 |
| 3 | 2.2 | SL230S | B6 |

Dimensions:

| Size | Height | | Width | | Depth | |
|------|--------|-----|-------|-----|-------|-----|
| | in | mm | in | mm | in | mm |
| A1 | 5.75 | 146 | 2.88 | 74 | 3.94 | 100 |
| A2 | 5.75 | 146 | 2.88 | 74 | 4.74 | 120 |
| A3 | 5.75 | 146 | 2.88 | 74 | 5.74 | 146 |
| A5 | 5.75 | 146 | 2.88 | 74 | 3.26 | 83 |
| A6 | 5.75 | 146 | 2.88 | 74 | 3.63 | 92 |
| A7 | 5.75 | 146 | 2.88 | 74 | 5.56 | 141 |
| B1 | 5.75 | 146 | 3.76 | 96 | 5.24 | 133 |
| B2 | 5.75 | 146 | 3.76 | 96 | 6.74 | 171 |
| B5 | 5.75 | 146 | 3.76 | 96 | 4.88 | 124 |
| B6 | 5.75 | 146 | 3.76 | 96 | 5.53 | 140 |
| B7 | 5.75 | 146 | 3.76 | 96 | 5.47 | 139 |
| C1 | 7.75 | 197 | 5.02 | 128 | 7.18 | 182 |
| D1 | 9.75 | 248 | 6.68 | 170 | 8.00 | 203 |