

# 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

**The best machines and production facilities  
around the world use Lenze.**



*Positioning our Customers for Success. We take our Customer's requirements seriously. A new application is an opportunity to test, prove and expand our drive's capabilities while solving our Customer's motion control needs.*



*Customer Service has always been and will always be our number one commitment. Our success depends on it.*



*Driving design technology forward means we never stop thinking about process improvements. Did we deliver a quality product to market that meets the Customer's needs? That is the key.*



*Innovation takes art and skill to combine what's new and what's proven to produce a product with exceptional form, fit and function.*

**Lenze**

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