



**CONTROL  
TECHNIQUES**

[www.controltechniques.com](http://www.controltechniques.com)

## Commander SE

AC drive 0.25 to 15kW

Simple and easy to use



# Commander SE... control without complexity

Commander SE gives you just the features you need...

Reducing complexity and cost is what Control Techniques' new Commander SE microdrive is all about. The SE stands for Simple and Easy...and it is: SIMPLE to install and EASY to use.

With the Commander SE, users need never fight with technology. The drive's first 10 parameters cover most applications easily, quickly and cost effectively.



- 0.25 to 2.2 kW, single phase, 200 to 240 V
- 0.75 to 7.5 kW, three phase, 200 to 240 V
- 0.75 to 15 kW, three phase, 380 to 480 V
- Only 10 parameters needed for most applications - level 1
- Quick installation with convenient cable management
- Large easy-to-cable power terminals
- Standard size, pluggable control terminals
- Integrated braking transistor from 0.75 - 15 kW
- Level 2 parameters for added flexibility and functionality
- No spin rotating autotune for fast drive/motor optimisation
- Minimum motor noise with maximum drive protection via unique Intelligent Thermal Management (ITM)
- RS485 serial communications as standard on all sizes
- Level 3 parameters for ultimate control. Advanced menus (via serial comms)
- Complies with power drive systems standard EN 68100-3 for the second environment 'Industrial sites' without an additional EMC filter.
- Small enough to fit – big enough to use

## size matters...

### small drive, large performance...

The Commander SE is a microdrive that combines unmatched flexibility with a small footprint. In the applications for which it is designed, size is important, but

not to the extent that heat dissipation and (hence) dependability are compromised. In the design of the Commander SE **they are not**.



small enough to fit...big enough to use

- No other microdrive can talk your language so easily courtesy of plug-in communication packages that will include, Profibus-DP, DeviceNet, CAN Open, Interbus-S and CT Net
- Commander SE's new, Intelligent Thermal Management technology reduces nuisance tripping and ensures minimum motor noise - while fully protecting the drive
- The mains dip ride-through feature gives maximum protection against expensive process stoppages and minimises product wastage, breakages and downtime
- When you need ultimate control, Commander SE's Level 3 parameters give the user, via serial communications, access to advanced features such as: PID Controller, kW hour meter, 8 preset speeds, motorised potentiometer, second motor map and lots more
- Maximum shaft torque with open loop vector control
- Commander SE up to 4kW, fits space saving 200mm deep cubicles even with footprint EMC filter fitted.

# but dependability is paramount

more than just a product...

## A synergy of design, manufacture, assembly and service....

Many factors can affect the dependability of a drive, including environment, heat build-up, over voltages and shocks. In small drives, with their compressed architectures, the potential for problems is much greater. Achieving dependability is all about achieving a synergy of design, manufacture and assembly.

The Commander SE has this synergy.

Its architecture is designed to reflect the space constraints of its enclosure.

## robust and dependable... so you can fit and forget

The Commander SE comes with the added back-up of Control Techniques' 2 year worldwide warranty and the security of service levels that no other company can provide. Control Techniques has more than 1.6 million drives in operation worldwide, and everyday over 600 drives engineers provide local application and customer support from 50 centres across the globe. It's a unique and unparalleled service and it works by making our customers the focus of our activities - so you can buy our products with confidence.

- Rugged, industrial 50° C ambient rating for applications where operating conditions are hot and tough
- The drive is assembled as a single pcb which, because of the unique two processor design, requires 50% less connections between its control and power devices. Less connections means greater robustness, less potential problem areas and greater dependability
- The Commander SE is designed with industrialised mounting brackets which are cast as part of the heatsink, providing robust mounting.
- IP21/NEMA 1, rating for added protection
- Safety Extra Low Voltage (SELV) compliant:- complete galvanic isolation allowing the drive to be connected to a PC without the risk of damage

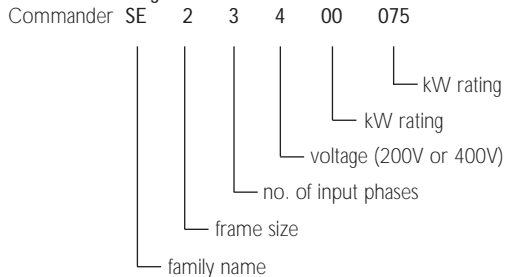


# technical data...

**COMMANDER SE RATING TABLE**

Model	Frame size	Number of input phases	Supply volts $\pm 10\%$	kW rating	HP rating	100% Output current	150% Output current
SE11200025	1	1	200-240	0.25	0.33	1.5	2.3
SE11200037	1	1	200-240	0.37	0.5	2.3	3.5
SE11200055	1	1	200-240	0.55	0.75	3.1	4.7
SE11200075	1	1	200-240	0.75	1	4.3	6.5
SE2D200075	2	1 or 3	200-240	0.75	1	4.3	6.5
SE2D200110	2	1 or 3	200-240	1.1	1.5	5.8	8.7
SE2D200150	2	1 or 3	200-240	1.5	2	7.5	11.3
SE2D200220	2	1 or 3	200-240	2.2	3	10.6	15.9
SE23200400	2	3	200-240	4	5	17	25.5
SE33200550	3	3	200-240	5.5	7.5	25	37.5
SE33200750	3	3	200-240	7.5	10	28.5	42.8
SE23400075	2	3	380-480	0.75	1	2.1	3.2
SE23400110	2	3	380-480	1.1	1.5	3	4.5
SE23400150	2	3	380-480	1.5	2	4.2	6.3
SE23400220	2	3	380-480	2.2	3	5.8	8.7
SE23400300	2	3	380-480	3	4	7.6	11.4
SE23400400	2	3	380-480	4	5	9.5	14.3
SE33400550	3	3	380-480	5.5	7.5	13	19.5
SE33400750	3	3	380-480	7.5	10	16.5	24.8
SE43401100	4	3	380-480	11	15	24.5	36.8
SE43401500	4	3	380-480	15	20	30.5	45.8

**Drive referencing:**



Frame size	Rating kW	H mm	W mm	D mm
1	0.25 - 0.75	176	102	130
2	0.75 - 4	260	147	130
3	5.5 - 7.5	315	190	155
4	11 - 15	390	250	185

**OPTIONS**

EMC Filters - footprint/side mount, low earth leaking and low cost types
Universal Keypad - hand held or door mounted, plain text display
'QuickKey' cloning module for rapid, accurate parameter transfer
Fieldbus communications: Profibus DP, Device Net, CAN Open, Interbus-S, CT Net
SE Soft PC Windows™ based setup software for advanced programming
+10 to -10 V analogue input card for bi-directional input reference
Cable screening clamps - provide a convenient way of connecting supply, motor and control cable screens to earth
Through hole mounting kit - allows heatsink to be put outside of main cubicle
RS232 to 485 (2 wire) converter for connecting between the drive and PC when using SE Soft



# driving the world...



## Control Techniques Drive & Application Centres

### AUSTRALIA

Melbourne Application Centre  
A.C.N. 003 815 281  
Tel: 613 973 81777  
Fax: 613 9729 3200  
After Hours: 61 2 9963 5271

Sydney Drive Centre  
A.C.N. 003 815 281  
Tel: 61 2 9838 7222  
Fax: 61 2 9838 7764  
After Hours: 61 2 9963 5271

### AUSTRIA

Linz Drive Centre  
Tel: 43 7229 789480  
Fax: 43 7229 7894810  
After Hours: 43 7215 3502

### BELGIUM

Brussels Drive Centre  
Tel: 32 2725 2721  
Fax: 32 2725 4940

### CANADA

Toronto Drive Centre  
Tel: 1 905 475 4699  
Fax: 1 905 475 4694

### CHINA

Shanghai Drive Centre  
Tel: 86 21 64085747  
Fax: 86 21 64083282

### CZECH REPUBLIC

Brno Drive Centre  
Tel: 420 541 192111  
Fax: 420 541 192115  
After Hours: 420 5 411 92119

### DENMARK

Copenhagen Drive Centre  
Tel: 45 4369 6100  
Fax: 45 4369 6101  
After Hours: 45 4369 6100

### FINLAND

Helsinki Drive Centre  
Tel: 358 985 2661  
Fax: 358 985 26823  
After Hours: 358 500 423271

### FRANCE

Leroy Somer  
Angouleme Drive Centre  
Tel: 33 5 4564 5454  
Fax: 33 5 4564 5400

### GERMANY

Bonn Drive Centre  
Tel: 49 2242 8770  
Fax: 49 2242 877277  
After Hours: 49 1714 964777

### Chemnitz Drive Centre

Tel: 49 3722 52030  
Fax: 49 3722 520330  
After Hours: 49 1714 964777

### Darmstadt Drive Centre

Tel: 49 6251 17700  
Fax: 49 6251 177098  
After Hours: 49 1714 964777

### Stuttgart Drive Centre

Tel: 49 7156 95560  
Fax: 49 7156 955698  
After Hours: 49 1714 964777

### HOLLAND

Rotterdam Drive Centre  
Tel: 31 1844 20555  
Fax: 31 1844 20721  
After Hours: 31 1844 20555

### HONG KONG

Hong Kong Application Centre  
Tel: 852 2979 5271  
Fax: 852 2979 5220

### HUNGARY

Budapest Drive Centre  
Tel: 361 431 1160  
Fax: 361 260 5483

### INDIA

Bombay Application Centre  
Tel: 91 620 613954  
Fax: 91 620 6113312

### Calcutta Application Centre

Tel: 91 33 357 5302/357 5306  
Fax: 91 33 357 3435  
After Hours: 91 33 358 3622

### Madras Drive Centre

Tel: 91 44 4961123/4961130/4961083  
Fax: 91 44 4961602

### New Delhi Application Centre

Tel: 91 11 576 4782/581 3166  
Fax: 91 11 576 4782

### INDONESIA

Jakarta Drive Centre  
Tel: 62 21 4525146  
Fax: 62 21 4525142  
After Hours: 62 81 687 0443

### Surabaya Application Centre

Tel: 62 31 7347881/7347882  
Fax: 62 31 7347883  
After Hours: 62 81 687 0443

### IRELAND

Dublin Drive Centre  
Tel: 353 45 433044  
Fax: 353 45 433622

### ITALY

Milan Drive Centre  
Tel: 39 02575 751  
Fax: 39 02575 12858  
After Hours: 39 02575 751

### Vicenza Drive Centre

Tel: 39 0444 396200  
Fax: 39 0444 341317  
After Hours: 39 0257 57 751

### KOREA

Seoul Application Centre  
Tel: 82 2 3445 6183/6184/6185  
Fax: 82 2 3445 6181  
After Hours: 82 23 445 6183

### MALAYSIA

Kuala Lumpur Drive Centre  
Tel: 60 3734 9776  
Fax: 60 3733 9592  
After Hours: 60 12 333 8355

### NORWAY

Oslo Application Centre  
Tel: 47 32 235100  
Fax: 47 32 235101  
After Hours: 47 92 22 3292

### REPUBLIC OF SOUTH AFRICA

Johannesburg Drive Centre  
Tel: 27 11 462 1740  
Fax: 27 11 462 1941  
After Hours: 27 11 462 1740

### RUSSIA

Moscow Application Centre  
Tel: 7 095 232-9472  
Fax: 7 095 956-4862

### SINGAPORE

Singapore Drive Centre  
Tel: 65 271 6377  
Fax: 65 272 1302  
After Hours: 65 9752 5828

### SPAIN

Barcelona Drive Centre  
Tel: 34 93 680 1661  
Fax: 34 93 680 0903  
/34 93 680 0763  
/34 93 680 2823  
After Hours: 34 610 554540

### Bilbao Application Centre

Tel: 34 94 620 3646  
Fax: 34 94 681 1406

### Valencia Drive Centre

Tel: 34 96 154 2900  
Fax: 34 96 153 2906

### SWEDEN

Stockholm Application Centre  
Tel: 46 8 554 24100  
Fax: 46 8 554 24120

### SWITZERLAND

Lausanne Application Centre  
Tel: 41 21 684 0408  
Fax: 41 21 635 8596  
After Hours: 41 79 357 8683

### Zurich Drive Centre

Tel: 41 56 201 4242  
Fax: 41 56 201 4243  
After Hours: 41 79 357 8683

### TAIWAN

Taipei Application Centre  
Tel: 886 22325 9555  
Fax: 886 22705 9131

### THAILAND

Bangkok Drive Centre  
Tel: 66 2580 7644/954 3080  
Fax: 66 2591 4559/954 3085

### TURKEY

Istanbul Drive Centre  
Tel: 90 216 4182420  
Fax: 90 216 4182423  
After Hours: 90 216 418 2420

### UNITED KINGDOM

Leeds Drive Centre  
Tel: 44 113 2423400  
Fax: 44 113 2423892  
After Hours: 44 113 2423400

### Luton Drive Centre

Tel: 44 1582 567700  
Fax: 44 1582 567703  
After Hours: 44 1582 567700

Telford Drive Centre  
Tel: 44 1952 213700  
Fax: 44 1952 213701  
After Hours: 44 1952 213700

### USA

Charlotte Application Centre  
Tel: 1 704 393 3366  
Fax: 1 704 393 0900  
After Hours: 1 800 893 2321

Chicago Drive Centre  
Tel: 1 630 893 5249  
Fax: 1 630 893 4156  
After Hours: 1 800 893 2321

Cleveland Drive Centre  
Tel: 1 440 717 0123  
Fax: 1 440 717 0133  
After Hours: 1 800 893 2321

Minneapolis Application Centre  
Tel: 1 952 995 8000  
Fax: 1 952 995 8011  
After Hours: 1800 893 2321

Providence Drive Centre  
Tel: 1 401 333 3331  
Fax: 1 401 333 6330  
After Hours: 1 800 893 2321

### VIETNAM

Ho Chi Minh Application Centre  
Tel: 84 8 842 5157  
/84 8 849 1980  
Fax: 84 8 8425157