Unidrive SP Free Standing Fully Engineered Cabinet Drives 150 hp to 1000 hp

NEW

Incomer or System Shell

Unidrive SP Size 6-8

Unidrive SP Size 9

Unidrive SP Free Standing is a range of compact AC drives for high power motors. They inherit their reliability, performance and flexibility from the Unidrive SP modular range.

Unidrive SP Free Standing drives are fully engineered and tested drive cabinets. The whole enclosure is certified to comply with international standards such as CE and UL. Proven design and international approvals release your engineering resources to focus on your application.

A simple model number specifies the drive power, voltage and dynamic braking requirement. Standard cabinet color and dimensions mean that Free Standing drives can be connected together with other manufacturer's cabinets.

Compact size and innovative design enables the drive modules to be easily accessed and removed for servicing or replacement. Standard modules ensure ready availability of components.

We understand your needs. Control Techniques has 54 drive centers located in 31 countries to ensure that service, support and expertise are just around the corner, all around the world.

ISO 14001 APPROVAL

ISO 9001:2000 APPROVAL

c UL us LISTED

N1652

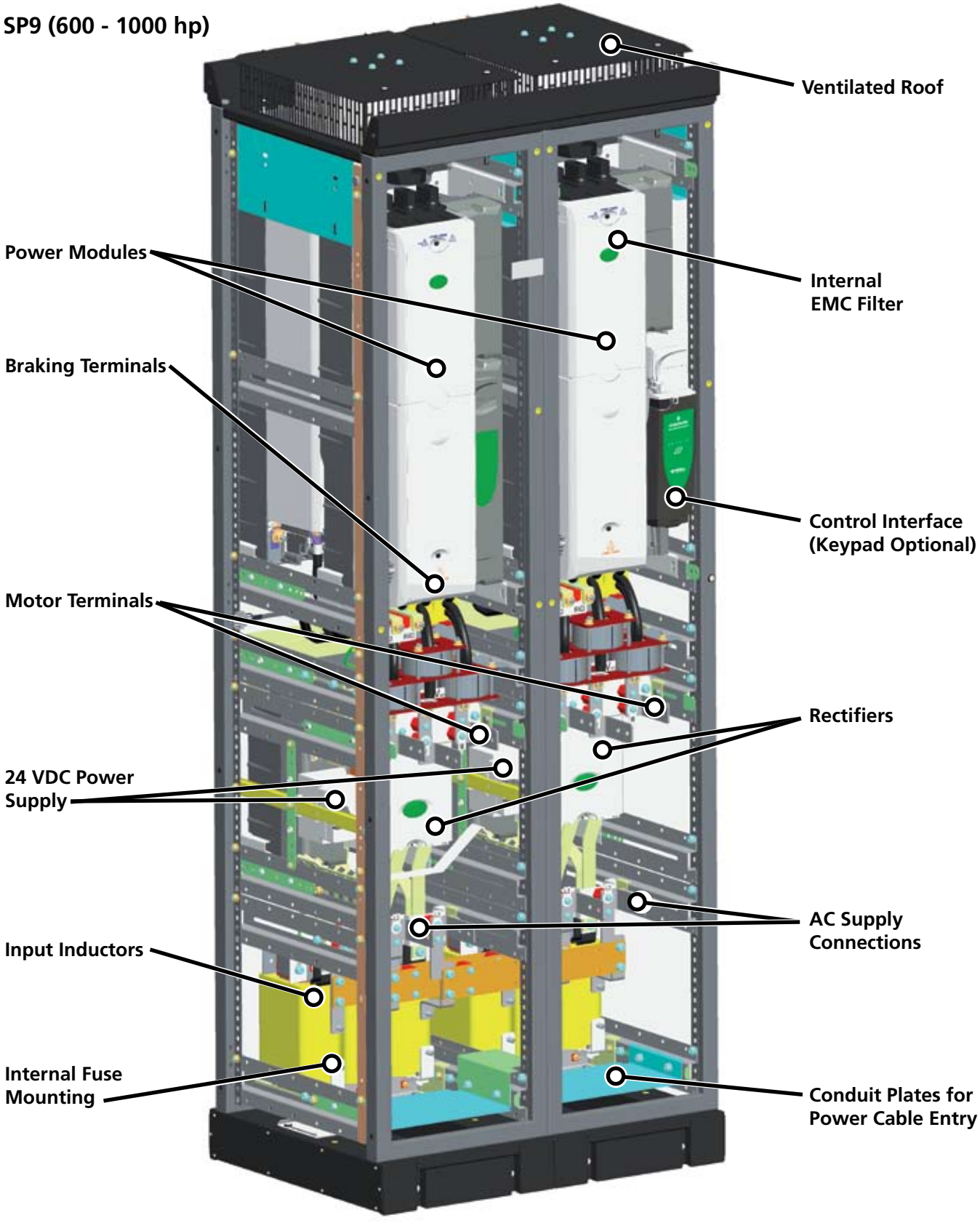
2 YEAR Digital Drive Warranty

5 YEAR Extended Warranty

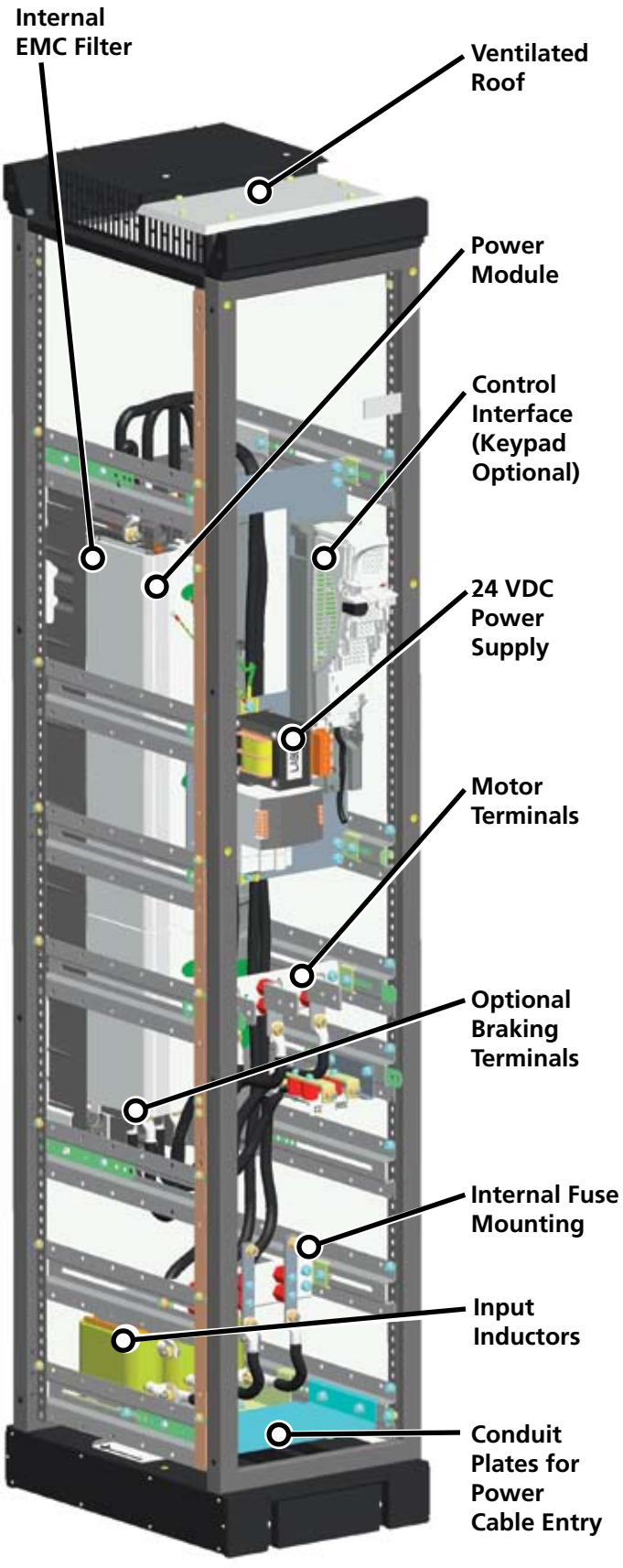
FREE STANDING CABINET DRIVES

A complete engineered drive, Unidrive SP Free Standing eliminates the need for drive panel building saving you time, money and allowing you to focus on your application.

SP9 (600 - 1000 hp)



SP6, SP7 & SP8 (150 - 500 hp)



MUCH MORE COMPACT

500 hp = 15.8 inches wide
1000 hp = 31.5 inches wide

Unidrive SP Free Standing drives are up to 50% smaller and are much lighter than other "compact" drive cabinets. As an example, a 500 hp drive including an Incomer enclosure is only 31.5" wide. This makes Unidrive SP Free Standing the obvious choice where space is a problem such as for new or retrofit energy saving applications.

PROVEN RELIABILITY

Unidrive SP Free Standing utilizes mass produced modules with proven design and reliability. The modules and cabinets are assembled using a sequential build process that eliminates build variation and provides consistently high quality. Excellent thermal and electrical design and computer modelling has ensured the inverters have a long and productive life with trouble free operation.

A TRADITION OF PERFORMANCE SOLUTIONS

Control Techniques has a tradition of high performance solutions. Unidrive SP Free Standing continues that tradition, able to control virtually any type of AC motor including synchronous machines.

FREE STANDING - INCOMER

Empty 15.8 inch wide Incomer cabinets are available to allow you to install your own power input scheme.

For users designing incomers for SP8 and SP9 drives the cabinets are available with interconnection busbars. For users designing incomers for SP6 and SP7 drives a cabinet is available without interconnection busbars as cables are used to make the connection.

For users who wish to use their own cabinet to create an incomer for SP8 and SP9 drives, interconnection busbars may be ordered as an accessory.

Order Code	Description
SP-Incomer-Shell-40	Empty Cabinet with 6 Pulse Interconnection Busbar
SP-Incomer-Shell-40-P12	Empty Cabinet with 12 Pulse Interconnection Busbar
SP-System-Shell-40	Empty Cabinet

POWER QUALITY

Supply harmonics may be minimized by using 12 pulse input versions of SP8 and SP9 Free Standing Drives. The 12 pulse input option is simply specified as part of the drive order code.

For 12 pulse drives the power connections are made within a separate incomer cabinet (SP-Incomer Shell 40-P12-EXX) or your own cabinet using the six phase interconnection busbar (SP P12 kit).

Engineered solutions that further reduce supply harmonics using passive in-line filters, active input modules or 18 pulse configurations are available. These enable your applications to comply with the harmonics standards IEEE 519-1992, IEC 61000-2-2, IEC 61000-2-12 and G5/4-1.

DYNAMIC BRAKING

Unidrive SP Free Standing is also available with integrated dynamic braking control allowing precision deceleration profiles to be achieved. This option is specified as part of the drive order code.

FREE STANDING DRIVE SPECIFICATIONS

Environmental Safety and Electrical Conformance

- Humidity 95% maximum (non condensing) at 40°C
- Altitude: 0 to 3000 m, derate 1% per 100 m between 1000 m and 3000 m
- Vibration: Drive Modules tested in accordance with IEC 60068-2-34
- Mechanical Shock Tested: Drive Modules in accordance with IEC 60068-2-27
- Storage temperature -40°C to 50°C
- Electromagnetic Immunity complies with EN 61800-3 and EN 61000-6-2
- With on board EMC filter, complies with EN 61800-3 (2nd environment)
- EN61000-6-4 with optional EMC filter
- IEC 60146-1-1 General requirements
- IEC 61800-5-1 Safety of Power Drive Systems
- IEC 61131-2 I/O
- EN 60529 Ingress protection
- Safe Torque Off meets EN 954-1-cat3
- UL508C (to 600V)
- CSA C22.2 no 14-05
- IP21 cabinet design, optional IP23

Pictured: SP9 with user designed incomer (interconnection made with SP P06 busbar kit)

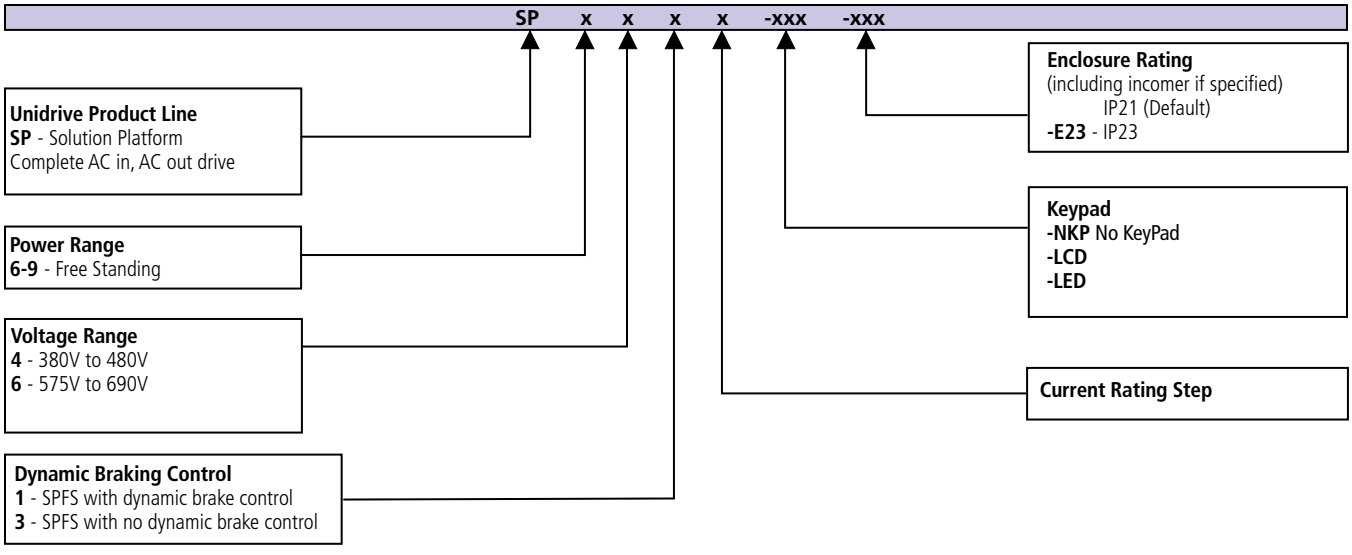
FREE STANDING RATINGS

	Drive Order Code	Output Module Selection: Normal Duty Max Cont. Current (A)	Normal Duty Typical Motor Output	Heavy Duty Max Cont. Current (A)	Heavy Duty Typical Motor Output	Compact Dimensions (inches): Drive only	With incomer cabinet
			460V (HP)		460V (HP)	H x W x D	H x W x D
380-480 VAC +/-10-%	SP64x1	205	150	180	150	85.8 x 15.8 x 23.6	85.8 x 15.8 x 23.6
	SP64x2	236	200	210	150		
	SP74x1	290	250	238	200		
	SP74x2 [9]	350	300	290	250		85.8 x 31.5 x 23.6
	SP84x1	389	300	335	280		
	SP84x2	450	400	389	300		
	SP84x3	545	450	450	400		
	SP84x4	620	500	545	450		
	SP94x1	690	600	620	500	85.8 x 31.5 x 23.6	85.8 x 47.3 x 23.6
	SP94x3	900	800	790	700		
	SP94x4	1010	900	900	800		
	SP94x5	1164	1000	1010	900		
			575V (HP)		575V (HP)		
	SP66x1	125	125	100	100	85.8 x 15.8 x 23.6	85.8 x 31.5 x 23.6
	SP66x2	144	150	125	125		
	SP76x1	168	150	144	150		
	SP76x2	192	200	168	150		
575-690 VAC +/-10-%	SP86x1	231	250	186	200		
	SP86x2	266	300	231	250		
	SP86x3	311	350	266	300		
	SP86x4	355	400	311	350		
	SP96x1	400	500	347	400	85.8 x 31.5 x 23.6	85.8 x 47.3 x 23.6
	SP96x3	533	600	466	500		
	SP96x4	616	700	533	600		
	SP96x5	711	800	622	700		

Note: Select model based on actual motor full load current

Normal Duty	Suitable for most applications, current overload of 110% for 165 seconds is available. Where motor rated current is less than the drive rated continuous current, higher overloads are achieved.
Heavy Duty	Suitable for demanding applications, current overload of 150% for 60 seconds is available in closed loop and 129% for 97 seconds in open loop.

Order String



SEPARATE FREE STANDING ACCESSORIES

Order Code	Description
SM-Keypad	LED display for configuration and monitoring
SM-Keypad-Plus	Enhanced multi-language LCD display
SP-Income-Shell-40	Empty Cabinet (15.8" wide) with 6 Pulse Interconnection Busbar
SP-Incomer-Shell-40-E23	Empty Cabinet (15.8" wide, IP23 Rated) with 6 Pulse Interconnection Busbar
SP-Incomer-Shell-40-P12	Empty Cabinet (15.8" wide) with 12 Pulse Interconnection Busbar.
SP-Incomer-Shell-40-P12-E23	Empty Cabinet (15.8" wide, IP23 Rated) with 12 Pulse Interconnection Busbar
SP-System-Shell-40	Empty Cabinet (15.8" wide)
SP-System-Shell-40-E23	Empty Cabinet (15.8" wide) - IP23 Rated
SP-P06 Kit [1]	6 Pulse Interconnection Busbar for SP8 and SP9
SP-P12 Kit [2]	12 Pulse Interconnection Busbar for SP8 and SP9
6711-0001-00	Mounting Rail (1 Off) - Enables user to mount their own incomer equipment
6541-0047-00	LHS Mounting Bracket - To attach equipment to the mounting rail on left side - Order one for each mounting rail ordered
6541-0048-00	RHS Mounting Bracket - To attach equipment to the mounting rail on right side - Order one for each mounting rail ordered

SPARE FUSE ORDER CODES

Internal AC Fuse Selection (Semi Conductor IEC class aR)		
Drive	Amps	Order Code
SP6 & SP7	400	4300-0400
SP8 & SP9	800	4300-0800

CIRCUIT BREAKER KITS

Kit includes SP System Shell 40 with circuit breaker and operator handle (through front) installed.	
Drive	Order Code
SP64x1	**CB-KIT-SP6411**
SP64x2	**CB-KIT-SP6412**
SP74x1	**CB-KIT-SP7411**
SP74x2	**CB-KIT-SP7412**
SP84x1	**CB-KIT-SP8411**
SP84x2	**CB-KIT-SP8412**
SP84x3	**CB-KIT-SP8413**
SP84x4	**CB-KIT-SP8414**
SP94x1	**CB-KIT-SP9411**
SP94x3	**CB-KIT-SP9413**
SP94x4	**CB-KIT-SP9414**
SP94x5	**CB-KIT-SP9415**

Foot notes:

[1] Power connection between SP6 & SP7 drives and the incomer cabinet should be made using 95 mm2 cabling (6 Pulse interconnection busbar for SP8 & SP9 drives only).

[2] For 12-Pulse installations the supply must be from a double wound star-delta transformer.

Incomer with disconnect shown with side panel removed for illustration purposes.