

A range of pre-assembled rack systems for SD and CD series stepper drives

To simplify the installation and commissioning of rack-mounted drive modules, Parker offer a range of pre-assembled rack systems to house up to six drives. The system is based on individual motherboards for each drive, with additional motherboards catering for power supplies and control cards. Each rack system is fitted with the appropriate number of motherboards according to the module complement, allowing all external connections to be made via screw terminals or plug-in connectors.

All assemblies are based on the standard Euro-rack system and are 3U high (132mm). Module and panel widths are always quoted in horizontal pitches (HP), the width of a standard rack being 84HP. For example, SD drive front panels are 14HP wide, so six panels will occupy the full rack width of 84HP.

All drive motherboards used in SC and CN series racks incorporate opto-isolation of the control signals, making them directly compatible with the Parker indexers listed later in this catalogue.

SC series racks for SD drives

The SD drive operates directly from an isolating transformer and therefore requires no separate power supply module. This allows up to six SD drives to be housed in a single SC series rack. When combined with IFX indexer cards, the maximum number of axes per rack is three.

CN series racks for CD drives

CD60M and CD80M drives require a separate PM2000CN power supply module, which is 24HP wide. This still allows room for six drives in a CN series rack since each drive front panel is only 10HP wide. When combined with IFX indexer cards, up to three axes can be accommodated in a single rack.

PM2000CN power supply module

The PM2000CN offers a convenient and economic method of powering CD series drives. All necessary components are included with the exception of the mains transformer which is mounted separately from the rack. The power module has an output current rating of 16A DC at a bus voltage of 120V. A regenerative power dump circuit is included, and the module comes complete with a 24HP front panel. The AC input to the PM2000CN may be single or three phase.



Transformers

There is a range of standard transformers available to power SD or CD series drives. The required transformer size depends partly on motor size, shaft power demand and duty cycle, however the quantities listed in the table form a useful guide. These are based on no more than half the axes being in motion at any one time.

All single-phase transformers may be operated from 115V and 230V supplies. Models TO181 and TO182 have four-winding primaries which also permit line-to-line connection on 400V 3-phase supplies.

Ordering information

SC and CN racks can be supplied as drive-only versions or for drives with indexer cards. Please refer to the order codes and select the appropriate rack according to the number of axes required. Standard rack systems do not allow for a mix of drives with and without indexer cards, however other combinations are available to special order. The rack order code refers to the rack assembly only; all plug-in drive modules, power supplies, front panels and transformers are ordered separately. When all parts are ordered at the same time, the rack will be supplied with all modules and front panels fitted.

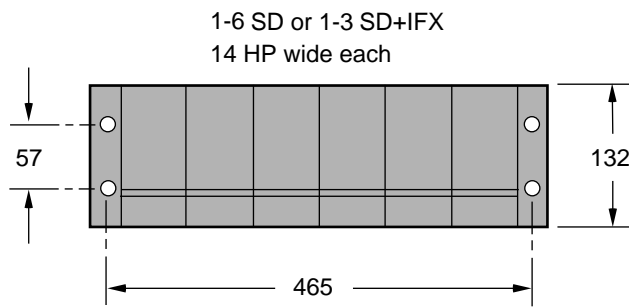
Order codes

SC 1 0

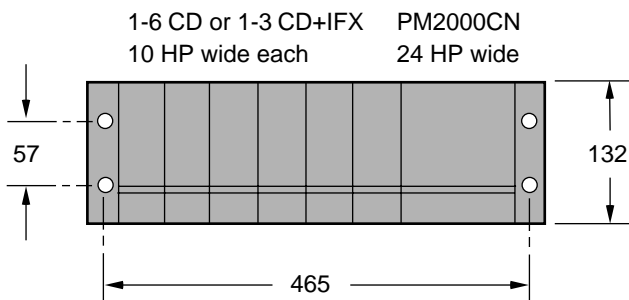
SC: for SD drives		0: drives only
CN: for CD drives		2X/RS232C: drives
Number of axes		with IFX indexer cards

Example - SC30: three SD drives

CN22X/RS232C: two CD drives with IFX cards

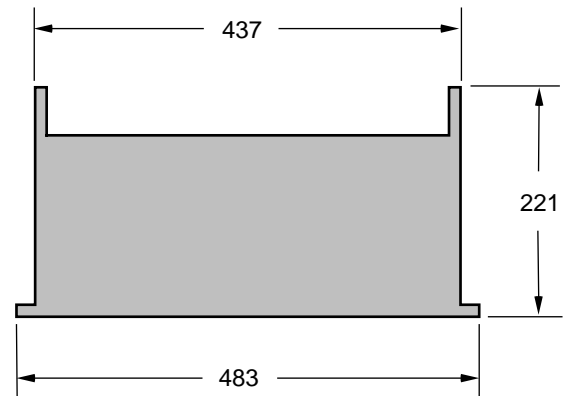


SC-Series Racks



CN-Series Racks

SC & CN rack dimensions (mm)



Top view, all types

Completing the rack

The table below shows the number of blank panels required for each rack type in order to cover control cards or empty slots in the rack.

Rack type	Number of blank panels required		
	FP55	FP39	FP54
SC10, SC12X		5	
SC20, SC22X		4	
SC30, SC32X		3	
SC40		2	
SC50		1	
CN10, CN12X	1		2
CN20			2
CN30	1		1
CN40			1
CN50	1		
CN22X	2		1
CN32X	3		

Ordering front panels

Optional front panels are available for all drive modules as well as blank panels to cover control cards or unused spaces in the rack. Please note that these panels are not included with the drive and must be ordered separately if required.

Panel type	Width	Part No.
SD12	14HP	FP36
SD13	14HP	FP37
SD15	14HP	FP38
SD15M	14HP	FP48
CD60M	10HP	FP52
CD80M	10HP	FP53
Blank	10HP	FP55
Blank	14HP	FP39
Blank	20HP	FP54

Transformers for rack-mounting drives

	Models for SD drives		Models for CD drives			
	TO193	TO194	TO181	TO182	TO185	TO186
AC input range	110-240v	110-240v	90-480v	90-480v	180-480v	180-480v
Single/three phase	1	1	1	1	3	3
DC bus voltage	60	60	120	120	120	120
VA rating	300	600	2600	1200	2500	5000
Max. number of drives*	3 x SD12 2 x SD13 1 x SD15	6 x SD12 4 x SD13 2 x SD15	8 x CD60M 6 x CD80M	4 x CD60M 3 x CD80M	8 x CD60M 6 x CD80M	11 x CD60M 8 x CD80M
Dimensions w x d x h	117x117x181	126x168x212	172x215x261	135x195x234	302x132x319	380x140x359
Weight kg	3.5	7.5	25	16	34	50

* Assumes 50% duty cycle. Larger numbers of drives may be accommodated at lower duty cycles