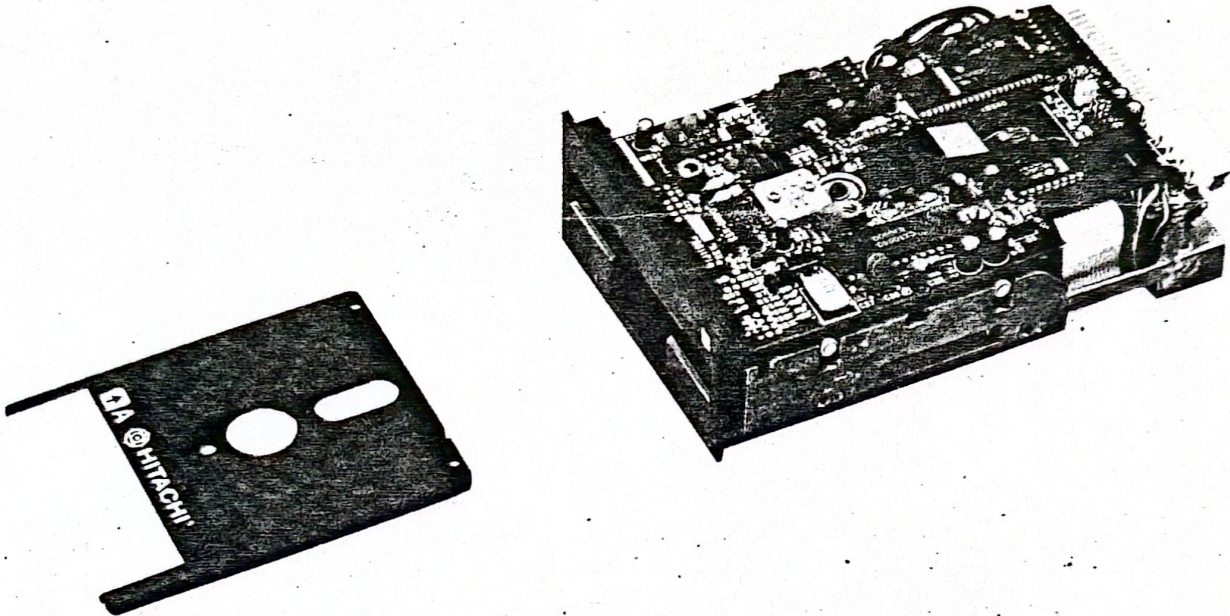


HITACHI 3" COMPACT FLOPPY DISK DRIVES

OEM

HFD305SX/HFD305D



The space saver – half the size, one third the weight but plug compatible

These FDDs are the world's smallest mass-storage devices fully meeting ANSI recommendations; there are various reasons why our 3" FDDs are ideal for more applications than ever.

The drives are small and light enough to be incorporated into compact data processing units while the 3" compact floppy disk is enclosed in a hard case, so that it can be carried in the pocket or even mailed with no fear of damage. One big advantage is that the drives are plug-compatible with our 5-1/4" FDDs so that changes in systems architecture can be kept to a minimum.

Newly-developed brushless DD motor

Accurate speed is maintained through the use of a new brushless DC DD motor that does not need any maintenance through the extended life of the drive; this high-torque motor is slimmer than ever, ideal for use in a compact FDD.

High-precision clamping mechanism

The clamping mechanism in the 3" FDD is completely different from that used in 5-1/4" FDDs. The 3" floppy disk uses a rigid plastic center hub; the clamping mechanism ensures that the spindle makes optimum contact with this hub so that centering accuracy is much greater.

Reliability improved by use of new LSI chips on a single PC Board

Newly developed LSI chips on a single PC Board perform all processing required, controlling the reading and writing of signals, the speed of the DD motor and the operation of the stepping motor. With this greater integration and single PC Board, power is saved and reliability is improved.

Flat face design for one-hand operation

The loading mechanism is activated by the full insertion of the disk; there is no need for a loading lever. To unload the disk, the recessed button under the disk slot is pressed; the disk is then positioned to be removed with the same hand.

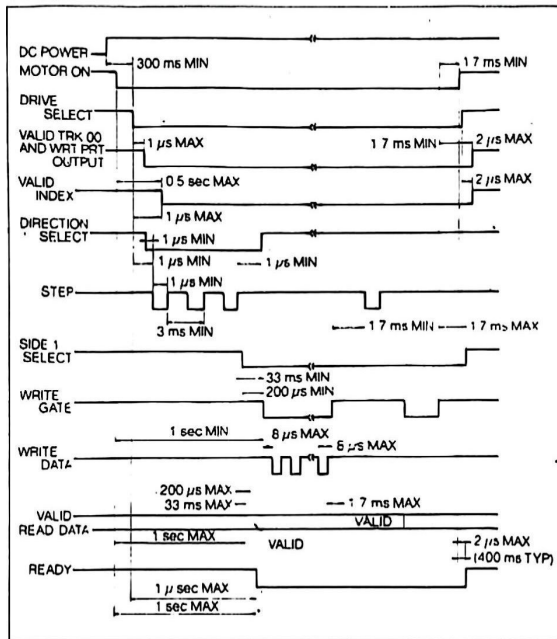
Accurate and fast head positioning

The head is positioned by a flat, accurate stepping motor using a steel belt; the track-to-track access time is 3 ms, so that the required data can be accessed at the high speed required by the most demanding application.

High-performance head with damped mechanism

The Mn-Zn (Manganese-Zinc) ferrite heads used in these FDDs have higher sensitivity and greater resistance to wear. A head damper mechanism ensures that when the head is being moved against the disk, it lands gently so as not to damage either the head or disk.

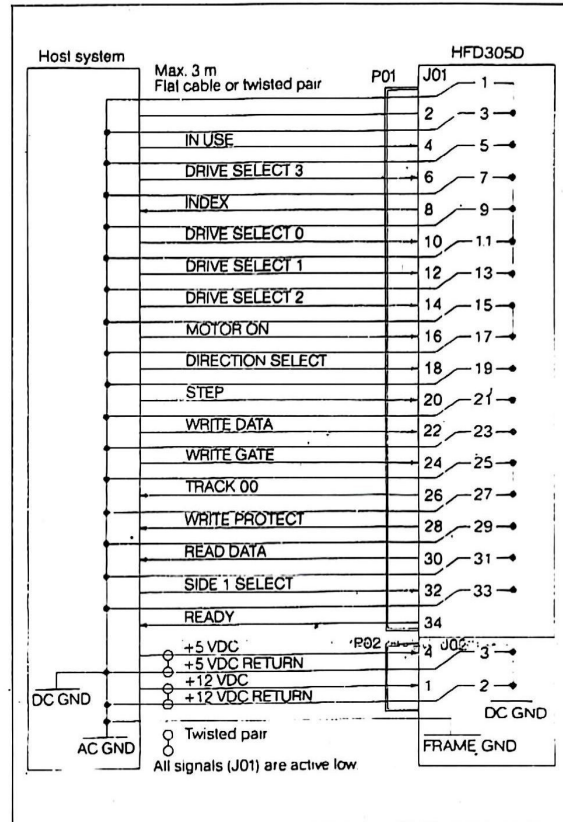
TIMING CHART



Ambient conditions

Item	Operating	Non-operating
Ambient temperature	5 - 43°C	-20 to 51.5°C
Relative humidity	20 to 80 % Rh	Non-condensing
Max wet-bulb temperature	29°C or less (non-condensing)	

INTERFACE



SPECIFICATIONS

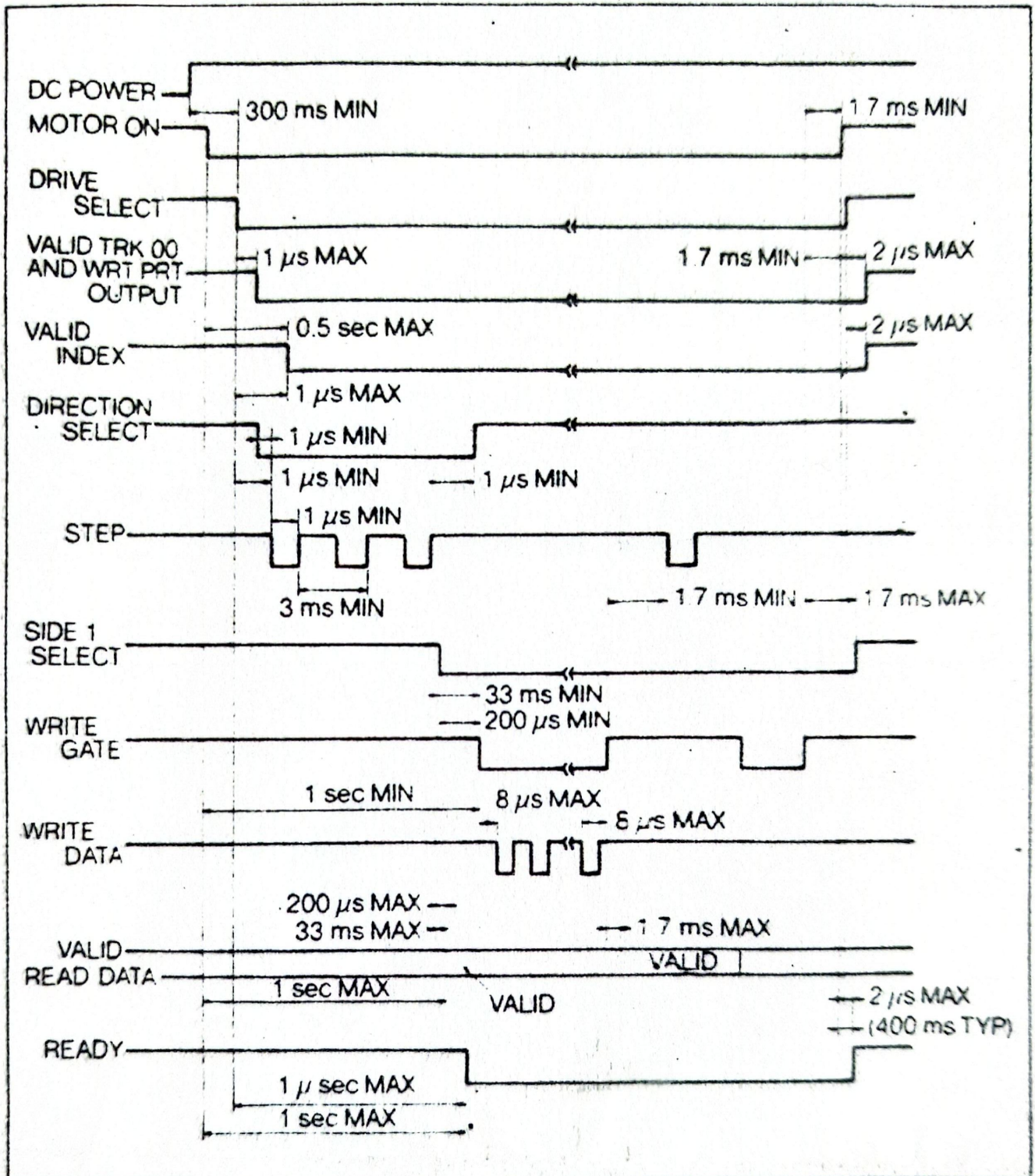
Item		Unit	Single density recording			Double density recording			Single density recording			Double density recording		
Storage capacity	Unformatted													
	Disk capacity	Bytes	125 K (Single sided)			250 K (Single sided)			250 K			500 K		
	Formatted													
	Byte/sector		128	256	512	256	512	1024	128	256	512	256	512	1024
Disk	Sector/track		16	9	5	16	9	5	16	9	5	16	9	5
	Disk capacity (double sided)	Bytes	82 K	92 K	102 K	164 K	184 K	205 K	164 K	184 K	205 K	328 K	369 K	410 K
	No. of cylinders		40			40			40			40		
	Total No. of tracks		40			40			80			80		
Recording system	System		FM			MFM			FM			MFM		
	Max recording density	BPI	4473			8946			4915			9830		
	Track density	TPI	100			100			100			100		
	Data transfer rate	bits/sec	125 K			250 K			125 K			250 K		
Process time	Average access time	msec	70						70					
	Between tracks *2	msec	3						3					
	Settling time	msec	30						30					
	Ready from Motor ON *1	sec	1 max						1 max					
	Motor start time	sec	0.5 max						0.5 max					
Media RPM		rpm	300						300					
Dimensions & Weight	W x H x D	mm	90 x 40 x 150						90 x 40 x 150					
	Weight	kg	0.55						0.55					
Power source	DC 12 V		12 V $\pm$ 5 % 0.6 A max						12 V $\pm$ 5 % 0.6 A max					
	DC 5 V		5 V $\pm$ 5 % 0.6 A max						5 V $\pm$ 5 % 0.5 A max					
Media			3" compact floppy disk						3" compact floppy disk					
Drive interface			Plug compatible with 5.25" FDD						Plug compatible with 5.25" FDD					

NOTE: *1 Lapse of time from inputting MOTOR ON signal until output of the READY signal upon sensing that the motor has reached the specified rotation speed.
*2 Settling time is not included.



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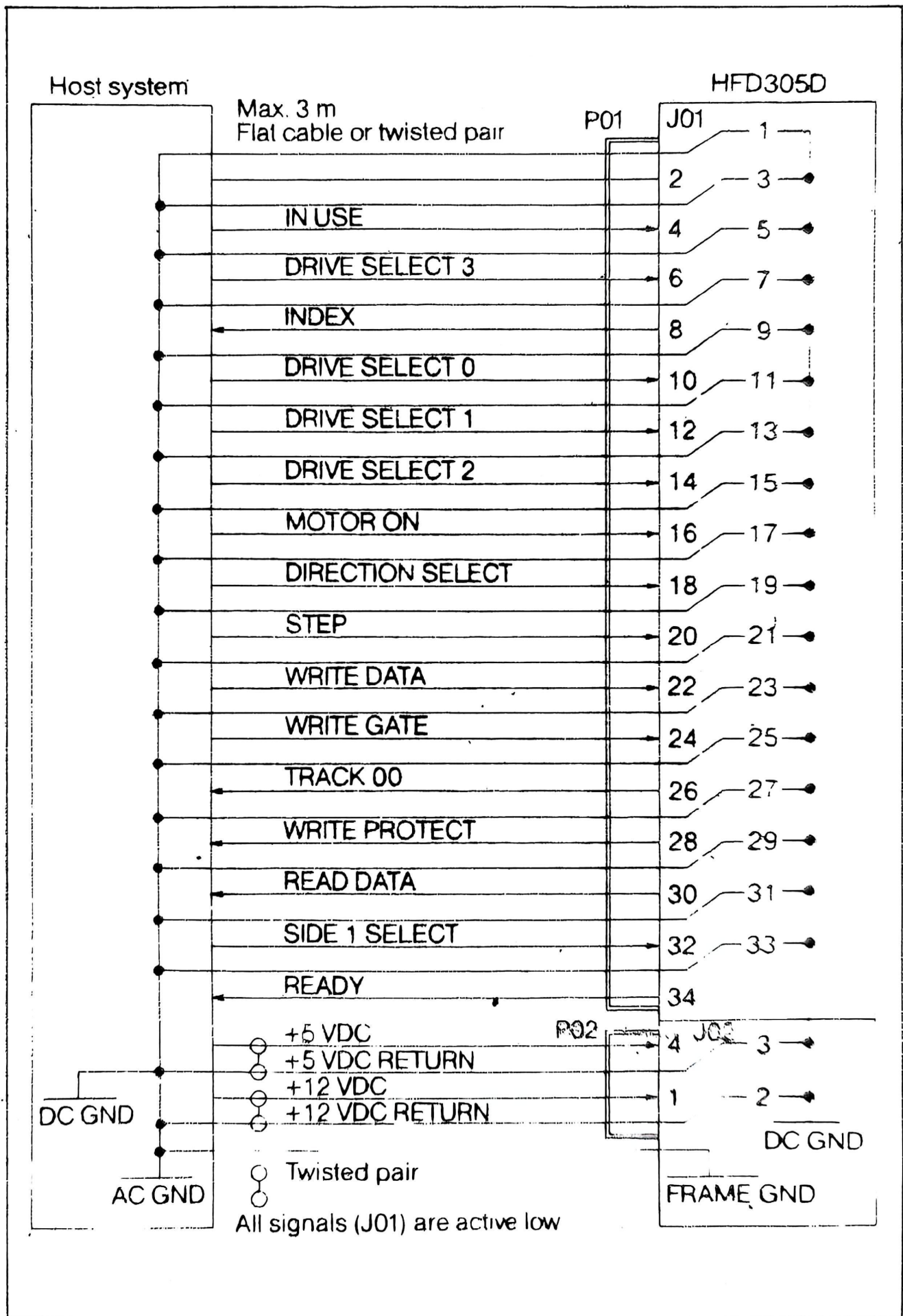
TIMING CHART



Ambient conditions

Item	Operating	Non-operating
Ambient temperature	5 – 43°C	-20 to 51.5°C
Relative humidity	20 to 80 % Rh	Non-condensing
Max. wet-bulb temperature	29°C or less (non-condensing)	

INTERFACE



SPECIFICATIONS

HFD305SX

HFD305D

Item		Unit	Single density recording			Double density recording			Single density recording			Double density recording		
	Unformatted													
	Disk capacity	Bytes	125 K (Single sided)			250 K (Single sided)			250 K			500 K		
Storage capacity	Formatted													
	Byte/sector		128	256	512	256	512	1024	128	256	512	256	512	1024
	Sector/track		16	9	5	16	9	5	16	9	5	16	9	5
	Disk capacity (double sided)	Bytes	82 K	92 K	102 K	164 K	184 K	205 K	164 K	184 K	205 K	328 K	369 K	410 K
Disk	No. of cylinders		40			40			40			40		
	Total No. of tracks		40			40			80			80		
Recording system	System		FM			MFM			FM			MFM		
	Max recording density	BPI	4473			8946			4915			9830		
	Track density	TPI	100			100			100			100		
	Data transfer rate	bits/sec	125 K			250 K			125 K			250 K		
Process time	Average access time	msec	70						70					
	Between tracks *2	msec	3						3					
	Settling time	msec	30						30					
	Ready from Motor ON *1	sec	1 max						1 max					
	Motor start time	sec	0.5 max						0.5 max					
Media RPM		rpm	300						300					
Dimensions & Weight	W x H x D	mm	90 x 40 x 150						90 x 40 x 150					
	Weight	kg	0.55						0.55					
Power source	DC 12 V		12 V $\pm 5\%$ 0.6 A max						12 V $\pm 5\%$ 0.6 A max.					
	DC 5 V		5 V $\pm 5\%$ 0.6 A max						5 V $\pm 5\%$ 0.5 A max.					
Media			3" compact floppy disk						3" compact floppy disk					
Drive interface			Plug compatible with 5.25" FDD						Plug compatible with 5.25" FDD					

NOTE: 1. Lapse of time from input of the MOTOR ON signal until output of the READY signal upon sensing that the motor has reached the specified rotation speed

2. Settling time is not included

HOW TO CONNECT YOUR NEW DRIVE TO THE AMSTRAD 6128

1. Check that your drive is the right type, it should say HFD305SX or HFD305SXA.
2. Move the drive select link to position DS1. The links are located on the top circuit board, towards the back. Looking from the front of the drive move the link one position to the left. It should now be the third from the left. See diag 1.
3. These drives do not come with a power supply. Connect your power supply to the drive. This must be stabilised and provide +12v and +5v at 0.5 amp each.
4. Connect the data cable this should be connected so that pin 1 of the Amstrad goes to pin 34 of the drive and vice versa. If you bought the cable with the drive it has been wired correctly. Connect it so that the red stripe is nearest to the polarising slot on the computer and drive edge connectors. See diag 1.
5. Turn the power to the drive on, insert a disc and then turn the power to the computer on
6. The drive can now be used by typing B: (return) when in CP/M.

It is very rare that these drives are faulty so please do persevere.

We are sorry but we cannot offer a troubleshooting service on the drives.

We will replace faulty units which are returned to us within 30 days

