

# SPECIFYING A PART NUMBER

**DSV-H-W-X-Y-Z**

**Example:** DS145-95-K0-H-1184000-H is a: 145 series motor  
 95mm tall  
 120 V/Krpm back EMF winding  
 with hall sensors  
 1,184,000 post quad cts/rev encoder  
 High accuracy grade

**ACCURACY GRADE**

H = High  
 P = Precision

**ENCODER RESOLUTION** (Post Quad Cts/Rev)

**DS100 SERIES**

8,192 (1Vpp, sin/cos)  
 8,192 (no thru bore)  
 32,768  
 163,840  
 327,680  
 819,200  
 1,638,400  
 3,276,800

**DS145 SERIES**

11,840 (1Vpp, sin/cos)  
 8,192 (no thru bore)  
 47,360  
 40,000 (no thru bore)  
 80,000 (no thru bore)  
 236,800  
 473,600  
 1,184,000  
 2,368,000  
 4,736,000

**DS175 SERIES**

11,840 (1Vpp, sin/cos)  
 8,192 (no thru bore)  
 47,360  
 40,000 (no thru bore)  
 80,000 (no thru bore)  
 236,800  
 473,600  
 1,184,000  
 2,368,000  
 4,736,000

**HALL SENSOR OPTION**

H = with hall effect sensors  
 N = no hall effect sensors

**WINDING SELECTION**

**HEIGHT**

**DS100 SERIES**

80 = 80mm  
 93 = 93mm  
 106 = 106mm  
 119 = 119mm

**DS145 SERIES**

95 = 95mm  
 105 = 105mm  
 115 = 115mm  
 125 = 125mm  
 135 = 135mm

**DS175 SERIES**

130 = 130mm  
 155 = 155mm  
 180 = 180mm  
 205 = 205mm  
 230 = 230mm

**SERIES IDENTIFIER** (Rotating Diameter)

100 = 100mm Series  
 145 = 145mm Series  
 175 = 175mm Series

## MAXIMUM SPEED CHART

DS100 Series Speed (RPM)						
Resolution						
Min Receiver Clock Frequency (MHz)	32,768 cts/rev	163,840 cts/rev	327,680 cts/rev	819,200 cts/rev	1,638,400 cts/rev	3,276,800 cts/rev
50	3,673	3,673	3,673	2,380	1,190	595
40	3,673	3,673	3,673	1,983	992	496
25	3,673	3,673	2,975	1,190	595	297
20	3,673	3,673	2,479	992	496	248
12	3,673	3,306	1,653	661	331	165
10	3,673	2,975	1,487	595	297	149
8	3,673	2,380	1,190	474	238	119
6	3,673	1,653	826	331	165	83
4	3,673	1,238	617	246	124	62
1	1,543	309	154	59	31	15

DS145 & DS175 Series Speed (RPM)						
Resolution						
Min Receiver Clock Frequency (MHz)	47,360 cts/rev	236,800 cts/rev	473,600 cts/rev	1,184,000 cts/rev	2,368,000 cts/rev	4,736,000 cts/rev
50	2,546	2,546	2,546	1,650	825	413
40	2,546	2,546	2,546	1,375	688	344
25	2,546	2,546	2,063	825	413	206
20	2,546	2,546	1,719	688	344	172
12	2,546	2,292	1,146	458	229	115
10	2,546	2,063	1,031	413	206	103
8	2,546	1,650	825	328	165	83
6	2,546	1,146	573	229	115	57
4	2,546	858	428	171	86	43
1	1,070	214	107	41	21	11