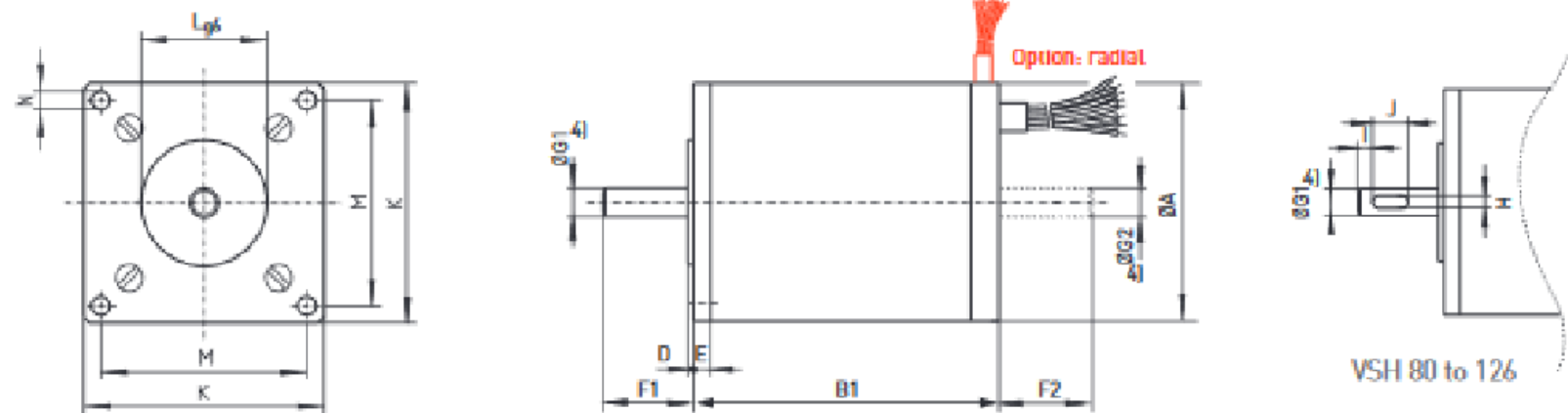


# Stepper Motor VSS 19 to VSS 57, VSH 80 to VSH 126

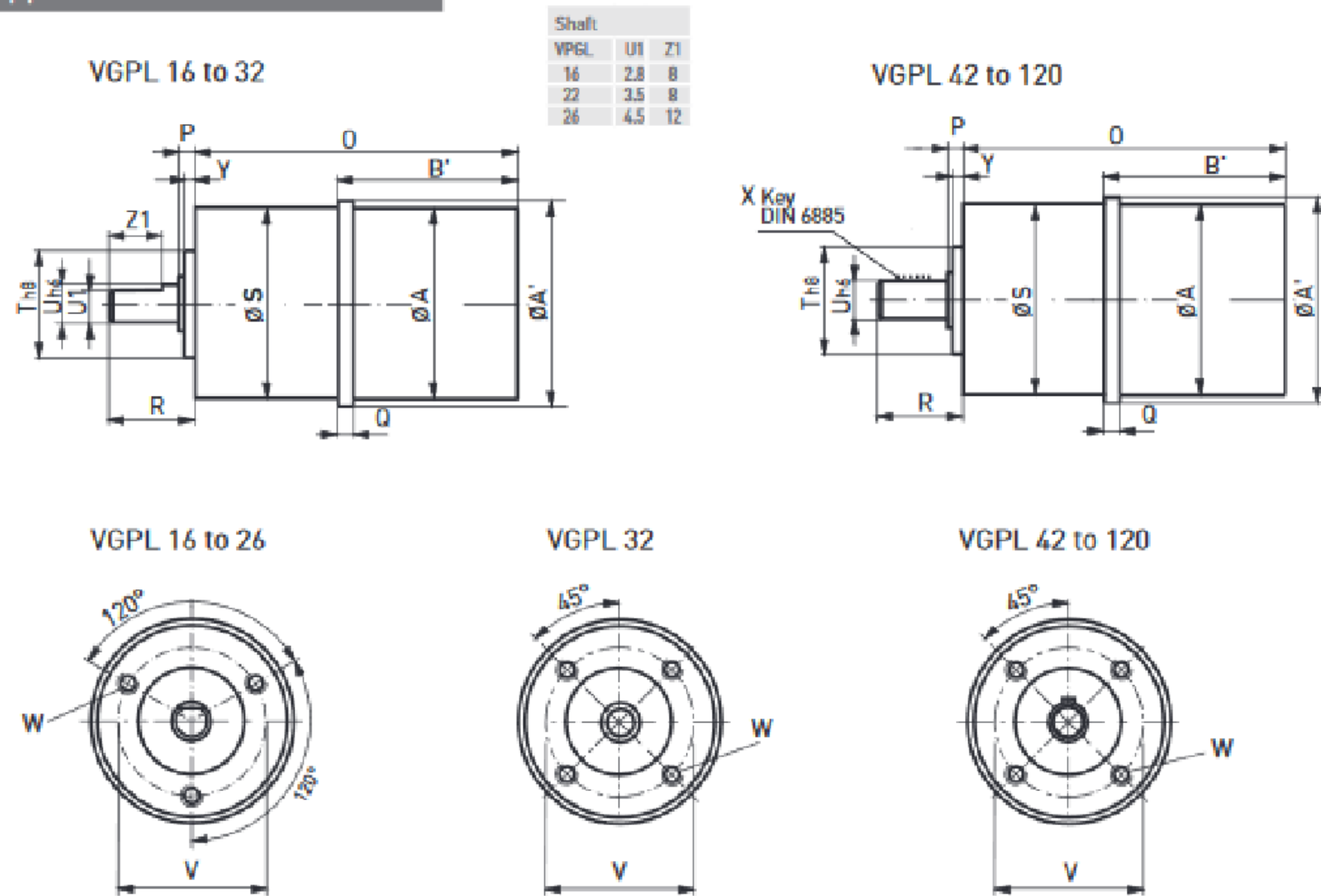


Key	H	I	J
VSH 80	3	2.5	20
VSH 100	4	3	22
VSH 126	5	3.5	22

## Dimensions / Electrical and Mechanical Characteristics

VSS/VSH Standard 200-steps 4 lead parallel <sup>(3)</sup>	Electrical characteristics					Mechanical characteristics																				
	Current/ phase IN	Resistance/ phase	Inductivity/ phase	max. operating voltage	AWG	Holding torque Z <sub>0</sub>	Detent torque	Rotor inertia	Loads		Mass	Dimensions in mm														
									axial	radial																
A	Ω	mH	V <sub>DC</sub>		mNm	mNm	kg cm <sup>2</sup>	N	N	kg	A	B1	D	E	F1	F2	G1 <sup>(4)</sup>	G2 <sup>(4)</sup>	K	L	M	N				
<a href="#">19.200.0.6<sup>(1)</sup></a> <a href="#">19.200.1.2<sup>(1)</sup></a>	<a href="#">0.6</a> <a href="#">1.2</a>	<a href="#">2.1</a> <a href="#">0.63</a>	<a href="#">0.85</a> <a href="#">0.23</a>		28	<a href="#">3.4</a> <a href="#">3.5</a>	0.9	0.0009	3	3	0.05	19	26.5	1	2	7.5	6.5	2.5	2.5	19	10	16	M2.5			
<a href="#">20.200.0.6</a> <a href="#">20.200.1.2</a>	0.6 1.2	3.45 0.95	1.1 0.4		28	8	1	0.002	3	3	0.075	19	43	1	2	7.5	6.5	2.5	2.5	19	10	16	M2.5			
<a href="#">25.200.0.6</a> <a href="#">25.200.1.2<sup>(1)</sup></a>	0.6 <a href="#">1.2</a>	3.25 <a href="#">0.95</a>	1.5 <a href="#">0.4</a>		28 26	12	2	0.0025	5	5	0.08	25	31	1	2.5	9.5	8.5	3	3	25	14	21.5	2.2			
<a href="#">26.200.0.6</a> <a href="#">26.200.1.2</a>	0.6 1.2	5.85 1.7	3.2 1.0		28 26	28	1.9	0.006	5	5	0.13	25	47	1	2.5	9.5	8.5	3	3	25	14	21.5	2.2			
<a href="#">32.200.0.6</a> <a href="#">32.200.1.2<sup>(1)</sup></a>	0.6 <a href="#">1.2</a>	4.6 <a href="#">1.25</a>	5.3 <a href="#">1.2</a>	70	26	40	3	0.01	5	15	0.17	32	38.5	1	3	11	10	4	4	32	18	27	2.8			
<a href="#">33.200.0.6</a> <a href="#">33.200.1.2<sup>(1)</sup></a>	0.6 <a href="#">1.2</a>	7.5 <a href="#">1.9</a>	9.3 <a href="#">2.2</a>		26	68	3.3	0.018	5	15	0.26	32	57.5	1	3	11	10	4	4	32	18	27	2.8			
<a href="#">42.200.1.2<sup>(1)</sup></a> <a href="#">42.200.2.5<sup>(1)</sup></a>	<a href="#">1.2</a> <a href="#">2.5</a>	<a href="#">1.7</a> <a href="#">0.34</a>	<a href="#">3</a> <a href="#">0.7</a>		24 22	120	5	0.045	20	40	0.35	42	54	1	3	16	15	5	4	42	22	36	3.2			
<a href="#">43.200.1.2<sup>(1)</sup></a> <a href="#">43.200.2.5</a>	<a href="#">1.2</a> 2.5	<a href="#">2.6</a> 0.5	<a href="#">5.2</a> 1.2		24 22	235	7	0.077	20	40	0.52	42	69	1	3	16	15	5	4	42	22	36	3.2			
<a href="#">52.200.1.2</a> <a href="#">52.200.2.5</a>	1.2 2.5	2.65 0.6	7 1.6		24 22	350	13	0.15	25	70	0.72	52	65	1.5	3.5	17.5	16	6	4	52	28	44	4.3			
<a href="#">56.200.1.2</a> <a href="#">56.200.2.5</a>	1.2 2.5	3.9 0.8	9.5 2.4		24 22	420	30	0.17	40	80	0.78	56.4	58.1	1.5	4.5	22	20.5	6.35	6.35	60	38.1	47.1	5.2			
<a href="#">57.200.1.2</a> <a href="#">57.200.2.5<sup>(1)</sup></a>	1.2 <a href="#">2.5</a>	3.9 <a href="#">0.8</a>	11.6 <a href="#">2.9</a>		24 22	840	50	0.24	40	80	0.99	56.4	74.1	1.5	4.5	22	20.5	6.35	6.35	60	38.1	47.1	5.2			
<a href="#">60.200.3</a>	3	0.4	2.3		120	16	2300	120	1.24	30	160	2.8	60	100	2	7.5	27	23	10	7	60	30	60	8.4		
<a href="#">100.200.10</a>	10	0.15	2.1	16		4300	140	4.4	70	300	5	100	125.5	2	8	32	30	12	12	100	60	86	6.4			
<a href="#">126.200.10</a>	10	0.23	3.9	16		13000	290	18.2	150	700	13.9	125	210	3	9.5	34	31	14	14	125	60	108	8.4			

## Stepper Motor with VGPL Gear



Shaft	U1	Z1
VGPL 16	2.8	8
VGPL 22	3.5	8
VGPL 26	4.5	12

## Dimensions

Gear	Stepper motor  VSS/ VSH	Dimensions in mm																Mass		
					Stages											Stages				
					1	2	3									1	2	3		
		A	A'	B'	Ø			P	Q	R	S	T	U	V	W	X	Y	[Motor and gear] in kg		
VGPL 16	19 20	19	22	29 46	48 64.5	53 69.5	58 74.5	2	4.5	12.5	16	10	3	13	M 2x4	-	1.5	0.07 0.09	0.07 0.1	0.08 0.11
VGPL 22	19 / 20 25 / 26	19 25	22 25.5	29 / 50 34 / 50	50 / 66.5 54.5 / 70.5	57 / 73.5 61.5 / 77.5	64 / 80.5 68.5 / 84.5	2.5	5.5 5	15	22	12	4	16	M 2.5x4	-	2	0.5 / 0.12 0.13 / 0.18	0.13 / 0.15 0.15 / 0.2	0.15 / 0.17 0.18 / 0.23
VGPL 26	25 / 26	25	26	34 / 50	59 / 74.5	67 / 82.5	75 / 90.5	2.5	5	17	26	14	5	20	M 3x4	-	2	0.15 / 0.2	0.17 / 0.22	0.19 / 0.24
VGPL 32	32 / 33	32	33	41 / 40	69.5 / 88.5	78.5 / 97.5	87.5 / 104.5	4	5	20	32	20	6	26	M 3x5	-	3	0.31 / 0.4	0.35 / 0.44	0.42 / 0.51
VGPL 42	42 / 43	42	43	58 / 83	93 / 118	105.5 / 130.5	118 / 143	4	7	22.5	42	25	8	32	M 4x8	3x3x14	3	0.63 / 0.8	0.7 / 0.87	0.78 / 0.95
VGPL 52	52 56 / 57	52 56 / 57	53 57	69 62 / 78	109.5 103 / 119	124 117.5 / 133.5	138.5 132 / 148	4	6.7 7	24	52	32	12	40	M 5x8	4x4x16	3	1.2 1.48 / 1.69	1.3 1.6 / 1.81	1.45 1.7 / 1.91
VGPL 80	80	80	80	116	160	178	196	5	23.1	35	80	50	14	85	M 8x12	8x8x20	2.5	3.3	4.9	6.95
VGPL 105	80 100 126	80 100 126	105 105 126	116 146 210	183 208 277	205 235 299	232 262 326	6	23.1 8 9.5	46	105	70	20	85	M 8x20	6x6x28	2.5	6.05 8.25 17.15	7.55 9.75 18.65	9.05 11.25 20.25
VGPL 120	126	125	125	210	283.5	313.5	343.5	7.5	9.5	57.5	120	80	25	100	M 10x25	8x7x40	3	18.9	21.15	23.4

3RD ANGLE PROJECTION

TOLERANCING PER: B.S. 308

NAME  
GJF  
GJF

DRAWN  
GJF  
GJF

CHECKED  
GJF  
GJF

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN mm  
TOLERANCES:  
0 PLACE DECIMAL ±0.5  
1 PLACE DECIMAL ±0.2  
2 PLACE DECIMAL ±0.1  
ANGULAR: ±0.5°  
DRILLED HOLES: ±0.05mm  
SURFACE FINISH: 1.6 micron  
0.2 x 45°

3RD ANGLE PROJECTION

TOLERANCING PER: B.S. 308

NAME  
GJF  
GJF

DRAWN  
GJF  
GJF

CHECKED  
GJF  
GJF

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN mm  
TOLERANCES:  
0 PLACE DECIMAL ±0.5  
1 PLACE DECIMAL ±0.2  
2 PLACE DECIMAL ±0.1  
ANGULAR: ±0.5°  
DRILLED HOLES: ±0.05mm  
SURFACE FINISH: 1.6 micron  
0.2 x 45°

LAST CHANGE DETAILS  
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1

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HLSML64-20895-001

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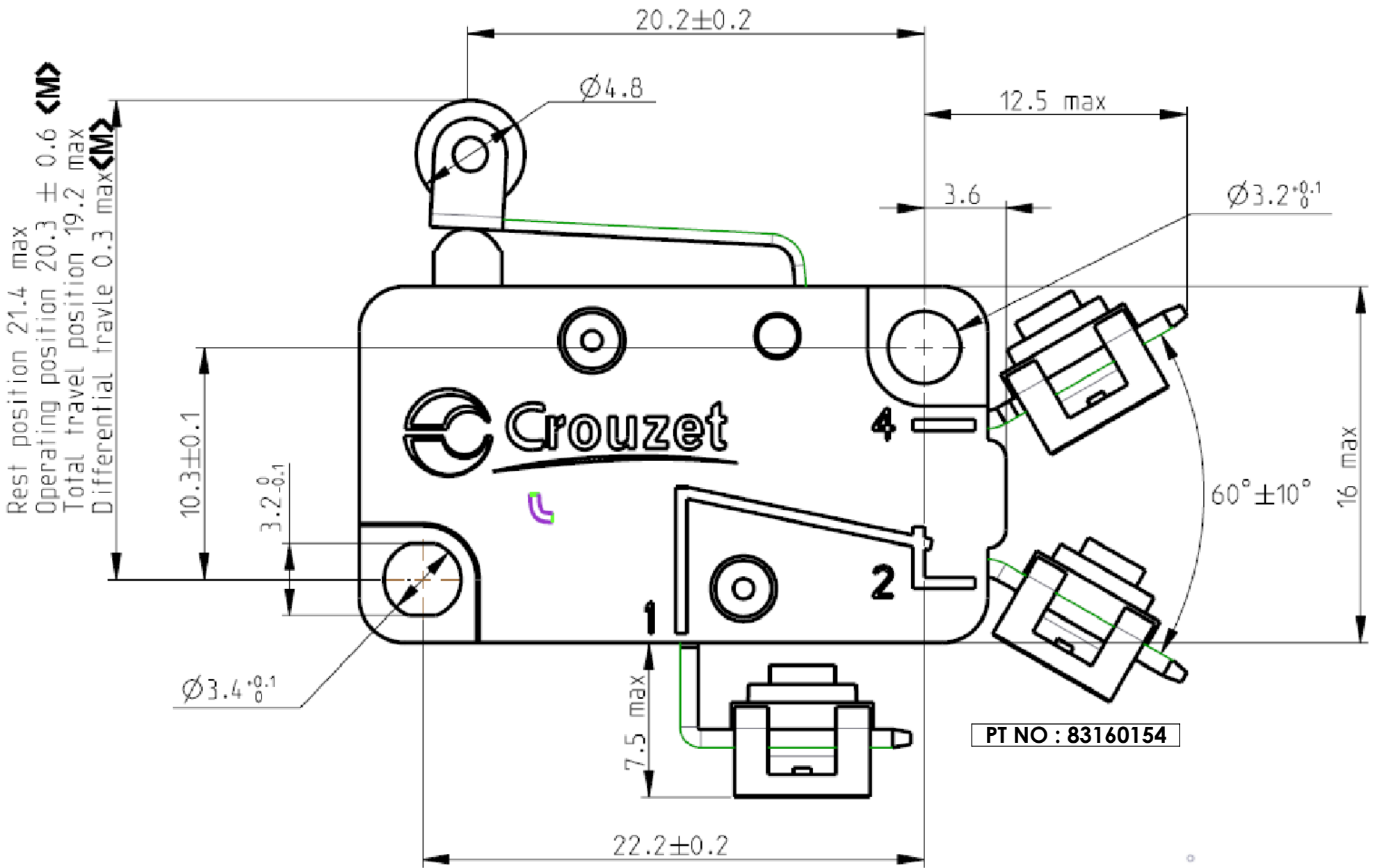
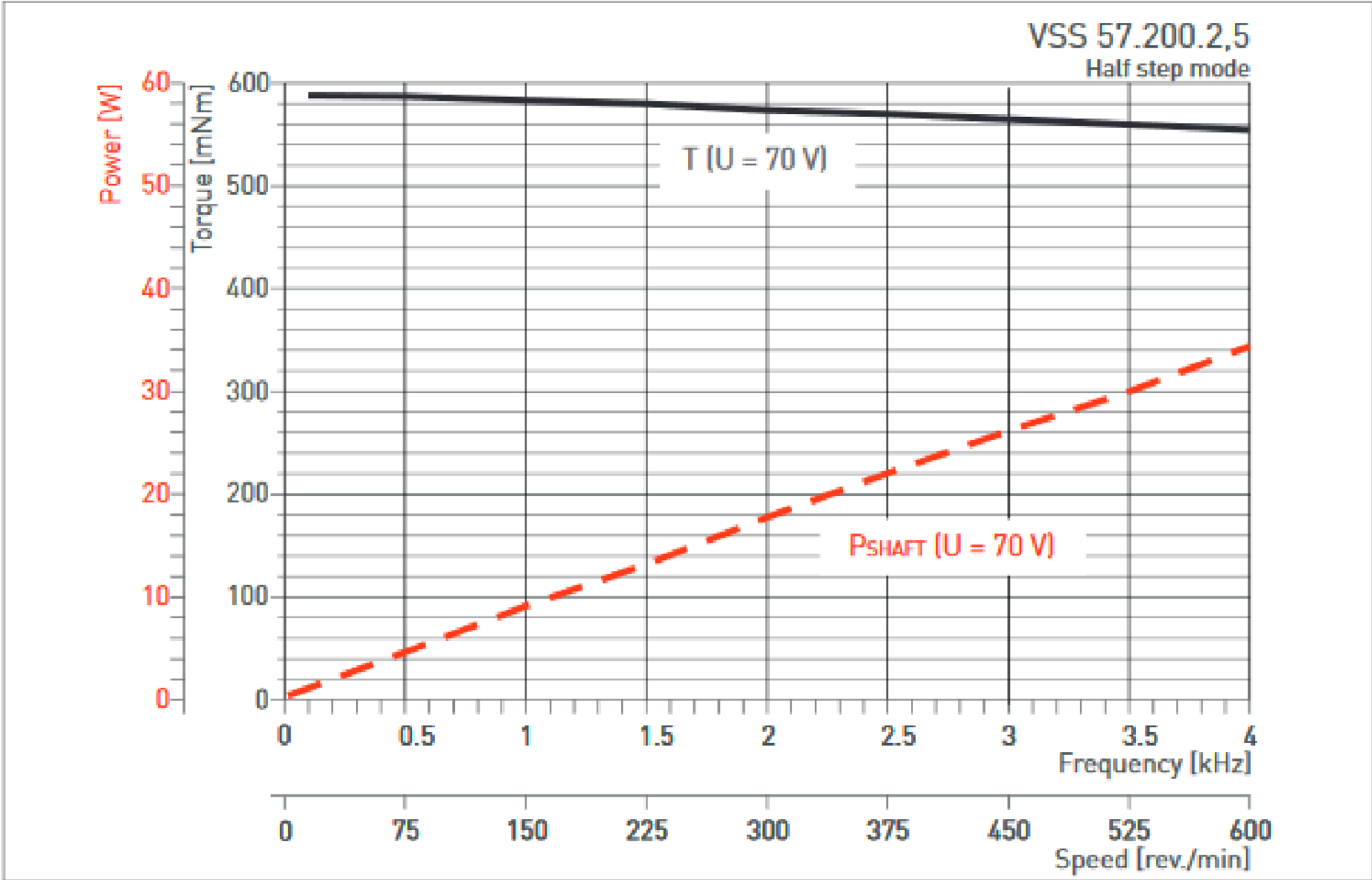
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MATERIAL  
FINISH  
WEIGHT (g)

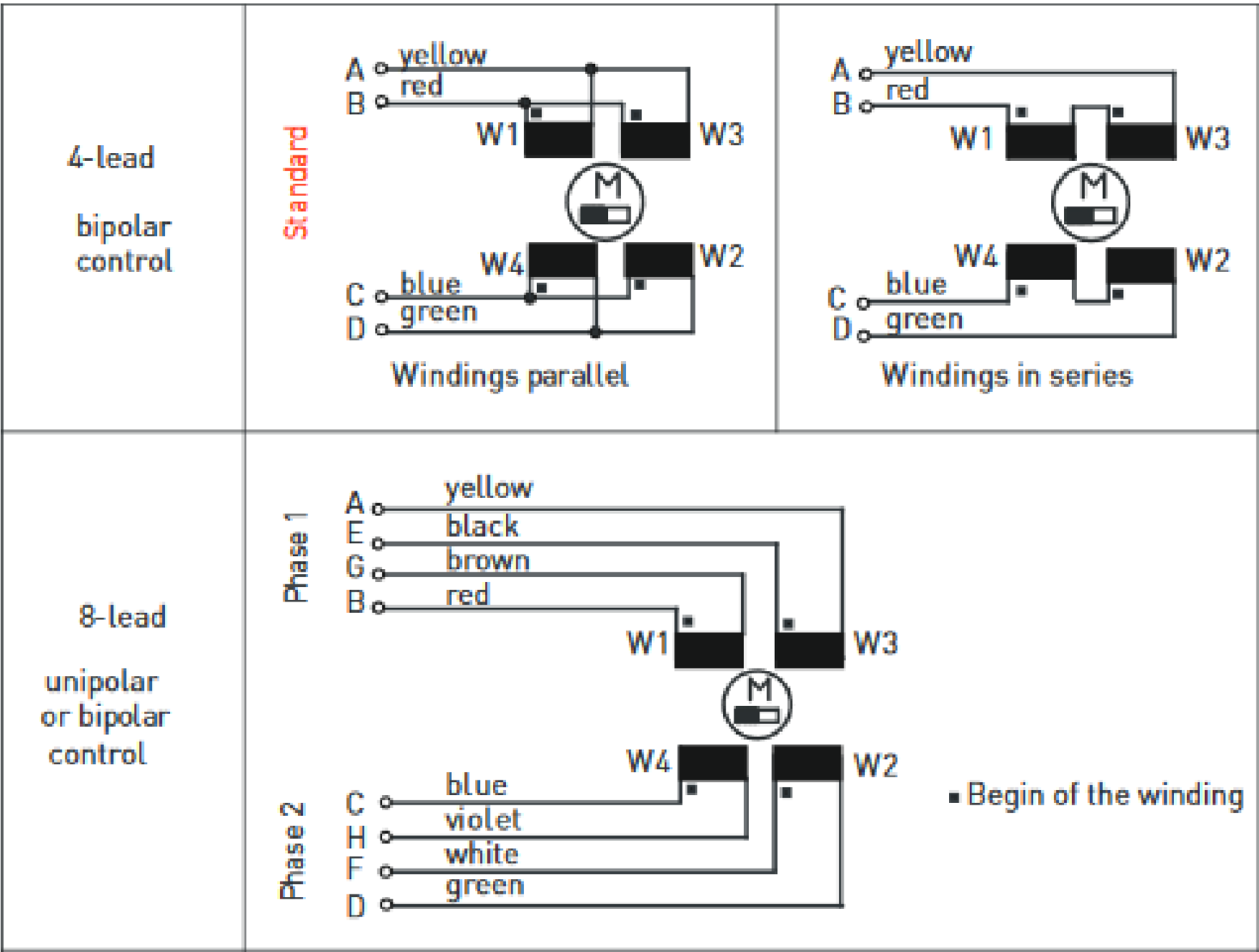
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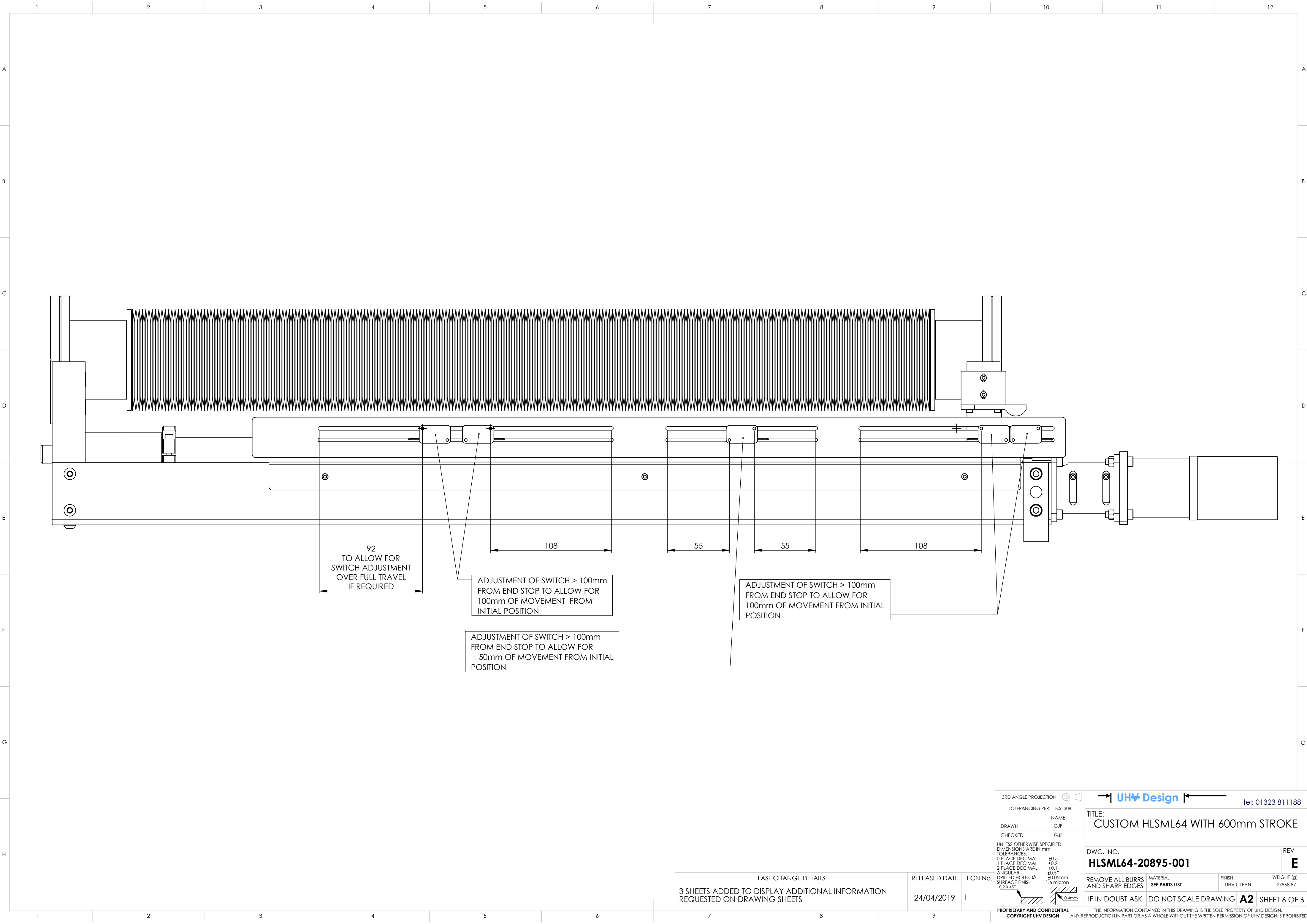
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## Electrical Connection





3RD ANGLE PROJECTION

TOLERANCING PER: B.S. 308

DRAWN

GJF

CHECKED

GJF

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN mm

TOLERANCES:

0 PLACE DECIMAL ±0.5

1 PLACE DECIMAL ±0.2

2 PLACE DECIMAL ±0.1

ANGULAR: ±0.5°

DRILLED HOLES Ø ±0.05mm

SURFACE FINISH 1.6 micron

0.2 x 45°

0.4mm

0.4mm

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tel: 01323 811188

TITLE:

CUSTOM HLSML64 WITH 600mm STROKE

DWG. NO.

HLSML64-20895-001

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AND SHARP EDGES

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WEIGHT (g)  
27968.87

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