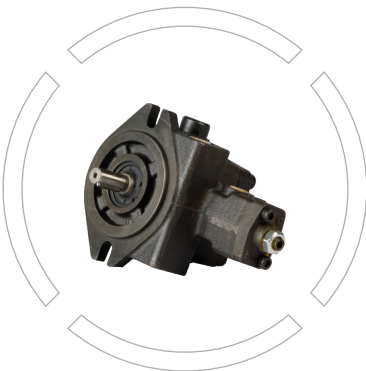


Variable Vane Pump

Direct operated Type TVCM

Size: 08 to 50 ltr @1800rpm
Maximum operated pressure 70bar
Displacement volume 4.4cc to 27.7cc



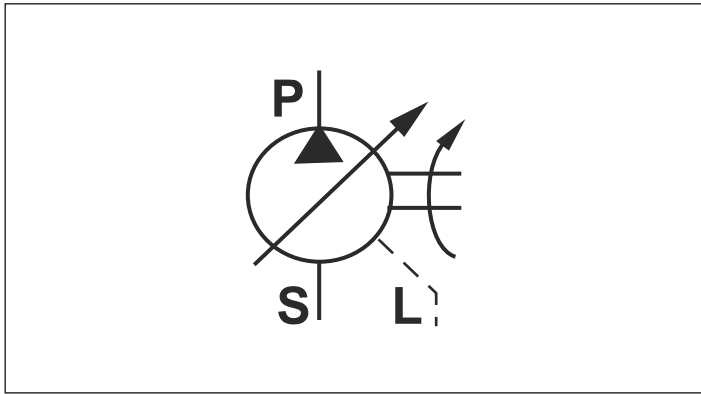
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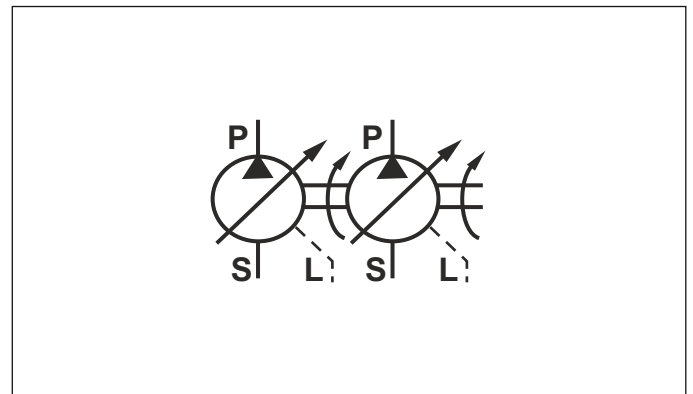
Features

- Great efficiency, operation with minimum pressure loss
 - Power saving
 - Very low noise during operation
 - Compact and simple design, space saving
 - Sturdy structure for high efficiency and long service life
 - Adjustable displacement volumes
 - Highly preferred for CNC and special purpose machines and general applications
-
- Symbols

Single Pump



Double Pump





Ordering code

	TVCM	SF	-	30	D	-	30	D	10	G
Variable Vane Pump										
Single Pump		= SF								
Double Pump		= DF								
First pump output @1800rpm in litre										
4.44cc/rev				= 08						
6.66cc/rev				= 12						
8.33cc/rev				= 15						
11.11cc/rev				= 20						
16.66cc/rev				= 30						
22.22cc/rev				= 40						
27.77cc/rev				= 50						
Max. pressure setting range upto										
20bar				= A						
35bar				= B						
55bar				= C						
70bar				= D						
Single pump								= No code		
Second pump output @1800 rpm in litre										
4.44cc/rev					= 08					
6.66cc/rev					= 12					
8.33cc/rev					= 15					
11.11cc/rev					= 20					
16.66cc/rev					= 30					
22.22cc/rev					= 40					
27.77cc/rev					= 50					
Single pump								= No code		
Max. pressure setting range upto										
20bar					= A					
35bar					= B					
55bar					= C					
70bar					= D					
Shaft code for single pump										
For size 08, 12, 15, 20										
Parallel shaft with key Ø12.7mm									= 10	
Parallel shaft with key Ø15.875mm									= 11	
For Size 30, 40, 50										
Parallel shaft with key Ø19.05mm									= 10	
Parallel shaft with key Ø15.875mm									= 11	
Shaft code for double pump										
For size 08, 12, 15, 20										
Parallel shaft with key Ø15.875mm									= 10	
For size 30, 40, 50										
Parallel shaft with key Ø19.05mm										
BSP ports										= G



Technical data

Model	Delivery at no load L/min		Pressure Adj. range bar	Shaft speed rpm		Max. pressure bar	Weight Kg	Oil temperature	“G” BSP as per ISO 228/1		
	1800rpm	1500rpm		Max	Min				Inlet	Outlet	Drain
SF/DF-08A	08	6.5	20	1800	800	20	Single pump 5.0	15°C ~ 60°C during operation	1/2” BSP	3/8” BSP	1/4” BSP
SF/DF-08B			35			35					
SF/DF-08C			55			55					
SF/DF-08D			70			70					
SF/DF-12A	12	8	20			20					
SF/DF-12B			35			35					
SF/DF-12C			55			55					
SF/DF-12D			70			70					
SF/DF-15A	15	10	20			20					
SF/DF-15B			35			35					
SF/DF-15C			55			55					
SF/DF-15D			70			70					
SF/DF-20A	20	16	20			20					
SF/DF-20B			35			35					
SF/DF-20C			55			55					
SF/DF-20D			70			70					
SF/DF-30A	30	25	20			20					
SF/DF-30B			35			35					
SF/DF-30C			55			55					
SF/DF-30D			70			70					
SF/DF-40A	40	35	20			20					
SF/DF-40B			35			35					
SF/DF-40C			55			55					
SF/DF-40D			70			70					
SF/DF-50A	50	42	20			20					
SF/DF-50B			35			35					
SF/DF-50C			55			55					
SF/DF-50D			70			70					
Single pump 9.0											



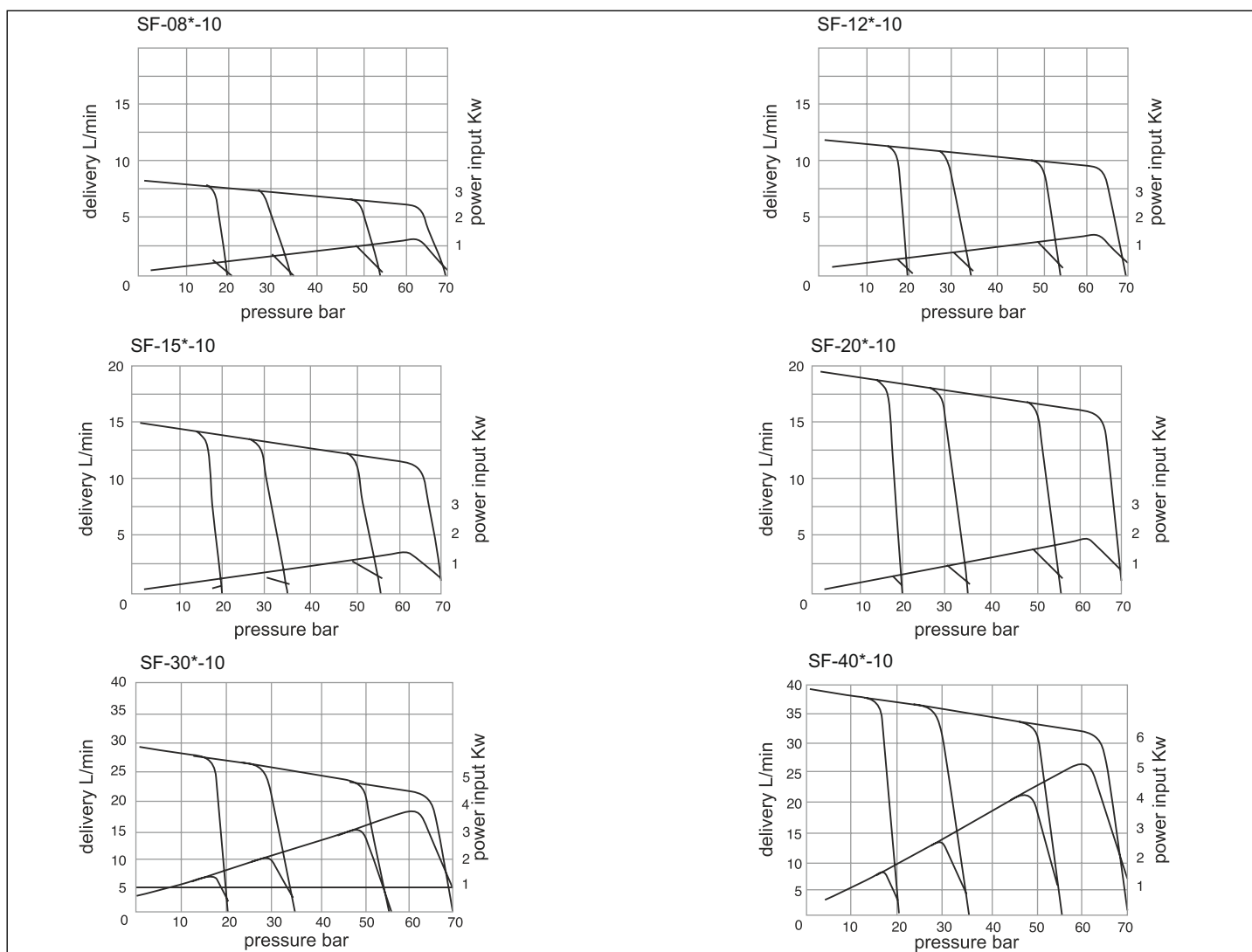
Technical data

Important info: All pumps are available in BSP ports	
Shaft rotation	Clockwise rotation viewd from the shaft end is standard
Temperature range (°C)	-10 to +60, permissible viscosity range
Viscosity range	60 to 160 at operating temperature
Degree of contamination	recommend a filter with a minimum rating @20 micron
Inlet pressure, absolute	±0.03 bar
Mounting type	flange connection at any position
Shaft loading	radial only, to be coupled to electric motor only $\pm 1^\circ$ angular deflection, alignment between shafts to 0.05mm
Pressure fluid	HLP - mineral oil to DIN 51 524 part 2
	viscosity 30~50 (cst) (Vg32) @ 40°C

Performance curves

Notes:

- Pressure increases by adjusting screw is turned clockwise and reduce anti-clockwise.
- **Caution**, pump always to be started for the first time in **NO-LOAD** condition, repeat starting and stopping several times to bleed air, keep at **NO-LOAD** condition for minimum 10-15 minutes.
- **Drain connection** must be piped directly to tank and back pressure not to exceed 0.3bar



Notes:

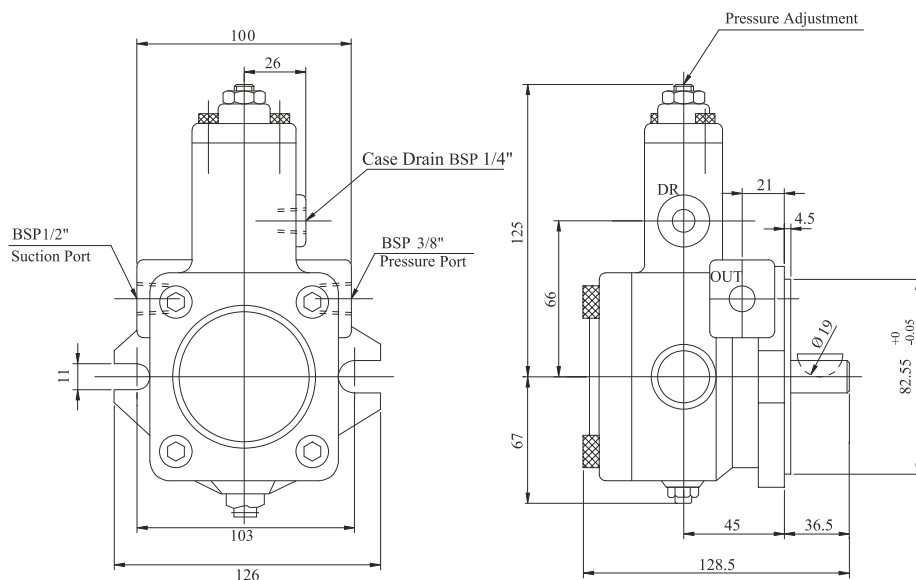
- The pressure curve for TVCM-SF-50* will be updated soon.



Unit dimensions of SF-08/12/15/20

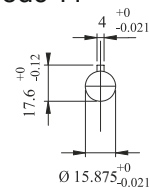
(dimensions in mm)

SF-08*-**
SF-12*-**
SF-15*-**
SF-20*-**

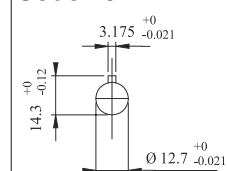


Shaft dim

Code 11



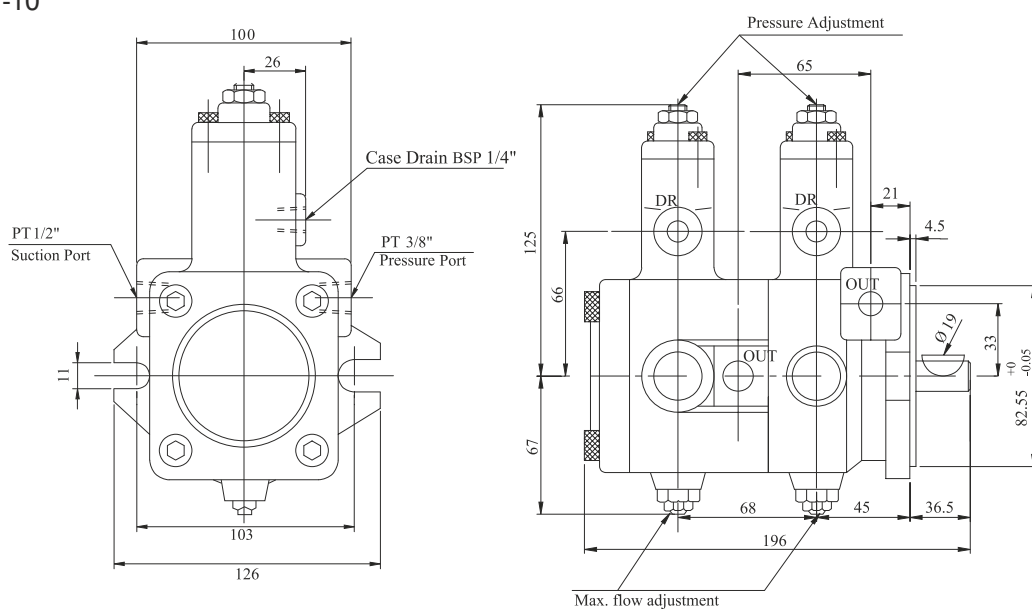
Code 10



Unit dimensions of DF-08/12/15/20

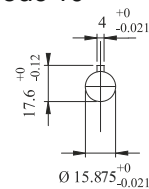
(dimensions in mm)

DF-08*-10
DF-12*-10
DF-15*-10
DF-20*-10



Shaft dim

Code 10

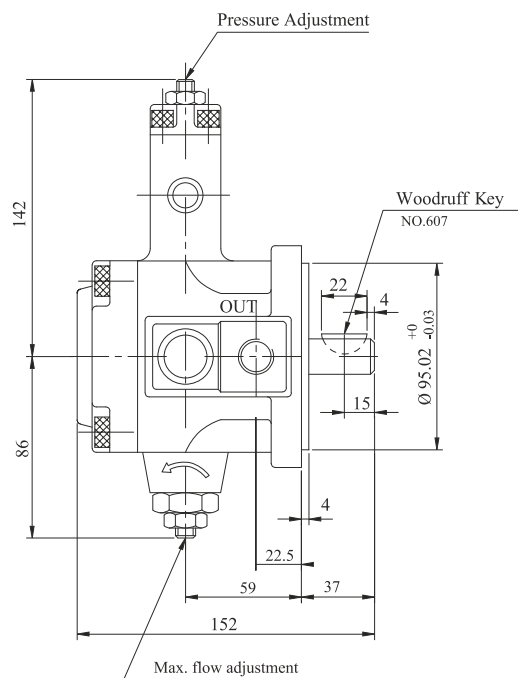
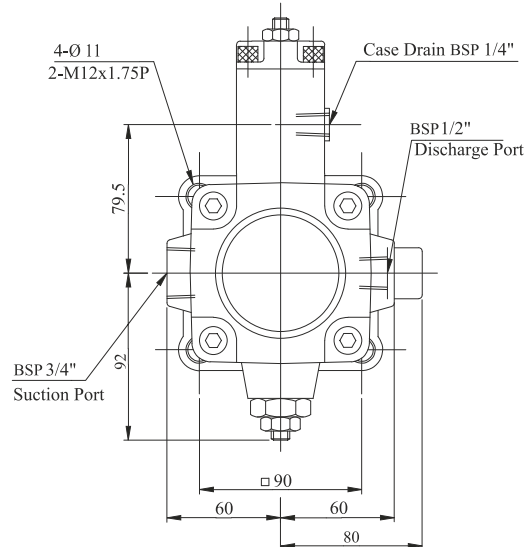




Unit dimensions of SF-30/40/50

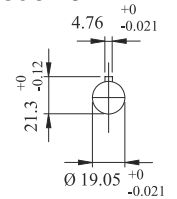
(dimensions in mm)

SF-30*-**
SF-40*-**
SF-50*-**

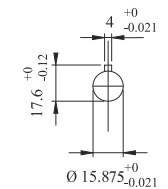


Shaft dim

Code 10



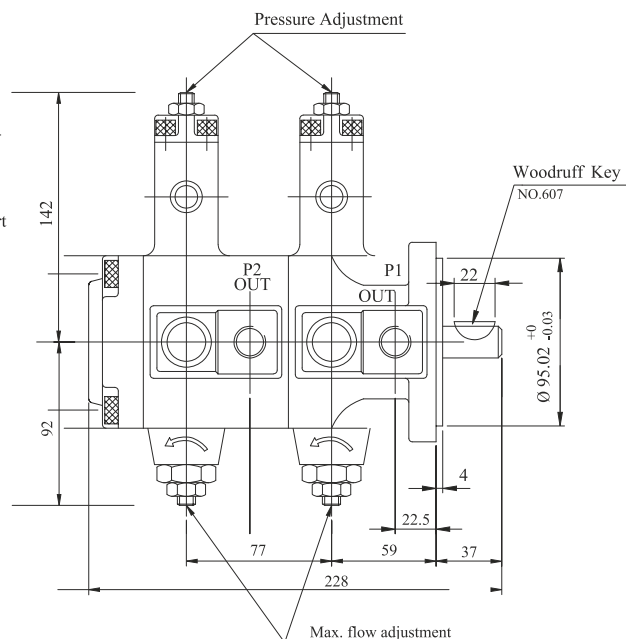
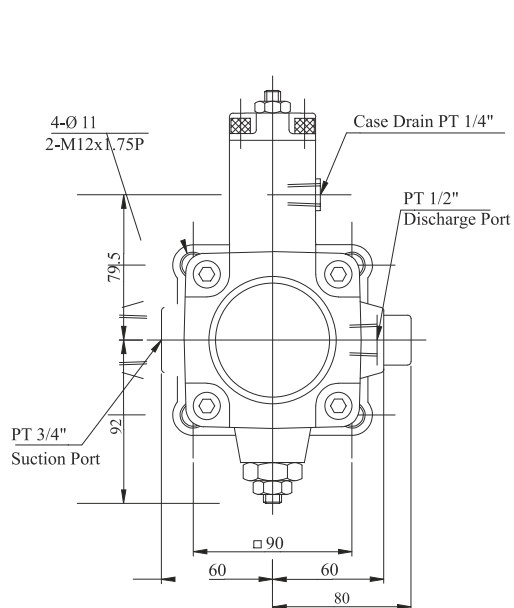
Code 11



Unit dimensions of DF-30/40/50

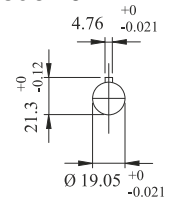
(dimensions in mm)

DF-30*-10
DF-40*-10



Shaft dim

Code 10





Ordering code for motors

SD	-	1.0	/	420	-		-	A	-	B2
----	---	-----	---	-----	---	--	---	---	---	----

Electric motor Foot cum face cast iron body

Sizes in HP

0.5, 1, 2, 3, 5, 7.5, 10

Supply Voltage 420V

= 230/420

Spigot

Ø82.55 mm

Ø95.02 mm

Ø101.6 mm

= S

= S1

= S2

Foot cum face

2 bolt

4 bolt

8 bolt

= O

= A

= B

Hollow shaft size

Ø12.7 mm

Ø15.875 mm

Ø19.05 mm

Ø22.23 mm

= A2

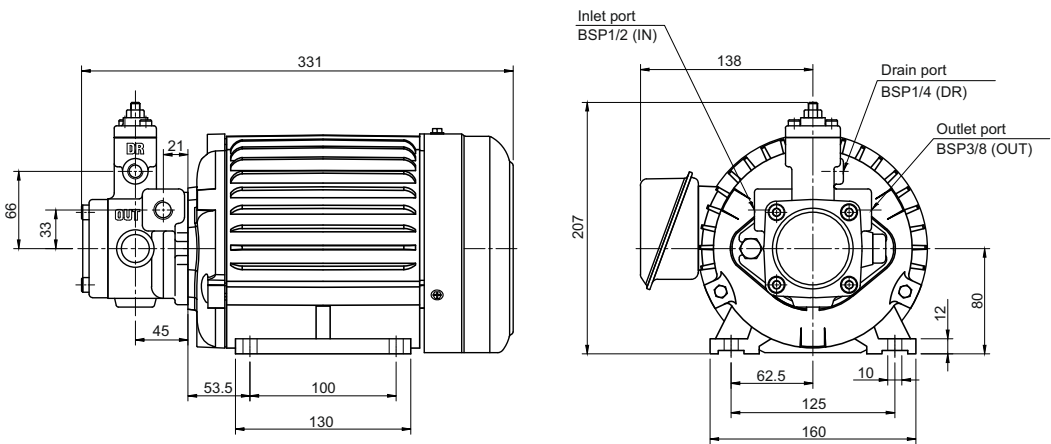
= B2

= C2

= D2

Unit dimensions of 0.5HP with TVCM

(dimensions in mm)

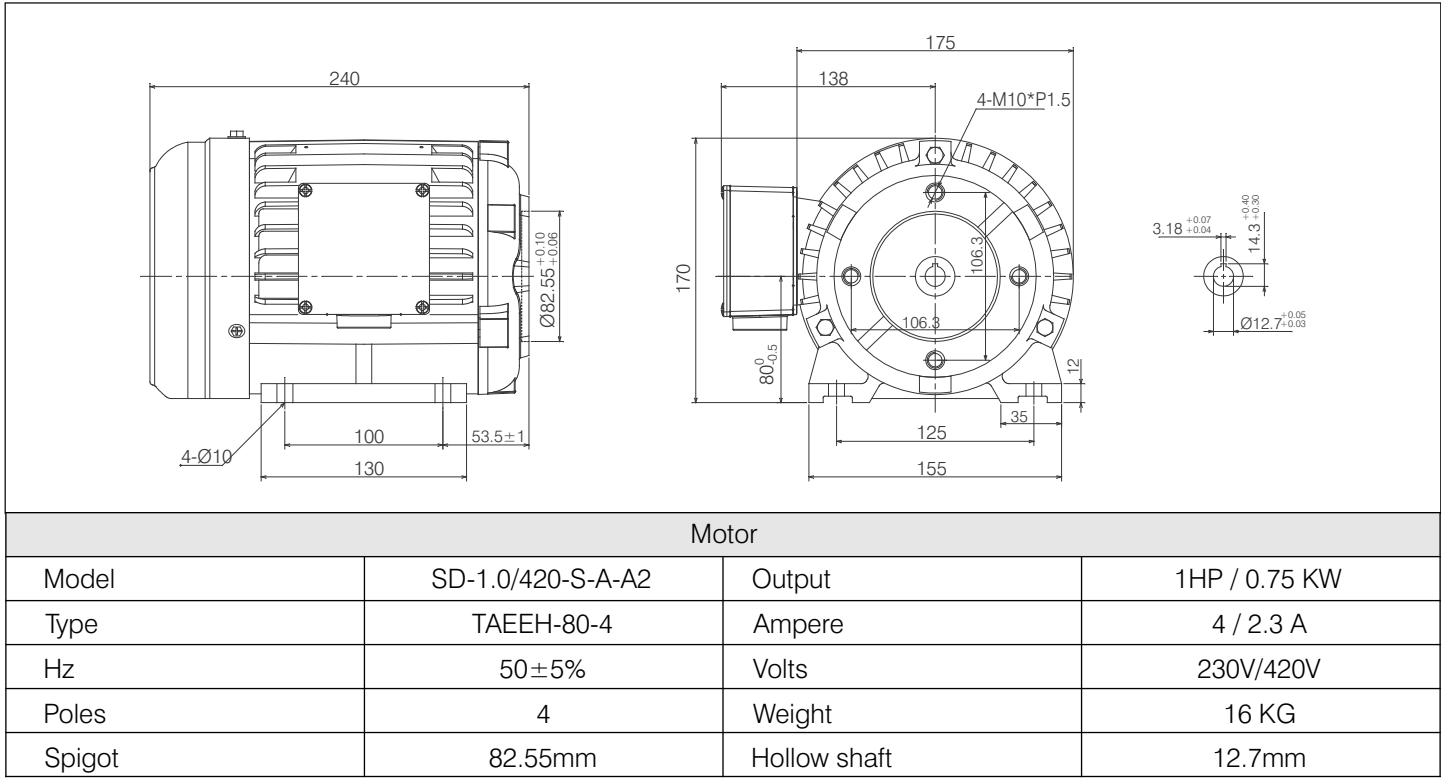
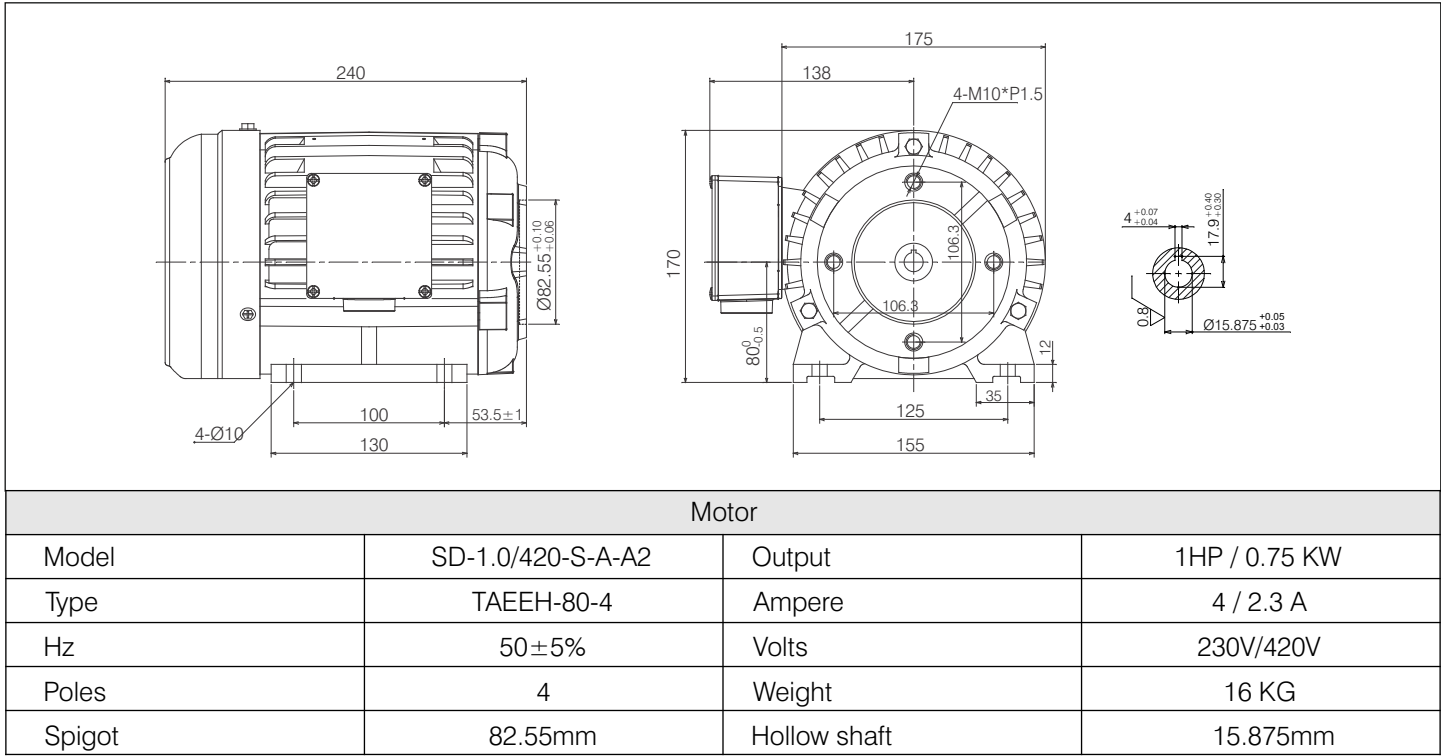


Pump		Motor	
Operating medium	Hydraulic mineral oil	Model	AEEH 80S
Max. Pressure	20 Bar	Output	0.5HP/0.37kw
Flow rate	20 lpm @1800rpm	Hz	50 ±5%
Displacement	11 cc/rev	Poles	4
Pump speed	1500 rpm	Ampere	1.93/1.12 A
Operating temperature	55°C max	Volts	230V/420V
Spigot	82.5mm	Hollow shaft	12.7mm



Unit dimensions of 1HP

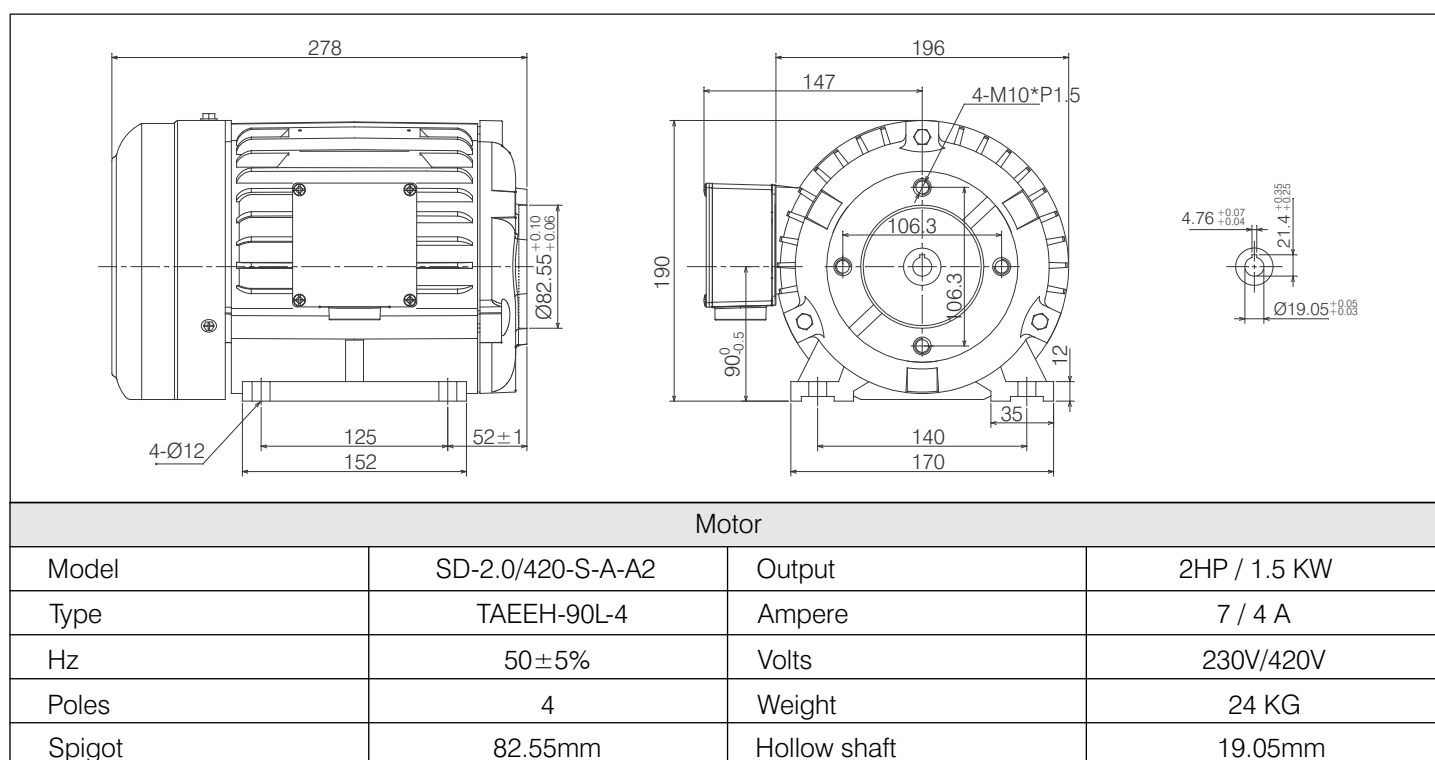
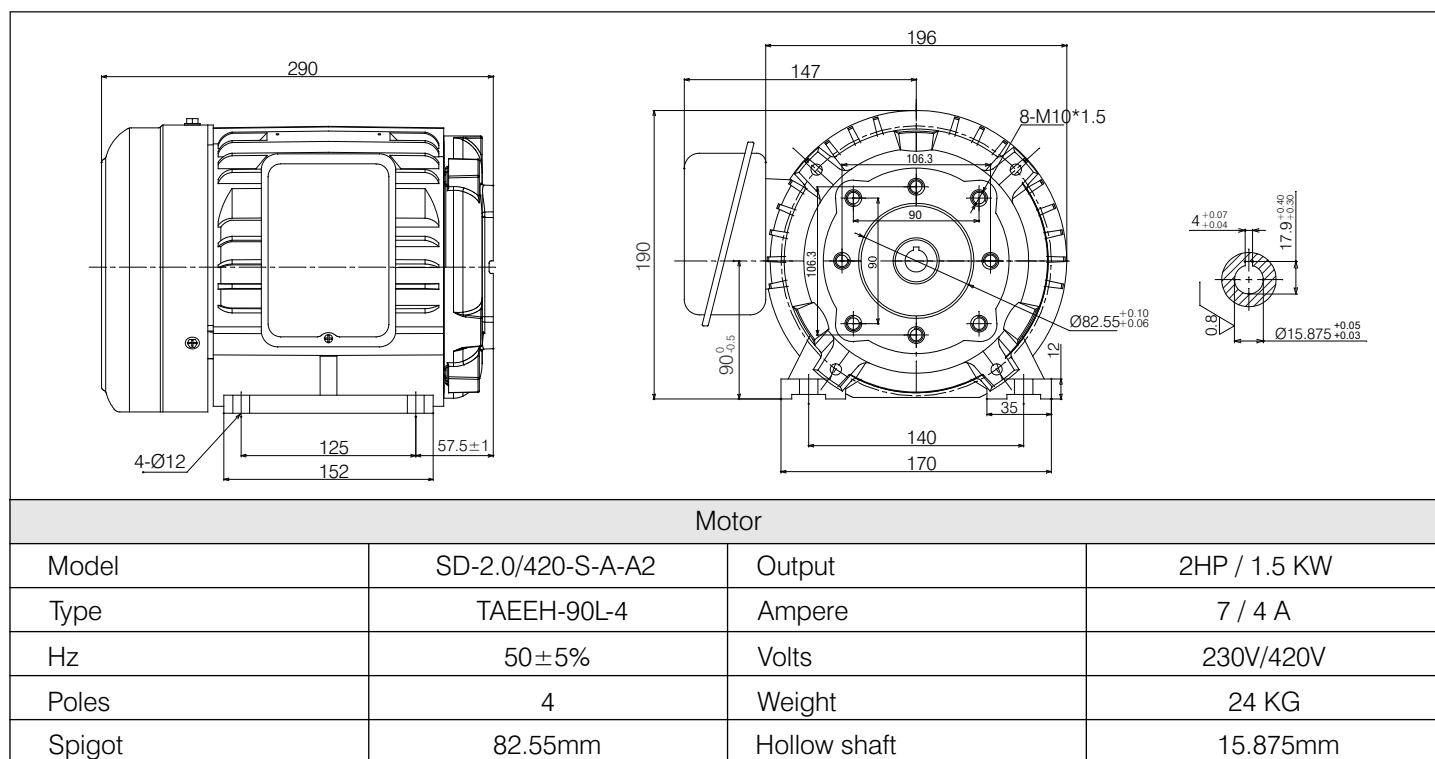
(dimensions in mm)





Unit dimensions of 2HP

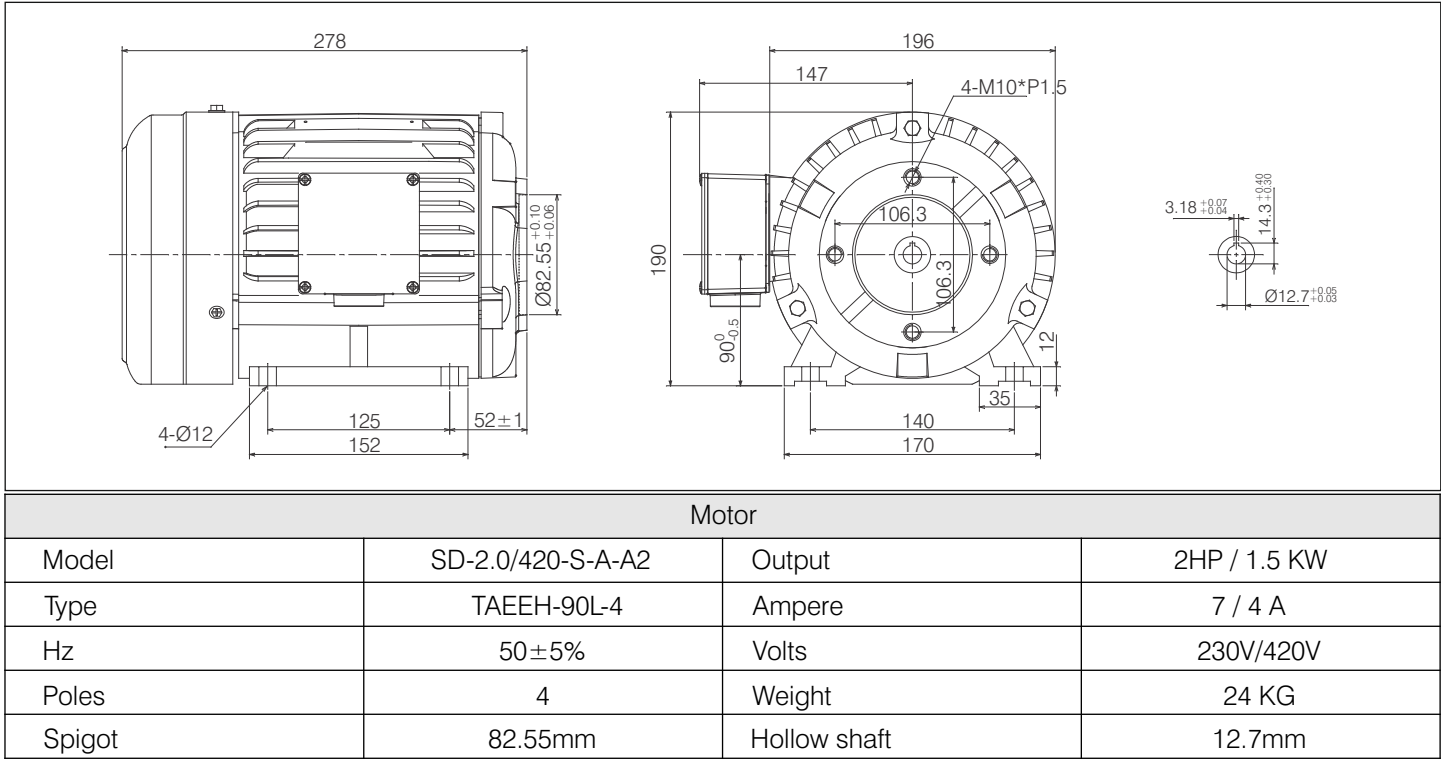
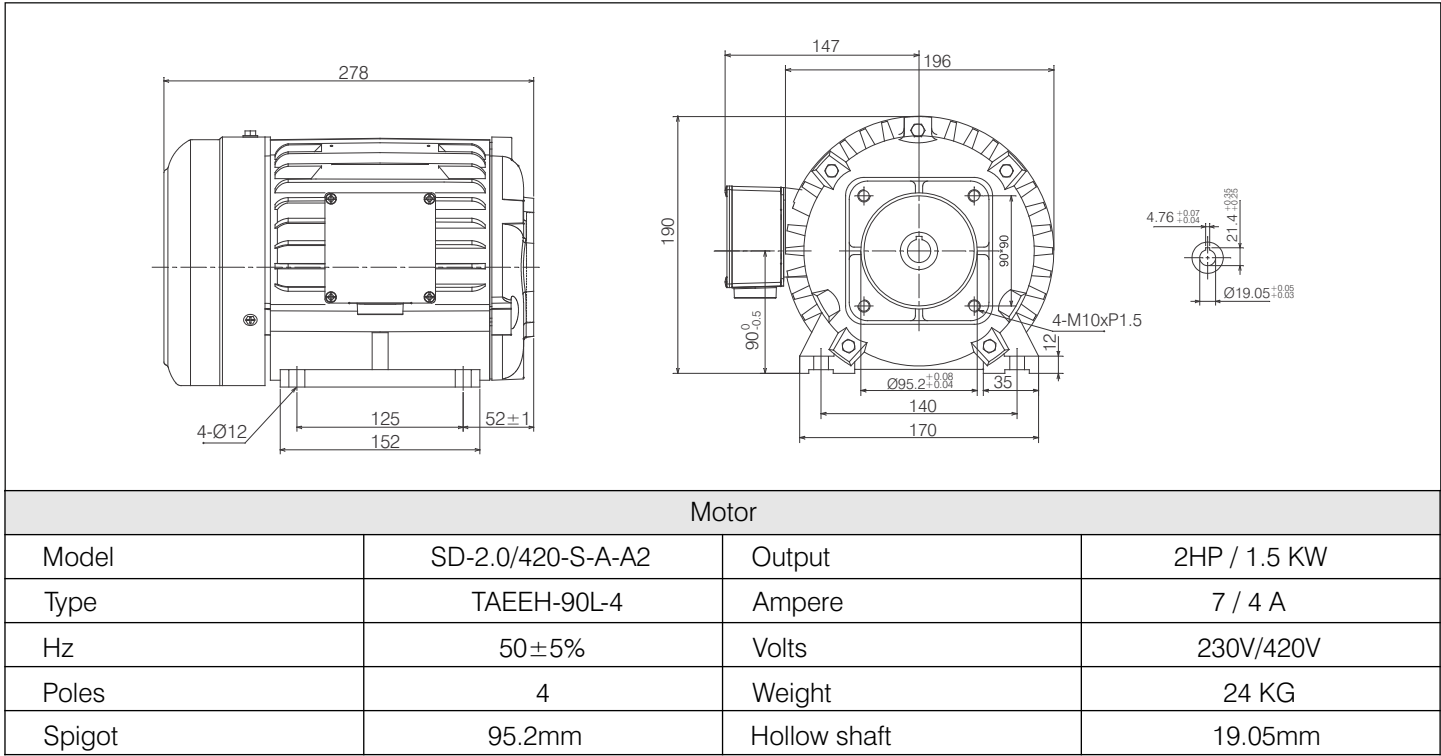
(dimensions in mm)





Unit dimensions of 2HP

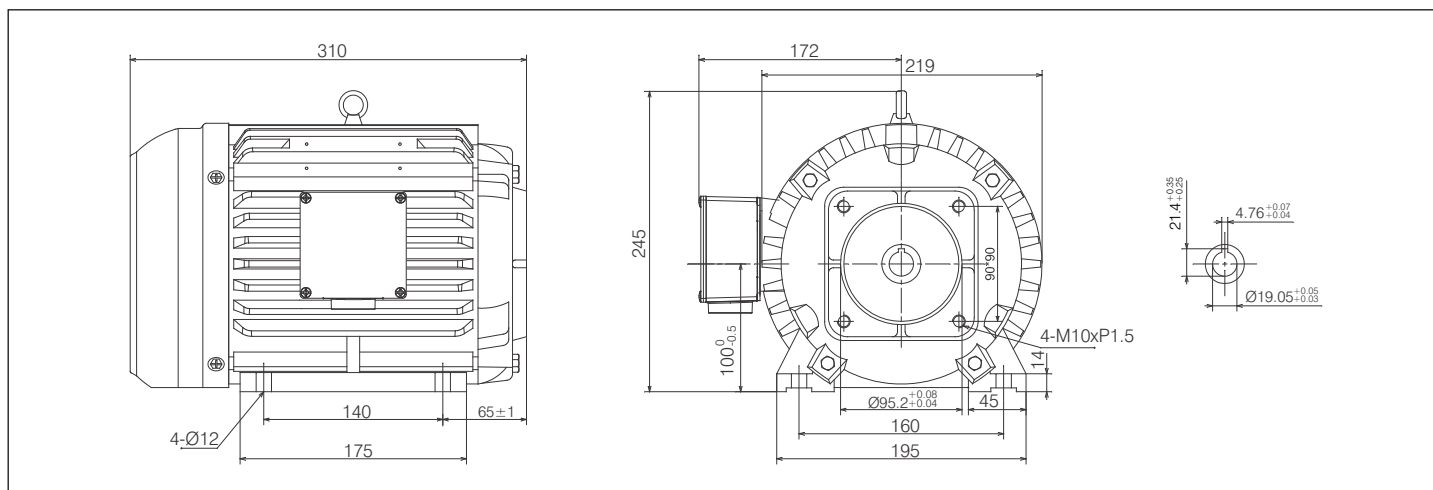
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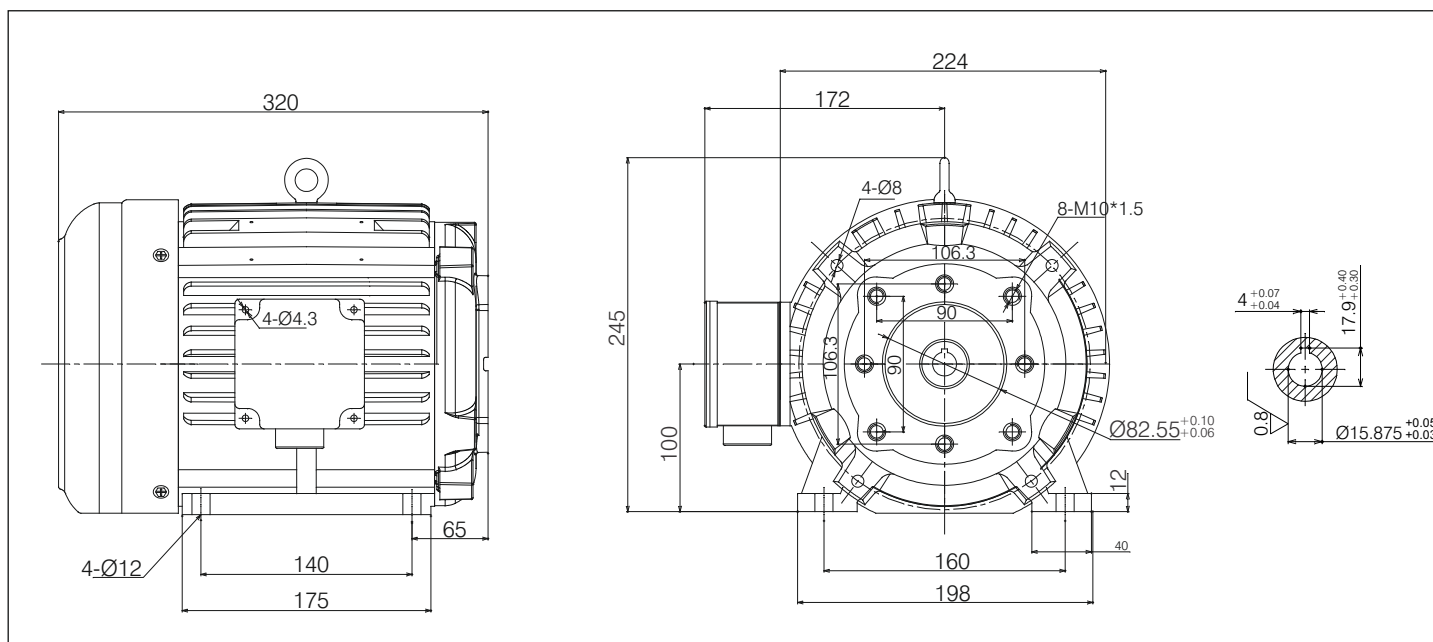


Unit dimensions of 3HP

(dimensions in mm)

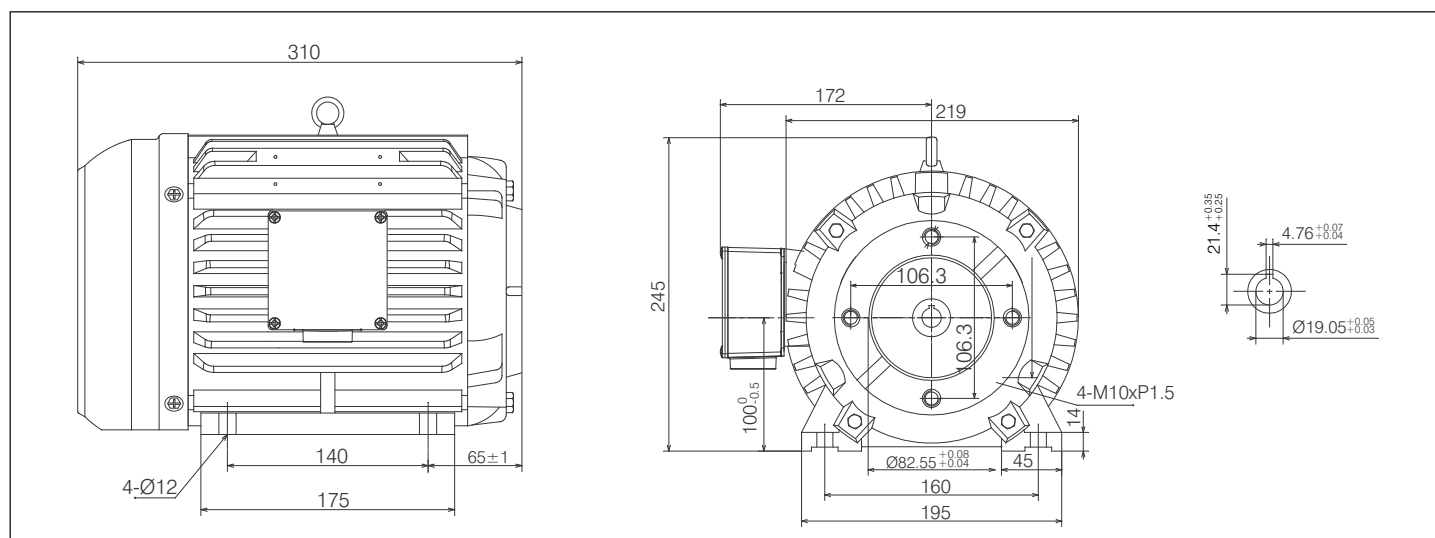


Motor			
Model	SD-3.0/420-S-A-A2	Output	3HP / 2.2 KW
Type	TAEH-100L-4	Ampere	9.6 / 5.5 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	32 KG
Spigot	95.2mm	Hollow shaft	19.05mm



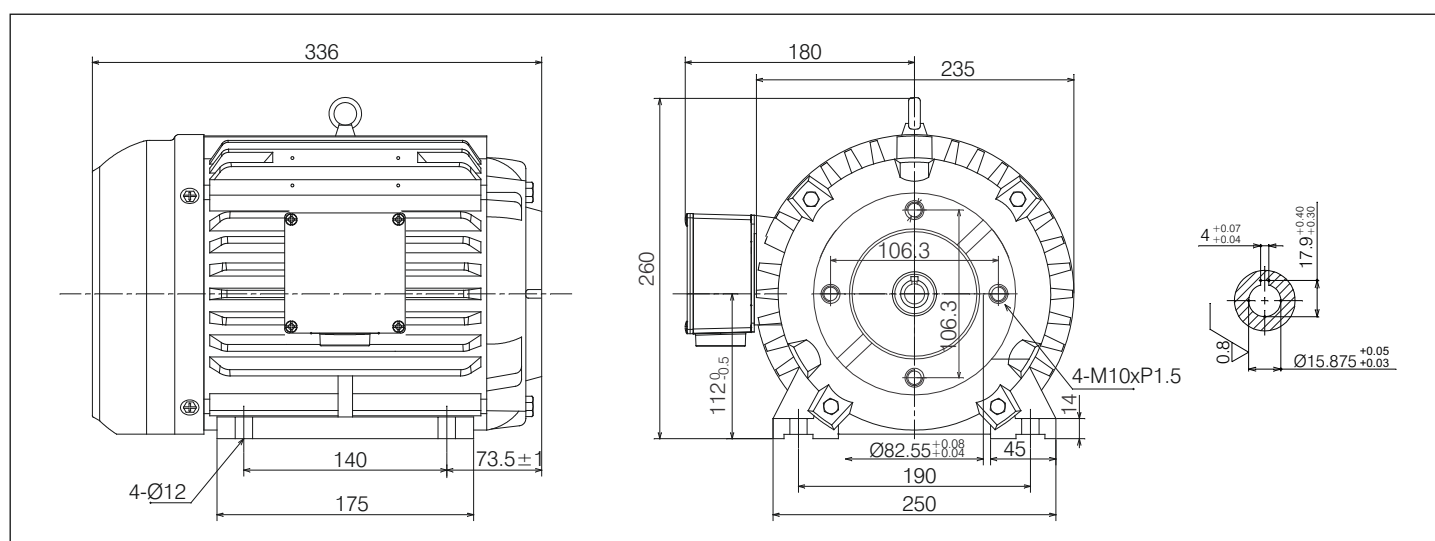
Motor			
Model	SD-3.0/420-S-A-A2	Output	3HP / 2.2 KW
Type	TAEH-100L-4	Ampere	9.6 / 5.5 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	32 KG
Spigot	82.55mm	Hollow shaft	15.875mm

(dimensions in mm)



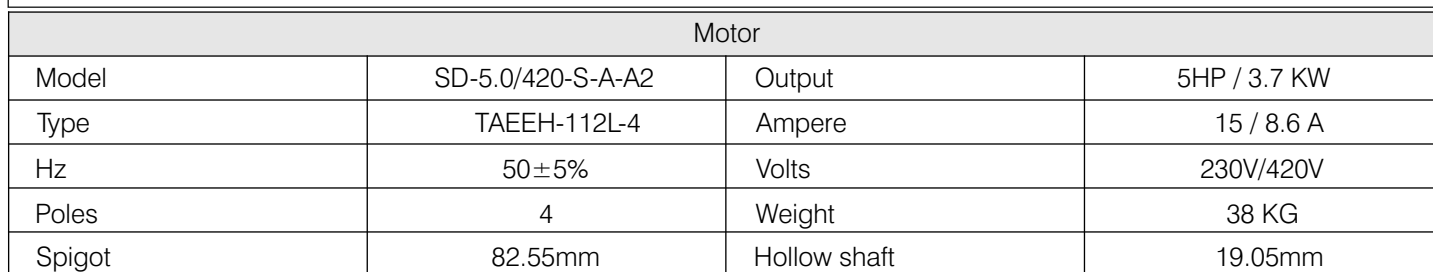
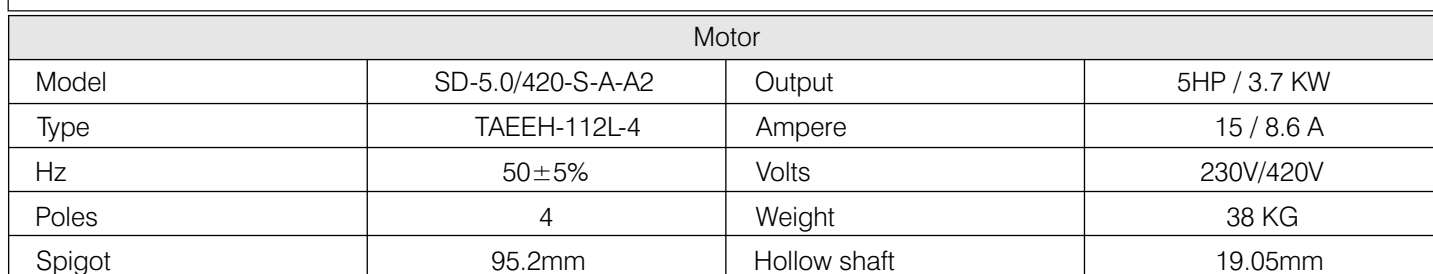
Motor			
Model	SD-3.0/420-S-A-A2	Output	3HP / 2.2 KW
Type	TAEEH-100L-4	Ampere	9.6 / 5.5 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	32 KG
Spigot	82.55mm	Hollow shaft	19.05mm

(dimensions in mm)



Motor			
Model	SD-5.0/420-S-A-A2	Output	5HP / 3.7 KW
Type	TAEEH-112L-4	Ampere	15 / 8.6 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	38 KG
Spigot	82.55mm	Hollow shaft	15.875mm

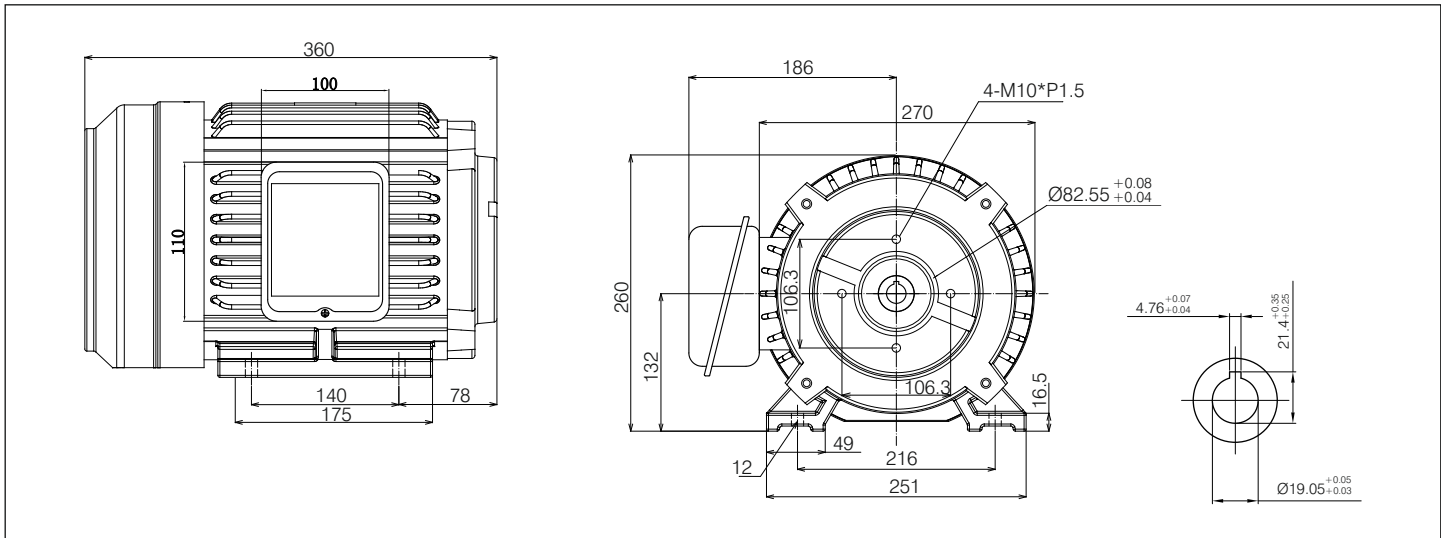
(dimensions in mm)



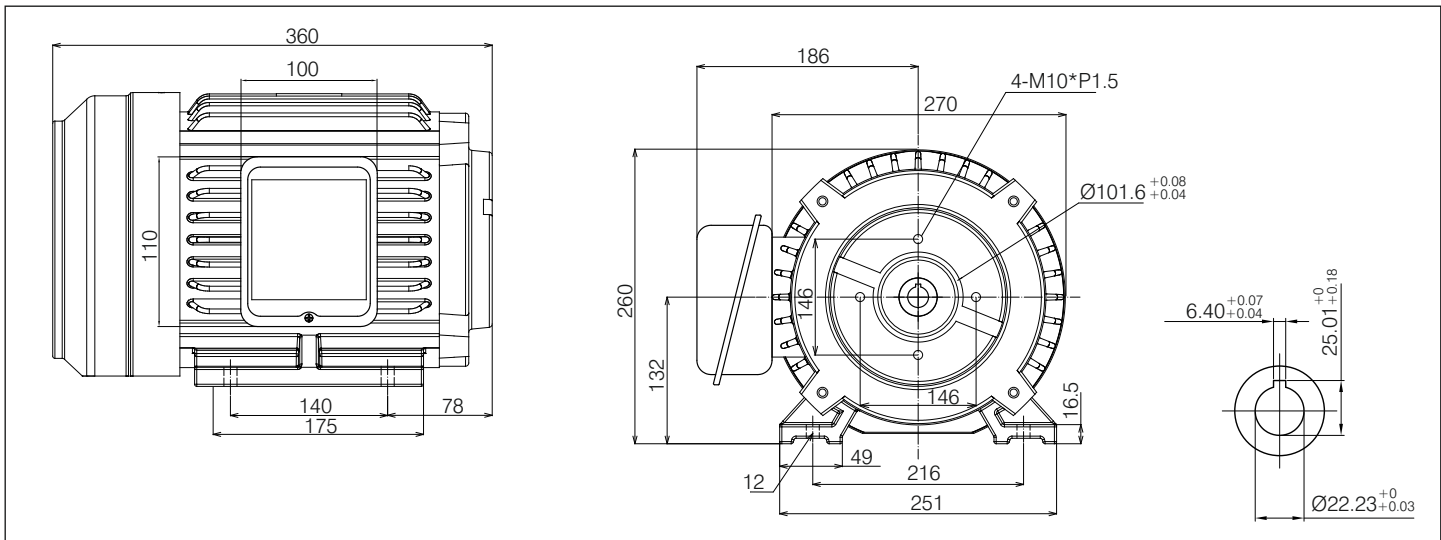


Unit dimensions of 7.5HP

(dimensions in mm)



Motor			
Model	SD-5.0/420-S-A-A2	Output	5HP / 3.7 KW
Type	TAEEH-112L-4	Ampere	15 / 8.6 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	38 KG
Spigot	95.2mm	Hollow shaft	19.05mm

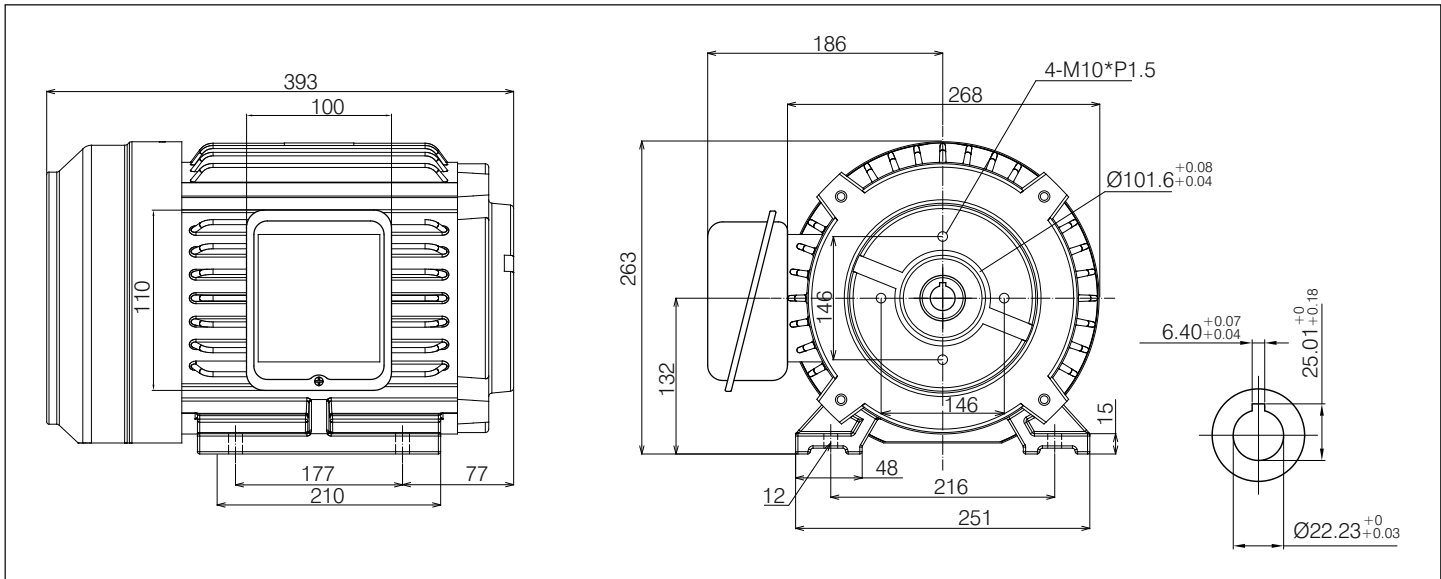


Motor			
Model	SD-5.0/420-S-A-A2	Output	5HP / 3.7 KW
Type	TAEEH-112L-4	Ampere	15 / 8.6 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	38 KG
Spigot	82.55mm	Hollow shaft	19.05mm



Unit dimensions of 10HP

(dimensions in mm)



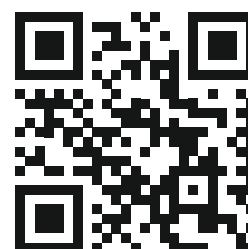
Motor			
Model	SD-10.0-230/420-S2-A-D2	Output	10HP / 7.5 KW
Type	TAEEH-132L-4	Ampere	30 / 16.4 A
Hz	50±5%	Volts	230V/420V
Poles	4	Weight	67 KG
Spigot	101.6mm	Hollow shaft	22.23mm

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.



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