全密型不鏽鋼馬達(TENV)

(For NEMA)

MODEL : AEGNQL/AETNQL

STANDARD 3-PHASE INDUCTION MOTORS
LOW VOLTAGE SQUIRREL CAGE
FRAME NOS : 56C ~ 182TC

DWG NO.
31057D62502
REV. 01

SPECIFICATION TABLE

STAINLESS STEEL FRAME

PREMIUM EFFICIENCY 3-PHASE INDUCTION MOTORS

MODEL

AEGNQL/AETNQL

ITEM		STANDARD SPECIFICATION
RATING	Kind of Motors	Squirrel Cage Induction Motor (SCIM) Stainless Steel
	Design Standards	NEMA Premium Efficient. NEMA MG-1, MG-13
	Voltages	230/460V(Usable on 208V),Capable of Running on 190/380 50Hz ;60Hz 575V
	Frequency	50Hz/60Hz
	Output Range	0.25HP~3HP
	R.P.M. (Syn.)	1800 R.P.M.(4 Poles).
	Time Duty	Continuous, S.F. 1.15; 50Hz. @ S.F. 1.0
	Frame Size	56C ~182TC
	Protection Enclosure	TENV IP66
	Cooling Method	Surface Cooling (IC 410)or Not Ventilated
	Mounting	Horizontal Foot Mounting F-1 with C - Face Flange (IM 2101), and Round Body Cface F-2 & F-3 available when specify in the order
APPLICATION	Power Condition	Voltage ± 10%, Frequency ± 5%, and ± 10% MAX of Combined Voltage and Frequency but Frequency Variation does Not Exceed ±5%
	Designed For	Packaging Industry/Food and Beverage Industry (Any location where the motor will be subject to High Pressure Spray Down.)
	Environment Conditions	Place : Non-Hazardous , Ambient Temperature:-40°C~ 40°C Relative Humidity: Less Than 90%RH (Non-Condensation) Altitude: Less Than 3,300 ft
	Drive Method	Belt Service or Direct Coupling.
	Direction of Rotation	Bi - Directional.
	Method of Starting	Full Voltage Direct On Line/Reduced Voltage/VFD/Inverter Duty CT 10:1 & VT 20:1
PERFORMANCE	Test Procedure	IEEE-112 Method B and Full Voltage Measuring Starting Performance.
	Typical Performance	Nema Premium
	Temperature Rise	Not to Exceed 115°C@1.15SF or 105°C@1.0SF by Resistance Method.
	Over Speed	125% Syn. RPM for Two Min.
	Over Torque	160% Rated Torque for 15 Seconds.

PERFORMANCE DATA

STAINLESS STEEL FRAME
PREMIUM EFFICIENCY 3-PHASE INDUCTION MOTORS

MODEL
AEGNQL/AETNQL

NEMA Premium™

TENV,NEAM, T-FRAME, DESIGN B or C
CLASS F, 40℃ AMBIENT, CONTINUOUS DUTY,
S.F. 1.15 230/460V 60HZ

TYPICAL PERFORMANCE

(230 V)

HP	FULL LOAD RPM	FRAME SIZE	EFFICIENCY(%) FULL LOAD NOM.	EFFICIENCY(%) FULL LOAD MIN.	EFFICIENCY(%) 3/4 LOAD	EFFICIENCY(%) 1/2 LOAD	POWER FACTOR(%) FULL LOAD	POWER FACTOR(%) 3/4 LOAD	POWER FACTOR(%) 1/2 LOAD	CURRENT FULL LOAD (A)	CURRENT 208V USABLE ON-A	CURRENT LOCKED ROTOR (A)	TORQUE FULL LOAD lb-ft	TORQUE LOCKED ROTOR %FLT	TORQUE PULL UP %FLT	TORQUE BREAK DOWN %FLT	ROTOR WK^2 lb-ft^2	NEMA CODE LETTER	USED AT 50Hz 190V HP	USED AT 50Hz 190V RPM	USED AT 50Hz 190V ON-A
0.25	1760	56C	70	66.0	67.0	60	60.0	51.0	42	1.1	1.2	11	0.75	365	340	450	0.04	S	0.2	1455	0.7
0.33	1765	56C	74	70.0	72.0	65	62.0	53.0	42	1.35	1.5	13	1	310	300	400	0.055	R	0.25	1455	0.9
0.5	1765	56C	78.5	75.5	77.0	72	68.0	60.0	50	1.75	1.9	20	1.5	310	295	400	0.06	R	0.33	1460	1.2
0.75	1765	56C	81.5	78.5	79.5	74.5	70.0	60.0	46.5	2.4	2.6	25	2.25	300	290	400	0.075	P	0.5	1460	1.75
1	1755	56C	85.5	82.5	83.5	77.5	72.0	63.0	50.0	2.90	3.21	30	3.000	340	300	400	0.120	N	0.75	1450	2.50
1	1755	143TC	85.5	82.5	83.5	77.5	72.0	63.0	50.0	2.90	3.21	30	3.000	340	300	400	0.120	N	0.75	1450	2.50
1.5	1760	145TC	86.5	84.0	84.0	78.0	72.0	62.0	49.0	4.50	5.00	40	4.400	340	300	400	0.160	M	1	1450	3.30
2	1750	145TC	86.5	84.0	85.5	78.0	75.0	66.0	52.0	6.00	6.50	50	6.050	300	280	400	0.220	L	1.5	1455	5.00
3	1770	182TC	89.5	87.5	88.0	84.0	72.0	63.0	50.0	8.60	9.50	64	8.800	225	200	320	0.400	K	2	1460	6.50

NOTE :
1. The above are typical values based on test according to ANSI／IEEE standard 112 method B.
2. Breakdown & locked rotor torques are shown as average expected values.
3. Efficiency, power factor, speed and torque are the same for other voltages.
   Current values vary inversely with voltage.
4. Tolerance According to NEMA MG1-12 & IEC 60034-1.

OUTLINE DIMENSIONS SHEET

MODEL **AEGNQL**

STAINLESS STEEL FRAME
PREMIUM EFFICIENCY 3-PHASE INDUCTION MOTORS
FRAME SIZE 56C~145TC F1

Totally Enclosed Non-Ventilated , Squirrel - Cage Rotor.

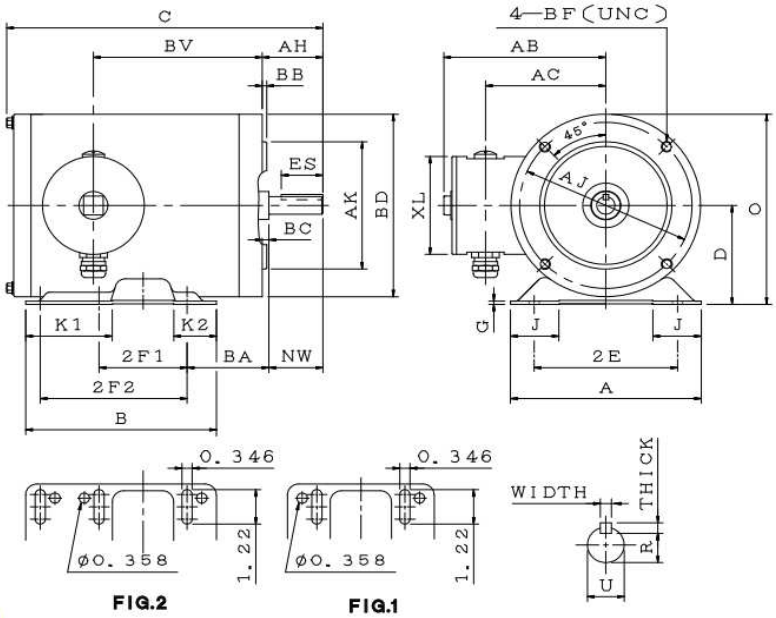


FIG.2 FIG.1

Dimension in inches

HP 4P	FRAME	MOTOR DIMENSION																			
		FIG.	A	B	C	D	2E	2F1	2F2	G	J	K1	K2	BD	AH	AJ	AK	BA	BB	BC	BF
0.25	56C	1	6.5	5.0	9.80	3.5	4.88	3.0	--	0.12	1.65	1.45	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
0.33	56C	1	6.5	5.0	9.80	3.5	4.88	3.0	--	0.12	1.65	1.45	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
0.5	56C	1	6.5	5.0	9.80	3.5	4.88	3.0	--	0.12	1.65	1.45	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
0.75	56C	1	6.5	5.0	10.78	3.5	4.88	3.0	--	0.12	1.65	1.45	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
1	56C	2	6.5	6.5	10.78	3.5	4.88	3.0	5.0	0.12	1.65	2.96	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
	143TC	2	6.5	6.5	12.02	3.5	4.88	3.0	5.0	0.12	1.65	2.96	1.45	6.45	2.12	5.88	4.5	2.75	0.16	0.12	3/8" - 16
1.5	56C	2	6.5	6.5	11.96	3.5	4.88	3.0	5.0	0.12	1.65	2.96	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
	145TC	2	6.5	6.5	12.02	3.5	4.88	3.0	5.0	0.12	1.65	2.96	1.45	6.45	2.12	5.88	4.5	2.75	0.16	0.12	3/8" - 16
2	56C	2	6.5	6.5	13.75	3.5	4.88	3.0	5.0	0.12	1.65	2.96	1.45	6.45	2.06	5.88	4.5	2.75	0.16	-0.19	3/8" - 16
	145TC	2	6.5	6.5	13.81	3.5	4.88	3.0	5.0	0.12	1.65	2.96	1.45	6.45	2.12	5.88	4.5	2.75	0.16	0.12	3/8" - 16

HP 4P	FRAME	CONDUIT BOX					SHAFT EXTENSION、KEY						BEARINGS	
		O	AB	AC	BV	XL	U	R	N-W	ES	WIDTH	THICK	DE	ODE
0.25	56C	6.73	5.55	4.15	4.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
0.33	56C	6.73	5.55	4.15	4.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
0.5	56C	6.73	5.55	4.15	4.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
0.75	56C	6.73	5.55	4.15	5.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
1	56C	6.73	5.55	4.15	5.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
	143TC	6.73	5.55	4.15	6.95	3.45	0.88	0.77	2.25	1.41	0.188	0.188	6205ZZC3	6205ZZC3
1.5	56C	6.73	5.55	4.15	6.95	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
	145TC	6.73	5.55	4.15	6.95	3.45	0.88	0.77	2.25	1.41	0.188	0.188	6205ZZC3	6205ZZC3
2	56C	6.73	5.55	4.15	8.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188	6205ZZC3	6205ZZC3
	145TC	6.73	5.55	4.15	8.75	3.45	0.88	0.77	2.25	1.41	0.188	0.188	6205ZZC3	6205ZZC3

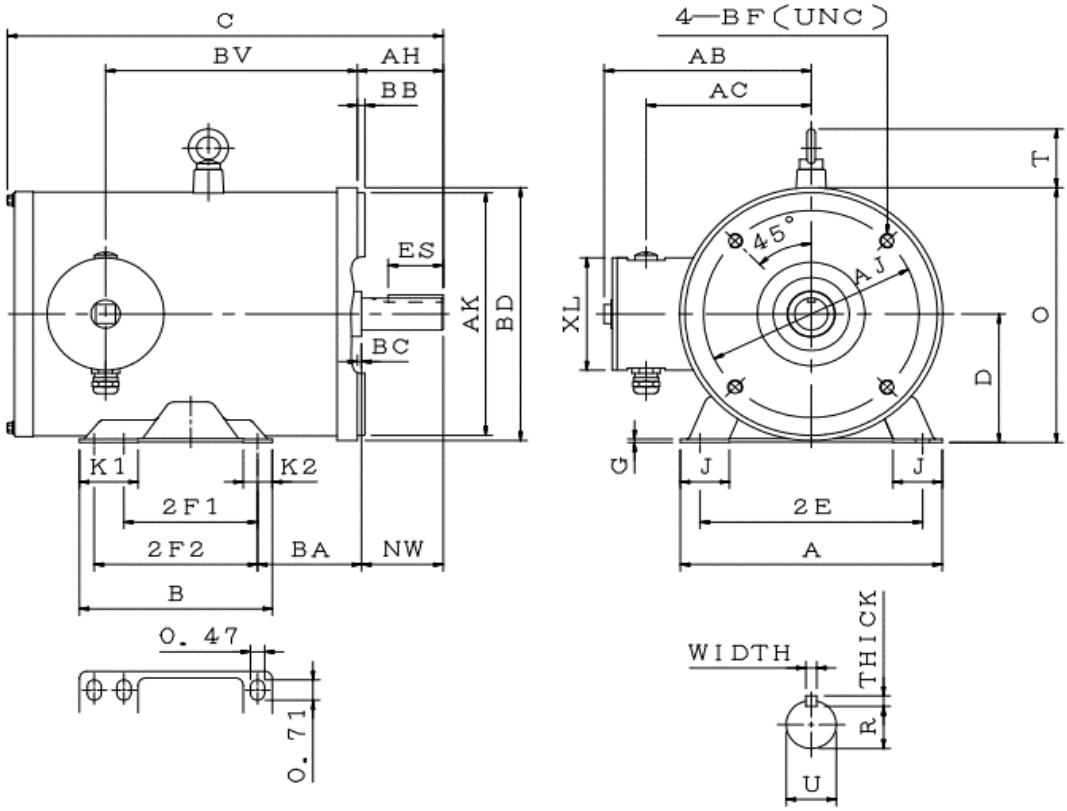
Note :
1. Dimension D tolerance : +0.00 inch , -0.06 inch .
2. Dimension U tolerance : +0.000 inch , -0.0005 inch .
3. Dimension R tolerance : +0.000 inch , -0.015 inch .
4. Dimension V is length of straight part of shaft.

OUTLINE DIMENSIONS SHEET

MODEL **AEGNQL**

STAINLESS STEEL FRAME
PREMIUM EFFICIENCY 3-PHASE INDUCTION MOTORS
FRAME SIZE 182TC~184TC F1

Totally Enclosed Non-Ventilated , Squirrel - Cage Rotor.



Dimension in inches

HP	FRAME	MOTOR DIMENSION																		
4P		A	B	C	D	2E	2F1	2F2	G	J	K1	K2	BD	AH	AJ	AK	BA	BB	BC	T	BF
3	182TC	8.8	6.5	14.7	4.5	7.5	4.5	5.5	0.12	1.65	1.98	0.98	8.85	2.62	7.25	8.5	3.5	0.25	0.12	2.06	1/2"-13

HP	FRAME		CONDUIT BOX				SHAFT EXTENSION、KEY						BEARINGS	
4P		O	AB	AC	BV	XL	U	R	N-W	ES	WIDTH	THICK	DE	ODE
3	182TC	8.93	7	5.6	8.5	3.95	1.13	0.99	2.75	1.78	0.25	0.25	6308ZZC3	6306ZZC3

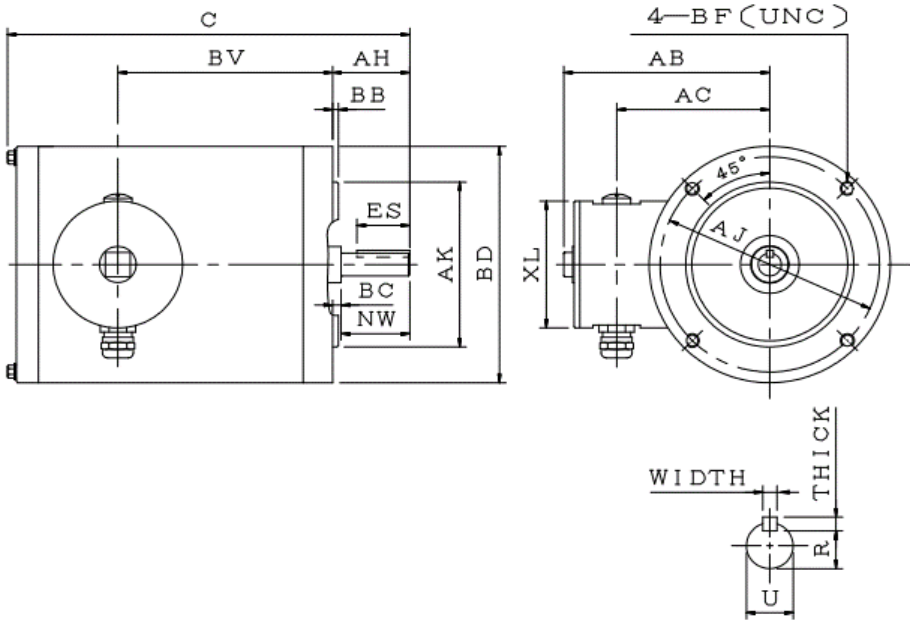
Note :
1. Dimension D tolerance : +0.00 inch , -0.06 inch .
2. Dimension U tolerance : +0.000 inch , -0.0005 inch .
3. Dimension R tolerance : +0.000 inch , -0.015 inch .
4. Dimension V is length of straight part of shaft.

OUTLINE DIMENSIONS SHEET

MODEL
AETNQL

STAINLESS STEEL FRAME
PREMIUM EFFICIENCY 3-PHASE INDUCTION MOTORS
FRAME SIZE 56C~145TC F1

Totally Enclosed Non-Ventilated , Squirrel - Cage Rotor.



Dimension in inches

HP	FRAME	MOTOR DIMENSION								CONDUIT BOX				SHAFT EXTENSION、KEY					
		C	BD	AH	AJ	AK	BB	BC	BF	AB	AC	BV	XL	U	R	N-W	ES	WIDTH	THICK
1/4	56C	9.80	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	4.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188
1/3	56C	9.80	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	4.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188
1/2	56C	9.80	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	4.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188
3/4	56C	10.78	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	5.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188
1	56C	10.78	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	5.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188
	143TC	10.84	6.45	2.12	5.88	4.5	0.16	0.12	3/8" - 16	5.55	4.15	5.75	3.45	0.88	0.77	2.25	1.41	0.188	0.188
1.5	56C	11.96	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	6.95	3.45	0.63	0.52	1.88	1.41	0.188	0.188
	145TC	12.02	6.45	2.12	5.88	4.5	0.16	0.12	3/8" - 16	5.55	4.15	6.95	3.45	0.88	0.77	2.25	1.41	0.188	0.188
2	56C	13.75	6.45	2.06	5.88	4.5	0.16	-0.19	3/8" - 16	5.55	4.15	8.75	3.45	0.63	0.52	1.88	1.41	0.188	0.188
	145TC	13.81	6.45	2.12	5.88	4.5	0.16	0.12	3/8" - 16	5.55	4.15	8.75	3.45	0.88	0.77	2.25	1.41	0.188	0.188

HP	FRAME	BEARINGS	
		DE	ODE
1/4	56C	6205ZZC3	6205ZZC3
1/3	56C	6205ZZC3	6205ZZC3
1/2	56C	6205ZZC3	6205ZZC3
3/4	56C	6205ZZC3	6205ZZC3
1	56C	6205ZZC3	6205ZZC3
	143TC	6205ZZC3	6205ZZC3
1.5	56C	6205ZZC3	6205ZZC3
	145TC	6205ZZC3	6205ZZC3
2	56C	6205ZZC3	6205ZZC3
	145TC	6205ZZC3	6205ZZC3

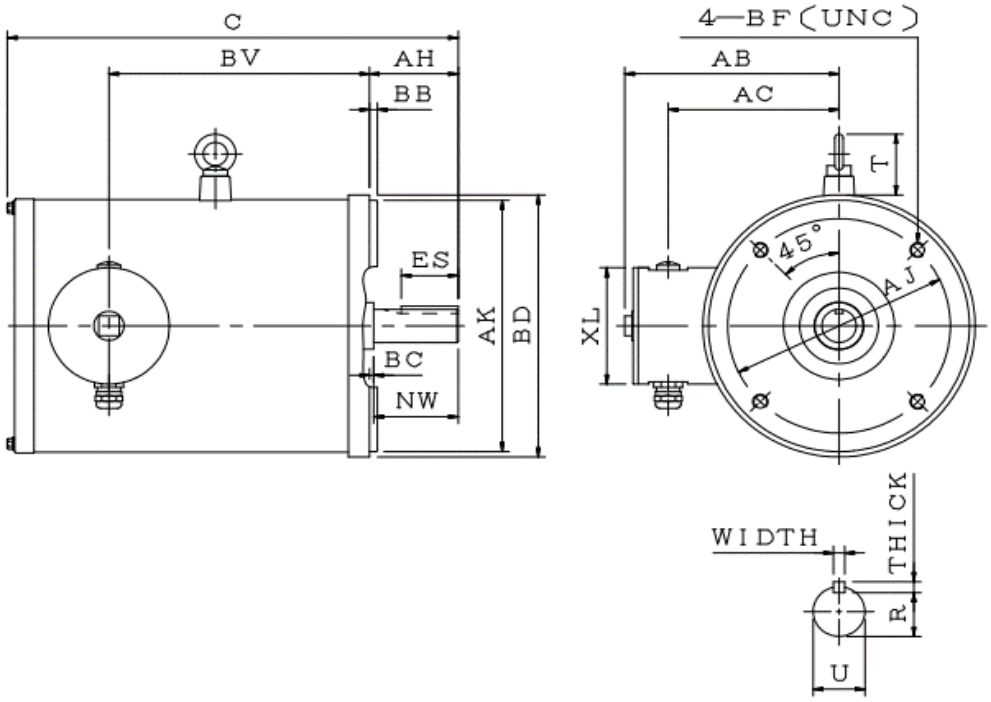
Note :
1. Dimension D tolerance : +0.00 inch , -0.06 inch .
2. Dimension U tolerance : +0.000 inch , -0.0005 inch .
3. Dimension R tolerance : +0.000 inch , -0.015 inch .
4. Dimension V is length of straight part of shaft.

OUTLINE DIMENSIONS SHEET

MODEL **AETNQL**

STAINLESS STEEL FRAME
PREMIUM EFFICIENCY 3-PHASE INDUCTION MOTORS
FRAME SIZE 182TC~184TC F1

Totally Enclosed Non-Ventilated , Squirrel - Cage Rotor.



Dimension in inches

HP	FRAME	MOTOR DIMENSION									SHAFT EXTENSION、KEY						CONDUIT BOX		
		C	BD	AH	AJ	AK	BB	BC	T	BF	U	R	N-W	ES	WIDTH	THICK	AB	AC	BV
3	182TC	14.70	8.85	2.62	7.25	8.5	0.25	0.12	2.06	1/2"-13	1.13	0.99	2.75	1.78	0.25	0.25	7.00	5.60	8.50

HP	FRAME		BEARINGS	
		XL	DE	ODE
3	182TC	3.95	6308ZZC3	6306ZZC3

Note :
1. Dimension D tolerance : +0.00 inch , -0.06 inch .
2. Dimension U tolerance : +0.000 inch , -0.0005 inch .
3. Dimension R tolerance : +0.000 inch , -0.015 inch .
4. Dimension V is length of straight part of shaft.