

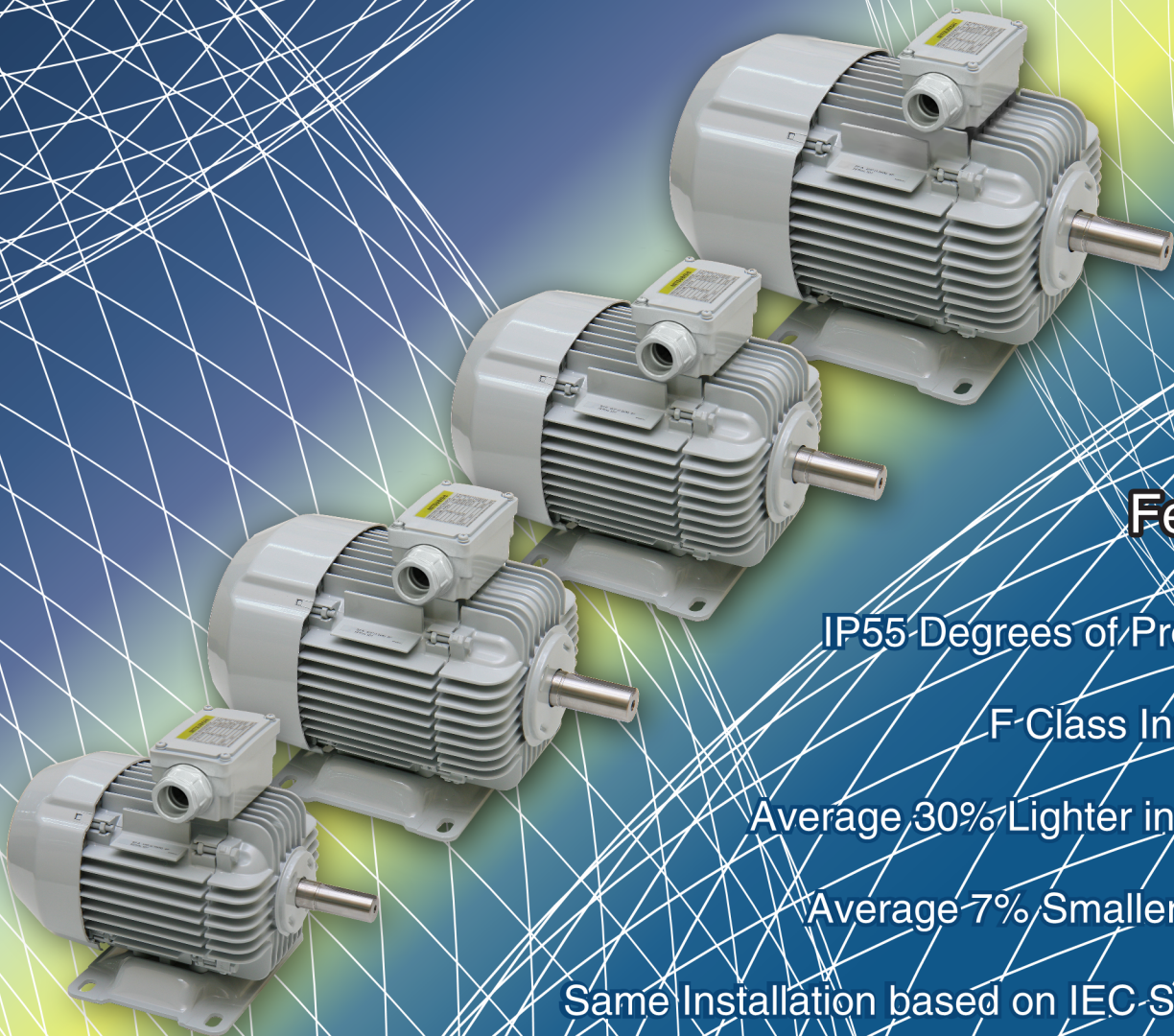
MEATH

MET SERIES THREE PHASE INDUCTION MOTOR

Next generation technology

The excellence of the light & small & low noise

*Best matching with
pump or fan etc.*



Features

IP55 Degrees of Protection ■

F-Class Insulation ■

Average 30% Lighter in Weight ■

Average 7% Smaller in Size ■

Same Installation based on IEC Standard ■

Motor Section

Power cable inlet rubber seal to water-proof structure

Attached with TERMINAL BLOCK for easy connection

New design TERMINAL BOX, cable outlet can be swapped from left to right

Computer aid engineering (CAE) analyzed fins improve to higher heat transfer

Bigger size bearing provides longer bearing service life

Select V-RING instead of fringer, for higher protection against entering water

Tapped shaft end for convenience in machine attachment

F class insulation is used, by temperature rise under B class, to gain longer insulation service life

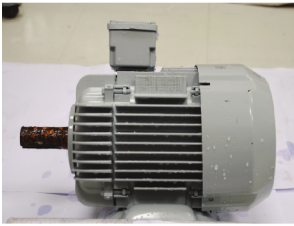
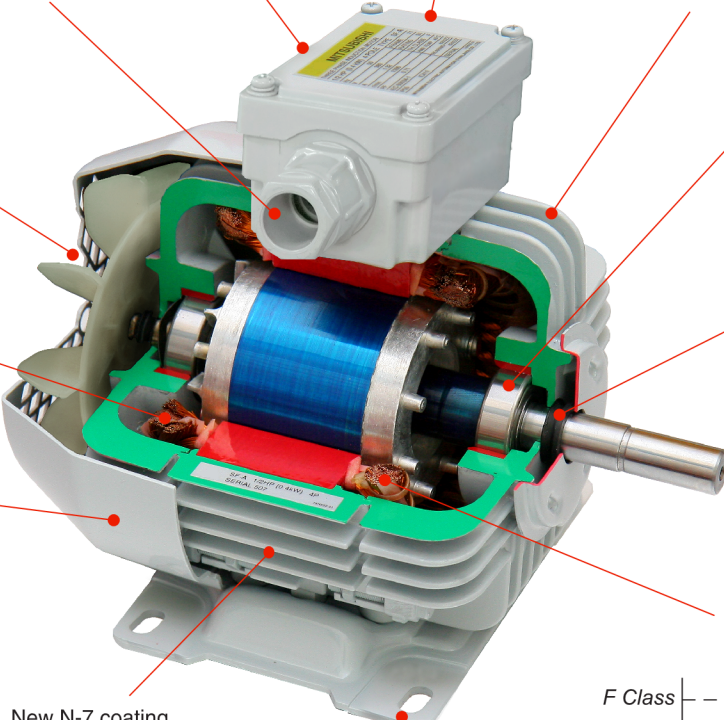
Long life (salt spray test) According to JIS Z 2371 (There is no visible corrosion & no rust occurred after 192 hours)

New varnish process, better in varnish coating, for more safety and longer coil service life

New COOLING FAN & FAN COVER are designed to reach to maximum air flow rate for effective cooling but also low in noise

New N-7 coating color tone for bright and easy to blend with machine painting

Same installation as previous model (based on IEC standard)



Salt spray test (No rust occurred after 192 hours)

F Class

B Class

Temp. Rise

1 1.5 2 3

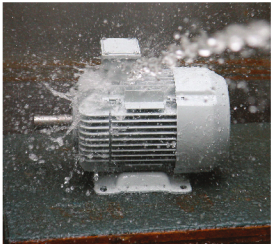
Power (HP)

105K

80K

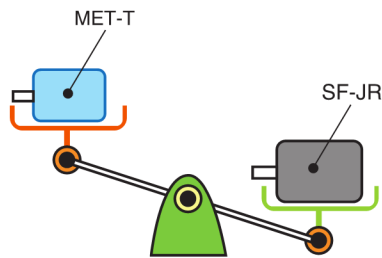
Feature Descriptions

IP55 Approval (Pass IP55 Test)



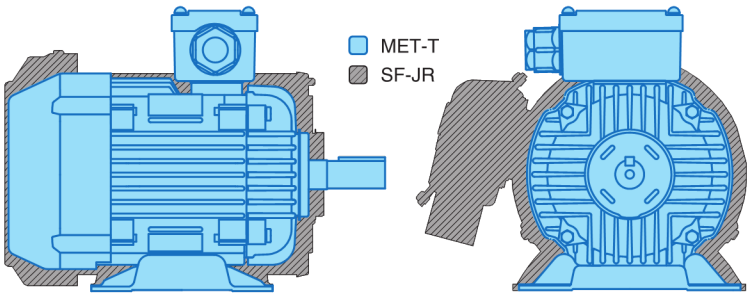
Protection against dust deposits

Light Weight



The average weight decrease by 30%

Small Size and Same Installation



The average size decrease by 7%

Specifications

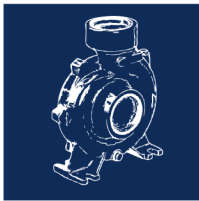
ITEM		SPECIFICATIONS
Phase		Three phase
Voltage & Frequency		220/380~415V 50Hz, 220/440V 60Hz
Enclosure Construction		Totally enclosed fan-cooled
Degrees of Protection		IP55
Mounting		Horizontal
Frame Material		Aluminium
Power Transmission System		Direct-couple or belt driven
Direction of Rotation		Counterclockwise (CCW), viewed from shaft end side
Thermal Class		Class F (155°C)
Temperature Rise		Class B (80K)
Rating		S1 (continuous)
Circumstance Conditions	Ambient Temperature	-20 ~ +40°C
	Ambient Humidity	95% relative humidity or less
	Operating Altitude	Up to 1,000m above sea level
	Environment	No bursting, erosive gas or vapor
Connection Type		Terminal block
Coating		Polyurethane
Color		N-7 (light gray)
Conformed Standard		IEC 60034-1, JEC-2137-2000

Connection Diagram

CONSTRUCTION OF LEAD WIRES		CONNECTION DIAGRAM
Y 380~440V	Δ 220V	

Applications

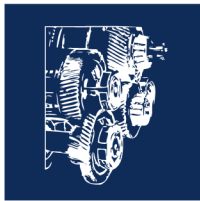
1~2HP for Meduim Load



Pump
(Water, Oil, Vacuum)



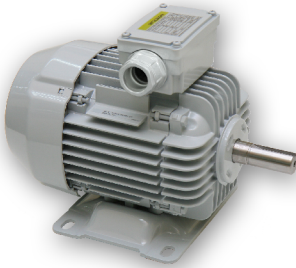
Fan & Blower



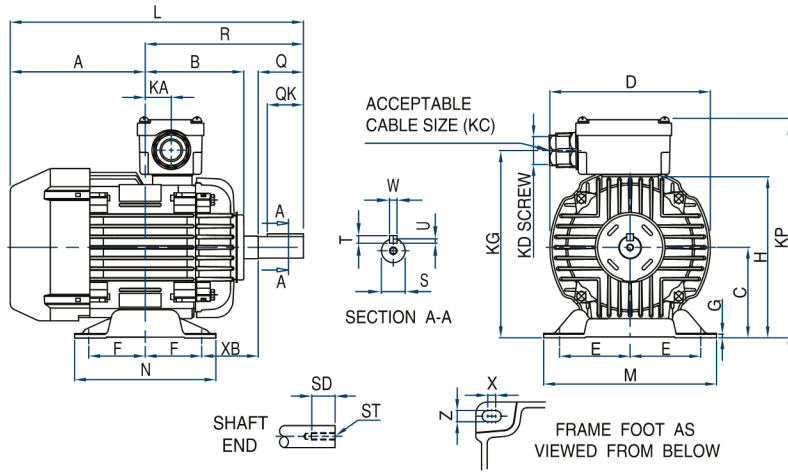
Gear

3HP for all purpose

Outline Dimensions



MET-T 1HP 4P 80M



Unit : mm

Model	Frame No.	Output HP (kW)	Pole	Motor													
				A	B	C*	D	E	F	G	H	L	M	N	XB	Z	X
MET-T	80M	1 (0.75)	4	119.5	87.5	80	142	62.5	50	3.2	142.5	259.5	153	125	50	10	7
	90S	1.5 (1.1)	4	139	103.5	90	172	70	50	4	164.5	295	168	125	56	10	7
	90L	2 (1.5)	4	134	108.5	90	172	70	62.5	4	164.5	302.5	168	150	56	10	7
	100L	3 (2.2)	4	167	116.5	100	180	80	70	4	178	360	195	168	63	12	4

* The perpendicular variation of tolerance for the shaft center is $\begin{smallmatrix} 0 \\ -0.5 \end{smallmatrix}$

Model	Frame No.	Terminal Box					Shaft End									Bearing No.		Approx. Weight (kg)	Approx. Packing Dimensions (L x W x H)	Gross Weight (kg)
		KA	KG	KP	KD	KC	Q	QK	R	S	T	U	W	ST	SD	Drive End	Opposite			
MET-T	80M	25.5	166	194.5	PF 3/4	13~17	40	32	140	19 j6	6	3.5	6	M6	12	6204	6204	8.2	300 x 203 x 225	9.0
	90S	29	188	216.5	PF 3/4	13~17	50	40	156	24 j6	7	4	8	M8	16	6205	6205	13.1	343 x 218 x 248	14.3
	90L	34	188	216.5	PF 3/4	13~17	50	40	168.5	24 j6	7	4	8	M8	16	6205	6205	13.2	343 x 218 x 248	14.4
	100L	42	201.5	230	PF 3/4	13~17	60	45	193	28 j6	7	4	8	M10	20	6206	6206	17.5	395 x 255 x 260	18.3

Characteristics and Performance

Note : Representative value

Frame no.	Output HP (kW)	Freq. (Hz)	Voltage (V)	50% Load			75% Load			100% Load					Torque		Is (A)	Moment of Inertia J(kg-m ²)
				(A)	Eff.(%)	PF(%)	(A)	Eff.(%)	PF(%)	(A)	Eff.(%)	PF(%)	Speed (r/min)	Torque (N-m)	Starting Ts(%)	Maximum Tm(%)		
80M	1 (0.75)	50	220	2.55	65.0	56.0	3.00	68.0	72.0	3.50	70.0	80.0	1400	5.12	255	272	14.7	0.00144
			380	1.50	65.0	55.0	1.70	69.0	70.0	2.00	70.5	79.0	1400	5.12	261	271	8.52	
			415	1.85	61.3	44.5	1.96	66.0	59.0	2.15	69.0	70.0	1420	5.04	324	340	9.80	
		60	220	2.10	70.0	67.0	2.60	73.0	80.0	3.20	72.0	85.0	1680	4.26	237	250	13.7	
			440	1.35	65.0	54.0	1.51	71.0	68.0	1.77	73.0	77.0	1710	4.19	327	361	9.78	
			440	1.35	65.0	54.0	1.51	71.0	68.0	1.77	73.0	77.0	1710	4.19	327	361	9.78	
90S	1.5 (1.1)	50	220	3.45	71.0	58.0	4.10	74.0	72.0	4.85	75.0	79.5	1420	7.57	324	341	26.8	0.00288
			380	1.95	70.0	62.0	2.34	73.0	74.0	2.80	76.0	81.0	1420	7.57	328	340	15.4	
			415	2.15	68.0	53.0	2.40	74.0	67.0	2.85	75.0	76.0	1430	7.51	404	420	17.2	
		60	220	2.90	72.0	70.0	3.60	76.0	80.0	4.50	76.0	87.0	1700	6.32	287	300	24.4	
			440	1.80	68.0	58.0	2.10	74.0	71.0	2.45	76.0	80.0	1730	6.21	223	431	16.8	
			440	1.80	68.0	58.0	2.10	74.0	71.0	2.45	76.0	80.0	1730	6.21	223	431	16.8	
90L	2 (1.5)	50	220	4.85	69.0	56.0	5.60	74.0	72.0	6.70	74.0	79.0	1410	10.2	285	297	31.6	0.00288
			380	2.70	70.0	61.0	3.20	74.0	74.0	3.80	76.0	81.0	1410	10.2	269	301	18.3	
			415	3.40	65.0	48.0	3.60	72.0	62.0	4.00	73.0	73.0	1420	10.1	355	377	20.7	
		60	220	4.10	72.0	69.0	5.10	74.0	80.0	6.50	73.0	86.0	1700	8.43	247	257	29.4	
			440	2.50	71.0	57.0	2.90	76.0	70.0	3.40	77.0	79.0	1720	8.33	370	398	20.7	
			440	2.50	71.0	57.0	2.90	76.0	70.0	3.40	77.0	79.0	1720	8.33	370	398	20.7	
100L	3 (2.2)	50	220	5.70	80.5	63.0	6.88	83.0	76.0	8.50	84.5	82.0	1420	15.1	264	292	47.8	0.00389
			380	3.15	82.0	65.0	3.84	83.0	78.0	4.90	84.5	84.0	1420	15.1	253	284	27.6	
			415	3.73	76.0	54.0	4.18	81.0	68.0	5.00	82.5	78.0	1430	15.0	303	346	29.7	
		60	220	4.55	84.0	75.0	6.00	85.0	85.0	7.80	85.5	89.0	1700	12.6	230	258	44.0	
			440	2.85	79.5	63.0	3.40	83.0	76.0	4.30	85.0	83.0	1720	12.5	307	354	29.3	
			440	2.85	79.5	63.0	3.40	83.0	76.0	4.30	85.0	83.0	1720	12.5	307	354	29.3	

MITSUBISHI ELECTRIC AUTOMATION (THAILAND) CO., LTD.