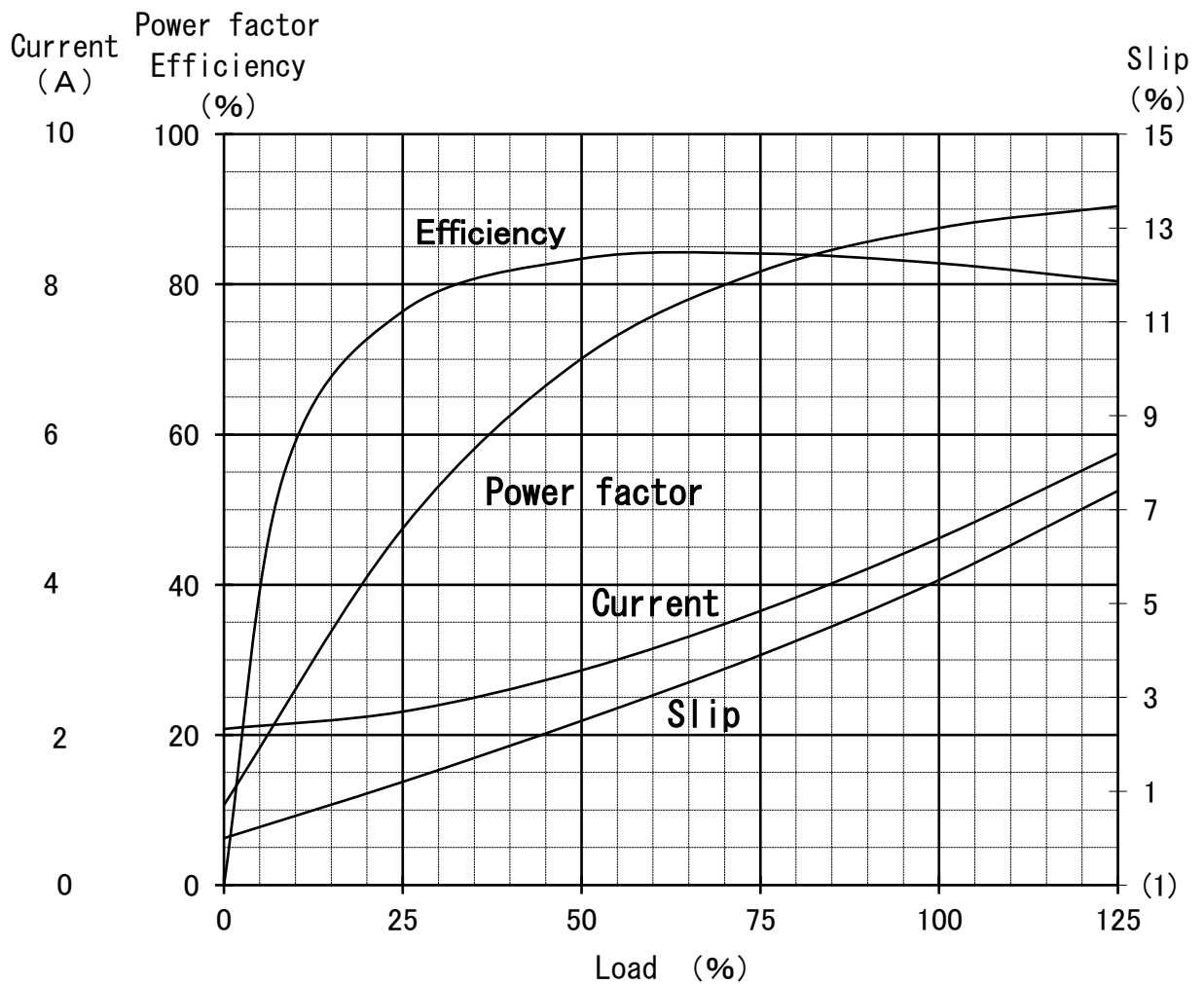


Three Phase Induction Motor Characteristic Curve

Hitachi Industrial Technology(Thailand),Ltd

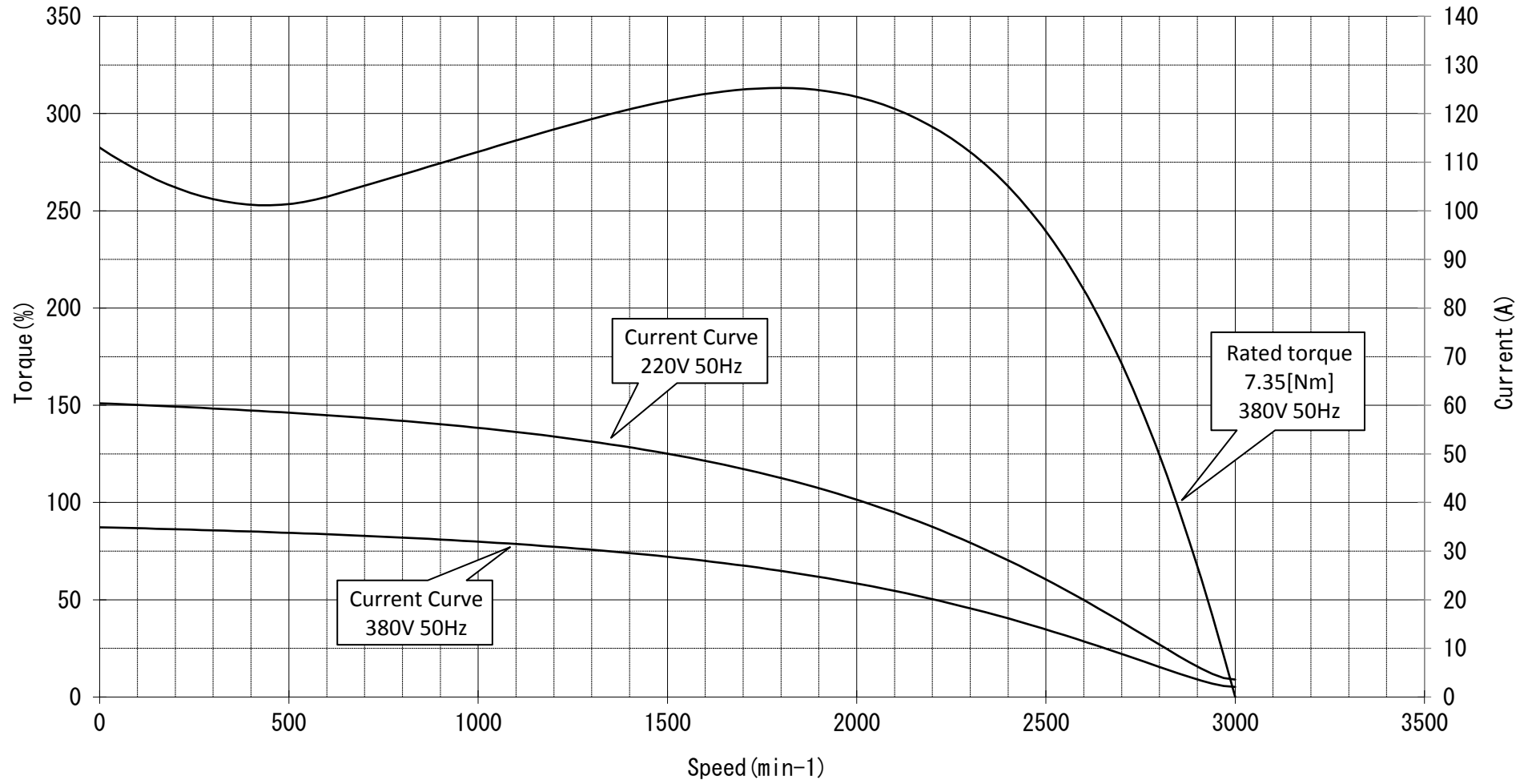
Power (HP)	3
Pole	2
Type-Form	TFO-K , VTFO-K
Voltage (V)	380
Frequency (Hz)	50
Protection	IP44 , IP55

Load (%)	0	25	50	75	100	125
Current(A)	2.08	2.31	2.86	3.65	4.62	5.75
Efficiency(%)	0	76.4	83.4	84.1	82.8	80.4
Power factor(%)	10.7	47.5	70.1	81.7	87.5	90.4
Slip (%)	0	1.2	2.5	3.9	5.5	7.4



Speed-Torque, Current Curve

3HP (V) TF0-K 2P
220/380V 50Hz
IP44/IP55



HITACHI

MANUFACTURER'S TEST REPORT OF INDUCTION MOTOR

MESSRS		ORDER No	
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SPECIFICATION FOR MOTOR

OUT PUT(HP)	3	POLES	2	TYPE-FORM	TFO-K
FREQUENCY(HZ)	50/50	VOLTAGE(V)	220/380	CURRENT(A)	8.0/4.6
PHASES	3	RATING	S1	INSULATION	F
STANDARD	JEC-2137-2000	SECONDARY VOLTAGE(V)	—	SECONDARY CURRENT(A)	—
COOLING	IC411	PROTECTION	IP55	SPEED(min ⁻¹)	2860/2860

MFG No	FREQUENCY (HZ)	NO-LOAD TEST			LOCKED ROTOR TEST		
		VOLTAGE(V)	CURRENT(A)	INPUT(W)	VOLTAGE(V)	CURRENT(A)	INPUT(W)
	50	220	3.59	146.0	35.5	7.79	324.0
	50	380	2.08	146.0	61.4	4.50	324.0

(3) WINDINGS RESISTANCE (BETWEEN LINES) STATOR 115°C 2.54511/7.635329 (Ω)

(4) LOAD CHARACTERISTICS

LOAD(%)	CURRENT(A)	EFFICIENCY(%)	POWERFACTOR(%)	SLIP(%)
25	3.99/2.31	76.4/76.4	47.5/47.5	1.2/1.2
50	4.95/2.86	83.4/83.4	70.1/70.1	2.5/2.5
75	6.31/3.65	84.1/84.1	81.7/81.7	3.9/3.9
100	7.99/4.62	82.8/82.8	87.5/87.5	5.5/5.5
125	9.96/5.75	80.4/80.4	90.4/90.4	7.4/7.4

(5) MAXIMUM OUT PUT(%) STARTING CURRENT(A) STARTING TORQUE(%)

210/210 60.4/34.9 300/300

(6) TEMPERATURE RISE TEST (R)-RESISTANCE METHOD

STATOR WINDINGS(K)	FRAME(K)	ROTOR WINDINGS(K)
65.0/65.0 (R)	25.0/25.0	-

(7) INSULATION RESISTANCE BY 500V MEGGER

100MΩ

(8) WITHSTAND STATOR WINDINGS TO CORE

1900V 1MIN WITHSTOOD

VOLTAGE TEST ROTOR WINDINGS TO CORE

— V 1MIN WITHSTOOD

(9) CONSTRUCTION, DIMENSION, PAINTING, OTHER PARTS

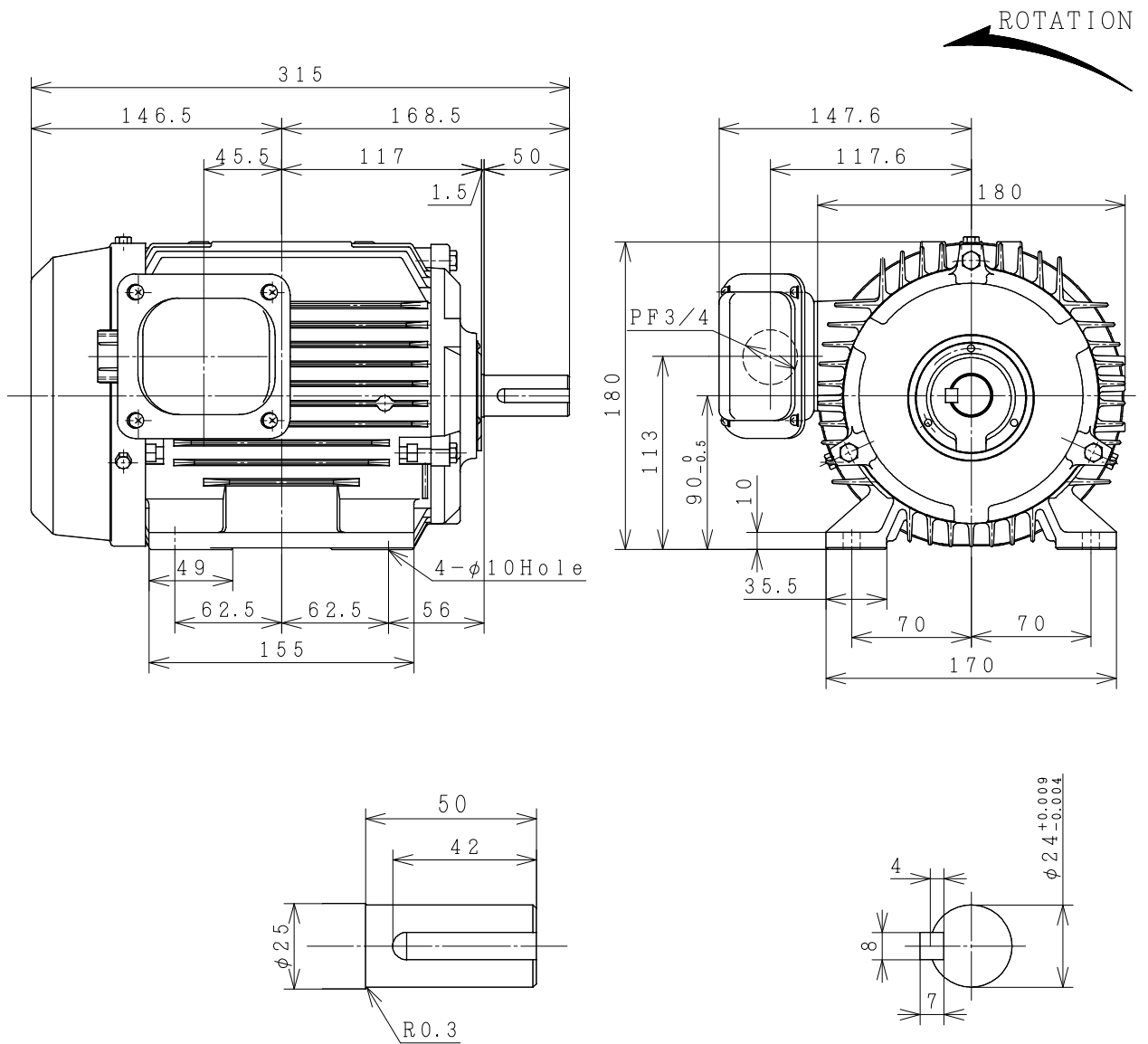
SATISFACTORY

HITACHI INDUSTRIAL TECHNOLOGY (THAILAND) LTD.	CHECKED BY	M.KAMIZONO
	DATE	10-JUN.-2015

REP.No.RP10053

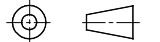
THREE-PHASE INDUCTION MOTOR

OUTPUT	TYPE	FORM	RATING	VOLTAGE (V)	FREQ. (Hz)	SYNC. SPBED (min ⁻¹)	POLES	INS. CLASS	MASS (kg)
2HP	TFO	K	S1	220/380	50	3000	2	F	15
3HP	TFO	K	S1	220/380	50	3000	2	F	16
2HP	TFO	K	S1	220/380	50	1500	4	F	16
1HP	TFO	K	S1	220/380	50	1000	6	F	16



PROTECTION: IP55

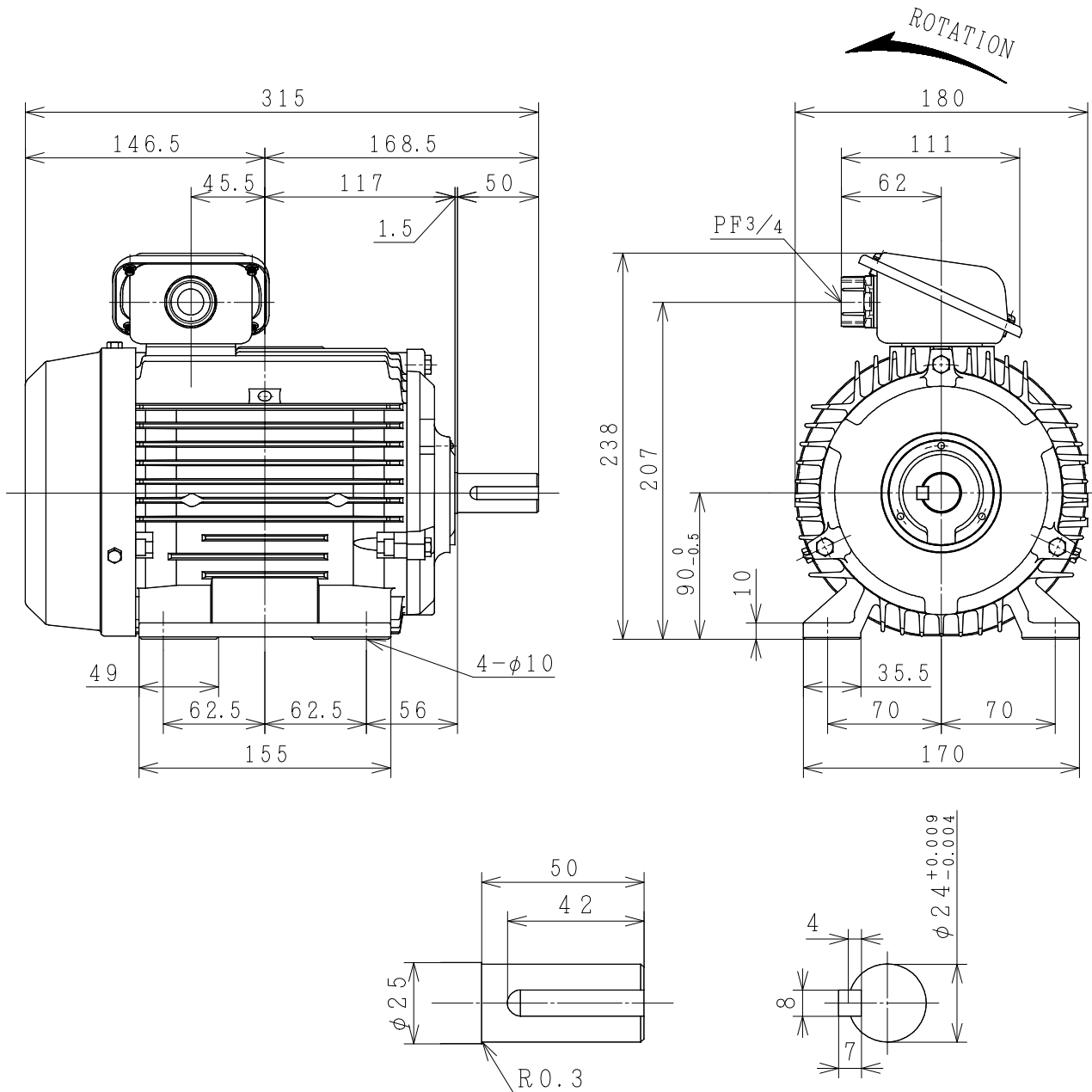
PROJECTION



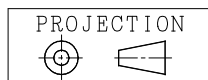
CUSTOMER			QTY.	ORDER No.	WORK No.	REV.	
DWN.	S. Sakda	21-Jun-2015	<div style="font-size: 2em; font-weight: bold; margin-bottom: 5px;">DIMENSIONS</div> <div style="font-size: 0.8em; font-weight: bold; margin-bottom: 5px;">HITACHI</div> <div style="font-size: 0.7em; font-weight: normal; margin-bottom: 5px;">Hitachi Industrial Technology (Thailand), Ltd.</div>			HITT WORKS DWG. No.	SH.
CHKD.	W. Thawat					4HTD02541	
APPD.	T. Shimozone						
FRAME SIZE			TFOD-90L (TMLR)				

THREE-PHASE INDUCTION MOTOR

OUTPUT	TYPE	FORM	RATING	VOLTAGE (V)	FREQ. (Hz)	SYNC. SPBBD (min ⁻¹)	POLES	TH. CLASS	MASS (kg)
2HP	TFO	K	S1	220/380	50	3000	2	F	15
3HP	TFO	K	S1	220/380	50	3000	2	F	16
2HP	TFO	K	S1	220/380	50	1500	4	F	16
1HP	TFO	K	S1	220/380	50	1000	6	F	16



PROTECTION : IP55



CUSTOMER	QTY.	ORDER No.	WORK No.	REV.
DIMENSIONS	HITACHI Hitachi Industrial Technology (Thailand), Ltd.		HITT WORKS DWG. No. 4HTD03360	SH.

FRAME SIZE TFOD-90L (TMHD)