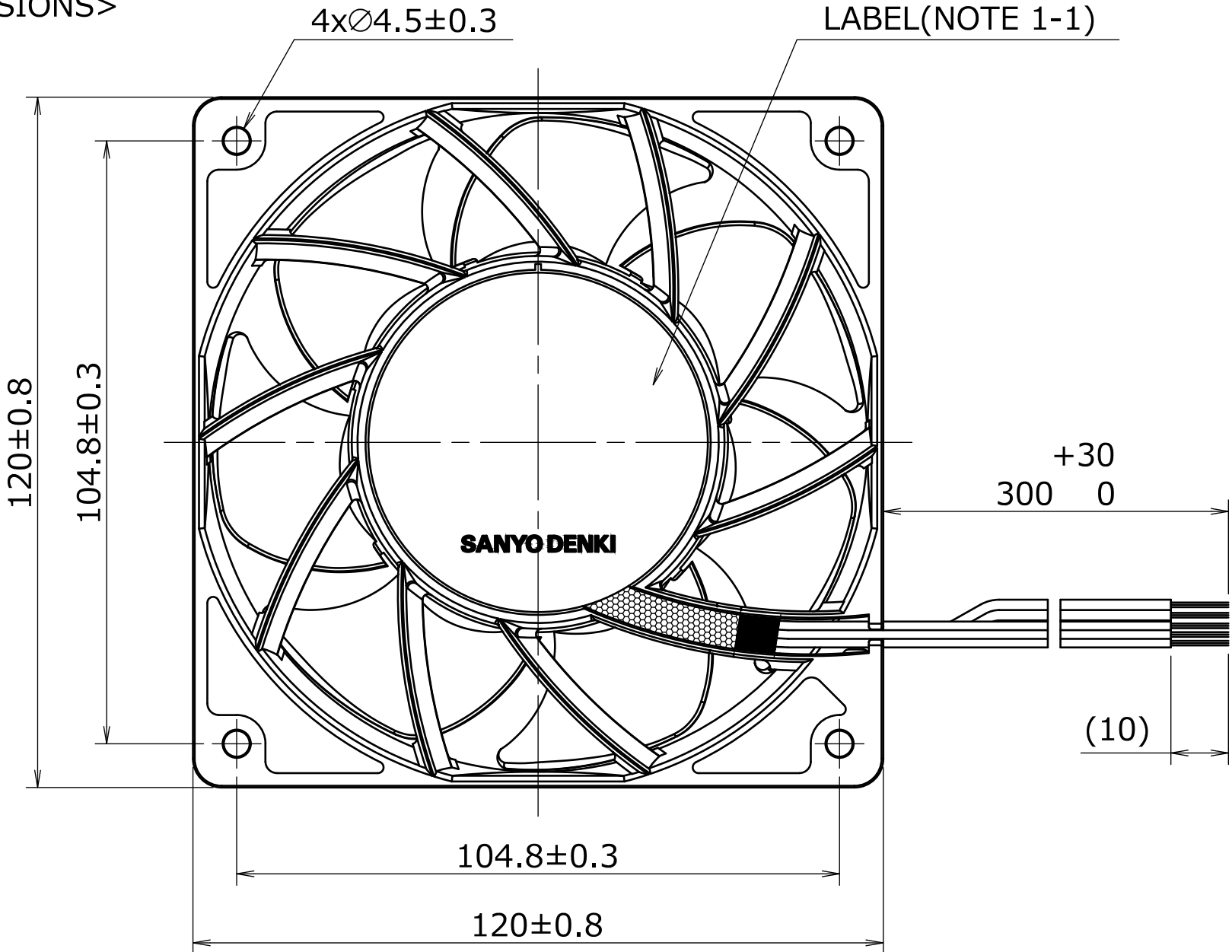
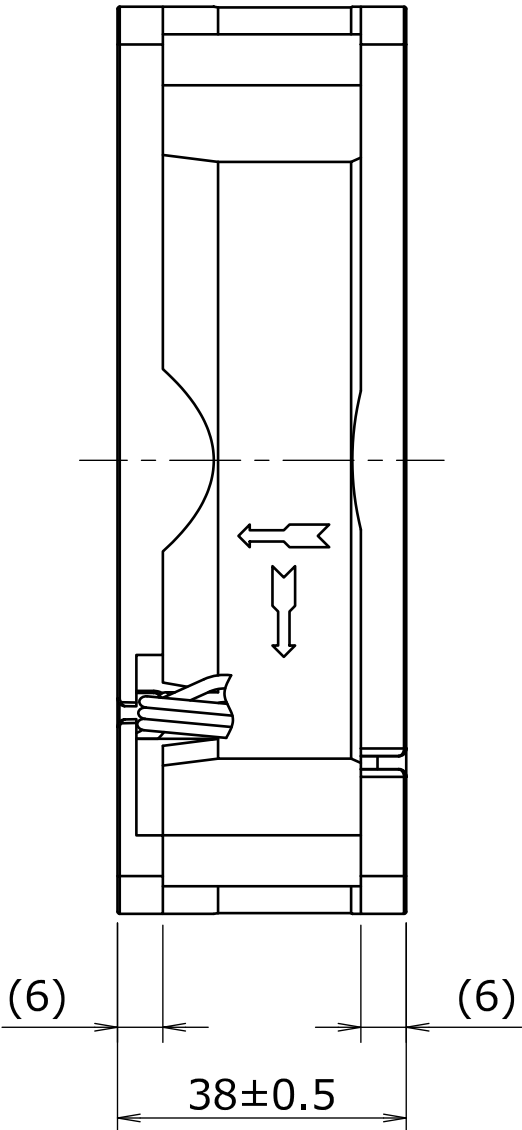


1. DIMENSIONS AND PARTS LIST

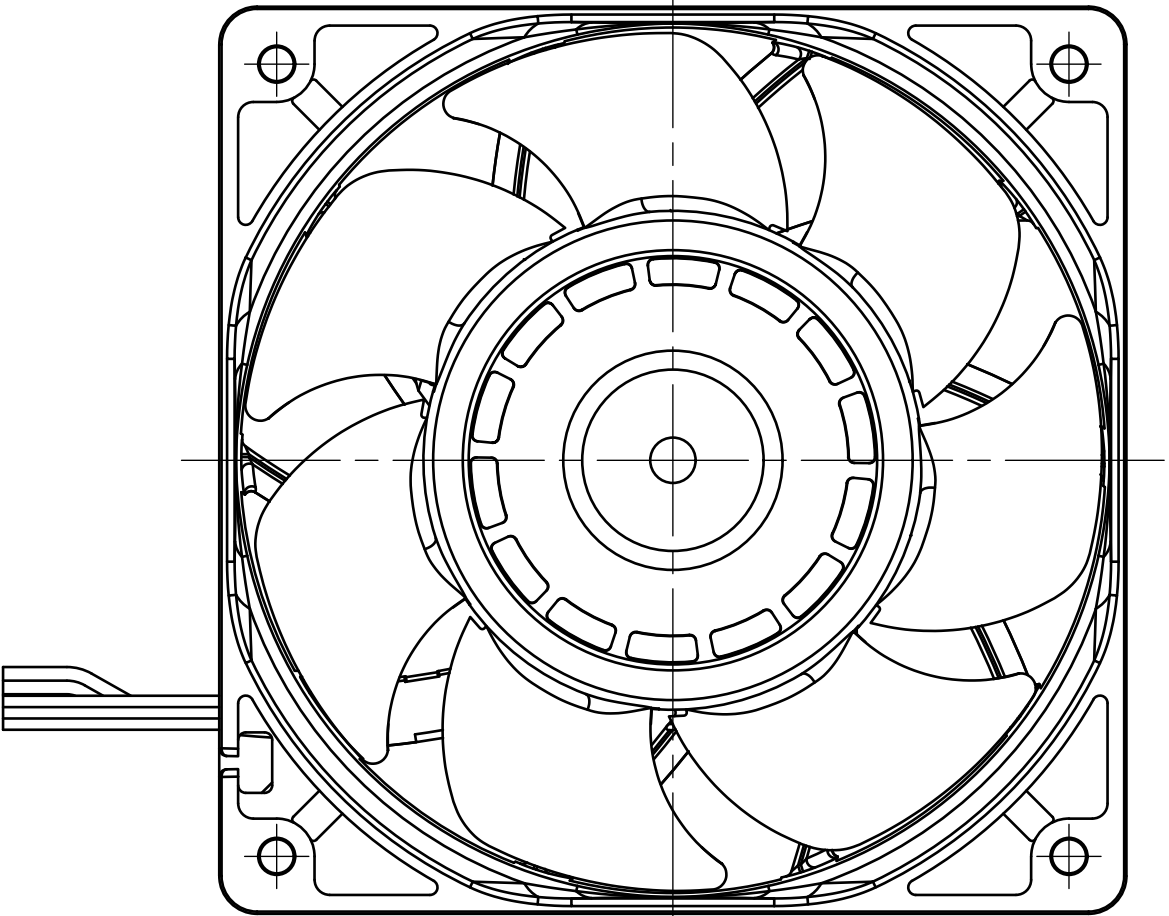
<DIMENSIONS>



ROTATING DIRECTION



AIRFLOW DIRECTION

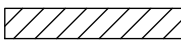
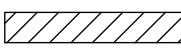


<LEAD WIRE CONNECTION TABLE>

POWER LEAD WIRES		
	LEAD WIRE	COLOR
L	UL11347 AWG22	ORANGE
N	UL11347 AWG22	GRAY

OTHER LEAD WIRES		
	LEAD WIRE	COLOR
GND	UL1430 AWG24	BLACK
SENSOR	UL1430 AWG24	YELLOW
PWM	UL1430 AWG24	BROWN

NOTE 1-1. THE PRODUCT NAME, MODEL NO., MANUFACTURER, MANUFACTURE DATE, ETC. ARE PRINTED ON LABEL.
銘板上に品名、型名、製造会社名 及び 製造年月日等を表示する。

<LABEL>  SHOWS LOT No.
 はロットNo.を示す。



OR

1-2. ALL ELECTRIC PARTS IN THIS FAN ARE PROTECTED FROM WATER AND DUST.
本ファンモータは、活電部に水や埃が侵入しない構造になっています。

	ECN No.	名称 Title
	E0213199	San Ace 120AD (9ADAW) RIBBED/PULSE_SENSOR/PWM_CONTROL
単位 Unit	新規 New Design	
mm	TOS.NISHIZAWA	
尺度 Scale	22-05-11	
-	図面番号 Dwg. No.	Rev.
9ADAW1201P1H001		B
SANYO DENKI		
承認 Approved By	審査 Checked By	設計 Designed By
M.MURATA	N.OGAWA	M.MURAKAMI
22-07-04	22-07-04	22-06-30
Group	D12	User
E0	Page	1/4

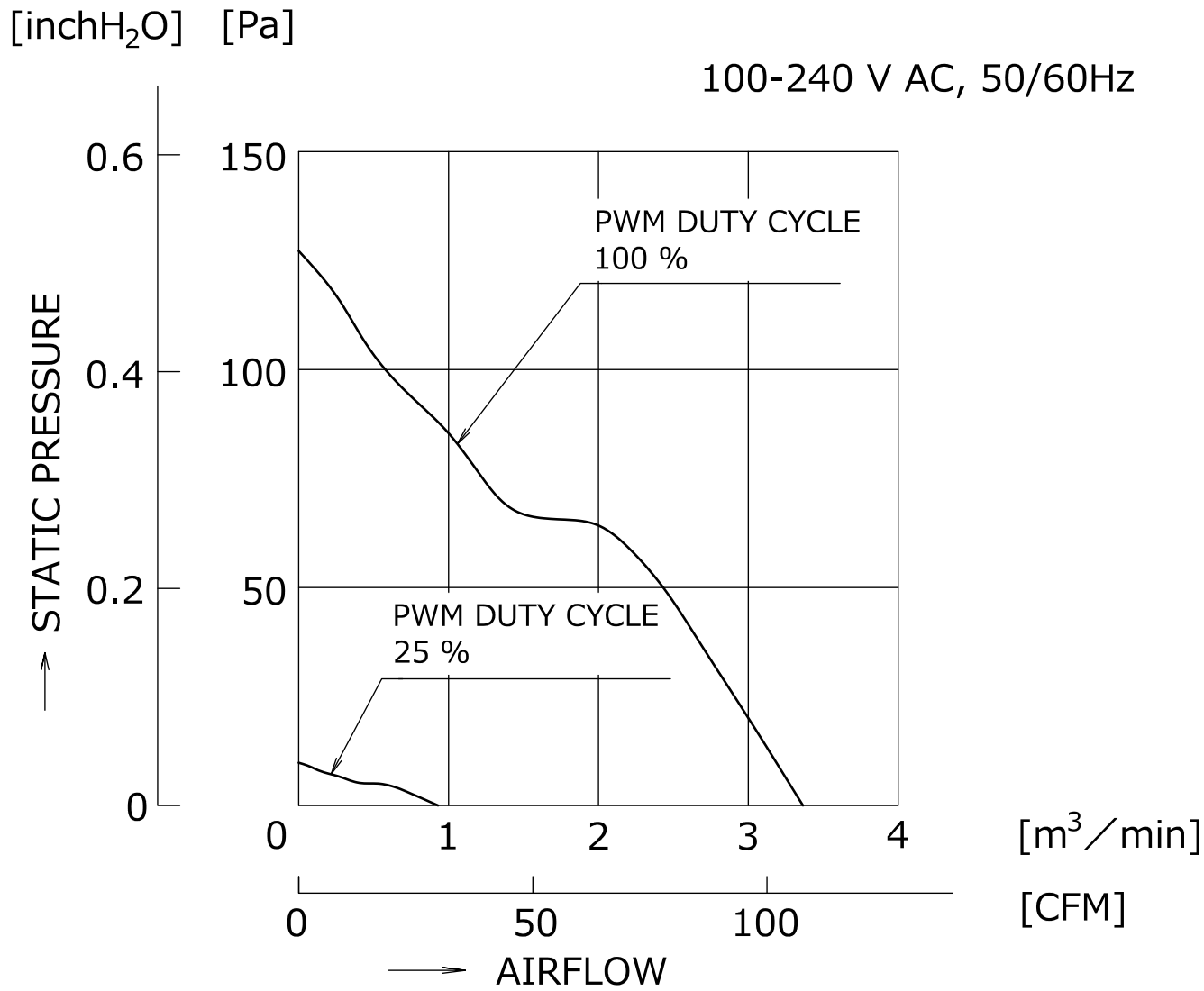
2. GENERAL SPECIFICATIONS

<CHARACTERISTICS>

ITEM	UNIT	CHARACTERISTICS		
PWM DUTY CYCLE	%	100	25	0
RATED VOLTAGE	V AC	100 ~ 240		
OPERATING VOLTAGE RANGE	V AC	90 ~ 264		
FREQUENCY	Hz	50 / 60		
MAX. AIRFLOW	m ³ /min (CFM)	3.36 (119)	0.93 (32.8)	- -
MAX. STATIC PRESSURE	Pa (inchH ₂ O)	128 (0.514)	15 (0.06)	- -
RATED CURRENT (RMS)	A	0.13	0.04	0.03 MAX.
RATED INPUT	W	6.6	1.4	0.9 MAX.
RATED SPEED	min ⁻¹	3800±380	1050±300	NO ROTATION
INSULATION RESISTANCE (NOTE 2-2)	-	10 MΩ MIN. AT 500 V DC		
DIELECTRIC STRENGTH (NOTE 2-2)	-	1 SECOND AT 2500 V AC, 50/60 Hz		
OPERATING TEMPERATURE	℃	-20 ~ +70		
STORAGE TEMPERATURE	℃	-30 ~ +70		
EXPECTED LIFE	-	60,000 h / 60 ℃ (L10, CONTINUOUS OPERATION)		
SOUND PRESSURE LEVEL (NOTE 2-3)	dB(A)	48	25	-
MASS	g	APPROX. 420		
MATERIAL	-	FRAME: PLASTICS IMPELLER : PLASTICS		
BEARING SYSTEM	-	2 BALL BEARINGS		
IP CODE	-	IP68 (IEC 60529 : 2001)		

NOTE 2-1. VALUES FOR EACH CHARACTERISTIC ARE AT ROOM TEMPERATURE AND NORMAL HUMIDITY. AND VALUE IS THE NOMINAL VALUE AFTER START UP AND OPERATE FOR 30 MINUTES. 諸特性は常温、常湿での値。 また、起動後、30分間動作させた後の標準値。

<REFERENCE AIRFLOW-STATIC PRESSURE CHARACTERISTICS>



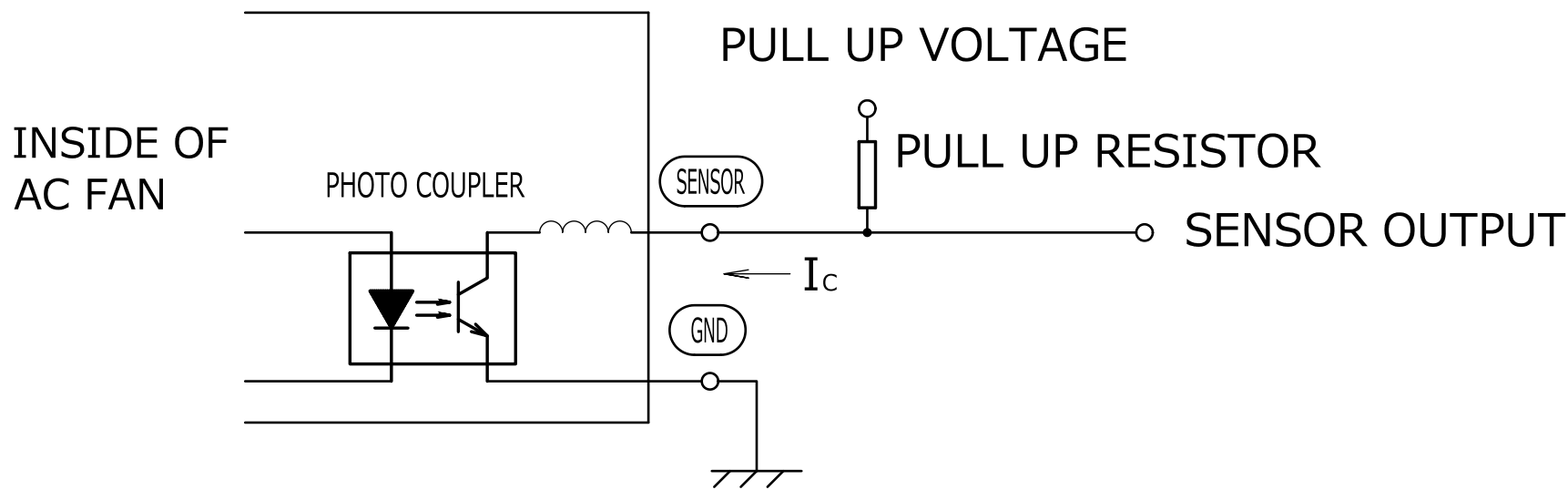
- 2-2. INSULATION RESISTANCE AND DIELECTRICS STRENGTH ARE MEASURED AT THE LOCATION AS BELOW;
絶縁抵抗および絶縁耐圧は以下に示す箇所を測定する。
BETWEEN LEAD WIRE CONDUCTORS AND FRAME.
リード線導体部とフレームとの間
BETWEEN INPUT LEAD WIRE (L, N) CONDUCTORS AND OTHER LEAD WIRE CONDUCTORS.
入力リード線 (L, N) 導体部とその他リード線導体部との間
- 2-3. MEASURED AT 1 m FROM THE AIR INLET.
ファン吸込側より1 mにて測定する。
- 2-4. WITHIN THE OPERATING VOLTAGE RANGE, THE MOTOR IS PROTECTED FROM BURNOUT DUE TO LOCKED ROTOR.
DO NOT LOCK ROTOR OUTSIDE OF OPERATING VOLTAGE.
使用電圧範囲にてファン拘束時焼損の恐れはない。
使用電圧範囲外でファンを拘束しないこと。

	ECN No.	名称 Title	
	E0213199	San Ace 120AD (9ADAW)	
単位 Unit	新規 New Design	RIBBED/PULSE_SENSOR/PWM_CONTROL	
mm	TOS.NISHIZAWA		
	22-05-11		
尺度 Scale	図面番号 Dwg. No.	Rev.	
-		9ADAW1201P1H001 B	
SANYO DENKI		承認 Approved By	審査 Checked By
CO.,LTD.		M.MURATA	N.OGAWA
		22-07-04	22-07-04
		設計 Designed By	
		M.MURAKAMI	
		22-06-30	
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3. SENSOR SPECIFICATIONS

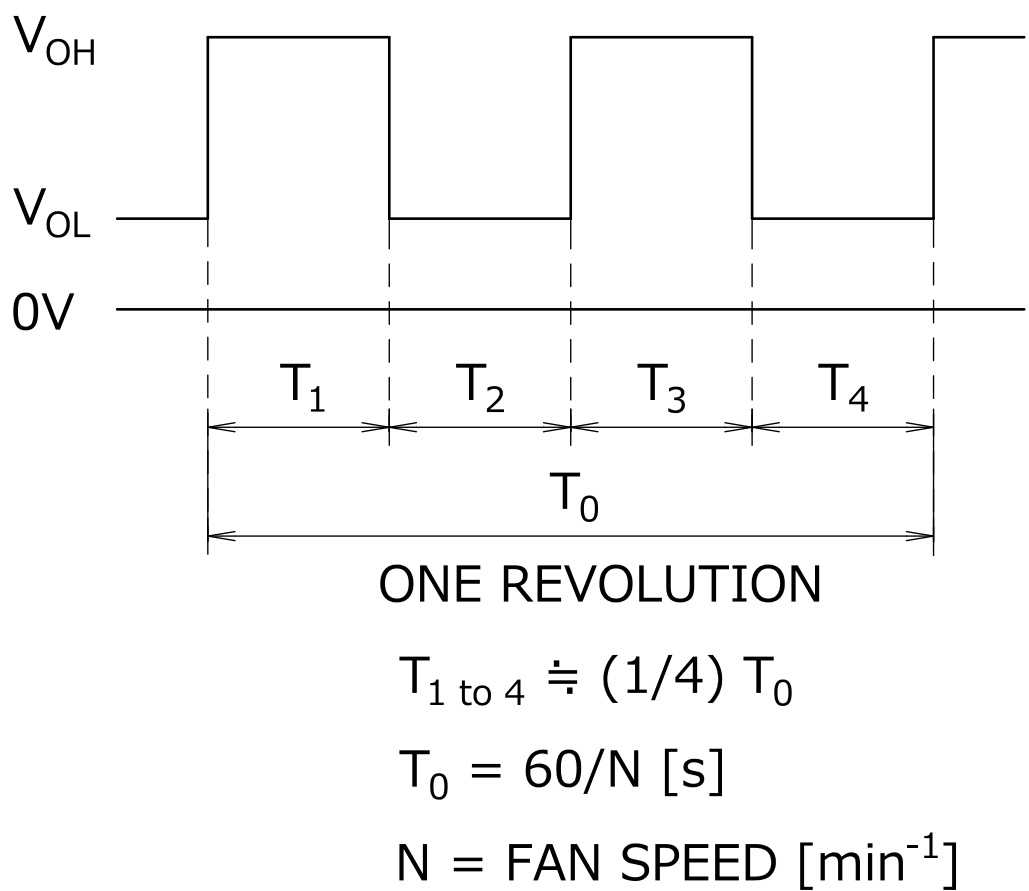
<OUTPUT CIRCUIT>

OPEN COLLECTOR



<OUTPUT WAVEFORM>

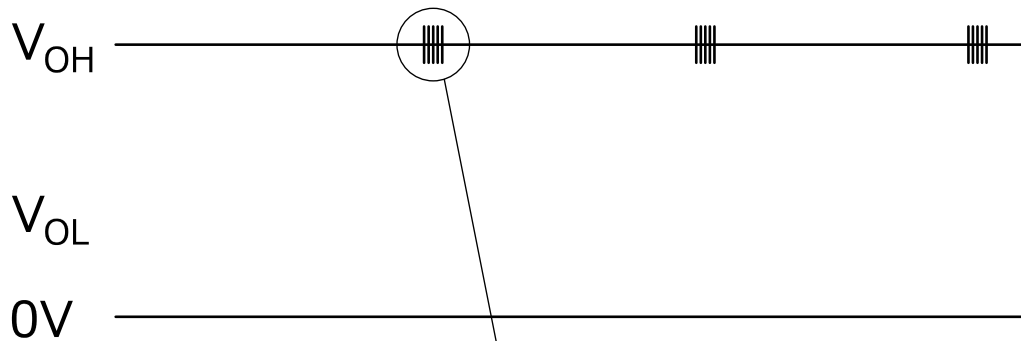
(a) IN CASE OF STEADY RUNNING (NOTE 3-1)



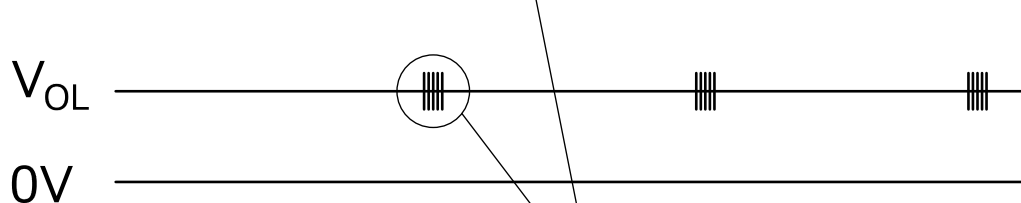
(b) IN CASE OF LOCKED ROTOR (NOTE 3-2)

SENSOR OUTPUT IS FIXED EITHER (b-1) or (b-2) AT LOCKED ROTOR CONDITION.

(b-1)



(b-2)



ELECTRICAL NOISE
(NOTE 3-2)

NOTE 3-1. PWM CONTROL SWITCHING MAY AFFECT THE SENSOR OUTPUT.

PWM制御によるスイッチングがセンサ出力に影響する場合がある。

3-2. ELECTRICAL NOISE MAY APPEAR ON THE V_{OH} OR V_{OL} WHEN THE FAN IS AUTO-RESTART.

モータの再起動の際には、 V_{OH} 、 V_{OL} にノイズが乗ることがある。

3-3. IF REQUIRED TO KEEP THE V_{OL} LOW, LOWER THE V_{OH} OR SET THE I_C SMALLER.

V_{OL} を低くする場合は、 V_{OH} を下げるか I_C を小さく設定すること。

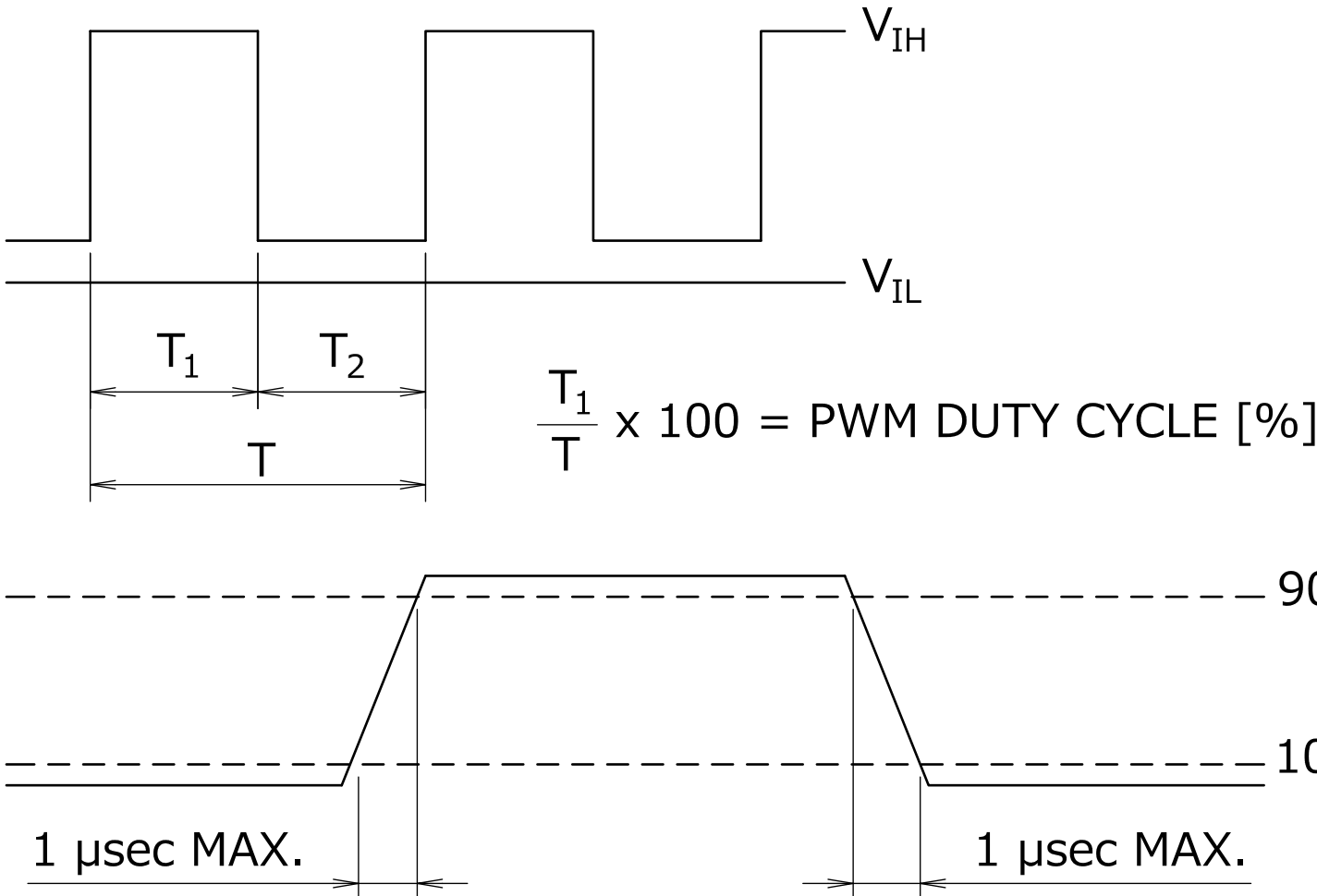
<SENSOR SPECIFICATIONS>

ITEM	SYMBOL	UNIT	MAX.
PULL UP VOLTAGE	-	V	60
COLLECTOR - EMITTER VOLTAGE (V_{CE})	V_{OH}	V	60
COLLECTOR CURRENT	I_C	mA	10
COLLECTOR SATURATION VOLTAGE ($V_{CE(SAT)}$)	V_{OL}	V	1.2

	ECN No. E0213199	名称 Title San Ace 120AD (9ADAW)	
	単位 Unit mm	新規 New Design TOS.NISHIZAWA 22-05-11	
尺度 Scale -	図面番号 Dwg. No.	9ADAW1201P1H001	
承認 Approved By M.MURATA		審査 Checked By N.OGAWA	設計 Designed By M.MURAKAMI
22-07-04		22-07-04	22-06-30
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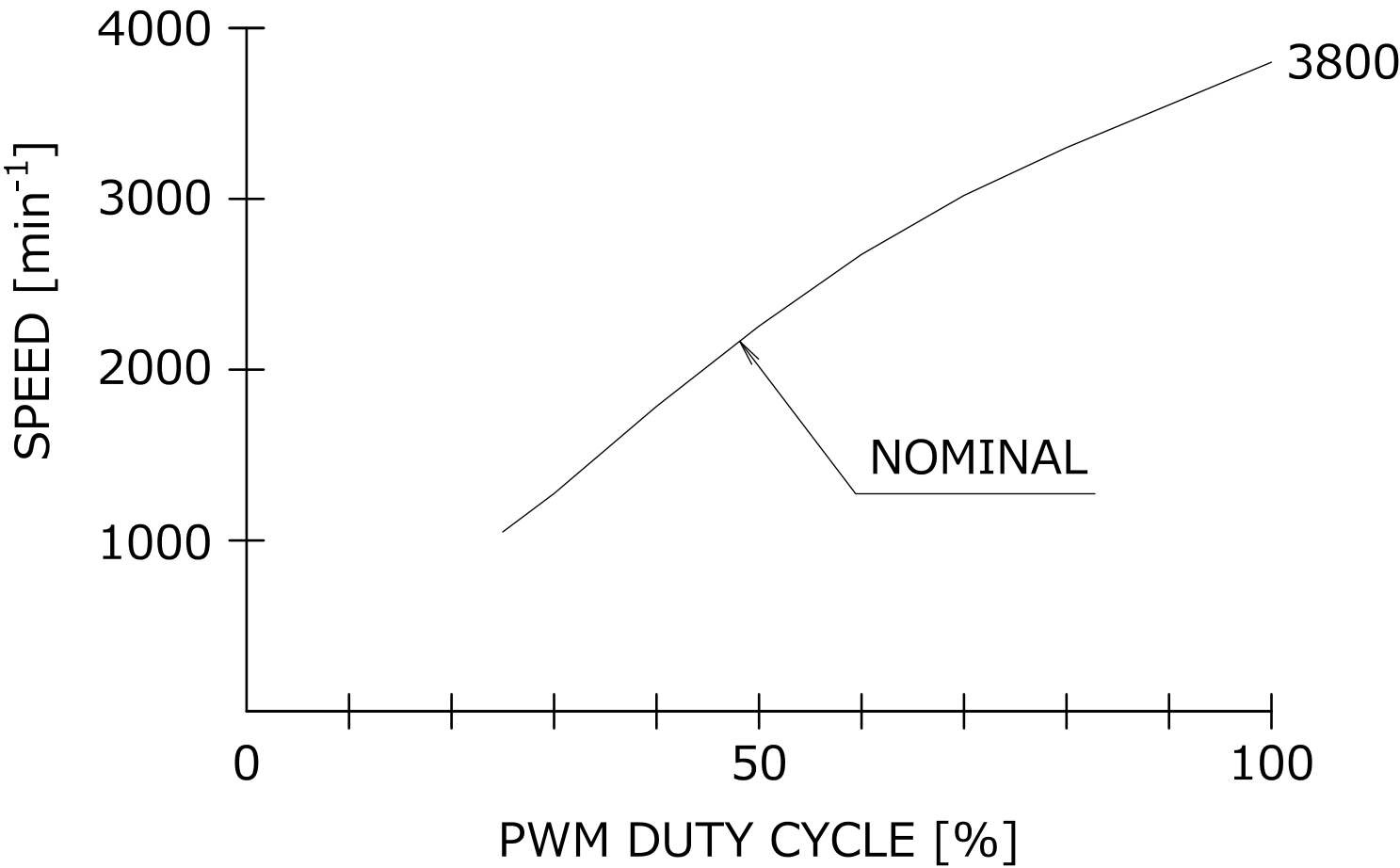
4. CONTROL SPECIFICATIONS

<PWM INPUT SIGNAL>

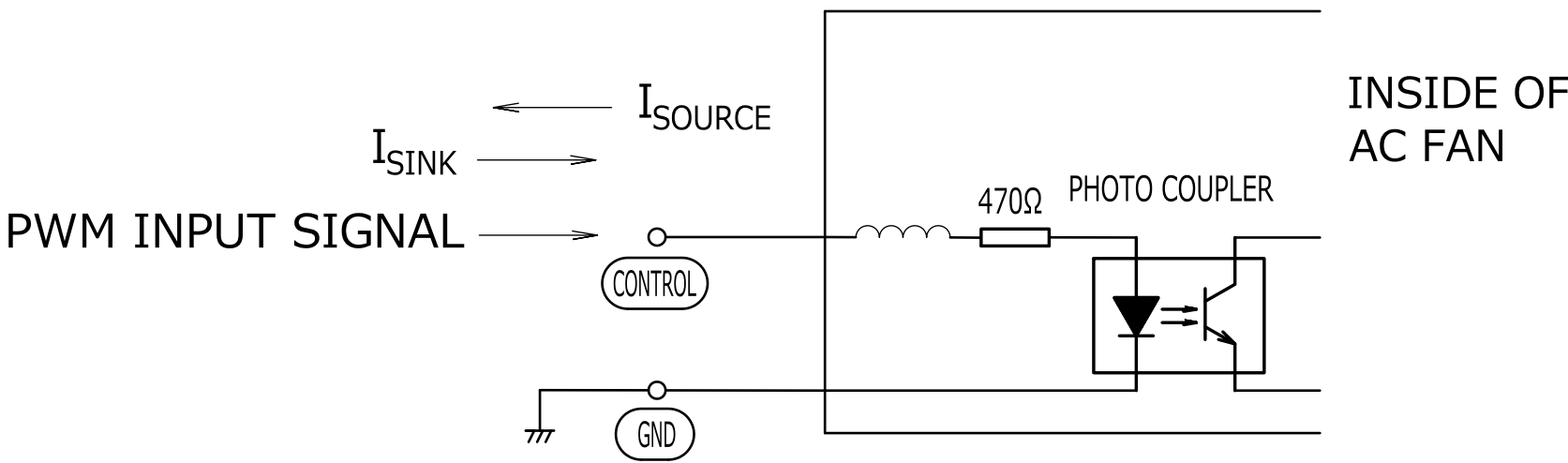


<REFERENCE PWM DUTY-SPEED CHARACTERISTICS>

FAN INPUT VOLTAGE : 100-240 V AC, 50 / 60 Hz
PWM FREQUENCY : 25 kHz
(AT ROOM TEMPERATURE
, NORMAL HUMIDITY)



<EXAMPLE OF CONNECTION SCHEMATIC>



<PWM CONTROL SPECIFICATIONS>

ITEM	SYMBOL	UNIT	MIN.	PREFERRED	MAX.
PWM FREQUENCY	-	kHz	22	25	28
PWM INPUT HIGH LEVEL	V_{IH}	V	4.75	5	5.25
PWM INPUT LOW LEVEL	V_{IL}	V	0	-	0.4
SOURCE CURRENT AT CONTROL VOLTAGE 0V	I_{SOURCE}	mA	-	-	1.0
SINK CURRENT AT CONTROL VOLTAGE 5.25V	I_{SINK}	mA	5	-	10

- NOTE 4-1. REFER TO SECTION 2 FOR THE SPEED WITH PWM DUTY CYCLE OF 0, 25, 100 %.
PWMデューティサイクルが 0, 25, 100 %の時、回転速度は2項を参照のこと。
- 4-2. WHEN THE CONTROL TERMINAL IS OPEN,
PWM入力端子がオープン状態の時、
• CONTROL TERMINAL IS ELECTRICALLY FLOATED FROM (GND).
PWM入力端子は (GND) から電氣的に浮いた状態となる。
• FAN SPEED IS THE SAME AS WHEN PWM DUTY CYCLE IS 0 %.
回転速度はPWMデューティサイクル0 %と同じである。
- 4-3. THE PWM SIGNAL THAT SATISFIES THIS SPECIFICATION SHALL BE INPUT.
本仕様を満足するPWM信号を入力のこと。
IF INPUT A DIFFERNT SPECIFICATION, THE SPEED RELATIVE TO THE PWM
DUTY CYCLE MAY DIFFER FROM THIS SPECIFICATION.
異なる入力をした場合, PWMデューティサイクルに対する回転速度が本仕様と
異なる場合があるので注意のこと

	ECN No. E0213199	名称 Title San Ace 120AD (9ADAW) RIBBED/PULSE_SENSOR/PWM_CONTROL	
	単位 Unit mm	新規 New Design TOS.NISHIZAWA 22-05-11	
尺度 Scale -	図面番号 Dwg. No.	9ADAW1201P1H001	
承認 Approved By M.MURATA 22-07-04		審査 Checked By N.OGAWA 22-07-04	設計 Designed By M.MURAKAMI 22-06-30
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