

PMFY-P-VBM-E

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1. SPECIFICATIONS

Ceiling cassette (1-way flow type)

Model			PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E	
Power source			1-phase 220-240V 50Hz, 1-phase 220V 60Hz				
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5	
	*1	kcal / h	1,900	2,400	3,100	3,900	
	*1	BTU / h	7,500	9,600	12,300	15,400	
	*3	Power input	kW	0.042	0.044	0.044	0.054
	*3	Current input	A	0.20	0.21	0.21	0.26
Heating capacity (Nominal)	*2	kW	2.5	3.2	4.0	5.0	
	*2	kcal / h	2,200	2,800	3,400	4,300	
	*2	BTU / h	8,500	10,900	13,600	17,100	
	*3	Power input	kW	0.042	0.044	0.044	0.054
	*3	Current input	A	0.20	0.21	0.21	0.26
External finish			Galvanized, with grey insulation sheet				
External dimension H x W x D		mm	230 x 812 x 395				
		in.	9-1/16 x 32 x 15-9/16				
Net weight		kg (lbs)	14 (31)				
Decoration panel	Model		PMP-40BMW	PMP-40BMW	PMP-40BMW	PMP-40BMW	
	External finish		MUNSELL (0.98Y 8.99/0.63)				
	Dimension		30 x 1,000 x 470				
	H x W x D		1-3/16 x 39-3/8 x 18-9/16				
	Net Weight		3 (7)				
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
FAN	Type x Quantity		Line flow fan x 1				
	External static press.	Pa	0				
		mmH ₂ O	0				
	Motor type		1-phase induction motor				
	Motor output		0.028				
	Driving mechanism		Direct-driven by motor				
	Airflow rate (Low-Mid-High)	m ³ / min	6.5 - 7.2 - 8.0 - 8.7	7.3 - 8.0 - 8.6 - 9.3	7.3 - 8.0 - 8.6 - 9.3	7.7 - 8.7 - 9.7 - 10.7	
L / s		108 - 120 - 133 - 145	122 - 133 - 143 - 155	122 - 133 - 143 - 155	128 - 145 - 162 - 178		
cfm		230 - 254 - 283 - 307	258 - 283 - 304 - 328	258 - 283 - 304 - 328	272 - 307 - 343 - 378		
Sound pressure level (Low-Mid-High) (measured in anechoic room) *3		dB <A>	27 - 30 - 33 - 35	32 - 34 - 36 - 37	32 - 34 - 36 - 37	33 - 35 - 37 - 39	
Insulation material			Polyester sheet				
Air filter			PP honeycomb fabric				
Protection device			Fuse				
Refrigerant control device			LEV				
Connectable outdoor unit			R410A CITY MULTI				
Diameter of refrigerant pipe	Liquid (R410A)	mm (in.)	ø6.35 (ø1/4) Flare	ø6.35 (ø1/4) Flare	ø6.35 (ø1/4) Flare	ø6.35 (ø1/4) Flare	
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2) Flare	ø12.7 (ø1/2) Flare	ø12.7 (ø1/2) Flare	ø12.7 (ø1/2) Flare	
Field drain pipe size		mm (in.)	O.D. 26 (1)				
Drawing	External		IU-BH01-C184				
	Wiring		IU-RG79-A671				
	Refrigerant cycle						
Standard attachment	Document		Installation Manual, Instruction Book				
	Accessory		Drain hose I.D. 26 (1) (flexible joint)				
Remark	Optional parts						
	Decoration panel		PMP-40BMW	PMP-40BMW	PMP-40BMW	PMP-40BMW	
			*PMFY-P-VBM-E should used together with PMP-40BMW				
	Installation		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.				
Note :			*1 Nominal cooling conditions			*2 Nominal heating conditions	
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB)			20°CDB (68°FDB)			Unit converter	
Outdoor : 35°CDB (95°FDB)			7°CDB/6°CWB (45°FDB/43°FWB)			kcal/h = kW x 860	
Pipe length : 7.5 m (24-9/16 ft)			7.5 m (24-9/16 ft)			BTU/h = kW x 3,412	
Level difference : 0 m (0 ft)			0 m (0 ft)			cfm = m ³ /min x 35.31	
						lbs = kg / 0.4536	
* Nominal conditions *1, *2 are subject to JIS B8615-1.						*Above specification data is subject to rounding variation.	
* Due to continuing improvement, above specification may be subject to change without notice.							
*3 The values are measured at the rated external static pressure.							

PMFY-P-VBM-E

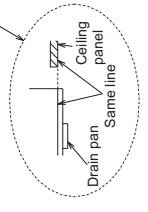
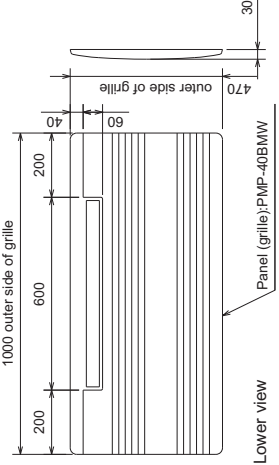
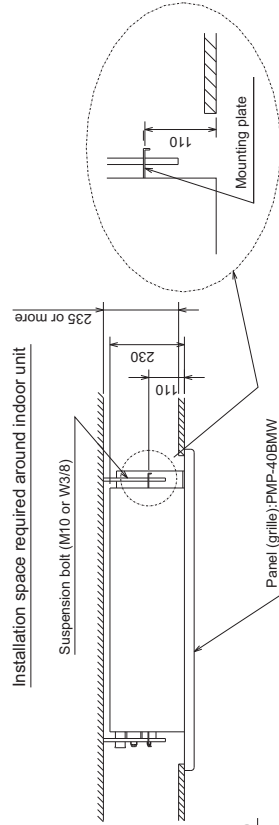
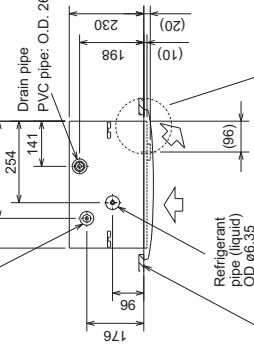
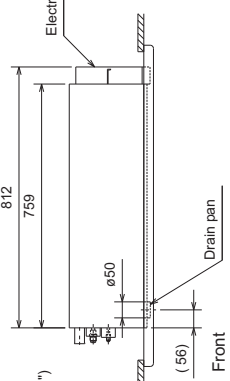
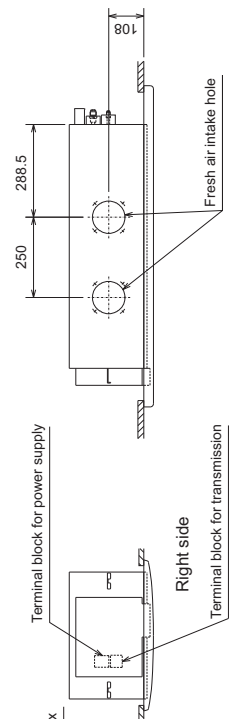
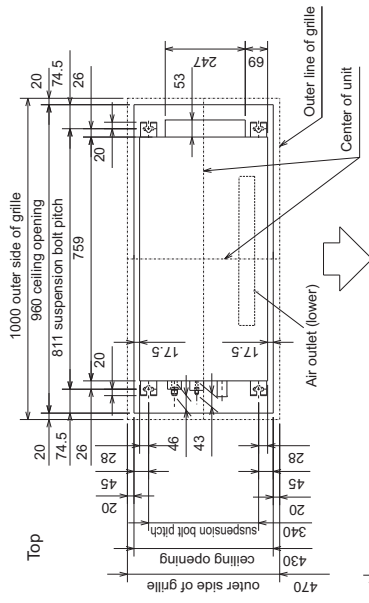
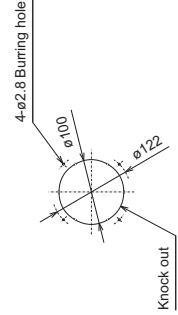
PMFY-P20, 25, 32, 40VBM-E

Unit : mm

Refrigerant piping	pipe cover OD ø43
Gas pipe	Liquid pipe OD ø6.35 (1/4")
Drain pipe	Gas pipe OD ø12.7 (1/2")
	PVC pipe: O.D. 26 (1")

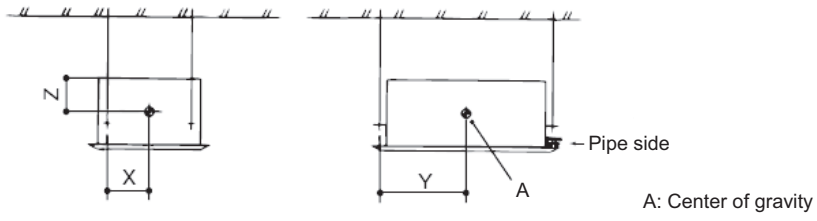
* Drain hose I.D. 26 (1") joint Accessory 1pc.

Detail drawing of fresh air intake hole



PMFY-P-VBM-E

PMFY-P20, 25, 32, 40VBM-E

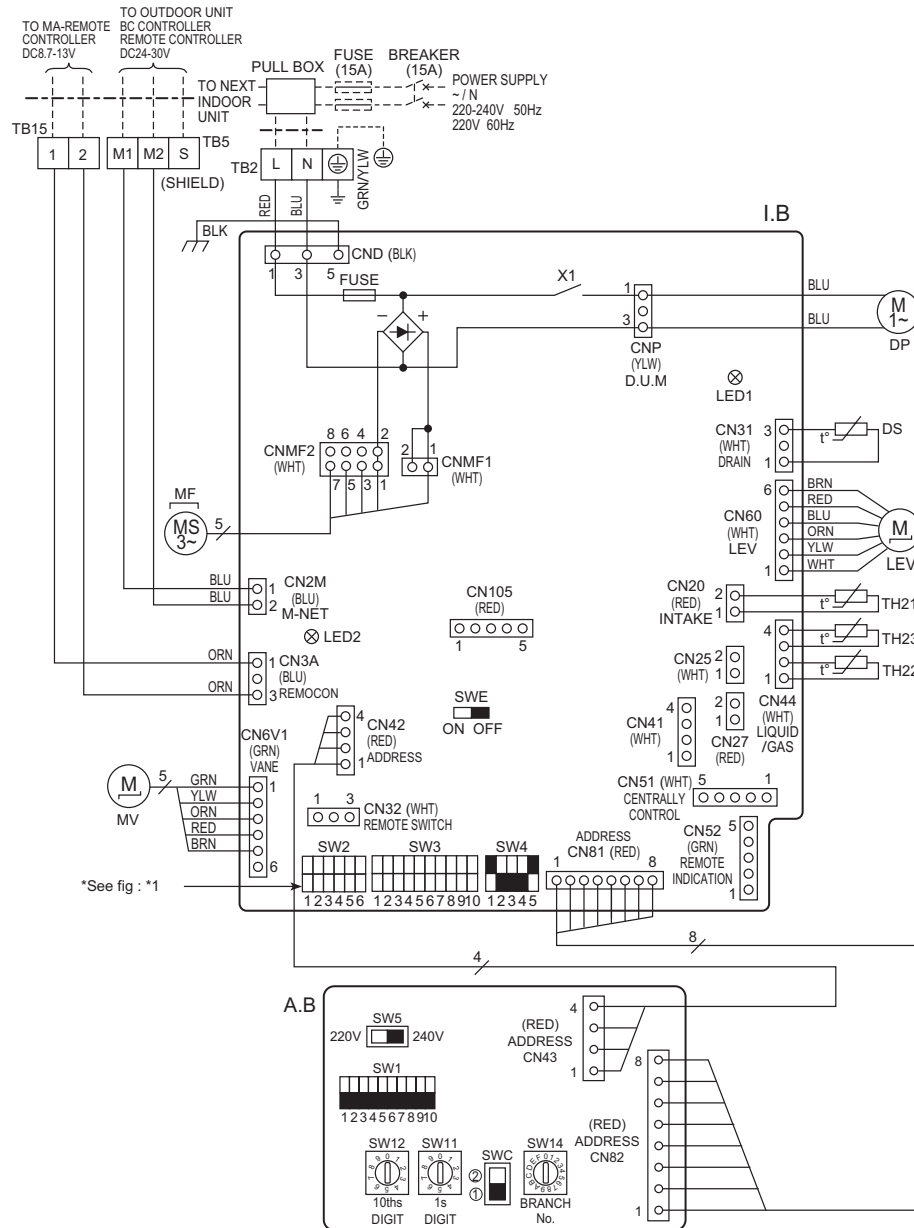


(mm)[in]

Model name	X	Y	Z
PMFY-P20VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P25VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P32VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P40VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]

PMFY-P-VBM-E

PMFY-P20, 25, 32, 40VBM-E



*See fig : *1

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	DS	DRAIN SENSOR
CN25	CONNECTOR HUMIDIFIER	TB2	TERMINAL POWER SUPPLY
CN27	DAMPER	TB5	BLOCK TRANSMISSION
CN32	REMOTE SWITCH	TB15	MA-REMOTE CONTROLLER
CN51	CENTRALLY CONTROL	TH21	THERMISTOR ROOM TEMP. DETECTION (0°C/15kΩ, 25°C/5.4kΩ)
CN52	REMOTE INDICATION	TH22	PIPE TEMP. DETECTION / LIQUID (0°C/15kΩ, 25°C/5.4kΩ)
CN105	IT TERMINAL	TH23	PIPE TEMP. DETECTION / GAS (0°C/15kΩ, 25°C/5.4kΩ)
SW2	SWITCH CAPACITY CORD	LEV	LINEAR EXPANSION VALVE
SW3	MODE SELECTION	A.B	CIRCUIT BOARD
SW4	MODEL SELECTOR	SW1	SWITCH MODE SELECTION
SWE	DRAIN UP MACHINE (TEST MODE)	SW5	VOLTAGE SELECTION
FUSE	FUSE (T6.3AL 250V)	SW11	ADDRESS SETTING 1s DIGIT
X1	AUX.RELAY DRAIN PUMP	SW12	ADDRESS SETTING 10ths DIGIT
LED1	POWER SUPPLY (I.B)	SW14	BRANCH No.
LED2	POWER SUPPLY (I.B)		
MF	FAN MOTOR		
MV	VANE MOTOR		
DP	DRAIN PUMP		

LED on indoor board for service

Mark	Meaning	Function
LED1	Main power supply	Main power supply (Indoor unit:220-240V) Power on → lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit

The black square (■) indicates a switch position. <*1>

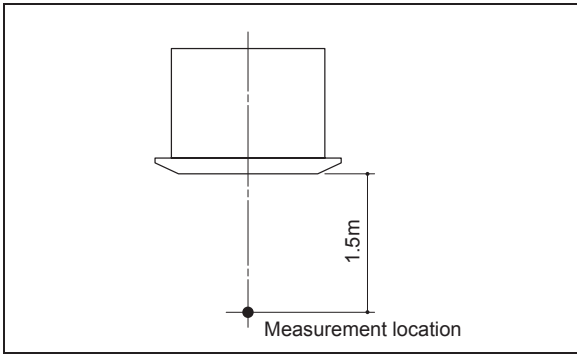
MODELS	SW2	SW3
P20VBM	ON OFF 123456	ON OFF 12345678910
P25VBM	ON OFF 123456	ON OFF 12345678910
P32VBM	ON OFF 123456	ON OFF 12345678910
P40VBM	ON OFF 123456	ON OFF 12345678910

NOTES:

- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol [S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are, [] : terminal block, [] : connector.
- The setting of the SW2 dip switches differs in the capacity. For the detail, refer to the table above.
- Please set the switch SW5 according to the power supply voltage. Set SW5 to 240V side when the power supply is 230 and 240 volts. When the power supply is 220 volts, set SW5 to 220V side.

5-1. Sound levels

PMFY-P-VBM-E



* Measured in anechoic room

Sound level at anechoic room : Low-Middle2-Middle1-High

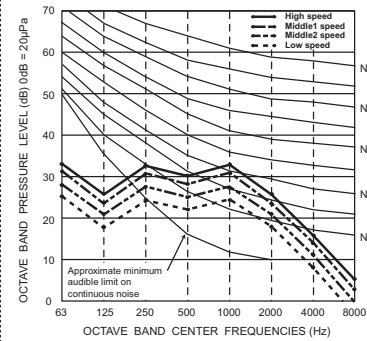
	Sound level dB (A)
PMFY-P20VBM-E	27-30-33-35
PMFY-P25VBM-E	32-34-36-37
PMFY-P32VBM-E	33-35-37-39

5-2. NC curves

PMFY-P-VBM-E

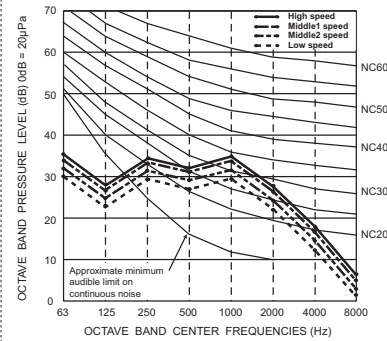
PMFY-P20VBM-E

External static pressure : 0Pa
Power source : 220, 230, 240V, 50Hz / 220V, 60Hz



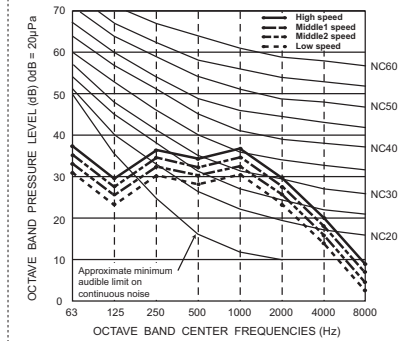
PMFY-P25, 32VBM-E

External static pressure : 0Pa
Power source : 220, 230, 240V, 50Hz / 220V, 60Hz



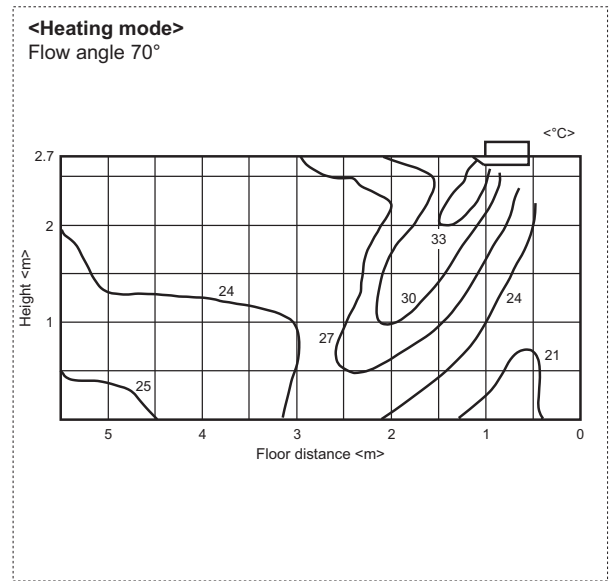
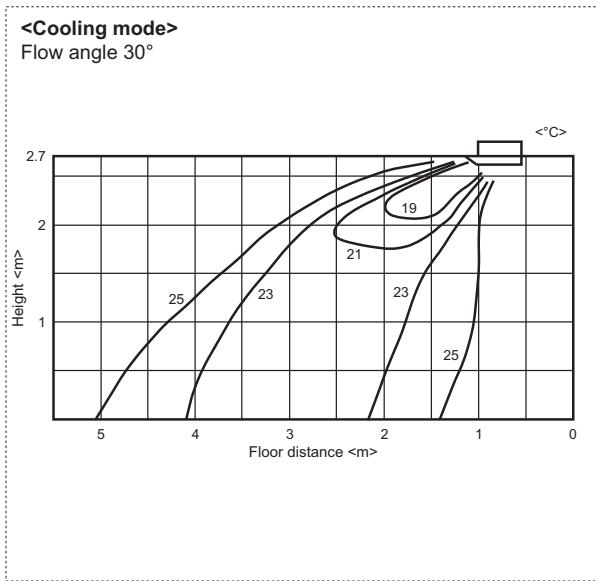
PMFY-P40VBM-E

External static pressure : 0Pa
Power source : 220, 230, 240V, 50Hz / 220V, 60Hz



6-1. Temperature distributions

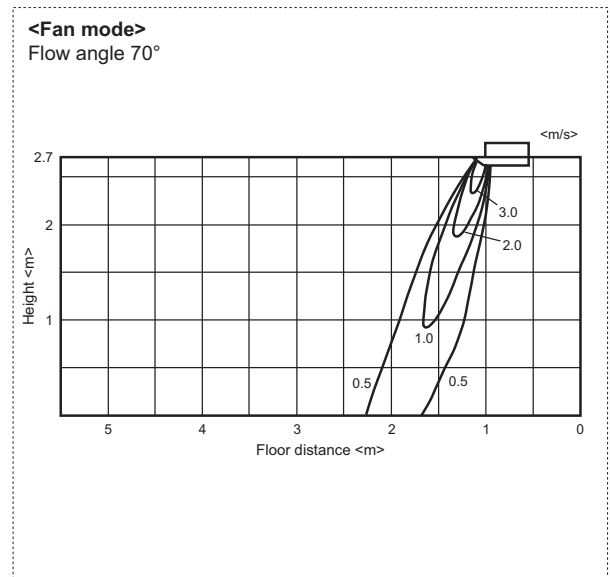
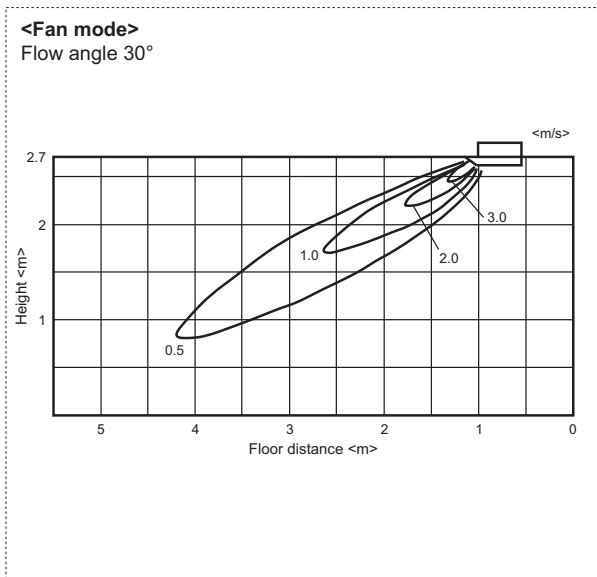
PMFY-P20-40VBM-E



Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load,obstacles,etc.

6-2. Airflow distributions

PMFY-P20-40VBM-EC



Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load,obstacles,etc.

PMFY-P-VBM-E

7. ELECTRICAL CHARACTERISTICS

Ceiling cassette (1-way flow type)

Symbols: MCA (Max.Circuit Amps =1.25xFLA), FLA (Full Load Amps)
IFM (Indoor Fan Motor), Output (Fan motor rated output)

PMFY-P-VBM-E	Power supply			IFM	
	Volts/Hz	Range +-10%	MCA(A)	Output (kW)	FLA(A)
PMFY-P20VBM-E	220-240V/50Hz 220V/60Hz	Max.: 264V Min.: 198V	0.25	0.028	0.20
PMFY-P25VBM-E			0.26	0.028	0.21
PMFY-P32VBM-E			0.26	0.028	0.21
PMFY-P40VBM-E			0.33	0.028	0.26

PMFY-P-VBM-E