



# Midea MRC X152H Series Packaged Heat Pump

15.2 SEER2

Capacity: 36 - 60 kBTU/h



## Contents:

1 NOMENCLATURE.....	2
2 SPECIFICATIONS.....	3
3 DIMENSIONS.....	4
4 AIRFLOW DATA.....	5
5 ELECTRIC HEAT KIT DATA.....	6
4 WIRING DIAGRAMS.....	7



## Features:

- High efficiency, 15.2 SEER2&8.0 HSPF.
- Inverter technology, more quiet operation.
- ECM indoor fan motor, saving more operation cost.
- Compatible with 24V wired controller.
- Auto fan is standard (4 fan speed).
- Cold air prevention function, more comfortable
- Multiple system protection.
- Intelligent oil return technology.
- AHRI certified and ETL listed.
- All-aluminum tubes & fins.

## 1 Nomenclature

M	R	C	-	36	H	W	N1	-	M	16	A
1	2	3		4	5	6	7		8	9	10

Legend		
No.	Code	Remarks
1	M	Brand: Midea
2	R	Packaged unit
3	C	Discharge type: C: Side discharge D: Double deck
4	24	Capacity: 24: 24 kBtu/h; 30: 30 kBtu/h; 36: 36 kBtu/h; 42: 42 kBtu/h; 48: 48 kBtu/h; 60: 60 kBtu/h;
5	H	Unit type: C: cooling only; H: heat pump
6	W	Controller type: W: Wired controller
7	N1	Refrigerant type: N1: R410A
8	M	Power supply type: M: 1-Phase; X: 3-Phase
9	16	Efficiency: 16: 16SEER/15.2SEER2
10	A	Version number

**2 Specifications**

	<b>MRC-36HWD1N1-M16A</b>	<b>MRC-60HWD1N1-M16A</b>
<b>NOMINAL CAPACITY</b>		
Cooling (BTU/h)	36,000	60,000
Heating (BTU/h)	/	/
<b>ELECTRICAL DATA</b>		
Voltage / Phase (60 Hz)	208/230 / 1	208/230 / 1
Min. / Max. Voltage	187/253	187/253
MCA	25.1	41.8
MOP	40	60
<b>COMPRESSOR</b>		
Type	Rotary	Rotary
Stage	Single	Single
RLA	15.0	27.0
<b>OUTDOOR COIL</b>		
Type	Tube & Fin	Tube & Fin
Tube Size(O.D)	9/32	9/32
<b>OUTDOOR FAN MOTOR</b>		
Motor Type	ECM	ECM
Capacitor(uF)	/	/
Horsepower (HP)	1/3	1/3
Full Load Amps (FLA)	2.0	2.0
Rated RPM	980	980
<b>INDOOR COIL</b>		
Type	Tube & Fin	Tube & Fin
Tube Size(O.D)	9/32	9/32
<b>INDOOR BLOWER MOTOR</b>		
Motor Type	ECM	ECM
Capacitor(uF)	/	/
Horsepower (HP)	1/2	3/4
Full Load Amps (FLA)	4.3	6.0
Rated RPM	1050	1050
<b>REFRIGERATION SYSTEM</b>		
Refrigerant Control	EEV	EEV
Refrigerant Charge (lbs. - oz.)	5-13	5-12
<b>OPERATION RANGE</b>		
Cooling(°F)	55-115	55-115
Heating(°F)	5-86	5-86
<b>SOUND POWER (DB)</b>	80	81

3 Dimensions



	MRC-36HWN1-M16A	MRC-60HWN1-M16A
<b>UNIT DIMENSION AND WEIGHTS</b>		
Height (in.)	24-13/16	33-1/16
Width (in.)	37-3/4	42-1/16
Depth (in.)	52	58-1/2
Net Weight (lbs.)	320	434

## 4 Airflow Data

Model Number	Motor Speed *		SCFM								
			External Static Pressure-Inches W.C.[kPa]								
			0[0]	0.1[.02]	0.2[.05]	0.3[.07]	0.4[.10]	0.5[.12]	0.6[.15]	0.7[.17]	0.8[.20]
36	Tap 1	SCFM	1046	951	890	876	841	/	/	/	/
		Watts	110	120	131	135	143	/	/	/	/
		Amps	1.26	1.33	1.49	1.43	1.33	/	/	/	/
	Tap 2	SCFM	1122	1075	1023	1009	976	931	/	/	/
		Watts	148	158	170	174	183	196	/	/	/
		Amps	1.52	1.6	1.68	1.71	1.77	1.87	/	/	/
	Tap 3	SCFM	1327	1287	1243	1229	1199	1158	1118	/	/
		Watts	234	247	260	265	275	290	306	/	/
		Amps	2.15	2.25	2.34	2.38	2.45	2.57	2.69	/	/
	Tap 4	SCFM	1411	1372	1330	1316	1285	1245	1206	1131	/
		Watts	275	288	302	307	316	333	349	380	/
		Amps	2.45	2.55	2.66	2.69	2.77	2.89	3.01	3.24	/
	Tap 5	SCFM	1572	1538	1500	1487	1458	1419	1382	1353	1314
		Watts	380	396	411	416	427	444	463	476	497
		Amps	3.2	3.36	3.47	3.51	3.59	3.72	3.86	3.96	4.12
60	Tap 1	SCFM	1398	1338	1282	1231	1175	/	/	/	/
		Watts	166	176	187	198	208	/	/	/	/
		Amps	1.7	1.7	1.8	1.9	1.9	/	/	/	/
	Tap 2	SCFM	1476	1420	1367	1316	1265	1213	/	/	/
		Watts	194	205	217	228	239	250	/	/	/
		Amps	1.9	2	2	2.1	2.2	2.3	/	/	/
	Tap 3	SCFM	1777	1728	1680	1635	1592	1549	/	/	/
		Watts	323	338	352	365	378	391	/	/	/
		Amps	2.8	2.9	3	3.1	3.2	3.3	/	/	/
	Tap 4	SCFM	1937	1889	1842	1792	1758	1720	1670	1636	/
		Watts	412	428	444	457	471	486	499	513	/
		Amps	3.5	3.6	3.7	3.8	3.9	4	4.1	4.2	/
	Tap 5	SCFM	2235	2191	2144	2091	2050	2010	1971	1936	1892
		Watts	623	642	660	673	689	704	719	734	744
		Amps	4.5	5.1	5.3	5.4	5.5	5.6	5.7	5.8	5.8

Bold outlined areas represent airflow outside of the required 300-450 cfm/ton range.

- 1 Silent Mode --- low stage speed.
- 2 Factory Default --- low stage speed.
- 3 Silent Mode --- high stage speed. Or High Static Pressure Mode --- low stage speed.
- 4 Factory Default --- high stage speed.
- 5 High Static Pressure Mode --- high stage speed.

### NOTES:

1. This table is only used to select the highest blower speed.
2. The rated airflow of systems without electric heater kits requires between 300 and 450 cubic feet of air per minute (CFM).The rated airflow of systems with electric heater kits requires between 350 and 450 cubic feet of air per minute (CFM).
3. The air distribution system has the greatest effect on airflow. Therefore, the contractor should use only industry-recognized procedures.
4. Duct design and construction should be carefully done. System performance can be lowered dramatically through poor design or workmanship.
5. Air supplier ducts should be located along the perimeter of the conditioned space and properly sized. Improper location or insufficient air flow may cause drafts or noise in the ductwork.
6. Installers should balance the air distribution system to ensure proper quiet airflow to all rooms in the home. An air velocity meter or airflow hood can be used to balance and verify branch and system airflow (CFM).
7. Factory Default maximum static pressure 0.6 inches W.C.. If static pressure exceeds 0.6 inches W.C. please dial code to Tap(5)

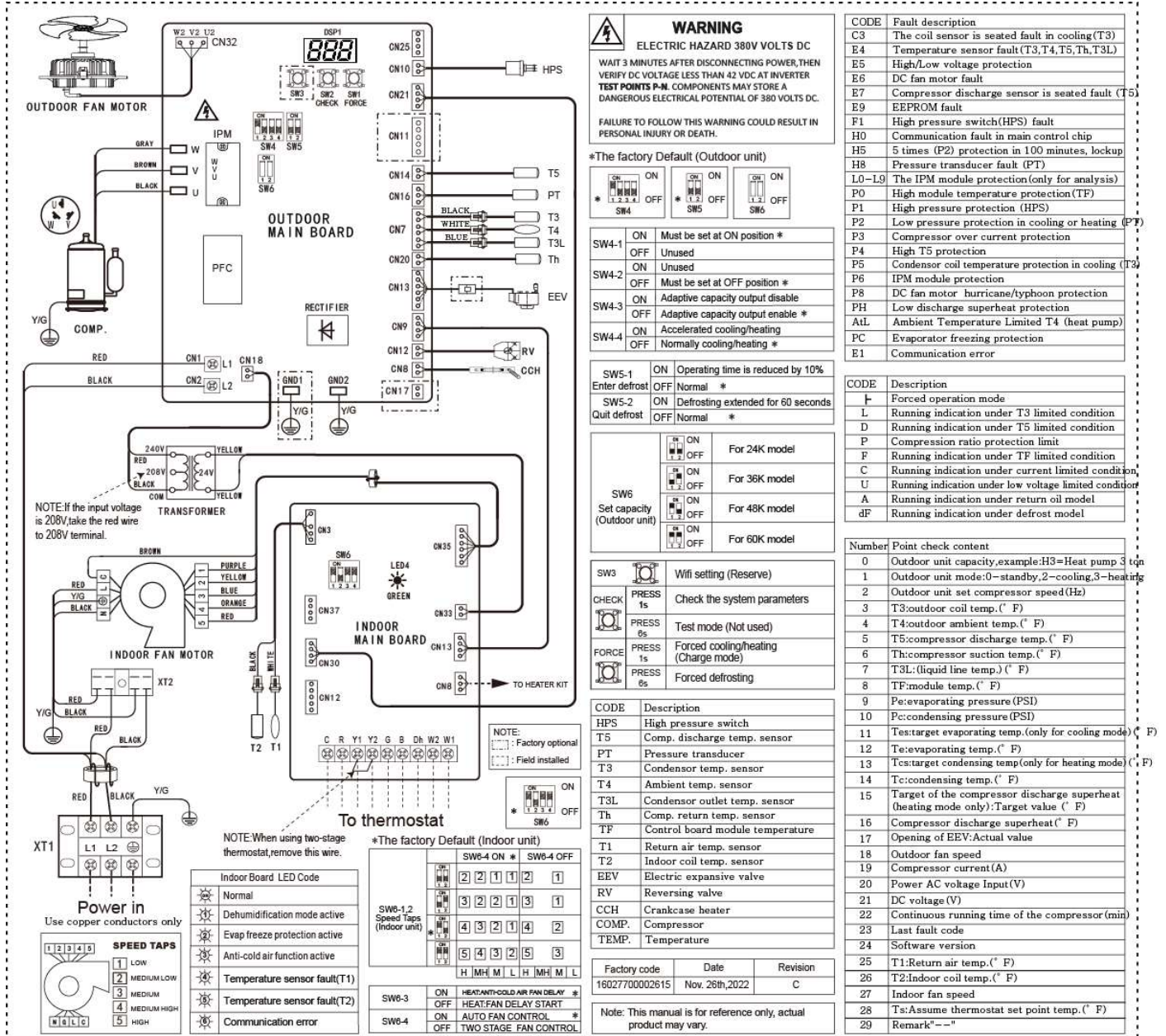
**5 Electric Heat Kit Data**

Capacity KBTU	Heater Circuit (without units)					
	Model	KW	Stages	Amps	MCA	Max Fuse Breaker Amps
36	EHK-05J-15	3.8/5	1	18.1/20.8	23/26	25/30
	EHK-08J-15	5.6/7.5	1	27.1/31.3	34/40	35/40
	EHK-10J-15	7.5/10	1	36.1/41.7	46/53	50/60
	EHK-15J-15	11.3/15	2	54.2/62.5	68/79	70/80
60	EHK-05J-15	3.8/5	1	18.1/20.8	23/26	25/30
	EHK-08J-15	5.6/7.5	1	27.1/31.3	34/40	35/40
	EHK-10J-15	7.5/10	1	36.1/41.7	46/53	50/60
	EHK-15J-15	11.3/15	2	54.2/62.5	68/79	70/80
	EHK-20J-15	15/20	2	72.3/83.4	91/105	100/110

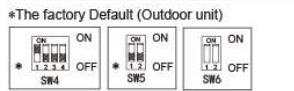


## 6 Wiring Diagrams

MRC-36HWD1N1-M16A

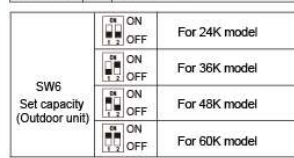


**WARNING**  
ELECTRIC HAZARD 380V VOLTS DC  
WAIT 3 MINUTES AFTER DISCONNECTING POWER, THEN VERIFY DC VOLTAGE LESS THAN 42 VDC AT INVERTER  
**TEST POINTS P-N.** COMPONENTS MAY STORE A DANGEROUS ELECTRICAL POTENTIAL OF 380 VOLTS DC.  
FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PERSONAL INJURY OR DEATH.



SW4-1	ON	Must be set at ON position *
	OFF	Unused
SW4-2	ON	Unused
	OFF	Must be set at OFF position *
SW4-3	ON	Adaptive capacity output disable
	OFF	Adaptive capacity output enable *
SW4-4	ON	Accelerated cooling/heating
	OFF	Normally cooling/heating *

SW5-1	ON	Operating time is reduced by 10%
Enter defrost	OFF	Normal *
SW5-2	ON	Defrosting extended for 60 seconds
Quit defrost	OFF	Normal *



SW3	Wifi setting (Reserve)
CHECK	PRESS 1s Check the system parameters
	PRESS 5s Test mode (Not used)
FORCE	PRESS 1s Forced cooling/heating (Charge mode)
	PRESS 5s Forced defrosting

CODE	Description
HPS	High pressure switch
T5	Comp. discharge temp. sensor
PT	Pressure transducer
T3	Condenser temp. sensor
T4	Ambient temp. sensor
T3L	Condenser outlet temp. sensor
Th	Comp. return temp. sensor
TF	Control board module temperature
T1	Return air temp. sensor
T2	Indoor coil temp. sensor
EEV	Electric expansive valve
RV	Reversing valve
CCH	Crankcase heater
COMP.	Compressor
TEMP.	Temperature

Factory code	Date	Revision
16027700002615	Nov. 26th, 2022	C

Note: This manual is for reference only, actual product may vary.

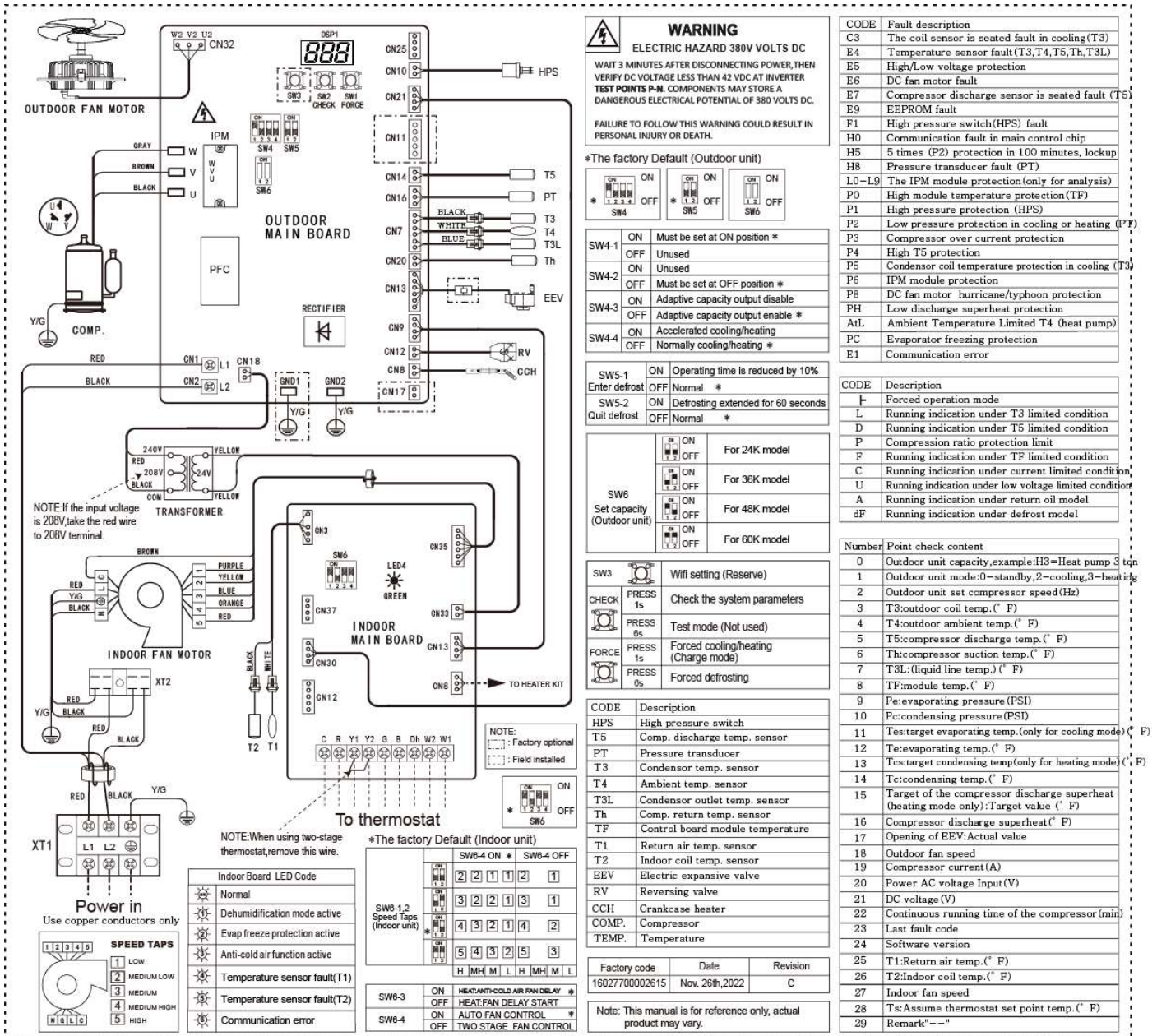
CODE	Fault description
C3	The coil sensor is seated fault in cooling(T3)
E4	Temperature sensor fault (T3,T4,T5,Th,T3L)
E5	High/Low voltage protection
E6	DC fan motor fault
E7	Compressor discharge sensor is seated fault (T5)
E9	EEPROM fault
F1	High pressure switch(HPS) fault
H0	Communication fault in main control chip
H5	5 times (P2) protection in 100 minutes, lockup
H8	Pressure transducer fault (PT)
L0-L9	The IPM module protection(only for analysis)
P0	High module temperature protection(TF)
F1	High pressure protection (HPS)
P2	Low pressure protection in cooling or heating (P2)
P3	Compressor over current protection
P4	High T5 protection
P5	Condenser coil temperature protection in cooling (T3)
P6	IPM module protection
P8	DC fan motor hurricane/typhoon protection
PH	Low discharge superheat protection
ATL	Ambient Temperature Limited T4 (heat pump)
PC	Evaporator freezing protection
E1	Communication error

CODE	Description
-	Forced operation mode
L	Running indication under T3 limited condition
D	Running indication under T5 limited condition
P	Compression ratio protection limit
F	Running indication under TF limited condition
C	Running indication under current limited condition
U	Running indication under low voltage limited condition
A	Running indication under return oil model
4F	Running indication under defrost model

Number	Point check content
0	Outdoor unit capacity, example:H3=Heat pump 3 ton
1	Outdoor unit mode:0-standby,2-cooling,3-heating
2	Outdoor unit set compressor speed(Hz)
3	T3:outdoor coil temp.(° F)
4	T4:outdoor ambient temp.(° F)
5	T5:compressor discharge temp.(° F)
6	Th:compressor suction temp.(° F)
7	T3L:(liquid line temp.) (° F)
8	TF:module temp.(° F)
9	Pe:evaporating pressure (PSI)
10	Pc:condensing pressure (PSI)
11	Test:target evaporating temp.(only for cooling mode) (° F)
12	Te:evaporating temp.(° F)
13	Tc:target condensing temp.(only for heating mode) (° F)
14	Tc:condensing temp.(° F)
15	Target of the compressor discharge superheat (heating mode only):Target value (° F)
16	Compressor discharge superheat (° F)
17	Opening of EEV:Actual value
18	Outdoor fan speed
19	Compressor current(A)
20	Power AC voltage Input(V)
21	DC voltage (V)
22	Continuous running time of the compressor (min)
23	Last fault code
24	Software version
25	T1:Return air temp.(° F)
26	T2:Indoor coil temp.(° F)
27	Indoor fan speed
28	Ts:Assume thermostat set point temp.(° F)
29	Remark"---"

## Wiring Diagrams

MRC-60HWD1N1-M16A





**Midea Building Technologies Division**  
**Midea Group**

**Add.:** Midea Headquarters Building, 6 Midea Avenue, Shunde, Foshan, Guangdong, China

**Postal code:** 528311

[mbt.midea.com](http://mbt.midea.com) / [global.midea.com](http://global.midea.com) / [tsp.midea.com](http://tsp.midea.com)

Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

