



# MULTI-ZONE QUICK CONNECT DUCTLESS MINI-SPLIT

# With HyperTek® Supplemental Heat

# THE FLEXIBILITY OF A MULTI-ZONE SYSTEM COMBINED WITH THE CONVENIENCE OF QUICK CONNECTS

Zoned heating and cooling is easier than you think with a Perfect Aire Quick Connect Multi-Zone Mini-Split. Each system uses one outdoor condenser/compressor unit connected to up to three independently-controlled indoor air handlers. Hyper Heat performance offers consistent warmth in extremely cold environments, down to -13°F. With no costly ducts to install, maintain or get in the way of your comfort, an energy efficient Quick Connect Mini-Split system gets up and running easily to deliver cooling or heating right where you need it.



# (58) ROOM SIZE BTU SIZE 375 SQ. FT. → 9,000 BTU 500 SQ. FT. → 12,000 BTU LINE SET 750 SQ. FT. → 18,000 BTU 70 (15) INDOOR WALL UNIT **OUTDOOR CONDENSER**

# RELIABILITY

### REFRIGERANT LEAK DETECTION

Displays error code on indoor unit if outdoor unit detects a refrigerant leak condition

# **COMPRESSOR/BASE PAN HEATER**

Built in Compressor and Base Pan heaters provide more powerful heating operation even in extreme cold

# **SELF-DIAGNOSTIC FUNCTION**

System switches off automatically if abnormal operations or part failures are detected and indoor unit displays error / protection code

### **CONDENSER AUTO DEFROST**

Prolongs product life & improves energy savings

# **GOLDEN FIN**

Anti-corrosive coating on indoor and outdoor units withstands salty air, rain and other corrosive elements while improving heating efficiency by accelerating defrosting process

# **ENERGY SAVING**

### **INVERTER TECHNOLOGY**

Inverter compressor reduces friction for smoother rotation and less vibration, resulting in a quieter and more efficient air conditioner.

# **TIMER & SLEEP MODE**

Provides energy savings & comfort

# **COMFORT**

# **LOW NOISE AIRFLOW SYSTEM**

Reduces indoor unit noise by lowering fan speed without decreasing airflow volume and large diameter cross-flow

# **VERTICAL & HORIZONTAL AUTO SWING**

Wide swing-angle louver guides cool or warm air to every corner of the room

# **CONVENIENCE**

### **AUTO RESTART**

Allows system to return to most recently used setting once power returns if power has been interrupted

### **iFEEL OPTION**

Remote control with built-in room temperature sensor regulates room temperature around remote—allowing remote to become the thermostat

### **Wi-Fi COMPATIBLE**

Download the app, connect the Smart Controller, and turn your Smartphone into a control that you can customize to your personal preferences

**SELF-DIAGNOSTIC FUNCTION** 



TIMER &

SLEEP MODE

**LOW NOISE AIRFLOW SYSTEM** 



COMPATIBLE

# SYSTEM FEATURES











# A. INDOOR AIR HANDLER

- Easy attach wall bracket and indoor unit with digital display, remote control, vertical & horizontal auto swing, and side knock-outs to allow piping installation from right or left side
- Pre-wired 25' foot communication cable connects indoor and outdoor units
- Each indoor unit includes an accessory kit with a 15' drain tube, collar, 1 duct seal, and 2 rolls of vinyl tape

# **B. Wi-Fi ENABLED THROUGH SMART HOME APP**

 Allows you to use your smartphone\* to control the unit with a multi-platform compatible app. \*Smartphone not included.

# c. iFEEL REMOTE CONTROL

 Built-in remote control sensor (use remote as a thermostat anywhere in the room)

# **D. OUTDOOR CONDENSER**

- HyperTek technology allows the system to run in extreme temperatures down to -13°F
- GOLDEN FIN corrosion coated coils withstand corrosive outdoor elements

# **E. QUICK CONNECT LINE SET** (sold separately)

- Quick connect fittings provide secure mechanical connection of the liquid and gas refrigerant lines
- Standard line sets available in 15' and 25' lengths. Line set extensions can be used for longer runs up to 70'

# **F. WIRED THERMOSTAT** (optional accessory)

• Traditional wall thermostat places your control at a central location







7 indoor fan speeds and Smart, Super and Auto



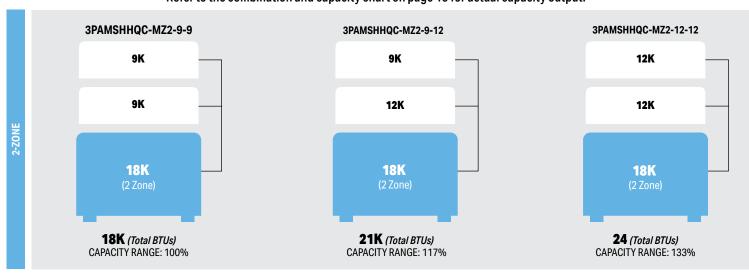
sensing remote control and mobile app access

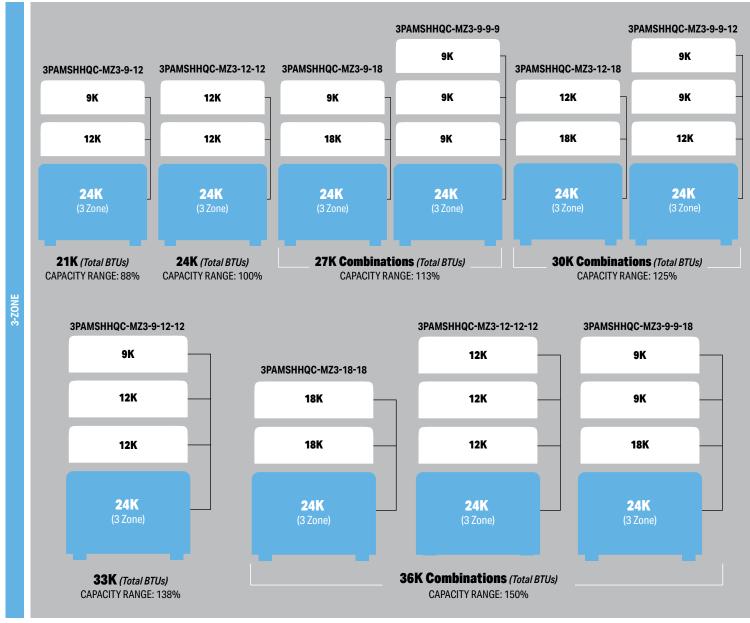


# **MULTI-ZONE SYSTEM COMBINATIONS**

Allowable connected indoor unit capacity is 80–150%. **Connecting one indoor unit is not allowed—even within 80–150% capacity**.

Refer to the combination and capacity chart on page 10 for actual capacity output.





# **PARTS BREAKDOWN**

INDOOR UNIT		OUTDOOR UNIT	
	Indoor Evaporator Unit (1)		Outdoor Unit (1)
	Mounting Bracket + Template (1) Note: Mounting Bracket comes attached to indoor unit		Outdoor Unit Anti-Vibration Pads (1) (may or may not be factory installed)
	Optional Extra Foam Insulation (1) (for Insulating Valve Connections)		Switch Tie (1) (only used with flared connections & 24K outdoor unit)
	Drain Joint (1)		
O	Drain Joint Rubber Seal (1)	MULTI-ZONE QUICK ACCESSORY KIT (1 p	
99	Flare Nuts (4) (for flared type installations)		Vinyl Wrap (2)
MI	Bag of Wall Anchors and Screws* (1)		Wall Collar (1)
	Remote Control Wall Bracket (1)	25	<b>Drain Tube (1)</b> (15 ft. / 4.5 m)
	Remote Control (1)	Sealant	Duct Seal (1)
	Waterproof Cord Connector (1)		
	FAO9 Quick Connect Adaptor (1)	*Note: these screws are to hang the wall	bracket.

(only included with 18K BTU)

\*Note: these screws are to hang the wall bracket.

Other types of screws may be needed depending on wall structure.

# **INDOOR UNIT SPECS**

	3PAMSHQCW09-U230	3PAMSHQCW12-U230	3PAMSHQCW18-U230
POWER SUPPLY (V,Hz,Ph)	208-230,60,1	208-230,60,1	208-230,60,1
<b>COOLING CAPACITY</b> (Btu/h)	9,000	12,000	18,000
<b>HEATING CAPACITY</b> (Btu/h)	9,500	13,000	19,000
<b>DEHUMIDIFICATION</b> (pts./Hr.)	1.9	2.5	3.2
LIQUID CONNECTION (Flare) (in.)	1/4	1/4	1/4
GAS CONNECTION (Flare) (in.)	3/8	3/8	1/2
INDOOR UNIT			
AIR FLOW (CFM)	341	365	381
SOUND LEVEL (dB(A)) (Hi/Mi/Lo)	39/32/29	39/32/29	45/41/37
UNIT DIMENSIONS			
UNIT DIMENSIONS (W×H×D) (in.)	33 × 11 × 8.75	33 × 11 × 8.75	43.25 × 12.75 × 9.75
NET WT./SHIPPING WT. (lbs.)	18.75/24.25	18.75/20	32/37.5



INDOOR WALL UNIT

# OUTDOOR CONDENSER

# **OUTDOOR UNIT SPECS**

	3PAMSHHQC18-MZ02	3PAMSHHQC24-MZ03
POWER SUPPLY (V,Hz,Ph)	208-230,60,1	208-230,60,1
<b>COOLING CAPACITY</b> (Btu/h)	18,000	24,000
<b>HEATING CAPACITY</b> (Btu/h)	18,000	24,000
SEER/EER (Btu/W)	22/12.5	22/12.5
HSPF4 (Btu/W)	11	11
<b>LINE SET LENGTH</b> (ft.) (Each Indoor Unit/Total System)	82*/164	66/197
MAX. ELEVATION (Indoor/Outdoor) (ft.)	49	49
MAX. ELEVATION (In between Indoor Units) (ft.)	16.4	16.4
ELECTRICAL DATA		
MAIN POWER CONNECTION	Outdoor Unit	Outdoor Unit
MINIMUM CIRCUIT AMPACITY (A)	21	21
MAX. FUSE (A)	30	30
MIN. IN/OUTDOOR CONNECT CABLE	16AWG x 4	(Stranded, unshielded)
OUTDOOR CONNECTIONS		
LIQUID CONNECTION (Flare) (in.)	1/4	1/4
GAS CONNECTION (Flare) (in.)	3/8	3∕8
REFRIGERANT CHARGE (R-410A)		
FACTORY PRE-CHARGE (ft./oz.)	50/63.5	75/81.1
ADDITIONAL REFRIGERANT (oz./ft.)	0.161	0.161
UNIT DIMENSIONS		
UNIT DIMENSIONS (W×H×D) (in.)	34 × 26.5 × 12.25	37.5 × 33 × 13.5
NET WT./SHIPPING WT. (lbs.)	117/125.75	158.75/169.5
*Maximum available quick connect line set length is 70'.		

# **LINE SETS & COMMUNICATION CABLES**

### RUN LINE SETS UP TO 70' BETWEEN INDOOR AND OUTDOOR UNITS WITH LINE SET AND COMMUNICATION CABLE EXTENSIONS.

LINESETS	E SETS 15' STANDARD			NDARD	15' EXTENSION		
	1DALS14-38-15	1DALS14-12-15	1DALS14-38-25	1DALS14-12-25	1DALS14-38-15-75G	1DALS14-12-15-75G	
LIQUID CONNECTION (Flare) (in.)	1/4	1/4	1/4	1/4	1/4	1/4	
GAS CONNECTION (Flare) (in.)	3/8	1/2	3/8	1/2	3/8	1/2	
LINE SET LENGTH (ft.)	15	15	25	25	15	15	
REFRIGERANT CHARGE (g)	35	35	35	35	75	75	
CONNECTION TYPE	Condenser Flare	Condenser Flare	Condenser Flare	Condenser Flare	Extension Coupler	Extension Coupler	
COMPATIBLE INDOOR UNITS	9K & 12K	18K	9K & 12K	18K	9K & 12K	18K	

### **COMMUNICATION CABLES**

1PRCOM70	70' Communication Cable for Multi-Zone Quick Connect Mini-Split
1PRCOM85	85' Communication Cable for Multi-Zone Quick Connect Mini-Split

# **HOW TO CHOOSE A LINE SET:**

- Determine where to install the indoor head in each room.
- Determine where the outdoor unit will be placed.
- Measure the distance between the two units to determine your overall line set length, keeping in mind any bends and turns the line set may make.



LINE SET



COMMUNICATION CABLE
(25' cable included with indoor unit)



**CONDENSER COUPLERS** 



EXTENSION COUPLERS

# **SHORTER RUNS UNDER 15'**

Use one of our pre-charged 15' line sets.

# **RUNS BETWEEN 15-25'**

Use one of our pre-charged 25' line sets.

# **LONGER RUNS OVER 25'**

You will need one pre-charged line set, plus a line set extension with additional refrigerant and a communication cable (the indoor head comes with a 25' cable attached by default).

# **1DALS14-38-40KIT** (for 9k & 12k heads)

- 1 × 25' line set
- 1 × 15' line set extension
- 1 × 70' communication cable

# **1DALS14-38-60KIT** (for 9k & 12k heads)

- 1 × 15' line set
- 3 × 15' line set extension
- 1 × 70' communication cable

# **1DALS14-38-70KIT** (for 9k & 12k heads)

- 1 × 25' line set
- 3 × 15' line set extension
- 1 × 85' communication cable

# **1DALS14-12-40KIT** (for 18k heads)

- 1 × 25' line set
- 1 × 15' line set extension
- 1 × 70' communication cable

# **1DALS14-12-60KIT** (for 18k heads)

- 1 × 15' line set
- 3 × 15' line set extension
- 1 × 70' communication cable

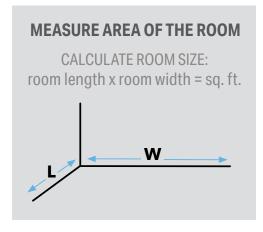
# **1DALS14-12-70KIT** (for 18k heads)

- 1 × 25' line set
- 3 × 15' line set extension
- 1 × 85' communication cable

# PLANNING YOUR MULTI-ZONE QUICK CONNECT SYSTEM

- 1. Make sure you have adequate power to run the mini split system. Your Multi-zone system requires a 230V dual pole 30-amp breaker.
- 2. Determine the square foot of reach room and pick the appropriate indoor unit for that room. Oversizing is not always better. If the room is too small and the head is too large, the unit will short cycle and not remove the humidity from the room.

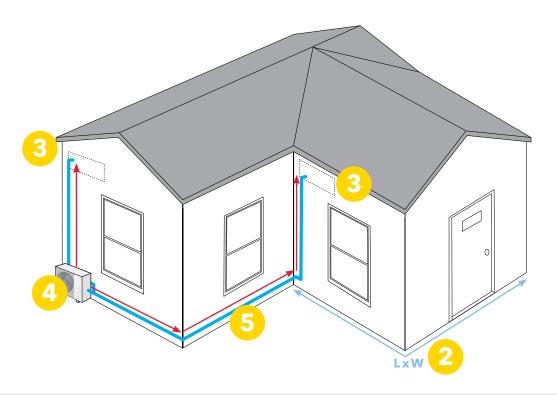
# How to choose the right indoor unit:



MATCH ROOM SIZE WITH CORRECT BTUs								
ROOM SIZE	BTU SIZE							
375 SQ. FT. →	9,000 BTU							
500 SQ. FT. →	12,000 BTU							
750 SQ. FT. →	18,000 BTU							

# **MAKE ANY ADJUSTMENTS**

- Increase BTU 10% for sunny rooms. Decrease BTU 10% for shaded rooms
- Add 600 BTUs for each additional person over two
- Add 4,000 BTUs if unit is used in a kitchen
- 3. Determine where to install the indoor head in each room. An exterior wall works best. If it must be on an interior wall you may need a condensate pump to remove the condensation in the summer. This is purchased separately.
- 4. Determine where the outdoor unit will be placed.
  - Try to place the outdoor unit centrally to all the indoor units.
  - Keep in mind you will need to run 230v power to the unit, so try to keep it close to your electrical panel in the house.
- 5. Calculate your line set length for each unit. Measure from the indoor unit down the wall and over to the outdoor unit. Make sure you measure the exact route you plan on running the line set from the indoor unit to the outdoor unit. For your convenience, we sell 15' and 25' line sets and 40', 60', and 70' line set kits.



# PROJECT CALCULATOR

# How to use this calculator:

- 1. Follow steps 1-5 on page 8 and fill in the location of your indoor and outdoor units, the square footage of each room, and the distance from each indoor unit to the outdoor condenser.
- 2. Use the chart on page 8 to choose your indoor unit BTU size.
- 3. Choose the line set length closest to the distance between the indoor and outdoor units.

  Use the chart on page 7 to find your line set model number. Distances over 25' will need a line set kit.

  Make sure the line set you choose matches the indoor unit BTU size.
- **4.** Find the system combination on page 3 that matches your chosen indoor units and record the system model number below. *NOTE: Your actual BTU output will vary depending on your system and the number of units running at any given time. See the capacity chart on page 10 for more details.*

	ROOM LOCATION	SQUARE FOOTAGE	INDOOR HEAD SIZE (circle one)	DISTANCE FROM CONDENSER	LINE SET LENGTH (circle one)	LINE SET MODEL#
INDOOR UNIT#1			9/12/18		15 / 25 / 40 60 / 70	
INDOOR UNIT #2			9/12/18		15 / 25 / 40 60 / 70	
INDOOR UNIT#3			9/12/18		15 / 25 / 40 60 / 70	

SYSTEM MODEL#

# 2-ZONE SYSTEM CAPACITY

SYSTEM	COOLING CAPACITY										
MODEL NUMBERS	Capacity pe	r indoor unit	Tota	Total Capacity (Btu/h) Power Input(W)				EER			
	A	В	1016	ii Gapacity (Di	uriij		rowei iliput(w)		(A)	SEER	
	Btu/h	Btu/h	NOM	MIN	MAX	NOM	MIN	MAX			W/W
3PAMSHHQC-MZ2-9-9	9,000	9,000	18,000	7,500	24,000	1,440	510	2,610	6.5	22.0	3.66
3PAMSHHQC-MZ2-9-12	8,500	9,500	18,000	7,500	24,000	1,440	510	2,610	6.5	22.0	3.66
3PAMSHHQC-MZ2-12-12	9,000	9,000	18,000	7,500	24,000	1,440	510	2,610	6.5	22.0	3.66

SYSTEM	HEATING CAPACITY										
MODEL NUMBERS	Capacity pe	r indoor unit	Tota	Total Capacity (Btu/h) Power Input(Btu/h)				СОР			
	Α	В	1016	ii Gapacity (Di	uriij	10	Power input(btu/ii)		(A)	HSPF4	
	Btu/h	Btu/h	NOM	MIN	MAX	NOM	MIN	MAX			W/W
3PAMSHHQC-MZ2-9-9	9,000	9,000	18,000	5,800	28,700	1530	450	3,150	6.9	11.0	3.45
3PAMSHHQC-MZ2-9-12	8,500	9,500	18,000	5,800	28,700	1530	450	3,150	6.9	11.0	3.45
3PAMSHHQC-MZ2-12-12	9,000	9,000	18,000	5,800	28,700	1530	450	3,150	6.9	11.0	3.45

# **3-ZONE SYSTEM CAPACITY**

SYSTEM	COOLING CAPACITY											
MODEL NUMBERS	Capa	city per indoc	or unit	Tota	l Canacity (P	tu/b)	D	ower Input/M	Λ			EER
	А	В	С	1018	I Capacity (B	tu/II)	٢	Power Input(W)			SEER	
	Btu/h	Btu/h		NOM	MIN	MAX	NOM	MIN	MAX			W/W
3PAMSHHQC-MZ3-9-12	8,900	12,000		20,900	7,400	27,000	1,815	400	2,640	8.3	18.00	3.37
3PAMSHHQC-MZ3-9-18	8,500	15,000		23,500	7,600	28,600	1,920	420	2,640	8.7	19.00	3.59
3PAMSHHQC-MZ3-12-12	11,000	11,000		22,000	7,600	28,600	1,915	400	2,640	8.7	18.00	3.37
3PAMSHHQC-MZ3-12-18	9,500	14,500		24,000	7,800	29,500	1,920	420	2,640	8.7	19.00	3.66
3PAMSHHQC-MZ3-18-18	12,000	12,000		24,000	8,000	30,200	1,940	440	2,640	8.8	20.00	3.62
3PAMSHHQC-MZ3-9-9-9	8,000	8,000	8,000	24,000	8,000	30,200	1,920	420	2,640	8.7	22.00	3.66
3PAMSHHQC-MZ3-9-9-12	7,400	7,400	9,200	24,000	8,000	30,200	1,920	420	2,640	8.7	22.00	3.66
3PAMSHHQC-MZ3-9-9-18	6,200	6,200	11,600	24,000	8,000	30,200	1,920	440	2,640	8.7	22.00	3.66
3PAMSHHQC-MZ3-9-12-12	7,000	8,500	8,500	24,000	8,000	30,200	1,920	420	2,640	8.7	22.00	3.66
3PAMSHHQC-MZ3-12-12-12	8,000	8,000	8,000	24,000	8,000	30,200	1,920	420	2,640	8.7	22.00	3.66

SYSTEM		HEATING CAPACITY										
MODEL NUMBERS	Capa	city per indoc	or unit	Tota	Total Capacity (Btu/h)			war Innut/Ptu	./b)			COP
	Α	В	С	TOLA	п Сарасіту (Б	tu/11)	PU	wer Input(Btu	1/11)	(A)	HSPF4	
	Btu/h	Btu/h		NOM	MIN	MAX	NOM	NOM MIN MAX				W/W
3PAMSHHQC-MZ3-9-12	8,900	12,000		20,900	4,400	27,000	1,830	400	3,600	8.4	9.50	3.35
3PAMSHHQC-MZ3-9-18	8,700	15,300		24,000	4,600	30,000	1,930	420	4,020	8.8	10.00	3.64
3PAMSHHQC-MZ3-12-12	11,000	11,000		22,000	4,400	28,000	1,910	400	3,700	8.7	9.50	3.38
3PAMSHHQC-MZ3-12-18	9,500	14,500		24,000	4,600	32,000	1,930	420	4,020	8.8	10.00	3.64
3PAMSHHQC-MZ3-18-18	12,000	12,000		24,000	4,800	34,000	1,950	440	4,020	8.9	10.00	3.61
3PAMSHHQC-MZ3-9-9-9	8,000	8,000	8,000	24,000	5,200	37,000	1,920	420	4,020	8.7	11.00	3.66
3PAMSHHQC-MZ3-9-9-12	7,400	7,400	9,200	24,000	5,200	37,000	1,920	420	4,020	8.7	11.00	3.66
3PAMSHHQC-MZ3-9-9-18	6,200	6,200	11,600	24,000	5,200	37,000	1,920	440	4,020	8.7	11.00	3.66
3PAMSHHQC-MZ3-9-12-12	7,000	8,500	8,500	24,000	5,200	37,000	1,920	420	4,020	8.7	11.00	3.66
3PAMSHHQC-MZ3-12-12-12	8,000	8,000	8,000	24,000	5,200	37,000	1,920	420	4,020	8.7	11.00	3.66

# **MINI-SPLIT LINE SET COVERS & ACCESSORIES**

# 12' AND 20' KITS

# 12' KIT INCLUDES:

3 × Ducts (47.25" Ea.) 1 × End Cap 1 × Wall Outlet

1 × Flat Elbow

2 × Couplers

1 × Accessory Parts

### 20' KIT INCLUDES:

5 × Ducts (47.25" Ea.) 1 × End Cap 1 × Wall Outlet 4 × Couplers

1 × Flat Elbow 1 × Accessory Parts

- Protect and hide mini split system refrigerant lines
- Ultra-durable, easy to install, lightweight, and weatherproof
- Can be installed over existing pre-installed pipes
- 12' typically used with 15' line set installations
- 20' typically used with 25' line set installations
- Color-white (paintable)



Part Number	Product Image	Description	Packaging Dimension (W × H × L) (in.)	Master Pack Qty.
PROLSKIT-12	12' MINI-SPLIT LINE SET COWER NIT	Kit #1 – 12' Kit	10.75 × 5 × 48	1
PROLSKIT-20	20 MIND-SPLIT LINE SET COVER NOT	Kit #2 – 20' Kit	13 × 5 × 48	1
PROLSDUCT47-3		Line Set Cover Duct 47.25"	4 × 2.75 × 47.25	6
PROLSOUTLET-3	3.00	Line Set Cover Wall Outlet	4.5-5 × 3-3.25 × 9	50
PROLSELBOW-3		Line Set Cover Flat Elbow	4 × 3 × 6	63
PROLSBEND-3	3	Line Set Cover Corner Bend	3 × 4.25 × 4.5	78
PROLSCAP-3	***	Line Set Cover End Cap	2.25 × 3 × 4.5	150
PROLSCOUPLING-3		Line Set Cover Duct Coupling	4.5 × 3 × 2.5	180
PROLST-3		Line Set Cover T Joint	3 × 4.5 × 9.25	42
PROLSFLEX -3		Line Set Cover Flexible Joint	3.5 × 4 × 2.5	24
Container quantity for 12' a	and 20' kits equals 1,800 units			

ACCESSORIES	Part Number	Product Image	Description	Packaging Dimension (W × H × L) (in.)	Master Pack Qty.
	EP1838-3		EcoPad™ Plastic Equipment Pad	38 × 3 × 18	1
	230-MB17W	file	17" Hef-T-Block Mounting Blocks (Quantity of 2 per box)	5 × 19 × 8.5	1
	QSMS1801		Mini-Split Stand holds up to 400 lbs.	19 × 3 × 34	1

# **ADDITIONAL RESOURCES**

# **VIDEOS**



**How to Install Quick Connect** (English)

https://youtu.be/p\_Enab3irxE



**How to Install Quick Connect** (French)

https://youtu.be/UMzPrpTKGV4



How to Change Mini-Split Communication Cables

https://youtu.be/azhmtovudlE

# **MANUALS**



**User Manual** (English/French) https://tinyurl.com/f9ntfcw



**App Manual** (English/French) https://tinyurl.com/cu6d9cs2



Remote Manual (English/French) https://tinyurl.com/23fh2cdb



**Service Manual** (English/French) https://tinyurl.com/nx95wk8d















Find all our products online at www.perfectaire.us





