

Addendum B - Pricing and Scope Breakdown

Category	Base Price	Upgrade Price	
Cabinets	\$ 8,500	\$ 1,000	Stain Finish
Concrete	\$ 15,500		
Countertops	\$ 5,500		
Decking	\$ -		
Doors	\$ 6,000	\$ 2,000	Solid-Wood, MDF Veneer
Drywall	\$ 8,000	\$ 2,500	Imperfect Smooth Drywall Texture
Electrical	\$ 13,000	\$ 1,750	Add Car Charger
Excavation	\$ 4,500	\$ 2,000	100ft Extra Trenching
Fencing	\$ -		
Fixtures	\$ 4,500	\$ 10,000	Contractor Supplied Appliances (Samsung)
Flooring	\$ 4,200	\$ 1,500	Engineered Hardwood Flooring
Framing	\$ 12,000		
Garage Doors	\$ -		
General	\$ 6,500		
HERS	\$ 750		
HVAC	\$ 5,500	\$ 1,500	Super Efficient 24+ SEER Unit
Insulation	\$ 5,000		
Landscaping	\$ -		
Lumber	\$ 10,500		
Painting	\$ 8,750	\$ 1,500	Additional Wall Color
Plumbing	\$ 13,000	\$ 4,000	All-Copper
Roofing	\$ 6,000	\$ 2,500	Presidential Shake
Septic	\$ -		
Shower Glass	\$ -	\$ 1,500	Glass Shower/Tub Sliding Doors
Siding	\$ 8,500	\$ 3,000	1-Coat Stucco w/ Continuous Foam Insulation
Solar	\$ -		
Tile	\$ 2,750		
Trim	\$ 4,250	\$ 2,500	Crown Moulding, Cased Window Trim
Trusses	\$ -		
Windows	\$ 5,000	\$ 1,250	Andersen 100, Colored Options
Sub-Total	\$ 158,200	\$ 196,700	
Overhead and Profit	18.87%	18.04%	
	\$ 36,800	\$ 43,300	
Grand Total	\$ 195,000	\$ 240,000	

Max Kellogg

Pre-Construction Sales Manager

Cell: 916.619.9585

Serving Sacramento and SF Bay Areas

www.RedwoodADU.com



Cabinets

Scope:

Furnish and install cabinets. Design will be per cabinet specification document included in contract. Cabinets will be in style/color/features as show on the included quote. Install hardware on all doors and drawers. Install scribe moldings.

Feature	Choice
Supplier	Kitchen Cabinet Distributors
Door Style	Brooklyn
Door Overlay Style	Partial Overlay
Door Material	Maple
Cabinet Box Construction	Maple Box
Interior Finish	Natural Birch Veneer
Hinge Style	Concealed, Soft Close
Drawer Slide Style	Undermount, Soft Close, Full Extension
Finish	Painted
Finish Color	White
Countertop Height	36" (Standard)
Countertop to Uppers Clearance	18" (Standard, Code Minimum)
Height to Top of Uppers	93"
Total Uppers Length	~10ft
Total Lowers Length	~15ft
Uppers-Ceiling Trim Style	3" Crown
Kitchen Sink Base Width	36"
Kitchen Sink Mounting Style	Undermount
Kitchen Sink Front	Apron Front
Bath Vanities	Included with Cabinet Package
Bath Sink Base Width	36"
Bath Sink Style	Undermount
Add-ons and Features	See cabinet quote for specifics.

Special Notes:

Includes all cabinets as shown on plans, and included cabinet layout design.

Price:	\$	8,500.00
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Concrete

Scope:

Complete all concrete work as shown on plans, to specifications dictated by engineer of record. Includes all landings per plans, or min. required by code. Includes concrete equipment pads for condenser and/or water heater if on exterior of building.

Feature	Choice
Foundation Type	Slab on Grade
Foundation Area	600 sqft
Foundation Footer Size	12" x 12"
Foundation Vapor Barrier	10 MIL Plastic
Foundation Reinforcement	#3 rebar, 18" On Center each way
Foundation Surface Finish	Smooth (not polished) no control lines
Flatwork Area	30 sqft
Flatwork Surface Finish	Broom Finish
Post Footings	(1) 24" square
Piers	None

Special Notes:

Price:	\$	15,500.00
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Countertops

Scope:

Furnish and install countertops. Countertops will be installed on all cabinets bought in the cabinet package. Countertops will not be installed on third-party cabinets (like integral sink bath vanities).

Feature	Choice
Countertop Area	~30 sqft
Material	Quartz
Thickness	2CM
Plywood Decking Needed	Yes
Surface Finish	Polished
Manufacturer	TBD
Pattern	TBD
Edge Profile	TBD
Backsplash Included	Yes, 4" in kitchen and bath

Special Notes:

Price:	\$	5,500.00
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Doors

Scope:

Furnish and install interior and exterior doors as shown on plans. Door design and details per included door quote, and below. Does not include any slider doors (provided under "Windows").

If Water Heater enclosure door is present, it is to be plain panel fiberglass with air ventilation integrated into door.

Feature	Choice
Hinge Color	Black
Door Stop Style	Solid, mounted on bottom of door
Interior	
Construction	Full MDF
Door Height	80"
Style	2-Panel
Sticking	Square
Jamb Size	4-9/16"
Exterior Entry Door	
Construction	Fiberglass
Door Height	80"
Style	Craftsman 1/4 Lite
Sticking	Flush Glazed
Sidelites	None
Jamb Size	6-9/16"

Special Notes:

Price:	\$	6,000.00
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Drywall

Scope:

Hang drywall on all interior walls. Tape all joints, patch all nail holes and other defects. Light sanding. Add texture style specified below.

Feature	Choice
Wall Thickness	1/2"
Ceiling Thickness	5/8"
Wet-Area Drywall Type	Dens-Glass
Interior Corner Detail	Square Corners
Drywall Surface Texture	Medium Knockdown
Fire-Rated Exterior Walls?	None

Special Notes:

Does not include any fire-rated exterior drywall, if required.

Price:	\$	8,000.00
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Electrical

Scope:

Furnish and install all electrical as shown on plans. Install per electrical code. Dimmer switches only installed where mandated by code, all other switches will be on/off paddle type. Include humidistat as needed by code in wet areas. All receptacles to be tamper-resistant. Includes nail plates as needed. Includes coordination with local utility to complete service upgrade paperwork if required.

Feature	Choice
Utility Feeder Style	Overhead
Utility Feeder Upgrade	None
Utility Feeder Wire	N/A
Additional Meter	No
Metering Configuration	Use Existing meter configuration
Existing Primary Panel	No Work Needed
New Building Panel Feed	Existing panel Sub-breaker
New Building Panel Size	125A
New Building Panel Location	Exterior Mount
New Building Panel Feeder Wire	Aluminum
Light Switch Style	Non WiFi, Dimming where required by code
Low Voltage Conduit Underground	Yes, 1" with pull string
Low Voltage Drops	(1) 3/4" flex drop
Door Bell/Chime Wiring	Included
Range Circuit	(1) at 50A 240V
Washer/Dryer Circuit	(1) at 30A 240V
Water Heater Circuit	(1) at 30A 240V, Including disconnect
HVAC Circuit	(1) at 30A 240V, Including disconnect
Car Charger Circuit	None
Uefer Ground in Foundation?	Included

Special Notes:

Price:	\$ 13,000.00
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Excavation

Scope:

Provide labor tools and materials required to complete any excavation needed per plans. Includes cost to off-haul material if needed.

Feature	Choice
Saw Cutting	~20ft
Saw Cut Patching	Concrete
Trenching and Backfill	~100ft
Dig Foundation Footers	12"W x 12"D strip footings
Piers Drilling	None
Grading	None
Gravel Delivery	Base for slab on grade foundation

Special Notes:

Price:	\$	4,500.00
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Fixtures, Hardware, and Appliances

Scope:

Below are all anticipated fixtures, hardware, and appliances that will need to be purchased to complete the project. All items where "Provided By" is specified as "Contractor", Contractor will provide and install. All items labeled "Client" will be provided by Client, installed by Contractor. Items Labeled "NOT INCLUDED" will not be installed by Contractor.

Certain Client provided items will need measurements prior to install, so should be purchased at the beginning of the project.

Electric Fixtures	Provided By	Brand	Model/Style	Color	Link
Can Lights	Contractor	Halo	Halo LT 5/6"	White	https://v
Ceiling Mount Lights	Client				
Bath Vanity Lights	Client				
Pendant Lights	Client				
Ceiling Fans	Client				
Bathroom Fan/Light	Contractor		Broan	White	https://v
Exterior Entrance Lights	Client		Dusk/Dawn, Motion		
Exterior Soffit Lights	Contractor		Halo LT 5/6"	Black	
Exterior Step/Walkway Lights	NOT INCLUDED				
Light Bulbs	Client				
Smoke/CO Alarms	Contractor		Standard - No Wi-Fi	White	https://v
Light Switches	Contractor		Decora Rocker	White	
Receptacles	Contractor		Decora Anti-Tamper	White	
Trim Plates	Contractor		Decora	White	https://v
Car Charger	Client				
Doorbell/Chime	Client				https://v

Plumbing Fixtures	Provided By	Brand	Model/Style	Color	Link
Bathroom Sink Faucet	Client				https://v
Tub/Shower Faucet	Client	Delta			https://v
Kitchen Sink Faucet	Client				https://v
Tub/Shower Drain	Contractor			Brushed Nickel	
Pre-fab Shower/Tub	Contractor				https://v
Pre-fab Shower Surround	NOT INCLUDED				https://v
Toilet	Client		12" rough-in		

Bath Hardware	Provided By	Brand	Model/Style	Color	Link
Toilet Paper Holder	Client				https://v
Towel Bar	Client				https://r
Vanity Mirror/Medicine Cab	Client				https://v
Shower Grab Bars	NOT INCLUDED				



Fixtures, Hardware, and Appliances

Sinks	Provided By	Model/Style	Link
Kitchen Sink	Client		https://v
Bathroom Sink	Client		https://v
Exterior/Garage Sink	NOT INCLUDED		https://v

Door Hardware	Provided By	Brand	Model/Style	Color	Link
Interior Door Knobs	Client				https://v
Entry Door Knob	Client				https://v
Other Exterior Door Knobs	Client				
Door Stops	Client				https://v

Appliances	Provided By	Brand	Model/Style	Link
Garbage Disposal	Contractor		InSinkErator - 1/3 HP	https://v
Water Heater	Contractor		Electric Heat-pump - 50 Gallon	https://v
Microwave/Range Hood	Client		30" Width	
Refrigerator	Client		30" Width	
Range	Client		24" Width	
Washer & Dryer	Client		30" Max Width, 36" Max Depth	
Dishwasher	Client		18" Width	

Miscellaneous	Provided By	Brand	Model/Style	Color	Link
Interior Stair Handrail Brackets	Contractor				https://v
Interior Stair Balusters	Contractor				https://v
HVAC Registers	NOT INCLUDED				
Standalone Bath Vanity Cabinet	NOT INCLUDED - with cabinet package				
Attic Access Ladder	NOT INCLUDED				
Window Coverings	NOT INCLUDED				
Cabinet Pulls/Handles	Client				https://v
Address Signage	Client				

Special Notes:

Price:	\$ 4,500.00
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Flooring

Scope:

Clean and prepare subfloor to prepare flooring. Use self leveling compound for any defects over 1/8" in the flooring. Install flooring per manufacturer's instructions, and specifications below.

Feature	Choice
Main Flooring	
Floor Type	Luxury Vinyl Plank
Underlayment Type	Per Manufacturer Recommendation
Install Method	Floating
Brand/Model/Color/Finish	TBD
Material Allowance	\$3/sqft
Kitchen Flooring	
Floor Type	Same as Main
Underlayment Type	N/A
Install Method	N/A
Brand/Model/Color	N/A
Material Allowance	N/A
Bathroom Flooring	
Floor Type	Tile
Underlayment Type	N/A - See Tile Scope
Install Method	N/A - See Tile Scope
Brand/Model/Color	N/A - See Tile Scope
Material Allowance	N/A - See Tile Scope

Special Notes:

Price: \$ 4,200.00



Framing

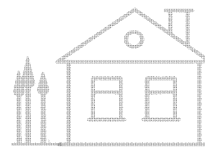
Scope:

Frame building according to plans and engineering calculations. Includes purchase and install of all hardware per plans and engineering. This includes Labor only, materials will be provided under Lumber/Trusses. Includes framing of skylights as shown on plans.

Feature	Choice
Building Height	<16ft, single story
Building Shape	Rectangular
Building Width	20 ft
Building Length	30 ft
Conditioned Floor Area	367 sqft
Wall Height	8 ft
Wooden Subfloor	None (Slab on Grade)
Exterior Wall Framing	2x6, 16" OC
Roof Pitch	5/12
Roof Framing Style	Cut/Stack
Number Valleys	0
Number Hips	0
Overhang Width	12" Gable and Eave
Interior Wall Size	2x4, 16" OC
Interior Stairs	None
Ceiling Vault	None, Flat Ceiling
Attic Access	Attic Access Panel, 22" x 30"
Subfloor Access	N/A
Decking Sub-Structure	None

Special Notes:

Price: \$ **12,500.00**



General

Scope:

Complete general project tasks relating to overall jobsite logistics and customer experience. Also, tasks needed to complete the project, but not included by other subcontractors/vendors.

Item	Included	Details
Permit Submission	Included	Includes filling out needed paperwork, printing plans as needed, etc.
Plan Revisions	Included	Includes minor changes required by local building department. Does not include major re-designs, or additional engineering
Surveyor	Not Included	
Geotechnical Report/Engineering	Not Included	
Porta-Potty Onsite	Included	Bi-Weekly cleanings
Temporary Construction Fencing	Not included	
Subfloor Protection	Included	Red Rosin paper installed after framing
Finished Floor Protection	Included	Ram Board or similar after finished flooring installed
Regular Jobsite Cleanup	Included	Weekly
Material Warehousing and Delivery	Included	
Demo of Existing Structure	Not included	

Special Notes:

Includes drafting as needed to submit pre-approved ADU plans.

Price:	\$	6,500.00
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HERS Energy Testing

Scope:

HERS testing is required by the state to ensure new buildings are meeting energy requirements. Includes the below HERS rating items, also shown on the Title 24 Energy report, at the end of the plan set.

HERS Field Verifications	Required
Duct Seal and Leakage	No
Proper Refrigerant Charge	Yes
SEER/EER Verification	No
Cooling Coil Air Flow (350 CFM/Ton)	No
Cooling Fan Power (0.45 W/CFM)	No
IAQ Fan CFM	Yes
Kitchen Hood (HVI listed)	Yes
Quality Insulation Installation	Yes
Heat Pump Heating Capacity	Yes
HSPF Verification	No
Whole House Airflow	No
VCHP Verifications	Yes

Special Notes:

Price:	\$	750.00
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HVAC

Scope:

Install Heating, Ventilation and Air Condition equipment as specified below. Head units (if any) shall be installed during rough-in and prior to drywall/paint. Excludes Title 24 report and documents, those will be provided during design/engineering. Includes system start-up and pressure test of lines. Includes

Feature	Choice
System Type	Ductless Mini-Split, Heating and Cooling
System Brand	TBD
System Size	2 Ton, 1 Head Unit
System Efficiency	Title 24 minimum, or greater
Head Unit/Register Mount Style	Wall-Mount
Gas Furnace Included?	No
Thermostat Type	Wired and Handheld Remote, no WiFi
Range Vent Ducting	Included, 6" Solid
Bath Vent Ducting	Included, 4" Flex
Dryer Vent Ducting	Included, 4" Solid
Install Condensate Line(s)	Included
Condensate Pump	None
Title24	
HVAC Efficiency (Min.)	14.0 SEER / 8.5 HSPF
Duct Insulation (Min.)	None (Ductless)
IAQ Exhaust Fan Required	Yes (26 CFM min)

Special Notes:

Price:	\$	5,500.00
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Insulation

Scope:

Install insulation in all locations, minimum R rating to meet or exceed Title 24 report.

Feature	Choice
Floor insulation Value	None (Slab on Grade)
Floor Insulation Type	N/A
Wall Insulation Value	R-21 (in 2x6 framing)
Wall Insulation Type	Faced Fiberglass Batts
Attic Insulation Value	R-30 above ceiling
Attic Insulation Type	Faced Fiberglass Batts
Roof Deck Insulation Value	R-13
Roof Deck Insulation Type	Fiberglass Batts
Exterior Insulation Value	None
Exterior Insulation Type	N/A

Special Notes:

Price:	\$	5,000.00
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Lumber

Scope:

Provide structural lumber materials for the project. This will include all structural hardware needed, including concrete embedment's. This will include rough deck framing, but not finish decking or railing. Includes delivery to jobsite.

Feature	Choice
Wall Sheathing	15/32" CDX Plywood
Floor Sheathing	None (Slab on Grade)
Roof Sheathing	19/32" CDX Plywood
Roof Sheathing On Overhangs	Construction Grade OSB/Plywood
Roof Framing Type	Cut/Stack
Rafter Size	2x6
Eave Block Venting	Vented - Holes w/ Screen
Exterior Decking Framing	None
Roof Fascia Material	1x_ Hardie Board
Exterior Post/Beam Material	Pine (Painted)

Title 24

Radiant Barrier on Roof Sheathing	No
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Special Notes:

Price:	\$	10,500.00
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Painting

Scope:

Exterior: Paint/stain all exterior walls, window trim and doors (excluding stucco - color is included in stucco mix). Caulk all gaps and seams that require waterproofing.

Interior: Prime all drywall walls/ceilings with PVA primer made for drywall. (2) coats paint all walls/ceilings. Light sanding and painting of baseboards, casings, doors, moldings, and window sills.

Exterior	Paint/Stain	Color	Sheen
Siding/Body	Included w/ Stucco Mix	Color #1 - TBD	Flat
Trim/Fascia	SuperPaint Exterior Acrylic Latex	Color #2 - TBD	Low Luster
Soffit/Under Ea	SuperPaint Exterior Acrylic Latex	Color #2 - TBD	Low Luster
Gable Detail	None		
Front Door	Emerald Urethane Trim Enamel	Color #3 - TBD	Semi-Gloss
Storage/WH Do	SuperPaint Exterior Acrylic Latex	Color #1 - TBD	Flat
Deck Framing/P	SuperPaint Exterior Acrylic Latex	Color #2 - TBD	Low Luster
Interior	Paint/Stain	Color	Sheen
Walls	SuperPaint Interior Acrylic Latex	Color #A - TBD	Satin
Ceilings	Premium Ceiling Paint	White	Flat
Doors	ProClassic Waterborne Interior Acrylic Enamel	Color #B - TBD	Semi-Gloss
Trim	ProClassic Waterborne Interior Acrylic Enamel	Color #B - TBD	Semi-Gloss

Special Notes:

Price:	\$	8,750.00
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Plumbing

Scope:

Includes Rough-in, Top-out and Set/Finish. Includes all piping, fittings and angle stops. Includes rough-in water and washer boxes. Includes Hose Bib fittings. All plumbing will be strapped, plated, and set on test for inspection. Does not include trenching or backfill, but may include minor hand-digging. Does not include purchasing fixtures - those are accounted for under "Fixture" section. Does not include replacement of existing house sewer lateral to street, if city requires replacement.

Feature	Choice
Tie Into Existing Sewer Lateral	Included
Water Pipe Material (in Walls)	PEX-A Expansion
Water Pipe Material (Exposed, stub-outs)	Copper
Water Pipe Material (Underground)	PVC
Waste Pipe Material	ABS
Exterior Clean-Out	(1) Two-way clean out 18" outside building
Sewage Ejector Pump	None
Hot Water Pipe Insulation	Included, insulate all hot water piping
Refrigerator Icemaker Box	Included
Washer Box	Included
Shower Valve Style	DELTA brand, single outlet
Showerhead Style	Single outlet @ 84"H
Water Heater Location	Unconditioned Water Heater Closet
Gas Service	No
Furnace Gas Line Size	None
Range Gas Line Size	None
Dryer Gas Line Size	None
Fireplace Gas Line Size	None
Water Heater Gas Line Size	None
Dedicated Hot Water Recirculation Loop	None
Recirculation Pump	None

Special Notes:

Price:	\$	13,000.00
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Roofing

Scope:

Install new roofing per plans, and spec below. Include all new flashings. Includes all roof jacks for plumbing and ventilation. Includes installation of skylights and skylight flashing as shown on plans. Includes underlayment installation. Include gutters and downspouts shown on plans. Does not include underground drain lines for downspouts.

Feature	Choice
Roofing Type	Asphalt Shingle - Owens Corning Duration
Roof Color	TBD
Underlayment	Synthetic
Flashing Material	Galvanized Steel, painted
Venting Style	Ridge Vent
Provide and Install Plumbing Jacks	Yes
Provide and Install HVAC Jacks	Yes
Gutter Style	Fascia
Gutter Material	Galvanized Steel
Gutter Size	5"
Gutter Guards	Stainless Steel Micro-Mesh
Downspout Style	2" x 3" Rectangular
Downspout Material	Galvanized Steel
Gutter/Downspout Color	TBD
Title 24	
Cool Roof Required	Yes

Special Notes:

Price:	\$	6,000.00
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Siding

Scope:

Furnish and install siding on exterior of house.

Feature	Choice
Siding Type	3-Coat Stucco w/ Acrylic topcoat
Siding Detail	Medium Smooth Finish (1 pass finish coat)
Trim Type	None
Gable Detail	None
Belly Band	None
Soffiting	None - open eaves
House wrap	Included
Siding Material Allowance	N/A
Window Trim Detail	No Sill

Special Notes:

Price: \$ 8,500.00

Tile

Scope:

Install tile as shown on plans and specified below. Tile choice and layout details will be given by client to tile installer.

Feature	Choice	
Bath		
Floor Tile Type	None	
Wall/Surround Tile Type	Solid Surface (Quartz)	
Wall/Surround Tile Height	80"	
Wall/Surround Accent Tile	None	
Tiled Shower Pan	None	
Shower Pan Tile Type	None	
Shower Niche	None	
Shower Niche Tile	None	
Grout Line Size	N/A	
Grout Type	N/A	
Grout Color/Brand	TBD	
Edging Detail	N/A	
Bath Tile Material Allowance	\$	500.00
Backsplash		
Tile Type	Quartz - Included with Countertops	
Grout Line Size	N/A	
Grout Type	N/A	
Grout Color/Brand	N/A	
Edging Detail	N/A	
Backsplash Tile Material Allowance	N/A	

Special Notes:

Price:	\$	2,750.00
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Trim

Scope:

Install all finish carpentry details on the project. Includes the items listed below.

Feature	Choice
Baseboards	Rounded Edge - 5-1/4"
Crown Molding	None
Door Casing	Rounded Edge - 3-1/4"
Window Trim	Apron and Stool only - drywall return sides and top
Trim Material	MDF, FJ Pine in wet areas
Trim Finish	Primed
Wood Accent Wall	None
Closet Shelving	Included, Shelf and Pole full width

Interior Stairs

Risers	None
Treads	
Handrail	
Handrail Brackets	
Balusters	

Special Notes:

Price:	\$	4,250.00
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Windows

Scope:

Install all windows as shown on plans and in window quote. Includes purchase, warehouse, and jobsite delivery of windows.

Feature	Choice
Window Construction	Vinyl
Window Brand/Model	Milgard Tuscany
Exterior Color	White
Interior Color	White
Hardware Color	White
Grid Design	None
Grid Type	None
Mounting Style	Nail-Fin (New Construction)
Window Setback	1-3/8"
Glass Type	Low-E (standard)
Bathroom Obscured Glass	Obscured
Window Count	See Plans
Total Window Frame Perimeter	TBD
Skylight Count	None
Skylight Brand/Style	N/A

Title 24

Window Energy Values	U-0.40, SHGC-0.22
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Special Notes:

Price:	\$	5,000.00
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Note: This drawing is an artistic interpretation of the general appearance of the design. It is not meant to be an exact rendition.



Designed: 12/15/2022
Printed: 12/16/2022



Note: This drawing is an artistic interpretation of the general appearance of the design. It is not meant to be an exact rendition.		Designed: 12/15/2022 Printed: 12/16/2022	
		KELLOGG - CNTY RD	Cabinets Drawing #: 1



Note: This drawing is an artistic interpretation of the general appearance of the design. It is not meant to be an exact rendition.



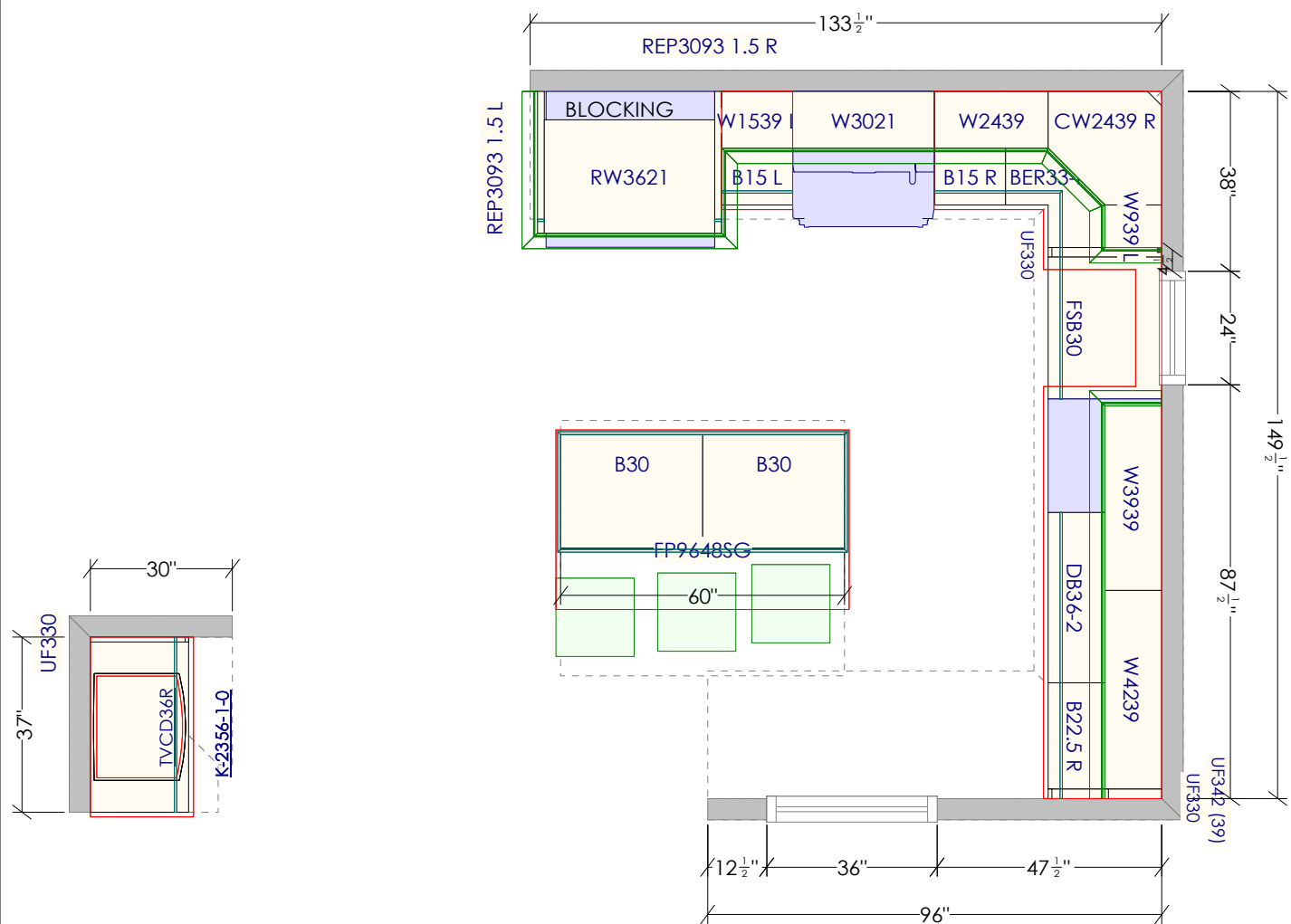
Designed: 12/15/2022
Printed: 12/16/2022



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Designed: 12/15/2022
Printed: 12/15/2022



MAX KELLOGG - 1 BED SAC.
SHAKER II MAPLE BRIGHT WHITE
FRAMED

CEILING HEIGHT: 96"

CABINET FINISH HEIGHT: 93" + 3" MOLDING STACK

WALL CABINETS TO BE MOUNTED AT 54" AFF

PLEASE VERIFY ALL WALL, WINDOW, DOOR, AND
APPLIANCE DIMENSIONS PRIOR TO ORDERING.

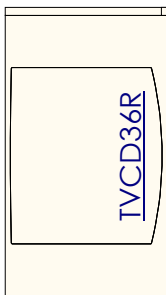
All dimensions _size designations
given are subject to verification on
job site and adjustment to fit job
conditions.



This is an original design and must
not be released or copied unless
applicable fee has been paid or job
order placed.

Designed: 12/15/2022
Printed: 12/16/2022

UF330



BEP

K-2356-1-0

FP4896 (TRIM TO FIT)

FP4896 (TRIM TO FIT)

CORNEROCM1

CORNEROCM1

BEP

BEP

FP9648SG

B30

B30

REP3093 1.5 L

RW3621

W1539 L

B15 L

W3021

W2439

CW2439 R

B15 R

UF330

FSB30

W939 L

WEP

WEP

W3939

DB36-2

W4239

B22.5 R

UF342 (39)
UF330

REP3093 1.5 R

WEP

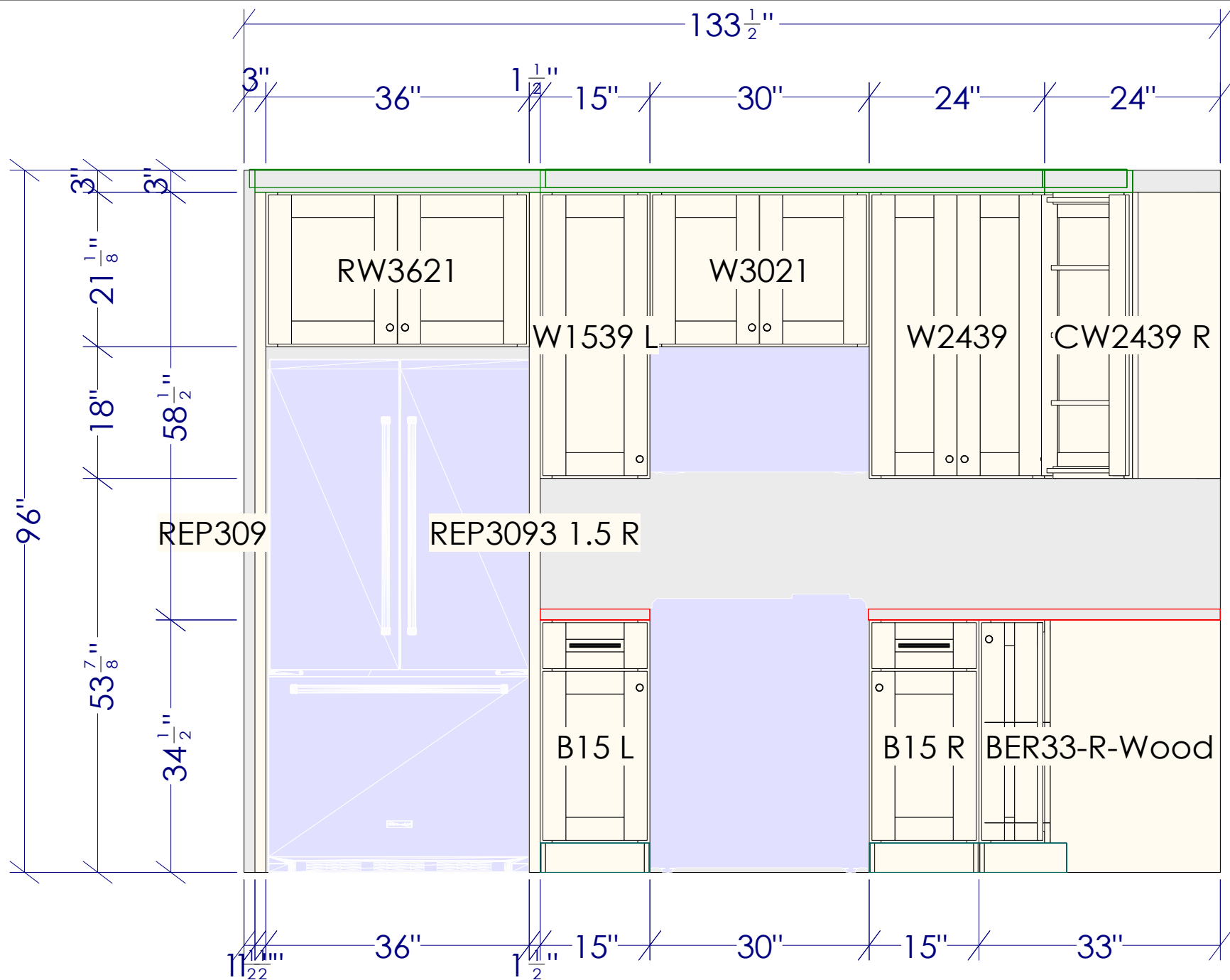
WEP

All dimensions _size designations
given are subject to verification on
job site and adjustment to fit job
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Printed: 12/16/2022

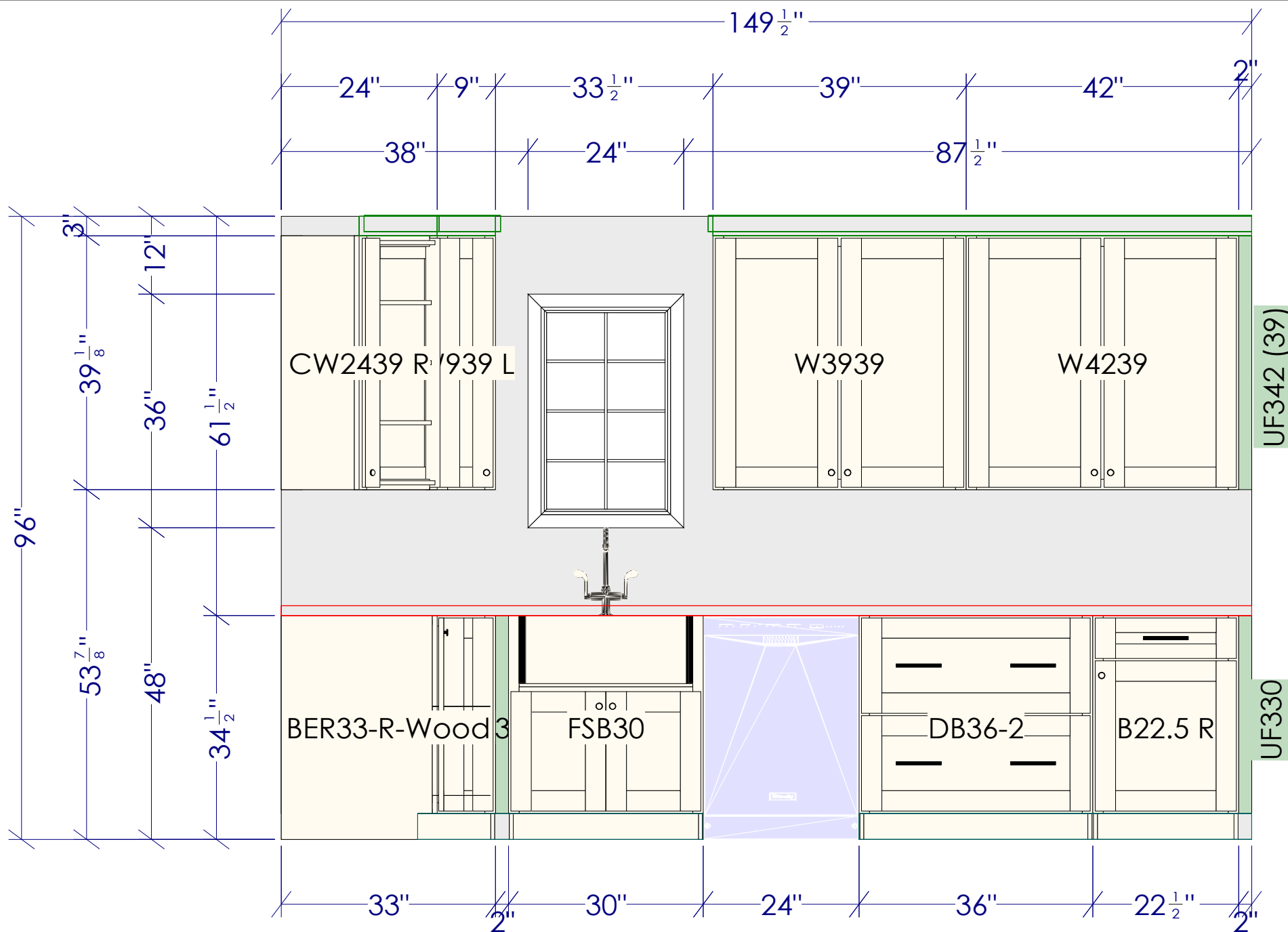


All dimensions size designations given are subject to verification on job site and adjustment to fit job conditions.



This is an original design and must not be released or copied unless applicable fee has been paid or job order placed.

Designed: 12/15/2022
Printed: 12/16/2022

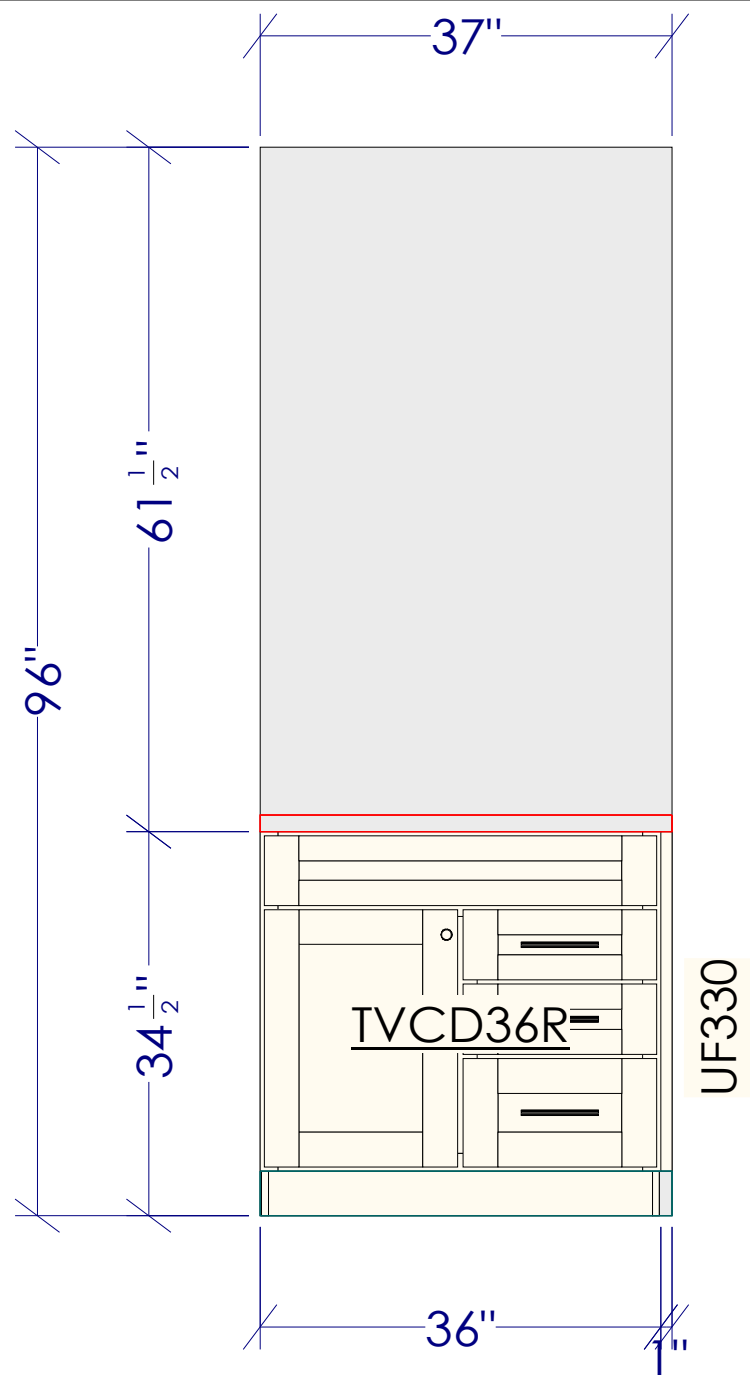


All dimensions size designations given are subject to verification on job site and adjustment to fit job conditions.



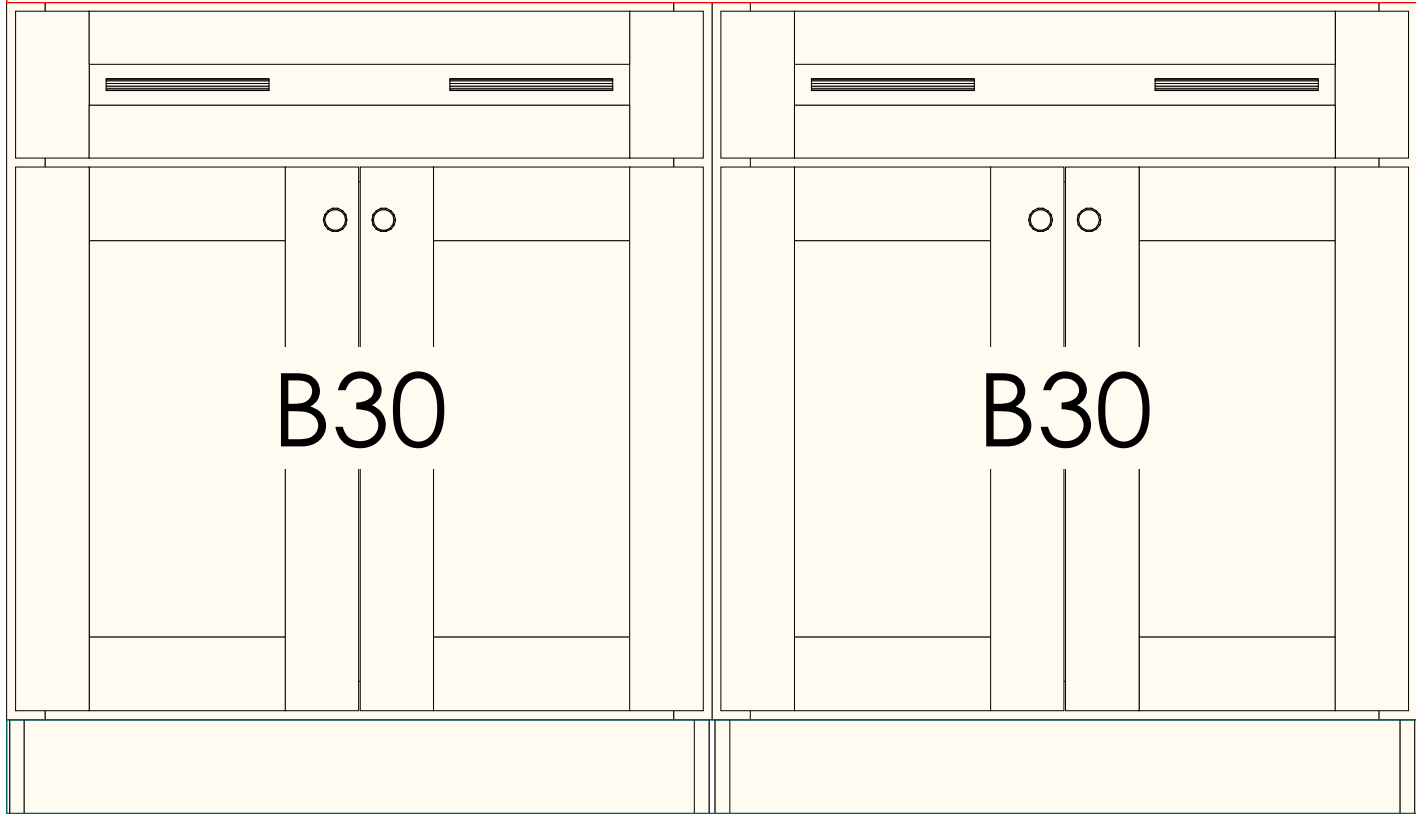
This is an original design and must not be released or copied unless applicable fee has been paid or job order placed.

Designed: 12/15/2022
Printed: 12/16/2022



All dimensions and size designations given are subject to verification on job site and adjustment to fit job conditions.		This is an original design and must not be released or copied unless applicable fee has been paid or job order placed.	Designed: 12/15/2022 Printed: 12/16/2022	
			KELLOGG - CNTY RD EI 3	Drawing #: 1 No Scale.

34 $\frac{1}{2}$ "



30"

30"

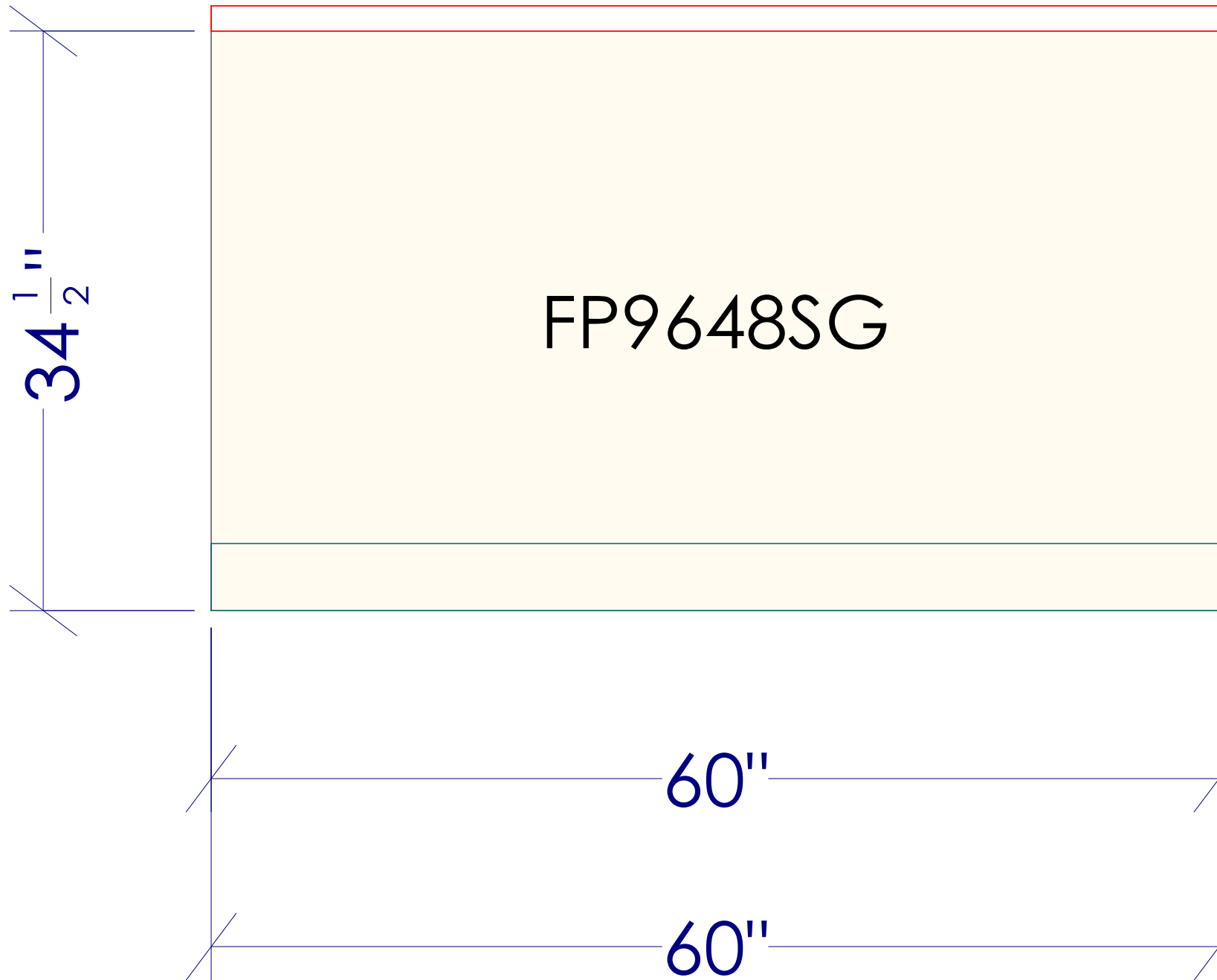
60"

All dimensions _size designations given are subject to verification on job site and adjustment to fit job conditions.



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Designed: 12/15/2022
Printed: 12/16/2022



All dimensions and size designations given are subject to verification on job site and adjustment to fit job conditions.



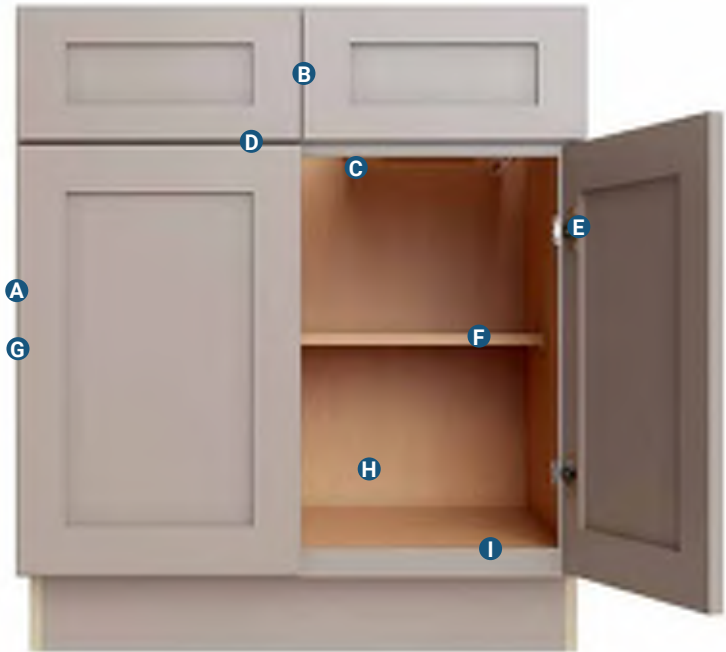
This is an original design and must not be released or copied unless applicable fee has been paid or job order placed.

Designed: 12/15/2022
Printed: 12/16/2022



Cabinets shown in Brooklyn Slate

Premier Series		
Cabinet Box	A	1/2" 7-ply plywood
Drawer Box	B	5/8" solid wood, dovetailed
Drawer Slides	C	Undermount, full extension, metal soft-close w/ ball bearings
Door & Drawer Front	D	Full overlay; 5-piece doors & drawers; solid wood stiles & rails; MDF center panel
Hinge	E	6-way adjustable, soft-close
Shelves	F	Adjustable, 3/4" plywood
Exterior Finish	G	Finished to match doors
Interior Finish	H	Natural birch veneer
Face Frame	I	Solid wood
Certifications	TSCA VI, CARB 2, KCMA	



Premier Series

Our **Premier Series** offers distinctive touches and superb craftsmanship, satisfying either the traditional or modern design palette with a look to fit any lifestyle.



Premier Series

SHAKER SAND (SS)	SHAKER DESIGNER WHITE SLAB (SW)	SHAKER DESIGNER WHITE 5PC (SW)	SHAKER ESPRESSO (SE)	SHAKER KODIAK (SK)	SHAKER MOSS (SM)
BROOKLYN BRIGHT WHITE (BW)	BROOKLYN MODERN GRAY (BG)	BROOKLYN FAWN (BF)	BROOKLYN SLATE (BS)	BROOKLYN MIDNIGHT (BM)	
OSLO CLASSIC WALNUT (OC)	OSLO OAK (OO)	OSLO WHITE (OW)			





Builder Series		
Cabinet Box	A	1/2" engineered wood sides, plywood back
Drawer Box	B	5/8" solid wood, dovetailed
Drawer Slides	C	Undermount, 3/4 extension, non-soft-close (option to upgrade to soft-close, full extension)
Door & Drawer Front	D	Partial overlay; 5-piece doors & drawers; HDF stiles & rails; MDF center panel
Hinge	E	6-way adjustable, soft-close
Shelves	F	Adjustable, 3/4" engineered wood
Exterior Finish	G	Finished to match doors
Interior Finish	H	Natural melamine
Face Frame	I	Solid wood
Certifications		TSCA VI, CARB 2, KCMA



*Builder Series comes standard with slab drawer fronts and can be upgraded to soft-close drawers.

Builder Series

Our **Builder Series** is an affordable option for builders and designers. Bring any room together with a variety of options that allow you to create a space that will become your new favorite.

Builder Series



ESSENTIAL
WHITE
(EW)



ESSENTIAL
GRAY
(EG)

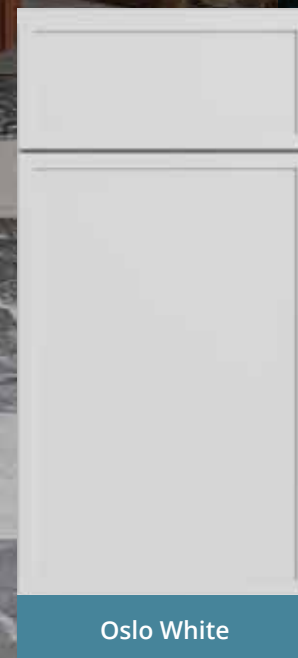


Cabinets shown in Essential Gray

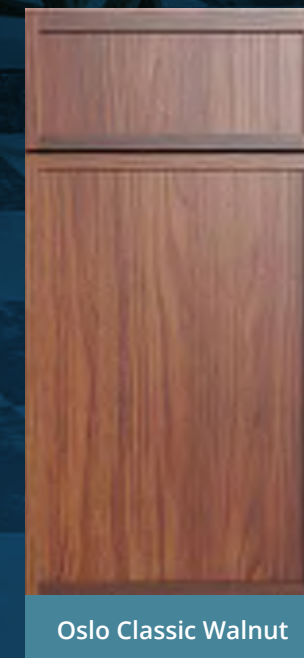
Oslo

Modern, minimal, and elegant, Oslo's slim profile is ideal for contemporary design. Available in stained rift white oak, classic walnut, and bright white, the finishes can be used together to create a two-toned design or stand alone for a dramatic look.

- Full overlay doors provide a seamless aesthetic
- Soft-close doors and drawers prevent slamming
- Dovetail drawer construction
- Full extension drawers ensure easy access
- Durable solid wood cabinet box and drawers
- Premium finish delivers a lifetime of beauty and durability



Oslo White



Oslo Classic Walnut



Oslo Oak

Cabinets shown in Oslo Classic Walnut

Shaker

Classic, crisp, and adaptable, Shaker's simplicity offers pleasing proportions and limitless flexibility. Shaker White is available with a slab or 5-piece drawer, providing further design possibilities ranging from traditional to contemporary.

- Full overlay doors provide a seamless aesthetic
- Soft-close doors and drawers prevent slamming
- Dovetail drawer construction
- Full extension drawers ensure easy access
- Durable solid wood cabinet box and drawers
- Premium finish delivers a lifetime of beauty and durability
- Shaker White comes standard with slab drawer fronts but can be upgraded to 5-piece construction

Cabinets shown in Shaker Moss

Shaker Kodiak

Shaker Espresso

Shaker Sand

Shaker Designer White

Shaker Designer White

Shaker Moss

*Slab

*5 Piece

Brooklyn

This transitional door complements a range of styles from modern to rustic to traditional. Find charm in Brooklyn Bright White or Brooklyn Gray and install a Fawn, Slate or Midnight island for the perfect kitchen accent that your guests will love.

- Full overlay doors provide a seamless aesthetic
- Soft-close doors and drawers prevent slamming
- Dovetail drawer construction
- Full extension drawers ensure easy access
- Solid wood cabinet box and drawers provide exceptional durability
- Premium finish delivers a lifetime of beauty and durability

Wall Cabinets shown in Brooklyn Fawn,
Base Cabinets shown in Brooklyn Midnight

Brooklyn Bright White

Brooklyn Modern Gray

Brooklyn Midnight

Brooklyn Slate

Brooklyn Fawn

Essential

KCD's Essential line offers a timeless design at an affordable price. This door comes in two popular colors that can be used together to create a dynamic space.

- Partial overlay construction
- Hybrid assembly featuring engineered wood sides, a plywood back, and a solid wood face frame
- Broad selection of SKUs and moldings provide functionality as well as unique touches
- Soft-close doors are standard and drawers can be upgraded to premium construction with soft-close
- Premium finish delivers a lifetime of beauty and durability



Essential White



Essential Gray

Wall Cabinets shown in Essential Gray

PREFAB TYPES

There are four types of prefabs with various edge finishes. See the diagram and descriptions below.

Peninsula

Peninsulas are perfect for dividing space between rooms with a bar seating area. Their edges are finished on two long sides and one short side.

Island

Island prefabs are finished on all four sides. They won't need to go against a wall and can stand alone in the kitchen.

Vanity

Vanity prefabs are a smaller version of our standard prefab. Their edges are finished on two short sides and one long side. They're great for bathrooms and laundry rooms that need that extra sink.

Standard Prefabs

Standard prefabs are finished on one long edge and two short edges. This prefab is our most common. With just a small amount of fabrication to fit your sink or stove they're ready to go right on your cabinets as your kitchen countertop.

EDGE FINISHES

Edge finish will be determined by the thickness and/or type of prefab slab you choose. 2cm Natural Stone Prefabs come in a *Laminated Full Bullnose*. 3cm Natural Stone Prefabs come in *Full Bullnose*. Our 2cm Q™ Premium Natural Quartz slabs and Natural Stone Vanities come in a *Laminated Flat Edge*.

2cm Laminated Full Bullnose

Standard Prefab sizes: 100x26 & 112x26
Peninsula sizes: 98x36 & 108x42



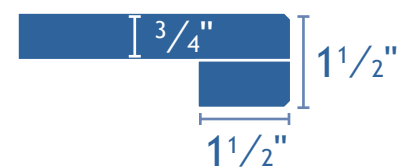
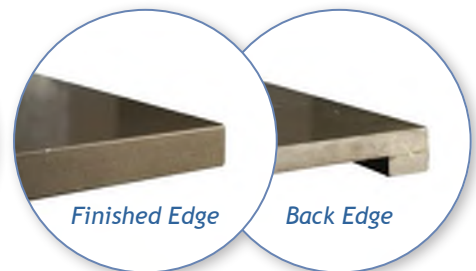
3cm Full Bullnose

Standard Prefab size: 100x26



2cm Laminated Flat Edge

Q™ Standard Prefab size: 112x26
Vanity Size: 84x26



100 SERIES



**THE SMART
ALTERNATIVE TO VINYL**

A BETTER CHOICE FOR YOUR HOME

Whether you're replacing, remodeling or building new, Andersen® 100 Series windows and patio doors offer many advantages over vinyl. They offer superior strength and performance because they're made of innovative Fibrex® composite material, which is 2X stronger and more durable than vinyl. They're also available in a variety of rich dark colors with finishes that are made to last and they're designed to retain their stability and rigidity in all climates. Plus, 100 Series windows and doors are environmentally responsible and energy efficient, making them a better choice for your home.



*When 100 Series products were tested against five leading competitors' painted vinyl window products.



STRENGTH & PERFORMANCE

Fibrex® material is **2X stronger than vinyl** and it retains its stability and rigidity in all climates so weathertight seals stay weathertight.

100 Series products can **withstand temperatures up to 150°F**, even in dark colors, meaning they won't warp due to sun exposure.

ENVIRONMENTALLY RESPONSIBLE

Our exclusive Andersen® Fibrex composite material is composed of **40% reclaimed wood fiber by weight**, most of which is reclaimed from the manufacturing of Andersen wood windows.



See how Andersen created Fibrex material at andersenwindows.com/fibrex

ENERGY EFFICIENT

Our weather-resistant construction seals out drafts, wind and water so well, you can relax in comfort whatever the weather. Plus, Fibrex material **blocks thermal transfer nearly 700 times better** than aluminum to help reduce heating and cooling bills.



COLORS THAT LAST

Durable, factory-finished interiors and exteriors feature a premium matte finish that isn't shiny like vinyl plus they **never need painting and won't fade, flake, blister or peel.**

On 100 Series products, **the finish is 12X thicker than that of painted vinyl windows**** resulting in superior scratch resistance so they'll look beautiful for years to come.

ADVANCED CRAFTSMANSHIP

100 Series products feature **virtually seamless corners** for a cleaner, more contemporary look.



100 Series sash corner seam



Vinyl sash corner seam

TRANSFERABLE LIMITED WARRANTY

Most other window and door warranties end when a home is sold, but our coverage — 20 years on glass, 10 years on non-glass parts — transfers from each homeowner to the next. And, because it's not prorated, the coverage offers **full benefits, year after year, owner after owner.** So it can add real value when you decide to sell your home.

OWNER2OWNER
LIMITED WARRANTY

*Visit andersenwindows.com/warranty for details.

**When 100 Series products were tested against five leading competitors' painted vinyl window products.

WINDOW & DOOR TYPES

Choose the product style and frame type needed to complete your replacement, remodeling or new construction project and bring your vision to life.



SINGLE-HUNG

Single-hung windows feature a stationary upper sash and operable lower sash that slides up and down.



CASEMENT & AWNING

Casement windows are hinged on the side and open outward to the left or right, while awning windows are hinged at the top and open outward.



GLIDING WINDOWS

Gliding windows have one stationary sash and one operating sash that glides horizontally. A three-sash configuration, where two sash glide past a fixed center sash is also available.



GLIDING PATIO DOORS

Patio doors feature one stationary panel and one that glides smoothly on adjustable rollers. Add character and light with a sidelight or transom.

SPECIALTY WINDOWS

Specialty windows are stationary (non-operable) windows characterized by their special shapes, including curves and dramatic angles. A variety of shapes are available to complement your home's architecture.

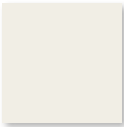
Windows and doors are available in custom sizes to fit all projects.



COLOR OPTIONS

100 Series windows and patio doors come in five exterior colors, including dark bronze and black — colors that are darker and richer than those of most vinyl windows. They also feature a premium matte finish inside for an attractive appearance.

EXTERIOR COLORS


White

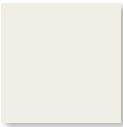

Sandtone

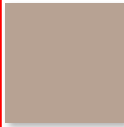

Terratone


Dark Bronze

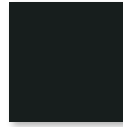

Black

INTERIOR COLORS


White


Sandtone


Dark Bronze


Black

HARDWARE OPTIONS

Single-Hung & Gliding

STANDARD


Lock


Lift/Pull (Optional)

Lock automatically engages when window is closed.
Hardware color matches the window's interior. Shown in white.

OPTIONAL SLIM LINE METAL HARDWARE



Antique Brass | Black | **Dark Bronze**
Sandtone | Satin Nickel | **White**

Casement & Awning

STANDARD FOLDING



Antique Brass | Black | Dark Bronze
Sandtone | Satin Nickel | White

Folding handle avoids interference with window treatments.

Patio Doors

TULSA


Exterior


Interior

Exterior handle matches exterior door color. Shown in dark bronze.

Interior handle matches interior door color. Shown in white.

OPTIONAL AFTON


Exterior


Interior

Antique Brass | Bright Brass
Black | **Satin Nickel**

Gliding patio doors features a multi-point locking systems for enhanced security. Optional auxiliary foot lock is available to secure the gliding panel and provides an extra measure of security when the door is in a locked position. Exterior keyed lock also available.

Bold names denotes finish shown.

* Products with dark bronze, black and Sandtone interiors have matching exteriors.
Printing limitations prevent exact replication of colors and finishes. See your Andersen supplier for actual color and finish samples.

GLASS OPTIONS

Andersen has the glass you need to get the performance you want with options for every climate, project and customer. Check with your Andersen supplier for the selections that meet ENERGY STAR® requirements in your area.

GLASS		ENERGY		LIGHT	
		U-Factor	Solar Heat Gain Coefficient	Visible Light Transmittance	UV Protection
		How well a product prevents heat from escaping.	How well a product blocks heat caused by sunlight.	How much visible light comes through a product.	How well a product blocks ultraviolet rays.
SmartSun™	Thermal control similar to tinted glass, with visible light transmittance similar to Low-E glass.	● ● ● ○	● ● ● ●	● ● ● ○	● ● ● ●
SmartSun with HeatLock® Coating	Applied to the room-side surface, it reflects heat back into the home and improves U-Factor values.	● ● ● ●	● ● ● ●	● ● ○ ○	● ● ● ●
Low-E	Outstanding overall performance for climates where both heating and cooling costs are a concern.	● ● ● ○	● ● ● ○	● ● ● ○	● ● ● ○
Low-E with HeatLock Coating	Applied to the room-side surface, it reflects heat back into the home and improves U-Factor values.	● ● ● ●	● ● ● ○	● ● ● ○	● ● ● ○
Sun	Outstanding thermal control in southern climates where less solar heat gain is desired.	● ● ● ○	● ● ● ●	● ○ ○ ○	● ● ● ○
Clear Dual-Pane	High visibility with basic thermal performance.	● ○ ○ ○	○ ○ ○ ○	● ● ● ●	○ ○ ○ ○

Center of glass performance only. Ratings based on glass options as of May 2021. Visit andersenwindows.com/energystar for ENERGY STAR® map and NFRC total unit performance data.

ADDITIONAL GLASS OPTIONS

Tempered safety glass, standard on patio doors. Sound reducing glass options are also available.

Patterned glass lets in light while obscuring vision and adds a unique, decorative touch.








NEW!

Cascade Fern Obscure Reed Satin Etch

On Bath Windows

Cascade and Reed patterns can be ordered with either a vertical or horizontal orientation.

GLASS SPACER OPTIONS

Choose from stainless steel or black glass spacers to create a customized look.



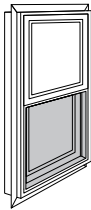
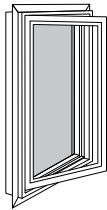

Black Stainless Steel

For more details on glass options, visit andersenwindows.com/glass.

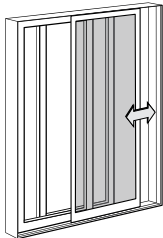


INSECT SCREEN OPTIONS

Insect screens for windows and patio doors have a fiberglass screen mesh. Optional TruScene® insect screens for windows are made with a micro-fine stainless steel mesh, providing 50% more clarity and letting in 25% more fresh air* than our conventional insect screens.



Insect screens are available for all venting windows.



Gliding insect screens are available for two-panel doors.

*TruScene insect screens let in over 25% more fresh air than standard Andersen fiberglass insect screens.

GRILLE OPTIONS

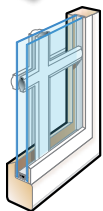
Customize the look of your windows and patio doors with a variety of grille options to complement virtually any style of home.

CONVENIENT CLEANING OPTIONS

Finelight™ grilles-between-the-glass are installed between the glass panes to make glass easy to clean. With an elegant, sculpted profile and a two-sided color scheme, they match both the interior and exterior of the window or door. Finelight grilles-between-the-glass with exterior grilles make interior glass easier to clean, while permanent exterior grilles provide architectural style and detail.



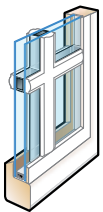
Finelight grilles-between-the-glass



Finelight grilles-between-the-glass
Permanent exterior

FULL DIVIDED LIGHT

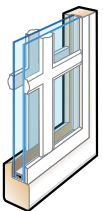
Permanently applied to the interior and exterior of your window with a spacer between the glass for an authentic look.



Permanent exterior
Permanent interior with spacer

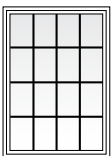
SIMULATED DIVIDED LIGHT

Permanent grilles on the exterior and interior with no spacer between the glass.

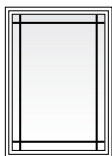


Permanent exterior
Permanent interior

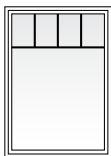
Grille Patterns



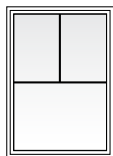
Colonial*



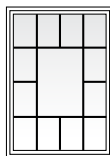
Prairie A



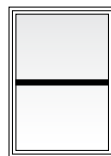
Short Fractional*



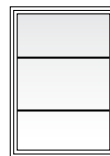
Tall Fractional*



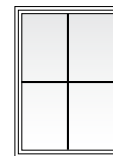
Victorian



Simulated Single-Hung



Specified Equal Light**



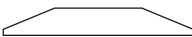
*Modified pattern also available.

**Specify number of same-size rectangles across or down.

Grille Bar Widths



3/4"



1"

Grille width for windows is 3/4".
Grille width for patio doors is 1".
A 2 1/4" simulated meeting rail is available for casement windows to replicate the look of single-hung windows.
Actual size shown.





THE ENVIRONMENT HAS A BUSINESS PARTNER

Respect for the environment is nothing new at Andersen. For more than a century, it's been part of who we are. Our commitment to recycle and reclaim materials began simply because it was good business. Now it's part of our broader commitment to sustainability and responsible stewardship of all our resources. Andersen is committed to providing you with long-lasting,* energy-efficient windows and doors. Visit andersenwindows.com/sustainability for more information.



Andersen makes windows and doors with options that make them ENERGY STAR® v. 6.0 certified throughout the U.S.



Andersen is a charter member of the **U.S. Green Building Council** and a strong supporter of its LEED® (Leadership in Energy and Environmental Design) National Green Building Standard rating system.



*Visit andersenwindows.com/warranty for details.

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Quote Name: REDWOOD ADU - ONE BEDROOM
Customer: Ashby Lumber
Payment Terms:
Sales Representative: Manuel Saucedo **Mobile:**
Manuels@ashbylumber.com
Weighted Average: U-Factor: .28, SHGC: .21, VT: .47

Quote Number: SQPBSY012868_1
Created Date: 2/17/2023
Modified Date: 2/17/2023
PO Number:
Total Windows: 6
Total Doors:
Total Sq Ft: 69.00
Total Perim Ft: 89
Est. Delivery: _____

Comments:

For warranty information please visit www.milgard.com/warranty/

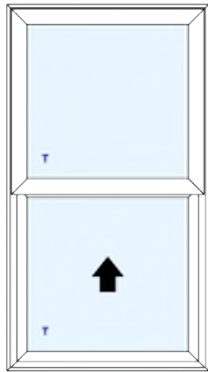
Billing Information

Name: Ashby Lumber
Address: 824 ASHBY AVENUE
2295 Arnold Industrial Way
BERKELEY / CONCORD, CA 94710 / 94520
Phone: 510-843-4832 / 925-689-8999
Fax:
Email:

Shipping Information

Name: Ashby Lumber
Address: 824 ASHBY AVENUE
2295 Arnold Industrial Way
BERKELEY / CONCORD, CA 94710 / 94520
Phone: 510-843-4832 / 925-689-8999
Fax:
Email:

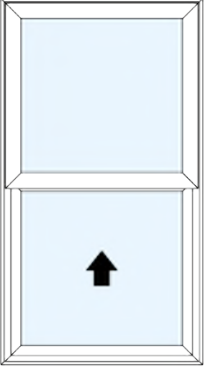
Line:	1	Location: ENTRY - TEMP	
Quantity:	2	Tuscany V400, 8220T, SH, 1 3/8" Setback, Ext White / Int White, U-Factor: .28, SHGC: .21, VT: .48	\$360.64
		1/8" SunCoatMAX (Low-E) Tempered over 1/8" Clear Tempered	\$153.07
		Argon Gas Filled	\$11.95
		Tariff	\$1.62
		Item Total:	\$527.27
		Line Total:	\$1,054.55

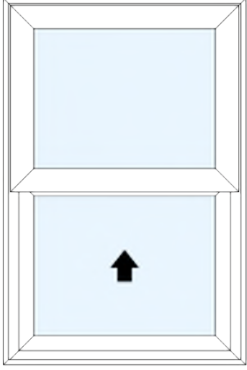


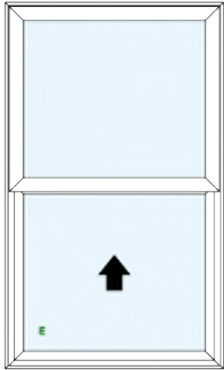
Viewed From Exterior

Model = Single Hung
Size = RO: 30" x 54"
Net Frame: 29 1/2" x 53 1/2"
Dimensions = Sash Height: One Half
Energy Package = Title 24 2019
Glass = 1/8" SunCoatMAX (Low-E) Tempered over 1/8" Clear Tempered with Gray Foam Spacer
Glazing = Dual Glaze with Argon
Hardware = SmartTouch Lock
Other Options = Glass Breakage Warranty
Screen = Standard with Fiberglass Mesh
Ratings = STC: 29, OITC: 22, PG: LC-PG40
Clear Opening = W 26 1/2" x H 22 1/4" Sq. Ft. 4.09
Calculations = Unit Area (Sq. Ft.): 11, Unit Perimeter (nominal in lineal ft): 15'
Other Ratings = CPD: MIL-A-225-07532-00001

Customer Approval: _____

Line:	2	Location: ENTRY		
Quantity:	1	Tuscany V400, 8220T, SH, 1 3/8" Setback, Ext White / Int White, U-Factor: .28, SHGC: .21, VT: .46		\$360.64
		1/8" SunCoatMAX (Low-E) over 1/8" Clear		\$16.43
		Argon Gas Filled		\$11.95
		Tariff		\$1.62
			Item Total:	\$390.63
			Line Total:	\$390.63
			Model = Single Hung Size = RO: 30" x 54" Net Frame: 29 1/2" x 53 1/2" Dimensions = Sash Height: One Half Energy Package = Title 24 2019 Glass = 1/8" SunCoatMAX (Low-E) over 1/8" Clear with Gray Foam Spacer Glazing = Dual Glaze with Argon Hardware = SmartTouch Lock Other Options = Glass Breakage Warranty Screen = Standard with Fiberglass Mesh Ratings = STC: 29, OITC: 22, PG: LC-PG40 Clear Opening = W 26 1/2" x H 22 1/4" Sq. Ft. 4.09 Calculations = Unit Area (Sq. Ft.): 11, Unit Perimeter (nominal in lineal ft): 15' Other Ratings = CPD: MIL-A-225-07552-00001	
		Viewed From Exterior	Customer Approval:	_____

Line:	3	Location: KITCHEN		
Quantity:	1	Tuscany V400, 8220T, SH, 1 3/8" Setback, Ext White / Int White, U-Factor: .28, SHGC: .21, VT: .46		\$282.99
		1/8" SunCoatMAX (Low-E) over 1/8" Clear		\$8.96
		Argon Gas Filled		\$6.72
		Tariff		\$1.62
			Item Total:	\$300.29
			Line Total:	\$300.29
			Model = Single Hung Size = RO: 24" x 36" Net Frame: 23 1/2" x 35 1/2" Dimensions = Sash Height: One Half Energy Package = Title 24 2019 Glass = 1/8" SunCoatMAX (Low-E) over 1/8" Clear with Gray Foam Spacer Glazing = Dual Glaze with Argon Hardware = SmartTouch Lock Other Options = Glass Breakage Warranty Screen = Standard with Fiberglass Mesh Ratings = STC: 29, OITC: 22, PG: LC-PG40 Clear Opening = W 20 1/2" x H 13 1/4" Sq. Ft. 1.89 Calculations = Unit Area (Sq. Ft.): 6, Unit Perimeter (nominal in lineal ft): 10' Other Ratings = CPD: MIL-A-225-07552-00001	
		Viewed From Exterior	Customer Approval:	_____

Line:	4	Location: BED		
Quantity:	2	Tuscany V400, 8220T, SH, 1 3/8" Setback, Ext White / Int White, U-Factor: .28, SHGC: .21, VT: .46		\$411.41
		1/8" SunCoatMAX (Low-E) over 1/8" Clear		\$21.65
		Argon Gas Filled		\$15.68
		Tariff		\$1.62
			Item Total:	\$450.37
			Line Total:	\$900.73
		Model = Single Hung		
		Size = RO: 36" x 60"		
		Net Frame: 35 1/2" x 59 1/2"		
		Dimensions = Sash Height: One Half		
		Energy Package = Title 24 2019		
		Glass = 1/8" SunCoatMAX (Low-E) over 1/8" Clear with Gray Foam Spacer		
		Glazing = Dual Glaze with Argon		
		Hardware = SmartTouch Lock		
		Other Options = Glass Breakage Warranty		
		Screen = Standard with Fiberglass Mesh		
Viewed From Exterior		Ratings = STC: 29, OITC: 22, PG: LC-PG40		
		Clear Opening = W 32 1/2" x H 25 1/4" Sq. Ft. 5.7, Egress: Yes		
		Calculations = Unit Area (Sq. Ft.): 15, Unit Perimeter (nominal in lineal ft): 17'		
		Other Ratings = CPD: MIL-A-225-07552-00001		
			Customer Approval:	_____



Ashby Lumber
824 ASHBY AVENUE
2295 Arnold Industrial Way
BERKELEY / CONCORD, CA 94710 / 94520
510-843-4832 / 925-689-8999



Submitted By: _____

Accepted By: _____

Date: _____

Material Subtotal: \$2,646.20
Material Tax 10.25%: \$271.24
Grand Total (USD): \$2,917.44

For warranty information please visit www.milgard.com/warranty/

Please note that actual NFRC energy values may vary from those reported in CTB Quote Plus due to variations that may occur during the manufacturing process. In most cases variations will be minimal. Please contact your Milgard location with questions or concerns regarding this potential variation.

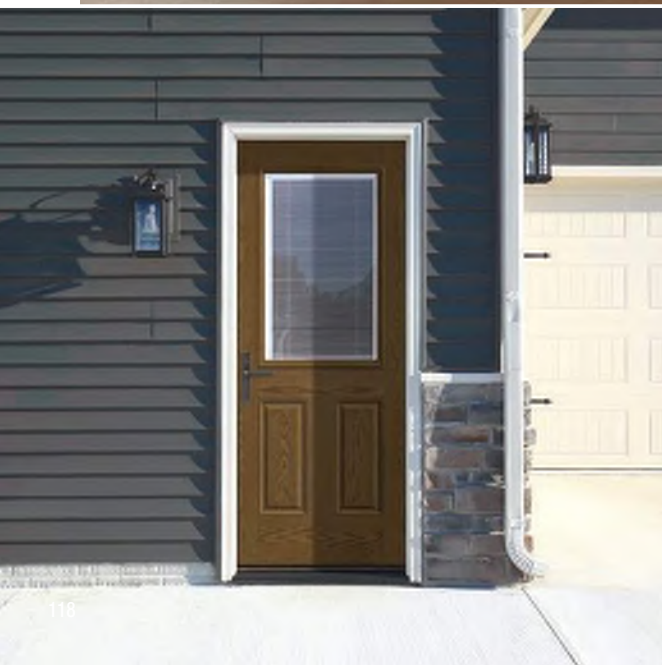
Painted Vinyl Note: For stucco applications, please follow the Milgard Stucco Tape Guidelines
https://www.milgard.com/sites/default/files/u/u57666/stucco_taping_guidelines_0920.pdf.

Handing is viewed from outside looking in.

ADDITIONAL INFORMATION:

Fiber-Classic® & Smooth-Star® Fiberglass Doors

Fiber-Classic® & Smooth-Star®



Great style for any home.

With many door styles in common and glass families that cross over between door collections, Fiber-Classic and Smooth-Star offers flexible options to fit virtually every entrance from front entry to patio to utility doors at an excellent value.

Top: Smooth-Star, Clear Glass with GBGs, Doors – S82103, Finish – Onyx
Bottom: Fiber-Classic Oak Collection, Internal Blinds, Door – FC678, Finish – Barley
Right Page: Fiber-Classic Oak Collection, Wellesley Glass, Door – FC796, Sidelites – FC104SL, Finish – Barley



Fiber-Classic® Mahogany Collection™

Fiber-Classic Mahogany complements rich wood tones in home interiors, extending the look to the outside with beauty and elegance.



Fiber-Classic® Oak Collection™

Fiber-Classic Oak is the door that started the fiberglass revolution and features the warm look and feel of natural Oak graining.



Smooth-Star®

Smooth-Star fiberglass doors are ready-to-paint with crisp, clean contours making them the more attractive and durable alternative to steel.



Fiber-Classic entry doors are rated a *Consumers Digest* Best Buy for their exceptional warranty, breadth of style options and wood-grained texture.



See the difference color can make.

Therma-Tru offers a wide variety of finish options for our doors. Explore PrismaGuard® premium finish and Same-Day Stain color options on pages 266–270.

Glass Options

- Explore a portfolio of interchangeable decorative glass designs, and privacy and textured glass options starting on page 124.
- Invite light into the home for a more brilliant interior with 22" wide glass in a Lip-lite frame, as well as flush-glazed options with 25–27" wide glass – starting on page 138.
- Lite frames are heat and fade resistant, and suitable for use with a storm door.
- Low-E glass is available for internal blinds, divided lites and clear glass, providing exceptional energy efficiency.



Door Construction

Fiber-Classic® and Smooth-Star® doors set the standard for beauty, quality and performance at an excellent value. Explore the craftsmanship and innovation of doors designed for long-lasting energy efficiency, durability and security.



1 Weather Resistance

Composite rails protect the door at the top and bottom edges to help block moisture that can wick into doors.

2 Security

An enhanced lock block combined with a 1-1/4" engineered lumber lock stile increases rigidity and stability.

3 Durability

With very little maintenance, a fiberglass door can bring a home years of durability. Unlike wood, fiberglass will not warp or rot. And, unlike steel, it will not dent or rust.

4 R-Values

Built with a polyurethane foam core that offers up to four times the insulating R-Value of wood*, Therma-Tru fiberglass doors insulate against cold and heat for exceptional energy efficiency.



ENERGY STAR® Qualified
Options Available

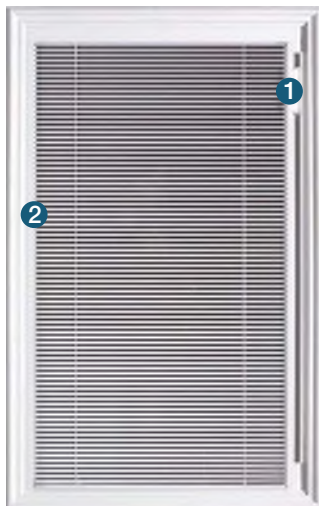


*Comparison of fiberglass to wood doors (both without glass).

Internal Blinds

Internal blinds provide the privacy and convenience of a cordless blind enclosed between glass. A single-hand operator opens, closes and tilts the blinds to control the desired level of privacy and light.

- ① Single-Hand Operator
- ② Privacy Bar



Screen Vented

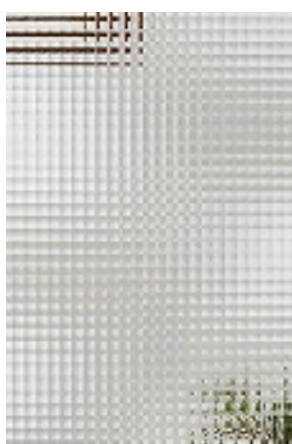
Screen vented lites offer a built-in screen for ventilation, featuring a gliding operation and sash locking system.



Privacy & Textured Glass



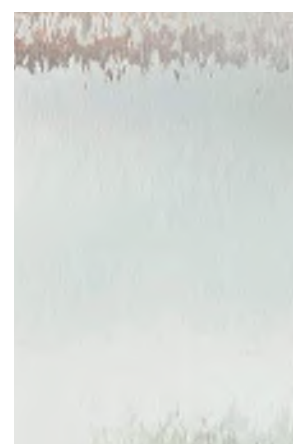
Reeded



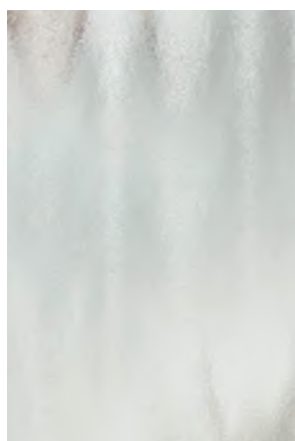
Geometric



Satin Etch



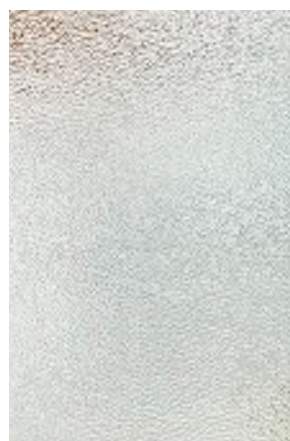
Chord



Chinchilla



Rainglass



Granite



Also Available:
Low-E & Clear Glass

Clear Glass with Divided Lites

						
Mahogany	Smooth	Mahogany	Smooth	Mahogany	Smooth	Mahogany
FCM605 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S605 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S8605 ★ 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"	FCM606 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S606 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S8606 ★ 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"	FCM607 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"
	S607 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S8607 ★ 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"				FCM608 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"

EnLiten™ Flush-Glazed Clear Glass

					
Smooth	Mahogany	Smooth	Smooth	Mahogany	Smooth
S608 ★ 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S8608 ★ 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"	FCM4810 ▲ ★ E 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S4810 ▲ ★ E 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S84810 ▲ ★ 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"	S2610* ★ ▲ 6 E 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"
					S82610* ★ ▲ 6 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"
				FCM601 ★ 6 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"	S601 ★ 6 2'8" x 6'8" 2'10" x 6'8" 3'0" x 6'8"
					S8601 ★ 6 2'8" x 8'0" 2'10" x 8'0" 3'0" x 8'0"

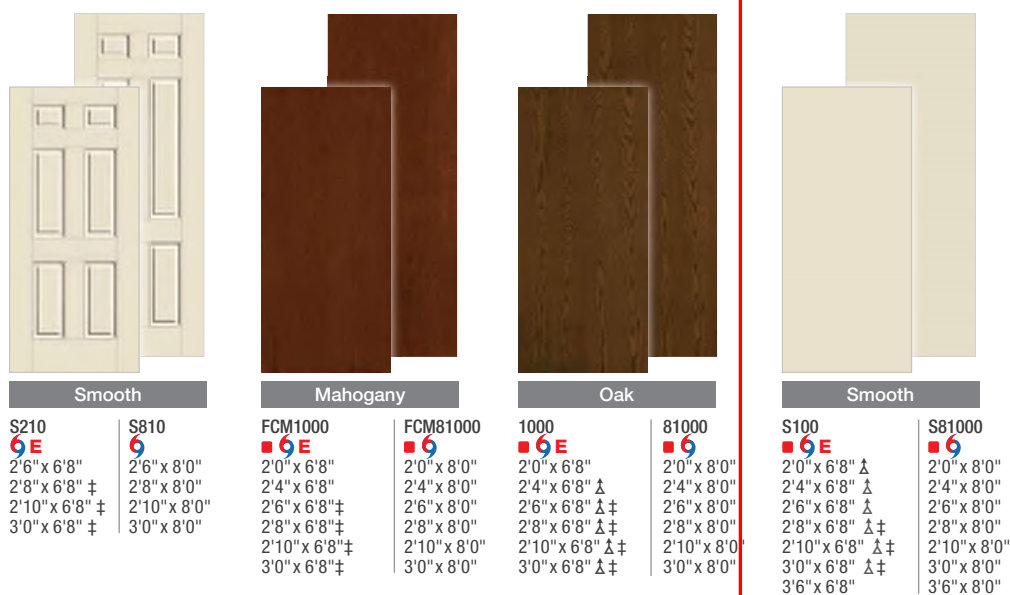


*Available with flat lite frame only.

Note: See page 293 for important product details that may help with your purchase decision.

Bottom: Smooth-Star, Low-E Glass with SDLs, Door – S84816, Sidelites – S8000SL

Top Right: Smooth-Star, Wellesley Glass, Door – S721





METRIE EL & EL INTERIOR DOOR COLLECTION



Interior Doors

Barn Doors



180PLK

Why Choose Metrie EL & EL Premium Barn Doors?

Each Metrie EL & EL barn door is built with authentic stile and rail construction by hand. They are built solid and authentic, putting them in a league of their own.

Full Sized Mulls

Our barn doors have center/cross mulls that are full thickness making sure that the stile meets flush at the stile and rail joints for a truly custom finish.

Deeper V-Grooves

Our V-Grooves are deeper than others. Because of this, the grooves accent the plank style and design.

Separate Panels

Distinct 3/4" edge glued panels. Creates a door that is timeless and beautiful.

Time Proven Beauty

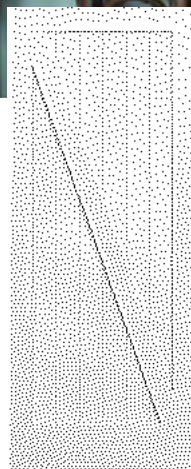
Created with the care and craftsmanship, our barn doors are made to last.

Sizes Available:

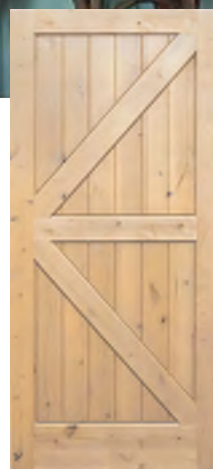
Thickness: 1-3/8"

Widths: 2/6, 3/0, 3/6

Heights: 6/8, 7/0, 8/0



PRM 180PLK
(Primed MDF)



KAL 181
(Knotty Alder)



183 PLK
(Knotty Pine)

All styles available in 3 Species



Primed MDF

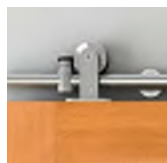


Knotty Alder



Knotty Pine

Barn Door Hardware Also Available



pg. 6



pg. 6



pg. 7

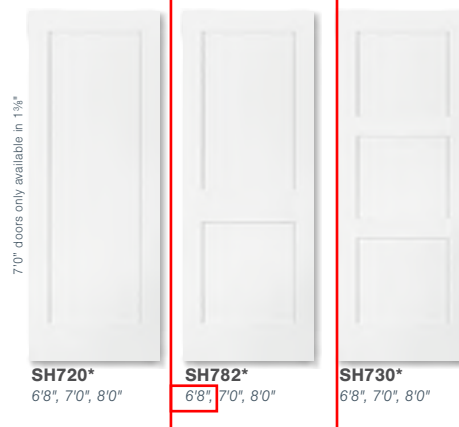


METRIE
EL & EL Wood Products



Premium Primed Square and Ovolo Sticking

Available 1 3/4", 3/4" flat panel, square only*

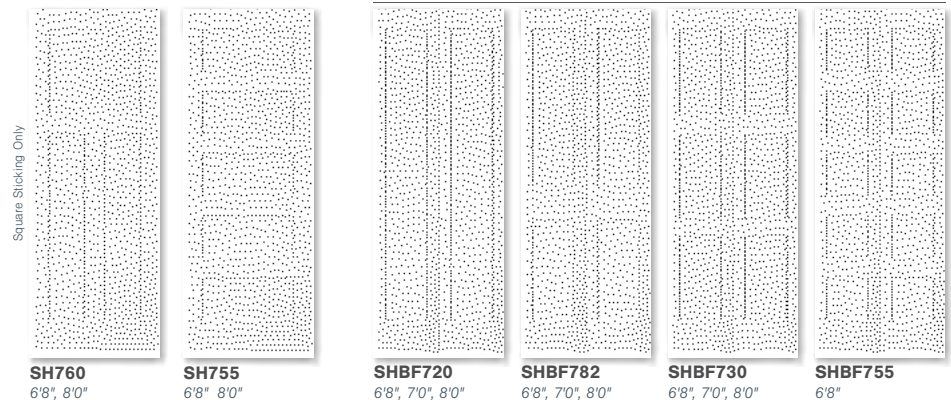
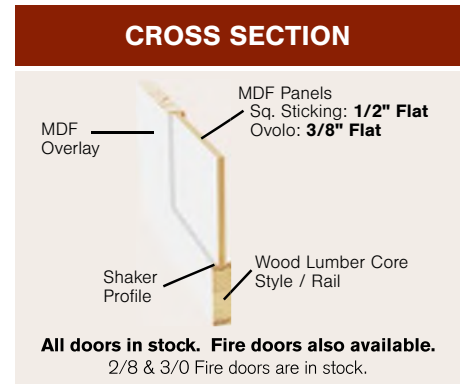


7'0" doors only available in 1 3/4"

SH720*
6'8", 7'0", 8'0"

SH782*
6'8", 7'0", 8'0"

SH730*
6'8", 7'0", 8'0"



Bifolds

Vertical Grain Doug Fir Square and Ovolo Sticking

Traditional Craftsman Style

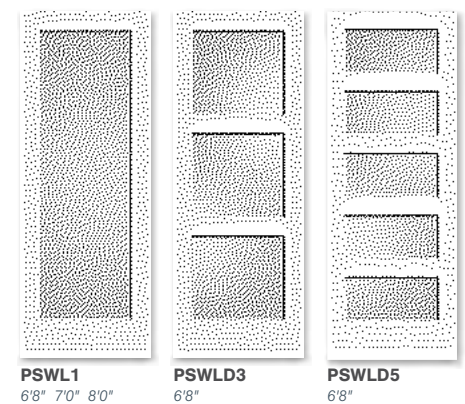
Clean & Simple Lines with 3/8" Flat Panels



Bifolds 6'8" only

White Lami Primed Shaker

Available 1 3/4", Square Sticking





LL - 3-1/4" Slats

LOUVER, PLANTATION LOUVER & SHUTTER DOORS

Practical elements and classic designs make our Louver Doors and Bi-Folds ideal choices for air ventilation and visual inspiration between rooms.

- Quality louver construction for years of enjoyment
- Pre-sanded and ready to stain or paint to match your decor
- Available in clear pine, primed pine, and primed MDF (in-stock availability varies by location)

Louver Doors

Available in Primed & Clear



PDLL
1 1/4" Slats

PBLL
1 1/4" Slats



PDL P
1 1/4" Slats

PBL P
1 1/4" Slats

Plantation Louver

Clear Pine

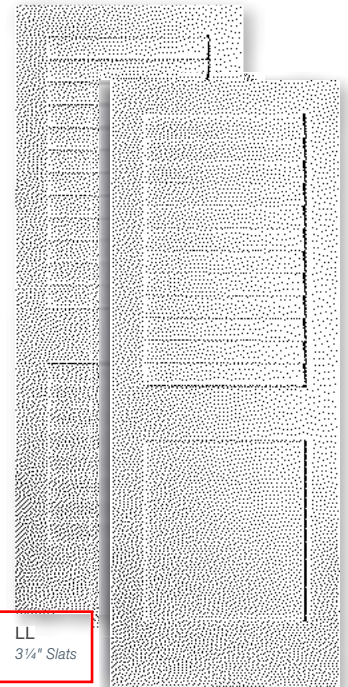


PDPLL
2 1/2" Slats

PBPLL
2 1/2" Slats

Shutter Doors

Primed



LL
3 1/4" Slats

LP
3 1/4" Slats

Details Report



ASHBY LUMBER - CONCORD
CONCORD DOOR DEPARTMENT
2295 ARNOLD INDUSTRIAL WAY
CONCORD , CA 94520
925-689-8999



Quote Information

Customer:

ASHBY BERKELEY 25

Salesperson:

Manuel Saucedo
manuel@ashbydw.com

Date quoted: 2/17/2023

Quote valid through:

Quote No	PO	Sidemark	Notes
1864161		REDWOOD ADU - ONE BEDROOM	

Quote Pricing

Sub-Total: \$3,042.20
Sales Tax (9.750%): \$296.61
Quote Total: \$3,338.81

**(Lead Time)* when displayed next to the Item # is the estimated time for the Retailer to receive the Item from the Vendor. The time taken for the End Customer to receive the Item may be different and is subject to the Retailer's Lead Time policy.

Customer signature: _____ Date: _____

Printed name: _____

Item 1	
Product Line	Therma-Tru Steel and Fiberglass Doors
Door Configuration	Single Prehung
Door Handing	Left Hand Inswing (1A)
Door Height	6/8
Door Width	3/0
Style Number	S4810
Door Category	Clear Glass Doors
Material	Fiberglass
Door Texture	Smooth-Star
Door Thickness	1 3/4"
Glass Shape	Craftsman Rectangle
Glass Collection	Flush-Glazed Clear Glass
Door Style	Craftsman Lite 2 Panel Shaker Flush-Glazed
Glass Name	Craftsman Clear Lite
Low-E Glass	Yes
Style Option Number	S4810-LE
Lock System Type	Lock Prep Only - No Hardware
Door Bore	Double Bore (Lockset w/ Deadbolt)
Bore Backset	2 3/8"
Edge Prep	Mortise (Radius Corner)
Deadbolt Frame Prep	1" x 2-1/4" (Standard)
Mail Slot	No Thank You
Jamb Species	Primed
Jamb Width	6 9/16"
Weatherstrip	Bronze Weatherstrip
Exterior Trim	No Brickmould
Sill	Bronze Basic Composite Adjustable Sill
Hinge Finish	Brushed Nickel (US15)
Hinge Type	Ball-Bearing
Hinge Shape	1/4" Radius
Retractable Screen Door	None
Add-Ons	No

ENTRY

S4810

OUTSIDE

Size	Width	Height
Rough Opening	38 1/4"	82"
Net Unit Size	37 1/2"	81 5/8"

Vendor Item Description

3/0 x 6/8 - Left Hand Inswing (1A) - S4810-LE - Exterior Therma-Tru Single Prehung - Lead Time:
- 3/0 x 6/8 Smooth-Star Craftsman Lite 2 Panel Shaker Flush-Glazed Craftsman Clear Lite No Grilles Low-E - Double Bore (Lockset w/ Deadbolt) 2 3/8" - Mortise (Radius Corner) Edge Prep - Deadbolt Frame Prep 1" x 2-1/4" (Standard) - 6 9/16" Primed Jamb - Bronze Weatherstrip - No Brickmould - Bronze Basic Composite Adjustable Sill - Brushed Nickel (US15) 1/4" Radius Ball-Bearing Hinges

WARNING: Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:

\$855.60

Quantity:

1

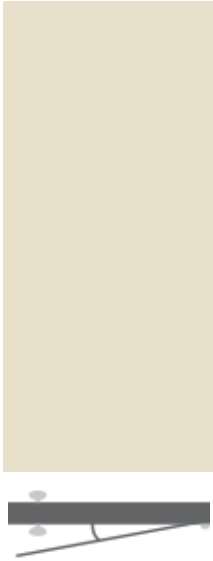
Item Total:

\$855.60

Item 2	
Product Line	Therma-Tru Steel and Fiberglass Doors
Door Configuration	Single Prehung
Door Handing	Left Hand Outswing (1C)
Door Height	6/8
Door Width	2/4
Style Number	S100
Door Category	Panel/Flush Doors
Material	Fiberglass
Door Texture	Smooth-Star
Door Thickness	1 3/4"
Door Style	Flush Panel
Style Option Number	S100
Lock System Type	Lock Prep Only - No Hardware
Door Bore	Double Bore (Lockset w/ Deadbolt)
Bore Backset	2 3/8"
Edge Prep	Mortise (Radius Corner)
Deadbolt Frame Prep	1" x 2-1/4" (Standard)
Mail Slot	No Thank You
Pet Door	No Thank You
Door Vent	Low and High Door Vent
Door Vent Option	Low and High 18" x 12" Primed Steel Louver Vent
Door Vent Application	Cut-Out For Door Vent And Ship Loose
Jamb Species	Primed
Jamb Width	6 9/16"
Weatherstrip	Bronze Weatherstrip
Exterior Trim	No Brickmould
Sill	Bronze Composite Fixed Sill Outswing
Hinge Finish	Brushed Nickel (US15)
Hinge Type	NRP Outswing
Hinge Shape	1/4" Radius
Add-Ons	No

W/H

S100



OUTSIDE

Size	Width	Height
Rough Opening	30 1/4"	81 7/16"
Net Unit Size	29 1/2"	80 15/16"

Vendor Item Description

2/4 x 6/8 - Left Hand Outswing (1C) - S100 - Exterior Therma-Tru Single Prehung - Lead Time:
 - 2/4 x 6/8 Smooth-Star Flush Panel - Double Bore (Lockset w/ Deadbolt) 2 3/8" - Mortise (Radius Corner) Edge Prep - Deadbolt Frame Prep 1" x 2-1/4" (Standard) - Low and High 18" x 12" Primed Steel Louver Vent - Cut-Out For Door Vent And Ship Loose - 6 9/16" Primed Jamb - Bronze Weatherstrip - No Brickmould - Bronze Composite Fixed Sill Outswing - Brushed Nickel (US15) 1/4" Radius NRP Outswing Hinges

 WARNING: Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:

\$748.20

Quantity:

1

Item Total:

\$748.20

Item 3	
Product Line	Stile and Rail Wood Doors
Door Configuration	Single Prehung
Door Handing	Right Hand Inswing (1B)
Door Height	6/8
Door Width	3/0
Product Series	Builders Choice
Model Number	82
Door Category	Panel/Flush Doors
Material	Wood
Wood Species	Primed
Door Thickness	1 3/8"
Door Style	2 Panel Square Top
Door Sticking Option	Square
Panel Option	Flat Panel
Lock System Type	Lock Prep Only - No Hardware
Door Bore	Single Bore (Lockset Only)
Bore Backset	2 3/8"
Edge Prep	Mortise (Radius Corner)
Jamb Species	Primed
Jamb Width	4 9/16"
Jamb Type	Paint Grade Applied Stop
Hinge Finish	Brushed Nickel (US15)
Hinge Type	Residential
Hinge Shape	1/4" Radius
Add-Ons	No

BED



Size	Width	Height
Rough Opening	38"	82"
Net Unit Size	37 1/2"	81 5/8"

Vendor Item Description
3/0 x 6/8 - Right Hand Inswing (1B) - 82 - Interior Wood Single Prehung - Lead Time: - 3/0 x 6/8 1 3/8" Primed 82, 2 Panel Square Top Square Stkg Flat Panel - Single Bore (Lockset Only) 2 3/8" - Mortise (Radius Corner) Edge Prep - 4 9/16" Primed Applied Stop Jamb - Brushed Nickel (US15) 1/4" Radius Residential Hinges

 **WARNING:** Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:

\$253.80

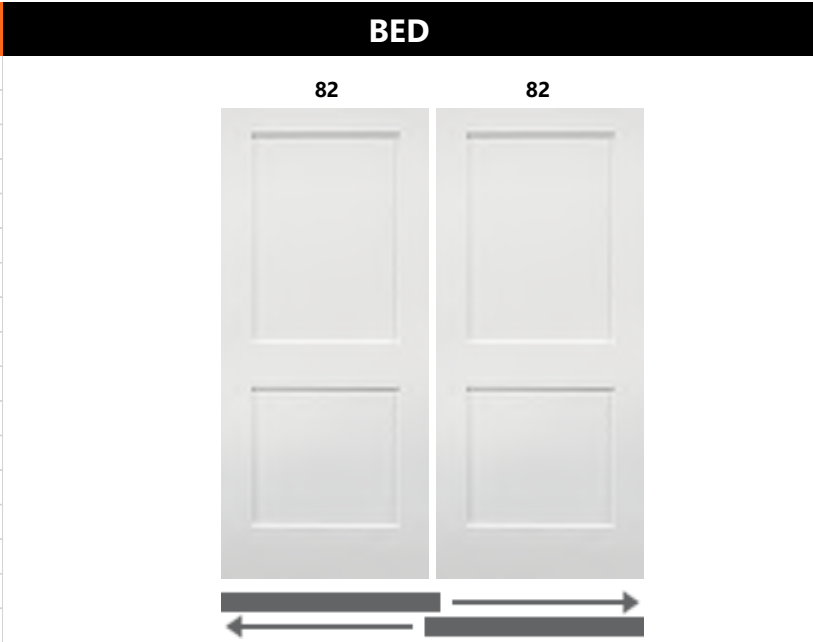
Quantity:

1

Item Total:

\$253.80

Item 4	
Product Line	Stile and Rail Wood Doors
Door Configuration	Double Bypass
Door Height	6/8
Door Width	5/0
Product Series	Builders Choice
Model Number	82
Door Category	Panel/Flush Doors
Material	Wood
Wood Species	Primed
Door Thickness	1 3/8"
Door Style	2 Panel Square Top
Door Sticking Option	Square
Panel Option	Flat Panel
Lock System Type	Lock Prep Only - No Hardware
Door Bore	Cup Pull Prep
Bypass Pulls	Brushed Nickel
Add-Ons	Yes



Size	Width	Height
Finished Opening	59"	81 3/4"

Vendor Item Description
5/0 x 6/8 - 82 - Interior Wood Double Bypass - Lead Time: - 2/6 x 6/8 1 3/8" Primed 82, 2 Panel Square Top Square Stkg Flat Panel - Cup Pull Prep

Add-On Item Description	Qty	Price
JOHNSON TRACK & ROLLERS	1	\$65.00

 WARNING: Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:	\$452.60
Quantity:	1
Item Total:	\$452.60

Item 5	
Product Line	Stile and Rail Wood Doors
Door Configuration	Single Prehung
Door Handing	Right Hand Inswing (1B)
Door Height	6/8
Door Width	3/0
Product Series	Builders Choice
Model Number	82
Door Category	Panel/Flush Doors
Material	Wood
Wood Species	Primed
Door Thickness	1 3/8"
Door Style	2 Panel Square Top
Door Sticking Option	Square
Panel Option	Flat Panel
Lock System Type	Lock Prep Only - No Hardware
Door Bore	Single Bore (Lockset Only)
Bore Backset	2 3/8"
Edge Prep	Mortise (Radius Corner)
Jamb Species	Primed
Jamb Width	4 9/16"
Jamb Type	Paint Grade Applied Stop
Hinge Finish	Brushed Nickel (US15)
Hinge Type	Residential
Hinge Shape	1/4" Radius
Add-Ons	No

BATHROOM



Size	Width	Height
Rough Opening	38"	82"
Net Unit Size	37 1/2"	81 5/8"

Vendor Item Description
3/0 x 6/8 - Right Hand Inswing (1B) - 82 - Interior Wood Single Prehung - Lead Time: - 3/0 x 6/8 1 3/8" Primed 82, 2 Panel Square Top Square Stkg Flat Panel - Single Bore (Lockset Only) 2 3/8" - Mortise (Radius Corner) Edge Prep - 4 9/16" Primed Applied Stop Jamb - Brushed Nickel (US15) 1/4" Radius Residential Hinges

 **WARNING:** Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:

\$253.80

Quantity:

1

Item Total:

\$253.80

Item 6	
Product Line	Stile and Rail Wood Doors
Door Configuration	Single Prehung
Door Handing	Right Hand Outswing (1D)
Door Height	6/8
Door Width	2/2
Product Series	Builders Choice
Model Number	82
Door Category	Panel/Flush Doors
Material	Wood
Wood Species	Primed
Door Thickness	1 3/8"
Door Style	2 Panel Square Top
Door Sticking Option	Square
Panel Option	Flat Panel
Lock System Type	Lock Prep Only - No Hardware
Door Bore	Single Bore (Lockset Only)
Bore Backset	2 3/8"
Edge Prep	Mortise (Radius Corner)
Jamb Species	Primed
Jamb Width	4 9/16"
Jamb Type	Paint Grade Applied Stop
Hinge Finish	Brushed Nickel (US15)
Hinge Type	Residential
Hinge Shape	1/4" Radius
Add-Ons	No

CLOSET

82



OUTSIDE

Size	Width	Height
Rough Opening	28"	82"
Net Unit Size	27 1/2"	81 5/8"

Vendor Item Description

2/2 x 6/8 - Right Hand Outswing (1D) - 82 - Interior Wood Single Prehung - Lead Time:
 - 2/2 x 6/8 1 3/8" Primed 82, 2 Panel Square Top Square Stkg Flat Panel - Single Bore (Lockset Only) 2 3/8" - Mortise (Radius Corner) Edge Prep - 4 9/16" Primed Applied Stop Jamb - Brushed Nickel (US15) 1/4" Radius Residential Hinges


 WARNING: Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:

\$241.80

Quantity:

1

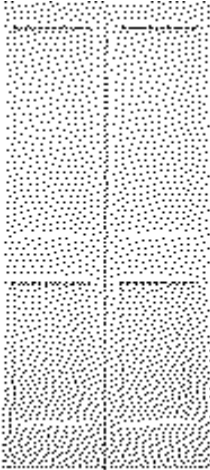
Item Total:

\$241.80

Item 7	
Product Line	Stile and Rail Wood Doors
Door Configuration	Bifold
Door Height	6/8
Door Width	2/6
Product Series	Builders Choice
Model Number	82 BF
Door Category	Panel/Flush Doors
Material	Wood
Wood Species	Primed
Door Thickness	1 3/8"
Door Style	2 Panel Bifold
Door Sticking Option	Square
Panel Option	Flat Panel
Add-Ons	No

W/D

82 BF



Size	Width	Height
Finished Opening	30"	80 5/8"

Vendor Item Description
2/6 x 6/8 - 82 BF - Interior Wood Bifold - Lead Time: - 2/6 x 6/8 1 3/8" Primed 82 BF, 2 Panel Bifold Square Stkg Flat Panel


 WARNING: Cancer and Reproductive Harm | www.P65warnings.ca.gov

Item Price:	\$236.40
Quantity:	1
Item Total:	\$236.40



History of Star Air Kontrol:

A Legacy of Comfort and Quality

The Founding Vision: Family Values at the Core

Star Air Kontrol began as a small, family-operated business with a vision to redefine the residential air conditioning market. Rooted in family values, the company prioritized care, attention to detail, and an unwavering commitment to customer satisfaction. This foundation set the stage for Star Air Kontrol to emerge as a trusted name in the industry, delivering comfort and reliability to countless homes, apartments, hotels, and commercial spaces.

Early Innovations: Meeting Market Needs

In the early years, Star Air Kontrol identified a gap in the market for air conditioning units that balanced affordability with premium quality. Many customers faced the dilemma of choosing between high-cost options or low-performance products. The company addressed this challenge by engineering cooling solutions that combined efficiency, durability, and economic value. This strategy quickly resonated with customers, driving demand for their products and setting a new standard in the industry.

Commitment to Excellence A Customer-Centric Approach

From the outset, Star Air Kontrol adopted a customer-first philosophy. Each air conditioning unit was designed with the end-user in mind, ensuring easy installation, long-lasting performance, and energy efficiency. The company's products weren't just machines—they were integral to enhancing the quality of life for families, guests, and employees. Whether cooling an apartment, creating a relaxing atmosphere in a hotel room, or providing a productive environment in a commercial space, Star Air Kontrol's air conditioners became synonymous with comfort and reliability.

Navigating Growth: Expanding the Reach

As demand for their high-performance air conditioning units grew, Star Air Kontrol scaled its operations while maintaining its family-oriented ethos. The company expanded its product line to cater to diverse needs, from compact solutions for small apartments to robust systems for large commercial properties. Despite their growth, they preserved their commitment to affordability and quality, ensuring that every customer received value without compromise.

Industry Leadership: Cost, Quality, and Innovation

Star Air Kontrol's ability to harmonize cost and quality has been a cornerstone of their success. In an industry often dominated by trade-offs, they consistently delivered products that exceeded expectations in both performance and price. This dedication earned the trust of their clients and cemented their reputation as leaders in the air conditioning market. Customers repeatedly turned to Star Air Kontrol, not just for cooling solutions but for peace of mind.

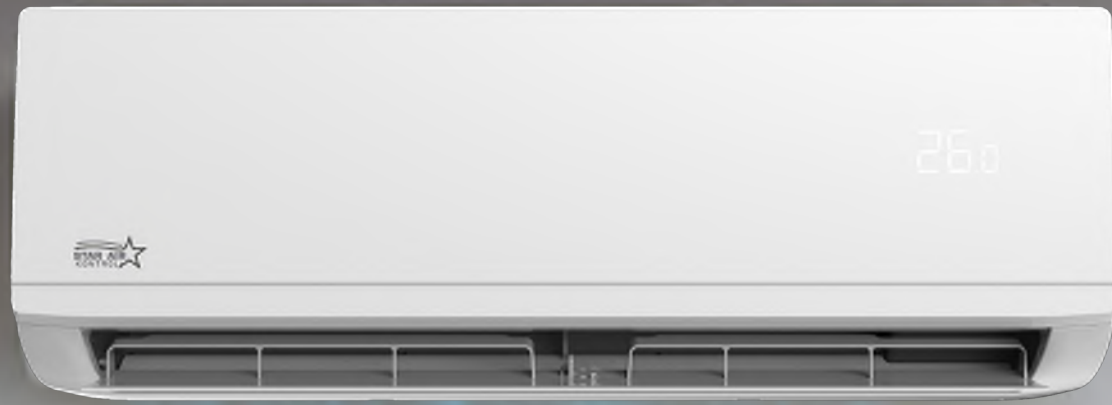
Looking Ahead: A Vision for the Future

Today, Star Air Kontrol continues to build on its legacy of innovation and excellence. By staying ahead of industry trends and embracing emerging technologies, the company remains at the forefront of residential and commercial air conditioning solutions. Their vision extends beyond simply cooling spaces; they aim to create environments where people can live, work, and thrive in comfort.

As they move forward, Star Air Kontrol remains committed to the principles that have defined their journey: family values, customer-centric design, and an unwavering focus on quality and affordability. This dedication ensures that the company will continue to be a trusted name in the air conditioning industry for years to come.

Single Zone Mini Split

High Efficiency And Energy Saving



Full DC Design

DC inverter compressor and motor ensures increased energy savings and reliability of the system.



Smart Defrosting

Precision defrost sensor accurately determines defrost cycle duration allowing the system to provide heat when you need it most.



Wide Temperature Operation

Standard base pan heater ensures reliable heating operation down from -13°F to 75°F and cooling from 5°F to 136°F.



Refrigerant Leakage Alarm

If a refrigerant leak occurs, the unit will shut down to prevent further damage to the system.



Multiple Security Protection



Voltage
Protection



Overheating
Protection



Temperature
Protection

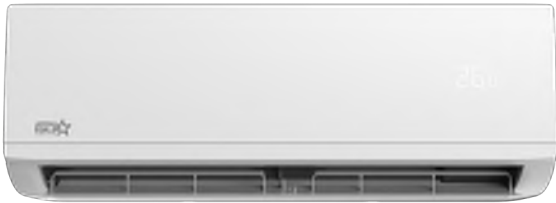


Overcurrent
Protection



Lack-phase
Protection

Single Zone Units - Specs



Information	Attribute Name	Unit									
Basic Information	Indoor Model		SAK-09-WM1/115V	SAK-12-WM1/115V	SAK-09-WM1/220V	SAK-12-WM1/220V	SAK-18-WM1/220V	SAK-24-WM1/220V	SAK-30-WM1/220V	SAK-36-WM1/220V	
	Outdoor Model		SAK-09-WM2/115V	SAK-12-WM2/115V	SAK-09-WM2/220V	SAK-12-WM2/220V	SAK-18-WM2/220V	SAK-24-WM2/220V	SAK-30-WM2/220V	SAK-36-WM2/220V	
Power supply	Voltage	V-Hz-Ph	115V,60Hz,1Ph	115V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
	Voltage range	V	103.5-126.5	103.5-126.5	187-253	187-253	187-253	187-253	187-253	187-253	187-253
National Certification	Cooling Capacity	Btu/h	9000	12000	9000	12000	18000	24000	30000	36000	
	Cooling Input	W	720	1188	714	1111	1667	2400	2730	4000	
	Cooling Current	A	8.0	12.7	5.0	5.0	7.2	10.9	12.1	16.8	
	SEER2	Btu/h/W	21.5	21.2	21.2	21.3	19.2	18.7	20.0	18.0	
	EER2	Btu/h/W	12.5	10.1	12.6	10.8	10.8	10.0	11.0	9.0	
	Cooling Capacity Range	Btu/h	2200~9900	2200~12300	2300~9700	1700~13300	4100~19000	5500~24200	6200~33700	2900~36200	
	Cooling Input (range)	W	120 ~ 790	140 ~ 1200	365 ~ 800	140 ~ 1400	660 ~ 1720	480 ~ 2590	6200 ~ 3200	380 ~ 4140	
	Cooling Current(range)	A	1.3 ~8.6	1.8 ~13.0	1.5 ~5.6	1.3 ~6.2	1.7 ~7.6	2.1 ~11.3	2.6 ~14.1	2.9 ~18.0	
	Heating Capacity	Btu/h	10000	12000	10000	12000	18800	24000	30000	36000	
	Heating Input	W	890	1065	916	1106	1801	2125	2900	3741	
	Heating Current	A	9.8	11.7	4.0	4.9	8.1	9.6	12.9	16.3	
	HSPF2-4	Btu/h/W	9.0	8.7	9.1	9.1	9.6	9.3	9.2	8.5	
	HSPF2-5	Btu/h/W	7.0	6.7	7.0	7.0	7.5	7.3	6.9	6.8	
	COP	W/W	3.29	3.30	3.20	3.18	3.06	3.31	3.03	2.82	
	Heating Capacity Range	Btu/h	4200~10200	3400~12200	4300~11100	3500~13400	6200~20200	6300~27000	11800~30900	3600~36600	
	Heating Input(range)	W	260 ~950	200 ~1230	255 ~1050	325 ~1350	380 ~1850	410 ~2690	675 ~2930	445 ~3950	
	Heating Current(range)	A	1.4 ~10.2	1.1 ~13.2	1.4 ~4.7	1.92 ~6.0	2.1 ~8.2	2.2 ~11.8	3.7 ~13	3.0 ~17.2	
	Heating(H32) Rated capacity	Btu/h	6500	7300	6800	8700	12300	16900	19000	24600	
	Heating(H32) COP	W/W	2.30	2.24	2.45	8.20	2.63	2.53	2.26	2.25	
	Heating(H42) Rated capacity	Btu/h	6500	6600	7000	8000	11500	17000	19700	21400	
	Heating(H42) COP	W/W	1.96	1.85	2.07	1.90	2.14	2.14	1.88	1.80	
	Moisture removal	L/h	1.0	1.4	0.9	1.5	2.5	3.0	3.6	4.9	
	Indoor MINIMUM CIRCUIT AMPACITY	A	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
	Indoor MAX.FUSE	A	15	15	15	15	15	15	15	15	
	Outdoor MINIMUM CIRCUIT AMPACITY	A	18.0	19.0	12.0	13.0	15.0	19.0	28.0	33.0	
	Outdoor MAX.FUSE	A	20	20	15	15	20	20	30	35	
	Connection wiring		14#x4	14#x4	14#x4	14#x4	14#x4	14#x4	14#x4	14#x4	
	Indoor Indoor fan motor RLA	A	0.5	0.6	0.3	0.2	0.5	0.6	0.7	0.7	
	Outdoor Outdoor fan motor RLA	A	0.5	0.6	0.3	0.4	0.4	0.8	1.3	1.3	
	Outdoor Compressor Rated current(RLA)	A	13.5	14.0	7.0	7.5	10.0	13.8	17.5	21.5	
Basic Parameter (NC)	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	m³/h	480 / 400 / 350 / 280 / 200	580 / 525 / 350 / 300 / 160	530 / 450 / 330 / 260 / 180	610 / 520 / 350 / 245 / //	730 / 660 / 440 / 370 / //	1240 / 900 / 680 / 560 / //	1450 / 1245 / 800 / 600 / //	1500 / 1245 / 880 / 680 / //	
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	CFM	282.5 / 235.4 / 206.0 / 164.8 / 117.7	341.4 / 309.0 / 206.0 / 176.6 / 94.2	312.0 / 264.9 / 194.2 / 153.0 / 105.9	359.0 / 306.1 / 206.0 / 144.2 / //	429.7 / 388.5 / 259.0 / 217.8 / //	729.9 / 529.7 / 400.2 / 329.6 / //	853.5 / 732.8 / 470.9 / 353.2 / //	882.9 / 732.8 / 518.0 / 400.2 / //	
	Indoor noise level (Turbo/Hi/Mi/Lo/Si)	dB(A)	43.0/37.5/33.5/25.0/18.0	45.0/40.5/32.5/25.0/17.5	40.5/35.5/31.5/23.0/18.5	44.0/38.0/32.0/22.5/21	50.5/45/36/24/19	54.0/45.0/41.5/27.0/21.5	57.0/51/44.5/34/27	56.5/50.5/44.5/34/28	
	Outdoor noise level (Hi)	dB(A)	52.5	54.0	53.5	54.0	56.0	59.5	61.5	60.5	
	Outdoor Outdoor air flow	CFM	1294.1	1235.3	1294.1	1235.3	1764.7	2235.294118	2235.294118	2235.294118	
	Outdoor Outdoor air flow	m³/h	2200	2100	2200	2100	2100	3000	3800	3800	
	N.A. Design pressure	PSI	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340	
	Outdoor Refrigerant type		R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	
	Outdoor Refrigerant charge	oz	21.52	24.34	21.52	24.69	40.57	53.62	84.66	112.88	
	Outdoor Additional charge per feet	oz/ft	0.16	0.16	0.16	0.16	0.16	0.32	0.32	0.32	
	Outdoor Throttle type		Capillary	Capillary	Capillary	Capillary	Capillary	Throttle valve	EXV+Capillary	EXV+Throttle valve	
	Liquid side	mm(inch)	6.35mm(1/4in)	6.35mm(1/4in)	6.35mm(1/4in)	6.35mm(1/4in)	6.35mm(1/4in)	9.52mm(3/8in)	9.52mm(3/8in)	9.52mm(3/8in)	
	Gas side	mm(inch)	9.52mm(3/8in)	9.52mm(3/8in)	9.52mm(3/8in)	9.52mm(3/8in)	12.7mm(1/2in)	15.9mm(5/8in)	15.9mm(5/8in)	15.9mm(5/8in)	
	Max. Piping Length	ft	82.00	82.00	82.00	98.40	164.00	164.00	213.20	213.20	
	Max. Height Difference	ft	49.20	49.20	49.20	49.20	65.60	82.00	82.00	98.40	
	Indoor Operating Temp. Range(Cooling)	°F	60~90	60~90	60~90	60~90	60~90	60~90	60~90	60~90	
	Outdoor Operating Temp. Range(Heating)	°F	5~75	5~75	5~75	5~75	5~75	5~75	5~75	5~75	
	Indoor Operating Temp. Range(Heating)	°F	32-86	32-86	32-86	32-86	32-86	32-86	32-86	32-86	
	Outdoor Operating Temp. Range(Cooling)	°F	5~122	5~122	5~122	5~122	5~122	5~122	5~122	5~122	
	Indoor Item Net/Gross weight	lb	17.42/22.93	19.40/25.13	16.98/22.27	19.40/25.13	24.47/32.63	30.64/39.46	54.01/40.34	40.34/54.01	
	Indoor Unit Dimension WxDxH	inch	28.43 x 7.36 x 11.42	31.57 x 7.44 x 11.69	28.43 x 7.36 x 11.42	31.57 x 7.44 x 11.69	37.99 x 8.46 x 12.56	42.52 x 8.90 x 13.19	49.57 x 11.10 x 14.25	49.57 x 11.10 x 14.25	
	Indoor Package Dimension WxDxH	inch	31.10 x 10.63 x 14.76	34.45 x 11.22 x 14.96	31.10 x 10.63 x 14.76	34.45 x 11.22 x 14.96	41.14 x 12.01 x 16.14	45.47 x 16.34 x 12.60	52.76 x 17.72 x 15.16	52.76 x 17.72 x 15.16	
Electrical Motor	Outdoor Item Net/Gross weight	lb	56.66/62.17	61.29/67.02	54.23/59.74	59.08/64.37	72.31/78.48	94.58/102.29	142.86/154.54	150.35/160.27	
	Outdoor Unit Dimension WxDxH	inch	30.12 x 11.93 x 21.85	30.12 x 11.93 x 21.85	30.12 x 11.93 x 21.85	30.12 x 11.93 x 21.85	31.69 x 12.99 x 21.81	35.04 x 13.46 x 26.50	37.24 x 16.14 x 31.89	37.24 x 16.14 x 31.89	
Outdoor Electrical Motor	Outdoor Package Dimension WxDxH	inch	34.92 x 13.27 x 24.02	34.92 x 13.27 x 24.02	34.92 x 13.27 x 24.02	34.92 x 13.27 x 24.02	36.02 x 14.57 x 24.21	39.17 x 15.67 x 29.13	42.91 x 19.68 x 34.84	42.91 x 19.68 x 34.84	
	Indoor Indoor Fan Motor Model		ZKFP-20-8-113	ZKFP-20-8-113	ZKFP-20-8-6-7	ZKFP-20-8-6-7	ZKFP-30-8-3-10	ZKFP-58-8-1-10	ZKFP-58-8-1-10	ZKFP-58-8-1-10	
Outdoor Electrical Motor 2	Indoor output	W	20	20	20	20	30	58	58	58	
	Indoor Motor Speed(Hi/Mi/Lo)	r/min	1200/1050/850	1200/1050/850	1250/1100/850	1080/850/650	1200/1000/900	1100/940/780	1200/1050/950	1200/950/750	
Compressor	Outdoor Fan Motor Model		ZKFN-34-10-1-3	ZKFN-34-10-1-3	ZKFN-34-10-1-3	ZKFN-34-10-1L-1	ZKFN-34-10-1-3	ZKFN-80-10-1L	ZKFN-120-8-2	ZKFN-120-8-2	
	Outdoor Fan Motor Output	W	34	34	34	34	34	80	120	120	
	Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min	800/600	780/600	800/600	800/600	840/650	830/550	900/500	880/500	
	Outdoor Compressor Type		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	
	Outdoor Compressor Model		KSK103D33UEZ3	KSN98D64UFZ3	KSK103D33UEZ3	KSN98D64UFZ3	KSN140D21UFZ	KTM240D46UKT2	KTF250D22UMT	KTF250D22UMT	
	Outdoor Compressor Brand		GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	
	Outdoor Compressor Capacity	W	2035/3255	1930/3100 ±3%	2035/3255	1930/3100 ±3%	4385	4780/7600	8095	8095	
	Outdoor Compressor Input Power	W	325/826	292/765 ±3%	325/826	292/765 ±3%	1140	805/2045	2200	2200	
	Outdoor Compressor Rated current	A	2.40/5.65	2.15/4.65 ±3%	2.40/5.65	2.15/4.65 ±3%	7.5	4.15/9.30	10.0	10.0	
	Outdoor Refrigerant oil		VG74	VG74	VG74	VG74	VG74	VG74	VG74	VG74	
	Outdoor Refrigerant oil/oil charge	mL	310	300	310	300	440	620	670	670	

4-Way Cassette 9K-24K

High Efficiency And Energy Saving

Full DC Design

DC inverter compressor and motor ensures increased energy savings and reliability of the system.



Smart Defrosting

Precision defrost sensor accurately determines defrost cycle duration allowing the system to provide heat when you need it most.



Wide Temperature Operation

Standard base pan heater ensures reliable heating operation down from -13°F to 75°F and cooling from 5°F to 136°F.



Refrigerant Leakage Alarm

If a refrigerant leak occurs, the unit will shut down to prevent further damage to the system.



Multiple Security Protection



Voltage
Protection



Overheating
Protection



Temperature
Protection



Overcurrent
Protection



Lack-phase
Protection

4-Way Cassette 9K-24K



Information	Attribute Name	Unit				
Basic Information	Product Number					
	Indoor Product Number					
Power supply	V-Hz-Ph		208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
	Voltage range	V	187-253	187-253	187-253	187-253
National Certification	Cooling Capacity	Btu/h	9000	12000	16800	24000
	Cooling Input	W	629	968	1344	2000
	Cooling Current	A	4.5	4.3	6.1	8.8
	SEER2	Btu/h/W	21.6	21.1	20.7	22
	EER2	Btu/h/W	14.3	12.5	12.5	12.0
	Cooling Capacity Range	Btu/h	3700~12000	3700~14000	5300~17800	12300~26800
	Cooling Input (range)	W	220 ~ 1010	220 ~ 1160	490 ~ 1620	910 ~ 2570
	Cooling Current(range)	A	1.6 ~4.4	1.8 ~5.1	2.2 ~7.1	4.0 ~11.3
	HSPF2-5	Btu/h/W	8.8	7.9	8.5	8.1
	COP	W/W	4.00	3.55	3.36	3.20
	Heating Capacity Range	Btu/h	4700~13700	4700~15000	7100~21500	11600~33100
	Heating Input(range)	W	270 ~1110	270 ~1200	395 ~1930	640 ~2830
	Heating Current(range)	A	1.4 ~4.9	1.4 ~5.3	2.1 ~8.5	3.5 ~12.4
	Heating(H32) Rated capacity	Btu/h	8500	8500	13900	20400
	Heating(H32) COP	W/W	2.79	2.79	2.67	2.73
	Heating(H42) Rated capacity	Btu/h	8300	8400	12800	18500
	Heating(H42) COP	W/W	2.17	2.40	2.20	2.30
	Cooling at 109 F (43°C) Rated capacity	Btu/h	11700	11700	13400	21000
	Cooling at 5 F (-15°C)	Btu/h	12700	13400	17500	23800
	Heating at 17F (-8.33°C) Rated capacity	Btu/h	9300	9300	14800	20500
	Heating at 5F(-15°C) Rated capacity	Btu/h	8300	8400	12800	18500
	Heating at -4F (-20°C) Rated capacity	Btu/h	6100	6700	10600	12800
	Heating at -13F (-25°C) Rated capacity	Btu/h	4900	5300	8300	10400
	Heating at -22F (-30°C) Rated capacity	Btu/h	N/A	N/A	N/A	N/A
	Moisture removal	kg/h	0.74	1.10	2.05	2.56
	Indoor MINIMUM CIRCUIT AMPACITY	A	3.00	3.00	3.00	3.00
Basic Parameter (NC)	N.A. Design pressure	PSI	550 / 340	550 / 340	550 / 340	550 / 340
	Outdoor Refrigerant type		R454B	R454B	R454B	R454B
	Outdoor Refrigerant charge	kg	0.92	0.92	1.36	2.00
	Outdoor Refrigerant charge	oz	32.45	32.45	47.97	70.55
	Outdoor Additional charge per metre	g/m	15	15	15	30
	Outdoor Additional charge	oz/ft	0.16	0.16	0.16	0.32
	Outdoor Throttle type		EXV	EXV	EXV+Throttle valve	EXV+Throttle valve
	Liquid side	mm(inch)	6.35mm(1/4in)	6.35mm(1/4in)	6.35mm(1/4in)	9.52mm(3/8in)
	Gas side	mm(inch)	9.52mm(3/8in)	9.52mm(3/8in)	12.7mm(1/2in)	15.9mm(5/8in)
	Max. refrigerant pipe length	m	25	25	30	50
	Max. Piping Length	ft	82.00	82.00	98.40	164.00
	Max. difference in level	m	15	15	20	25
	Max. Height Difference	ft	49.20	49.20	65.60	82.00
	Room temperature_Indoor(cooling)	°C	16~32	16~32	16~32	16~32
	Outdoor Operating Temp. Range(Cooling)	°F	-13~122	-13~122	-13~122	-13~122
	Indoor Operating Temp. Range(Heating)	°F	32~86	32~86	32~86	32~86
	Outdoor Operating Temp. Range(Heating)	°F	-13~75	-13~75	-13~75	-13~75
	Indoor Item Net/Gross weight	kg	16/19	16.0/19.0	16.0/19.0	21.4/26.8
	Indoor Item Net/Gross weight	lb	35.27/41.89	35.27/41.89	35.27/41.89	47.18/59.08
Size/Weight	Indoor Body Dimension W×D×H	mm	570.0×570.0×245.0	570.0×570.0×245.0	570.0×570.0×245.0	830.0×830.0×205.0
	Indoor Unit Dimension WxDxH	inch	22.44 x 22.44 x 9.65	22.44 x 22.44 x 9.65	22.44 x 22.44 x 9.65	32.68 x 32.68 x 8.07
	Indoor Item Package Dimension(W×D×H)	mm	715×640×295	715×640×295	715×640×295	910×910×250
	Indoor Package Dimension WxDxH	inch	28.15 x 25.20 x 11.61	28.15 x 25.20 x 11.61	28.15 x 25.20 x 11.61	35.83 x 35.83 x 9.84
	Outdoor Item Net/Gross weight	kg	28.2/30.7	28.2/30.7	42.0/45.5	55.4/60.0
	Outdoor Item Net/Gross weight	lb	62.17/67.68	62.17/67.68	92.59/100.31	122.13/132.28
	Outdoor Body Dimension W×D×H	mm	765.0×303.0×555.0	765.0×303.0×555.0	890.0×342.0×673.0	946.0×410.0×810.0
	Outdoor Unit Dimension WxDxH	inch	30.12 x 11.93 x 21.85	30.12 x 11.93 x 21.85	35.04 x 13.46 x 26.50	37.24 x 16.14 x 31.89
	Outdoor Item Package Dimension(W×D×H)	mm	887×337×610	887×337×610	995×398×740	1090×500×885
	Outdoor Package Dimension WxDxH	inch	34.92 x 13.27 x 24.02	34.92 x 13.27 x 24.02	39.17 x 15.67 x 29.13	42.91 x 19.68 x 34.84
Electrical Motor	Indoor Indoor Fan Motor Model		ZKFN-45-8-2	ZKFN-45-8-2	ZKFN-45-8-2	ZKFN-45-8-1
	Indoor Output	W	45	45	45	45
	Indoor Motor Speed(Hi/Mi/Lo)	r/min	600/530/380	700/600/400	800/750/700	624/568/426
Outdoor Electrical Motor	Outdoor Outdoor Fan Motor Model		ZKFN-34-10-1L	ZKFN-34-10-1L	ZKFN-80-10-1L	ZKFN-120-10-1L
	Outdoor Outdoor Fan Motor Output	W	34	34	80	120
	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min	800/700/600	800/700/600	780/700/550	810/700/450
Compressor	Outdoor Compressor Type		ROTARY	ROTARY	ROTARY	ROTARY
	Outdoor Compressor Model		KSK103D33UEZ3	KSK103D33UEZ3	KSN140D58UFZ	KTM240D46UKT2
	Outdoor Compressor Brand		GMCC	GMCC	GMCC	GMCC
	Outdoor Compressor Capacity	W	2035/3255	2035/3255	4315	4780/7600
	Outdoor Compressor Input Power	W	325/826	325/826	1090	805/2045
	Outdoor Compressor Rated current	A	2.40/5.65	2.40/5.65	7.2	4.15/9.30
	Outdoor Refrigerant oil		VG74	VG74	VG74	VG74
	Outdoor Refrigerant oil charge	mL	310	310	440	620

4-Way Cassette 36K-48K



Information	Attribute Name	Unit		
Basic Information	Indoor Model		SAK-36-CT1/220V	SAK-48-CT1/220V
	Outdoor Model		SAK-36-CT2/220V	SAK-48-CT2/220V
Power supply		V-Hz-Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
	Voltage range	V	187-253	187-253
National Certification	Cooling Capacity	Btu/h	36000	48000
	Cooling Input	W	3720	5053
	Cooling Current	A	16.4	22.5
	SEER2	Btu/h/W	20.0	19
	EER2	Btu/h/W	9.6	9.5
	Cooling Capacity Range	Btu/h	6400~39800	10600~50400
	Cooling Input (range)	W	560 ~ 4360	800 ~ 5320
	Cooling Current(range)	A	4.1 ~19.3	5.7 ~23.4
	Heating Capacity	Btu/h	38000	50000
	Heating Input	W	3365	4950
	Heating Current	A	15.0	22.1
	HSPF2-4	Btu/h/W	10.3	9.9
	HSPF2-5	Btu/h/W	7.9	7.7
	COP	W/W	3.31	2.96
	Heating Capacity Range	Btu/h	14400~42200	19900~61700
	Heating Input(range)	W	840 ~3580	1140 ~5940
	Heating Current(range)	A	4.6 ~15.7	6.2 ~26.0
	Heating(H32) Rated capacity	Btu/h	26800	36600
	Heating(H32) COP	W/W	2.68	2.24
	Heating(H42) Rated capacity	Btu/h	26600	40500
	Heating at 5F(-15°C) Rated capacity	Btu/h	26600	40500
	Heating at -4F (-20°C) Rated capacity	Btu/h	20800	32100
	Heating at -13F (-25°C) Rated capacity	Btu/h	16500	25300
	Heating at -22F (-30°C) Rated capacity	Btu/h	N/A	N/A
	Moisture removal	kg/h	4.23	6.27
	Indoor MINIMUM CIRCUIT AMPACITY	A	3.00	3.00
BasicParameter(NC)	Indoor Indoor fan motor RLA	A	1.0	1.0
	Outdoor Outdoor fan motor RLA	A	1.4	1.2
	Outdoor Compressor Rated current(RLA)	A	21.5	24.0
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	m³/h	1770 / 1610 / 1450 / 1280 / 1120	2100 / 1910 / 1730 / 1360 / 1170
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	CFM	1041.8 / 947.6 / 853.5 / 753.4 / 659.2	1236.1 / 1124.2 / 1018.3 / 800.5 / 688.7
	Indoor noise level (Turbo/Hi/Mi/Lo/Si)	dB(A)	54/52.5/47.0/39.5/36.5	56.0/52.5/50.0/42.5/38.50
	Outdoor Outdoor air flow	m³/h	4100	7200
	Outdoor Outdoor Air Flow(CFM)	CFM	2413.3	4237.9
	Outdoor noise level (Hi)	dB(A)	63.0	62.5
	N.A. Design pressure	PSI	550 / 340	550 / 340
	Outdoor Refrigerant type		R454B	R454B
	Outdoor Refrigerant charge	oz	91.71	126.99
	Outdoor Additional charge	oz/ft	0.32	0.32
	Outdoor Throttle type		EXV+Throttle valve	EXV+Throttle valve
	Liquid side	mm(inch)	9.52mm(3/8in)	9.52mm(3/8in)
	Gas side	mm(inch)	19mm(3/4in)	19mm(3/4in)
	Max. Piping Length	ft	246.00	246.00
	Max. Height Difference	ft	98.40	98.40
	Indoor Operating Temp. Range(Cooling)	°F	60~90	60~90
	Outdoor Operating Temp. Range(Cooling)	°F	-13~122	-13~122
	Indoor Operating Temp. Range(Heating)	°F	32-86	32-86
	Outdoor Operating Temp. Range(Heating)	°F	-13~75	-13~75
	Indoor Item Net/Gross weight	lb	59.30/71.43	64.59/76.06
	Indoor Unit Dimension WxDxH	inch	32.68 x 32.68 x 9.65	32.68 x 32.68 x 11.30
	Indoor Package Dimension WxDxH	inch	35.83 x 35.83 x 11.42	35.83 x 35.83 x 12.99
	Outdoor Item Net/Gross weight	lb	152.34/162.48	208.78/239.86
	Outdoor Unit Dimension WxDxH	inch	37.24 x 16.14 x 31.89	37.48 x 16.34 x 52.48
	Outdoor Package Dimension WxDxH	inch	42.91 x 19.68 x 34.84	43.11 x 19.49 x 57.48
ElectricalMotor	Indoor Indoor Fan Motor Model		ZKFN-125-8-1	ZKFN-125-8-1
	Indoor Output	W	125	125
	Indoor Motor Speed(Hi/Mi/Lo)	r/min	696/632/568	720/660/580
OutdoorElectricalMotor	Outdoor Outdoor Fan Motor Model		ZKFN-120-10-1L	ZKFN-85-10-1L
	Outdoor Outdoor Fan Motor Output	W	120	85
	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min	950/800/500	850/750/650
OutdoorElectricalMotor2	Outdoor Outdoor Fan Motor Model		N/A	ZKFN-85-10-1L
	Outdoor Outdoor Fan Motor Output power2	W	N/A	85
	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)2	r/min	N/A	850/750/650
Compressor	Outdoor Compressor Type		ROTARY	ROTARY
	Outdoor Compressor Model		KTF310D430UMT	KTQ420D1UMU
	Outdoor Compressor Brand		GMCC	GMCC
	Outdoor Compressor Capacity	W	10010	13700
	Outdoor Compressor Input Power	W	2765	3700
	Outdoor Compressor Rated current	A	5.4	7.0
	Outdoor Refrigerant oil		VG74	VG74
	Outdoor Refrigerant oil charge	mL	1000	1400

One Way Cassette 9K-18K

High Efficiency And Energy Saving



Full DC Design

DC inverter compressor and motor ensures increased energy savings and reliability of the system.



Smart Defrosting

Precision defrost sensor accurately determines defrost cycle duration allowing the system to provide heat when you need it most.



Wide Temperature Operation

Standard base pan heater ensures reliable heating operation down from -13°F to 75°F and cooling from 5°F to 136°F.



Refrigerant Leakage Alarm

If a refrigerant leak occurs, the unit will shut down to prevent further damage to the system.



Multiple Security Protection



Voltage
Protection



Overheating
Protection



Temperature
Protection



Overcurrent
Protection



Lack-phase
Protection

One Way Cassette 9K-18K



Information	Attribute Name	Unit			
Basic Information Basic Parameter	Indoor Market Model		SAK-09-OCT1/220V	SAK-12-OCT1/220V	SAK-18-OCT1/220V
	Outdoor Market Model		SAK-09-OCT2/220V	SAK-12-OCT2/220V	SAK-18-OCT2/220V
		V-Hz-Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
National Certification	Voltage range	V	187-253	187-253	187-253
	Cooling Capacity	Btu/h	9000	12000	18000
	Cooling Input	W	625	976	1440
	Cooling Current	A	4.2	4.4	6.4
	SEER2	Btu/h/W	22.1	22.1	22.2
	EER2	Btu/h/W	14.4	12.3	12.5
	Cooling Capacity Range	Btu/h	3700~11400	3900~13800	4000~18800
	Cooling Input (range)	W	220 ~ 990	220 ~ 1180	450 ~ 1660
	Cooling Current(range)	A	1.7 ~4.4	1.7 ~5.2	2.1 ~7.3
	Heating Capacity	Btu/h	11000	12000	18000
	Heating Input	W	1007	1034	1600
	Heating Current	A	4.4	4.7	7.1
	HSPF2-4	Btu/h/W	11.8	10	12.2
	HSPF2-5	Btu/h/W	9.0	7.8	8.6
	COP	W/W	3.20	3.40	3.30
	Heating Capacity Range	Btu/h	4100~14300	4700~15300	7600~22800
	Heating(H42) COP	W/W	2.18	2.48	2.24
	Cooling at 109 F (43°C) Rated capacity	Btu/h	10100	12400	14500
	Cooling at 5 F (-15°C)	Btu/h	12200	14400	18000
	Heating at 17F (-8.33°C) Rated capacity	Btu/h	9900	10000	15200
	Heating at 5F(-15°C) Rated capacity	Btu/h	8000	8600	13100
	Heating at -4F (-20°C) Rated capacity	Btu/h	6100	6800	10300
	Heating at -13F (-25°C) Rated capacity	Btu/h	5000	5000	8100
	Heating at -22F (-30□) Rated capacity	Btu/h	/	/	/
	Moisture removal	kg/h	1.00	1.54	2.08
	Indoor MINIMUM CIRCUIT AMPACITY	A	3.00	3.00	3.00
	Indoor MAX.FUSE	A	15	15	15
	Outdoor MINIMUM CIRCUIT AMPACITY	A	12.00	12.00	18.00
	Outdoor MAX.FUSE	A	15	15	20
	Connection wiring		14#x4	14#x4	14#x4
	Indoor Indoor fan motor RLA	A	0.8	1.0	1.2
	Outdoor Outdoor fan motor RLA	A	0.6	0.6	0.9
	Indoor noise level (Turbo/Hi/Mi/Lo/Si)	dB(A)	46.5/38.5/34.0/24.0/22.0	N/A/43.0/37.5/26.0/22.0	N/A/44.0/41.0/29.5/24.0
	Outdoor Outdoor air flow	m³/h	2100	2100	3000
	Outdoor Outdoor Air Flow(CFM)	CFM	1236.1	1236.1	1765.8
	Outdoor noise level (Hi)	dB(A)	54.5	54.5	57.5
Basic Parameter (NC)	N.A. Design pressure	PSI	550 / 340	550 / 340	550 / 340
	Outdoor Refrigerant type		R454B	R454B	R454B
	Outdoor Refrigerant charge	oz	32.45	32.45	47.97
	Outdoor Additional charge	oz/ft	0.16	0.16	0.16
	Outdoor Throttle type		EXV	EXV	EXV+Throttle valve
	Liquid side	mm(inch)	6.35mm(1/4in)	6.35mm(1/4in)	6.35mm(1/4in)
	Gas side	mm(inch)	9.52mm(3/8in)	9.52mm(3/8in)	12.7mm(1/2in)
	Max. Piping Length	ft	82.00	82.00	98.40
	Max. Height Difference	ft	49.20	49.20	65.60
	Indoor Operating Temp. Range(Cooling)	°F	60~90	60~90	60~90
	Outdoor Operating Temp. Range(Cooling)	°F	-13~122	-13~122	-13~122
	Indoor Operating Temp. Range(Heating)	°F	32-86	32-86	32-86
Size/Weight	Outdoor Operating Temp. Range(Heating)	°F	-13~75	-13~75	-13~75
	Indoor Item Net/Gross weight	lb	45.19/82.45	45.19/82.45	45.19/82.89
	Indoor Unit Dimension WxDxH	inch	50.31 x 13.19 x 8.98	50.31 x 13.19 x 8.98	50.31 x 13.19 x 8.98
	Indoor Package Dimension WxDxH	inch	57.60 x 22.48 x 22.64	57.60 x 22.48 x 22.64	57.60 x 22.48 x 22.64
	Outdoor Item Net/Gross weight	lb	62.17/67.68	62.17/67.68	92.59/100.31
	Outdoor Unit Dimension WxDxH	inch	30.12 x 11.93 x 21.85	30.12 x 11.93 x 21.85	35.04 x 13.46 x 26.50
Electrical Motor	Outdoor Package Dimension WxDxH	inch	34.92 x 13.27 x 24.02	34.92 x 13.27 x 24.02	39.17 x 15.67 x 29.13
	Indoor Indoor Fan Motor Model		ZKFN-30-8-43	ZKFN-30-8-43	ZKFN-30-8-43
	Indoor Output	W	30	30	30
Outdoor Electrical Motor	Indoor Motor Speed(Hi/Mi/Lo)	r/min	1104/994/784	1075/982/797	1344/1184/1024
	Outdoor Outdoor Fan Motor Model		ZKFN-34-10-1L	ZKFN-34-10-1L	ZKFN-80-10-1L
	Outdoor Outdoor Fan Motor Output	W	34	34	80
Outdoor Electrical Motor2	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min	800/700/600	800/700/600	780/700/550
	Outdoor Outdoor Fan Motor Model		N/A	N/A	N/A
	Outdoor Outdoor Fan Motor Output power2	W	N/A	N/A	N/A
Compressor	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)2	r/min	N/A	N/A	N/A
	Outdoor Compressor Type		ROTARY	ROTARY	ROTARY
	Outdoor Compressor Model		KSK103D33UEZ3	KSK103D33UEZ3	KSN140D58UFZ
	Outdoor Compressor Brand		GMCC	GMCC	GMCC
	Outdoor Compressor Capacity	W	2035/3255	2035/3255	4315
	Outdoor Compressor Input Power	W	325/826	325/826	1090
	Outdoor Compressor Rated current	A	2.40/5.65	2.40/5.65	7.2
	Outdoor Refrigerant oil		VG74	VG74	VG74
	Outdoor Refrigerant oil charge	mL	310	310	440

Slim Duct 9K-60K

LIGHT COMMERCIAL

High Efficiency And Energy Saving

Full DC Design

DC inverter compressor and motor ensures increased energy savings and reliability of the system.



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Precision defrost sensor accurately determines defrost cycle duration allowing the system to provide heat when you need it most.



Wide Temperature Operation

Standard base pan heater ensures reliable heating operation down from -13°F to 75°F and cooling from 5°F to 136°F.



Refrigerant Leakage Alarm

If a refrigerant leak occurs, the unit will shut down to prevent further damage to the system.



Multiple Security Protection



Voltage
Protection



Overheating
Protection



Temperature
Protection



Overcurrent
Protection



Lack-phase
Protection

Slim Duct 9K-60K

Information	Attribute Name	Unit					
Basic Information	Indoor Market Model	SAK-09-DT1/220V		SAK-09-DT1/220V		SAK-12-DT1/220V	
	Outdoor Market Model	SAK-09-DT2/220V		SAK-12-DT2/220V		SAK-18-DT2/220V	
Power supply		V-Hz-Ph		208/230V,60Hz,1Ph		208/230V,60Hz,1Ph	
	Voltage range	V		187-253		187-253	
National Certification	Cooling Capacity	Btu/h		9000		11500	
	Cooling Input	W		703		983	
	Cooling Current	A		4.7		4.5	
	SEER2	Btu/h/W		19.5		19.0	
	EER2	Btu/h/W		12.8		11.7	
	Cooling Capacity Range	Btu/h		3100~11900		3100~13000	
	Cooling Input (range)	W		150 ~ 1040		150 ~ 1210	
	Cooling Current(range)	A		1.3 ~4.7		1.3 ~5.4	
	Heating Capacity	Btu/h		10000		12000	
	Heating Input	W		800		1028	
	Heating Current	A		3.6		4.7	
	HSPF2-4	Btu/h/W		11.0		10.2	
	HSPF2-5	Btu/h/W		8.8		8.0	
	COP	W/W		3.66		3.42	
	Heating Capacity Range	Btu/h		3600~14000		3700~15600	
	Heating Input(range)	W		250 ~1190		255 ~1310	
	Heating Current(range)	A		1.9 ~5.4		1.4 ~5.8	
	Heating(H32) Rated capacity	Btu/h		8900		9500	
	Heating(H32) COP	W/W		2.62		2.57	
	Heating(H42) Rated capacity	Btu/h		8600		8800	
	Moisture removal	kg/h		0.68		0.99	
	Indoor MINIMUM CIRCUIT AMPACITY	A		3.00		3.00	
	Indoor MAX.FUSE	A		15		15	
	Outdoor MINIMUM CIRCUIT AMPACITY	A		12.00		12.00	
	Outdoor MAX.FUSE	A		15		15	
	Connection wiring	14#x4		14#x4		14#x4	
	Indoor Indoor fan motor RLA	A		1.2		1.2	
	Outdoor Outdoor fan motor RLA	A		0.6		0.6	
	Outdoor Compressor Rated current(RLA)	A		7.3		7.3	
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	m³/h		550 / 450 / 350 / 250 / 200		680 / 550 / 450 / 300 / 200	
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	CFM		323.7 / 264.9 / 206.0 / 147.2 / 117.7		400.2 / 323.7 / 264.9 / 176.6 / 117.7	
	Indoor noise level (Turbo/Hi/Mi/Lo/Si)	dB(A)		N/A/34/32.5/29/24		N/A/37/35/33.5/26	
	Indoor static pressure range	in.w.g.		0-0.4		0-0.4	
	Outdoor Outdoor air flow	m³/h		2100		2100	
	Outdoor Outdoor Air Flow(CFM)	CFM		1236.1		1236.1	
	Outdoor noise level (Hi)	dB(A)		54.0		55.5	
Basic Parameter (NC)	N.A. Design pressure	PSI		550 / 340		550 / 340	
	Outdoor Refrigerant type	R454B		R454B		R454B	
	Outdoor Refrigerant charge	oz		32.45		32.45	
	Outdoor Additional charge	oz/ft		0.16		0.16	
	Outdoor Throttle type	EXV		EXV		EXV	
	Liquid side	mm(inch)		6.35mm(1/4in)		6.35mm(1/4in)	
	Gas side	mm(inch)		9.52mm(3/8in)		9.52mm(3/8in)	
	Max. Piping Length	ft		82.00		82.00	
	Max. Height Difference	ft		49.20		49.20	
	Indoor Operating Temp. Range(Cooling)	°F		60~90		60~90	
	Outdoor Operating Temp. Range(Cooling)	°F		-13~122		-13~122	
	Indoor Operating Temp. Range(Heating)	°F		32-86		32-86	
	Outdoor Operating Temp. Range(Heating)	°F		-13~75		-13~75	
	Indoor Item Net/Gross weight	lb		39.46/46.74		39.46/46.74	
	Indoor Unit Dimension WxDxH	inch		27.56 x 19.92 x 7.87		27.56 x 19.92 x 7.87	
	Indoor Package Dimension WxDxH	inch		33.86 x 21.26 x 11.22		33.86 x 21.26 x 11.22	
Electrical Motor	Outdoor Item Net/Gross weight	lb		62.17/67.68		62.17/67.68	
	Outdoor Unit Dimension WxDxH	inch		30.12 x 11.93 x 21.85		30.12 x 11.93 x 21.85	
	Outdoor Package Dimension WxDxH	inch		34.92 x 13.27 x 24.02		34.92 x 13.27 x 24.02	
	Indoor Indoor Fan Motor Model	ZKFN-81-8-1		ZKFN-81-8-1		ZKFN-81-8-1	
	Indoor Output	W		81		81	
Outdoor Electrical Motor	Indoor Motor Speed(Hi/Mi/Lo)	r/min		980/910/840		1070/990/910	
	Outdoor Outdoor Fan Motor Model	ZKFN-34-10-1L		ZKFN-34-10-1L		ZKFN-34-10-1L	
	Outdoor Outdoor Fan Motor Output	W		34		34	
Outdoor Electrical Motor2	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min		800/700/600		800/700/600	
	Outdoor Outdoor Fan Motor Model	N/A		N/A		N/A	
	Outdoor Outdoor Fan Motor Output power2	W		N/A		N/A	
Compressor	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)2	r/min		N/A		N/A	
	Outdoor Compressor Type	ROTARY		ROTARY		ROTARY	
	Outdoor Compressor Model	KSK103D33UEZ3		KSK103D33UEZ3		KSK103D33UEZ3	
	Outdoor Compressor Brand	GMCC		GMCC		GMCC	
	Outdoor Compressor Capacity	W		2035/3255		2035/3255	
	Outdoor Compressor Input Power	W		325/826		325/826	
	Outdoor Compressor Rated current	A		2.40/5.65		2.40/5.65	
	Outdoor Refrigerant oil	mL		VG74		VG74	
	Outdoor Refrigerant oil charge	mL		310		310	

Slim Duct 36K-60K



Information	Attribute Name	Unit			
Basic Information	Indoor Model		SAK-36-DT1/220V	SAK-48-DT1/220V	SAK-60-DT1/220V
	Outdoor Model		SAK-36-DT2/220V	SAK-48-DT2/220V	SAK-60-DT2/220V
Power supply		V-Hz-Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
	Voltage range	V	187-253	187-253	187-253
National Certification	Cooling Capacity	Btu/h	36000	48000	58000
	Cooling Input	W	3530	4800	5800
	Cooling Current	A	15.3	21.3	25.6
	SEER2	Btu/h/W	18.7	17.1	17.0
	EER2	Btu/h/W	10.1	10.0	10.0
	Cooling Capacity Range	Btu/h	7900~42500	11000~56500	14600~63000
	Cooling Input (range)	W	660 ~ 4250	930 ~ 5850	1200 ~ 6780
	Cooling Current(range)	A	3.1 ~18.7	6.1 ~25.6	5.4 ~29.7
	Heating Capacity	Btu/h	40000	50000	60000
	Heating Input	W	3170	4200	4750
	Heating Current	A	14.2	19.0	21.0
	HSPF2-4	Btu/h/W	10.2	9.8	9.7
	HSPF2-5	Btu/h/W	7.8	7.7	7.6
	COP	W/W	3.70	3.49	3.70
	Heating Capacity Range	Btu/h	8100~43500	11200~60500	11800~67000
	Heating Input(range)	W	520 ~3360	780 ~5100	775 ~5170
	Heating Current(range)	A	2.8 ~14.7	4.2 ~22.4	4.2 ~22.7
	Indoor MINIMUM CIRCUIT AMPACITY	A	4.00	5.00	5.00
	Indoor MAX.FUSE	A	15	15	15
	Outdoor MINIMUM CIRCUIT AMPACITY	A	33.00	39.00	42.00
	Outdoor MAX.FUSE	A	35	40	45
	Connection wiring		14#x3	14#x3	14#x3
	Indoor Indoor fan motor RLA	A	3.2	4.0	4.0
	Outdoor Outdoor fan motor RLA	A	1.4	1.2	2.2
	Outdoor Compressor Rated current(RLA)	A	21.5	24.0	25.0
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	m³/h	2100 / 1800 / 1600 / 1300 / N/A	2800 / 2500 / 2200 / 1800 / N/A	3400 / 2900 / 2400 / 1900 /N/A
	Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si)	CFM	1236.1 / 1059.5 / 941.8 / 765.2 / N/A	1648.1 / 1471.5 / 1294.9 / 1059.5 / N/A	2001.2 / 1706.9 / 1412.6 / 1118.3 / N/A
	Indoor noise level (Turbo/Hi/Mi/Lo/Si)	dB(A)	N/A/45/39.5/33/30	N/A/51/46/42/40	N/A/52/48/43/42
	Indoor static pressure range	in.w.g.	0-0.8	0-0.8	0-0.8
	Outdoor Outdoor air flow	m³/h	4100	7200	7200
	Outdoor Outdoor Air Flow(CFM)	CFM	2413.3	4237.9	4237.9
	Outdoor noise level (Hi)	dB(A)	63.0	64.0	64.0
Basic Parameter (NC)	N.A. Design pressure	PSI	550 / 340	550 / 340	550 / 340
	Outdoor Refrigerant type		R454B	R454B	R454B
	Outdoor Refrigerant charge	oz	91.71	126.99	144.62
	Outdoor Additional charge	oz/ft	0.32	0.32	0.32
	Outdoor Throttle type		EXV+Throttle valve	EXV+Throttle valve	EXV+Throttle valve
	Liquid side	mm(inch)	9.52mm(3/8in)	9.52mm(3/8in)	9.52mm(3/8in)
	Gas side	mm(inch)	19mm(3/4in)	19mm(3/4in)	19mm(3/4in)
	Max. Piping Length	ft	246.00	246.00	246.00
	Max. Height Difference	ft	98.40	98.40	98.40
	Indoor Operating Temp. Range(Cooling)	°F	60~90	60~90	60~90
	Outdoor Operating Temp. Range(Cooling)	°F	-13~122	-13~122	-13~122
	Indoor Operating Temp. Range(Heating)	°F	32-86	32-86	32-86
	Outdoor Operating Temp. Range(Heating)	°F	-13~75	-13~75	-13~75
	Indoor Item Net/Gross weight	lb	106.26/120.37	111.33/124.78	161.38/178.13
	Indoor Unit Dimension WxDxH	inch	47.24 x 29.53 x 11.81	47.24 x 29.53 x 11.81	55.12 x 31.50 x 14.96
	Indoor Package Dimension WxDxH	inch	56.10 x 33.86 x 14.13	56.10 x 33.86 x 14.13	62.99 x 36.02 x 17.52
	Outdoor Item Net/Gross weight	lb	152.34/162.48	208.78/239.86	209.44/240.08
	Outdoor Unit Dimension WxDxH	inch	37.24 x 16.14 x 31.89	37.48 x 16.34 x 52.48	37.48 x 16.34 x 52.48
	Outdoor Package Dimension WxDxH	inch	42.91 x 19.68 x 34.84	43.11 x 19.49 x 57.48	43.11 x 19.49 x 58.27
	Indoor Indoor Fan Motor Model		ZKFN-400-8-1	ZKFN-560-8-4	ZKFN-560-8-4
	Indoor Output	W	400	560	560
ElectricalMotor	Indoor Motor Speed(Hi/Mi/Lo)	r/min	790/730/670	1000/950/880	850/780/700
	Outdoor Outdoor Fan Motor Model		ZKFN-120-10-1L	ZKFN-85-10-1L	ZKFN-85-8-22-5
	Outdoor Outdoor Fan Motor Output	W	120	85	85
OutdoorElectricalMotor	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min	950/800/500	850/750/650	850/750/650
	Outdoor Outdoor Fan Motor Model		N/A	ZKFN-85-10-1L	ZKFN-85-8-22-5
	Outdoor Outdoor Fan Motor Output power2	W	N/A	85	85
OutdoorElectricalMotor2	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)2	r/min	N/A	850/750/650	850/750/650
	Outdoor Compressor Type		ROTARY	ROTARY	ROTARY
Compressor	Outdoor Compressor Capacity	W	10010	13700	13700
	Outdoor Compressor Input Power	W	2765	3700	3700
	Outdoor Compressor Rated current	A	5.4	7.0	7.0
	Outdoor Refrigerant oil		VG74	VG74	VG74
	Outdoor Refrigerant oil charge	mL	1000	1400	1400

Platinum series 24V 18K-60K

High Efficiency And Energy Saving

Full DC Design

DC inverter compressor and motor ensures increased energy savings and reliability of the system.



Smart Defrosting

Precision defrost sensor accurately determines defrost cycle duration allowing the system to provide heat when you need it most.



Wide Temperature Operation

Standard base pan heater ensures reliable heating operation down from -13°F to 75°F and cooling from 5°F to 136°F.



Refrigerant Leakage Alarm

If a refrigerant leak occurs, the unit will shut down to prevent further damage to the system.



Multiple Security Protection



Voltage
Protection



Overheating
Protection



Temperature
Protection



Overcurrent
Protection



Lack-phase
Protection

Platinum series 24V 18K-60K



Information	Attribute Name	Unit	22023110001987	22023110001929	22023110001967	22023110001930	22023110001768	22023110001847
Basic Information	Indoor Market Model		SAK-18FDN1-M18M	SAK-24FDN1-M18M	SAK-30FDN1-M18M	SAK-36FDN1-M18M	SAK-48FDN1-M18M	SAK-60FDN1-M18M
	Outdoor Market Model		SAK-18FDN2-M18M	SAK-24FDN2-M18M	SAK-30FDN2-M18M	SAK-36FDN2-M18M	SAK-48FDN2-M18M	SAK-60FDN2-M18M
	IDU Power Supply(Volts; Hz; Phase)		115/208/230V,60Hz,1Ph	115/208/230V,60Hz,1Ph	115/208/230V,60Hz,1Ph	115/208/230V,60Hz,1Ph	115/208/230V,60Hz,1Ph	115/208/230V,60Hz,1Ph
Basic Parameter	ODU Power Supply(Volts; Hz; Phase)		208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
	Cooling Capacity	Btu/h	18000	24000	30000	36000	48000	54000
	Cooling Input	W	1635	2181	2778	3600	4800	6200
National Certification	Cooling Current	A	7.5	9.5	12.2	15.2	22.2	27.4
	SEER2	Btu/h/W	18.8	18.1	17	16.1	16	15.2
	EER2	Btu/h/W	11	11	10.7	10	10	8.6
	Cooling Capacity Range	Btu/h	5350~20000	7200~27000	10400~34000	8300~38900	16600~49900	21000~55000
	Cooling Input (range)	W	400 ~ 1900	530 ~ 2870	735 ~ 3230	710 ~ 4500	1400 ~ 5350	1800 ~ 6410
	Cooling Current(range)	A	2.8 ~8.5	3.4 ~12.6	3.55 ~14.23	4.7 ~18.3	6.5 ~23.8	8.3 ~28.5
	Heating Capacity	Btu/h	18000	26000	31000	36000	48000	54000
	Heating Input	W	1675	2396	2595	3100	4085	4650
	Heating Current	A	7.3	10.4	11.5	13.1	18.3	21
	HSPF2-4	Btu/h/W	9.1	9.7	8.5	8.7	8.5	8.4
	HSPF2-5	Btu/h/W	7	7.7	6.6	7	7.2	6.8
	COP	W/W	3.15	3.18	3.5	3.4	3.45	3.37
	Heating Capacity Range	Btu/h	5600~19000	7100~30000	6400~32000	6700~41300	15300~49500	26000~55000
	Heating Input(range)	W	340 ~1650	440 ~2730	455 ~2550	460 ~3550	1025 ~4650	975 ~4810
	Heating Current(range)	A	2.6 ~7.5	2.40 ~12.0	2.46 ~11.3	2.5 ~15.6	3.6 ~20.6	6.6 ~21.5
	Heating(H32) Rated capacity	Btu/h	12600	20000	18500	25600	32400	33000
	Heating(H32) COP	W/W	2.6	2.42	2.4	2.6	2.47	2.34
	Heating(H42) Rated capacity	Btu/h	11200	21600	19100	27000	38000	38000
	Heating(H42) COP	W/W	2	1.87	2	2	1.85	1.8
	Cooling at 109 F (43°C) Rated capacity	Btu/h	15600	25000	29000	31000	42000	41800
	Cooling at 5 F (-15°C)	Btu/h	19600	25600	34000	36000	53500	58000
	Heating at 17F (-8.33°C) Rated capacity	Btu/h	12600	22000	20600	30000	39000	34500
	Heating(H42) 5F(-15°C) Rated capacity	Btu/h	11200	21600	19100	27000	38000	38000
	Heating at -4F (-20°C) Rated capacity	Btu/h	9000	17300	15500	25000	34200	33000
	Heating at -13F (-25°C) Rated capacity	Btu/h	7200	14400	12200	20000	32500	29000
	Indoor MAX.FUSE	A	15	15	15	15	15	15
	Outdoor MINIMUM CIRCUIT AMPACITY	A	16	19	22.5	24	36	39
	Outdoor MAX.FUSE	A	20	20	25	30	40	40
	Communication Wiring		AWG 20-2	AWG 20-2	AWG 20-2	AWG 20-2	AWG 20-2	AWG 20-2
	Indoor Indoor fan motor RLA	A	2	3	4.5	4.5	7.8	8.3
	Outdoor Outdoor fan motor RLA	A	0.8	1	1.1	1.5	2	1.2
	Outdoor Compressor Rated current(RLA)	A	10	14	17	17.5	27	30
	Outdoor Outdoor air flow	m³/h	2465	3000	5100	4100	5160	5160
	Outdoor Outdoor air flow	CFM	1450.9	1765.7	3001.8	2413.2	3037.1	3037.1
	Outdoor noise level (Hi)	dB(A)	55	60	60	63	65	65
	N.A. Design pressure	PSI	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340
Basic Parameter (NC)	Outdoor Refrigerant type		R454B	R454B	R454B	R454B	R454B	R454B
	Outdoor Refrigerant charge	kg	1.45	2.1	2.6	3.3	3.8	3.8
	Outdoor Refrigerant charge	oz	51.15	74.08	91.71	116.40	134.04	134.04
	Outdoor Additional charge per metre	g/m	65	65	65	65	65	65
	Outdoor Additional charge	oz/ft	0.7	0.7	0.7	0.7	0.7	0.7
	Gas side	mm(inch)	19mm(3/4in)	19mm(3/4in)	19mm(3/4in)	19mm(3/4in)	19mm(3/4in)	19mm(3/4in)
	Max. refrigerant pipe length	m	30	50	50	75	75	75
	Max. Piping Length	ft	98.4	164	164	246	246	246
	Max. difference in level	m	20	25	25	30	30	30
	Max. Height Difference	ft	65.6	82	82	98.4	98.4	98.4
	Room temperature_Indoor(cooling)	°C	16~32	16~32	16~32	16~32	16~32	16~32
	Room temperature_Outdoor(cooling)	°C	-25~50	-25~50	-25~50	-25~50	-25~50	-25~50
	Room temperature_Indoor(heating)	°C	0~30	0~30	0~30	0~30	0~30	0~30
	Room temperature_Outdoor(heating)	°C	-25~24	-25~24	-25~24	-25~24	-25~24	-25~24
	Indoor Operating Temp. Range(Cooling)	°C	60~90	60~90	60~90	60~90	60~90	60~90
	Outdoor Operating Temp. Range(Cooling)	°C	-13~122	-13~122	-13~122	-13~122	-13~122	-13~122
	Indoor Operating Temp. Range(Heating)	°C	32~86	32~86	32~86	32~86	32~86	32~86
	Outdoor Operating Temp. Range(Heating)	°C	-13~75	-13~75	-13~75	-13~75	-13~75	-13~75
Size/Weight	Outdoor Item Net/Gross weight	lb	77.16/83.77	102.29/109.13	141.76/152.34	153.22/163.58	192.90/224.21	192.90/224.21
	Outdoor Unit Dimension WxDxH	inch	31.69 x 12.99 x 21.81	35.04 x 13.46 x 26.50	37.24 x 16.14 x 31.89	37.24 x 16.14 x 31.89	38.58 x 16.34 x 38.39	38.58 x 16.34 x 38.39
	Outdoor Package Dimension WxDxH	inch	36.02 x 14.57 x 24.21	39.17 x 15.67 x 29.13	42.91 x 19.68 x 34.84	42.91 x 19.68 x 34.84	45.08 x 19.68 x 42.52	45.08 x 19.68 x 42.52
Electrical Motor	Indoor Indoor Fan Motor Model		ZKFD-250-8-1	ZKFD-250-8-1	ZKFD-375-8-1-1	ZKFD-375-8-1-1	ZKFD-750-8-1-1	ZKFD-750-8-1-1
	Indoor Output	W	250	250	375	375	750	750
Outdoor Electrical Motor	Outdoor Outdoor Fan Motor Model		ZKFN-34-10-1L-1	ZKFN-80-8-3	ZKFN-120-8-2	ZKFN-120-10-1L	ZKFN-250-10-1	ZKFN-250-10-1
	Outdoor Outdoor Fan Motor Speed(Hi/Mid/L0)	r/min	840/700/650	810/700/450	850/700/500	800/750/500	850/800/750/650	850/800/750/650
Compressor	Outdoor Compressor Type		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
	Outdoor Compressor Model		KSN140D58UFZ	KTM240D46UKT2	KTF250D222UMT	KTF310D43UMT	MTH550UKPC8FU	MTH550UKPC8FU
	Outdoor Compressor Brand		GMCC	GMCC	GMCC	GMCC	HIGHLY	HIGHLY
	Outdoor Compressor Capacity	W	4315	4780/7600	8095	10010	16250	16250
	Outdoor Compressor Input Power	W	1090	805/2045	2200	2765	4900	4900
	Outdoor Compressor Rated current	A	7.2	4.15/9.30	10	5.4	21	21
	Outdoor Refrigerant oil		VG74	VG74	VG74	VG74	HAF68D1C	HAF68D1C
	Outdoor Refrigerant oil charge	mL	440	620	670	1000	1800	1800



Inverter Square Ducted Split

High Efficiency And Energy Saving

Inverter Square Ducted Split



Information	Model		SAK-24SQN2-M18M	SAK-36SQN2-M18M	SAK-48SQN2-M18M	SAK-60SQN2-M18M
Electrical Daten	Voltage-Phase-Hz	V-Ph-Hz	208/230V-1Ph-60Hz			
	Minimum Circuit Ampacity	A	15	20	25	30
	Max. Overcurrent Protection	A	20	25	35	40
	Min / Max Volts	V	187 / 253	187 / 253	187 / 253	187 / 253
Refer to Room Area	square feet		365~660	536~990	709~1320	835~1650
	Brand		GMCC	GMCC	GMCC	GMCC
	Type		Rotary	Rotary	Rotary	Rotary
	Hz		18-100	18-100	18-100	18-100
	Capacity	W/h	6700	6700	13000	13000
	Input	W	1805	1805	3650	3650
	Rated current(RLA)	A	10	12.8	15.8	20
	Refrigerant oil	ml	920	920	1300cc	1300cc
	Refrigerant Oil Type		POE VG74			
	LRA		52	52	58.1	58.1
	Brand		board-ocean	board-ocean	board-ocean	board-ocean
	Type		DC	DC	DC	DC
	Power	W	200	200	200	200
	Rated HP	HP	1/4	1/4	1/4	1/4
	Speed	rpm	1100	1100	1100	1100
	FLA (RLA)	A	1.8	1.8	1.8	1.8
Outdoor Fan	material		Metal			
	Type		Axial flow			
	Diameter	mm	φ595×115×φ12.7	φ595×115×φ12.7	φ595×115×φ12.7	φ595×115×φ12.7
Outdoor coil	Number of row		2	2	2	2
	Number of U-tubes		28		38	
	Tube outside dia	mm (in.)	7 (9/32)	7 (9/32)	7 (9/32)	7 (9/32)
	Fin spacing / Thickness / Type	mm / mm	1.4 / 0.095 / Hydrophilic aluminium			
	Length (outside/inside row)*Width*Height	mm	(2136/2076)*26.76*588		(2136/2073)*26.74*798	
Outdoor Sound power	Tube pitch(a) × row pitch(b)	mm	13.37 × 21	13.37 × 21	13.37 × 21	13.37 × 21
		dB(A)	76	79	76	79
Outdoor CFM		CFM	3900	3900	4440	4440
Outdoor Electrical Motor2	Dimension (W×H×D)	mm	750*635*750		750*835*750	
		inch	29-1/8×25×29-1/8		29-1/8×32-7/8×29-1/8	
	Packing (W×H×D)	mm	760×660×760		760×875×760	
		in.	30×26×30		30/16×34-4/9×3	
	Net / Gross weight	kg	62/66	62/66	85/ 89	85/ 89
		lbs	137/146	137/146	187 / 196	187 / 196
Refrigerant system	Liquid side / Gas side	in.	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8	3/8 / 7/8
	Factory charge	oz	R454B/116.4	R454B/116.4	R454B/155.2	R454B/155.2
	Metering device		EEV	EEV	EEV	EEV
	Maximum Line Length	ft	100	100	100	100
	Maximum Elevation Difference	ft	50	50	50	50
Communica- tion wire		AWG	20	20	20	20
Operating temperatures	Cooling	°F	5-125	5-125	5-125	5-125
	Heating	°F	-4-86	-4-86	-4-86	-4-86

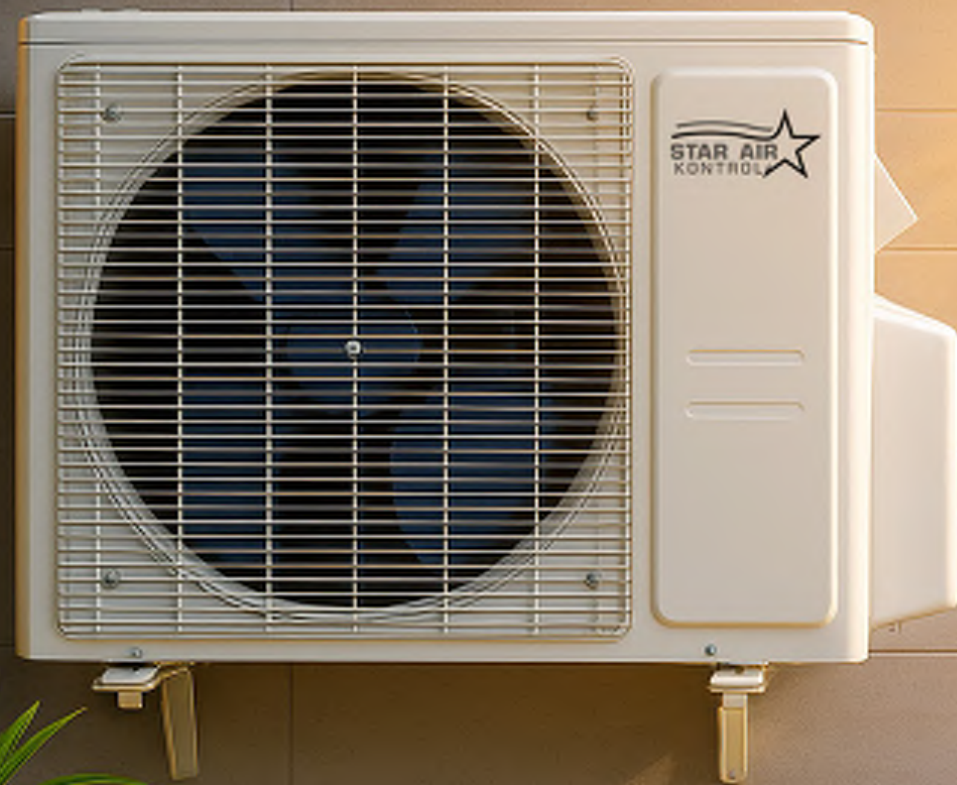
Inverter Square Ducted Split



Information		SAK-24SQN2-M18M		SAK-36SQN2-M18M		SAK-48SQN2-M18M		SAK-60SQN2-M18M		
Cooling	Capacity	Btu/h	24000		34000		47500		55000	
	Power input (A2)	w	1819		2864		4145		5549	
	EER2	Btu/h.W	13.3		11.7		11.3		10	
	SEER2	Btu/h.W	20		18.6		17.5		17	
Heating	Capacity	Btu/h	24000		34200		48000		57000	
		Btu/h(17°F)	19200		24000		40000		42000	
		Btu/h(5°F)	20000		24000		34200		42500	
	Power input (H1)	w	1957		2997		3580		4900	
	5□ COP	W/W	2.1		2.1		2.1		2	
	HSPF2	Btu/h.W	9.4		9.0		9.0		8.6	
Minimum Circuit Ampacity		A	4		4		5		5	
Max. Overcurrent Protection		A	6		6		10		10	
Indoor coil	Number of rows*coil quantity		4*2		4*2		2*4		2*4	
	Tube outside dia. / Type		7mm / Rifled tube							
	Fin spacing / Thickness / Type		mm / mm 1.6 / 0.095 / Hydrophilic aluminium							
	Length*Width*Height		mm 447*420*53.48				546*511*26.74			
	Tube pitch(a) × row pitch(b)		mm 13.37*10.5		13.37*10.5		13.37*10.5		13.37*10.5	
Indoor motor	type		ECM							
	Rate power	W	249		373		560		560	
	Rated HP	HP	1/3		1/2		3/4		3/4	
	Rated RPM	r/min	1050		1050		1050		1050	
	FLA (RLA)	A	2.6		3.8		5.4		5.4	
Indoor fan	material		Galvanized plate							
	Type		Centrifugal							
	Diameter	inch	φ273×272×φ12.7-195		φ273×272×φ12.7-195		φ273×272×φ12.7-195		φ273×272×φ12.7-195	
Indoor air flow (HI/LOW)		CFM	700/600		1050/750		1550/1180		1550/1180	
ESP		Pa	125		125		125		125	
Indoor noise level (HI/LOW)		dB(A)	51/48		52/49		59/55		59/55	
Metering device	Throttle type		TXV							
	Model number		3TR		3TR		5TR		5TR	
Electrical Data	Voltage-Phase-Hz		V-Ph-Hz		208/230V 1Ph 60Hz					
	Minimum Circuit Ampacity		4		4		5		5	
	Max. Overcurrent Protection		6		6		10		10	
	Min / Max Volts		V 187 / 253		187 / 253		187 / 253		187 / 253	
	communication wire		AWG 20		20		20		20	
Indoor unit	Dimension (W×H×D)	mm	500×1162×560				560×1350×620			
		in.	19-5/8×45-3/4×22				22×53-1/8×24-1/2			
	Packing (W×H×D)	mm	580×1210×650				640×1390×710			
		in.	22-5/6×47-5/8×25-3/5				25-1/5×54-3/4×28			
	Net / Gross weight	kg	59 / 65		59 / 65		77/83		77/83	
		lbs	130/ 143		130/ 143		169/182		169/182	
Moisture Removal		kg/h	2.79		4.2		5.12		7.07	
Refrigerant piping Liquid side / Gas side		in.	3/8 / 3/4		3/8 / 3/4		3/8 / 7/8		3/8 / 7/8	

Multi Zone Condenser 18K-60K

High Efficiency And Energy Saving



Full DC Design

DC inverter compressor and motor ensures increased energy savings and reliability of the system.



Smart Defrosting

Precision defrost sensor accurately determines defrost cycle duration allowing the system to provide heat when you need it most.



Wide Temperature Operation

Standard base pan heater ensures reliable heating operation down from -13°F to 75°F and cooling from 5°F to 136°F.



Refrigerant Leakage Alarm

If a refrigerant leak occurs, the unit will shut down to prevent further damage to the system.



Multiple Security Protection



Voltage Protection



Overheating Protection



Temperature Protection

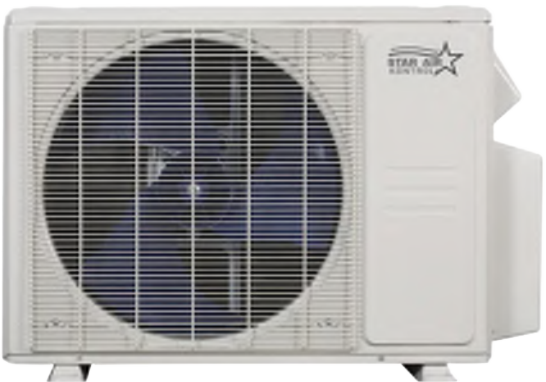


Overcurrent Protection



Lack-phase Protection

Multi Zone Condenser 18K-60K



Information	Attribute Name	Unit				
Basic Information	Outdoor Market Model		SAK-18-DZ/220V	SAK-27-TZ/220V	SAK-36-QZ/220V	SAK-48-QZ/220V
	Power Supply(Volts; Hz; Phase)		208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph	208/230V,60Hz,1Ph
Basic Parameter	Voltage Range	V	187-253	187-253	187-253	187-253
	Cooling Capacity	Btu/h	18000	26000	35000	45000
National Certification	Cooling Input	W	1440	2130	2915	3850
	Cooling Current	A	6.2	10	13	17.3
	SEER2	Btu/h/W	23	23	23.1	21.3
	EER2	Btu/h/W	12.5	12.2	12	11.7
	Cooling Capacity Range	Btu/h	5400~21600	7200~32000	9000~40000	12000~49000
	Cooling Input (range)	W	400 ~ 1900	500 ~ 2730	600 ~ 4100	800 ~ 5900
	Cooling Current(range)	A	3.5 ~8.5	4.0 ~12.0	5.0 ~18.5	7.0 ~26.0
	Heating Capacity	Btu/h	19000	27000	37000	48000
	Heating Input	W	1465	2198	3098	3908
	Heating Current	A	6.6	10	14	17.3
	HSPF2-4	Btu/h/W	10	9.5	10	10
	HSPF2-5	Btu/h/W	7.7	7.1	7.5	7.7
	COP	W/W	3.8	3.6	3.5	3.6
	Heating Capacity Range	Btu/h	5700~21600	8400~29200	10000~40000	13000~55000
	Heating Input(range)	W	350 ~1900	500 ~2560	600 ~3950	800 ~5200
	Heating Current(range)	A	3.0 ~8.5	4.0 ~11.5	5.0 ~18.0	7.0 ~23.0
	Heating(H32) Rated capacity	Btu/h	13500	18000	27000	34000
	Heating(H32) COP	W/W	2.6	2.5	2.4	2.4
	Heating(H42) Rated capacity	Btu/h	13500	19000	26000	36000
	Heating(H42) COP	W/W	2.2	2	2	2.1
Basic Parameter (NC)	Cooling Capacity at 109 F (43°C)	Btu/h	16000	24800	32000	42000
	Cooling Capacity at 5F (-15°C)	Btu/h	25000	30000	37000	45000
	Heating Capacity at 17F (-8.33°C)	Btu/h	14000	18000	31600	34000
	Heating Capacity at 5F(-15°C)	Btu/h	13500	19000	26000	36000
	Heating Capacity at -4F (-20°C)	Btu/h	10000	13600	24000	25000
	Heating Capacity at -13F (-25°C)	Btu/h	8000	11800	20000	20000
	Heating Capacity at -22F (-30°C)	Btu/h	/	/	/	/
	Moisture removal	L/h	1.3	2	0.5	3.5
	Outdoor MINIMUM CIRCUIT AMPACITY	A	16	23	30.5	40
	Outdoor Max.Fuse	A	20	25	35	45
	Connection wiring		AWG 14-4	AWG 14-4	AWG 14-4	AWG 14-4
	Outdoor Outdoor fan motor RLA	A	1.0	1.2	1.3	2.5
	Outdoor Compressor Rated current(RLA)	A	8.2	12.1	17	24
	Outdoor Outdoor air flow	m³/h	3000	3620	3650	7650
	Outdoor Outdoor Air Flow(CFM)	CFM	1765.8	2130.7	2148.4	4502.8
	Outdoor noise level (Hi)	dB(A)	60	61	63	65
	N.A. Design pressure	PSI	550 / 340	550 / 340	550 / 340	550 / 340
	Outdoor Refrigerant type		R454B	R454B	R454B	R454B
	Outdoor Refrigerant charge	ozs	61.73	84.66	120.63	148.15
	Outdoor Additional refrigerant per ft	oz/ft	0.16	0.16	0.16	0.16
OutdoorElec-tricalMotor	Outdoor Throttle type		EXV+Capillary	EXV	EXV	EXV
	Liquid side	mm(inch)	3x6.35mm(3x1/4in)	4x6.35mm(4x1/4in)	5x6.35mm(5x1/4in)	6x6.35mm(6x1/4in)
	Gas side	mm(inch)	3x9.52mm(3x3/8in)	3x9.52mm+1x12.7mm(3x3/8in+1x-1/2in)	4x9.52mm+1x12.7mm(4x3/8in+1x-1/2in)	4x9.52mm+2x12.7mm(4x3/8in+2x-1/2in)
	Max. Length per each indoor unit	ft	98.4	114.8	114.8	114.8
	Total Maximum Piping Length per system	ft	196.8	262.4	262.4	262.4
	Max. Height Difference	ft	49.2	49.2	49.2	49.2
	Indoor Operating Temp. Range(Cooling)	°F	60~90	60~90	60~90	60~90
	Outdoor Operating Temp. Range(Cooling)	°F	-13~122	-13~122	-13~122	-13~122
	Indoor Operating Temp. Range(Heating)	°F	32-86	32-86	32-86	32-86
	Outdoor Operating Temp. Range(Heating)	°F	-13~75	-13~75	-13~75	-13~75
	Outdoor Item Net/Gross weight	lb	100.53/109.35	138.89/149.69	168.87/180.12	222.00/254.19
	Outdoor Unit Dimension WxDxH	inch	35.04 x 13.46 x 26.50	37.24 x 16.14 x 31.89	37.24 x 16.14 x 31.89	37.48 x 16.34 x 52.48
	Outdoor Package Dimension WxDxH	inch	40.55 x 17.24 x 29.53	42.91 x 19.68 x 34.84	42.91 x 19.68 x 34.84	43.11 x 19.49 x 58.27
	Outdoor Outdoor Fan Motor Model		ZKFN-80-10-1L	ZKFN-120-8-9	ZKFN-120-8-9	ZKFN-85-10-1L
	Outdoor Outdoor Fan Motor Output	W	80	120	120	85
	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)	r/min	750/600/500	800/700/650	900/750/600	800/700/650
	Outdoor Outdoor Fan Motor Model					ZKFN-85-10-1L
	Outdoor Outdoor Fan Motor Output power2	W				85
	Outdoor Outdoor Fan Motor Speed(Hi/Mid/Lo)2	r/min				800/700/650
Compressor	Outdoor Compressor Type		Twin-ROTARY	ROTARY	ROTARY	ROTARY
	Outdoor Compressor Model		KTN150D30UFZA	KTM240D46UKT2	KTF310D43UMT	KTQ420D1UMU
	Outdoor Compressor Brand		GMCC	GMCC	GMCC	GMCC
	Outdoor Compressor Capacity	W	4730	4780/7600	10010	13700
	Outdoor Compressor Input Power	W	1250	805/2045	2765	3700
	Outdoor Compressor Rated current	A	8.1	4.15/9.30	5.4	7
	Outdoor Refrigerant oil		V74	V74	V74	V74
	Outdoor Refrigerant oil charge	mL	450	620	1000	1400



TTW (Through The Wall)

High Efficiency And Energy Saving

TTW

Star Air Model		TTW-12AC-115V		TTW-12AC-220V		TTW-08HS-115V		TTW-14HS-220V	
Code									
Factory model									
Sale model									
Power supply	115V_1Ph,FREQUENCY_60HZ		115V,1Ph,60Hz	208And230V_1Ph,FREQUENCY_60HZ		208/230V,1Ph,60Hz	115V_1Ph,FREQUENCY_60HZ	208And230V_1Ph,FREQUENCY_60HZ	208And230V_1Ph,FREQUENCY_60HZ
Cooling (Standard conditions)	Capacity	Btu/h	8300	12000	12000/11700	14000/13600	8000	12000/11700	14000/13600
	CEER	Btu/h/W	10.6	10.5	10.5	9.5	9.6	9.5	9.5
	Input	W	760	1140	1140/1110	1400/1360	750	1180/1160	1430/1400
	Current	A	7.8	11.3	5.6/6.3	7.0/7.7	9.4	6.5/7.0	7.9/8.5
	Standby power	W	1.25	1.25	1.435	1.435	/	/	/
Heating(PTC)	Capacity	Btu/h	0	/	0	/	4200	10600/8600	10600/8600
	Input(Heater)	W	0	/	0	/	1220	3450/2821	3450/2821
	Total Input	W	/	/	/	/	/	/	3450
	Current	A	0	/	0	/	11	15/13.5	15.0/14.0
Heating(Heat pump) (Standard conditions)	Capacity	Btu/h	/	/	/	/	/	/	/
	Input	W	/	/	/	/	/	/	/
	Current	A	/	/	/	/	/	/	/
	COP	W/W	/	/	/	/	/	/	/
Moisture Removal	L/h	/	/	/	/	/	/	/	/
Rated Power Input	W	1120	1420	1472	1818	1350	3450	3450	3450
Rated Current	A	11.2	14.0	7.9	9.7	11	15	15	15
Starting current	A	33.6	52	28.5	35	33	45	/	/
Compressor	Model	KSN66E11VBZC1		KSM99E11VEZ	KSM100N11VEZ	KSM120N1UEZ	KSN66E11VBZC1	KSM100N11VEZ	KSM120N1UEZ
	Type	ROTARY		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
	Brand	GMCC		GMCC	GMCC	GMCC	GMCC	GMCC	GMCC
	Capacity	W	2395	3545	3590/3620	3640/3680	2395	3590/3620	3640/3680
	Input	W	577	840	850/875±3%	1240/1260±3%	585	850/875±3%	1240/1260±3%
	current	A	5.10	7.30	4.18/3.85±3%	6.00/5.55±3%	5.10	4.18/3.85±3%	6.00/5.55±3%
	Locked rotor Amp(LRA)	A	36	49	28.5±10%	34.5±10%	29	28.5±10%	34.5±10%
	Thermal protector	/		UP3-27/HPA-544	UP-A2H/HPA-325H	HPA-530H	/	UP-A2H/HPA-325H	HPA-530H
	Thermal protector position	INTERNAL		INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL
	Capacitor	uF	50	70	35	35	50	35	35
Refrigerant type	Refrigerant oil/oil charge	ml	VG68 190±10	ESTER OIL VG74 320	VG68 300±15	VG68 300±15	VG68 190±10	VG68 300±15	VG68 300±15
	Type	R32		R32	R32	R32	R32	R32	R32
		0.31kg		0.49kg	0.47kg	0.51kg	0.34kg	0.49kg	0.55kg
Design pressure	oz(1kg=35.274oz)								
	psi	300/520	300/520	300/520	300/520	300/520	300/520	300/520	300/520
Fan motor	Model	YKTS-70-4-13		YKTS-105-4-52	YKTS-100-4-52	YKTS-100-4-52	ZKFP-120-8-97L	ZKFP-120-8-97L	ZKFP-120-8-97L
	Input	W	140	170	170	170	/	/	/
	current	A	/	/	/	/	/	/	/
	Capacitor	uF	15	15	5	5	/	/	/
	Speed(hi/mi/lo)	r/min	1330/1180/1040	1480/1360/1230	1460/1380/1280	1500/1440/1340	1370/1210/1040	1550/1440/1340	1550/1440/1340
	Capacitor class	P2		P2	S3	P2	/	/	/
	Insulation class	B		B	B	B	B	B	B
	Waterproofing class	/		/	/	/	IP24	IP24	IP24
Evaporator	a.Number of rows	2		4	4	4	2	3	4
	b.Tube pitch(a)x row pitch(b)	mm	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6
	c.Fin spacing	mm	1.2	1.3	1.3	1.3	1.2	1.3	1.3
	d.Fin type (code)	Hydrophilic aluminum		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	e.Tube outside dia.and type	mm	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube
	f.Coil length x height x width	mm	506x252x26.74	505x252x53.48	505x252x53.48	505x252x53.48	506x252x26.74	505x252x53.48	505x252x53.48
	g.Number of circuits	2		4	4	4	2	4	4
Indoor side air flow(Hi/Mi/Lo)	m3/h	459/396/345	470/426/374	467/441/403	476/450/417	440/386/327	465/428/392	463/428/396	
	1 m3/h = 0.588 ft3/min	ft3/min	270.00/232.94/202.94	276.47/250.59/220.00	274.71/259.41/237.06	280.00/264.71/245.29	258.82/227.06/192.35	273.53/251.76/230.59	272.35/251.76/232.94
Indoor side noise level (Hi/Mi/Lo)	dB(A)	55.6/52.4/49.5	59/56.8/55.3	60.2/59/57.5	60.5/59.5/58	58.7/55.4/52	61.8/60/58	62.3/61.2/59.8	



Spec for TTW (Continued)

Star Air Model		TTW-12AC-115V		TTW-12AC-220V		TTW-08HS-115V		TTW-14HS-220V	
Condenser	a.Number of rows		3	3	3	3	3	3	3
	b.Tube pitch(a)x row pitch(b)	mm	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6
	c.Fin spacing	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	d.Fin type (code)		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	e.Tube outside dia.and type	mm	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube
	f.Coil length x height x width	mm	380x351x34.8	380x351x34.8	380x351x34.8	380x351x34.8	380x351x34.8	380x351x34.8	380x351x34.8
	g.Number of circuits		2	2	2	2	2	2	2
Outdoor air flow (Hi/Med/Lo) m3/h	m3/h		795/670/567	925/825/721	906/845/770	942/895/828	722/613/504	767/695/623	816/747/680
1 m3/h = 0.588 ft3/min	ft3/min		467.65/394.12/333.53	544.12/485.29/424.12	532.94/497.06/452.94	554.12/526.47/487.06	424.71/360.59/296.47	451.18/408.82/366.47	480.00/439.41/400.00
Outdoor side noise level(Hi)	dB(A)		63.6/59.4/55.9	68.7/65.3/62	68.3/66.7/63.9	69.9/68/65.9	63.5/59.7/55.9	65.4/63.2/61.1	69.8/67.2/64.8
Plug type			LCDI(5-15P)	LCDI(5-15P)	LCDI(6-15P)	LCDI(6-15P)	LCDI(6-15P)	LCDI(6-20P)	LCDI(6-20P)
Power cord type			16#x3	14#x3	14#x3	14#x3	14#x3	12#x3	12#x3
Power Cord Length		mm	2140	2140	1980	1980	1700	1700	1700
Power Cord Length		ft	7.02	7.02	6.50	6.50	5.58	5.58	5.58
Control type			(Remote Control)	(Remote Control)	(Remote Control)	(Remote Control)	(Remote Control)	(Remote Control)	(Remote Control)
Operation temp	indoor(cooling/heating)	℃	17-32//	17-32//	17-32//	17-32//	17-32//	17-32//	17-32//
		℉(=℃*1.8+32)	///	///	///	///	///	///	///
	outdoor(cooling/heating)	℃	18-43//	18-43//	18-43//	18-43//	18-43/-5-24	18-43/-5-24	18-43/-5-24
		℉(=℃*1.8+32)	///	///	///	///	///	///	///
Dimension (W*D*H) TTW/OPP/MSII/HD(D*W*H))	mm		615x515x369	615x515x369	615x515x369	615x515x369	615x515x369	615x515x369	615x515x369
	in		24.21x20.28x14.53	24.21x20.28x14.53	24.21x20.28x14.53	24.21x20.28x14.53	24.21x20.28x14.53	24.21x20.28x14.53	24.21x20.28x14.53
Packing (W*D*H)	mm		710x675x430	710x675x430	710x675x430	710x675x430	710x675x430	710x675x430	710x675x430
	in		27.95x26.57x16.93	27.95x26.57x16.93	27.95x26.57x16.93	27.95x26.57x16.93	27.95x26.57x16.93	27.95x26.57x16.93	27.95x26.57x16.93
Net/Gross weight	kg		29.7/35	34/39.7	33.8/39.4	34.2/39.8	30.3/35	34/38.9	35.1/39.8
	lb		65.48/77.16	74.96/87.52	74.52/86.86	75.40/87.74	66.80/77.16	74.96/85.76	77.38/87.74
Loading quantity 20' /40' /40'HQ	Pieces		120/255/306	120/255/306	120/255/306	120/255/306	120/255/306	120/255/306	120/255/306
Window Opening	Width(Min/Max)(Inches)	in	26.8/36	26.8/36	26.8/36	26.8/36	26.8/36	26.8/36	26.8/36
	Height(Min)(Inches)	in	15.5	15.5	15.5	15.5	15.5	15.5	15.5

Window Units

High Efficiency And Energy Saving





Window Units

Star Air Model		WAC-05AC-115V	WAC-06AC-115V	WAC-08AC-115V	WAC-10AC-115V	WAC-12AC-115V	WAC-15AC-115V	WAC-18AC-220V	WAC-25AC-220V	WAC-08HS-115V	WAC-12HS-220V	WAC-18HS-220V	WAC-25HS-220V	
Code														
Sale model		MWHUK-05CRN8-BCK0	MWHUK-06CRN8-BCK0	MWHUK-08CRN8-BCJ9	MWAUK-10CRN8-BCJ9	MWAUK-12CRN8-BCJ9	MWHUK-15CRN8-BCK8	MWJUK-18CRN8-MCK8	MWJUK-25CRN8-MCJ3	MWKUK-08ERN8-BCJ9	MWKUK-12ERN8-MCJ9	MWCUWH-18ERN8-MCJ7	MWCUWH-23ERN8-MCI4	
Power supply	V-Ph-Hz	115V,1Ph,60Hz	115V,1Ph,60Hz	115V_1Ph,FREQUENCY_60HZ	115V,1Ph,60Hz	115V_1Ph,FREQUENCY_60HZ	115V,1Ph,60Hz	208And230V_1Ph,FREQUENCY_60HZ	208And230V_1Ph,FREQUENCY_60HZ	115V_1Ph,FREQUENCY_60HZ	208And230V_1Ph,FREQUENCY_60HZ	208_230V_1Ph,FREQUENCY_60HZ	208And230V_1Ph,FREQUENCY_60HZ	
Cooling (Standard conditions)	Capacity	Btu/h	5000	6000	8000	10000	12000	15100	18000/17700	25000/24700	8000	12000/11600	18800/18400	23200/22900
	CEER	Btu/h/W	11.0	11.0	10.9	10.9	10.9	11.8	11.8	10.3	10.9	10.9	10.7	9.4
	Input	W	450	545	714	905	1100	1280	1525/1500	2427/2398	734	1103/1066	1760/1720	2470/2440
	Current	A	4.60	5.1	6.75	9.4	10.03	11.85	7.2/7.6	12.2/13.0	8.9	6.1/6.9	9.8/10.8	13.5/14.8
	Standby power	W	0.9	/	/	1.2	1.1	1.2	1.35	1.55	1.136	1.45	1.34	1.42
Heating(PTC)	Capacity	Btu/h	0	/	/	0	0	0	/	/	3500	11000/8500	16000/13000	16000/13000
	Input(Heater)	W	0	/	/	0	0	0	/	/	1390	3360/3200	4800/3925	4800/3925
	Total Input	W	/	/	/	0	0	/	/	/	1380	3600	/	/
	Current	A	0	/	/	0	0	0	/	0	11.9	14.5/15.7	21.9/19.9	22/20
Heating(Heat pump) (Standard conditions)	Capacity	Btu/h	0	/	/	0	0	0	/	/	/	/	/	/
	Input	W	0	/	/	0	0	0	/	/	/	/	/	/
	Current	A	0	/	/	0	0	0	/	/	/	/	/	/
	COP	W/W	0	/	/	0	0	0	/	/	0	/	/	/
Moisture Removal	L/h	/	/	/	0	0	/	/	/	0	/	/	/	
Rated Power Input	W	580	700	1050	1067	1354	1650	2150	3300	1400	3360	5180	5180	
Rated Current	A	5.7	6.5	10.3	10.61	12.88	15	11.5	16.8	11.9	15.7	22.5	22.5	
Starting current	A	20	20	30.3	31.83	38.64	45	34.5	50.4	36	47.4	67.5	67.5	
Compressor	Model		KSN43E21VAJ3	KSN51E11VAJB3	KSN66E11VBZC1	KSN78E11VBZC1	KSM103E12VEZF	KSM120E1VET	KSF150N1VETB3	KSG230N1VMT	KSN66E11VBZC1	KSM106N1VDZK	KSF160N1VET	KSF210N1VETB3
	Type		/	Rotary	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
	Brand		GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC	GMCC
	Capacity	W	1530	1865	2395	2875	3775	4450	5610	8610/8695	2395	3910/3970	5940/6085	7920/7980
	Input	W	395	450	585	685	900	1060	1270	1950/1985	577	925/935	1375/1390	1800/1840
	current	A	3.55	3.98	5.10	6.15	7.90	9.35	5.8	9.45/8.65	5.10	4.48/4.12	6.75/6.1	8.75/8.10
	Locked rotor Amp(LRA)	A	20	/	29	36	54	at 1φ-120V-60Hz 57±10% A	40	58	36	24	39	55
	Thermal protector		UP3-A0H/HPA-318H	UP3-B1H/HPA-222H	/	UP3-65H	UP3-27/HPA-544	/	HPA-436	HPA-552/UP3-29	/	UP3-41/HPA-622	UP3-65/HPA-736	HPA-552H
	Thermal protector position		INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL	INTERNAL
	Capacitor	uF	35	40	50	50	70	70	50	60	50	35	50	60
Refrigerant type	Refrigerant oil/oil charge	ml	VG68 190	ESTER OIL V68 190±10	VG68 190±10	VG68 190	ESTER OIL VG74 320	ESTER OIL VG74-320ml	VG74 290±15ml	VG74 610	VG68 190±10	ESTER OIL VG68 300	VG74/410	VG68/410
	Type		R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32
	oz(1kg=35.274oz)		0.185kg	0.22kg	0.26kg	0.33kg	0.37kg	0.54kg	0.7kg	0.83kg	0.315kg	0.41kg	0.64kg	0.85kg
Design pressure	psi		300/520	300/520	300/520	300/520	300/520	300/520	300/520	300/580	300/580	300/520	300/520	
Fan motor	Model		YKTS-35-4-66L	YKTS-40-4-64L	YKTS-60-4-56L	YKTS-90-4-12L	YKTS-90-4-12L	YKSS-110-6-1L	YKSS-140-6-3L	YKSS-150-6-7L	YKTS-90-4-12L-2	YKTS-105-4-55L	ZKFP-175-8-1L	ZKFP-175-8-1L
	Input	W	/	/	95	145	145	210	190	280	/	/	/	/
	current	A	/	/	/	/	/	/	/	/	/	/	/	/
	Capacitor	uF	6	6	15	15	15	15	5	8	15	4	/	/
	Speed(hi/mi/lo)	r/min	1530/1370/1250	1580/1380/1250	1540/1340/1200	1585/1365/1246	1585/1365/1246	1040/950/830	1110/1000/890	1120/1030/930	1350/1250/1120	1500/1380/1240	1100/1000/900	1150/1070/1000
	Capacitor class		S2	S2	S2	P2	P2	S2	P2	P2	S2	P2	/	/
	Insulation class		B	B	B	B	B	B	B	B	B	B	B	B
	Waterproofing class		/	IP24	/	/	/	/	/	/	IP24	IP24	IP24	IP24



Window Units (Continued)

Star Air Model		WAC-05AC-115V	WAC-06AC-115V	WAC-08AC-115V	WAC-10AC-115V	WAC-12AC-115V	WAC-15AC-115V	WAC-18AC-220V	WAC-25AC-220V	WAC-08HS-115V	WAC-12HS-220V	WAC-18HS-220V	WAC-25HS-220V
Evaporator	a.Number of rows	2	2	3	3	3	3	4	3	3	3	4	4
	b.Tube pitch(a)x row pitch(b)	mm 19.5x11.6	14.5x12.56	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	14.5x12.56	19.5x11.6	19.5x11.6
	c.Fin spacing	mm 1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.3	1.3
	d.Fin type (code)	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	e.Tube outside dia.and type	mm Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube
	f.Coil length x height x width	mm 275x210x26.74	275x210x26.74	320x210x40.11	380x252x40.11	380x252x40.11	480*294*40.11	480x294x53.48	560x315x40.11	380x252x40.11	380x252x40.11	480x294x53.48	480x294x53.48
	g.Number of circuits	1	1	2	2	2	4	4	4	2	2	4	4
Indoor side air flow(Hi/Mi/Lo)	m3/h	272/242/217	265/236/210	320/280/244	544.8/464.9/423.3	543.2/464.2/422.8	638/573/509	617/557/512	783/752/716	523/435/389	543/482/426	763/684/605	810/746/686
	1 m3/h = 0.588 ft3/min	ft3/min 160.00/142.35/127.65	155.88/138.82/123.53	188.24/164.71/143.53	320.47/273.47/249.00	319.53/273.06/248.71	375.29/337.06/299.41	362.94/327.65/301.18	460.59/442.35/421.18	307.65/255.88/228.82	319.41/283.53/250.59	448.82/402.35/355.88	476.47/438.82/403.53
Indoor side noise level (Hi/ Mi/Lo)	dB(A)	56/54/52	57/55/52	59/55.5/53.5	59.5/55/53	60.5/57/55	58/0/0	57.5/55.5/54.5	59.3/58.5/57.5	60/56.5/55	61/58/55	58.5/57/55	59.5/57.8/56.3
Condenser	a.Number of rows	2	2	2	3	3	3	4	4	3	3	3	4
	b.Tube pitch(a)x row pitch(b)	mm 19.5x11.6	14.5x12.56	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	19.5x11.6	14.5x12.56	19.5x11.6	19.5x11.6
	c.Fin spacing	mm 1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	d.Fin type (code)	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium
	e.Tube outside dia.and type	mm Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube	Φ5,Inner groove tube
	f.Coil length x height x width	mm 350x293x23.2	350x290x25.12	409x331.5x23.2	415x351x34.8	415x351x34.8	510x390x34.8	510x390x46.4	585x410x46.4	415x351x34.8	415x348x37.68	510x390x34.8	510x390x46.4
	g.Number of circuits	1	1	1	2	2	3	4	4	2	3	3	3
Outdoor air flow (Hi/Med/Lo) m3/h	m3/h	0/0/0	0/0/0	0/0/0	996/917/809	0/0/0	0/0/0	1235/1108/1012	1438/1375/1300	0/0/0	0/0/0	1254/1118/987	1259/1155/1068
1 m3/h = 0.588 ft3/min	ft3/min	////	////	////	585.88/539.41/475.88	////	////	726.47/651.76/595.29	845.88/808.82/764.71	////	////	737.65/657.65/580.59	740.59/679.41/628.24
Outdoor side noise level(Hi)	dB(A)	59.5/57.5/55	60/58/56	65.5/0/0	68.5/63.5/60.5	66.5/63/61	68/0/0	66.5/64/61.5	66/65/64	66/60/57	67/64/61	68.5/67/64.5	68/65.5/63.5
Plug type		LCDI(5-15P)	LCDI(5-15P)	LCDI(5-15P)	LCDI(5-15P)	LCDI(5-15P)	LCDI(5-15P)	LCDI(6-15P)	LCDI(6-20P)	LCDI(5-15P)	LCDI(6-20P)	LCDI(6-30P)	LCDI(6-30P)
Power cord type		18#x3	18#x3	16#x3	14#x3	14#x3	14#x3	14#x3	12#x3	14#x3	12#x3	12#x3	12#x3
Power Cord Length	mm	1980	1980	1980	1980	1980	1980	1980	1980	2140	1980	1980	1980
Power Cord Length	ft	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	7.02	6.50	6.50	6.50
Control type		遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)	遥控式(Remote Control)
Operation temp	indoor(cooling/heating)	℃	17-32//	17-32//	17-32//	17-32//	17-35//	17-32//	17-32//	17-32/0-27	17-32/0-27	17-32/0-27	17-32/0-27
		°F(=°C*1.8+32)	///	///	///	///	///	///	///	///	///	///	///
	outdoor(cooling/heating)	℃	18-43//	18-43//	18-43//	18-43//	18-43//	18-43//	18-43//	18-43/-5-24	18-43/-5-24	18-43/-5-24	18-43/-5-24
		°F(=°C*1.8+32)	///	///	///	///	///	///	///	///	///	///	///
Dimension (W*D*H) TTW/ OPP/MSII/ HD(D*W*H))	mm	406x335x306	406x335x306	471x400x340	545x482x372	545x482x372	645x600x455	645x600x455	674x673x473	545x482x372	545x482x372	645x600x455	645x600x455
	in	15.98x13.19x12.05	15.98x13.19x12.05	18.54x15.75x13.39	21.46x18.98x14.65	21.46x18.98x14.65	25.39x23.62x17.91	25.39x23.62x17.91	26.54x26.50x18.62	21.46x18.98x14.65	21.46x18.98x14.65	25.39x23.62x17.91	25.39x23.62x17.91
Packing (W*D*H)	mm	452x388x374	452x388x374	560x455x380	586x557x430	586x557x430	760x660x495	760x660x495	750x794x520	586x557x430	586x557x430	760x660x495	760x660x495
	in	17.80x15.28x14.72	17.80x15.28x14.72	22.05x17.91x14.96	23.07x21.93x16.93	23.07x21.93x16.93	29.92x25.98x19.49	29.92x25.98x19.49	29.53x31.26x20.47	23.07x21.93x16.93	23.07x21.93x16.93	29.92x25.98x19.49	29.92x25.98x19.49
Net/Gross weight	kg	16.1/18.1	17.33/19.11	20.59/23.32	26.2/29.1	28.8/31.8	46/53.5	53.1/60.2	59.1/67.5	27.5/30.5	32.5/35.5	53.2/59.7	54.9/61.7
	lb	35.49/39.90	38.21/42.13	45.39/51.41	57.76/64.15	63.49/70.11	101.41/117.95	117.06/132.72	130.29/148.81	60.63/67.24	71.65/78.26	117.28/131.61	121.03/136.02
Loading quantity 20' /40' /40'HQ	Pieces	468/918/1050	468/918/1050	318/642/745	190/410/498	190/410/498	96/216/270	96/216/270	84/180/225	190/410/498	190/410/498	96/216/270	96/216/270
Window Opening	Width(Min/Max)(Inches)	in 23/36	23/36	23/36	23/36	23/36	28/40.5	28/40.5	31/42	26.8/36	26.8/36	28/40.5	28/40.5
	Height(Min)(Inches)	in 13	13	14	15.5	15.5	18.5	18.5	19.5	16.5	16.5	18.5	18.5

PTAC

High Efficiency And Energy Saving



PTAC



Information						
Sale model			SAK-09PTAC-HP/220V	SAK-12PTAC-HP/220V	SAK-15PTAC-HP/220V	
Power supply			220V, 1Ph, 60Hz	220V, 1Ph, 60Hz	220V, 1Ph, 60Hz	
Cooling(Standard conditions)	Capacity	Btu/h	9300/9200	12000/11800	14700/14500	
	Input	W	820/810	1040/1020	1390/1370	
	Current	A	4.2/4.6	5.3/5.8	6.5/7.4	
	EER	Btu/h/W	11.4	10.5	10.6	
Heating(Heat pump)(Standard conditions)	Capacity	Btu/h	8100/7900	10800/10500	13500/13200	
	Input	W	720/690	890/850	1170/1120	
	Current	A	3.9/4.3	5.0/5.3	6.0/6.4	
	COP	W/W	3.40	3.2	3.20	
Starting current			45.9	45.9	45.9	
Compressor	Model			KSN82N13VDZB1	KSM100N11VEZ	KSM125N1UEZ
	Type			ROTARY	ROTARY	ROTARY
	Brand			GMCC	GMCC	GMCC
	Capacity	W	2970/3015 ±3% W	3590/3620	3825±3%	
	Input	W	710/718 ±3% W	850/875±3%	1300±3%	
	Rated current	A	3.45/3.15 ±3% A	4.18/3.85±3%	6.35	
	Locked rotor Amp(LRA)	A	(at 1φ-240V-60Hz) ±10% 20 A	28.5±10%	(at 1φ-240V-60Hz)34.5 ±10% A	
	Thermal protector			/	UP-A2H/HPA-325H	HPA-430KH
	Thermal protector position			INTERNAL	INTERNAL	INTERNAL
	Capacitor	uF	20	35	60	
Refrigerant oil/oil charge	ml	ESTER OIL VG68-270±10 ml	VG68 300±15	VG68-300±15 ml		
Indoor side fan motor(DC)	Model			ZKFP-25-8-157L	ZKFP-25-8-157L	ZKFP-25-8-157L
	Speed(hi/mi/lo)	r/min	制冷930/800 制热1110/1020	制冷1110/930制热1110/1020	制冷1100/930;制热1100/1020	
	Insulation class			B	B	B
	Waterproofing class			IP20	IP20	IP20
Outdoor side fan motor	Model			YKT-37-4-203L	YKT-58-4-3L	YKT-58-4-3L
	Input	W	71	87	87	
	Capacitor	uF	3	3	3	
	Speed(hi/mi/lo)	r/min	1365	1580	1580	
	Capacitor class			S3	S3	S3
	Insulation class			B	B	B
Evaporator	a.Number of rows			2	2	3
	b.Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37	21x13.37	
	c.Fin spacing	mm	1.2	1.2	1.3	
	d.Fin type (code)			Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	e.Tube outside dia.and type	mm	Φ7,Inner groove tube	Φ7,Inner groove tube	Φ7,Inner groove tube	
	f.Coil length x height x width	mm	700x252x26.74	700x252x26.74	700x252x40.11	
	g.Number of circuits			2	2	4
	Indoor side air flow(Hi/Mi/Lo)	m3/h	617/0/510	745/0/585	708/0/561	
1 m3/h = 0.588 ft3/min		ft3/min	362.94///300.00	438.24///344.12	416.47///330.00	
Indoor side noise level (Hi/Mi/Lo)			dB(A)	50/0/49.5	52/0/51.5	53/0/52.5
Outdoor side noise level(Hi)			dB(A)	64	67	67
Outdoor side noise level(Hi)	Refrigerant type		R32	R32	R32	
	kg		0.43	0.76	0.9	
	oz(1kg=35.274oz)		15.16782	26.80824	31.7466	
Design pressure(145psi=1MPa)(L/H)	psi		300/580	300/580	300/580	
Connection wiring			12#x3	12#x3	12#x3	
Plug type			LCDI(6-20P)	LCDI(6-20P)	LCDI(6-20P)	
Control type			电子式(Electronic Control)	电子式(Electronic Control)	电子式(Electronic Control)	
Operation temp	indoor(cooling/heating)	℃	17-32/0-27	17-32/0-27	17-32/0-27	
		°F(=℃*1.8+32)	///	///	///	
	outdoor(cooling/heating)	℃	18-43/-5-24	18-43/-5-24	18-43/-5-24	
		°F(=℃*1.8+32)	///	///	///	
Dimension(W*D*H)	mm		1067x532x406	1067x532x406	1067x532x406	
	in		42.01x20.94x15.98	42.01x20.94x15.98	42.01x20.94x15.98	
Packing (W*D*H)	mm		1130x625x490	1130x625x490	1130x625x490	
	in		44.49x24.61x19.29	44.49x24.61x19.29	44.49x24.61x19.29	
Net/Gross weight	kg		45/49	50/54	51.5/55.5	
	lb		99.21/108.03	110.23/119.05	113.54/122.36	
Loading quantity 20' /40' /40'HQ	Pieces		72/152/190	72/152/190	72/152/190	





TruDefinition®
DURATION® COOL
Shingles with Patented SureNail® Technology



Summerwood®



TruDefinition® **DURATION® COOL** Shingles *with Patented SureNail® Technology*

Color and Curb Appeal

TruDefinition® Duration® COOL Shingles provide dramatic curb appeal and outstanding performance.

The TruDefinition® color platform provides an exclusive combination of color, depth and shadowing that makes for an exciting impression from the curb.

TruDefinition® Duration® COOL color offerings are specifically designed with solar-reflecting granules to help decrease the amount of heat transferred into a home. They also meet the prescriptive Cool Roof requirements of California Title 24, and are rated by the Cool Roof Rating Council (CRRRC). Being COOL has never looked better.

Features of Duration® Shingles:

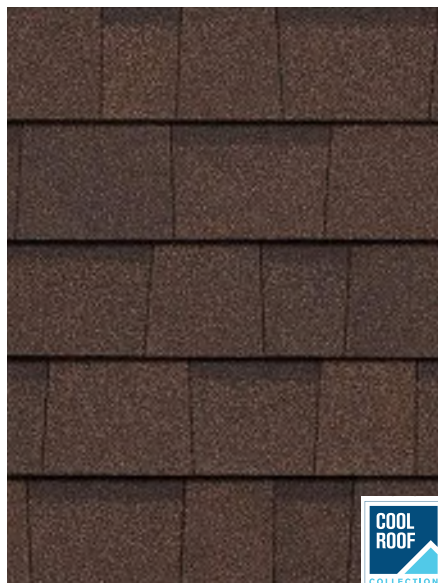
- Patented SureNail® Technology
- Limited Lifetime Warranty*/*† (for as long as you own your home)
- 130-MPH Wind Resistance Limited Warranty*
- Coordinates with color-matched Owens Corning® Hip & Ridge shingles for a finished look



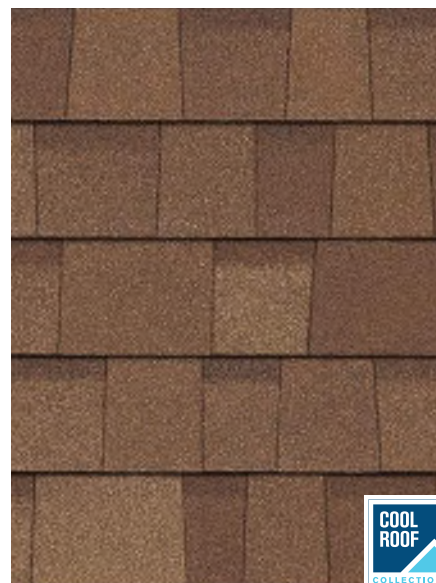
Mountainside®



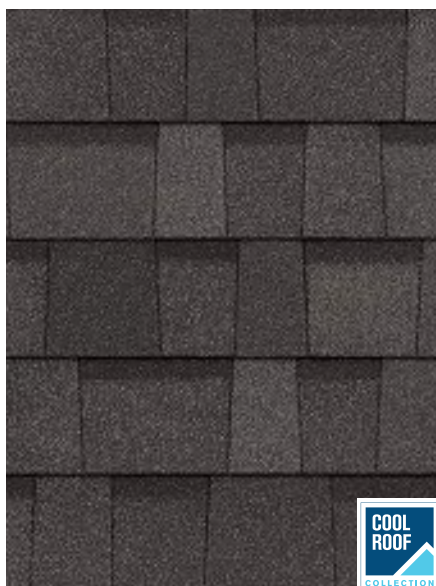
Amber†



Forest Brown†



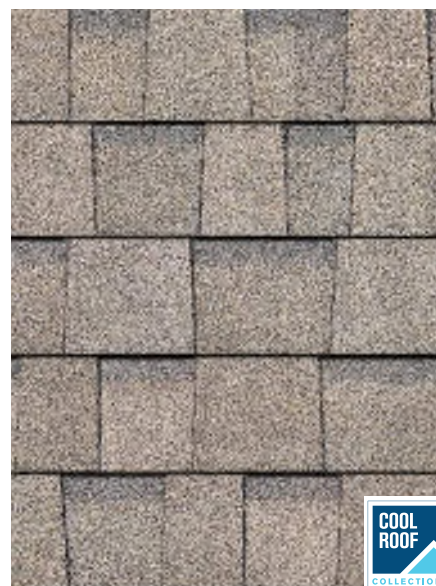
Mojave†



Mountainside†



Night Sky†



Oyster Shell†

COOL ROOF COLLECTION



Owens Corning® COOL Roof Shingles	CRRC Product ID	Warranty Length	Solar Reflectance	Thermal Emittance	Solar Reflectance Index (SRI)
TruDefinition® Duration® COOL Amber	0890-0009	Limited Lifetime*††	0.21◇	0.92^^	21††
TruDefinition® Duration® COOL Forest Brown	0890-0018A	Limited Lifetime*††	0.17◇	0.91^^	17††
TruDefinition® Duration® COOL Mojave	0890-0017A	Limited Lifetime*††	0.19◇	0.92^^	19††
TruDefinition® Duration® COOL Mountainside	0890-0016A	Limited Lifetime*††	0.19◇	0.92^^	19††
TruDefinition® Duration® COOL Night Sky	0890-0026	Limited Lifetime*††	0.18◇	0.90^^	16††
TruDefinition® Duration® COOL Oyster Shell	0890-0012	Limited Lifetime*††	0.22◇	0.92^^	22††
TruDefinition® Duration® COOL Sand Castle	0890-0020	Limited Lifetime*††	0.18◇	0.92^^	17††
TruDefinition® Duration® COOL Shasta White 	0890-0008	Limited Lifetime*††	0.28	0.91	29
TruDefinition® Duration® COOL Sierra Gray	0890-0013	Limited Lifetime*††	0.20◇	0.92^^	20††
TruDefinition® Duration® COOL Summerwood	0890-0015A	Limited Lifetime*††	0.19◇	0.91^^	18††

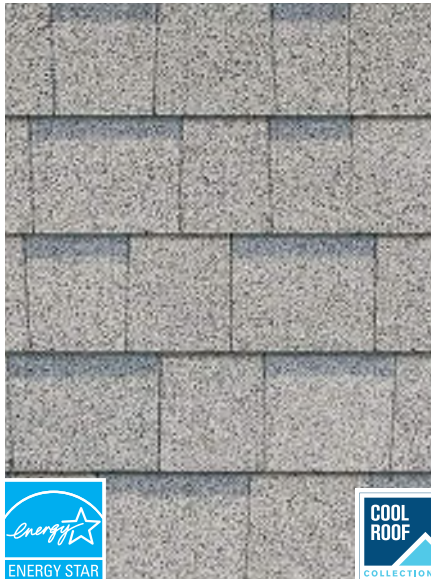
◇ Aged solar reflectance calculated based on equation provided in California Energy Code (Title 24, Part 6).

^^ Indicates initial thermal emittance.

†† SRI calculation based on calculated aged solar reflectance and initial thermal emittance. SRI is calculated using California Energy Commission SRI calculator worksheet and it is calculated in accordance with ASTM E1980.



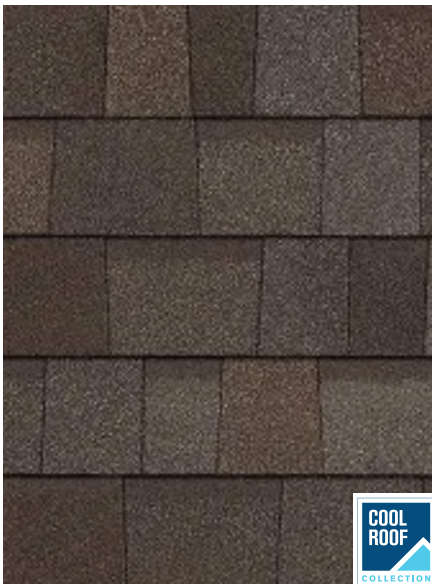
Sand Castle[†]



Shasta White[†]



Sierra Gray[†]



Summerwood[†]

ENERGY STAR[®] IS FOR ROOFS TOO



Similar to the energy-efficient appliances in your home, roofing products can help provide energy-saving qualities. Owens Corning[®] ENERGY STAR[®] qualified shingles can help reduce your heating and cooling bills when installed properly. These shingles reflect solar energy, helping to decrease the amount of heat transferred to a home's interior — and the amount of air conditioning needed to keep it comfortable. Actual savings will vary based on geographic location and individual building characteristics. Call 1-800-GET-PINK[®] or 1-888-STAR-YES for more information.

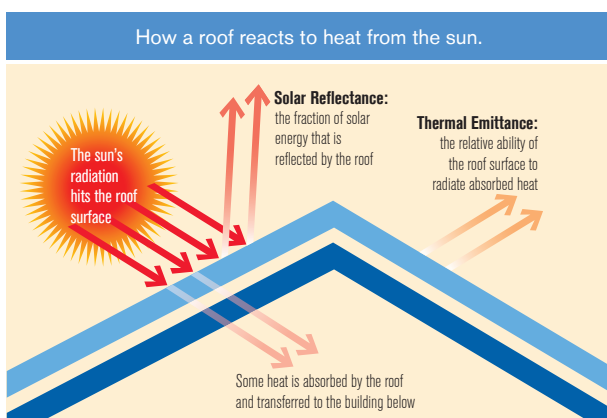


Summerwood®

Owens Corning® COOL Roof Collection



In a premium offering of TruDefinition® Duration® COOL Shingles, there are COOL Roof Collection colors that are specially designed to reflect the sun's rays, helping to make your home more comfortable and energy efficient. These deep, rich colors are unexpected for solar-reflecting shingles which are typically very light in color. Now you can save energy and look great at the same time.



Source: Cool Roof Rating Council (<http://www.coolroofs.org>)

Cool Roof Requirements in California and Other Compliance Programs

Additional Features of COOL ROOF COLLECTION colors:

- Meet the prescriptive Cool Roof requirements of California Title 24, Part 6
- Are Cool Roof Rating Council (CRRG) rated
- Meet City of Los Angeles Cool Roof requirements
- Meet Property Assessed Clean Energy (PACE) financing program requirements
- May help lower household energy consumption by keeping the roof cooler; also may help decrease CO₂ emissions



There's a line between a good shingle and a great shingle™.

It's the nailing line on your shingles. The difference is having SureNail® Technology.



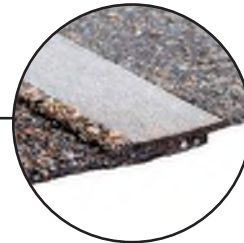
Excellent Adhesive Power
Helps keep the shingle layers laminated.

Outstanding Grip
The SureNail® strip enhances the already amazing grip of our proprietary Tru-Bond™ sealant for exceptional wind resistance of a 130-MPH wind warranty.*



Breakthrough Design
Patented SureNail® Technology is the first and only reinforced nailing zone on the face of the shingle.

"No Guess" Wide Nailing Zone
This tough, engineered woven-fabric strip is embedded in the shingle to create an easy-to-see strong, durable fastener zone.



Triple Layer Protection**
A unique "triple layer" of reinforcement occurs when the fabric overlays the two shingle layers, called the common bond area.

Double the Common Bond
SureNail® features up to a 200% wider common bond area in the nailing zone over standard shingles.



Product Attributes

Warranty Length*

Limited Lifetime** (for as long as you own your home)

Wind Resistance Limited Warranty*

130 MPH

TRU PROtection® Non-Prorated Limited

Warranty* Period

10 Years

TruDefinition® Duration® COOL Shingles

Product Specifications

Nominal Size	13 1/4" x 39 5/8"
Exposure	5 5/8"
Shingles per Square	64
Bundles per Square	3
Coverage per Square	98.4 sq. ft.

Applicable Standards and Codes

ASTM D228

ASTM D3018 (Type 1)

ASTM D3161 (Class F Wind Resistance)

ASTM D3462

ASTM D7158 (Class H Wind Resistance)

ASTM E108/UL 790 (Class A Fire Resistance)

ICC-ES AC438#

UL ER2453-01##

UL ER2453-02##

Shasta White color meets ENERGY STAR® requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15; 2013 California Building Energy Efficiency Standards, Title 24, Part 6 requirements; rated by the Cool Roof Rating Council (CRRC).

* See actual warranty for complete details, limitations and requirements.

† Actual colors and granule blends may vary from the photo. We suggest that you view actual product on the roof to get a better idea of the finish color. Color availability subject to change without notice. Ask your professional roofing contractor for samples of colors available in your area.

+ The amount of Triple Layer Protection® may vary on a shingle-to-shingle basis.

‡ Tru-Bond® is a proprietary premium weathering-grade asphalt sealant that is blended by Owens Corning Roofing and Asphalt, LLC.

40-Year Limited Warranty on commercial projects.

International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

Underwriters Laboratories Evaluation Service Evaluation Report.

SureNail® Technology is proprietary with U.S. and foreign protection including U.S. Patent Nos. 6,471,812; 7,836,654; 8,156,704; 8,181,413; 8,240,102; 8,430,983; 8,607,521; 8,623,164; 8,752,351; 8,991,130; 9,121,178; and other patents pending.

SureNail® Technology is available only on Owens Corning® Duration® Series Shingles.

SureNail® Technology is not a guarantee of performance in all weather conditions.

ENERGY STAR and the ENERGY STAR mark are registered trademarks of the U.S. Environmental Protection Agency.

^ Excludes non-Owens Corning® roofing products such as flashing, fasteners, pipe boots and wood decking.

Disclaimer of Liability

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Owens Corning makes no representation about, and is not responsible or liable for the accuracy or reliability of data associated with particular uses of any product described herein.

TOTAL PROTECTION. TOTAL CONFIDENCE.™

The most important part of the roof?
All of them.



It takes more than just shingles to protect a home. It takes an integrated system of components and layers designed to withstand the forces of nature outside while controlling temperature and humidity inside. The Owens Corning® Total Protection Roofing System®^ gives your customers the assurance that all of their Owens Corning® roofing components are working together to help increase the performance of the roof — and to enhance the comfort and enjoyment of those who live beneath it.



SEAL.

HELPS CREATE A
WATER-PROOF BARRIER

Ice & Water Barrier
Synthetic Underlayment



DEFEND.

HELPS PROTECT AGAINST
NATURE'S ELEMENTS

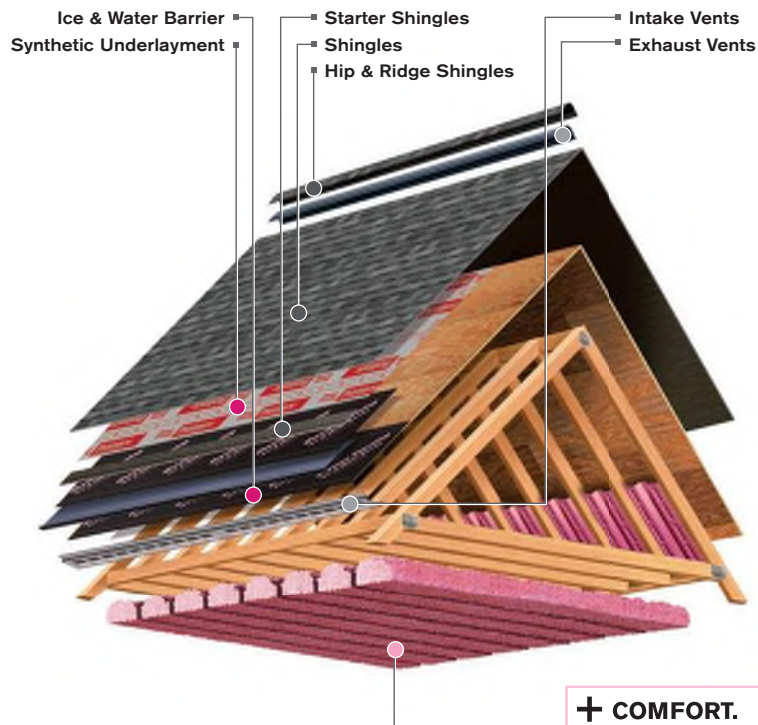
Starter Shingles
Shingles
Hip & Ridge Shingles



BREATHE.

FOR BALANCED
ATTIC VENTILATION

Intake Vents
Exhaust Vents



+ COMFORT.

Add comfort and energy performance
with proper attic insulation.



OWENS CORNING ROOFING AND ASPHALT, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659

1-800-GET-PINK®
www.owenscorning.com/roofing

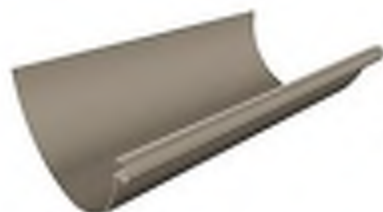
Pub. No. 10021534-C. Printed in U.S.A. May 2018.
THE PINK PANTHER® & © 1964–2018 Metro-Goldwyn-Mayer Studios Inc.
All Rights Reserved. The color PINK is a registered trademark of Owens Corning.
© 2018 Owens Corning. All Rights Reserved.

(Compton)





"K" or "OIG" Style Seamless Gutter in 5" & 6" Standard Material: Aluminum (0.27), Copper (16 oz.), Steel (26 gauge)



Half Round Style Gutter in 5" & 6" Standard Material: Aluminum (0.27), Copper (16 oz.), Steel (26 gauge)



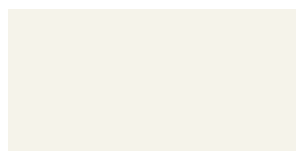
Fascia Style Seamless Gutter in 5" & 6" Standard Material: Aluminum (0.27), Copper (16 oz.), Steel (26 gauge)



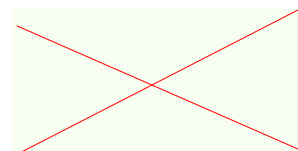
Super or Deep Fascia Style Seamless Gutter in 7" Standard Material: Copper (16 oz.), Steel (26 gauge)

	<u>Downspouts- Specialty Metals</u> - Copper Steel - 2" x 3" - 4" x 5" - 3" x 4" - 2" round - 3" round - 4" round - Please contact us for a complete list
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RAIN GUTTER PRODUCTS COLOR SELECTOR



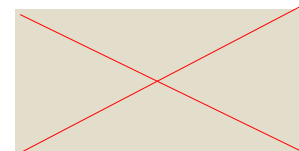
Low Gloss White*



High Gloss White*



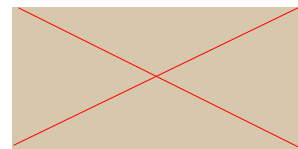
Satin White*



Almond*



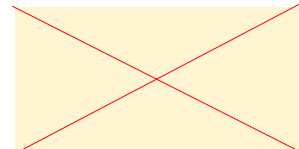
Classic Cream*



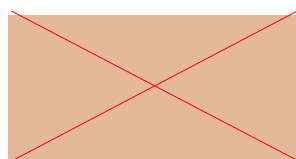
Adobe Tan



Ivory*



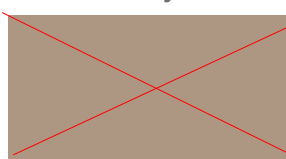
Heritage Cream*



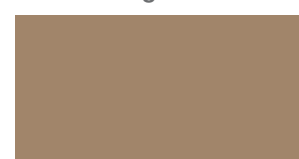
Peach



Pebblestone Clay*



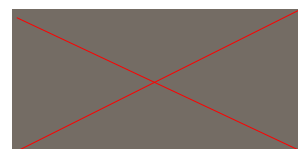
Woodbeige



Buckskin Brown*



Beaver Brown*



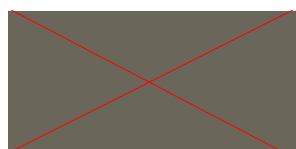
Bronze



Weathered Copper*



Musket*



Weathered Bronze



Royal Brown*



Colonial Red*



Black*



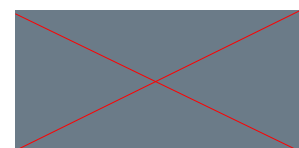
Storm Gray*



Old Town Gray*



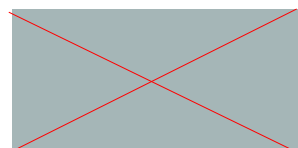
Colonial Gray*



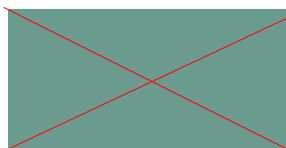
C.B. Blue



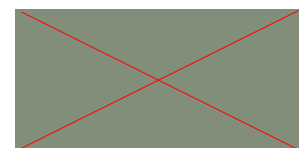
Tahoe Blue*



Sea Blue



Marine Green*



Spanish Green



Leaf Green*



Forest Green*



Zincalume® Plus



Copper

NATURAL METALS

Natural Metals are covered by a separate performance warranty.
Please see our website for details.

©2013 Custom-Bilt Metals

Colors shown here approximate finished colors as accurately as possible. However, colors may vary, and will also appear different on aluminum than they do on steel. Actual color samples on the appropriate metal choice are available upon request. Selection may vary by region. Please contact Custom-Bilt Metals for availability.

1.800.826.7813

www.CustomBiltMetals.com

info@custombiltmetals.com

LEAFBLASTER PRO™ PROTECTS YOU AND YOUR HOME



LEAVES
& DEBRIS



EXTERIOR WATER
DAMAGE



RODENTS
& PESTS



FIRES



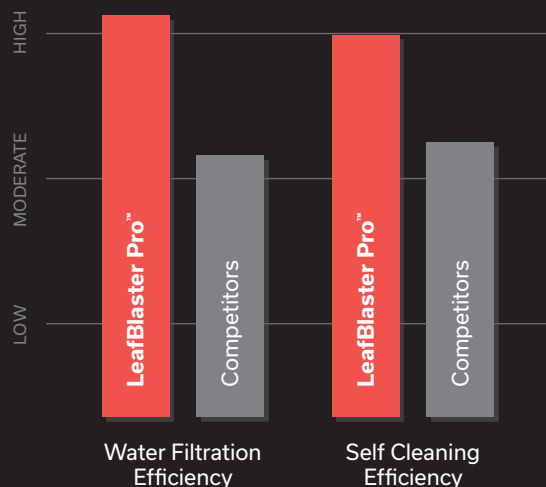
HOMEOWNER
SAFETY



PERSONAL
TIME



Z-BEND TECHNOLOGY STAINLESS STEEL MESH



Z-Bend vs Flat Mesh



Gutterglove®

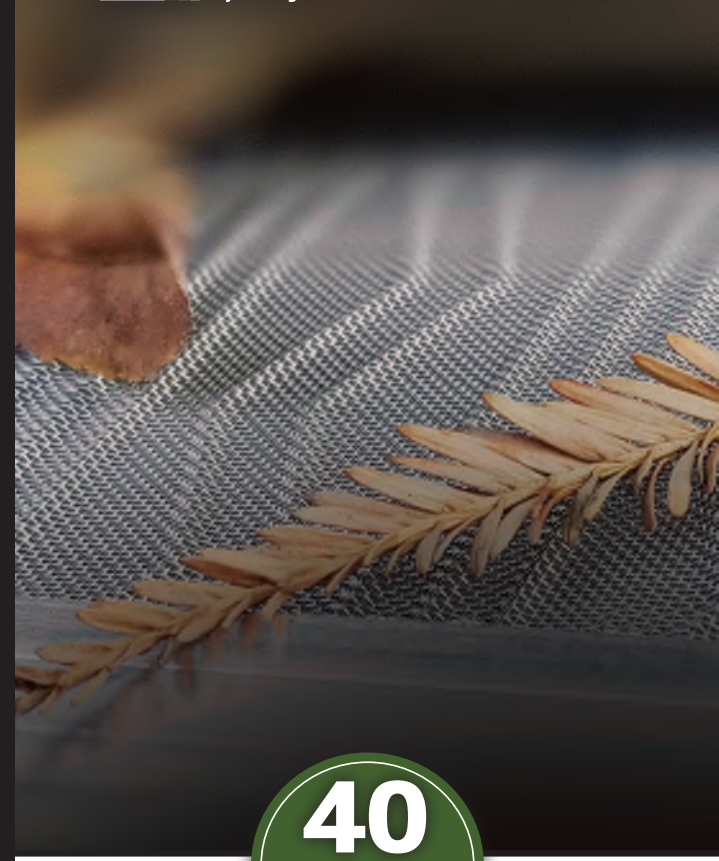
In accordance with NSF/ANSI 372
Also certified to NSF Protocol P151
Rainwater Catchment System
Component MH61876

ABOUT GUTTERGLOVE®

It all started back in 1996 when we were in the gutter cleaning business. After cleaning out millions of feet of gutter, we observed that no gutter guard was performing as promised. We realized that a reliable gutter protection solution was needed and incorporated in 2000. We explored new designs, the best materials, and doing what is best for customers to create what is now an extensive patent portfolio of the highest praised gutter guards available. We are proud to offer you gutter guards you can trust. The Nation's Most Trusted Gutter Guards.®

LeafBlaster.com

LeafBlasterPRO™
By Gutterglove®



THE NATION'S
MOST TRUSTED
GUTTER GUARDS.™

LeafBlaster.com



PRO GRADE

STAINLESS STEEL MESH GUTTER PROTECTION



KEEPS OUT
LEAVES



KEEPS OUT
PINE NEEDLES



KEEPS OUT
ROOF GRIT



KEEPS OUT
FIRE EMBERS

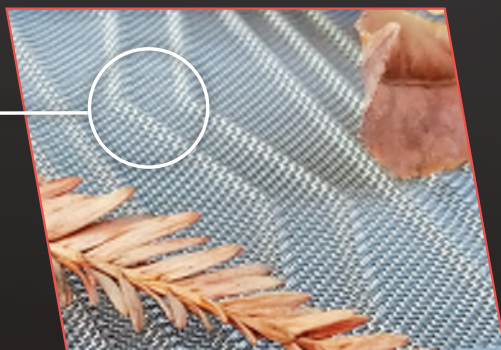


KEEPS OUT
PESTS

Z-BEND TECHNOLOGY



Upward Z Corrugations
Elevates debris so wind
more easily pushes it off.



1

STAINLESS STEEL MESH
Blocks even the finest debris
from entering your gutters
and won't warp or crack like
plastic and uPVC.

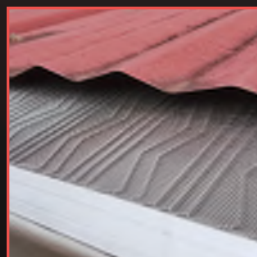
2

Z-BEND TECHNOLOGY
Provides rigidity in the mesh
to handle heavy debris
while maximizing rainwater
filtration.

3

ALUMINUM EXTRUSION
Holds the mesh in place and
fastens to the front lip of your
gutters.

FITS ANY GUTTER AND ROOF COMBO



GOOD FOR THE ENVIRONMENT

Many gutter guard products use plastic or PVC, which are harmful to the environment. LeafBlaster Pro™ is made from aluminum and stainless steel, both of which are 100% recyclable.

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO

LT56 5"/6" Recessed LED Trims

These LT LED Trims are ideal for quickly installing energy-saving downlighting in 5" and 6" recessed housings. The LT Series offers 5-color seleCCTable™ technology with flicker-free dimming to 10%. The safe, non-conductive dead-front trims come in baffle or smooth splay options. Decorative overlays are also available in 4 finishes.

Typical Applications Residential

Interactive Menu

- Order Information page 2
- Product Specifications page 4
- Energy Data page 4
- Photometric Data page 5
- Product Warranty
- Dimming Guide



Refer to ENERGY STAR® Certified Products List.
Can be used to comply with California Title 24 High Efficacy requirements.⁽¹⁾
Certified to California Appliance Efficiency Database under JAB.⁽¹⁾

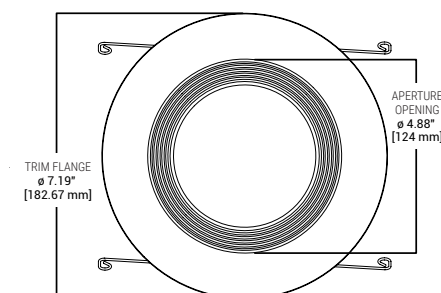


Top Product Features

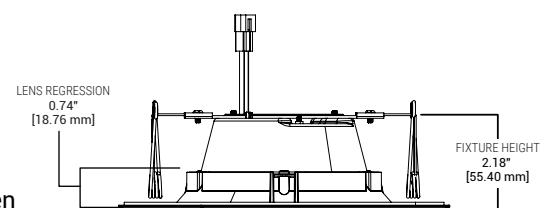
- Round 5"/6" Recessed LED Trims suitable for new construction, remodel, and retrofit installation in most 5" or 6" IC (insulation contact) or non-IC housings
- **Lens & Trim:** Recessed baffle or smooth splay trims with smooth flat diffuse lens
- **5-Color Field-SeleCCTable:** 2700K, 3000K, 3500K, 4000K, 5000K; 90+ CRI
- **Brightness:** 750 or 1200 lumen versions (nominal)
- **Dimming:** Dims to 10% (phase cut LE/TE); 120V input
- Includes preinstalled torsion springs, orange LED Quick Connect and E26 medium socket adapter
- Meets AIR-TITE and code compliance for additional energy savings
- **Life:** 35,000 hrs of maintenance-free operation in damp or wet locations
- 5-year warranty

Dimensional and Mounting Details

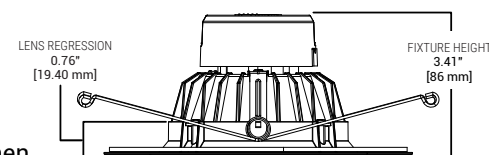
Package includes: E26 Screw Base Adapter
Installs in 5" or 6" housings



LT56 -750 Lumen



LT56 -1200 Lumen



Order Information

A complete downlight consists of an integrated LED trim and a recessed housing (order separately).

Individuals

Catalog Number	Module	Lumens (@3000K)	CRI/CCT	Finish	Packaging
LT56079FS1EWHR	5/6-inch Recessed Baffle LED Trim	795 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte White	Plastic-free & Fully Recyclable
LT56129FS1EWHR	5/6-inch Recessed Baffle LED Trim	1345 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte White	Plastic-free & Fully Recyclable
LTSS56079FS1EWHR	5/6-inch Recessed Smooth Splay LED Trim	790 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte White	Plastic-free & Fully Recyclable
LTSS5612FS1EWHR	5/6-inch Recessed Smooth Splay LED Trim	1345 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte White	Plastic-free & Fully Recyclable
LTT5607FSMB	5/6-inch Recessed Baffle LED Trim	804 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte Black	Plastic-free & Fully Recyclable
LTT5612FSMB	5/6-inch Recessed Baffle LED Trim	1274 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte Black	Plastic-free & Fully Recyclable
LTT5607FSMBSS	5/6-inch Recessed Smooth Splay LED Trim	803 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte Black	Plastic-free & Fully Recyclable

Multi-packs

Catalog Number	Module	Lumens	CRI/CCT	Finish	Packaging
LT56079FS1EWHR4PK	5/6-inch Recessed Baffle LED Trim	795 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte White	4-Pack, Plastic-free & Fully Recyclable
LT56079FS1EWHR6PK	5/6-inch Recessed Baffle LED Trim	795 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte White	6-Pack, Plastic-free & Fully Recyclable
LTT5607FSMB-4PK	5/6-inch Recessed Baffle LED Trim	804 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte Black	4-Pack, Plastic-free & Fully Recyclable
LTT5607FSMB-6PK	5/6-inch Recessed Baffle LED Trim	804 lumens	90+ CRI, field selectable CCT: 2700K,3000K, 3500K, 4000K, 5000K	Matte Black	6-Pack, Plastic-free & Fully Recyclable

Optional Accessories - Decorative Baffle Trim Overlays (sold separately)

Catalog Number	Description
LT560MWB	5/6-inch Overlay, Paintable Matte White
LT560MBB	5/6-inch Overlay, Matte Black
LT560SNB	5/6-inch Overlay, Satin Nickel
LT560TBZB	5/6-inch Overlay, Tuscan Bronze
HE26LED	Replacement medium E26 screw base adapter (1 is already included with unit)
ML7RAB	Retrofit Adapter Band – use with existing 5" & 6" housings that do not have torsion spring receivers



LT560MWB
White (Paintable),
Baffle



LT560MBB
Matte Black,
Baffle



LT560SNB
Satin Nickel,
Baffle



LT560TBZB
Tuscan Bronze,
Baffle

Compatible Housings

HALO - 6" Housings ¹

HALO LED	H750ICAT, H750RICAT, H750T, H750TCP, H2750ICAT, H2750RICAT, H550ICAT, H550RICAT, E550ICAT, E550RICAT, E750ICAT, E750RICAT
Standard Housing	H7ICAT, H7ICT, H7T, H7ICATNB, H7ICTNB, H7TNB, H7UICAT, H7TCP, H7RICAT, H7RICT, H7RT, E7ICAT, E7ICATNB, E7RICAT, E7RTAT, E7TAT, E7TATNB, H7UICAT, H7ICATNB, H7ICTNB, H7TNB, H7UICAT
Shallow Housing	H27ICAT, H27RICAT, H27ICT, H27RICT, H27T, H27RT, E12700AT, E12700, E12700R, E2700, E2700R, E27ICAT, E27RICAT, E27TAT, E27RTAT
Fire Rated Housing	H750FR2ICATD010

HALO - 5" Housings ¹

Halo LED	H550ICAT, H550RICAT, E550ICAT, E550RICAT
Standard Housing	H5ICAT, H5ICATNB, H5RICAT, H5T, H5TNB, H5RT, E5ICAT, E5ICATNB, E5RICAT, E5RTAT, E5TAT, E5TATNB
Shallow Housing	H25ICAT, H25RICAT, H25ICATNB
Fire Rated Housing	H550FR2ICATD010

LUMINAIRES - UL Classified for retrofit compatibility

Note: Compatible with any 5" or 6" diameter recessed luminaire with an internal volume that exceeds 115 in³ in addition to those listed below.

Juno	Standard Housing	IC22, IC22R, IC22W, IC22S, IC23, IC23W, TC2, TC2R, IC2
	Shallow Housing	IC21, IC21R
Capri	Standard Housing	CR1, PR1, QL1
	Shallow Housing	R9ASIC/PS9RM
Elco		HL7ICA (EL7ICA)
Thomas		PS1
Commercial Electric		C7ICA, H3

Lithonia Lighting	Standard Housing	LC6, L7X
	Shallow Housing	L7XP
Progress Lighting	Standard Housing	P87-AT**
	Shallow Housing	P86TG
Lightolier		1104ICS*, 1104ICR**

1. This fixture is UL Certified for use with any 5" or 6" diameter recessed luminaire constructed of steel or aluminum with an internal volume that exceeds 107.9 in³ in addition to those noted below and does not exceed the input rating of the luminaire.

Specification Features

Module

- The LED module consists of an LED array, optical assembly, driver, and self-flanged trim
- Round recessed baffle or smooth splay trim and smooth flat lens
- Integral aluminum heat sink provides passive thermal cooling achieving L70 at 35,000 hrs in IC (insulation contact) and non-IC applications

LED Array

- Color Temperature (CCT): Available in 5-color select CCT: 2700K, 3000K, 3500K, 4000K, 5000K (soft white, bright white, neutral white, cool white, daylight)
- Mid-power LED array provides a uniform light source with high efficiency, long life, and no pixilation
- 90+ CRI minimum, R9 greater than 50
- Color accuracy at 4 SDCM in between endpoints provides color consistency and uniformity

Optical Assembly

- Optical assembly provides wide light distribution – useful for general area and task lighting
- Diffuse injection molded lens with smooth flat profile
- Meets ENERGY STAR® color angular uniformity requirements

Driver

- Integral 120V 60Hz constant current driver provides noise-free, high-efficiency operation
- Dimmable:** Continuous, flicker-free dimming from 100% to 10% with compatible leading or trailing edge (LE/TE) 120V phase cut dimmers. (See Dimming Guide for compatible dimmers.)
Tip: For optimal dimming performance, consider dimmers with low-end trim adjustment; note that some dimmers require a neutral wire in the box
- Wiring:** Includes inline electrical orange LED Quick Connect and E26 medium socket adapter provides mains connections
- A separate ground wire and mounting hardware ensures proper ground connection to housing

Retention

- Preinstalled steel torsion springs hold the module securely in the housing (requires torsion spring receivers)
- Ships with torsion springs in the 6" position, adjusts to 5" position with two Phillips-head screws

Trim

- The one-piece step baffle or smooth splay and self-flanged trim ring provide lens regression and reduced light leaks
- Injection molded plastic construction is impact-resistant and non-corrosive
- Non-conductive construction meets most local dead-front code requirements

Gasket

- Due to the HALO LT/LTE design, a gasket is not required to achieve AIR-TITE code requirements (caulking can be used for additional sealing if necessary for local code)

Compliance

- UL Certified for US and Canada, type IC suitable for UL-Certified for US and Canada, type IC suitable for direct contact with air permeable insulation
- UL-Certified for US and Canada for use with HALO housings, classified for use with others' housings; see instruction sheet for conditions of acceptability
- Wet location-listed and IP66 ingress protection-rated
- Airtight per ASTM-E283
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC47CFR Part 15 consumer limits
- Contains no mercury or lead and is RoHS compliant¹
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high-efficacy luminaire compliance; reference the California Energy Commission Title 20 Appliance Efficiency Database for current listings¹
- ENERGY STAR® listed; reference database for current listings
- Meets State of California voluntary lamp standards
- Lighting Facts labeled

Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com/warranty

Energy Data

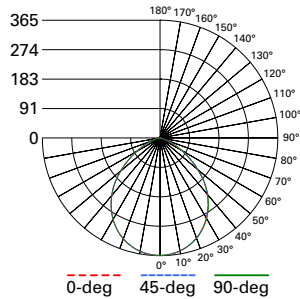
LT56 DOB - 750 Lumen

Lumens (nominal)	750LM
Input Voltage	120V
Input current	0.065A
Input Power	8.75W
Efficiency	63.50%
Inrush(A)	3.74
THD	25.70%
PF	0.966
T Ambient	-30 - +40°C
Sound Rating	18.024dB @1feet

LT56 - 1200 Lumen

Lumens (nominal)	1200LM
Input Voltage	120V
Input current	0.105A
Input Power	12.4W
Efficiency	84.00%
Inrush(A)	2.9
THD	14.50%
PF	0.97
T Ambient	-30 - +40°C
Sound Rating	20.2db@30cm

Photometric Data



LT56079FS1EWHR_3000K

Spacing Criteria (0/90/45):
1.17 / 1.17 / 1.27
Beam Angle: 95.7°
Field Angle: 141.4°
Lumens: 795
Input Watts: 8.6 W
Efficacy: 92.4 LPW
UGR: 22.6
Test Report: P798568

Zonal Lumen	Lumens	% Lumens
0-30	273.2	34.4
0-40	435.2	54.7
0-60	708.2	89.1
0-90	794.1	99.9

TM-30-15	Rf = 92
	Rg = 101
CRI/CIE	Ra = 93
	R9 = 83.2

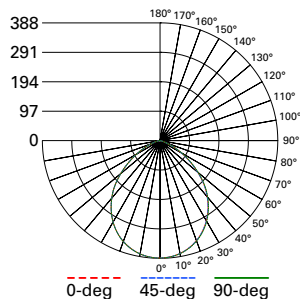
CCT - Range of 2700K- 5000K



LT56 5CCT				
CCT	Watts	lumens	LPW	CRI
2700K	8.5	760	89.4	93
3000K	8.6	795	92.4	93
3500K	8.0	790	98.8	93
4000K	8.5	795	93.5	93
5000K	8.0	780	97.5	93

LT56079FS1EWHR_3000K

PRODUCT SPECIFICATIONS	
Lumens	795
Watts	8.6
Lumens Per Watt (Efficacy)	92.4
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white soft white bright white	
2700K 3000K 4500K 6500K	



LTT5607FSMB_3000K

Spacing Criteria (0/90/45):
1.16/1.16/1.26
Beam Angle: 93°
Field Angle: 138°
Lumens: 804
Input Watts: 8.5 W
Efficacy: 94.6 LPW
UGR: 23.7
Test Report: P995440

Zonal Lumen	Lumens	% Lumens
0-30	289	35.9
0-40	457.8	56.9
0-60	732.7	91.1
0-90	804	100

TM-30-15	Rf = 92
	Rg = 101
CRI/CIE	Ra = 95.7
	R9 = 74

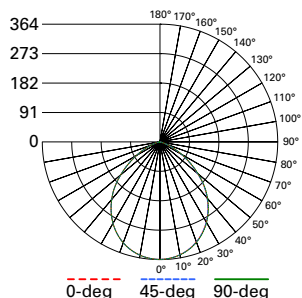
CCT - Range of 2700K- 5000K



LT56 5CCT				
CCT	Watts	lumens	LPW	CRI
2700K	8.4	785	93.5	93
3000K	8.5	804	94.6	93
3500K	8.3	820	98.8	93
4000K	8.5	826	97.2	93
5000K	8.5	824	96.9	93

LTT5607FSMB_3000K

PRODUCT SPECIFICATIONS	
Lumens	804
Watts	8.5
Lumens Per Watt (Efficacy)	94.6
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white soft white bright white	
2700K 3000K 4500K 6500K	

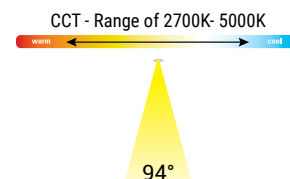


LTSS56079FS1EWHR_3000K

Spacing Criteria (0/90/45):
1.17 / 1.17 / 1.26
Beam Angle: 94.8°
Field Angle: 141.6°
Lumens: 789.7
Input Watts: 8.7 W
Efficacy: 90.8 LPW
UGR: 22.7
Test Report: P798563

Zonal Lumen	Lumens	% Lumens
0-30	273.4	34.6
0-40	434.2	55.0
0-60	703.1	89.0
0-90	788.9	99.9

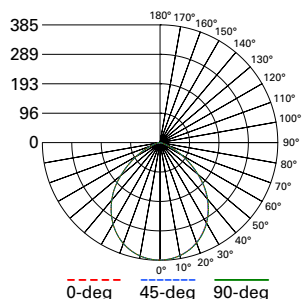
TM-30-15	Rf = 92 Rg = 101
CRI/CIE	Ra = 93 R9 = 83.4



LT56 5CCT				
CCT	Watts	lumens	LPW	CRI
2700K	8.5	770	90.6	93
3000K	8.7	790	90.8	93
3500K	8.0	810	101.3	93
4000K	8.5	810	95.3	93
5000K	8.5	790	92.9	93

LTSS56079FS1EWHR_3000K

PRODUCT SPECIFICATIONS	
Lumens	790
Watts	8.7
Lumens Per Watt (Efficacy)	90.8
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white soft white bright white	
2700K 3000K 4500K 6500K	

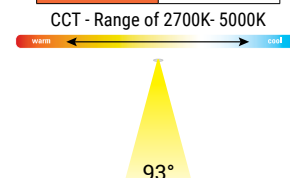


LTT5607FSMBSS_3000K

Spacing Criteria (0/90/45):
1.16/1.16/1.26
Beam Angle: 93.5°
Field Angle: 138.8°
Lumens: 803.3
Input Watts: 8.5 W
Efficacy: 94.6 LPW
UGR: 23.7
Test Report: P995445

Zonal Lumen	Lumens	% Lumens
0-30	286.7	35.7
0-40	454.4	56.6
0-60	729.4	90.8
0-90	803.3	100

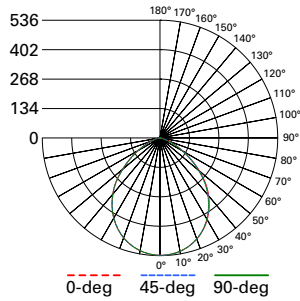
TM-30-15	Rf = 91 Rg = 101
CRI/CIE	Ra = 95.8 R9 = 73.4



LT56 5CCT				
CCT	Watts	lumens	LPW	CRI
2700K	8.5	795	93.5	93
3000K	8.5	803	94.5	93
3500K	8.5	825	97.1	93
4000K	8.5	826	97.2	93
5000K	8.5	828	97.4	93

LTT5607FSMBSS_3000K

PRODUCT SPECIFICATIONS	
Lumens	803
Watts	8.5
Lumens Per Watt (Efficacy)	94.5
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white soft white bright white	
2700K 3000K 4500K 6500K	



LT56129FS1EWHR-3000K

Spacing criterion:
(0-180) 1.22 | (90-270) 1.20 |
(Diagonal) 1.28
Beam Angle: 92.9°
Field Angle: 93.6°
Lumens: 1127
Input Watts: 12 W
Efficacy: 94 LPW
UGR: 21.5
Test Report: P600898

Zonal Lumen	Lumens	% Lumens
0-30	405.9	36
0-40	646.3	57.3
0-60	1019.8	90.5
0-90	1123.7	99.7

TM-30-15	Rf = 92 Rg = 103
CRI/CIE	Ra = 96.5 R9 = 85.2

CCT - Range of 2700K- 5000K

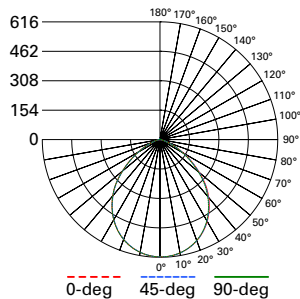


LT56 5CCT

CCT	Watts	lumens	LPW	CRI
2700K	12.7	1230	96.9	93
3000K	12.2	1345	110.2	93
3500K	12.1	1385	114.5	93
4000K	12.3	1380	112.2	93
5000K	12.6	1290	102.4	93

LT56129FS1EWHR-3000K

PRODUCT SPECIFICATIONS	
Lumens	1345
Watts	12.2
Lumens Per Watt (Efficacy)	110.2
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
2700K	3000K
soft white	bright white
4500K	6500K



LTT5612FSMB-3000K

Spacing criterion (0/90/45):
1.16/1.16/1.26
Beam Angle: 93°
Field Angle: 138°
Lumens: 1274
Input Watts: 12.5 W
Efficacy: 101.9LPW
UGR: 25.2
Test Report: P995435

Zonal Lumen	Lumens	% Lumens
0-30	457.9	35.9
0-40	725.4	56.9
0-60	1161.1	91.1
0-90	1274	100

TM-30-15	Rf = 91 Rg = 100
CRI/CIE	Ra = 95.4 R9 = 71.8

CCT - Range of 2700K- 5000K

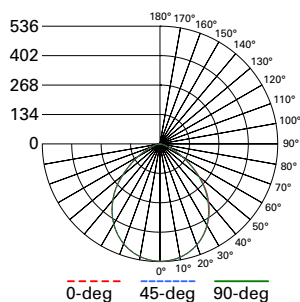


LT56 5CCT

CCT	Watts	lumens	LPW	CRI
2700K	12.5	1195	95.6	93
3000K	12.5	1274	101.9	93
3500K	12.0	1311	109.3	93
4000K	12.0	1305	108.8	93
5000K	12.5	1223	97.8	93

LT56129FS1EWHR-3000K

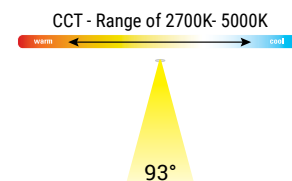
PRODUCT SPECIFICATIONS	
Lumens	1274
Watts	12.5
Lumens Per Watt (Efficacy)	101.9
Color Accuracy (CRI)	93
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
2700K	3000K
soft white	bright white
4500K	6500K

**LTSS5612FS1EWHR-3000K**

Spacing criterion:
 (0-180) 1.22 | (90-270) 1.20 |
 (Diagonal) 1.28
 Beam Angle: 92.9°
 Field Angle: 93.6°
 Lumens: 1127
 Input Watts: 12 W
 Efficacy: 94 LPW
 UGR: 21.5
 Test Report: P600898

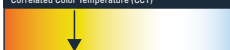
Zonal Lumen	Lumens	% Lumens
0-30	405.9	36
0-40	646.3	57.3
0-60	1019.8	90.5
0-90	1123.7	99.7

TM-30-15	Rf = 92
	Rg = 103
CRI/CIE	Ra = 96.5
	R9 = 85.2



LT56 5CCT				
CCT	Watts	lumens	LPW	CRI
2700K	12.7	1230	96.9	93
3000K	12.2	1345	110.2	93
3500K	12.1	1385	114.5	93
4000K	12.3	1380	112.2	93
5000K	12.6	1290	102.4	93

LTSS5612FS1EWHR-3000K

PRODUCT SPECIFICATIONS			
Lumens	1345		
Watts	12.2		
Lumens Per Watt (Efficacy)	110.2		
Color Accuracy (CRI)	93		
Light Color (CCT)	3000K		
Correlated Color Temperature (CCT)			
			
2700K	3000K	4500K	6500K



The new degree of comfort.®



Residential Hybrid
Electric Heat Pump-Builder
Water Heaters

Rheem® Hybrid Electric Heat Pump Water Heater

Designed for Residential Builders to Maximize Energy Design Rating / HERS Rating

Product Highlights

- 3.50 UEF
- Meets NEEA Tier 3 Requirements
- Integrated Wi-Fi Technology
- California Title 24 Compliant (JA13 Ready)
- LeakSense™ Accessory Ready
- Design Certified to NSF/ANSI 372 (lead control)
- 10 Year Limited Warranty¹

QUALIFIES
FOR UTILITY
REBATES³



T&P Installed

FEATURES & BENEFITS	
High Efficiency	ENERGY STAR® 5.0 certified
	Helps builders earn 45L tax credits
Easy Installation	Easily Ducted – for installation in confined spaces with minimal make up air
	Easy access to side water connection and top electrical junction box; <i>Zero clearance required in the back or side of the unit</i>
	¾" NPT water inlet & outlet; ¾" condensate drain connections
	Dry fire protection
Available EcoNet® Smart Technology	Integrated Wi-Fi Technology ²
	Energy usage reporting
	Energy saving scheduling and operating modes

Hybrid Electric Heat Pump - Builder

40, 50, 65 and
80-Gallon Capacities
208-240 Volt / 1 PH / 24 Amps



LEED Points = 3

DESCRIPTION					ENERGY INFO.	FEATURES				
NOMINAL GALLON CAPACITY	RATED GALLON CAPACITY	MODEL NUMBER	MODEL VARIANT	ELECTRIC BREAKER SIZE	UNIFORM ENERGY FACTOR (UEF)	COMPRESSOR BTU/H	UEF FIRST HR. RATING G.P.H.	RECOVERY IN G.P.H. 90° F RISE	UNIT WT. (LBS.)	APPROX. SHIP WT. (LBS.)
40	36	PRO H40 T2RH310BM	700461	30	3.50	4200	60	26	156	177
50	45	PRO H50 T2RH310BM	700455	30	3.50	4200	67	26	172	193
65	59	PRO H65 T2RH310BM	700456	30	3.50	4200	75	26	225	262
80	72	PRO H80 T2RH310BM	700457	30	3.50	4200	87	26	244	281

Uniform Energy Factor and rated gallon capacity based on Department of Energy (DOE) requirements.

Units meet or exceed ANSI requirements and have been tested according to D.O.E. procedures. Units meet or exceed the energy efficiency requirements of NAECA, ASHRAE standard 90, ICC Code and all state energy efficiency performance criteria.

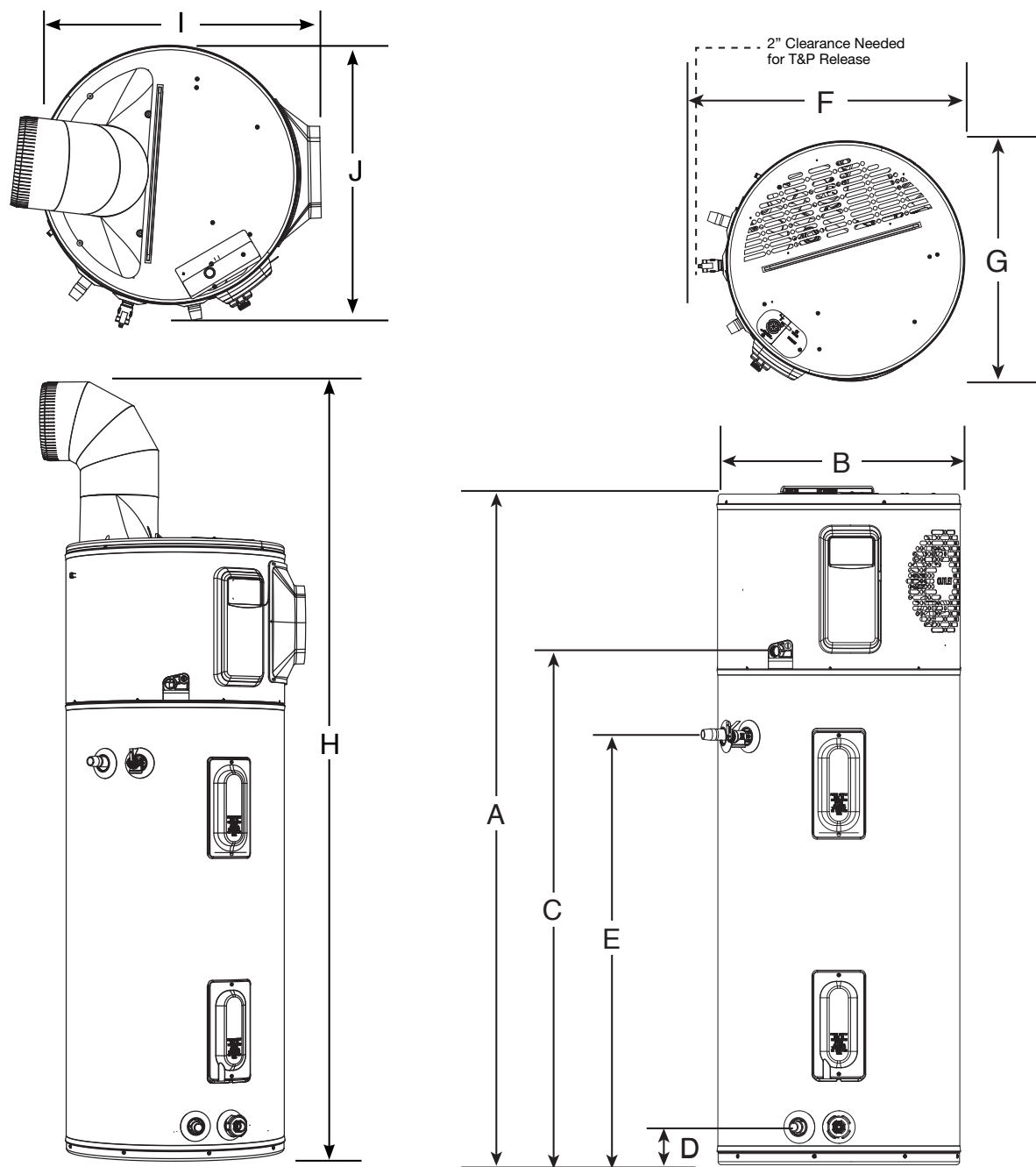
¹ See Residential Warranty Certificate for complete information. ² Wi-Fi broadband internet connection required. ³ Consult your tax advisor for details on eligibility requirements for any available tax credits. Rebates vary by state.

For more product information, visit: Rheem.com/HybridBuilder



INTEGRATED HOME COMFORT

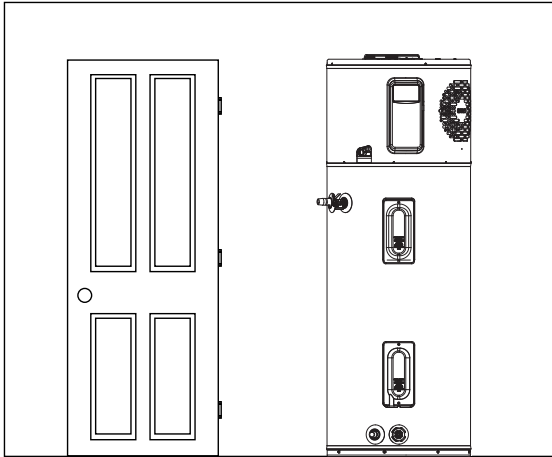
Rheem® Hybrid Builder Residential Electric Water Heater



DESCRIPTION		DIMENSIONS (SHOWN IN INCHES)									
NOMINAL GALLON CAPACITY	MODEL NUMBER	A	B	C	D	E	F	G	H	I	J
40	PRO H40 T2RH310BM	62-5/16	20-1/4	47	3-5/8	39-5/8	25-1/4	20-1/2	78-7/8	22-3/8	21-3/4
50	PRO H50 T2RH310BM	61-3/4	22-1/4	47	3-5/8	39-5/8	27-1/8	22-1/2	78-5/8	24-3/8	23-5/8
65	PRO H65 T2RH310BM	64-3/16	24-1/4	49	3-7/8	42-3/8	29-5/16	24-5/8	81-1/8	26-1/2	25-13/16
80	PRO H80 T2RH310BM	74-3/16	24-1/4	59	3-7/8	52-3/8	29-1/4	24-5/8	91	26-1/2	25-11/16

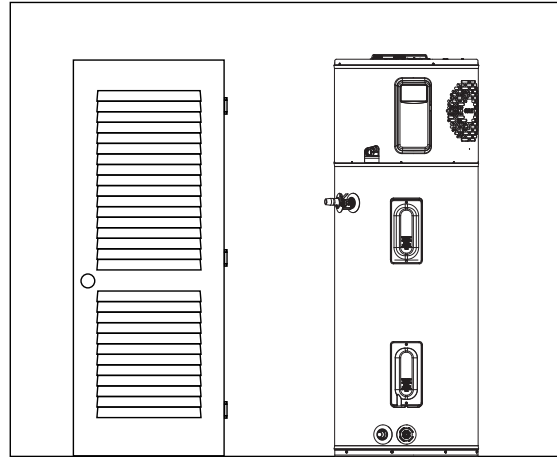
Heater: Not Ducted

Room size: Larger than 700 ft³ (e.g. 7' x 10' x 10').
Requirements: No additional ventilation needed.



Heater: Not Ducted

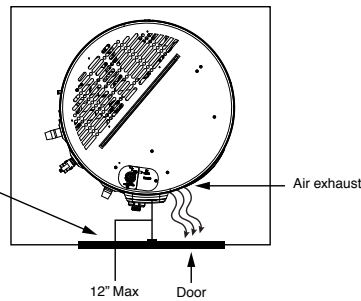
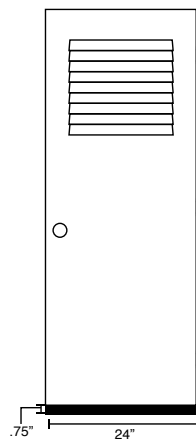
Room size: Smaller than 700 ft³ (e.g. 7' x 10' x 10').
Requirements: Full louvered door OR two louvers top and bottom. See below.



Heater: Not ducted

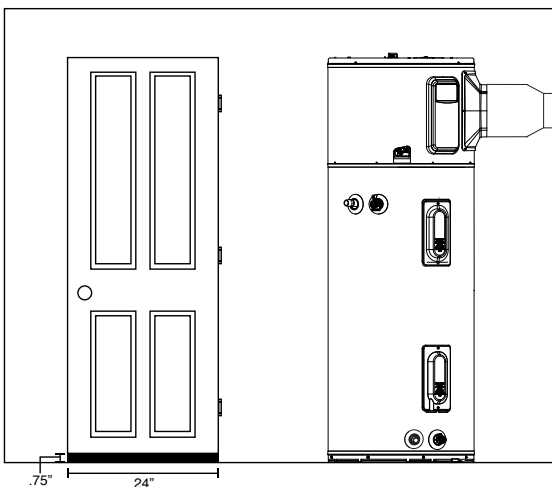
Room: Small Closet

Requirements: * Air gap under door equal to 18 in² (0.75" clearance).
* Louver must be located the same height on door as the air exhaust on heater.
* Heater air exhaust must be positioned towards louver within one foot of door.



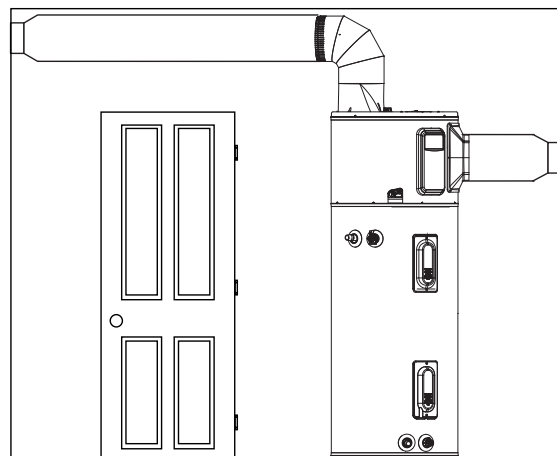
Heater: Ducted with inlet OR outlet duct

Room size: Any size room
Requirements: Air gap under door equal to 18 in² (0.75" clearance)



Heater: Ducted with inlet AND outlet duct

Room size: Any size room
Requirements: No additional ventilation needed.





The new degree of comfort®



Water

Residential Hybrid
Electric Heat Pump-BUILDER
Water Heaters

Hybrid Builder Accessories

PART NUMBER	DESCRIPTION	USE FOR
SP20882	Earthquake Isolation Kit	Installations in seismic regions
SP20883	Vibration Isolation Kit	Installation on non-concrete floors
SP20884	8" Diameter UL Certified Termination Kit	Termination to the outside or to the attic with 8" diameter
SP20885	7" Diameter UL Certified Termination Kit	Termination to the outside or to the attic with 7" diameter
SP20886	6" Diameter UL Certified Termination Kit	Termination to the outside or to the attic with 6" diameter
SP20887	5" Diameter UL Certified Termination Kit	Termination to the outside or to the attic with 5" diameter
SP20888	8" Rheem Approved Damper Kit	Exhaust only to the outside ducting configuration (no inlet duct)
SP20889	25' Flexible 8" Diameter Duct Kit	For up to 25' of ducting
SP20890	Rigid Elbow Duct Kit	Installation in tight places where space needs to be minimized
AP17829	Outlet Duct Adapter	Allows for ducting to be connected to the unit
AP19134	Leak Sensor	Automatic detection of internal and external leaks
AP21365	Inlet Duct Adapter	Allows for ducting to be connected on the top inlet



SP20882



SP20883



SP20884



SP20885



SP20886



SP20887



SP20888



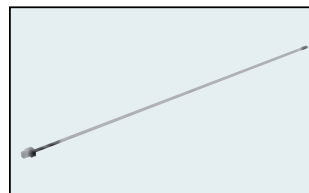
SP20889



SP20890



AP17829



AP19134



AP21365

In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.

Rheem Water Heating • 1115 Northmeadow Parkway, Suite 100
Roswell, Georgia 30076 • www.rheem.com

Rheem Canada Ltd./Ltée • 125 Edgeware Road, Unit 1
Brampton, Ontario L6Y 0P5 • www.rheem.ca



INTEGRATED HOME COMFORT

Specifications

Hammond Series

Acrylic Shower Floor



Product Features

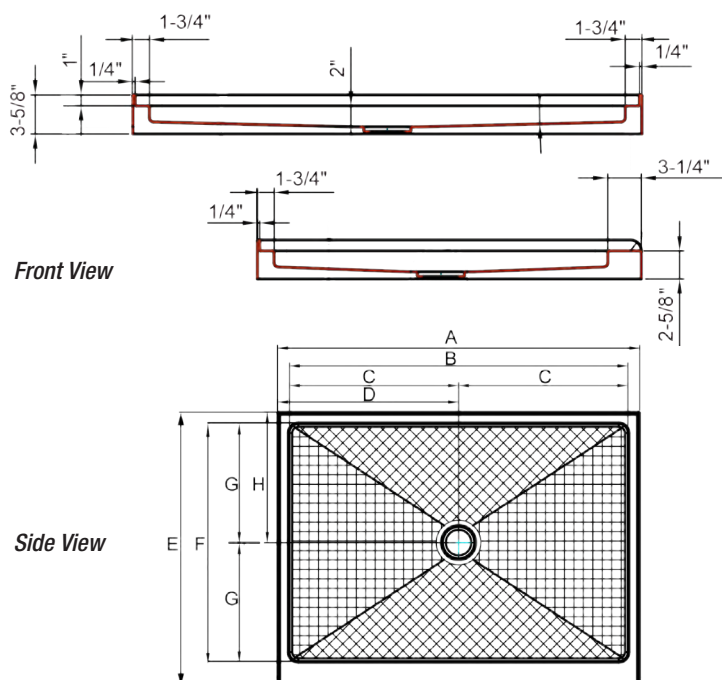
- Acrylic construction
- One-piece construction
- Integral tile flange
- Slip-resistant surface

Product Offering

Part Number	Size	Drain Location
PFSBA3634WH	36" x 34"	Center
PFSBA3636WH	36" x 36"	Center
PFSBA4234WH	42" x 34"	Center
PFSBA4242WH	42" x 42"	Center
PFSBA4242NEOWH	42" x 42"	Center
PFSBA4832WH	48" x 32"	Center
PFSBA4834WH	48" x 34"	Center
PFSBA4836WH	48" x 36"	Center
PFSBA4842WH	48" x 42"	Center
PFSBA4848WH	48" x 48"	Center
PFSBA6030CWH	60" x 30"	Center
PFSBA6030LWH	60" x 30"	Left
PFSBA6030RWH	60" x 30"	Right
PFSBA6032CWH	60" x 32"	Center
PFSBA6032LWH	60" x 32"	Left
PFSBA6032RWH	60" x 32"	Right
PFSBA6034WH	60" x 34"	Center
PFSBA6036WH	60" x 36"	Center
PFSBA6042WH	60" x 42"	Center



PFSBA4832WH



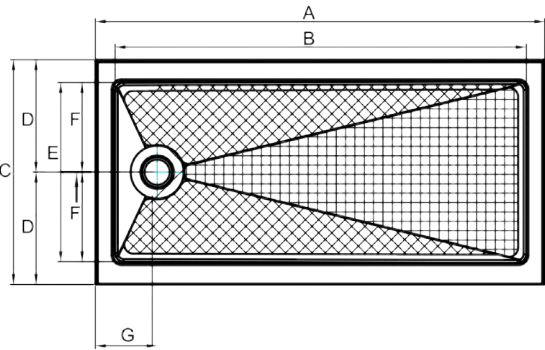
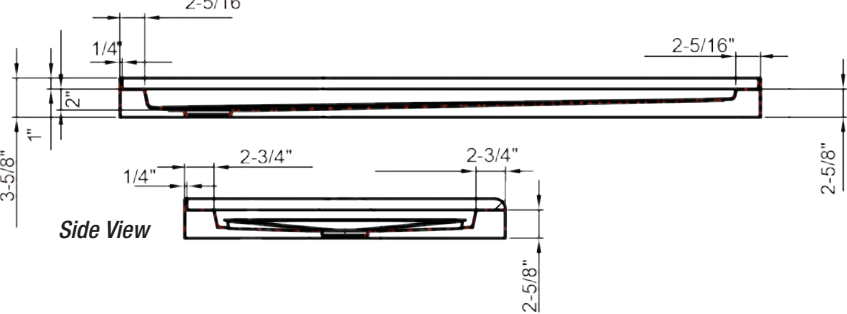
Center Drain Base Dimensions

Part #	Size	A	B	C	D	E	F	G	H
PFSBA3634WH	36" x 34"	35-7/8"	32-3/8"	16-3/16"	17-15/16"	33-7/8"	28-7/8"	14-7/16"	16-3/16"
PFSBA3636WH	36" x 36"	35-7/8"	32-3/8"	16-3/16"	17-15/16"	35-7/8"	30-7/8"	15-7/16"	17-3/16"
PFSBA4234WH	42" x 34"	41-7/8"	38-7/16"	19-1/4"	20-15/16"	33-7/8"	28-7/8"	14-7/16"	16-3/16"
PFSBA4242WH	42" x 42"	41-7/8"	38-7/16"	19-1/4"	20-15/16"	41-7/8"	36-7/8"	18-5/16"	20-3/16"
PFSBA4832WH	48" x 32"	47-7/8"	44-7/16"	22-3/16"	23-15/16"	31-7/8"	26-7/8"	13-7/16"	15-3/16"
PFSBA4834WH	48" x 34"	47-3/4"	44-1/4"	22-1/8"	23-7/8"	33-3/4"	28-3/4"	14-3/4"	16-1/8"
PFSBA4836WH	48" x 36"	47-3/4"	44-1/4"	22-1/8"	23-7/8"	35-7/8"	30-7/8"	15-7/16"	17-3/16"
PFSBA4842WH	48" x 42"	47-3/4"	44-1/4"	22-3/16"	22-15/16"	41-7/8"	36-7/8"	18-5/16"	20-3/16"
PFSBA4848WH	48" x 48"	47-3/4"	44-1/4"	22-3/16"	22-15/16"	47-7/8"	42-7/8"	21-5/16"	23-3/16"
PFSBA6030CWH	60" x 30"	59-7/8"	56-3/8"	28-3/16"	29-15/16"	29-7/8"	24-7/8"	12-7/16"	14-3/16"
PFSBA6032CWH	60" x 32"	59-7/8"	56-3/8"	28-3/16"	29-15/16"	31-7/8"	26-7/8"	13-7/16"	15-3/16"
PFSBA6034WH	60" x 34"	59-7/8"	56-3/8"	28-3/16"	29-15/16"	33-7/8"	28-7/8"	14-7/16"	16-3/16"
PFSBA6036WH	60" x 36"	59-7/8"	56-3/8"	28-3/16"	29-15/16"	35-7/8"	30-7/8"	15-7/16"	17-3/16"
PFSBA6042WH	60" x 42"	59-7/8"	56-3/8"	28-3/16"	29-15/16"	41-7/8"	36-7/8"	18-5/16"	20-3/16"

Specifications
Hammond Series
Acrylic Shower Floor

Left/Right* Drain Base Dimensions

Front View



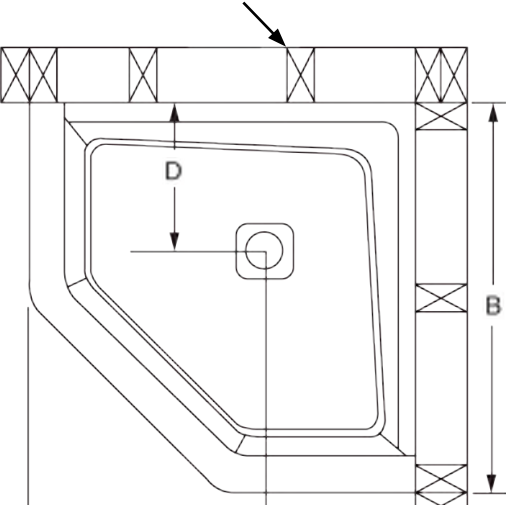
* Left-hand model shown. Right-hand model is exact opposite.

Part #	Drain Location	Size	A	B	C	D	E	F	G
PFSBA6030LWH	Left	60" x 30"	59-7/8"	55-1/4"	30"	15"	24-1/2"	12-1/4"	8-1/4"
PFSBA6030RWH	Right	60" x 30"	59-7/8"	55-1/4"	30"	15"	24-1/2"	12-1/4"	8-1/4"
PFSBA6032LWH	Left	60" x 32"	59-7/8"	55-1/4"	31-7/8"	15-15/16"	26-3/8"	13-3/16"	8-1/4"
PFSBA6032RWH	Right	60" x 32"	59-7/8"	55-1/4"	31-7/8"	15-15/16"	26-3/8"	13-3/16"	8-1/4"

Neo-Angle Base Dimensions

Part #	Drain Location	Size	A	B	C	D
PFSBA4242NEOWH	Center	42" x 42"	42"	42"	12"	12"

Space studs on fitting wall to provide room to install control valves and water supply pipes.



Warranty and Codes

These products come complete with installation, operating, care and maintenance instructions. All PROFLO acrylic shower floors carry a 10-year limited warranty. These products meet or exceed ANSI Z124.2-95.

In an effort to continually improve our products, Ferguson will make design changes from time to time.

We reserve the right to ship newly designed product to fill any order unless we agree in writing to do otherwise.

Note: All dimensions and specifications are nominal and may vary ±1/4".

Use actual products for accuracy in critical situations.



Reston

Two-Piece Elongated Toilet Bowl with Overflow Protection



Product Features

- Equipped with FLUSH GUARD™ overflow protection
- 1.28 gpf
- Gravity-fed siphon jet flush
- Vitreous china
- 15-1/2" Elongated bowl
- Rough-in: 12"
- Flush Valve: 3"
- Trapway: 2" Fully glazed
- Water Spot: 9" x 5-1/4"
- Front mounted chrome trip lever with brass arm
- Sanitary bar on bowl for easy cleaning
- Quick connect, two-bolt tank-to-bowl installation
- Extra large footprint covers floor marks

Optional Accessories/Available Parts

- PF9412FLPK** Fill Valve Assembly
PF2412FLPK Flush Valve Assembly
PF5112TLCPPK Chrome Flush Lever



Available Colors: White (WH)

Codes and Certifications



- IAPMO/cUPC
- EPA WaterSense Certified
- ASME A112.19.2 / CAS B45.1
- MaP Rated 1000g

Tank

PF2412WH	12" Rough-in tank with Chrome Lever
PF2412RWH	12" Rough-in Right-Hand Tank

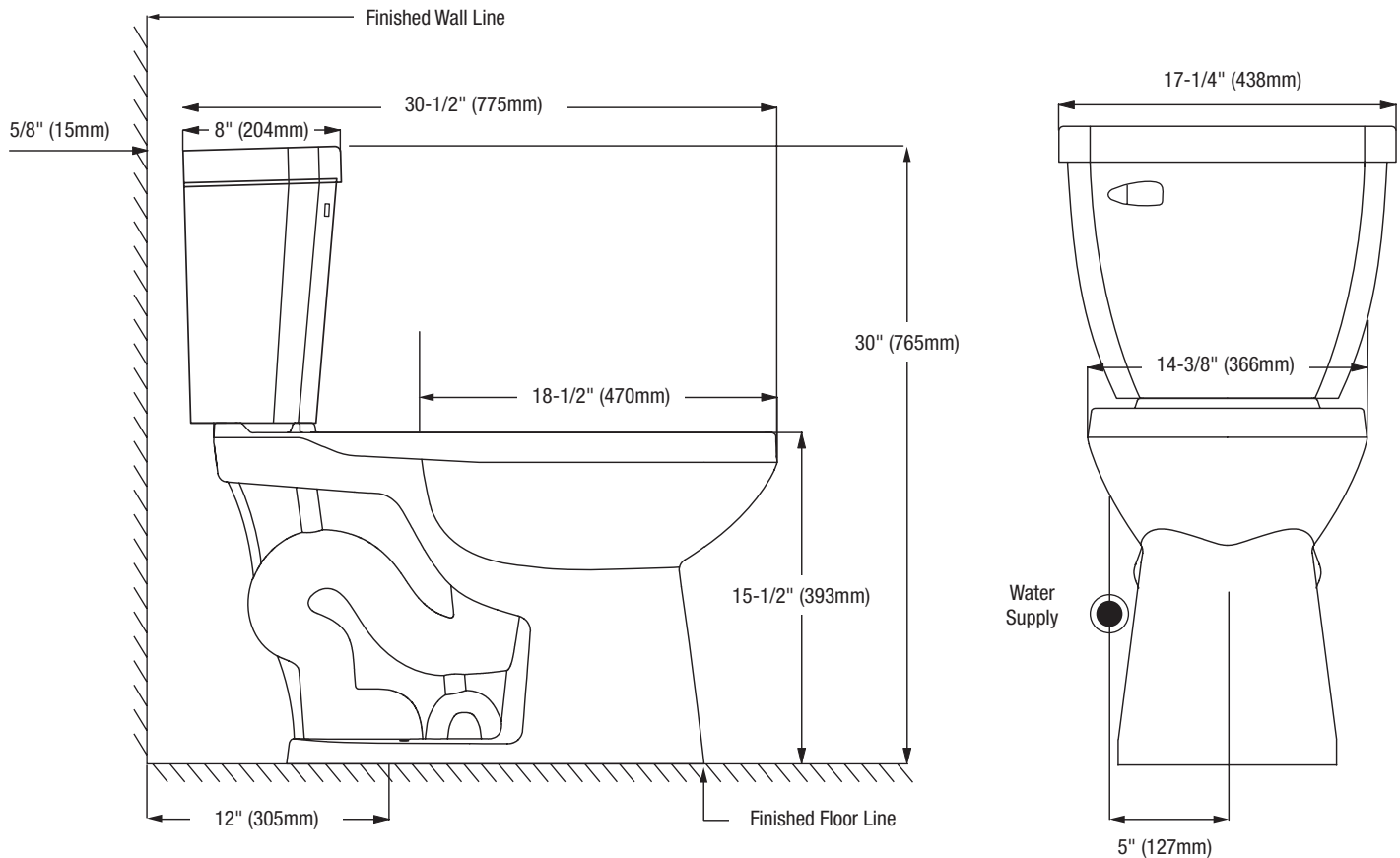
Bowl

PF2401WH	Elongated Bowl - 15-1/2"
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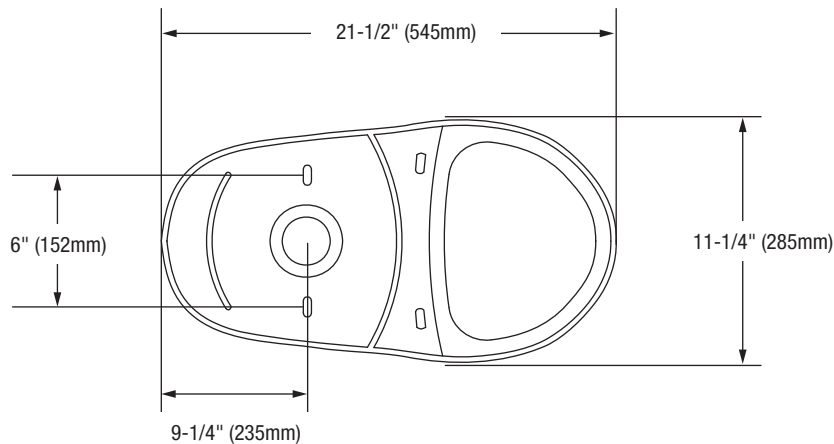
This product comes complete with installation, operating, care and maintenance instructions. All PROFLO fixtures carry a lifetime limited warranty on the vitreous china and a 5-year limited warranty on the fittings. Visit ferguson.com/PROFLO-vitreous-china-warranty for detailed warranty information.

Reston

Two-Piece Elongated Toilet Bowl with Overflow Protection



Bowl Footprint Dimensions



Note: All dimensions and specifications are nominal and may vary: Dimensions of 8" and greater have a tolerance of +3%. Dimensions less than 8" have a tolerance of +5%.

Reston

Two-Piece Elongated Toilet Bowl with Overflow Protection



Product Features

- Equipped with FLUSH GUARD™ overflow protection
- 1.28 gpf
- Gravity-fed siphon jet flush
- Vitreous china
- 17" Elongated ADA bowl
- Rough-in: 12"
- Flush Valve: 3"
- Trapway: 2" Fully glazed
- Water Spot: 8-5/8" x 6"
- Front mounted chrome trip lever with brass arm
- Sanitary bar on bowl for easy cleaning
- Quick connect, two-bolt tank-to-bowl installation
- Extra large footprint covers floor marks

Optional Accessories/Available Parts

- PF9412FLPK** Fill Valve Assembly
PF2412FLPK Flush Valve Assembly
PF5112TLCPPK Chrome Flush Lever



Available Colors: White (WH)

Codes and Certifications



- IAPMO/cUPC
- EPA WaterSense Certified
- ASME A112.19.2 / CAS B45.1
- MaP Rated 1000g
- ADA Compliant

Tank

PF2412WH	12" Rough-in tank with Chrome Lever
PF2412RWH	12" Rough-in Right-Hand Tank

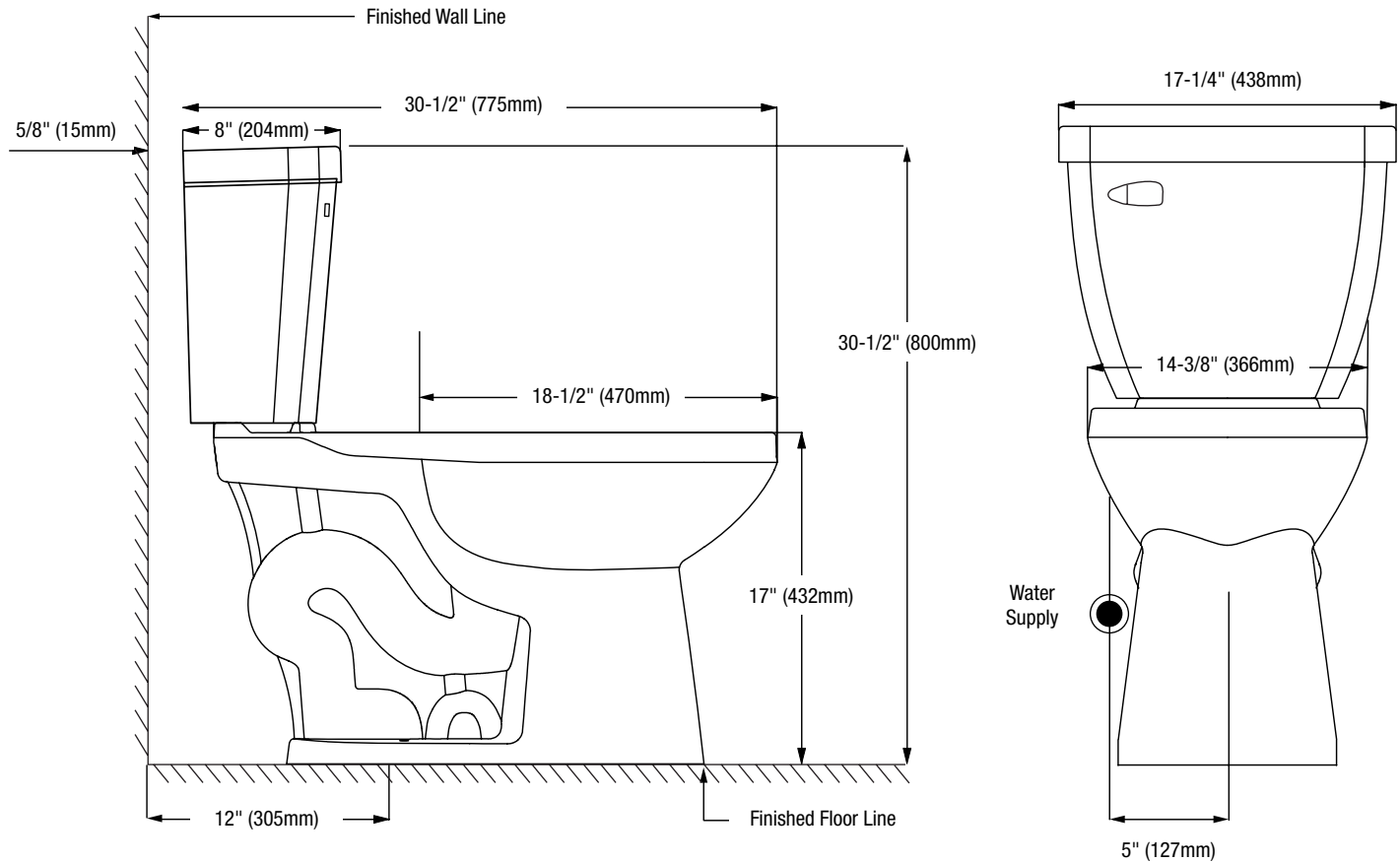
Bowl

PF2403WH	Elongated ADA Bowl - 17"
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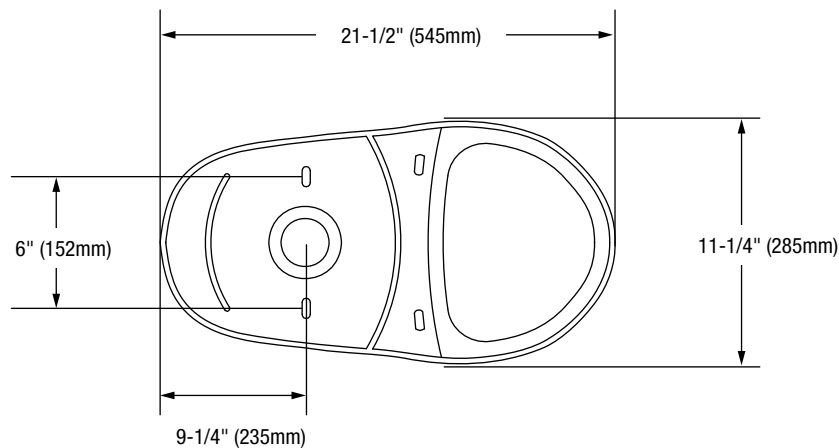
This product comes complete with installation, operating, care and maintenance instructions. All PROFLO fixtures carry a lifetime limited warranty on the vitreous china and a 5-year limited warranty on the fittings. Visit ferguson.com/PROFLO-vitreous-china-warranty for detailed warranty information.

Reston

Two-Piece Elongated Toilet Bowl with Overflow Protection



Bowl Footprint Dimensions



Note: All dimensions and specifications are nominal and may vary: Dimensions of 8" and greater have a tolerance of +3%. Dimensions less than 8" have a tolerance of +5%.

5-1/2" to 5-3/4" Base



Bullnose Base

9/16 x 5-1/2

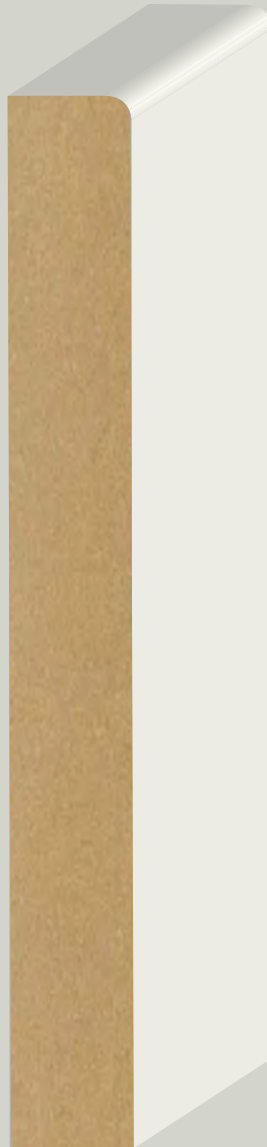
MDF907A PRIMED MDF

11/16 x 5-1/2

MDF207A PRIMED MDF

Also available in:

7-1/4



R.E. Base

1/2 x 5-1/2

MDF206A PRIMED MDF

Also available in:

2-1/4, 3-1/4, 3-1/2, 4-1/2, 7-1/4



Santa Clara Base

3/4 x 5-3/4

MDF129A PRIMED MDF

Baseboard

1-9/16" to 2-1/4" Casing



Moulded Casing

5/8 x 1-5/8

MDF238A PRIMED MDF

Also available in:
3-1/4



Bevel Casing

9/16 x 1-9/16

MDF256A PRIMED MDF

MDF256MWS WATER PRIMED MDF (MITRED WRAPPED SET)

Also available in:
2-1/4

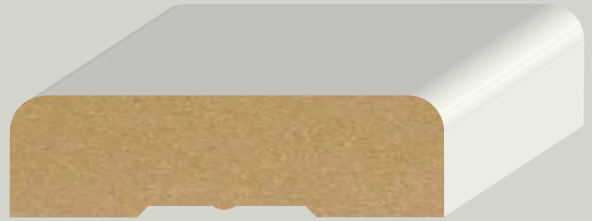


Bevel Casing

9/16 x 2-1/4

MDF258A PRIMED MDF

Also available in:
1-9/16



R.E. (Round Edge) Casing

9/16 x 2-1/4

MDF234A PRIMED MDF

Also available in:
3-1/4, 4-1/2

DOOR CASING
WINDOW APRON



Colonial/356 Casing

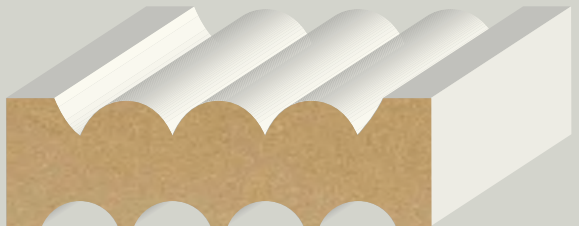
5/8 x 2-1/4

MDF239A PRIMED MDF

MDF239AP (102" Pairs) PRIMED MDF

11/16 x 2-1/4

MDF239MWS WATER PRIMED MDF (MITRED WRAPPED SET)



Flute & Reed Casing

11/16 x 2-1/4

MDF027A PRIMED MDF

Also available in:
3-3/8, 4-1/4

5-7/16" to 5-1/2" Base



Santa Fe Base

9/16 x 5-7/16

P009PR PRIMED PINE

Also available in:

3-7/16, 4-1/2



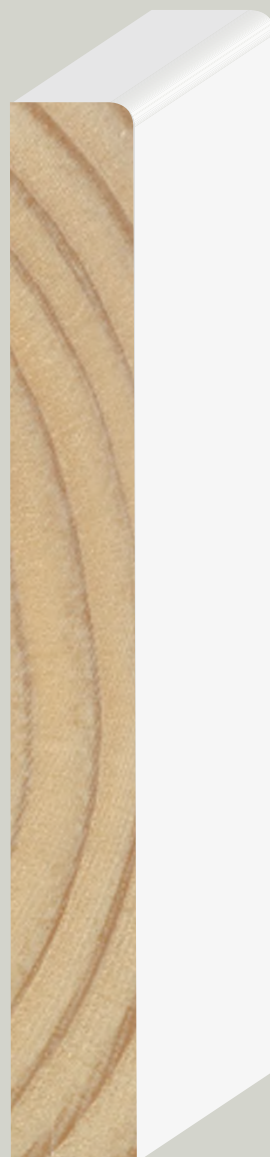
Beaded Base

9/16 x 5-1/2

P837PPR PREMIUM PRIMED PINE

Also available in:

3-7/16



Single R.E. Base

9/16 x 5-1/2

P833PPR PREMIUM PRIMED PINE

1/2 x 5-1/2

P206PR PRIMED PINE

Also available in:

3-1/2

WET AREA BASE

Framestock and Stool



Exterior Reversible Door Frame

Size:	Rabbets	Species:	Pairs:
4-5/8	1/2x1-7/16 & 1/2x1-13/16	RAW FJ PINE	PF305FJP
5-1/4	1/2x1-7/16 & 1/2x1-13/16	RAW FJ PINE	PF315FJP
6-5/8	1/2x1-7/16 & 1/2x1-13/16	RAW FJ PINE	PF722FJP
7-1/4	1/2x1-7/16 & 1/2x1-13/16	RAW FJ PINE	PF727FJP
"	1/2x1-7/16 & 1/2x1-13/16	PRIMED PINE	PF727PRP

EXTERIOR FRAME SPECIFICATIONS:

82-1/2" below dado. Single end dado 1-1/4" for head. No lug. Eased face corners.

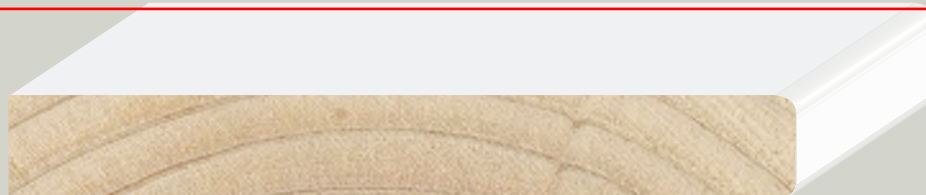
No sill dado. Heads rough cut 37".



Window Sash Stool (Lineal)

Size:		
1-1/16 x 2	PRIMED PINE	P019PR
11/16 x 4-11/16	PRIMED PINE	P373PR
11/16 x 5-1/4	PRIMED PINE	P376PR
"	RAW FJ PINE	P376FJ
11/16 x 7-1/4	PRIMED PINE	P377PR
"	RAW FJ PINE	P377FJ

WINDOW
STOOL



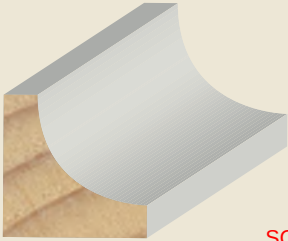
Craftsman Stool

11/16 x 5-1/2

P877PPR PREMIUM PRIMED PINE

Note: Jambs and frames are available in a wide variety of sizes, wood species, and pre-cut 7' or 8' lengths. Please ask your sales representative for item numbers and availability.

Decorative Moulding



SOFFIT TRIM (PAINTED)

Cove

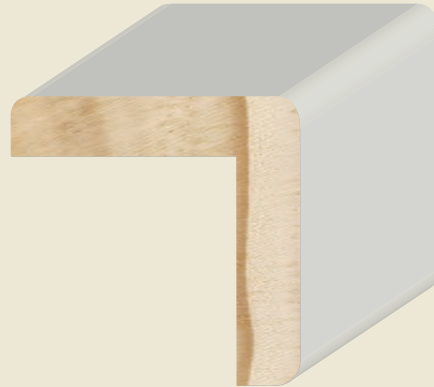
11/16 x 11/16

C606 CEDAR (STAIN GRADE OPTION)

CEDAR

3/4 x 3/4

EX606PR TREATED PRIMED PINE



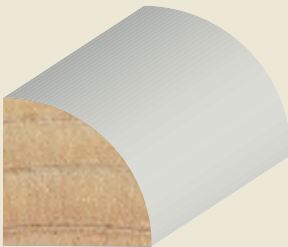
Corner Guard

1-1/2 x 1-1/2

EX604PR TREATED PRIMED PINE

C604 CEDAR (STAIN GRADE OPTION)

CEDAR



Quarter Round

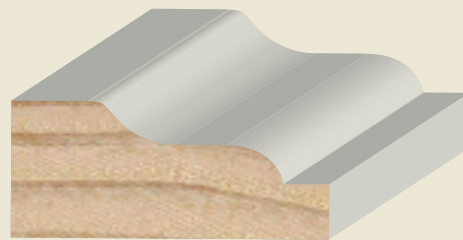
11/16 x 11/16

C614 CEDAR (STAIN GRADE OPTION)

CEDAR

3/4 x 3/4

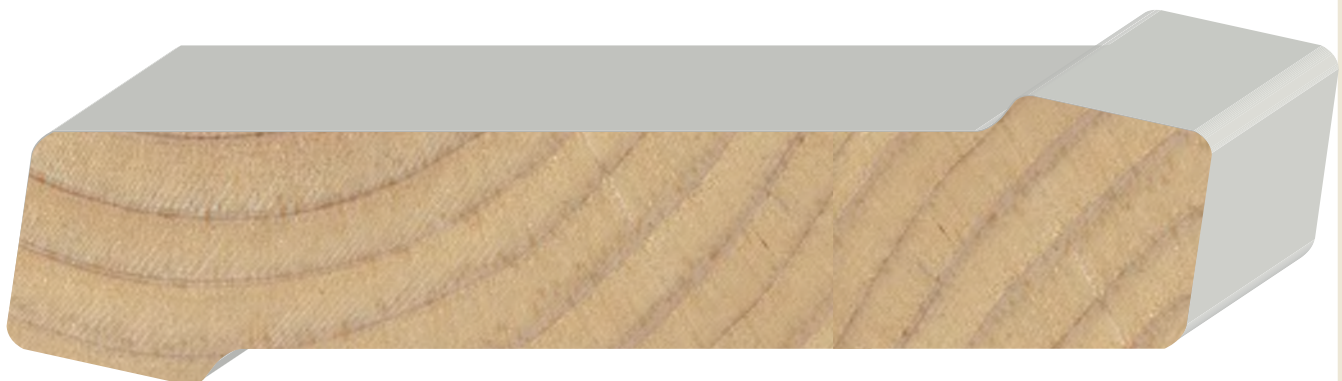
EX614PR TREATED PRIMED PINE



Shingle Mould

11/16 x 1-5/8

EX616PR TREATED PRIMED PINE



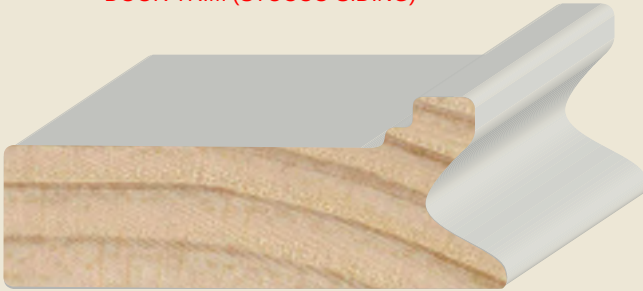
Reversible Sill

2 x 8

EX640PR TREATED PRIMED PINE

Utility Moulding

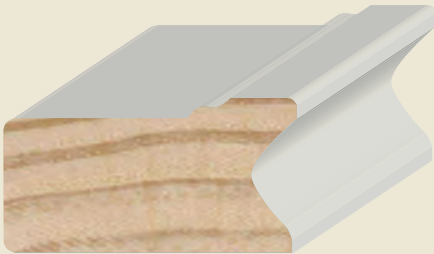
DOOR TRIM (STUCCO SIDING)



Stucco Mould

1 x 2-1/2

EX629PR TREATED PRIMED PINE



Stucco Mould

13/16 x 1-1/2

EX618PR TREATED PRIMED PINE ⚙

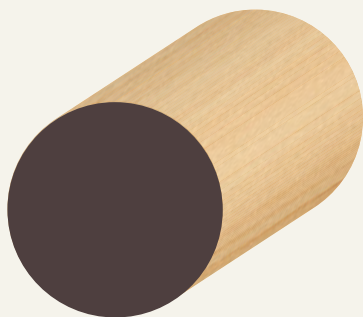


3-Step Stucco

11/16 x 1-15/16

EX627PR TREATED PRIMED PINE

Handrail and Pole



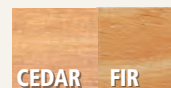
Fir Full Round

F502	1-5/16 x 1-5/16
F502FJ	1-5/16 x 1-5/16 (Fingerjointed)
F503	1-3/8 x 1-3/8
F504	1-9/16 x 1-9/16
F504FJ	1-9/16 x 1-9/16



Flat Bottom Handrail

1-1/2 x 1-11/16
F505FJ FJ DOUG FIR
1-1/2 x 1-11/16
C505 CEDAR



Mushroom Handrail

1-7/16 x 1-15/16

C501 CEDAR

F501 DOUG FIR

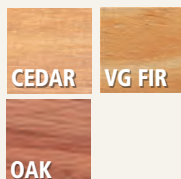
1-3/8 x 2-1/4

F506 DOUG FIR

F506FJ FJ DOUG FIR

1-5/8 x 2-3/8

O506 OAK



Paint grade handrail

Stops and Trim

SOFFIT TRIM (STAIN)



Cove

1/2 x 1/2

P272 SOLID PINE

11/16 x 11/16

VG1274 VG DOUG FIR

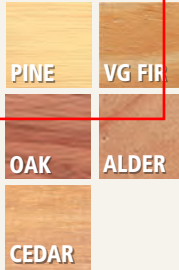
C606 CEDAR

3/4 x 3/4

P274 SOLID PINE

O274 OAK

ALD274 ALDER



Sprung Cove

11/16 x 1-3/4

P276 SOLID PINE

11/16 x 2-1/4

P278 SOLID PINE



Lino Cove

5/8 x 1-1/2

P280 SOLID PINE



Decorative Cove

3/4 x 3/4

P275 SOLID PINE



Chamfer Strip

3/4 x 3/4

P264 SOLID PINE

1" x 1"

P264-1 SOLID PINE

1-1/2 x 1-1/2

P264-2 SOLID PINE



Corner Guard

3/4 x 3/4

P266 SOLID PINE

O266 OAK

1 x 1

P268 SOLID PINE

ALD268 ALDER

1-1/8 x 1-1/8

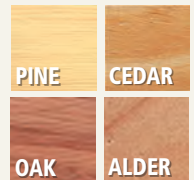
O269 OAK

1-3/8 x 1-3/8

P270 SOLID PINE

1-1/2 x 1-1/2

C604 CEDAR



Emerald®**Urethane Trim Enamel Interior-Exterior Waterbased Semi-Gloss**

(US) K38-2750/1750/1760 Series, (Canada) K38Q-8950/8850/8860 Series

**SHERWIN
WILLIAMS®****CHARACTERISTICS**

Emerald Urethane Trim Enamel is a waterbased "Best-In-Class" quality interior-exterior enamel formulated with a urethane modified alkyd resin system for premium quality and performance. It delivers the look, feel and durability of an oil based enamel with the convenience of a waterbased formula. Excellent flow and leveling, gloss and color retention when applied to interior-exterior surfaces such as properly prepared drywall, wood, masonry and metal.

Color: Many Colors
To optimize hide and color development, always use the recommended P-Shade primer.

Coverage: 8.58-9.81 sq. meters per litre
350-400 sq. ft. per gallon
@ 4 mils wet, 1.3 mils dry

Drying Time, @ 77°F (20°C), 50% RH:

Touch: 1 Hour
Recoat: 4 Hours
Drying and recoat times are temperature, humidity, and film thickness dependent.

Finish: 45-65 units @ 60°

Tinting with CCE:

Base:	oz. per gallon:	Strength:
Ultrawhite	0-7	SherColor
High Hide White	0-6	SherColor
Deep Base	4-14	SherColor
Ultradeep Base	10-14	SherColor
Black	Do Not Tint	

Ultrawhite K38W01750

(may vary by color)

V.O.C.(less exempt solvents):

less than 50 grams per litre; 0.42 lbs. per gallon
As per 40 CFR 59.406

Volume Solids: 33 ±2%
Weight Solids: 49 ±2%
Weight per Gallon: 10.73 lbs (4.86 kg)
Flash Point: N.A.
Vehicle Type: Urethane modified alkyd
Shelf Life: 36 months, unopened

COMPLIANCE

As of 09/26/2022, Complies with :

OTC	Yes
OTC Phase II	Yes
S.C.A.Q.M.D.	Yes
CARB	Yes
CARB SCM 2007	Yes
CARB SCM 2020	Yes
Canada	Yes
LEED® v4 & v4.1 Emissions	No
LEED® v4 & v4.1 V.O.C.	Yes
EPD-NSF® Certified	No
MIR-Manufacturer Inventory	No
MPI®	Yes

APPLICATION

Apply at temperatures above 50°F (10°C).
No reduction needed.

Brush:
Use a nylon-polyester brush.

Roller:
Use a 1/4 to 1/2 inch nap synthetic cover.

For specific brushes and rollers, please refer to our Brush and Roller Guide.

Spray - Airless:
Pressure 2000 p.s.i.
Tip .013-.017 inch

HVLP System: Graco® HVLP 9.5, number 3 or 4 needle and cap, two-thirds air pressure, number 5 material setting. Single turbine, no reduction. Or equivalent.

APPLICATION TIPS

Make sure product is completely agitated (mechanically or manually) before use.

Using the same method of application and batch to touch up with as that originally used will help improve touch up.

When original application was by spray, preconditioning of touch up paint by running it through the spray tip will help touch up appearance.

SPECIFICATIONS**Interior**

Drywall:
1 coat ProMar 200 Zero V.O.C Primer
2 coats Emerald Urethane Trim Enamel

Plaster:
1 coat Loxon Concrete & Masonry Primer
2 coats Emerald Urethane Trim Enamel

Wood:
1 coat Premium Wall & Wood Primer
2 coats Emerald Urethane Trim Enamel

Interior and Exterior

Aluminum, Galvanized & Steel:
1 coat All Surface Enamel Latex Primer
2 coats Emerald Urethane Trim Enamel

Block:
1 coat Loxon Acrylic Block Surfer
2 coats Emerald Urethane Trim Enamel

Masonry, Cement, Stucco:
1 coat Loxon Concrete & Masonry Primer
2 coats Emerald Urethane Trim Enamel

Exterior

Wood:
1 coat Exterior Oil-Based Wood Primer
or
1 coat Exterior Latex Wood Primer
2 coats Emerald Urethane Trim Enamel

Other primers may be appropriate.

When repainting involves a drastic color change, a coat of primer will improve the hiding performance of the topcoat color.

Emerald[®]

Urethane Trim Enamel Interior-Exterior Waterbased Semi-Gloss

SURFACE PREPARATION

WARNING! If you scrape, sand or remove old paint, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting: US - National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead; Canada - your local health authority.

Remove all surface contamination by washing with a appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Glossy surfaces should be sanded dull. Stains from water, smoke, ink, pencil, grease, etc. should be sealed with the appropriate primer-sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

Aluminum and Galvanized Steel:

Wash to remove any oil, grease, or other surface contamination. All corrosion must be removed with sandpaper, wire brush, or other abrading method.

Caulking:

Gaps between walls, ceiling, crown moldings, and other interior trim can be filled with the appropriate caulk after priming the surface.

Drywall:

Fill cracks and holes with patching paste-spackle and sand smooth. Joint compounds must be cured and sanded smooth. Remove all sanding dust.

Masonry, Concrete, Cement, Block:

All new surfaces must be cured according to the supplier's recommendations – usually about 30 days. Remove all form release and curing agents. Rough surfaces can be filled to provide a smooth surface. If painting can not wait 30 days, allow the surface to cure 7 days and prime the surface with Loxon Concrete & Masonry Primer.

Steel:

Rust and mill scale must be removed using sandpaper, wire brush, or other abrading method. Bare steel must be primed the same day as cleaned.

SURFACE PREPARATION

Mildew:

Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised.

Mildew may be removed before painting by washing with a solution of 1 part liquid bleach and 3 parts clean water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach-water solution.

Stucco:

Remove any loose stucco, efflorescence, or laitance. Allow new stucco to cure at least 30 days before painting. If painting cannot wait 30 days, allow the surface to dry 7 days and prime with Loxon Concrete & Masonry Primer. Repair cracks, voids, and other holes with an elastomeric patch or sealant.

Plaster:

Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 pint household vinegar to 1 gallon of clean water. Repeat until the surface is hard, rinse with clear water and allow to dry.

Wood, Plywood, Composition Board:

Clean the surface thoroughly then sand any exposed wood to a fresh surface. Patch all holes and imperfections with a wood filler or putty and sand smooth. All patched areas must be primed. Knots and some woods, such as redwood and cedar, contain a high amount of tannin, a colored wood extract. If applied to these bare woods, it may show some staining.

Exterior: If staining persists, spot prime severe areas with 1 coat of Exterior Oil-Based Wood Primer prior to using.

Interior: If staining persists, spot prime severe areas with 1 coat of Multi-Purpose Oil-Based Primer.

CAUTIONS

Protect from freezing.
Non-Photochemically reactive.

For exterior use on doors, trim, and other small areas of wood or metal. Do not use on the main body of exterior structures.

Before using, carefully read **CAUTIONS on label**.

Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

HOTW 09/26/2022 K38W01753 03 32
FRC,SP

CLEANUP INFORMATION

Clean spills, spatters, hands and tools immediately after use with soap and warm clean water. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.



SuperPaint®

PERFORMANCE AND PROTECTION YOU CAN COUNT ON



EXTERIOR ACRYLIC LATEX



YOU CAN DEPEND ON IT. SUPERPAINT® PERFORMANCE HAS STOOD THE TEST OF TIME.

You can count on SuperPaint Exterior Latex Paint to deliver outstanding performance and protection against the elements.

SuperPaint is formulated with Advanced Resin Technology. You can apply most sheens in cold weather, even in temperatures as low as 35°F. Once applied, it offers outstanding adhesion and hide – resisting



frost in cooler temperatures and chalking, peeling, and blistering in hot and humid conditions.

With its fast, efficient application, SuperPaint will increase your production year-round. And with its ability to withstand the elements, it will minimize repaints, keep costs down, and lead to more satisfied customers and referrals.

SUPERPAINT KEY BENEFITS

- | | |
|--|--|
| • Formulated with Advanced Resin Technology for outstanding adhesion and hide. | • Low temperature application down to 35°F. |
| • Paint and primer in one. | • Available in Flat, Low Lustre, Satin, Gloss and High Gloss. |
| • Withstands the elements and resists peeling and blistering. | • High Gloss is ideal for reducing sticking on doors, windows and trim. |
| • Outstanding coverage and durability. Provides a dirt-resistant and a mildew-resistant coating. | • Can be tinted in VinylSafe® Paint Colors — allowing you the freedom to choose from 100 color options, including a limited selection of darker colors formulated to resist warping or buckling when applied to a sound, stable vinyl substrate. See VinylSafe® color palette for colors that can be used. |
| • Backed by a Lifetime Limited Warranty (see label for details). | |



SUPERPAINT IS BROUGHT TO YOU BY A NAME YOU KNOW AND TRUST.

For more than 150 years, Sherwin-Williams has provided contractors, builders, property managers, architects and designers with the trusted products they need to build their business and satisfy customers. SuperPaint is just one more way we bring you industry-leading paint technology — innovation you can pass on to your customers.

Plus, with more than 4,300 stores and 2,700 sales representatives across North America, personal service and expert advice is always available near jobsites. Find out more about SuperPaint Exterior Latex Paint at your nearest Sherwin-Williams store or to have a sales representative contact you, call **800-524-5979**.



WoodScapes®

Premium Translucent Finish

A15C00204/A15CQ0204 Satin Natural



CHARACTERISTICS

WoodScapes Premium Translucent Finish Satin Natural is a high-quality choice for protecting exterior wood siding, log and timber framed homes, doors and trim, fencing, rails, and other vertical wood surfaces.

This high solids exterior wood finish provides excellent water repellency and is resistant to UV fading.

This product contains agents which inhibit the growth of mildew on the surface of this paint film.

Use on:

- Unfinished Pine
- Cedar and Redwood
- Fir
- Most Softwoods

Color: Natural & 8 Tintable* Wood Colors

Coverage:

Smooth Surfaces 400-500 sq. ft. per gallon
Rough Sawn 250-350 sq. ft. per gallon
Depending on porosity and texture.

Note: New wood normally requires less product than old, weathered wood. This is due to older wood being more porous than newer wood.

Drying Time, @ 77° F, 50% RH:

Touch: 8-12 Hours
Recoat: 24 Hours

Drying and recoat times are temperature, humidity, and film thickness dependent.

Finish: Satin 25-30 units @ 60°

Tinting: Tint with BAC

Base	oz. per gallon	SherColor
Natural Base	0-6	Yes*

Satin Natural A15C00204

(may vary by color)

V.O.C. (less exempt solvents):

less than 275 grams per litre; 2.29 lbs. per gallon
As per 40 CFR 59.406

Volume Solids: 47 ±2%

Weight Solids: 47 ±2%

Weight per Gallon: 8.99 lbs

Flash Point: 111 F° PMCC

Vehicle Type: Alkyd

Shelf Life: 36 months, unopened

COMPLIANCE

As of 05/27/2025, Complies with:

OTC	Yes
OTC Phase II	Yes
S.C.A.Q.M.D.	Yes
CARB	Yes
CARB SCM 2007	Yes
CARB SCM 2020	Yes
Canada	Yes
LEED® v4 & v4.1 Emissions	N/A
LEED® v4 & v4.1 V.O.C.	Yes
EPD-NSF® Certified	N/A
MIR-Manufacturer Inventory	N/A
MPI®	No

APPLICATION

For best results, apply in shade with surface temperatures between 40°F and 95°F. Do not apply if temperatures will fall below 40°F or if rain is expected within 24 hours after application. Do not apply over wet or damp surfaces.

Do not reduce.

Brush: Use a natural bristle brush such as Sherwin-Williams Deck & Siding Brush.

Roller: Use a high-quality woven roller cover such as Purdy® White Dove™.

For specific brushes and rollers, please refer to our Brush and Roller Guide on sherwin-williams.com.

Spray - Airless:

Pressure	1500 - 2000 p.s.i.
Tip	.011-.017 inch

APPLICATION TIPS

Thoroughly stir contents before and occasionally during use. For uniformity, mix all cans together before use. Do not mix with any other stains or coatings. A sample brush out is recommended to ensure desired color and appearance satisfaction.

All surfaces must be clean, dry and free from dirt, mildew stains, dust and other foreign matter. Remove surface stains, dirt and failed oxidized stains or finishes.

Different wood species, textures and natural color will affect the finished shade.

APPLICATION TIPS

Apply without thinning by brush, roller or spray. If sprayed, use the lowest possible pressure needed for a reasonable spray pattern. Also, when spraying be sure to back brush-roll to work the product smoothly and evenly into the wood. This will decrease the possibility of pools or puddles on the surface and ensure a properly penetrated finish.

Penetration will vary depending on porosity of the surface. Thoroughly coat cut ends and joints. Keep the leading edge wet and distribute the finish evenly. Use natural breaks as boundaries to divide large areas into smaller, more manageable ones.

SPECIFICATIONS

Wood:

2 coats WoodScapes Premium Translucent Finish

Two coats are recommended for maximum protection and full coverage. Allow 24 hours dry time between coats.

***Color Palette available in SherColor**

SW 3601 Butternut
SW 3602 Cedar
SW 3603 Dark Oak
SW 3604 Mahogany
SW 3605 Natural
SW 3606 Natural Oak
SW 3607 Teak
SW 3608 Mission Brown

Premium Translucent Finish

SURFACE PREPARATION

Warning! If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting: US - National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead; Canada - your local health authority

Remove all existing paint and replace any deteriorated substrate. Although this can be applied over earlier translucent finishes, some of the old color may be visible through this translucent finish. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

Remove all surface contamination by washing with an appropriate cleaner, especially in areas not exposed to direct weathering such as under eaves and porch ceilings. Rinse thoroughly and allow the surface to dry. Test the absorbency of the wood by sprinkling water on the surface. If the water penetrates into the wood quickly, the wood is ready to finish. If the water beads up or does not penetrate, remove the existing finish or contaminant. Then test for absorbency again. Do not apply coating over wet or damp surfaces.

Caulking:

Apply appropriate caulking and patching material to cracks, nail holes or tother surface imperfections. Filled areas will take the finish differently than bare wood. Consider using a caulk that is a color similar to the stain color.

Mill Glaze:

Mill glaze is a glossy finish on new, smooth sawn wood or on the peaks of some textured wood. This must be removed by sanding to allow the finish to penetrate.

Cedar & Redwood:

Follow cleaning or stripping with Superdeck® Revive™ Deck & Siding Brightener to remove tannin stains and brighten wood to its original color.

SURFACE PREPARATION

Mildew:

Clean mildew from the Surface: Mildew is a fungus that looks like dirt but won't wash off. Mildew must be removed before painting, or it will grow through any new coat of paint. To remove mildew or suspected mildew, scrub surface before painting with a commercial mildew remover following manufacturer's safety instructions.

Pressure Treated Wood:

Test the absorbency of the wood by sprinkling water on the surface. If the water penetrates into the wood quickly, the wood is ready to finish. If the water beads up or does not penetrate, remove existing finish or contaminant. Then test for absorbency again. Prepare the surface like any other wood surface.

Due to the green tone of many brands of pressure treated lumber, the color of the finished wood may look different from that of the desired look. Check the color on a test area prior to finishing the entire project.

Smooth or Rough Wood Siding and Plywood:

Sand any exposed wood to a fresh surface. Replace any deteriorated wood.

CAUTIONS

Maintenance clean by using a non-chlorinated bleach alternative.

For exterior use on exterior wood only.

Do not use on roofs.

Not for use on horizontal surfaces, such as a roof, or floor, where water may collect.

DANGER! HARMFUL OR FATAL IF SWALLOWED. COMBUSTIBLE! VAPOR HARMFUL. IRRITATES EYES, SKIN AND RESPIRATORY TRACT.

Before using, carefully read **CAUTIONS** on label.

Contains **ALIPHATIC HYDROCARBONS** and **AROMATIC HYDROCARBONS**. Contents are **COMBUSTIBLE**. Keep away from heat and open flame. **VAPOR HARMFUL**. Use only with adequate ventilation. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

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CLEANUP INFORMATION

Clean spills, spatters, hands, and tools immediately after use with compliant cleanup solvent. Follow manufacturer's safety recommendations when using solvents.

DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with the product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.



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Get performance you can count on with **SuperPaint® Interior Acrylic Latex**



With the smooth application and excellent hide of **SuperPaint® Interior Acrylic Latex**, it's easy to deliver a brand-new look.



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Paint and primer in one

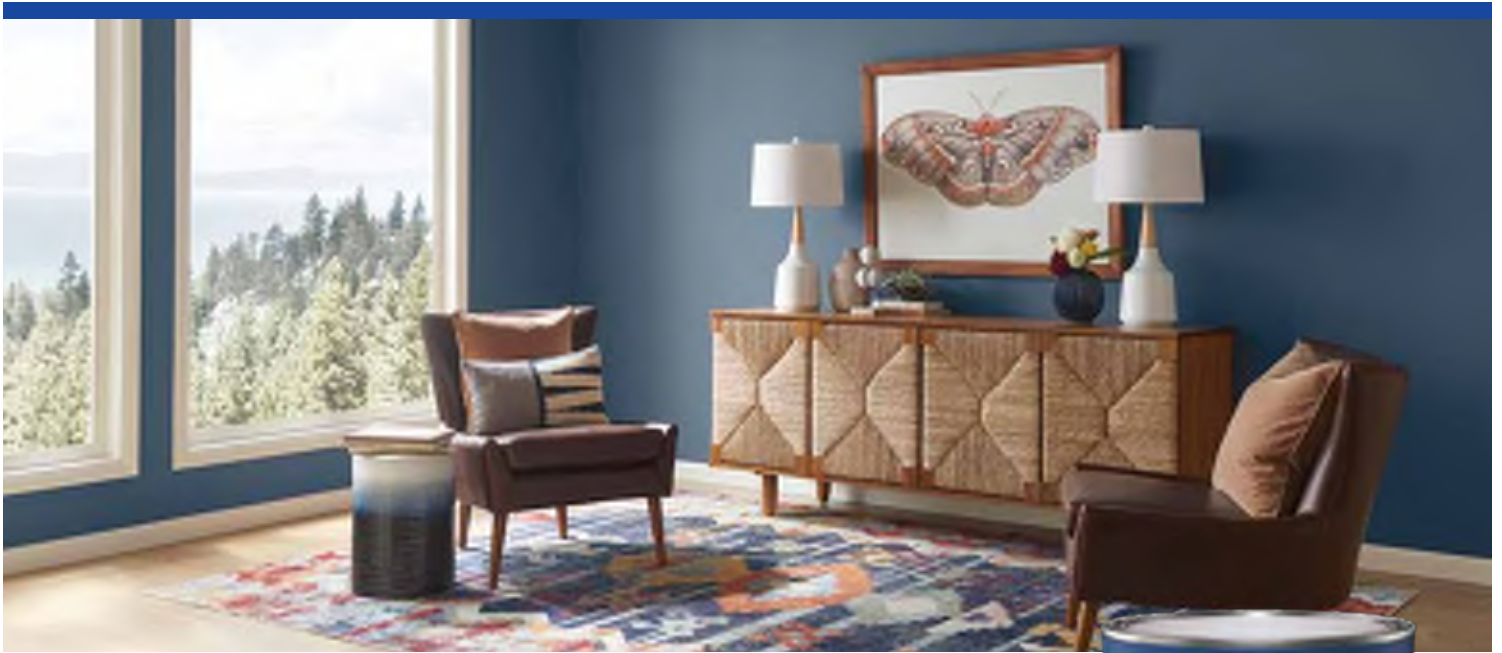


Overall great scrubbability



Open your smartphone camera and scan over the code to learn more about the benefits of SuperPaint® Interior Acrylic Latex. ►





When the job calls for quality performance as well as time and material savings, **SuperPaint® Interior Acrylic Latex** is the choice of professionals.



Improve Production

Goes on fast and easy, so you can get more done in a day.



Keep Costs Down

This paint and primer in one has excellent coverage, so you get a smooth, beautiful finish with less paint.



Minimize Repaints

Offers overall great scrubbability for a durable, lasting look.



Deliver the Finish Customers Want

Available in flat, velvet, satin and semi-gloss sheens.



Industry-leading innovation from a name you can trust. Many hours of field testing, years of research and decades of experience go into developing coatings that are better for your business. Sherwin-Williams has been committed to quality for more than 150 years and has a complete line of extraordinary paints and stains, plus rich, beautiful colors to set your work apart.

101.53D

Premium Ceiling Paint

Interior Acrylic Latex Flat

A27W00600/A27WQ0600 White



CHARACTERISTICS

Premium Ceiling Paint is our brightest white interior acrylic latex ceiling finish. It has an easy to apply, non-lapping formula, excellent hide, flow and leveling. This finish dries to an extremely flat finish.

Premium Ceiling Paint is for use on ceilings of wallboard, plaster, and wood that are bare, primed or previously coated, and masonry that is primed or previously coated.

Premium Ceiling Paint contains *Anti-Microbial agents.

Color: White
Light Reflectance Value 92

Coverage: 350-400 sq. ft. per gallon
@ 4 mils wet, 1.3 mils dry

Drying Time, @ 77° F, 50% RH:
Touch: 1 Hour
Recoat: 4 Hours

Drying and recoat times are temperature, humidity, and film thickness dependent.

Finish: 0-2 units @ 85°

Tinting with CCE:
Base: oz. per gallon: **Strength:**

White 0-2 SherColor

White A27W00600/A27WQ0600

(may vary by color)

V.O.C. (less exempt solvents):

Less than 50 grams per litre; 0.42 lbs. per gallon
As per 40 CFR 59.406

Volume Solids: 33 ±2%

Weight Solids: 51 ±2%

Weight per Gallon: 11.53lbs

Flash Point: N.A.

Vehicle Type: Acrylic

Shelf Life: 36 months, unopened

WVP Perms (US) 105.62 grains (hr ft² in Hg)

COMPLIANCE

As of 10/31/2023, Complies with:

OTC	Yes
OTC Phase II	Yes
S.C.A.Q.M.D.	Yes
CARB	Yes
CARB SCM 2007	Yes
CARB SCM 2020	Yes
Canada	Yes
LEED® v4 & v4.1 Emissions	Yes
LEED® v4 & v4.1 V.O.C.	Yes
EPD-NSF® Certified	No
MIR-Manufacturer Inventory	No
MPI®	No

APPLICATION

Apply at temperatures above 50°F
No reduction needed.

Brush:
Use a nylon-polyester brush.

Roller:
Use a 3/8 to 3/4 inch nap synthetic cover.

For specific brushes and rollers, please refer to our Brush and Roller Guide.

Spray - Airless:
Pressure 2000-2400 p.s.i.
Tip .015-.019 inch

APPLICATION TIPS

Make sure product is completely agitated (mechanically or manually) before use.

SPECIFICATIONS

Premium Ceiling Paint can be used directly over existing coatings, or bare drywall, plaster (cured with pH of less than 9), and non-bleeding wood.

Block:
1 coat Loxon Acrylic Block Surfer
2 coats Premium Ceiling Paint

Drywall:
Self-prime use 2 coats Premium Ceiling Paint

Or
1 coat Premium Wall and Wood Primer
2 coats Premium Ceiling Paint

Masonry:
1 coat Loxon Concrete & Masonry Primer
2 coats Premium Ceiling Paint

Plaster (cured with pH of less than 9):
Self-prime use 2 coats of Premium Ceiling Paint

Or
1 coat Loxon Concrete & Masonry Primer
2 coats Premium Ceiling Paint

Wood:
Self-prime use 2 coats of Premium Ceiling Paint

Or
1 coat Premium Wall and Wood Primer
2 coats Premium Ceiling Paint
If the wood has bleeding (such as tannin or knot-holes), prime with Multi-Purpose Primer.

Other primers may be appropriate.

When repainting involves a drastic color change, a coat of primer will improve the hiding performance of the topcoat color.

For optimum hide and performance on non-painted surfaces, it is recommended that you prime the surface and use two coats of finish.

Premium Ceiling Paint

Interior Acrylic Latex Flat

SURFACE PREPARATION

WARNING! If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a **NIOSH**-approved respirator to control lead exposure. Clean up carefully with a **HEPA** vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. Canada - your local health authority.

Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Glossy surfaces should be sanded dull. Stains from water, smoke, ink, pencil, grease, etc. should be sealed with the appropriate primer-sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

Caulking:

Gaps between walls, ceiling, crown moldings, and other interior trim can be filled with the appropriate caulk after priming the surface.

Drywall:

Fill cracks and holes with patching paste-spackle and sand smooth. Joint compounds must be cured and sanded smooth. Remove all sanding dust.

Masonry, Concrete, Cement, Block:

All new surfaces must be cured according to the supplier's recommendations – usually about 30 days. Remove all form release and curing agents. Rough surfaces can be filled to provide a smooth surface. If painting cannot wait 30 days, allow the surface to cure 7 days and prime the surface with Loxon Concrete & Masonry Primer.

SURFACE PREPARATION

Mildew:

Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised.

Mildew may be removed before painting by washing with a solution of 1 part liquid bleach and 3 parts clean water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach-water solution.

Plaster:

Bare plaster must be cured and hard. Textured, soft, porous, or powdery plaster should be treated with a solution of 1 pint household vinegar to 1 gallon of clean water. Repeat until the surface is hard, rinse with clear water and allow to dry.

Wood:

Sand any exposed wood to a fresh surface. Patch all holes and imperfections with a wood filler or putty and sand smooth.

CAUTIONS

For interior use only.
Protect from freezing.
Non-Photochemically reactive.

Before using, carefully read **CAUTIONS on label**.

CRYSTALLINE SILICA: Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (**NIOSH** approved) or leave the area. Adequate ventilation required when sanding or abrading the dried film. If adequate ventilation cannot be provided, wear an approved particulate respirator (**NIOSH** approved). Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Abrading or sanding of the dry film may release crystalline silica which has been shown to cause lung damage and cancer under long term exposure. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

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CLEANUP INFORMATION

Clean spills, spatters, hands and tools immediately after use with soap and warm clean water. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.