



Phius Product Number: W-101731
Date Last Certified: 11/01/2023
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 11/01/2025
Air Leakage Test Data Available: Yes



PRODUCT INFORMATION

Product Name: Innotech 88PH+ XI Operable Window	
Manufacturer: Innotech Windows + Doors	Primary Frame Material: Vinyl
Series: 88PH+ XI	Fixed or Operable: Operable
Model: 88PH+ XI Operable Window	Operation Type: Dual Action Tilt Turn

IGU DETAILS

Glazing Name: 4-180/4-180/4-i89_46		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Quanex Super Spacer Premium

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓	✓	✓	
U-Whole-Window	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12
Modeled Size [W×H]	47.24" × 59.06"		SHGC, Whole Window: 0.17				Condensation Resistance:			

COMPONENT-LEVEL PERFORMANCE DATA [IP Units] | Compatible with building energy modeling tools

U-COG Center of Glass U-Values, by Climate Zone [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.11
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.53		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	5.20"	5.20"	5.20"	5.20"
Frame U-Value [Btu/hr·ft²·°F]	0.11	0.11	0.11	0.11
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0142	0.0142	0.0142	0.0142

Frame-to-Wall Psi Value is dependent on the on-site installation condition. *(See Phius Guidebook for more details.)*



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RECOMMENDED CLIMATE ZONES <i>(NOTE: This information is not for use in building energy models. See next section.)</i>										
Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m ² K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓	✓	✓	
U-Whole-Window	0.64	0.63	0.63	0.63	0.63	0.63	0.64	0.64	0.67	0.69
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.17				Condensation Resistance:			

COMPONENT-LEVEL PERFORMANCE DATA [SI Units] | Compatible with building energy modeling tools

U-COG Center of Glass U-Values, by Climate Zone [W/m ² K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.54	0.53	0.53	0.53	0.52	0.53	0.54	0.55	0.59	0.62
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.53		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	132 mm	132 mm	132 mm	132 mm
Frame U-Value [W/m ² K]	0.63	0.63	0.65	0.65
Glazing-to-Frame Psi Value [W/mK]	0.0247	0.0247	0.0247	0.0247

Frame-to-Wall Psi Value is dependent on the on-site installation condition. *(See Phius Guidebook for more details.)*