

# Product Data Sheet

SG 5000 H U 42

Overhead High-Lift, High-Performance Door with Insulated Curtain Panels



Speed-Guardian™ High-Lift, high-speed doors provide excellent capability while avoiding obstructions.

- Smart Start™ NXT, NEMA 4X programmable control box
- Thermally isolated design for reduced heat transfer and optimal energy efficiency
- Speed: Up to 100 in/sec. open, 20 in/sec. close
- Exclusive non-contact guide technology reducing wear and noise
- Spring-less counterbalance lift assistance
- Integral, non-contact light grid entrapment protection feature. Ensures safety of equipment, people, and vehicles
- Emergency operation via chain hoist
- Obstruction avoidance High-Lift track application for limited clearance
- Enhanced 10 in high double-pane vision slats with Duratec® synthetic glazing
- Optional tinted vision slats, Obscured White, Smoke Gray
- Optional perforated metal slats for ventilation requirements
- 5, 2, & 7 year warranty protection plan. 5 yrs. motor/gearbox and panels. 2 yrs. other mech./elec., 7 yrs. vision slats

Technical Data	Imperial	Metric	Remark
<b>Application</b>	Exterior		Interior mounting only
<b>Speed</b>	Opening 60 in/s up-to 100 in/s Closing 20 in/s	Opening 1.52 m/s up-to 2.54 m/s Closing 0.5 m/s	Variable speed based on configuration
<b>Control Panel</b>	Smart Start™ NXT W x H x D (in) 11 ½ x 15 ¾ x 8 ¾	W x H x D (mm) 295 x 400 x 208	Standard, NEMA Type 4X / IP66
<b>Roll-up Technology</b>	Non-contact overhead guides with Non-contact lintel sea		Standard
<b>Door Construction</b>	Overhead Rolling		
<b>Size Range</b>	Width 16 ft 0 in Height 21 ft 4 in	Width 4.88 m Height 6.5 m	Standard
<b>Guide Track Profile</b>	Chamfered Corners (Interior Side) W x D (in) 12 x 12 ½	W x D (mm) 305 x 318	Standard
<b>Distance Back Formula</b>	DB = ((2 x DH) - (DH + HR)) + 39 ½" (1 m)		From interior host wall to end of OH tracks
<b>Solid Slat (Panel) Profile</b>	W x H (in) 9 ¾ x 1 ¾	W x H (mm) 251 x 41	
<b>Visible Material Height (Window Size)</b>	6 ¾ in or 10 in		
<b>Mullions</b>	Door Width < 10 ft = None ≥ 10 ft ≤ 16 ft 5 in = 1 Centered > 16 ft 5 in = 2 Eq Thirds	Door Width < 3.1 m = None ≥ 3.1 m ≤ 5 m = 1 Centered > 5 m = 2 Eq Thirds	15% Enhanced visibility than SG 4000 U
<b>Required Headroom</b>	HR min. = 2 - 5¼", HR max. = 23' - 3"	HR min. = 133 mm, HR max. = 7.09 m	Standard
<b>Drive Mechanics</b>	Direct-drive operator		
<b>Counterbalance System</b>	counterweights		Springless low maintenance
<b>Braking</b>	Control box activated 24V DC brake		Built-in, anti-fallback safety brake device integrated with operator worm gear
<b>Cycleability / Maintenance</b>	High / inspect per ea. 6 mo. Windows replaceable independent of solid slats		Consult factory for details
<b>Actuators</b>	Manually Operated Push Button Stations Touchless Motion / Presence Sensors		NEMA Type 4, 4X Rated
<b>Safety Features</b>	Built-in light grid, chain hoist open / close		Spring compensation assist
<b>Resistance to Wind Load (Max per Door Width)</b>	Door Width ≤ 16 ft 0 in = 21 psf (93 mph)	Door Width ≤ 4.88 m, Class 5 max. 41.5 m/s (102.5 kg/m <sup>2</sup> ; 51 m/s max.)	Per standard EN 12424, DASMA 108 Exposure B
<b>Fire Resistance Rating (Behavior)</b>	Non-rated, Non-conforming exit		Per 2012 IBC Section 1008
<b>Manufacturer Warranty</b>	5, 2, 7 years. Motor / Gearbox & Panels (5), all other mech. / electrical (2), Vision Slats (7)		Standard

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Materials & Finishes	Description		Remark
Guide Tracks, Covers & Guards (Guides)	11-ga. HDG steel tracks, 16-ga HDG steel covers		Zinc, Class G90 (0.9 oz/ft2)
Door Headers, Spiral Guides, Drive Shaft Support	11-ga. Hot Dipped Galvanized Steel		Zinc, Class G90 Panel Guide Wheels guides, Aluminum
Counterbalance Assemblies	Steel Counter Weight Assembly		
Weather Seals	Twin brush, non-contact lintel		
Solid Door Slats (Panels)	22-ga. Hot-dipped galvanized steel, with foamed-in-place polyurethane insulation core. MicroGrain™ texture exterior, Stucco texture interior. Color RAL 9006		Zinc, Class G40 (0.4 oz. per SF) Polyurethane foam density 11pcf
Vision Door Slats (Panels)	1 in (25.4 mm) Double-pane, acrylic, clear or tinted (Obscured White, Smoke Gray) and Duratec® abrasion-resistive coating		1 ½ in Thick Vision Panel frame, extruded anodized aluminum Open area 56.3%
Ventilated Door Slats (Panels) (Screen)	1 in (25.4 mm) Double-walled, perforated clear anodized aluminum, ½ in (12.7 mm) square press-punched grid pattern		1 ½ in Thick Ventilation Panel frame, extruded anodized aluminum Open area 56.3%
Bottom Profile (Bar) Door Slat	22-ga. Interlocking flat-faced, insulated steel panel, with weather seal loop		Zinc, Class G40 (0.4 oz. per SF) Polyurethane foam density 11 pcf
Electric Door Operator	Cast aluminum		
Energy Analysis	Imperial	Metric	Remark
Air Leakage	0.6 cfm/ft2 , Class 2	12 m3h/m2 , Class 2	Per test EN 12427, (ASTM E283, ANSI / NFRC 400)
Water Penetration	Class 2, 15 min at 55 Pa		Per test EN 12489, (ASTM E547)
Visible Transmittance	0.91		Per calc ANSI / NFRC 200-2014 (Clear Vision Slats)
Solar Heat Gain Coefficient (G-value)	0.75		Per calc ANSI / NFRC 200-2014 (Clear Vision Slats)
Thermal Resistance (R-value)	16.5 (ft2 x °F x h)/BTU	2.9 (m2 x K)/W	Per test EN 717-1, DASMA TDS-163 (without visions)
Heat Transfer Coefficient (U-value)	0.06 BTU/(h x ft2 x F)	0.34 W/(m2 x K)	Per test EN 12667; 199997-11, DASMA TDS-105 (without visions)
Acoustic Insulation	Solid: STC 30, Rw 26 dB, Vision: STC 34, Rw 31 dB		Per test EN 717-2, ASTM E90 (Without Visions)
LEED Credit (Potential)	EAc2; Optimize Energy Performance (20 pts) MRc1; Environmental Product Declarations (1 pts) MRc3; Environmental Product Declarations (3 pts) IEQc2; Low-Emitting Materials (3 pts) IEQc4; Thermal Comfort (1 pt) INc1; Innovation (5 pts) RPC1; Regional Priority Specific Credit (1 pt)		USGBC® LEED v4.1
Electrical	Description		Remark
Electric Door Operator	2.0 HP GfA Elektromaten F18		NEMA Type 3, IP54
Operating Voltage (Motor)	3 PH, 132v		From Control Box to Motor
Control Panel	5 kW Variable Frequency Drive rated for Spec Operating Voltage		NEMA Type 4X / IP66, CUL Recognized
Standard Power Requirement (to Control Box)	208vAC* - 230 vAC - 480 vAC - 600vAC*, 3 PH, 60 Hz		*Transformer may be required. Consult Factory
Full Load Amps	13.3 A		Operator
Disconnect	Fuse: 20 A, Class K		Supplied by Others



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