

	manually operated door	power operated door
Technical details	<p>Max leaf width 4550mm. Leaf thickness 102mm. Max opening width 10000mm (100m) Max height 6000mm⁽¹⁾. Track centres 145mm. Panel U-value 0.40 W/m²/°C. Sideroom required – refer KNF series drawings. Headroom required - 180mm to 250mm. Weight of leaf 25kg/m².</p>	<p>Max leaf width 4550mm. Leaf thickness 102mm. Max opening width (1-way) 15000mm⁽¹⁾. Max opening width (bi-part) 30000mm⁽¹⁾. Max height 6000mm⁽¹⁾. Track centres 145mm. Max door area (bottom rolling) 90m² (1-way) 180m² (bi-part)⁽¹⁾ Max door area (top hung) 60m² (1-way) 120m² (bi-part)⁽¹⁾ Panel U-value 0.40 W/m²/°C. Sideroom required – refer KNF series drawings. Headroom required 250mm. Weight 25kg/m². Power supply 230V, 50Hz, single phase. Opening speed 11m/min. (folding 1-way). 5.5m/min. (bi-parting).</p>
Performance	<p>Performance in accordance with BS EN 13241-1:2003.</p> <ul style="list-style-type: none"> • Life expectancy – more than 20 years. • Wind pressure⁽²⁾ - 0.7kN/m² (6m high door), 1.1kN/m² (5m high door), 1.7kN/m² (4m high door), 3.1kN/m² (3m high door). <p>Acoustic performance of the panel – Average weighted SRI, RW Index tested at 29dB. Overall door untested.</p>	
	standard details	
	manually operated door	electrically operated door
Type of Door	<p>Top Hung or Bottom Rolling, flat panelled straight sliding doors. Doors can be configured in single or multiple leaves running on upto 6 parallel tracks. Leaves can slide within or clear of the opening to create a completely versatile sliding door system. Doors are internally mounted.</p>	<p>Top Hung or Bottom Rolling, flat panelled, straight sliding doors. Doors can be configured in single or multiple leaves running on up to 6 parallel tracks. Leaves slide clear of the opening to one of both sides. Doors are internally mounted.</p> <p>Multiple track configurations are fitted with an internal cable sheaving system, which links the leading (Master) leaf to each of the trailing (Slave) leaves, so that during operation, all leaves move at differential speeds and reach the fully open and closed positions at the same time.</p>
Finish	<p>Outside face - choice of 8 stock colours: Corus LG Plastisol in Poppy Red, Solent Blue, Ocean Blue⁽³⁾, Olive Green⁽³⁾, Goosewing Grey, Merlin Grey⁽³⁾ and White, or HPS200 Ultra in Sirius Metallic Silver. Inside face - LG Plastisol in White. Top and bottom RHS's primed and painted to match door skins.</p>	

Note (1) – Maximum width of 15000mm (1-way) or 30000mm (bi-part) for electrically operated doors are subject to the maximum door area of 60m² (1-way) and 120m² (bi-part) for top-hung doors, and 90m² (1-way) and 180m² (bi-part) for bottom-rolling doors.


Note (2) – Wind pressure capacities are based on panel strengths derived from physical tests carried out in the factory. Calculations given are for standard panel construction with 0.65mm skins, without cutouts for windows. Greater wind pressures can be withstood using thicker door skins, and with additional panel reinforcement. For further advice on wind pressures please consult the manufacturer.

Note (3) – It is recommended that any door panel, which is exposed to significant direct sunlight, should be finished in a light colour. The insulation properties of the panel are so good that, if dark colours are used, the surface temperature of the panel can become unbearably hot, and the panel surface may ripple slightly, or taller panels may temporarily bow, until the temperature falls. This does not however affect the structural integrity of the door. For further advice on colour selection please consult the manufacturer.

Note (4) – “Easyfit” acrylic vision panels are not sold as a “sealed” unit, ie, condensation may form within some units, however, windows are not prone to leaking.

<p>Locking and Hardware</p>	<p><u>Single leaf area $\leq 12\text{m}^2$</u> Each leaf fitted internally with a drop bolt and a pair of black thermoplastic easy-grip pull handles.</p> <p><u>Single leaf area $> 12\text{m}^2$</u> Each leaf fitted internally with a waist height lever handle, which engages a 30 x 10 mm steel bar into a socket in the bottom track, and a pair of black thermoplastic easy-grip pull handles.</p>	<p><u>Single track doors</u> Each leaf fitted internally with a pair of black thermoplastic easy-grip pull handles.</p> <p><u>Multiple track doors</u> Each Master leaf fitted internally with a pair of black thermoplastic easy-grip pull handles.</p> <p>Drive motors automatically locks the door in the closed position.</p>
<p>Drive system (top-hung)</p>	<p>Not applicable</p>	<p>One or two Ovitor TVRFC drive motors operate the door. Motors are mounted at the end of the top track and are connected to the Master leaf via a continuous overhead drive chain.</p> <p>Larger bi-parting, and multi-track doors are fitted with two motors. Motors will be rated 0.55kW or 0.75kW subject to door size and configuration.</p> <p>A Westrow Type 1 inverter control panel, with soft start / stop is supplied with each motor. Parameters are factory set. Top track mounted proximity sensors automatically slow down and stop the door in the fully open and closed positions.</p>
<p>Drive system (bottom rolling)</p>	<p>Not applicable</p>	<p>A suitably rated SEW Eurodrive motor operates one door half. The motor is enclosed within a 500mm W x 500mm D x 2500mm H power mullion box mounted on the inside face of the Master leaf, and drives along an $\text{\O}8\text{mm}$ steel cable set in a secondary floor track. Power is fed to the Master leaf via a high level catenary cable system.</p> <p>A Westrow Type 1 inverter control panel, with soft start / stop is mounted within the power mullion, and is fully wired to the motor. Parameters are factory set. Proximity sensors mounted in the base of the power mullion automatically slow down and stop the door in the fully open and closed positions.</p>
<p>Operational controls (top hung)</p>	<p>Open and close door by hand.</p>	<p>Open / close / captive stop push button unit to each control panel. Standard operation is Deadman - continuous push to open, continuous push to close. Captive stop button disables both open and close commands.</p> <p>Bi-parting doors with two motors are wired so that each door half is independently operated.</p> <p>Low-level release chains allow motors to be de-clutched for hand operation.</p>

<p>Operational controls (bottom rolling)</p>	<p>Open and close door by hand.</p>	<p>An open / close / captive stop push button unit is pendant mounted from the power mullion. Standard operation is Deadman, i.e. continuous push to open, continuous push to close. The captive stop button disables both open and close commands.</p> <p>A hand-winding handle is provided to enable each door half door to be moved by hand.</p> <p>Note: Unless additional closing safety features are installed, ie, photocell or safety edge, sliding doors must be wired for Deadman operation.</p>
<p>Leaf construction</p>	<p>Leaves are constructed from 1, 2, 3 or 4 equal width panels fixed together top and bottom to 100 x 50 x 5 RHS box sections, which carry the running gear. All leaf fixings are hidden. Compressible EPDM gaskets are fitted between panels.</p>	
<p>Panel construction</p>	<p>Panels are constructed from 1.6mm thick cold rolled galvanised dovetail channel frames with 5mm thick local reinforcement for hardware. The frame is covered on both sides with 0.7mm thick steel sheets and pressure injected with CFC-free polyurethane foam to form an extremely strong, rigid, flat panel.</p>	
<p>Seals</p>	<p>Flexible rubber seals are fitted to all edges of the door, and between door leaves. All seals are purpose-designed EPDM extrusions, which press into, and blend seamlessly with the door panels. Each seal provides full finger trap safeguarding, and excellent protection against weather, dust and sand.</p> <p>On multiple track systems, pressings are fitted to the vertical edges of door leaves to provide a sealing surface for the adjacent leaf. Pressings are finished to match the door.</p>	
<p>Door tracks and gear</p>	<p><u>Top Hung</u> The top track is a 5 mm thick pressed steel 'C' section for direct sidewall mounting. Pendant hangers are heavy-duty fabrications, each with a Ø72 mm sealed bearing wheel, two Ø40 mm side thrust sealed bearing wheels and a Ø20 mm toughened steel shaft. Each pendant is vertically adjustable. End stops are fitted within the top tracks.</p> <p>The bottom guide channel is a 3 mm thick galvanised steel pressing with built in threshold and chamfered edges. Bottom guides are Ø35 mm nylon rollers running on Ø16 mm stainless steel shafts. Heavy-duty buffer stops are fitted at the far ends of bottom tracks.</p> <p><u>Bottom Rolling</u> For openings below 8m wide, the top guide track is a 50 x 50 x 3 mm galvanised lipped channel. Each leaf is fitted with a pair of top guide rollers, which are 42mmØ nylon guide wheels running on a 16mmØ steel shafts fitted directly to the top angle. End stops are fitted within the top tracks.</p> <p>For openings over 8m wide, the top guide track is purpose designed 3mm pressed galvanised Z section fabricated into a support tray to fix directly to the opening structure. Each leaf is fitted with a pair of top guide rollers, which are 105mmØ nylon guide wheels running on 30mmØ steel shafts, and fitted directly to the top angle. End stops are fitted within the top tracks.</p> <p>The bottom track is a 16 mm wide bright mild steel bar mounted on steel fishplates for bolting directly into the floor chase. Each leaf is fitted with a pair of bottom wheels, which are Ø120 mm machined hardened steel rollers mounted in heavy-duty wheel boxes and fitted with sealed for life, maintenance free bearings. Heavy-duty buffer stops are fitted at the end of bottom tracks.</p>	

	options	
	manually operated door	manually operated door
Finish	<p><u>Option 1</u> Outside faces of panels are polyester powder coated in a choice of 40 stock RAL colours. Inside face in LG Plastisol in White. All hinges and drop bolt sleeves are black polyester powder coated in RAL 9005(M).</p> <p><u>Option 2</u> Inside and outside faces of panels are polyester powder coated in a choice of 40 stock RAL colours. All hinges and drop bolt sleeves are black polyester powder coated in RAL 9005(M).</p>	
Vision panels	<p><u>Option 1</u> Black thermoplastic 'easyfit' ⁽⁴⁾ window frame with double-glazed clear acrylic safety glass. Overall frame size 680mm x 390mm.</p> <p><u>Option 2</u> Aluminium window frame with one-piece inner liner tray. Window units are double glazed (4~20~4), argon filled, low E toughened glass. Frames are polyester powder coated in matt black to RAL 9005(M), fully sealed, and available in a choice of frame sizes as follows: 400mm x 600mm 600mm x 600mm 400mm x 1200mm 600mm x 1200mm</p>	
Wicket door	<p><u>Option 1</u> Standard lever furniture. Wicket door opens outwards. Hardware comprises a Briton 5520 mortise sashlock, 25mm low-profile anodised aluminium lever handles, external Europrofile cylinder with internal thumbturn, 1½ pairs of stainless steel butt hinges and a hidden door limiting stay. 135mm high step with 40mm wide aluminium threshold strip.</p> <p><u>Option 2</u> Emergency escape furniture. Wicket door opens outwards. Hardware comprises a Briton 379 panic bar, external override cylinder and finger latch, 1½ pairs stainless steel butt-hinges and a hidden overhead door limiting stay. 135mm high step with 40mm wide aluminium threshold strip.</p>	
Locking and handles	No optional locking available.	Low-level haul chains attached directly to the motor to mechanically move the door in the event of power failure.
Sheaving	Multiple track configurations can be fitted with an internally mounted cable sheaving system, which links the leading (Master) leaf to each of the trailing (Slave) leaves, so that during operation, all leaves move at differential speeds and reach the fully open and closed positions at the same time.	Standard for multiple track doors.
Installation	<p><u>Top hung or Bottom rolling</u> Internally mounted doors recommended. Externally mounted doors should be protected with a track canopy.</p>	<p><u>Top hung</u> Internally mounted doors recommended. Externally mounted doors should be protected with a track / drive canopy.</p> <p><u>Bottom rolling</u> External mounting not available.</p>

Safety equipment

Safety Edges

A full height opto-electronic safety edge is mounted within each leading edge seal of the door. An impact on the edge during closing will automatically stop and re-open the door. Safety edges are continuously monitored so the door can not close automatically in the event of damage or failure of the edge.

Photocells

A thru-beam synchronized photocell is fitted. Each photocell comprises a transmitter and a receiver, which sends a beam between the two. Photocells can be fitted for closing safety, opening safety, or a combination of opening and closing. If a closing safety beam is broken during the closing cycle, the door will automatically stop. If an opening safety beam is broken during the opening cycle, the door will automatically stop.

Traffic Lights

A red and green 230VAC LED traffic light is fitted to each door half. Each light is sized 150mm diameter and supplied with a fixing bracket. Sequence of operation is Red light on when door closed or part closed, Green light on when door fully open. A Bernstein 24Vdc limit switches is supplied to monitor the fully open position.

Photocell / Traffic Light Posts

A pair of 100x100 RHS right angle steel posts are fitted at the far end of the bottom tracks, and on the inside of the open door to mount an internal photocell and / or traffic lights. Posts are painted yellow for maximum visibility.

Control Equipment

Direct on line control panel – Westrow 900K DOL control panel – basic starter without inverter control. Incorporates safety inputs for safety edge and photocell. Power supply required 415V, three phase, 20 amps. Available only on doors upto 25m² maximum area.

Control Option 1 - Semi-automatic - Single push to open, Single push to close. Stop button stops, and holds doors.

Note: A photocell or safety edge must be incorporated with this option.

Control Option 2 – Fully-automatic - Single push to open, automatic closing after pre-set pause time (default 60 seconds). Stop button stops, and holds doors. Close button overrides timer and closes door. This option uses the Westrow AS2 inverter control board.

Note: A photocell or safety edge must be incorporated with this option.

Push Button – Additional Open / close / captive stop push button unit.

Keyswitch – Sprung return keyswitch in separate enclosure for opening of the door by keyholders only. For internal or external use.

Digi-key – Bewator K42 stainless steel codelock for operation of the door by authorised persons only. For internal or external use.

Radio Control – 868MHz radio control system for remote operation of the door from a vehicle or control room. FAAC Plug-in radio receiver supplied with 1 twin channel transmitter. Additional transmitters available for multi-user systems.

Mircowave Sensor – High level sensor to open the door on detection of oncoming vehicles. Adjustable so as to ignore pedestrians, or parallel traffic.

Note: maximum opening height is 5m for microwave sensors.