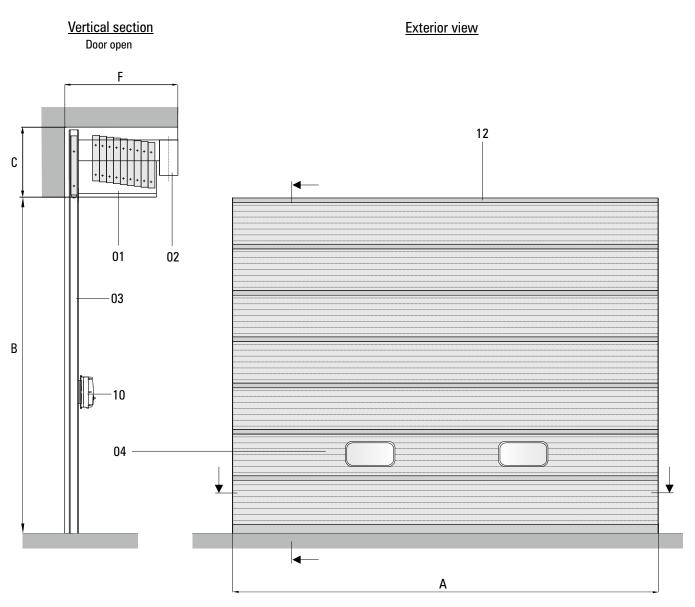
Tel. +49 8337 901-0 info@butzbach.com www.butzbach.com

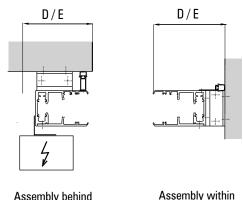


Technical Data Stacking Doors SPACELITE® HT 80 and HT80XL



Horizontal section

Mounting and Fixing Modes





	Technical Data Spacelite®			HT80
os.	Technical state July 2019		HT80	HT80XL
Α	Door dimensions [mm]*	Width min. / max. (extra width upon request)	2000 / 10000	2000 / 10000
В	Door dimensions [mm]	C/o height min. / max. (extra height upon request)	1000 / 6000	1000 / 16000
C_	Required lintel height [mm]*	Min. / max.	1250	1300 / 1430
<u> </u>	Lateral space required [mm]*	Drive-unit side min. / max.	200	230
E F	Required space for the door cassettes [mm]*	Non-drive unit side min. / max. Required room depth depends on door height and type of cassette	200	230 1700 / 1970 / 2350
	Door panel height [mm]	Approximate value (min dependance on the door type minor deviations are possible)	1000	1000
	Max. panel weight [kg]		770	1430 (1680)
	Opening speed [cm/s]*	Relay- respectively contactor- / or frequency converter; up to	14 / -	14 / -
	Opening cycles / operating time*	Door cycles, usually up to annually for contactor-/ or respectively frequency	30000	30 000
	Values for respec. relay-/ contactor / frequency converter control	converter control (SDS25, SDS40) Maintenance interval, after max. door cyles or after interval	8000 / 1 year	6000 / 1 year
	Cycle: Opening and closing = two load alternations	Number of cycles, on average [1 / hour]	5 / 5	5 / 5
		Increased number of cycles over max. 1 hour [1 / hour] Increased number of cycles over max. 15 minutes [1 / min]	10 / 10	10 / 10
	Wind load*	Classification according to DIN EN 12424**	2 - 4	2 - 4
	Air permeability	Classification according to DIN EN 12426**	2	2
	Resistance to water penetration Airborne sound insulation Rw (C;Ctr) [dB]	Classification according to DIN EN 12425** According to DIN EN ISO 717-1**	2 26	2 26
	Operating forces / safe opening	According to EN 13241-1	fulfilled	fulfilled
	Burglar resistance	Resistance class 3 according to DIN V ENV 1627		
	Thermal insulation value Ud *	Door-related Ud-Value attainable [W/m²K]	1.6	1.6
01	Cassettes	Steel, galvanised	•	
		Steel, hot-dip galvanised		
		Steel, primed and varnished		
02	Drive unit	Worm gear motor incl. brake		
		Worm gear motor incl. brake and integrated anti-drop device	■	
		Spur wheel back-geared motor incl. brake		
		Hydraulic drive	0.051201 4.41301	
		Driving power [kW]*	0.85kW - 1.1kW	3 kW
03	Tracks	Aluminium profile closed on three sides	•	•
	vertical Surface	·		
	- Cultube	Blank Anodised E6 / C-0 (EV1)		■ □
		RAL colour coated		
		Anodised acording to British Standard		
)4	Door panel	Thickness of the twin-walled fibreglass panels [mm]	80	80
∪ +	with fibreglass filling	Fibreglass colours brilliant / emerald / sapphire	■	■
		Insertion foils for the improvement of the thermal insulation value		
		Inside with PVC-profiles (similar to RAL 7047) for the improvement of the thermal	_	
		insulation value Fibreglass for humid areas, closed by lamination on the front		
		(refer to car wash option)	-	-
		Vision panel made of insulated pane of glass /size w x h [mm]	□ / 800x400	□ / 800x400
		Up-value of the fiberglass panel with max. amount of insertion foils [W/m²K]	1.1	1.1
			1.1	1.1
		Fibreglass light transmittance up to		
		Fibreglass light transmittance up to (light transmittance depends on colour and Up-value)	41 - 75%	41 - 75%
		(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102	41 - 75%	41 - 75%
05	Real glass door panel	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width	41 - 75%	41 - 75%
05	Real glass door panel Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width	41 - 75% E / B2	41 - 75% E / B2
05	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)*	41 - 75% E / B2 	41 - 75% E / B2
05	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)*	41 - 75% E / B2	41 - 75% E / B2
	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)*	41 - 75% E / B2 	41 - 75% E / B2
	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas)	41 - 75% E / B2 	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm)	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8	41 - 75% E / B2 	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm)	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control,	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics,	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE),	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed,	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-characteristics, only type	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker	41 - 75% E / B2	41 - 75% E / B2
06	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive,	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50 Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track	41 - 75% E / B2	41 - 75% E / B2
007	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50 Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection	41 - 75% E / B2	41 - 75% E / B2
0)6	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50 Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d= 60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External photo eye	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With bist chain With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain	41 - 75% E / B2	41 - 75% E / B2
006	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50 Hz, (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With bist chain With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With boist chain With boist chain BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External photo eye External light curtain Laser sensor Anti-opening protection	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With boist chain With boist chain With power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 200 V/50 Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400 V/50 Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400 V/50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1)	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With boist chain With boist chain BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External photo eye External light curtain Laser sensor Anti-opening protection	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With buildings BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230 V 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400 V/50 Hz, (3,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400 V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard	41 - 75% E / B2	41 - 75% E / B2
0)6	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With buildings BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230 V 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400 V/50 Hz, (3,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400 V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard	41 - 75% E / B2	41 - 75% E / B2
0)6	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With boist chain With build be source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External photo eye External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard Car wash set (FR / NR) Lintel cover made of fibreglass Door canopy in case of outdoor installation Lateral swivelling part with or without pass door to enlarge the overall passage	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (1,1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - Frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (1,1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard Car wash set (FR / NR) Lintel cover made of fibreglass Door canopy in case of outdoor installation	41 - 75% E / B2	41 - 75% E / B2
	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With boist chain With boist chain With build be source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 16A C-characteristics, only type B residual-current operated circuit breaker 4 kW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Optoelectronical safety edge control with power supply via energy chain or busbar respectively External photo eye External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard Car wash set (FR / NR) Lintel cover made of fibreglass Door canopy in case of outdoor installation Lateral swivelling part with or without pass door to enlarge the overall passage	41 - 75% E / B2	41 - 75% E / B2
06 07 08 110	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker KW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Oftoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard Car wash set (FR / NR) Lintel cover made of fibreglass Door canopy in case of outdoor installation Lateral swivelling part with or without pass door to enlarge the overall passage opening	41 - 75% E / B2	41 - 75% E / B2
0)6	Insulating glass filling (1,1 W/m²K) made of 2x4mm tempered safety glass and thermally insulated profiles Vision panel with plastic glazing, incl. 1-4 vertical interspacers, depending on door width (other fillings available upon request, thickness up to 4 mm) Other fillings For types HT180/ HT200 dry glazing instead of fibreglass Emergency opening Door control Drive-unit side Safety Surface Door panel profiles made of aluminium	(light transmittance depends on colour and Up-value) Fire behaviour according to EN13501 / building material grade according to DIN 4102 With 1 - 2 vertical transoms, depending on door width without vertical transom (door width Ls max. 3,98m)* PC Makrolon PMMA (Plexiglas) Perforated plate RV5-8 Single glazing made of tempered safety glass 1 x 4 mm Sandwich d=40mm Sandwich d=60mm Other fillings With crank handle With hoist chain With battery With uninterruptable power source UPS BDC E800 R / S Relay- or respectively contactor control, power connection 400 V/50 Hz (L1,L2,L3,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker BDC E800 F - frequency converter control for soft start and a higher opening speed, power connection 230V / 50Hz (L1,N,PE), pre-fuse 10 A C-characteristics, only type B residual-current circuit breaker KW frequency converter control power connection 400V / 50Hz (3,N,PE), pre-fuse 16A C-charac-teristics, only type B residual-current operated circuit breaker Special control system for hydraulic drive, power connection 400V / 50 Hz, connection data upon request Approved by the German technical surveillance agency (TÜV), integrated in the track with mechanical overload protection Oftoelectronical safety edge control with power supply via energy chain or busbar respectively External light curtain Laser sensor Anti-opening protection Blank Anodised E6 / C-0 (EV1) RAL colour coated Anodised E6 / C-0 (EV1) RAL colour coated Anodised according to British Standard Car wash set (FR / NR) Lintel cover made of fibreglass Door canopy in case of outdoor installation Lateral swivelling part with or without pass door to enlarge the overall passage opening	41 - 75% E / B2	41 - 75% E / B2

* Depending on door size and equipment

** Test certificate and test report are available respectively

*** guide value, the value may differ, i.e. it may be much higher or lower depending on the operating conditions.

**** Max. door cycles depend very much on the height of the door (run time; oil heating; locale climate; cooling)

* not available -- not available

NOTE: Not all options may be combined