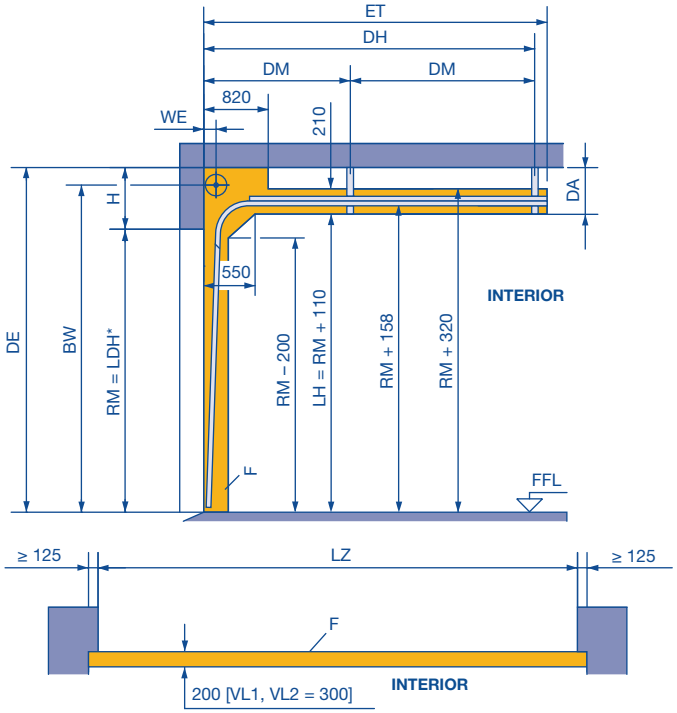
Track Application: N

Normal track application



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

Observe min. sideroom, see page 61.

	H	WE	DA
N 1	390	140	280
N 2	440	160	330
N 3	550	180	440
N 3	760	With double spring shaft	

LDH Clear passage height
RM Grid height
BW Position of shaft support
N 1 = RM + 310
N 2 = RM + 335
N 3 = RM + 415
ET Min. distance back
N 1 + N 2 = RM + 440
N 3 = RM + 700
With shaft operator
N 1 + N 2 = RM + 650
With shaft operator N 3 = RM + 700
DH Rear ceiling anchor
N 1 + N 2 = RM + 195
N 3 = RM + 295
DM Central ceiling anchor (see page 66)
WE Shaft centre from lintel
H Min. headroom (see table)
DA Distance to ceiling

L Anchor length = DE – RM – 125 (see page 66)
LH Track height
LZ Clear frame dimensions
DE Ceiling height
F Space for fitting the door

Notes:

- Observe the permissible size ranges of the door types on pages 10 – 18 and 21 – 32 under all circumstances!
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- For version with wicket door, manually operated: chain hoist recommended!
- ALR F42 Vitraplan and ALR F42 Glazing on request

	* Clear passage height LDH		
	Without operator	Operator	
		WA 400 **	WA 300 ***
LZ ≤ 5500			
Without wicket door	RM	RM	RM
Wicket door with threshold	RM – 100	RM – 50	RM – 50
Wicket door without threshold rail	RM – 150	RM – 85	RM – 85
LZ > 5500			
Without wicket door	RM – 50	RM – 50	RM – 50
Wicket door with threshold	RM – 100	RM – 100	RM – 100
Wicket door without threshold rail	RM – 175	RM – 110	RM – 110

** Or with chain hoist / pull rope
*** Track application with inclination not possible!

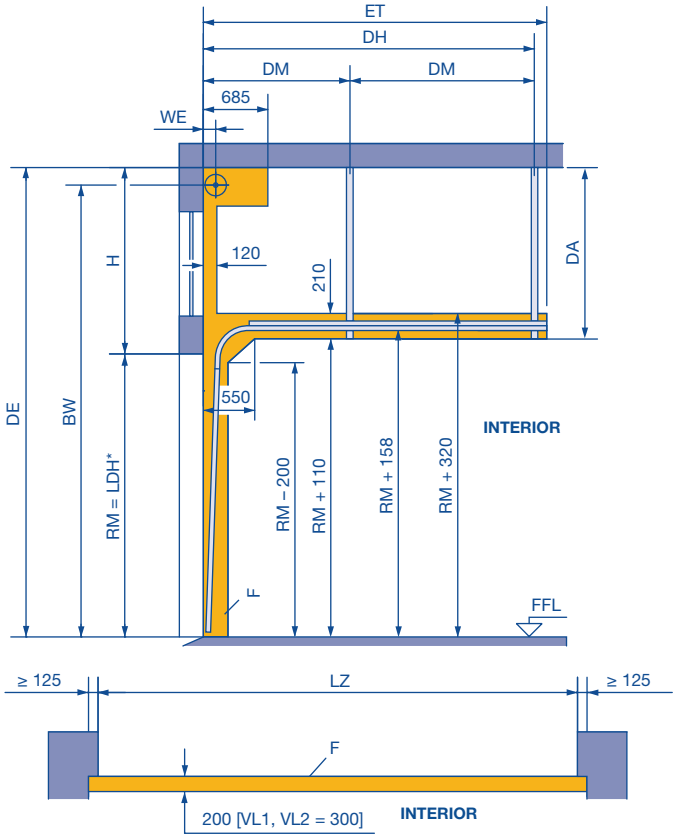
Min. headroom

Track size	Headroom	Track size	Headroom	Track size	Headroom
N 1	390	GD 2	660 – 790	RD 4	1760
N 2	440	L 1	200	RD 5	1760
N 3	550	L 2	200	RG 4	1760
NA 1	400	LD 1	200	RG 5	1760
NA 2	450	LD 2	200	V 6	RM + 500
ND 1	390	H 4	880	V 7	RM + 540
ND 2	440	H 5	910	V 9	RM + 635
ND 3	550	H 8	950	VA 6	RM + 510
NH 1	610 – 740	HA 4	890	VU 6	RM + 350
NH 2	660 – 790	HD 4	880	VU 7	RM + 350
NH 3	770 – 900	HD 5	910	VU 9	RM + 350
NS 1	390	HD 8	950	WG 6	RM + 350
NS 2	440	HU 4	1760	WG 7	RM + 350
GD 1	610 – 740	HU 5	1760		

Dimensions in mm

Track Application: NA

Normal track application
With high-mounted torsion spring shaft



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

Observe min. sideroom, see page 61.

	H min.	WE	DA min.
NA 1	400	140	290
NA 2	450	160	340

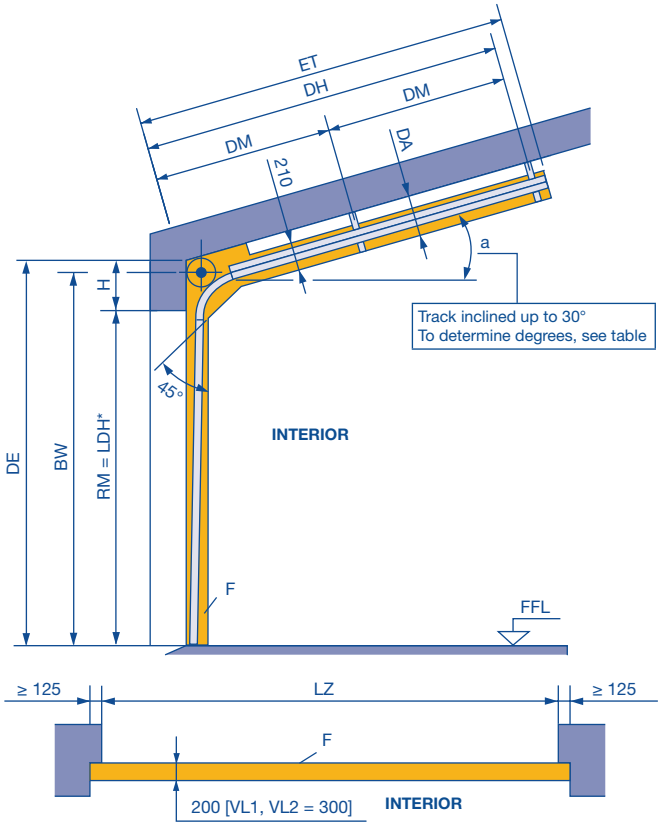
LDH Clear passage height
H Max. headroom (depends on order)
DA Max. distance to ceiling (depends on order)
RM Grid height
DE Ceiling height (depends on order)
BW Position of shaft support
NA 1: $BW_{min.}$ = RM + 320
NA 2: $BW_{min.}$ = RM + 345
NA 1: $BW_{max.}$ (7820) = DE – 80
NA 2: $BW_{max.}$ (7995) = DE – 105
ET Min. distance back
NA 1 + NA 2 = RM + 440
With shaft operator
NA 1 + NA 2 = RM + 650
DH Rear ceiling anchor
NA 1 + NA 2 = RM + 195
DM Central ceiling anchor (see page 66)
WE Shaft centre from lintel
L Anchor length = DE – RM – 125 (see page 66)
LZ Clear frame dimensions
F Space for fitting the door

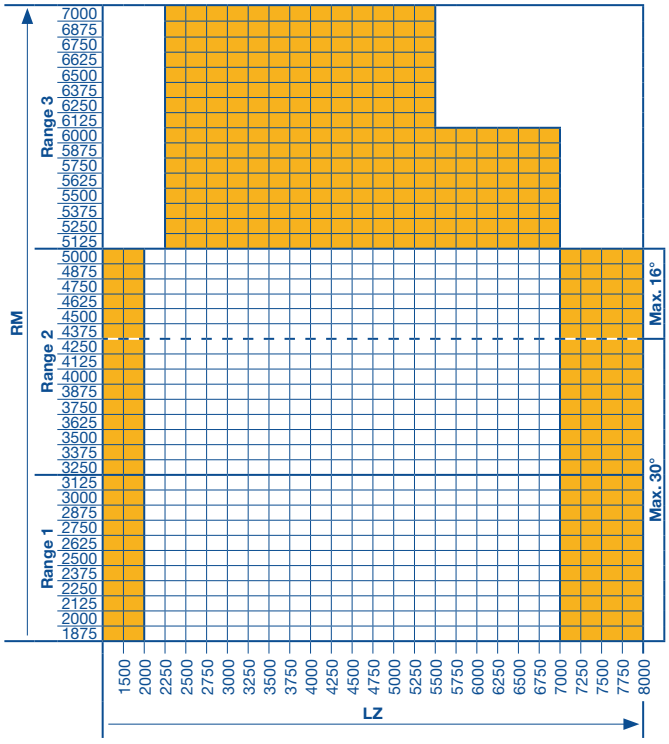
*** Note:**
Clear passage height LDH, see track application N

Notes:
- Observe the permissible size ranges of the door types on pages 10 – 18 and 21 – 32 under all circumstances!
- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- ALR F42 Vitraplan and ALR F42 Glazing on request

Track Application: ND

Normal track application
With inclination up to max. 30°





*** Note:**
Clear passage height LDH, see track application N

Note:
The clearance required for fitting the door must be free of supply lines, heater fans, etc.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m²
APU F42 / ALR F42	= 280 N/m²
ALR F42 Glazing	= 560 N/m²

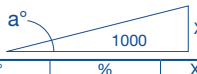
Observe min. sideroom, see page 61.

	H	DA
ND 1	390	430
ND 2	440	450
ND 3	550	580
ND 3	760	With double spring shaft

ET = min. distance back		
ND 1+2+3	RM + 450 – a° × 6.5	a° > 5° and with / without operator, with short spring buffer
	RM + 700 – a° × 6.5	a° ≤ 5° and with operator, with long spring buffer
	RM + 450 – a° × 6.5	a° ≤ 5° and manual operation with short spring buffer

See the normal track application for all other fitting dimensions.

Only to determine the roof slope in degrees (a°)



a°	%	X (mm)	a°	%	X (mm)
1	1.75	17.5	16	28.67	286.7
2	3.49	34.9	17	30.57	305.7
3	5.24	52.4	18	32.49	324.9
4	6.99	69.9	19	34.43	344.3
5	8.75	87.5	20	36.40	364.0
6	10.51	105.1	21	38.39	383.9
7	12.28	122.8	22	40.40	404.0
8	14.05	140.5	23	42.45	424.5
9	15.84	158.4	24	44.52	445.2
10	17.63	176.3	25	46.63	466.3
11	19.44	194.4	26	48.77	487.7
12	21.26	212.6	27	50.95	509.5
13	23.09	230.9	28	53.17	531.7
14	24.93	249.3	29	55.43	554.3
15	26.79	267.9	30	57.74	577.4

Note:
- Observe the permissible size ranges of the door types on pages 10 – 18 and 21 – 32 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

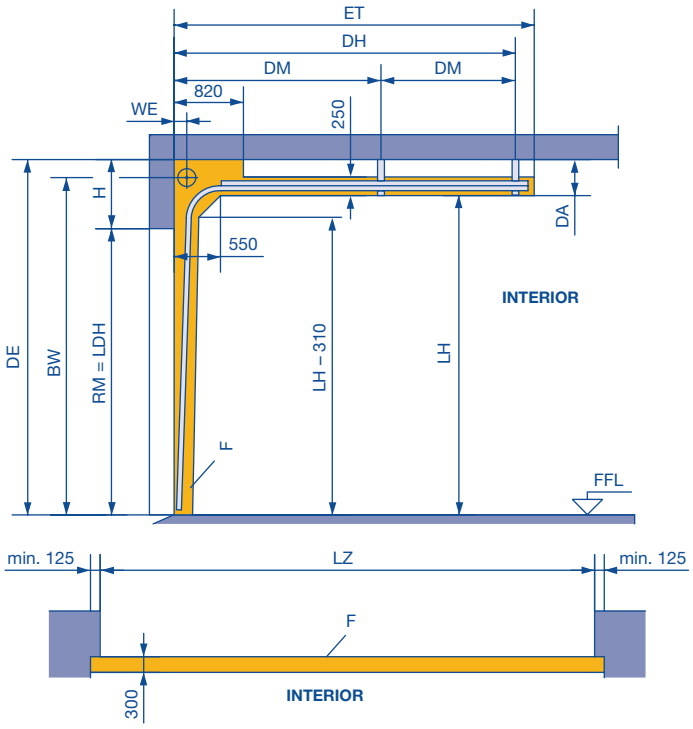
LDH Clear passage height
DH Rear ceiling anchor
ND 1 + ND 2 = RM + 195 – a° × 6.5
ND 3 = RM + 295 – a° × 6.5
DM Central ceiling anchor (see page 66)
H Min. headroom (see page 42)
DA Distance to ceiling
L Anchor length = DE – RM + 25 (see page 66)
LZ Clear frame dimensions **(from 1200)**
DE Ceiling height
ET Min. distance back
RM Grid height
F Space for fitting the door

On request

Dimensions in mm

Track Application: NH

Normal track application
With minimum high-lift



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

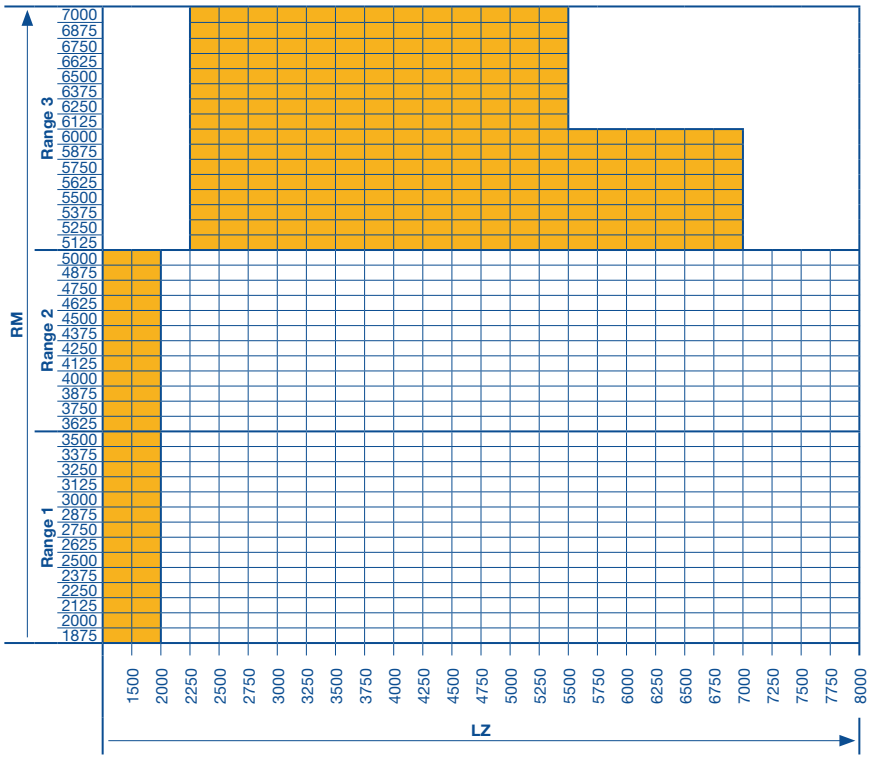
Observe min. sideroom, see page 61.

	WE	DA
NH 1	140	280
NH 2	160	330
NH 3	180	440

ET = min. distance back		
NH 1 + 2	2 × RM – LH + 1120	For manual operation with long spring buffer (standard)
	2 × RM – LH + 650	For manual operation with short spring buffer (special)
	2 × RM – LH + 880	For shaft operator with long spring buffer = (LH – RM) ≤ 1000
	2 × RM – LH + 650	For shaft operator with short spring buffer = (LH – RM) > 1000
NH 3	2 × RM – LH + 950	For manual operation and shaft operator with long spring buffer (standard)

Notes:

- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 18 and 21 – 32 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



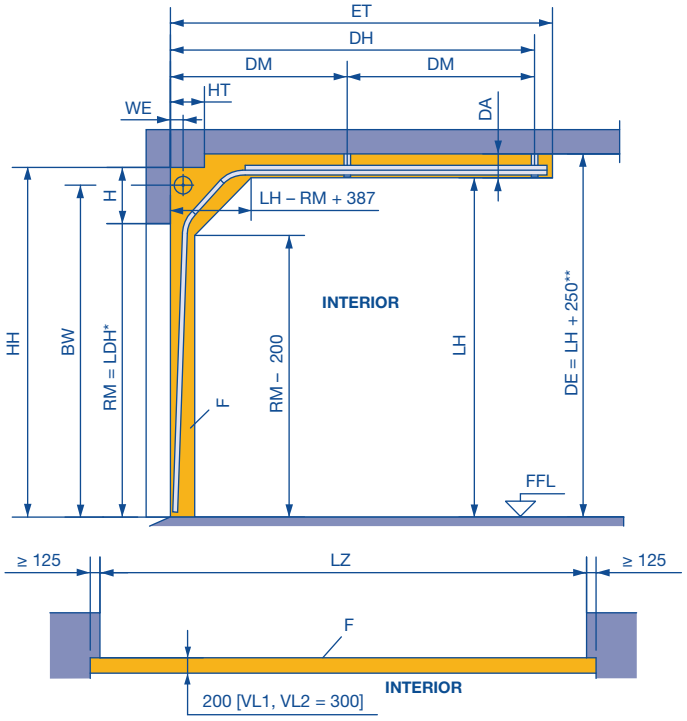
LDH Clear passage height
RM Grid height
BW Position of shaft support
NH 1 = LH + 200
NH 2 = LH + 225
NH 3 = LH + 305
LH Track height
Min. = RM + 330
max. = RM + 460
DH Rear ceiling anchor
NH 1 + NH 2 = 2 × RM – LH + 645 (long spring buffer)
NH 1 + NH 2 = 2 × RM – LH + 405 (short spring buffer)
NH 1 + NH 2 = 2 × RM – LH + 405 (long spring buffer + operator)
NH 3 = 2 × RM – LH + 485
DM Central ceiling anchor (see page 66)
WE Shaft centre from lintel
H Min. headroom (see page 42)
DA Distance to ceiling
DE Ceiling height
L Anchor length = DE – LH + 15 (see page 66)
LZ Clear frame dimensions **(from 1200)**
ET Min. distance back
F Space for fitting the door

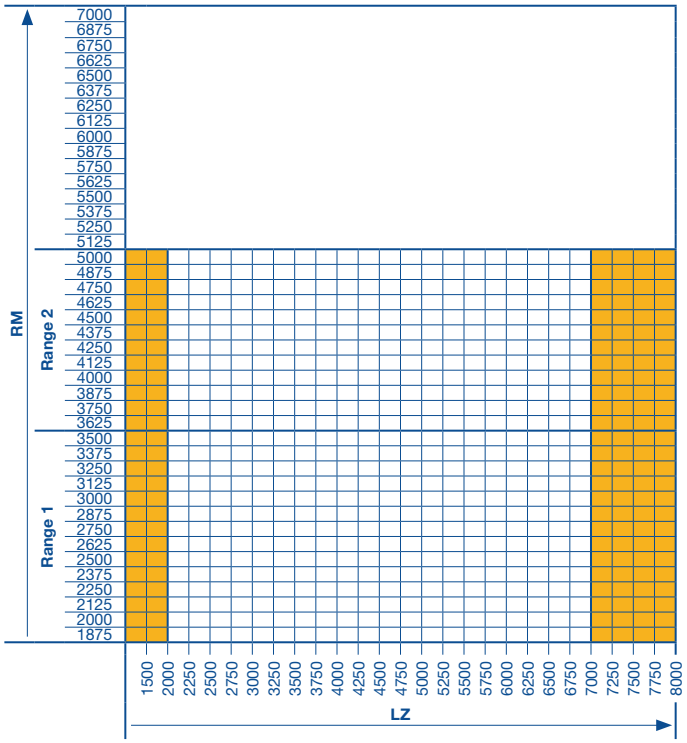
On request

Dimensions in mm

Track Application: NS

Normal track application
With double radius 2 × 45°





	* Clear passage height LDH	
	Without operator	Operator WA 400 ***
LZ ≤ 5500		
Without wicket door	RM	RM
Wicket door with threshold	RM – 100	RM – 50
Wicket door without threshold rail	RM – 150	RM – 85
LZ > 5500		
Without wicket door	RM – 50	RM – 50
Wicket door with threshold	RM – 100	RM – 100
Wicket door without threshold rail	RM – 175	RM – 110

*** Or with chain hoist / hand pulley

Note:
The clearance required for fitting the door must be free of supply lines, heater fans, etc.

Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo	= 320 N/m²
APU F42 / ALR F42	= 280 N/m²
ALR F42 Glazing	= 560 N/m²

Observe min. sideroom, see page 61.

	H	HT	WE	BW
NS 1	≥ 390	330	140	RM + 310
NS 2	≥ 440	380	160	RM + 335

Door height RM	Track height Min. LH	Track height Max. LH	
5000	5190	5810	NS 2
4875	5065	5685	
4750	4940	5560	
4625	4815	5435	
4500	4690	5310	
4375	4565	5175	
4250	4440	5030	
4125	4315	4885	
4000	4190	4730	
3875	4065	4585	
3750	3940	4440	
3625	3815	4295	
3500	3690	4150	NS 1
3375	3565	4005	
3250	3440	3860	
3125	3315	3715	
3000	3190	3570	
2875	3065	3425	
2750	2940	3280	
2625	2815	3135	
2500	2690	2990	
2375	2565	2845	
2250	2440	2700	
2125	2315	2555	
2000	2190	2410	
1875	2065	2265	

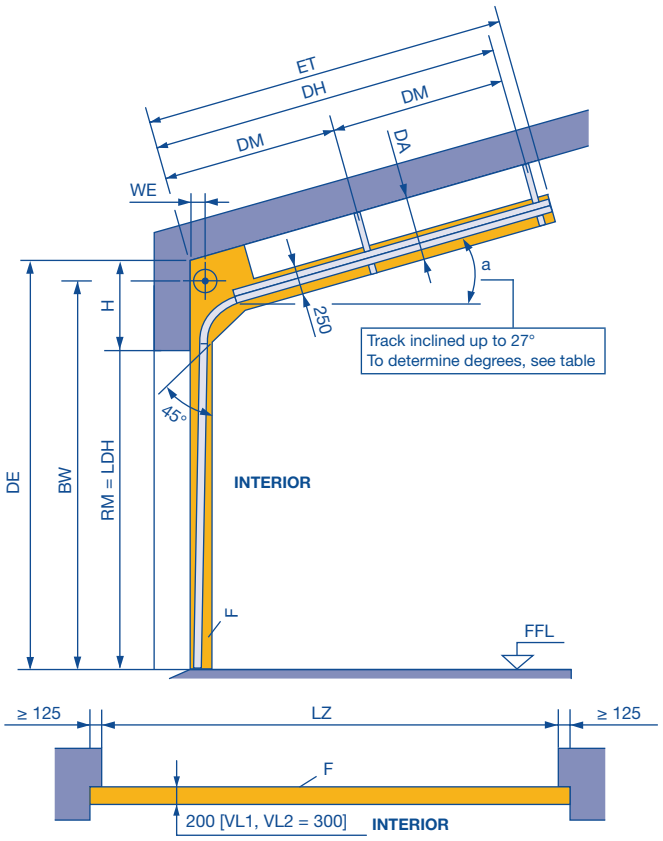
Note:
- Observe the permissible size ranges of the door types on pages 10 – 18 and 21 – 32 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request

H	Min. headroom (see page 42)	**LH**	Track height
ET	Min. distance back on request	**LDH**	Clear passage height
DH	Rear ceiling anchor on request	**LZ**	Clear frame dimensions **(from 1200)**
DM	Central ceiling anchor on request	**RM**	Grid height
DA	Min. distance to ceiling 250	**F**	Space for fitting the door
HT	Obstruction depth	**	Min.
L	Anchor length = DE – LH – 15 (see page 66)		On request
BW	Position of shaft support		
WE	Shaft centre from lintel		
HH	Obstruction height		
DE	Ceiling height		

Dimensions in mm

Track Application: GD

Normal track application
With inclination up to max. 27°
Minimum high-lift



Door weights for roof loads:

SPU F42 / APU F42 Thermo / ALR F42 Thermo = 320 N/m²
APU F42 / ALR F42 = 280 N/m²
ALR F42 Glazing = 560 N/m²

Observe min. sideroom, see page 61.

	WE
GD 1	140
GD 2	160

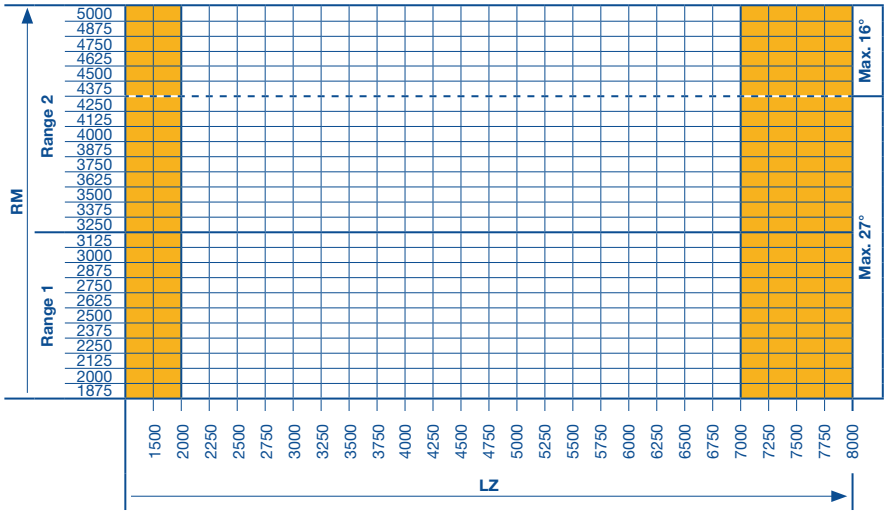
ET = min. distance back		
GD 1 + 2	2 × RM – LH + 1120 – a° × 6.5	Manual operation with long spring buffer
	2 × RM – LH + 650 – a° × 6.5	a° > 5° and operator, with short spring buffer
	2 × RM – LH + 880 – a° × 6.5	a° ≤ 5° and operator, with long spring buffer

Only to determine the roof slope in degrees (a°)

a°	%	X (mm)	a°	%	X (mm)
1	1.75	17.5	15	26.79	267.9
2	3.49	34.9	16	28.67	286.7
3	5.24	52.4	17	30.57	305.7
4	6.99	69.9	18	32.49	324.9
5	8.75	87.5	19	34.43	344.3
6	10.51	105.1	20	36.40	364.0
7	12.28	122.8	21	38.39	383.9
8	14.05	140.5	22	40.40	404.0
9	15.84	158.4	23	42.45	424.5
10	17.63	176.3	24	44.52	445.2
11	19.44	194.4	25	46.63	466.3
12	21.26	212.6	26	48.77	487.7
13	23.09	230.9	27	50.95	509.5
14	24.93	249.3			

Notes:

- The clearance required for fitting the door must be free of supply lines, heater fans, etc.
- Observe the permissible size ranges of the door types on pages 10 – 18 and 21 – 32 under all circumstances!
- ALR F42 Vitraplan and ALR F42 Glazing on request



DH Rear ceiling anchor
GD 1 + GD 2 = 2 × RM – LH + 645 – a° × 6.5 (long spring buffer)
GD 1 + GD 2 = 2 × RM – LH + 405 – a° × 6.5 (short spring buffer)
GD 1 + GD 2 = 2 × RM – LH + 405 – a° × 6.5 (long spring buffer + operator)
DM Central ceiling anchor = see page 66
H Min. headroom (see page 42)
DA Distance to ceiling on request
DE Ceiling height
L Anchor length on request (see page 66)
LDH Clear passage height
LZ Clear frame dimensions **(from 1200)**
ET Min. distance back
RM Grid height
F Space for fitting the door

On request

Dimensions in mm