عمران مدرن
بازار نوین ارتباطات ساختمانی

نصب آسانسور

و تهیه کلیه قطعات

سراسر کشور

با قیمت استثنایی و اکیپ متخصص

براى مشاوره رایگان تماس بگیرید
02162999675

CHARACTERISTICS

PLANT

Machine room position		Top	
Roping		1 : 2	
Compartment efficiency		0,87	
Winding type		CSW	
Expected plant efficiency		0,82	[ ]
Load	Q	630	[kg]
Car + door + operator weight	P	800	[kg]
CWT balancing		50	[%]
CWT weight	CWT	1.115	[kg]
Cabin speed	Vc	1	[m/s]
Plant travel		30	[m]
Estimated ropes weight		40,5	[kg]
Ropes compensation		0	[%]
Estimated weight of the compensated ropes		0	[kg]
Estimated weight of the compensated ropes tensioner		0	[kg]
Electric cables weight		24	[kg]
Recommended usage categories (VDI4707)		3	[ ]
Selected usage categories (VDI4707)		3	[ ]
Duty cycle		35	[%]
Wrapping angle	α	180	[°]
Diverting pulley supported on		Ball bearings	
Average diameter of the guide pulleys		320	[mm]
Main diverting pulley side			
No. of total idler/deflection pulleys		3	[ ]
Ropes type		GUSTAV WOLF PAWO 819 W - 1770 - CA298	
Ropes resistance class			[N/mm²]
Rope minumum breaking load		46000	[N]
No. of diverting pulleys with reverse band		0	[ ]
Inertia of installation (full load)		17,46	[kgm²]
Inertia of installation (empty)		13,42	[kgm²]
Calculated rated torque		379,5	[Nm]
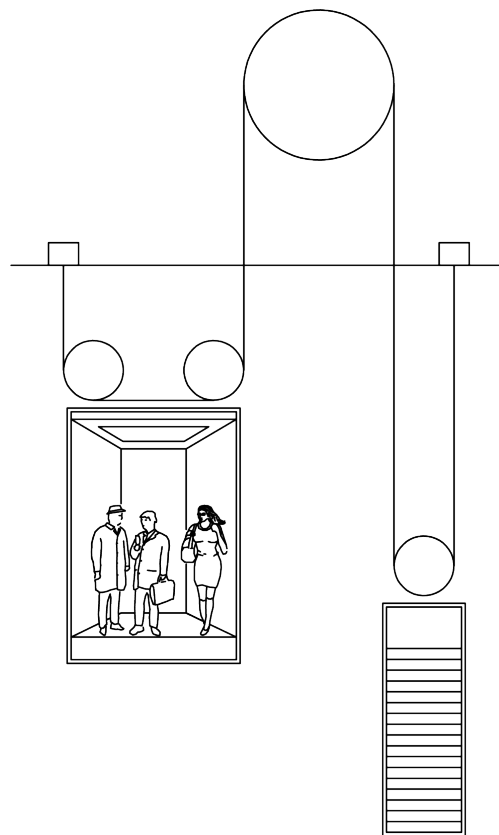
The represented drawings is an indication

GEARLESS

Machine model		SG30145BF	
Auxiliary ventilation		Yes	
Traction sheave diameter (ø)		320	[mm]
Drive pulley width		125	[mm]
Hardened grooves		Yes	
Ropes	N	5	[ ]
Ropes diameter	d	8	[mm]
Groove profile type		VSI	
Gamma angle	γ	40	[°]
Beta angle	ß	0	[°]
Distance between grooves		12	[mm]
Brake manifacturer and type		MAYR RTW size 350 type 8012	
Brake torque		2 * 410	[Nm]
TUV certificates reference		EU-BD 845	

MOTOR DATA

Rated speed	120	[rpm]
Rated voltage	360	[V]
Rated frequency	20	[Hz]
Motor poles	20	

REGULATION DATA

Power required	4,78	[kW]
Typ. / Max Operating current	13,22 / 16,03	[A]
Start current at acceleration 0.3 / 0.7 [m/s²]	15,51 / 18,55	[A]
Installation frequency	19,9	[Hz]
Installation speed	119,4	[rpm]
Start/hour	180	[avv/h]
Machine usage	97,11	[%]

RESCUE CONDITIONS

Estimated system efficiency during emergency		0,90	[ ]
Min operating voltage at emergency speed	0,3 [m/s]	177	[V]
Max estimated torque during emergency		279,7	[Nm]
Short-circuit maximum torque		275	[Nm]
Speed at shortcircuit maximum torque		0,55	[m/s]

Notice: this document represents a pre-technical analysis of the machine dimensioning process on the basis of the data provided by the buyer   C: 47294

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VERIFICATION EN 81-20-50

MACHINE VERIFICATION

Max machine static load			34,34	[kN]
Calculated static load			13	[kN]
Verification	34,34	> 13	VERIFIED	
Maximum torque			538,2	[Nm]
Start torque at acceleration [m/s²]		0.3	445	[Nm]
Verification	538,2	> 445	VERIFIED	
Maximum short-circuit torque > Maximum estimated torque during emergency			NOT VERIF.	
Maximum car speed during emergency <= 0,3m/s			NOT VERIF.	

The represented drawings is an indication

ROPES SAFETY

Average bends Diameter			320	[mm]
Kp coefficient	Kp		1	[ ]
Equal Number	t		10	[ ]
Equal Number	p		2	[ ]
Equal Number			12	[ ]
Ratio between diameters	D / d		40	[ ]
Specific pressure	7,61 <= 6,83		(EN81.1 : 1985)	
Minimum safety coefficient admissible			19,96	[ ]
Calculated safety coefficient			31,89	[ ]
Verification	31,89 > 19,96		VERIFIED	
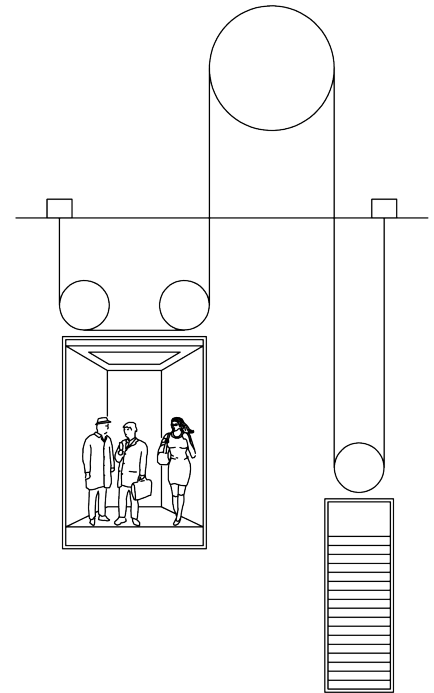
FRICTION

Friction coefficient - car's load	μ	0,1	[ ]
Friction coefficient - emergency braking	μ	0,0839	[ ]
Friction coefficient - bound lift	μ	0,2	[ ]
Friction coefficient - car's load	f	0,2924	[ ]
Friction coefficient - emergency braking	f	0,2453	[ ]
Friction coefficient - bound lift	f	0,5848	[ ]
Max traction - car load	e^fa	2,51	[ ]
Max traction - emergency braking	e^fa	2,16	[ ]
Max traction - bound lift	e^fa	6,28	[ ]

CONDITION: "CAR LOAD OPERATIONS"

Car side	Cabin empty down		4321,4	Cabin full down		8183,9
	Cabin empty up		4041,8	Cabin full up		7904,4
Cwt	Cabin empty down		5469	Cabin full down		5469,1
	Cabin empty up		5866,3	Cabin full up		5866,4
T1 / T2	Cabin empty down	2,51 > 1,27	VERIFIED	Cabin full down	2,51 > 1,5	VERIFIED
	Cabin empty up	2,51 > 1,45	VERIFIED	Cabin full up	2,51 > 1,35	VERIFIED

CONDITION: "EMERGENCY BRAKING"

Calculated deceleration [m/s²]   0,5

Car side	Empty car at the bottom "UP"		4070,4	Full car at the bottom "DOWN"		7819,8
	Empty car at the top "UP"		3825,6	Full car at the top "DOWN"		7505,5
Cwt	Empty car at the bottom "UP"		5753	Full car at the bottom "DOWN"		5185,2
	Empty car at the top "UP"		6190,6	Full car at the top "DOWN"		5542,2
T1 / T2	Empty car at the bottom "UP"	2,16 > 1,41	VERIFIED	Full car at the bottom "DOWN"	2,16 > 1,51	VERIFIED
	Empty car at the top "UP"	2,16 > 1,62	VERIFIED	Full car at the top "DOWN"	2,16 > 1,35	VERIFIED

CONDITION: "BLOCKED CAR"

Car side	Car at the bottom "DOWN"		397,4	Empty car at the bottom "UP"		4321,3
	Car bound at the top "DOWN"		0,1	Empty car at the top "UP"		4041,7
Cwt	CWT at the top "UP"		5469	Bound CWT at the top "DOWN"		0,1
	CWT at the top "UP"		5866,3	Bound CWT at the bottom "DOWN"		397,4
T1 / T2	Car at the bottom "DOWN"	6,28 < 13,76	VERIFIED	Bound cwt. at the top "DOWN"	6,28 < 86425,1	VERIFIED
	Car bound at the top "DOW	6,28 < 117326,6	VERIFIED	Bound cwt. at the bottom "DOWN"	6,28 < 10,17	VERIFIED

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