V.05.00

Customer	:	**Behran Asanbar**		
Reference	:	**Selection HW134, 480Kg - 1 m/s (AC2 - 8HP)**		
Offer	**N° :**	**TEST**	**Date**	**05/06/2015**

TECHNICAL SECTION

PLANT

Position	↑
Roping	1:1
Balance	50 %
Duty load	480 Kg
Car weight	550 Kg
Counterweight	790 Kg
Shaft efficency	0,80
Car travel	30,0 m
Ropes compensation	0 %
Rope comp. weight	0,0 Kg
Ropes distance	700 mm
Car rated speed	1,00 m/s
Mass of tension device	0 Kg
Weight/m of traveling cable	0 Kg/m
Ropes strength class	1770 N/mm²

Plant data for Traction calculations according to EN81/1:1998

Øaverage defl.pulley carside	0 mm
Øaverage defl.pulley count.side	0 mm
Ø pulley for tension device	0 mm
Main defl.pulley (1=yes;0=no)	1
Pos.defl.pulley (1=car;0=count.)	0
Ø main defl. pulley	400 mm
N° defl.pulleys with simple defl.	0
N° defl.pulleys with reverse defl.	0
Friction in the shaft carside	0,0 N
Friction in the shaft count.side	0,0 N

Wrap angle calculation

Vert.dist.pulley axis	800 mm	
Wrap angle	169,5 °	OK !!

GEARBOX

Gearbox type	HW134
Traction sheave position	⊢T (L)
Ratio	42/1
Traction sheave diam.	550 mm
Ropes number	4
Ropes diameter	10
Groove type	Y
V-Angle	35 °
Undercut angle	105 °
Wrap angle	155 °
Pitch of grooves	17,0 mm
Undercut	7,93 mm
Tract. ropes weight	44,8 Kg

MOTOR

Drive system	AC2
Poles	4/16
Power	5,5 kW
Drive system frequency	50 Hz
Motor nom.frequency	50 Hz
Voltage	380/220
St/h	180
RPM	1500/375
Power	8,1 Hp

FLYWHEEL TYPE

Flywheel type	134A	
Stg.acceler.fl.up	0,61 m/s²	OK !!
Stg.accel.fl.down	0,91 m/s²	OK !!
Retardation fl.up	0,75 m/s²	OK !!
Retardat.fl.down	0,51 m/s²	OK !!
Torque of mech. brake	81,57 Nm	OK !!
Theor.lev.accuracy	±8,8 mm	OK !!
Total mom.of iner.	0,68 Kgm²	OK !!

GEARBOX SELECTION CHECK

Item	Required	Selected	Test
Car rated speed	1,00 m/s	1,03 m/s	+2,8%
Output torque	960 Nm	1.080 Nm	+12,5%
Static load	1.822 Kg	2.300 Kg	+26,3%
Grooves edges	min 2,0 mm	5,3 mm	OK !!
Tr.Sh. Sides	min 3,4 mm	4,1 mm	OK !!
Motor power	5,1 kW	5,5 kW	+8,3%
Ropes safety according to EN81/1:1985			
Safety factor	12,0	20,7	OK !!
Ropes safety according to EN81/1:1998			
Safety factor	14,4	20,7	OK !!
Traction and spec.press. according to EN81/1:1985			
$T_1/T_2 * c_1 * c_2$ (a) =	max 2,247	2,178	OK !!
$T_1/T_2 * c_1 * c_2$ (b) =	max 2,247	2,186	OK !!
Specific pressure	max 8,190	7,164	OK !!
Traction calculations according to EN81/1:1998			
Car loading condition			
Car empty low	1,919	1,328	OK !!
Car empty up	1,919	1,518	OK !!
Car full low	1,919	1,512	OK !!
Car full up	1,919	1,378	OK !!
Emergency braking condition (a=-0.5 m/s2)			
Car empty low in up direction	1,814	1,474	OK !!
Car empty up in up direction	1,814	1,684	OK !!
Car full low in down direction	1,814	1,508	OK !!
Car full up in down direction	1,814	1,368	OK !!
Stalled condition			
Car stalled low in low direction	6,045	17,217	OK !!
Car stalled up in low direction	6,045	350,182	OK !!
Count. stalled up in low dir.	6,045	249,645	OK !!
Count. stalled low in low dir.	6,045	11,995	OK !!

COMMERCIAL SECTION

OPTIONALS

Packing	Wooden box
Bed plate	
Brake electrom.voltage	200V
Rope guard	☑
Tropicalization	☐
Kit encoder	☐
Rope clamp	☐
Personal/customer Plate	☐
Special painting	☐

OFFER

MESSRS. Behran Asanbar

HEREBELOW PLEASE FIND SUMMARY OF TECHNICAL DATA AND OFFER :

- GEARBOX HW134 ; Traction sheave position (L) ; Ratio 42/1
  complete in delivery with syntethic oil and use&maintenance manual
- TRACTION SHEAVE Ø 550 mm ; 4 x ø10 ; Groove type Y ; V-Angle 35 ° ;
  Undercut angle 105 ° ;Undercut 7,93 mm ; Pitch of grooves 17 mm
- MOTOR ; Drive system AC2 ; 4/16 Poles ; 5,5 kWasy (8,1 Hp) ; 380/220 V ;
  50 Hz ; 180 St/h ;
- FLYWHEEL TYPE 134A
- BRAKE ELECTROMAGNET 200V
- PACKING Wooden box : HW134
- ROPE GUARD

Note / assumed data: The following data have been assumed for EN-81 calculation:
Considered traction sheave diameter 550mm, ropes 4x10mm, pitch of grooves 17mm
Cabin total weight 550kg, travel till 30 mts (10/11 stops), 50% lift balancing
(if more than 11 stops, compensation for ropes weight is required)

NET UNIT PRICE

DELIVERY TERMS

PAYMENT CONDITIONS

NOTES :

We remain at your disposal for any information you may need, and awaiting your kind order confirmation.
Thanks & Best Regards,

GEM S.r.l.
Sales Dept.