

ALL NEW MODEL! LIFTING MAGNET

ELM Series

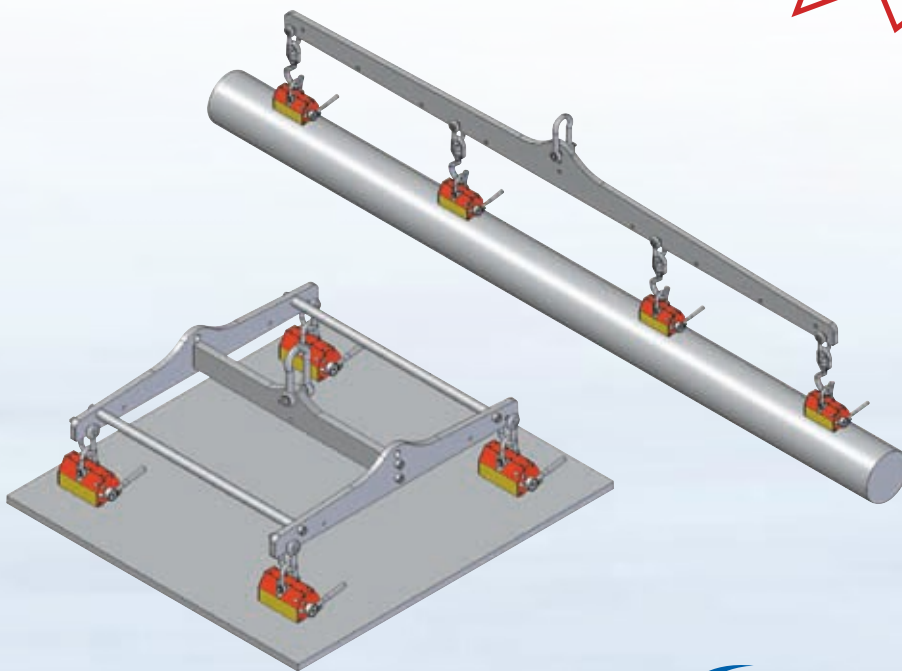


Light weight
Smaller size
Lower price

Convenient and
efficient

Safety Factor
3.5 times!

More power. More safety



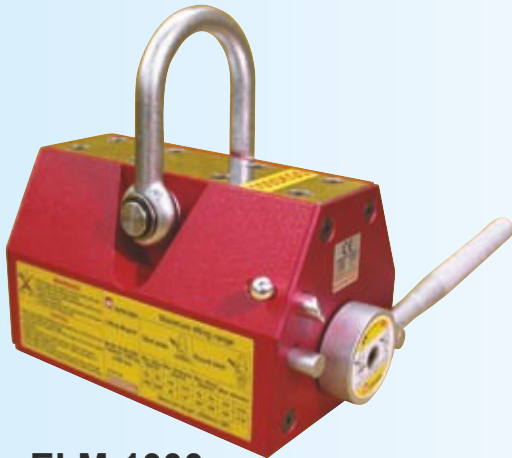
ECE
EARTH-CHAIN
Power that works.



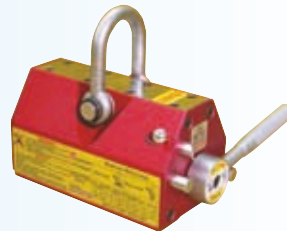
Power that works.
magnetic products

2009.04

ELM Series



ELM-1000



ELM-300



ELM-600



ELM-100

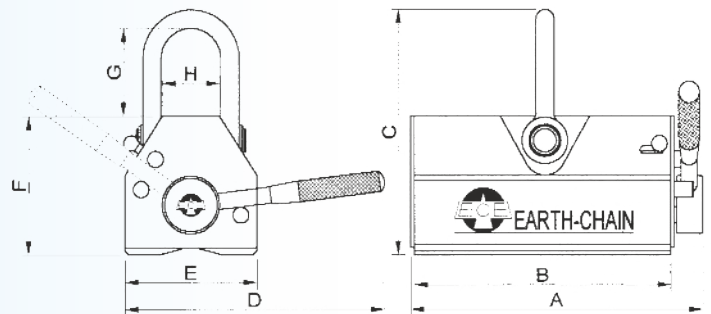


ELM-2000



ELM-3000

6 models are available



DIMENSIONS

MODEL	Capacity		A		B		C		D		E		F		G		H		Weight		SAFETY FACTOR
	kg	lbs	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs	
ELM-100	100	220	107	4.2	84	3.3	120	4.7	125	4.9	60	2.4	71	2.8	41	1.6	30	1.2	2.5	5.5	× 3.5times
ELM-300	300	660	180	7.1	155	6.1	156	6.1	185	7.3	90	3.6	93	3.7	51	2.0	41	1.6	8.6	18.9	
ELM-600	600	1320	255	10	224	8.8	212	8.3	260	10.2	115	4.5	120	4.7	77	3.0	52	2.0	21	46	
ELM-1000	1000	2200	280	11	245	9.6	286	11.3	371	14.6	165	6.5	169	6.7	97	3.8	87	3.4	46	101	
ELM-2000	2000	4400	422	16.6	380	15	348	13.7	512	20.2	216	8.5	215	8.5	105	4.1	121	4.8	118	259	
ELM-3000	3000	6600	566	22.3	530	20.9	400	15.7	770	30.3	216	8.5	222	8.7	147	5.8	80	3.2	181	399	

ELM Series

● FEATURES

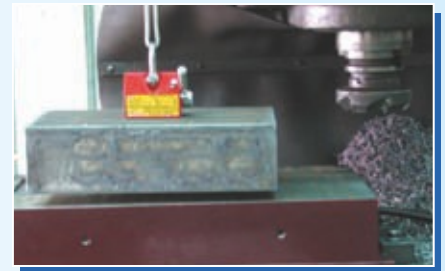
1. Made with powerful Neodymium Rare Earth magnets.
2. All new models. Lighter weight and more compact.
3. Made with permanent magnets, so no external power supply is needed. This makes ELM magnets safer and more efficient than the competition.
4. Magnets are tested to carry over 3.5 times their rated capacity, ensuring safety in heavy lifting operations.

● APPLICATIONS

Suitable for moving solid stock, both round and square, thick plate, castings or machine parts.



EXAMPLE IN USE



● OPERATIONS

With ON/OFF switch, it is very easy and convenient to operate. See the example pictures as below.

ON



OFF



Notice: Never move the handle to “ON” side when not positioned on a work piece.

ELM Series

LOAD OF HOLDING POWER

Holding power of the magnet depends on the thickness, surface smoothness and metallic qualities of the object being lifted.

(See as the graphs as below)

Chart of difference in holding power by thickness

	Thickness		Percentage of lifting capacity					
	mm	inch	ELM-3000	ELM-2000	ELM-1000	ELM-600	ELM-300	ELM-100
T1	up 60	up 2.36"	100%	100%	100%	100%	100%	100%
T2	55	2.16"	95%	95%	100%	100%	100%	100%
T3	50	1.97"	90%	90%	100%	100%	100%	100%
T4	45	1.77"	85%	90%	100%	100%	100%	100%
T5	40	1.57"	80%	85%	90%	100%	100%	100%
T6	35	1.38"	70%	75%	90%	100%	100%	100%
T7	30	1.18"	60%	65%	80%	90%	100%	100%
T8	25	0.98"	50%	55%	70%	90%	100%	100%
T9	20	0.79"	40%	45%	60%	75%	90%	100%
T10	15	0.59"	30%	35%	50%	60%	70%	100%
T11	10	0.39"	20%	25%	35%	45%	50%	70%
T12	5	0.20"	10%	15%	20%	25%	30%	40%

Chart of difference in holding power by attractive face roughness For all models

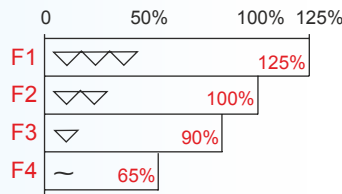
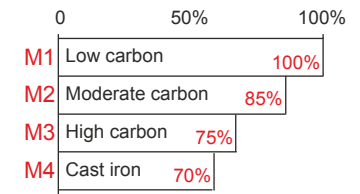


Chart of difference in holding power by material quality For all models



Calculating Formula for "Range of Lifting Capacity" → (TxFxMxCapacity of Lifter)

Example:
 Terms of workpiece: T8, F1 and M2
 $90\% \times 125\% \times 85\% \times 600\text{kg (ELM-600)} = 573\text{KG}$

SAFETY FACTOR x 3.5 times

The capacity of magnet indicated as 1/3.5 of holding power, it means the real holding power is 3.5 times of capacity. For example the capacity of ELM-600 is 600kg (1320lbs) but the real holding power is 2100kg (4620lbs).

The large safety coefficient is consideration for ensuring safety in use.

MAXIMUM LIFTING RANGE

MODEL	Max. lifting capacity		Min. thickness required		Max. lifting capacity		Max. diameter		Maximum length	
	kg	lbs	mm	inch	kg	lbs	mm	inch	mm	inch
ELM-100	100	220	15	0.59"	45	99	150	5.9"	1000	40"
ELM-300	300	660	25	0.98"	135	300	250	9.8"	1500	60"
ELM-600	600	1320	30	1.18"	270	600	350	13.8"	2000	80"
ELM-1000	1000	2200	40	1.57"	450	990	450	17.8"	2500	98"
ELM-2000	2000	4400	55	2.16"	900	1980	550	21.6"	3000	118"
ELM-3000	3000	6600	60	2.36"	1350	2970	650	25.6"	3500	138"

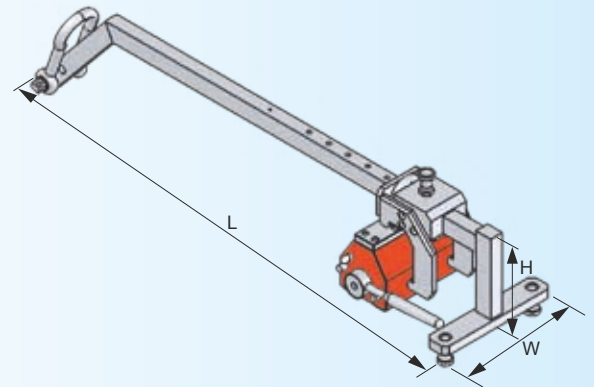
The above diagrams is only for reference. The operator should test and check if it is in safe range before Lifting any workpiece. ELM takes no responsibility for accidents caused by improper use.

ELM-V Series

EZ-Lift Material Handling Accessories

● ELM-V Vertical Lifters

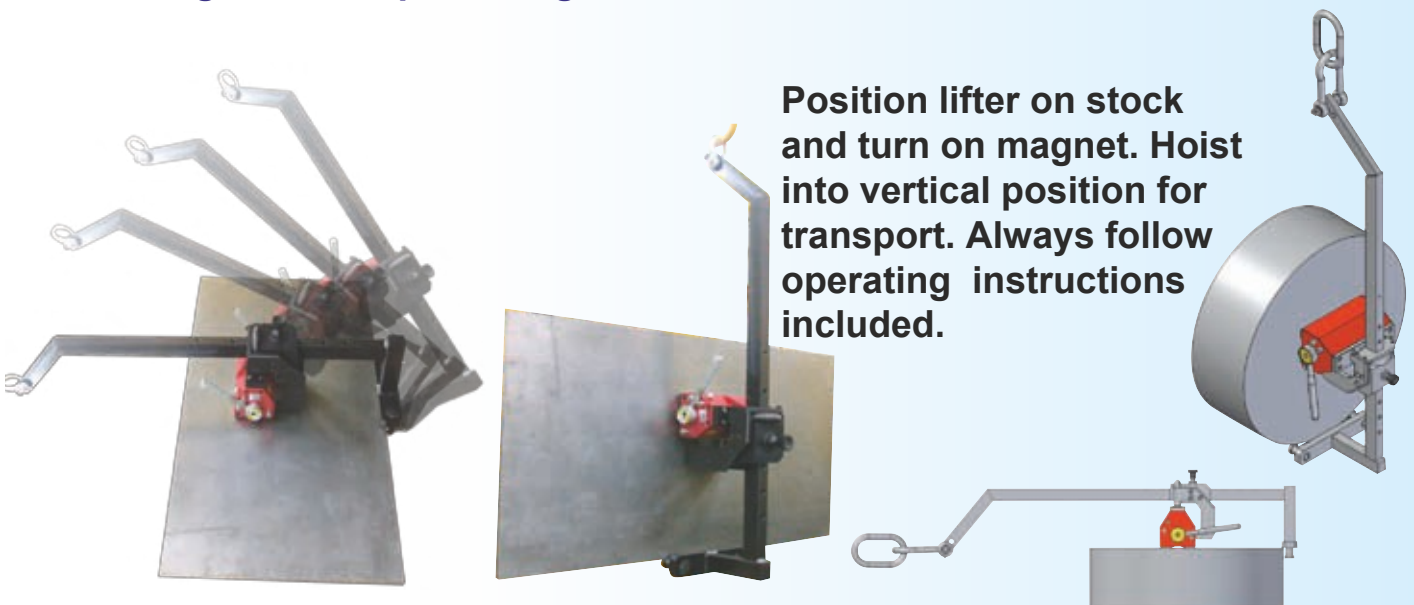
(The device includes a Lifting Magnet)



Model	Size L × W × H		Weight	
	mm	inch	kg	lbs
ELM-300V	953 × 216 × 254	37.5 × 8.5 × 10	26	57
ELM-600V	1156 × 272 × 254	45.5 × 10.7 × 10	39	86
ELM-1000V	1207 × 343 × 305	47.5 × 13.5 × 12	58	128

- Fast loading for vertical transport
- One person can load and unload
- No dangerous straps & slings

Used for vertical transport of plate stock for fabricating, machining, etc.



Position lifter on stock and turn on magnet. Hoist into vertical position for transport. Always follow operating instructions included.

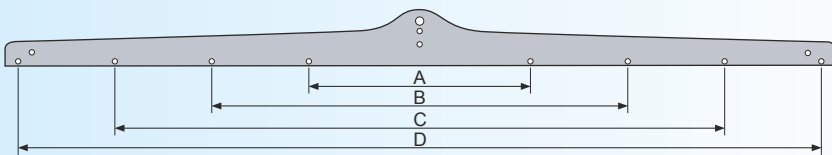
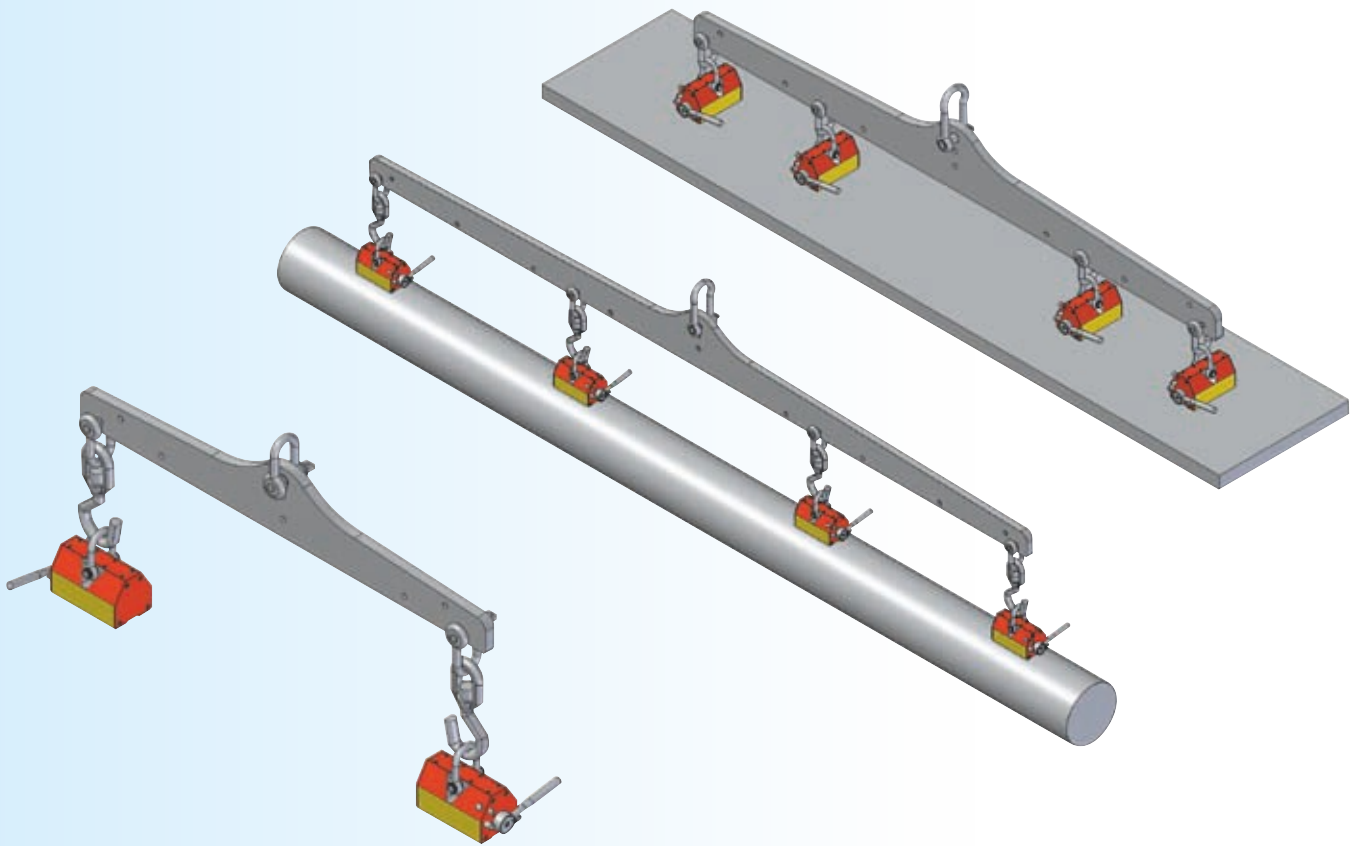
Model	Plate Size (L × W × H min./max.)							
	Capacity		L (min./max.)		W (min./max.)		H (min./max.)	
	kg	lbs	mm	inch	mm	inch	mm	inch
ELM-300V	300	660	200 / 1500	8 / 60	300 / 800	11.8 / 31.5	6 / 150	0.25 / 5.9
ELM-600V	600	1320	300 / 1800	12 / 72	300 / 1000	11.8 / 39.4	8 / 250	0.31 / 9.8
ELM-1000V	1000	2200	300 / 2000	12.5 / 79	300 / 1000	11.8 / 39.4	10 / 300	0.39 / 11.8

ELM-L Series

● ELM-L Spreader Bars

(This product doesn't include permanent lifting magnet "ELM Series", lifting magnets are optional according to your applications.)

- For better overall balance **Keeps large materials**
- Use with multiple lifters **balanced for safer transport.**
- Lifter span adjustable



Spreader bars help keep large or irregular loads under control during transport. You can increase your lifting power by adding more magnets.

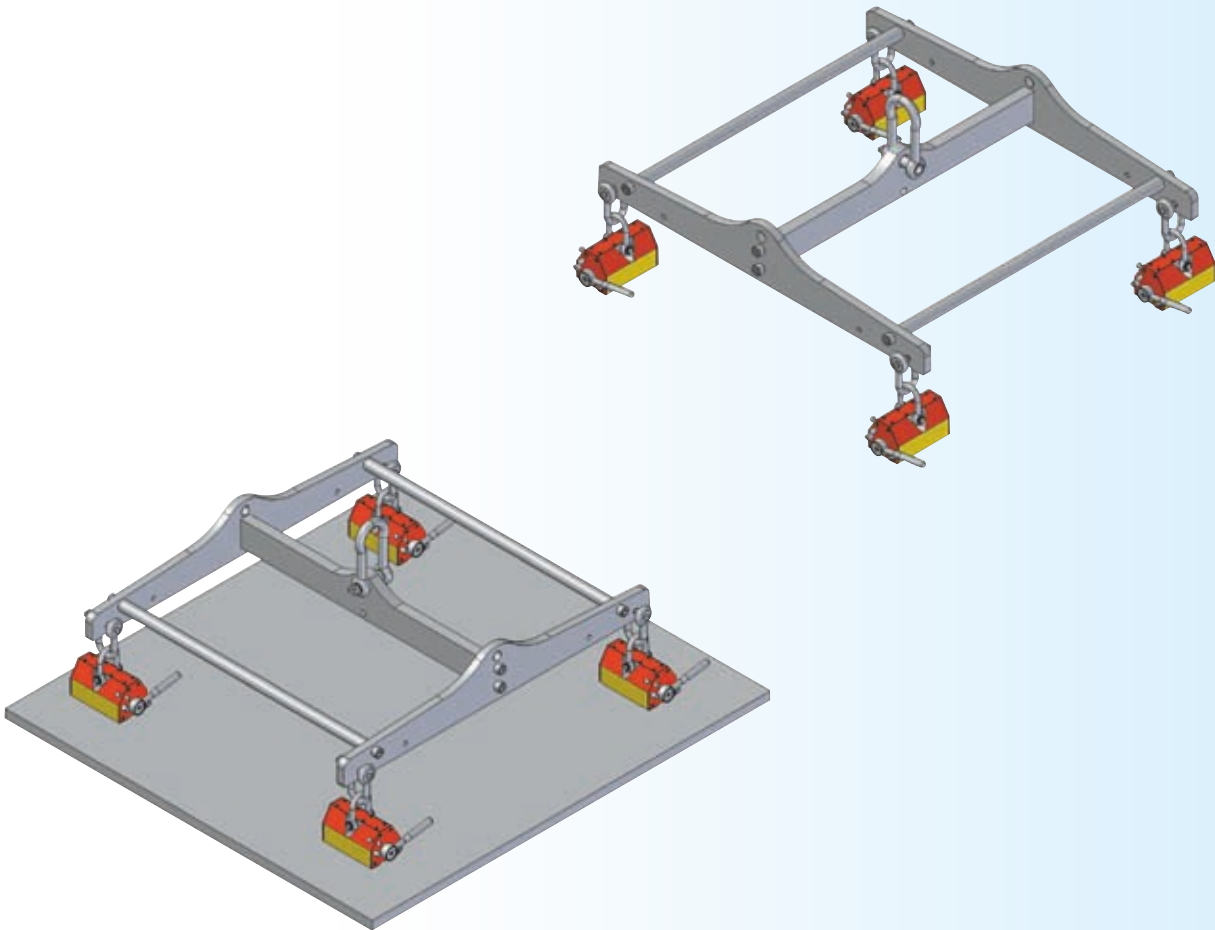
Model	A		B		C		D		Weight	
	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
ELM-1000L	600	23.6	900	35.4	--	--	--	--	16	35
ELM-1600L	700	27.6	1100	43.3	1500	59.1	--	--	25	55
ELM-2000L	700	27.6	1300	51.2	1900	74.8	--	--	57	125
ELM-2600L	700	27.6	1300	51.2	1900	74.8	2500	98.4	75	165
ELM-3000L	800	31.5	1500	59.1	2200	86.6	2900	114	86	189

ELM-H Series

● ELM-H Spreader Bars set System

(This product doesn't include permanent lifting magnet "ELM Series", lifting magnets are optional according to your applications.)

- Loading large plate on the table with a fork lift was difficult time consuming and posed a potential safety hazard.
- ELM-L Workholding to design a system for a single operator to use permanent lifting magnets and a special spreader bar to handle a balanced load.



"We found that using the lifting magnets made the Process simpler, safer and faster for a single operator to use."

This product is custom-made, please specify the dimension and weight of your workpiece when place orders.



ELECTRONIC TECHNOLOGY SYSTEMS
DR. GENZ GMBH

EC DECLARATION OF CONFORMITY

This certifies that the following designated product

PERMANENT LIFTING MAGNET (ON/OFF TYPE)
MODEL NO. : ELM-600

.....
(Product identification)

complies with the essential protection requirements of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This declaration applies to all specimens manufactured in accordance with the attached manufacturing drawings which form part of this declaration. Assessment of compliance of the product with the requirements relating to electromagnetic compatibility was based on the following standards:

EN 61000 -6 -3 / 2001 : EN 55014-1
EN 61000 -6 -1 / 2001 : EN 55014-2 (EN 61000-4-2)

.....
(Identification of regulations / standards)

This declaration is the responsibility of the manufacturer / importer

EARTH-CHAIN ENTERPRISE CO., LTD.
NO. 54, ALLEY 85, SHAN-TIAUR-TZUHN LANE, JUNG-CHI RD., SHA-LUH,
TAICHUNG, TAIWAN, R.O.C

.....
(Name / Address)



THE DOC IS ONLY VALID IN CONNECTION WITH THE TEST REPORT NUMBER : G6M203030026-E-16

MANUFACTURER / IMPORTER

TEST LABORATORY

This is the result of test, that was carried out from the submitted type-samples of a product in conformity with the specification of the respective standards. The certificate holder has the right to fix the CE-mark for EMC on the product complying with the inspection sample.

.....
(Date)

.....
(Surname, forename)
(Company stamp)



May 02, 2003

.....
(Date)

Dr. Genz

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Dr. Genz
(Company stamp)