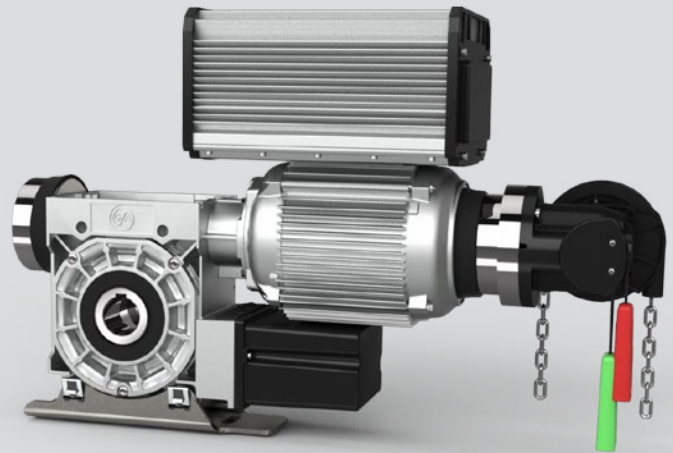


# Safedrive® Fi

Drive Systems for non-balanced fast operating Industrial Doors



- Built on frequency inverter
- Direct setting of actual door speed
- Range of output speeds and torques
- Horizontal or vertical mounting
- Low level hand chain operation as standard
- Plug-connected control equipment
- Safety Brake incorporated
- Certified to BS EN 12453:2001-02



## Application

The Safedrive® Fi drive system has been specifically developed for powering a range of non-balanced doors where speed, frequency of use and durability are key requirements. All models incorporate the features of the Safedrive® with the added benefits of a built on frequency inverter. All drives are supplied with low level hand chain operation as standard.



## Reduced on-site wiring costs

The benefits associated with a built on frequency inverter are first realised during installation. With a conventional arrangement where the control and frequency inverter are housed together and the drive is separate, in order to prevent inductive and capacitive interference the power supply and motor leads must be laid separately

and not in the same conduit or trunking. In the case of the Safedrive® Fi the drive and inverter are pre-assembled and the control is separate which means the connection between the two can be done with a standard single interconnecting cable and coupled with the standard plug connections. Site wiring is greatly reduced.

## Simplified on-site commissioning

As the drive and frequency inverter are factory assembled prior to delivery all the parameters for the motor voltage, frequency, current, power, etc are factory set and tuned for optimum performance and reliability.

As well as simplifying the initial set up parameters the Safedrive® Fi drive system allows actual opening and closing speeds to be set by entering the required drive rpm. This is in contrast to the conventional method of calculating the required supply frequency in order to achieve the desired door speed. It is equally simple to set the acceleration and deceleration parameters as these are set in steps of 0.1 of a second.

Add to this the ability to set the drive limit positions from floor level via the TS range of control panels and the fact that the speed change pre-limits and over travel limits are set automatically on-site commissioning time is greatly

reduced when compared to separate inverter packages.

## Construction Product Regulation CPR 305/2011

By using Safedrive® it enables the door manufacturer to meet the required Construction Product Regulation (CPR) and C.E. mark their doors.

## Approvals & Certification

Using the Safedrive® Fi manufacturers can construct power operated shutter doors and grilles to meet the British and European Standards for Industrial and Commercial Doors.

The Drive units are type tested to:

BS EN 12453

BS EN 60335-1

BS EN 60335-2-103

TÜV NORD CERT GmbH

Built in Safety Brake

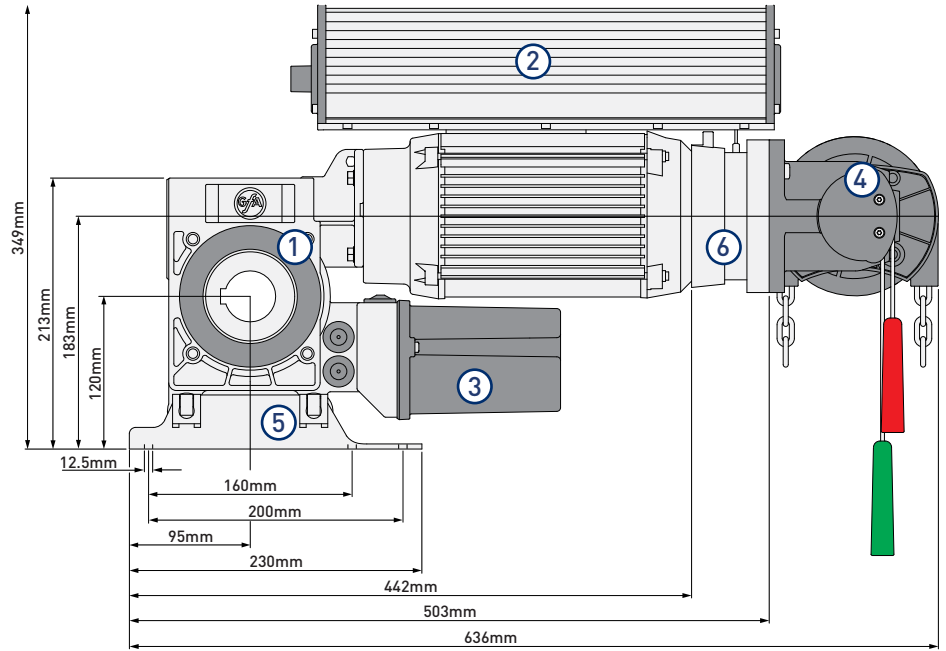
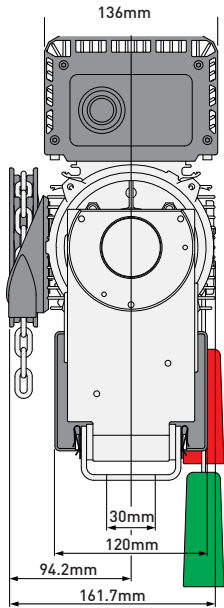
Certificate of conformity according to:

BS EN 12604 / 12605

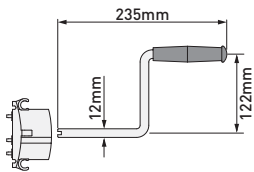
TÜV SÜD Industrieservice GmbH

ift Rosenheim GmbH



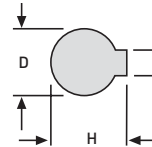


**Hand Crank Option**



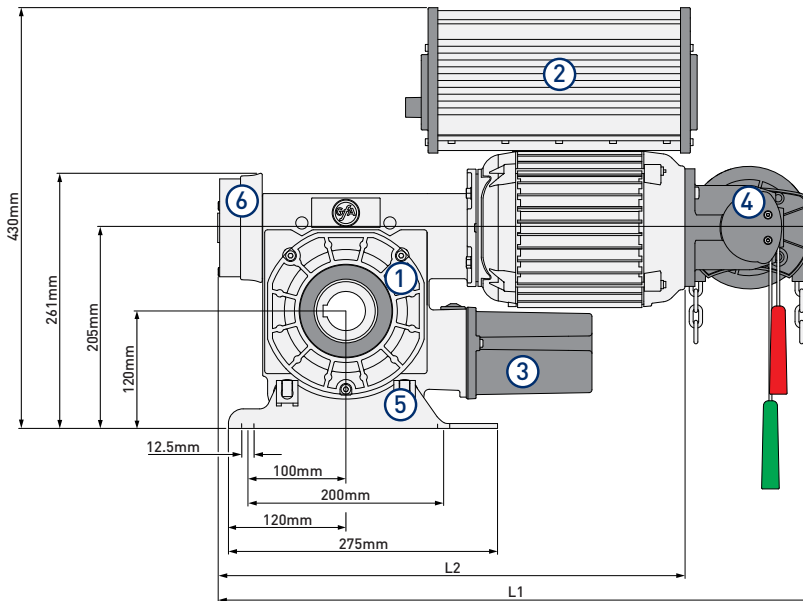
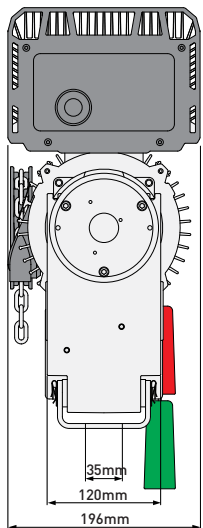
**Shaft Detail (nominal)**

	D (mm)	H (mm)	B (mm)
GA 17/60	25	28.3	8
GA 17/60	25.4	28.4	6.35
GA 17/60	30	33.3	8
GA 17/60	31.75	34.7	6.35
GA 17/60	40	43	12



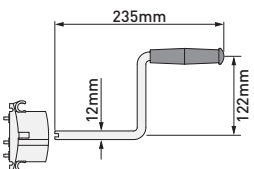
- 1. Worm gear with safety brake
- 2. Motor with built-on frequency inverter
- 3. Limit switch
- 4. Hand chain mechanism
- 5. Floating foot
- 6. Brake on motor

**GA25/80, GA40/40, GA45/60, GA55/40**



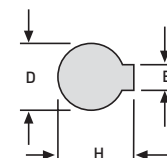
- 1. Worm gear with safety brake
- 2. Motor with built-on frequency inverter
- 3. Limit switch
- 4. Hand chain mechanism
- 5. Floating foot
- 6. Brake.

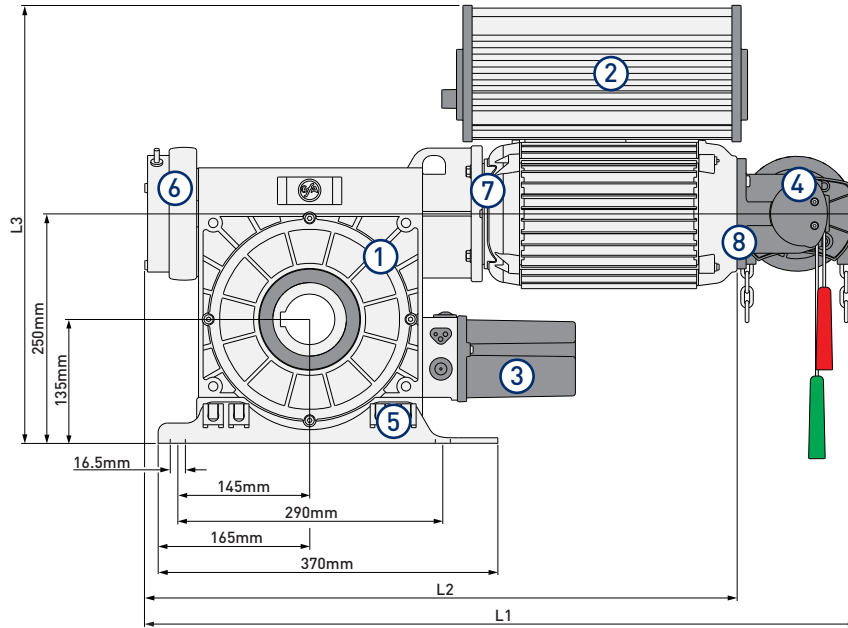
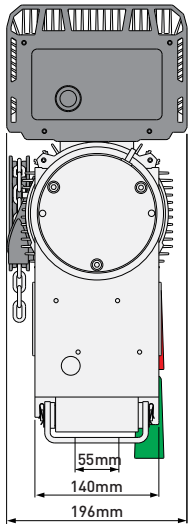
**Hand Crank Option**



**Shaft Detail (nominal) & Other Dimensions**

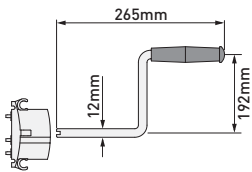
	D (mm)	H (mm)	B (mm)	L1 (mm)	L2 (mm)
GA25/80	30	33.3	8	608	475
GA25/80	25.4	28.4	6.35	608	475
GA25/80	40	43	12	608	475
GA40/40	40	43	12	608	475
GA45/60, 55/40	40	43	12	672	539





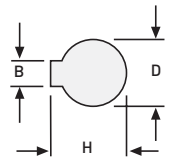
1. Worm gear with safety brake.
2. Motor with built-on frequency inverter.
3. Limit switch.
4. Hand chain mechanism.
5. Floating foot.
6. Gear with electric brake
7. Intermediate gear (not shown).
8. 2nd brake (not shown).

**Hand Crank Option**

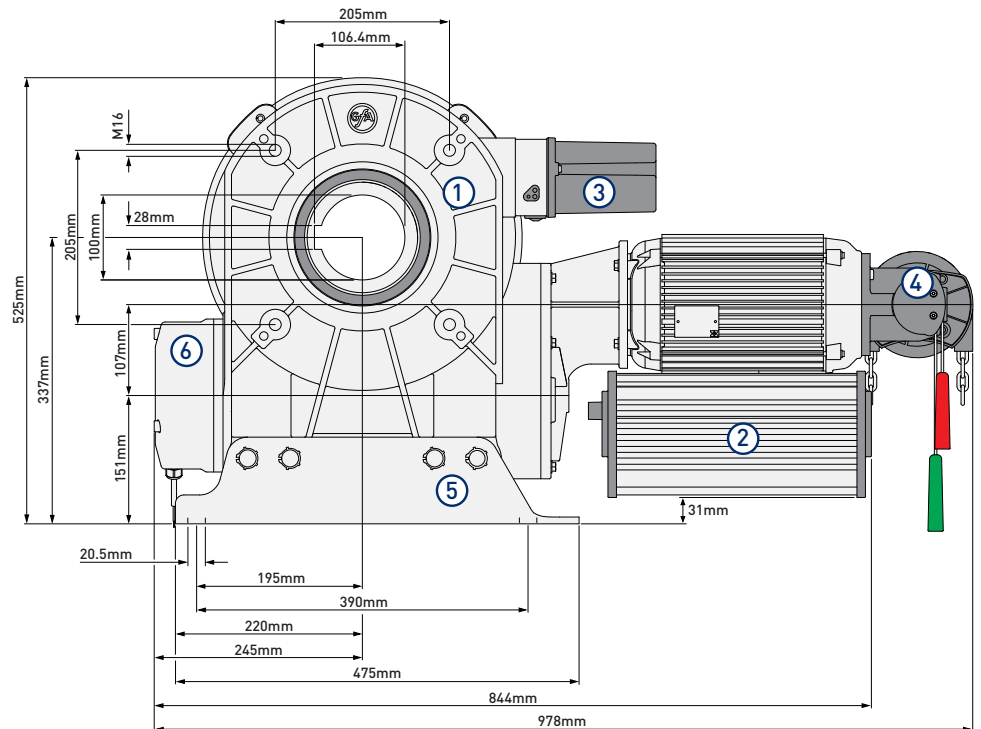
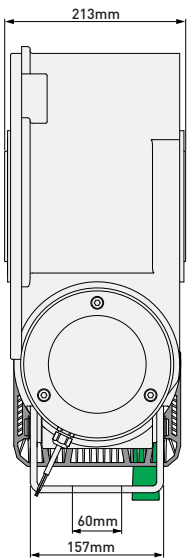


**Shaft Detail (nominal) & Other Dimensions**

	D (mm)	H (mm)	B (mm)	L1 (mm)	L2 (mm)	L3 (mm)
GA75/45 ⌀	55	59.3	16	787	654	477
GA100/30 ⌀	55	59.3	16	865	732	533
GA140/20 ⌀	55	59.3	16	864	731	533
GA180/12 ⌀	60	64.4	16	941	808	533



**GA500/10**



1. Worm gear with safety brake.
2. Motor with built-on frequency inverter.
3. Limit switch.
4. Hand chain mechanism.
5. Floating foot.
6. Brake.

# Technical Specification

Model		Safedrive Fi 17	Safedrive Fi 25	Safedrive Fi 40	Safedrive Fi 45	Safedrive Fi 55
Part Ref.		GA17/60	GA25/80	GA40/40	GA45/60	GA55/40
Output torque	Nm	170	250	400	450	550
Output speed	rpm	8-60	18-80	9-40	7-60	8-40
Closing speed to 2.5m hgt.	rpm	8-35	18-50	9-35	7-35	8-30
Closing speed below 2.5m	rpm	8-35	18-50	9-24	7-35	8-30
Motor power	kW	0.85	1.5	1.5	4.5	4.5
Supply voltage	V	1x230/N/PE 3x400/N/PE	1x230/N/PE 3x400/N/PE	1x230/N/PE 3x400/N/PE	3x400/N/PE	3x400/N/PE
Motor rated current	A	6.6	7.3	7.3	12.4	12.4
Frequency	Hz	50	50	50	50	50
Supply fuse (slow blow)	A	10	10	10	10	10
Locking Torque	Nm	873	1020	1020	1170	1400
Safety brake approval number		TorFV4/024	TorFV4/025	TorFV4/025	TorFV4/025	TorFV4/025
Max. hand override force	N	157/127	233/115	255/126	252/125	320/158
Max cycles per hour	H <sup>-1</sup>	30	45	30	30	16
Limit switch capacity	Turns	20	20	20	20	20
Protection		IP65	IP65	IP65	IP65	IP65
Weight	Kg	22	35	35	43	43
Shaft size	mm	25, 25.4, 30, 31.75, 40	30, 31.75, 40	40	40	40

Model		Safedrive Fi 75	Safedrive Fi 100	Safedrive Fi 140	Safedrive Fi 180	Safedrive Fi 500
Part Ref.		GA75/45	GA100/30	GA140/20	GA180/12	GA500/10
Output torque	Nm	750	1000	1400	1800	5000
Output speed	rpm	8-45	5-30	5-20	5-12	6-10
Closing speed to 2.5m hgt.	rpm	8-28	5-18	5-14	5-12	2-5
Closing speed below 2.5m	rpm	8-28	5-18	5-14	5-12	2-5
Motor power	kW	4.5	4.5	4.5	4.5	4.5
Supply voltage	V	3x400/N/PE	3x400/N/PE	3x400/N/PE	3x400/N/PE	3x400/N/PE
Motor rated current	A	12.4	12.4	12.4	12.4	12.4
Frequency	Hz	50	50	50	50	50
Supply fuse (slow blow)	A	10	10	10	10	10
Locking Torque	Nm	2840	2840	2840	4445	8255
Safety brake approval number		TorFV4/026	TorFV4/026	TorFV4/026	TorFV4/026	11-003301-PR
Max. hand override force	N	290/234	206/166	263/212	348/281	261
Max cycles per hour	H <sup>-1</sup>	30	12	10	8	8
Limit switch capacity	Turns	20	20	20	20	10
Protection		IP65	IP65	IP65	IP65	IP65
Weight	Kg	58	58	65	68	132
Shaft size	mm	55	55	55	60	100



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