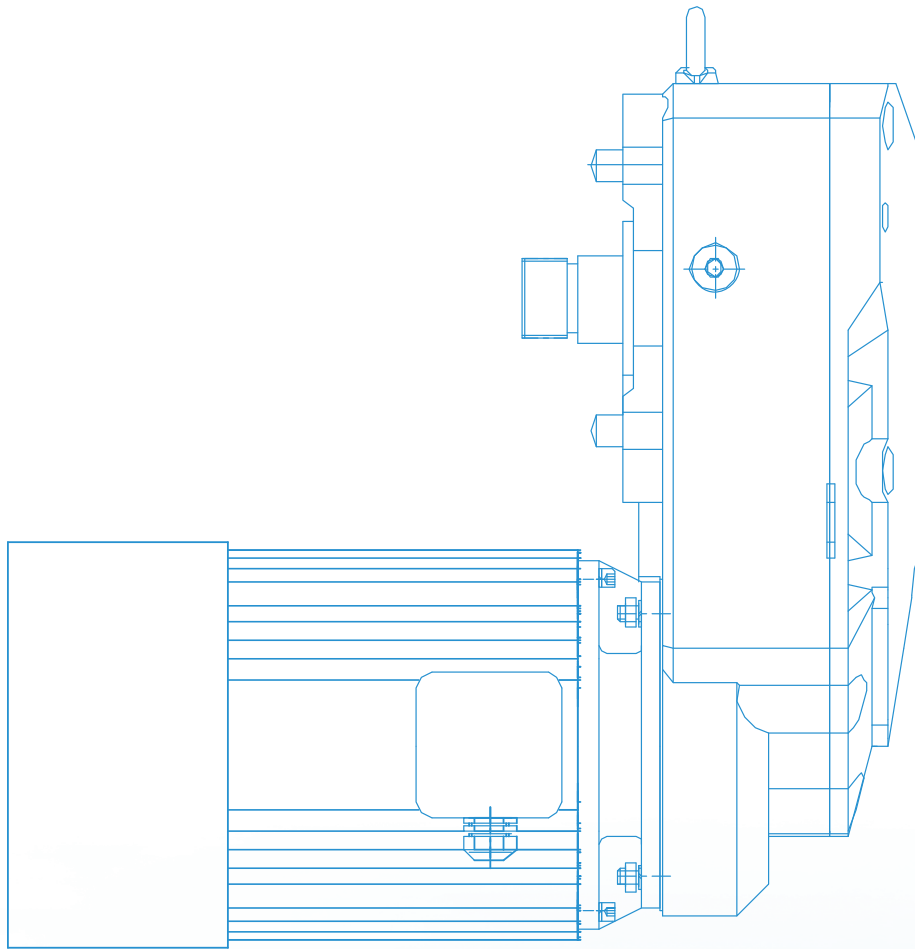


## FC Wire Rope Hoist Lifting Gearmotor

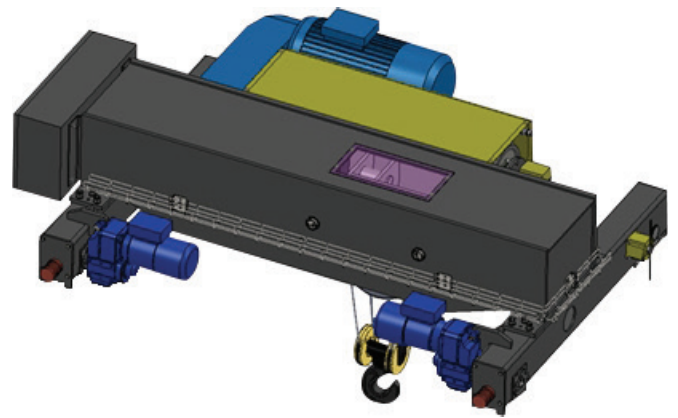
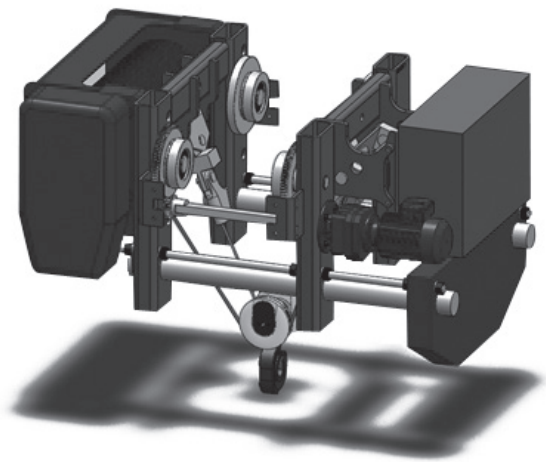
Modified date 09/2021

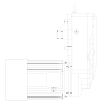


## FC Wire Rope Hoist Lifting Gearmotor

» TGE has been devoting to provide outstanding drive technology for hoisting and lifting field through the years. New type FC wire rope hoist lifting gearmotor is the result of our years of experience combined with international advanced technology.

» For forceful and reliable drive system, we set up a dedicated team group to fulfill designing and manufacturing, meanwhile, innovative team group will get your hoisting and lifting system more favorable performance.





<b>1</b>	<b>Summary</b>	<b>2</b>
<b>2</b>	<b>Type designation</b>	<b>3</b>
<b>3</b>	<b>Mounting positions</b>	<b>3</b>
<b>4</b>	<b>FC06 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled</b>	<b>4</b>
<b>5</b>	<b>FC07 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled</b>	<b>6</b>
<b>6</b>	<b>FC08 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled</b>	<b>8</b>
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<b>8</b>	<b>Attachment</b>	<b>12</b>
<b>9</b>	<b>Hoisting driving system</b>	<b>13</b>

# 1 Summary

## 1.1 TGE Hoisting Electric Motor

TGE hoisting electric motor power ranges from 0.37-19.2kW

Features:

- Higher power and highly efficient motor cooling
- Intergrated double side safety brake, quick response, low weak, low noise emission
- Motor insulation grade H, long life service

## 1.2 TGE Wire Rope Hoist Lifting Gearmotor

TGE wire rope hoist lifting gearmotor is available with 4 size designs, which can drive the wire rope drum directly and FEM based. Design realizes 4/1 pulley ratio with load capacity from 3.2 – 20T, which ensures the lifting safety and reliability

Features:


- Aluminum housing, light weight, simple to install
- Compact and strong drive unit
- 3 stage parallel shaft helical geared motor, compact construction, high efficiency, long extended center distance, allowing bigger drum mounted
- DIN standard based design, spline mounting directly to drum, U shape base, simple mounting, low space
- Lifting speed, 4/5/6.3 and 8m/min(1/4 pulley ratio,frequency)
- Free maintenance within life period

## 1.3 Brake

Wire rope hoist lifting gearmotor are designed with double side safety brake with follow features:

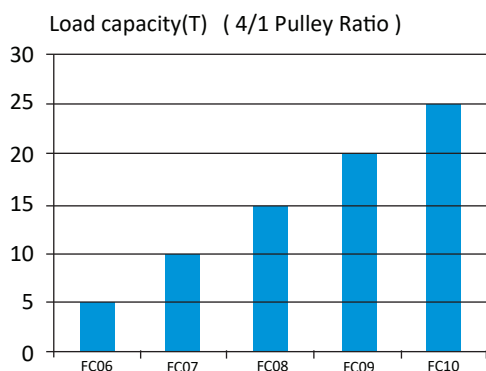
- Reliable performance, quick response
- Low wear, long life service
- Double side electric loss brake
- Safe and nonvibration brake
- Non asbestos brake pads

## 1.4 Colour of standard allocation

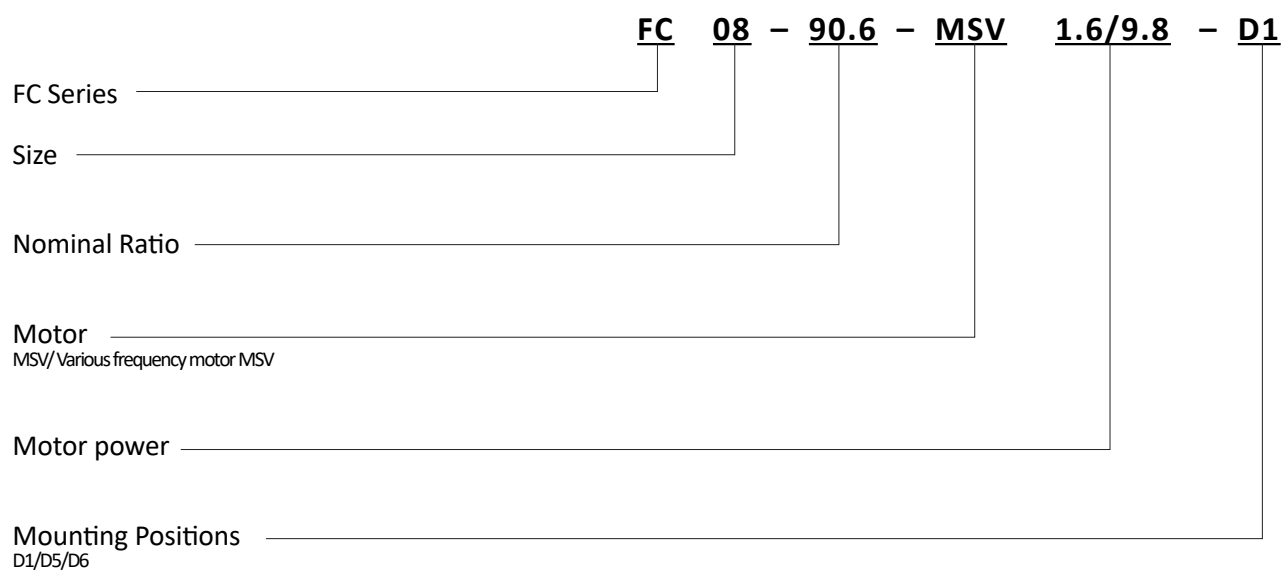
 (RAL5015) Colour of Non-standard allocation can be customized according to customer requirements



## 1.5 Wire Rope Hoist Lifting Gearmotor Table

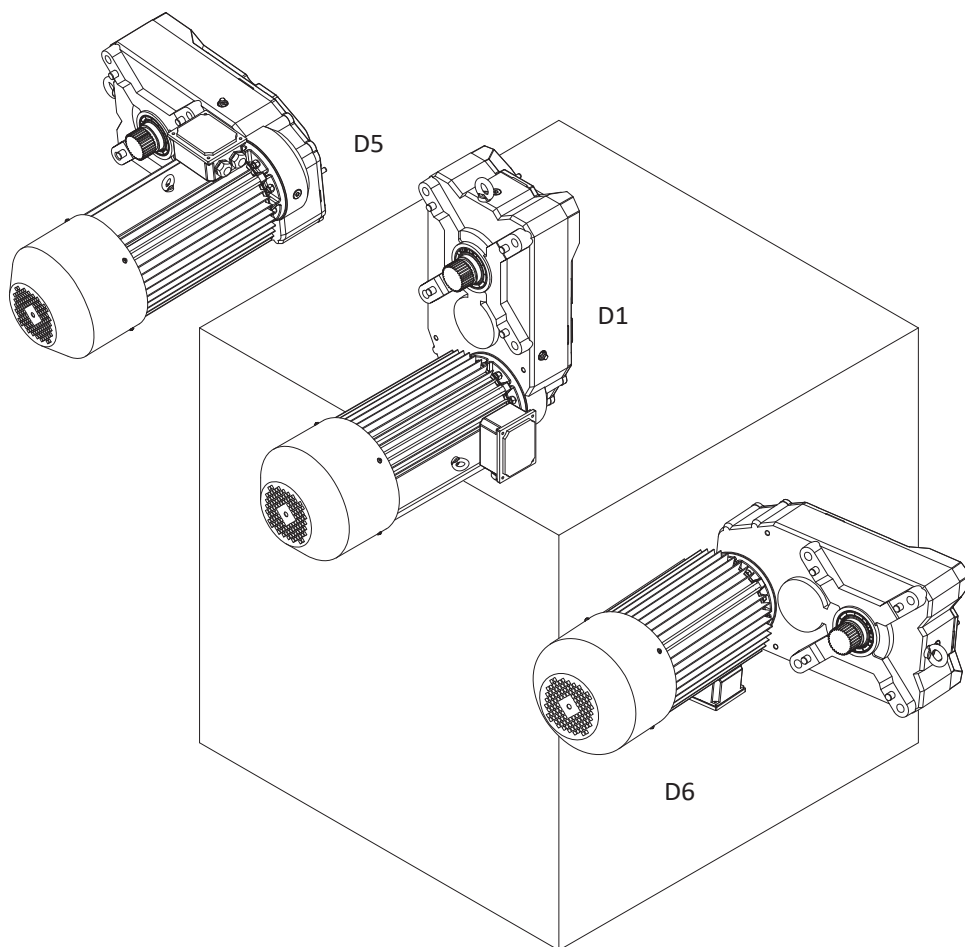


## 2 Type designation



FC

## 3 Mounting positions





## 4 FC06 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled

### Description



- Designed according to FEM standard
- 3 stage aluminum parallel shaft geared motor, mounted directly to rope drum
- High power hoisting electric motor with double side safety brake
- Standard connector, simple to install

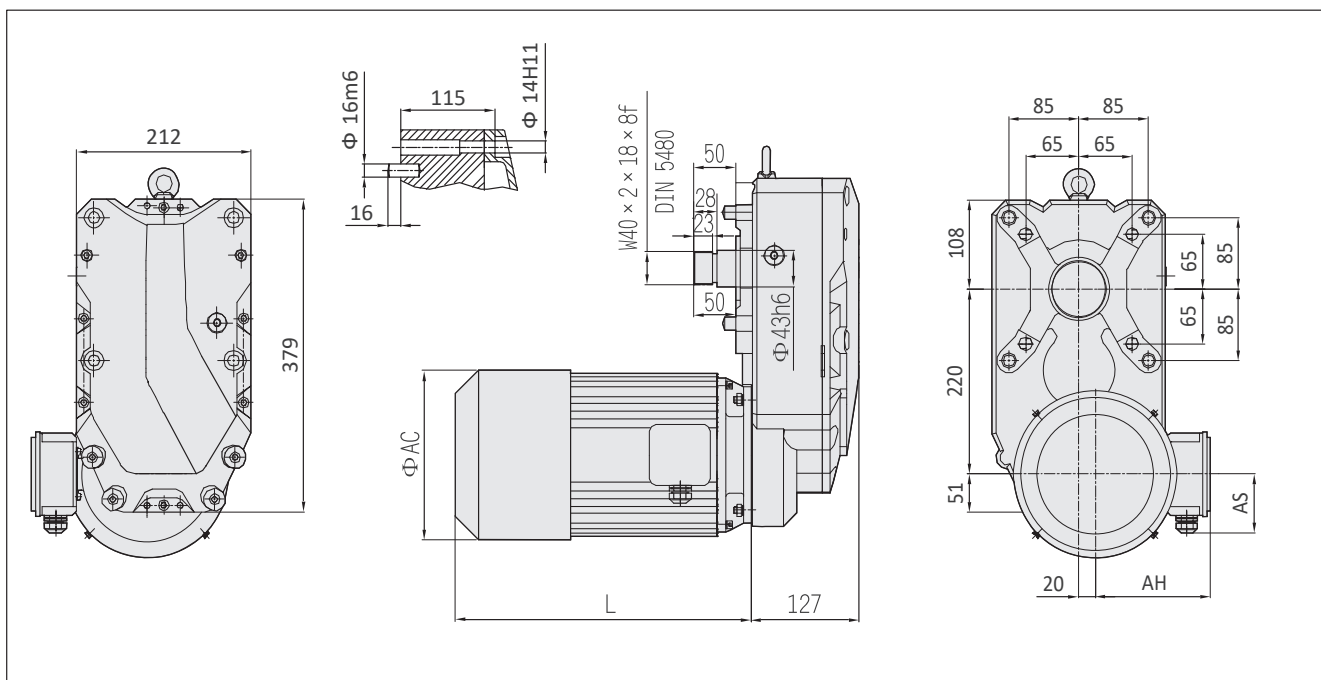
### Technical data

Technical Data	
Lifting capacity:	up to 3.2T
Lifting speed:	4/5/6.3/7.5 m/min 4/1 pulley ratio
Drum Diameter:	140mm
Motor power:	P=3.2-4.0kW (4 poles @100Hz)
Output shaft DIN5480	W40x2x18x8f

### Advantages

- Low weight, low shipping cost, simple to install
- Highly efficient-energy saving
- Compact design-low space
- Long center distance
- Dynamic acceleration characteristics-heavier starting and limited torque
- Double side brake-stability and safety
- Integrated design is applied in drum bearing support and lifting gearmotor





FC

FC06 Wire Rope Hoist Lifting Gearmotor										
→ Drum Diameter 140mm → 4/1 pulley ratio										
Pos.	Load [t]	ISO	FEM	V [m/min]	P [kW]	f [Hz]	Ratio [i]	Brake Torque [N·m]	Type	Motor Size [mm]
1	3.2	M5	2m	0.66-4.0 (0.8-4.8)	3.2 (3.8)	100 (120)	76.6	60	FC06-76.6-MSV3.2	L: 448
	2.5	M6	3m							AC: 222
	2	M7	4m							AH: 177
2	3.2	M5	2m	0.8-5.0 (1.0-6.0)	3.2 (3.8)	100 (120)	63.4	60	FC06-63.4-MSV3.2	AS: 94
	2.5	M6	3m							L: 448
	2	M7	4m							AC: 222
3	3.2	M5	2m	1.0-6.3 (1.2-7.6)	4 (4.8)	100 (120)	51.1	60	FC06-51.1-MSV4	AH: 177
	2.5	M6	3m							AS: 94
	2	M7	4m							L: 448
4	2.5	M5	2m	1.3-7.5 (1.6-9.0)	4 (4.8)	100 (120)	41.7	60	FC06-41.7-MSV4	AC: 222
	2	M6	3m							AH: 177
	1.6	M7	4m							AS: 94

## 5 FC07 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled

### Description



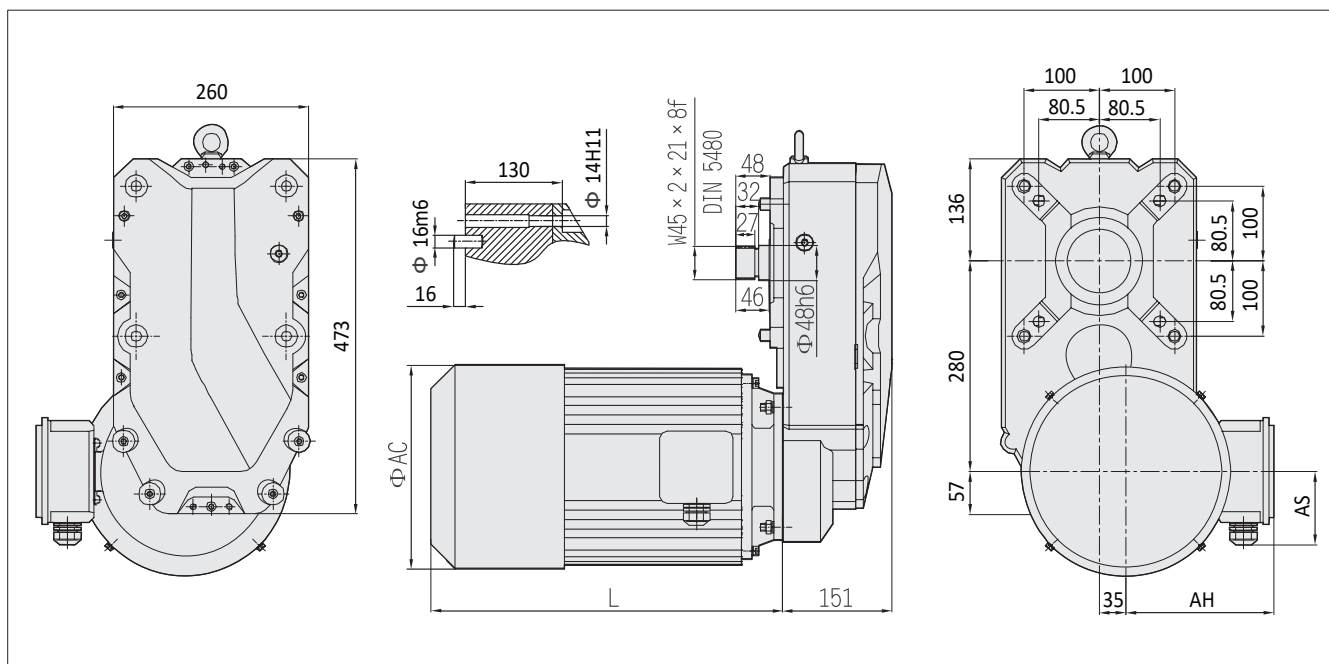
- Designed according to FEM standard
- 3 stage aluminum parallel shaft geared motor, mounted directly to rope drum
- High power hoisting electric motor with double side safety brake
- Standard connector, simple to install

### Technical data

Technical Data	
Lifting capacity:	up to 6.8T
Lifting speed:	4/5/6.3/7.5 m/min 4/1 pulley ratio
Drum Diameter:	170mm
Motor power:	P=6.1-9.8kW (4 poles @100Hz)
Output shaft DIN5480	W45x2x21x8f

### Advantages

- Low weight, low shipping cost, simple to install
- Highly efficient-energy saving
- Corrosion-resistant, no need painting
- Compact design-low space
- Long center distance
- Dynamic acceleration characteristics-heavier starting and limited torque
- Double side brake-stability and safety
- Integrated design is applied in drum bearing support and lifting gearmotor



FC

FC07 Wire Rope Hoist Lifting Gearmotor										
→ Drum Diameter 170mm → 4/1 pulley ratio										
Pos.	Load [t]	ISO	FEM	V [m/min]	P [kW]	f [Hz]	Ratio [i]	Brake Torque [N·m]	Type	Motor Size [mm]
1	6.8	M5	2m	0.66-4.0 (0.8-4.8)	6.1 (7.3)	100 (120)	85.8	60	FC07-85.8-MSV6.1	L: 448 AC: 222 AH: 177 AS: 94
2	6.8	M5	2m	0.8-5.0 (1.0-6.0)	6.1 (7.3)	100 (120)	78.3	60	FC07-78.3-MSV6.1	L: 448 AC: 222 AH: 177 AS: 94
3	6.8	M4	1Am	1.0-6.3 (1.2-7.6)	9.8 (11.8)	100 (120)	64.1	100	FC07-64.1-MSV9.8	L: 485 AC: 272 AH: 203 AS: 94
4	6.8	M4	1Am	1.3-7.5 (1.6-9.0)	9.8 (11.8)	100 (120)	52.5	100	FC07-52.5-MSV9.8	L: 485 AC: 272 AH: 203 AS: 94

## 6 FC08 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled

### Description



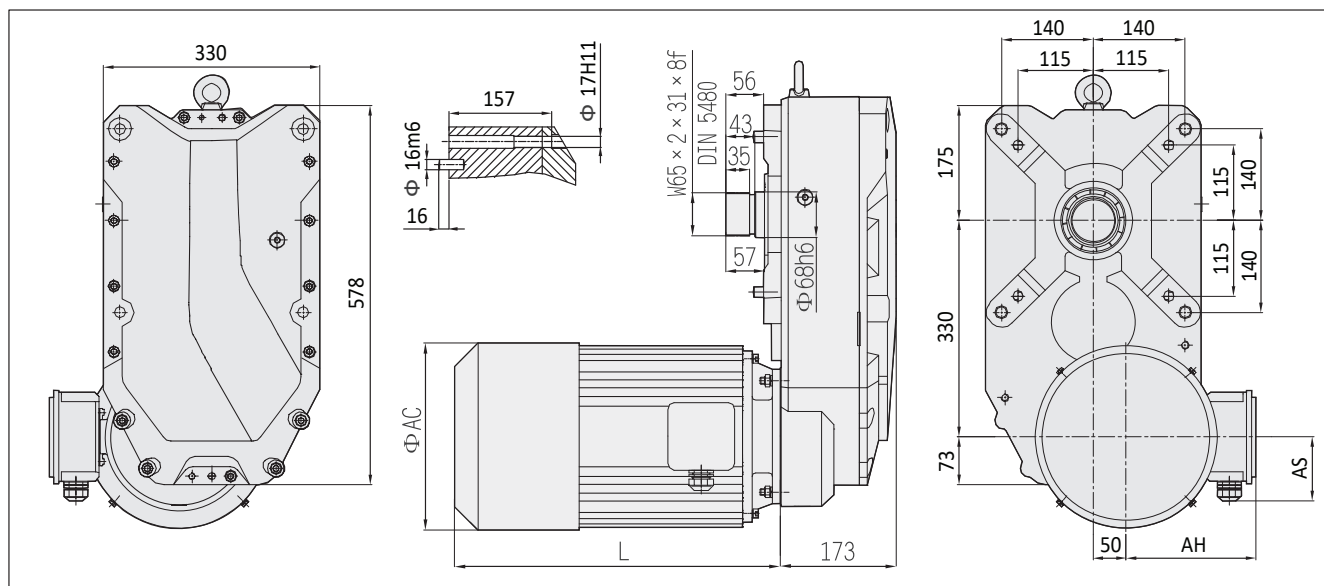
- Designed according to FEM standard
- 3 stage aluminum parallel shaft geared motor, mounted directly to rope drum
- High power hoisting electric motor with double side safety brake
- Standard connector, simple to install

### Technical data

Technical Data	
Lifting capacity:	up to 12.5T
Lifting speed:	4/5/6.3/8 m/min 4/1 pulley ratio
Drum Diameter:	266mm
Motor power:	P=9.8-12.5kW (4 poles @100Hz)
Output shaft DIN5480	W65x2x31x8f

### Advantages

- Low weight, low shipping cost, simple to install
- Highly efficient-energy saving
- Corrosion-resistant, no need painting
- Compact design-low space
- Long center distance
- Dynamic acceleration characteristics-heavier starting and limited torque
- Double side brake-stability and safety
- Integrated design is applied in drum bearing support and lifting gearmotor



**FC08 Wire Rope Hoist Lifting Gearmotor**

→ Drum Diameter 266mm → 4/1 pulley ratio

Pos.	Load [t]	ISO	FEM	V [m/min]	P [kW]	f [Hz]	Ratio [i]	Brake Torque [N·m]	Type	Motor Size [mm]
1	10	M5	2m	0.66-4.0 (0.8-4.8)	9.8 (11.8)	100 (120)	152.1	100	FC08-152.1-MSV9.8	L: 485
	8	M6	3m							AC: 272
	6.3	M7	4m							AH: 203
	5	M7	4m							AS: 94
2	10	M5	2m	0.8-5.0 (1.0-6.0)	9.8 (11.8)	100 (120)	126.5	100	FC08-126.5-MSV9.8	L: 485
	8	M6	3m							AC: 272
	6.3	M7	4m							AH: 203
	5	M7	4m							AS: 94
3	8	M5	2m	1.0-6.3 (1.2-7.6)	9.8 (11.8)	100 (120)	90.6	100	FC08-90.6-MSV9.8	L: 485
	6.3	M6	3m							AC: 272
	5	M7	4m							AH: 203
	4	M7	4m							AS: 94
4	6.3	M5	2m	1.3-8.0 (1.6-9.6)	9.8 (11.8)	100 (120)	72.5	100	FC08-72.5-MSV9.8	L: 485
	5	M6	3m							AC: 272
	4	M7	4m							AH: 203
	3.2	M7	4m							AS: 94
5	12.5	M5	2m	0.66-4.0 (0.8-4.8)	9.8 (11.8)	100 (120)	152.1	100	FC08-152.1-MSV9.8	L: 485
	10	M6	3m							AC: 272
	8	M7	4m							AH: 203
	6.3	M7	4m							AS: 94
6	12.5	M4	1Am	0.8-5.0 (1.0-6.0)	12.5 (15.0)	100 (120)	126.5	150	FC08-126.5-MSV12.5	L: 535
	10	M5	2m							AC: 272
	8	M6	3m							AH: 203
	6.3	M7	4m							AS: 94
7	10	M4	1Am	1.0-6.3 (1.2-7.6)	12.5 (15.0)	100 (120)	90.6	150	FC08-90.6-MSV12.5	L: 535
	8	M5	2m							AC: 272
	6.3	M6	3m							AH: 203
	5	M7	4m							AS: 94
8	8	M4	1Am	1.3-8.0 (1.6-9.6)	12.5 (15.0)	100 (120)	72.5	150	FC08-72.5-MSV12.5	L: 535
	6.3	M5	2m							AC: 272
	5	M6	3m							AH: 203
	4	M7	4m							AS: 94

## 7 FC09 Wire Rope Hoist Lifting Gearmotor-Frequency Controlled

### Description



- Designed according to FEM standard
- 3 stage aluminum parallel shaft geared motor, mounted directly to rope drum
- High power hoisting electric motor with double side safety brake
- Standard connector, simple to install

FC

### Technical data

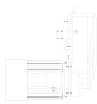
Technical Data	
Lifting capacity:	up to 20T
Lifting speed:	4/5/6.3/8 m/min 4/1 pulley ratio
Drum Diameter:	295mm
Motor power:	P=12.5-16kW (4 poles @100Hz)
Output shaft DIN5480	W75x2x36x8f

### Advantages

- Low weight, low shipping cost, simple to install
- Highly efficient-energy saving
- Corrosion-resistant, no need painting
- Compact design-low space
- Long center distance
- Dynamic acceleration characteristics-heavier starting and limited torque
- Double side brake-stability and safety
- Integrated design is applied in drum bearing support and lifting gearmotor







## 8 Attachment

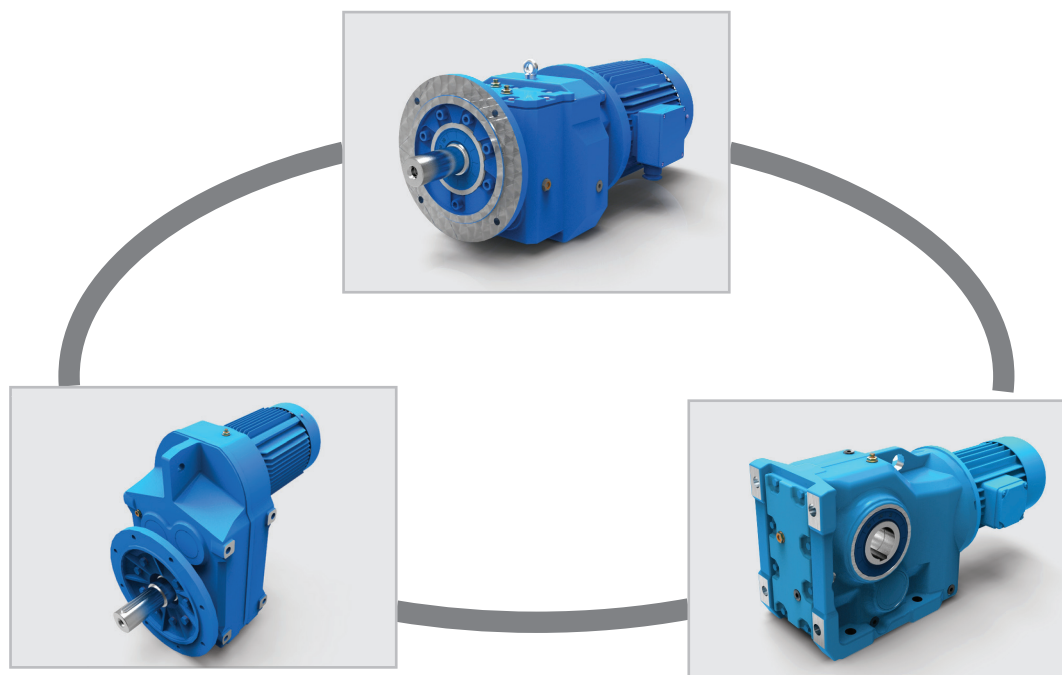
### 8.1 Lubrication oil

Size	FC06	FC07	FC08	FC09
Oil mass (L)	2.5	5.5	9	12

**Note:**

- 1 Products using the environment temperature of -20°C – +40°C
- 2 Lubrication oil has been added before delivery,viscosit code:VG680(ISOViscosity grade);
- 3 when the temperature is lower than -10 DEG C will to use synthetic oil;
- 4 In order to ensure the service life of the product, in actual use, recommend the use of synthetic oil
- 5 If the ambient temperature is beyond the scope of the above, please contact

## 9 Hoisting driving system



FC

TGE provide various kinds product for hoisting driving system of different application and with different features and application

CR helical gear units

F parallel shaft helical gear units

K helical-spiral bevel gear units

.....

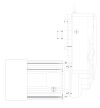
Compact design, equipped with motor, housing, brake.

**Advantages are as below:**

- Unique modular design, universal maximization, international production friendly, low stock, short, supplying circle
- Available with foot, flange, shaft mounted will meet different requirement on mounting
- Ecological design is endowed with a meaning of motion and strength
- Precise position
- Low weight

.....

(Any request, please talk to our sales for brochure)

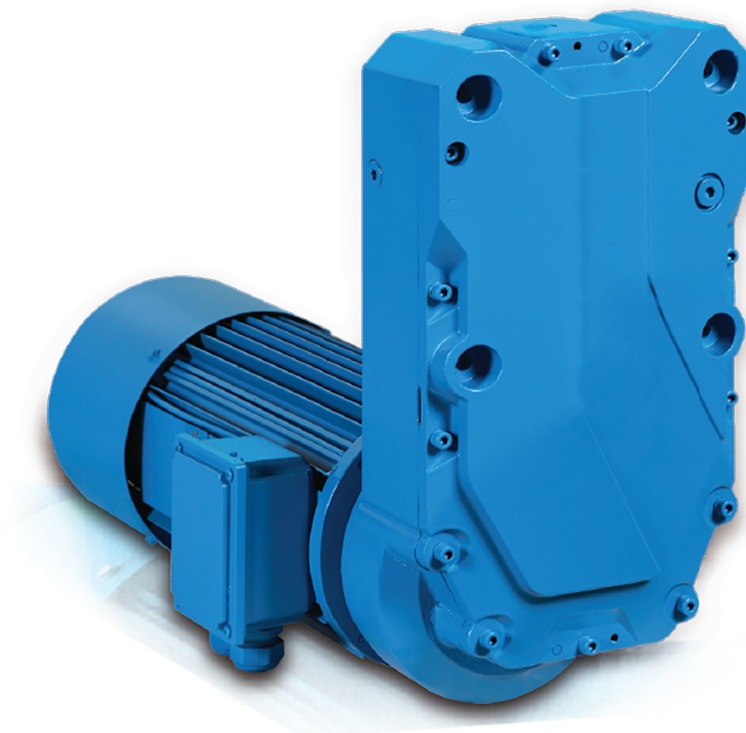


## Note:

- The structure scheme, appearance diagram and other attached diagrams in sample are examples, there is no strict proportion requirement. (The unmarked dimension units are mm).
- The marked weight is average value, it has no constraint force.

### ⚠ You must conform to the following instructions:

- To prevent accidents, all the rotation parts are added with protective covers according to the safety regulations of the nation and region.
- Before debugging, you should carefully read instruction book.
- Gearbox is on running-permission status when delivered, you should add lubrication oil before putting it into running.
- The marked oil quantity in sample is only reference value, actual oil filling quantity should be the same with the mark on oil immersion lens.
- Lubrication oil viscosity should be selected according to working situation and application environment temperature of gearmotor.
- You can only apply lubrication oil of internationally famous brand.





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info@tge.cz | www.tge.cz

### **Local dealer**

