

Position	Qty.	Description																																																		
	1	<p><b>MG160MD</b></p>  <p style="text-align: right;"><b>Note! Product picture may differ from actual product</b></p> <p>Product No.: On request</p> <p>The motor is a 3-phase AC standard motor. Grundfos Blueflux(R) technology represents the best from Grundfos within energy efficient motors and variable frequency drives (MG motors, MGE motors and CUE drives). Grundfos Blueflux(R) solutions either meet or exceed legislative requirements such as the EuP IE3 grade.</p> <p><b>Technical:</b>            Approvals on motor nameplate: CE,IE2,IE3,EAC            Measuring Equip: SVANTEK, SVAN 958            Cable gland: 2 x M20 / 4 x M40 thread            Drain holes: Yes (closed)</p> <p><b>Installation:</b>            Range of ambient temperature: -30 .. 60 °C            Flange size for motor: FF300</p> <p><b>Electrical data:</b></p> <table border="0"> <tr><td>Motor type:</td><td>160MD</td></tr> <tr><td>IE Efficiency class:</td><td>IE3</td></tr> <tr><td>Rated power - P2:</td><td>15 kW</td></tr> <tr><td>Mains frequency:</td><td>50 Hz</td></tr> <tr><td>Rated voltage:</td><td>3 x 380-415D/660-690Y V</td></tr> <tr><td>Rated current:</td><td>28,0-26,0/16,2-15,6 A</td></tr> <tr><td>Maximum current consumption:</td><td>31,0-28,5/17,8-17,2 A</td></tr> <tr><td>Starting current:</td><td>660-780 %</td></tr> <tr><td>Cos phi - power factor:</td><td>0,89-0,87</td></tr> <tr><td>Rated speed:</td><td>2930-2950 rpm</td></tr> <tr><td>Rated full-load torque:</td><td>49 Nm</td></tr> <tr><td>Locked-rotor torque:</td><td>230-280 %</td></tr> <tr><td>Breakdown torque:</td><td>280-330 %</td></tr> <tr><td>Moment of inertia:</td><td>0,049 kg m<sup>2</sup></td></tr> <tr><td>Efficiency:</td><td>IE3 91,9%</td></tr> <tr><td>Motor efficiency at full load:</td><td>91.9-91.9 %</td></tr> <tr><td>Motor efficiency at 3/4 load:</td><td>92.4 %</td></tr> <tr><td>Motor efficiency at 1/2 load:</td><td>92.4 %</td></tr> <tr><td>Number of poles:</td><td>2</td></tr> <tr><td>Enclosure class (IEC 34-5):</td><td>55 Dust/Jetting</td></tr> <tr><td>Insulation class (IEC 85):</td><td>F</td></tr> <tr><td>Lubricant type:</td><td>UNIREX N3</td></tr> <tr><td>Lubricant quan.:</td><td>13 g</td></tr> <tr><td>Relubrication interval 1:</td><td>4500 h / 40 °C</td></tr> <tr><td>Relubrication interval 2:</td><td>1100 h / 60 °C</td></tr> </table>	Motor type:	160MD	IE Efficiency class:	IE3	Rated power - P2:	15 kW	Mains frequency:	50 Hz	Rated voltage:	3 x 380-415D/660-690Y V	Rated current:	28,0-26,0/16,2-15,6 A	Maximum current consumption:	31,0-28,5/17,8-17,2 A	Starting current:	660-780 %	Cos phi - power factor:	0,89-0,87	Rated speed:	2930-2950 rpm	Rated full-load torque:	49 Nm	Locked-rotor torque:	230-280 %	Breakdown torque:	280-330 %	Moment of inertia:	0,049 kg m <sup>2</sup>	Efficiency:	IE3 91,9%	Motor efficiency at full load:	91.9-91.9 %	Motor efficiency at 3/4 load:	92.4 %	Motor efficiency at 1/2 load:	92.4 %	Number of poles:	2	Enclosure class (IEC 34-5):	55 Dust/Jetting	Insulation class (IEC 85):	F	Lubricant type:	UNIREX N3	Lubricant quan.:	13 g	Relubrication interval 1:	4500 h / 40 °C	Relubrication interval 2:	1100 h / 60 °C
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Company name:

Created by:

Phone:

Date:

22/11/2017

Position	Qty.	Description
		<p><b>Others:</b></p> <p>Net weight: 100 kg</p> <p>Colour/Type: NCS 9000 gloss 40+-10 /E-coat</p>

Description	Value
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**General information:**

Product name: MG160MD  
 Product No: On request  
 EAN number: On request

**Technical:**

Shaft diameter: 42 mm  
 Shaft end length: 110 mm  
 Approvals on motor nameplate: CE, IE2, IE3, EAC  
 Model: H3  
 Cooling: IC 411  
 Measuring Equip: SVANTEK, SVAN 958  
 Cable gland: 2 x M20 / 4 x M40 thread  
 Drain holes: Yes (closed)

**Installation:**

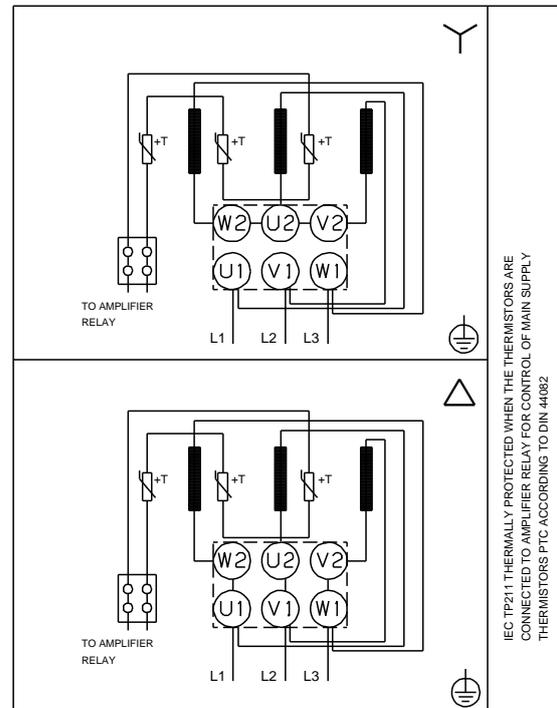
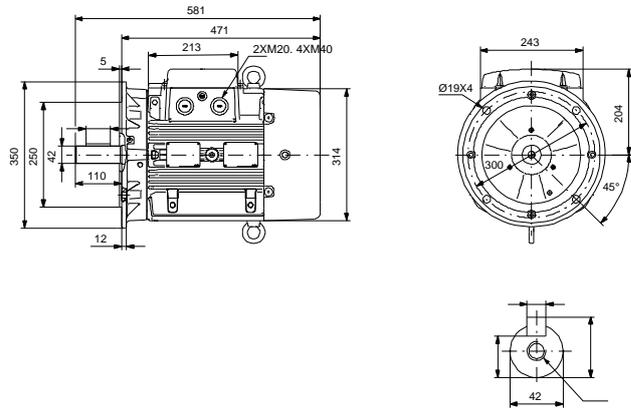
Range of ambient temperature: -30 .. 60 °C  
 Flange size for motor: FF300

**Electrical data:**

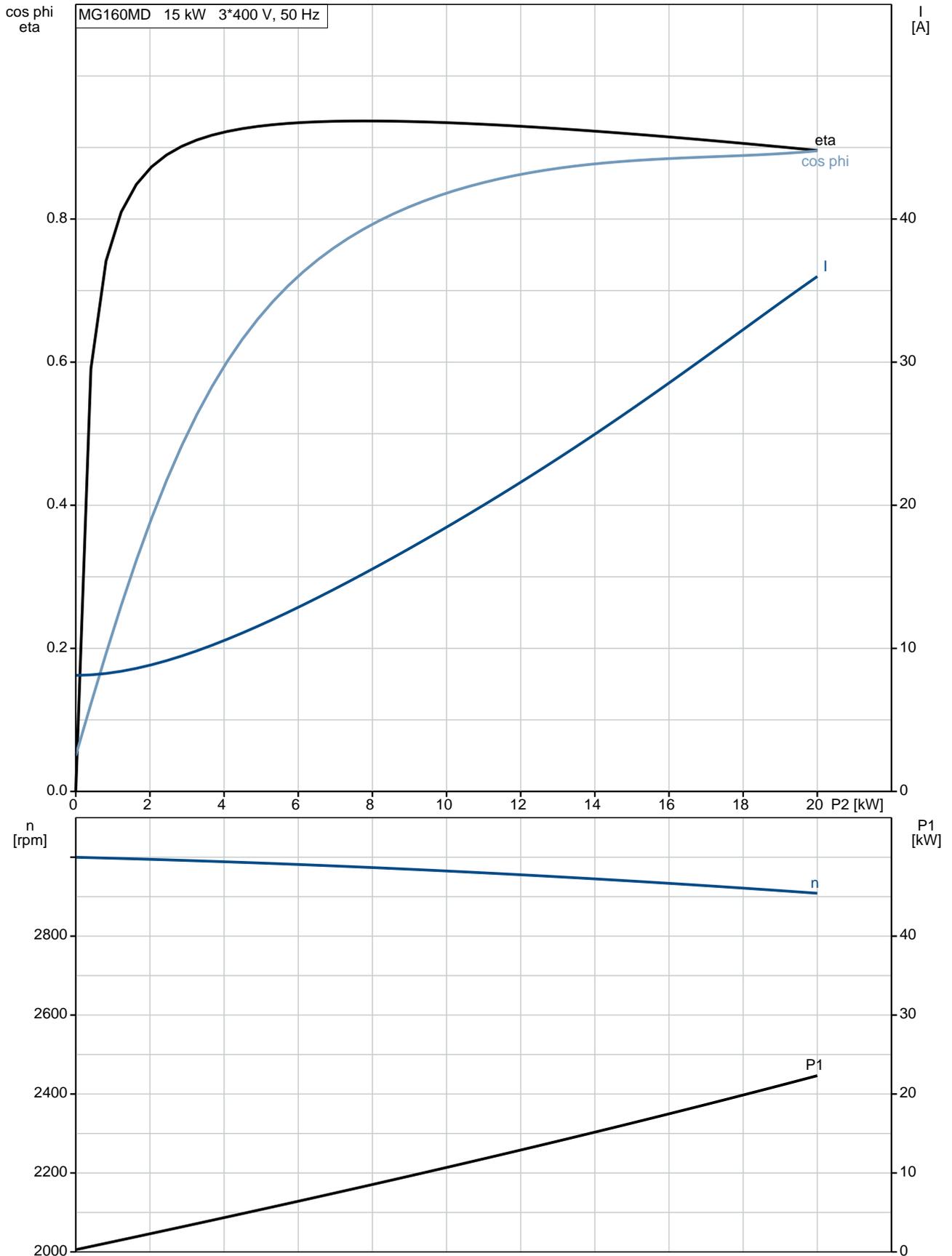
Motor type: 160MD  
 IE Efficiency class: IE3  
 Rated power - P2: 15 kW  
 Mains frequency: 50 Hz  
 Rated voltage: 3 x 380-415D/660-690Y V  
 Rated current: 28,0-26,0/16,2-15,6 A  
 Maximum current consumption: 31,0-28,5/17,8-17,2 A  
 Starting current: 660-780 %  
 Cos phi - power factor: 0,89-0,87  
 Rated speed: 2930-2950 rpm  
 Rated full-load torque: 49 Nm  
 Locked-rotor torque: 230-280 %  
 Breakdown torque: 280-330 %  
 Moment of inertia: 0.049 kg m<sup>2</sup>  
 Efficiency: IE3 91,9%  
 Motor efficiency at full load: 91.9-91.9 %  
 Motor efficiency at 3/4 load: 92.4 %  
 Motor efficiency at 1/2 load: 92.4 %  
 Number of poles: 2  
 Enclosure class (IEC 34-5): 55 Dust/Jetting  
 Insulation class (IEC 85): F  
 Motor protec: PTC  
 Tropic protec: no  
 Thermal protec: external  
 R1: 0,650 ohm  
 R2: 0,650 ohm  
 R3: 0,650 ohm  
 Winding 1: PHASE 1  
 Winding 2: PHASE 2  
 Winding 3: PHASE 3  
 Mount. design. acc. IEC 34-7: IM V1/B5  
 Lubricant type: UNIREX N3  
 Lubricant quan.: 13 g  
 Relubrication interval 1: 4500 h / 40 °C  
 Relubrication interval 2: 1100 h / 60 °C

**Others:**

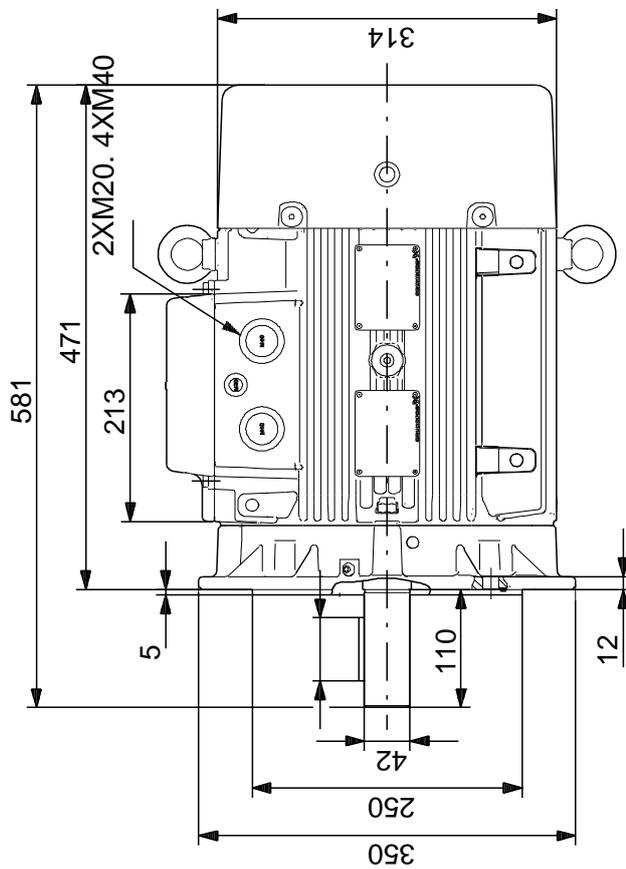
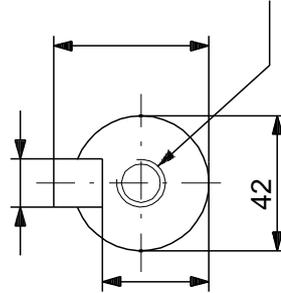
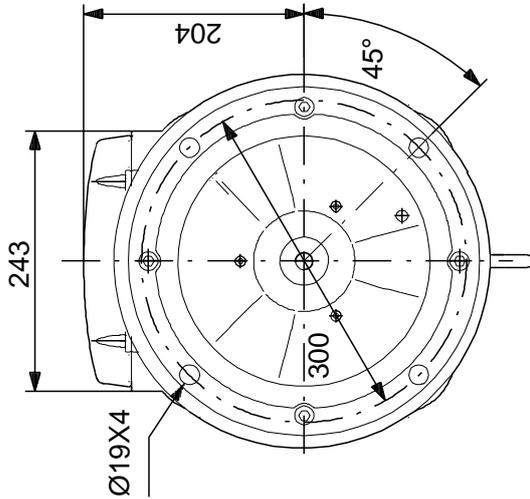
Net weight: 100 kg  
 Colour/Type: NCS 9000 gloss 40+-10 /E-coat



## On request MG160MD 50 Hz

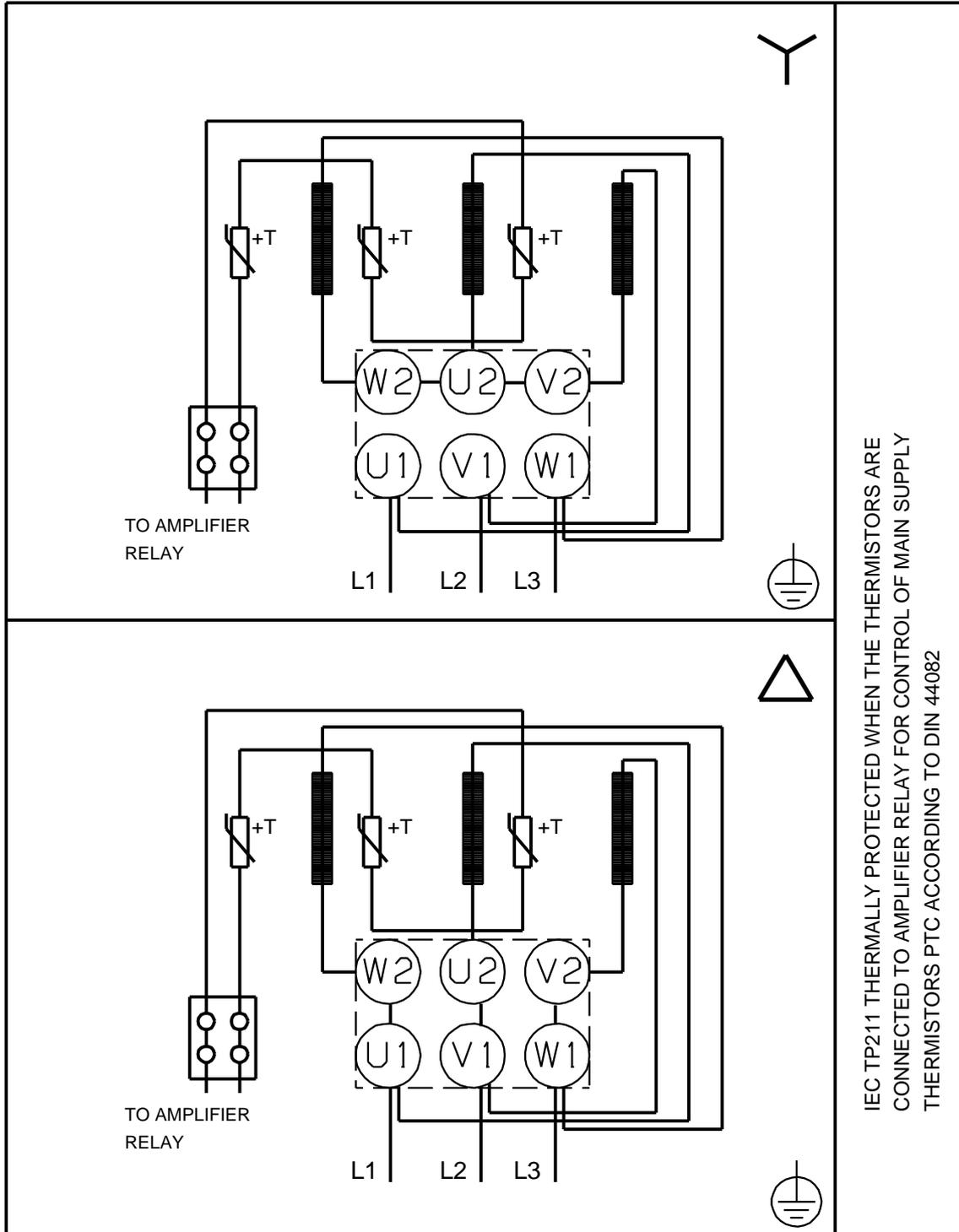


## On request MG160MD 50 Hz



Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

## On request MG160MD 50 Hz



IEC TP211 THERMALLY PROTECTED WHEN THE THERMISTORS ARE  
CONNECTED TO AMPLIFIER RELAY FOR CONTROL OF MAIN SUPPLY  
THERMISTORS PTC ACCORDING TO DIN 44082

Note! All units are in [mm] unless others are stated.



## Ordering data

**MG160MD2-42FF300-H3**

Company name:  
Created by:

Phone:

Date:  
Fax:

**Product No.: On request**  
11/22/2017

Project:  
Contact:

Client Number:  
Reference Number:

### Electrical data:

Frequency	50 Hz	-
Rated motor voltage	380-415D/660-690Y V	-
Rated motor power	15 kW	-
Rated motor speed	2930-2950 rpm	-
Rated motor torque	49 Nm	-
Wiring connection	D/Y	-
Rated motor current	28,0-26,0/16,2-15,6 A	-
Max motor current	31,0-28,5/17,8-17,2 A	-
Efficiency class	IE3	-
Full load Efficiency %	91.9-91.9 %	-
Power factor	0,89-0,87	-
Starting- / Rated motor current <sup>(50/60 Hz)</sup>	660 - 780 /	
Breakdown- / Rated motor torque <sup>(50/60 Hz)</sup>	280-330 / %	
Starting- / Rated motor torque <sup>(50/60 Hz)</sup>	230 - 280 /	

### Mechanical data:

Noise measurements <sup>(50/60 Hz)</sup>	60,6 dB(A)	-
Moment of inertia	0.049 kg m <sup>2</sup>	
Drain holes	Yes (open)	
Bearing DE	7309BE	
Bearing NDE	6309.Z.C4	
Bearing arrangement	NDE-locked	
Type of bearing DE	-	
Bearing seal DE	-	
Characteristic of grease DE	-	
Type of bearing NDE	-	
Bearing seal NDE	-	
Characteristic of grease NDE	-	
Regreasing device	Yes	
Type of lubrication	UNIREX N3	
Relubrication interval	4500	
Quantity of grease for relubrication	13 g	
External earthing	NO	
Colour/type	NCS 9000 gloss 40+-10 /E-coat	

### Explosion protection:

Type of protection WITHOUT (STANDARD)

### Ambient conditions:

Ambient temperature	-30°C to 60°C
Altitude above sea level	1000 m
Approvals and specifications	IEC 60034, CE,IE2,IE3,EAC

### General data:

Frame size	160MD
Type of construction	IM V1/B5 Flange size FF300
Weight, without optional accessories	100 kg
Frame material	Aluminium
Degree of protection	IP 55 Dust/Jetting
Method of cooling, TEFC	IC 411
Vibration class	A (Standard)
Insulation class	155(F) to 130(B)
Duty type	S1 = Continuous operation
Direction of rotation	CW / UNI-DIRECTIONAL

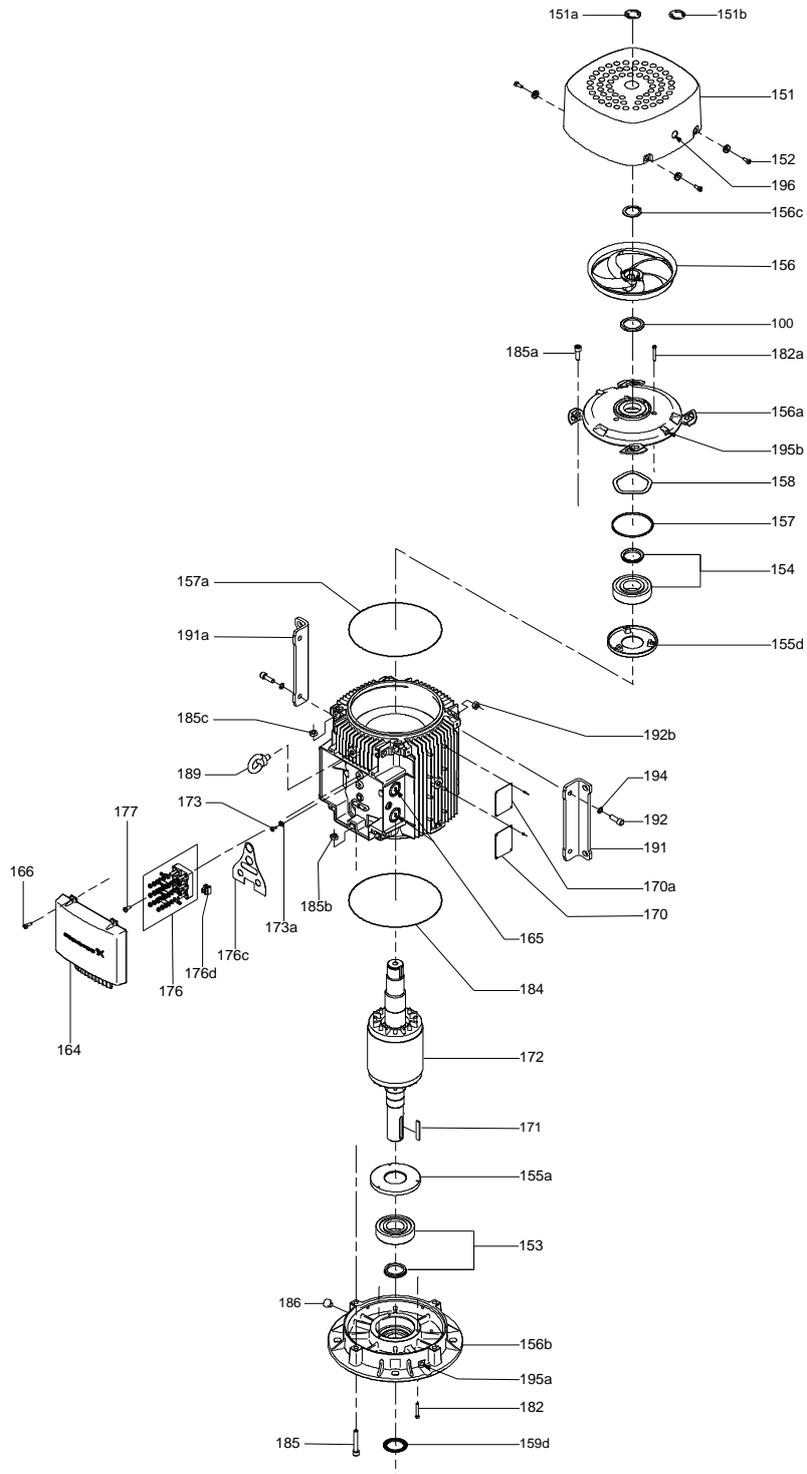
### Terminal box:

Material of terminal box	Aluminium
Cable entry	Knock out
Cable gland	2 x M20 / 4 x M40 thread

### Protection:

Built-in protection Protector type PTC 160 degC

## Exploded view



## Sectional drawing

