

Date: 22/08/2019

Qty. | Description

1 TPED 150-160/4 A-F-A-BQQE



Note! Product picture may differ from actual product

Product No.: 96110661

Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.

TPED 150-160/4 A-F-A-BQQEThe pump is fitted with an unbalanced rubber bellows seal. TPED 150-160/4 A-F-A-BQQETPED 150/4 A-F-A-BQ

Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).

The pump is fitted with a fan-cooled asynchronous motor.

The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement.

Further product details

The pump is suitable for applications where the pressure, temperature, flow rate or another parameter is to be controlled on basis of signals from a sensor at some point in the system.

A control panel enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The control panel has indicator lights for "Operation" and "Fault".

Communication with the pump is possible by means of the Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

Pump

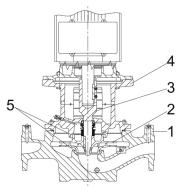
Pump housing and pump head are electrocoated to improve the corrosion resistance.

Electrocoating includes:

- 1) Alkaline-based cleaning.
- 2) Pretreatment with zinc phosphate coating.
- 3) Cathodic electrocoating (epoxy).
- 4) Curing of paint film at 200-250 °C.



Date: 22/08/2019



- 1: Pump housing
- 2: Impeller
- 3: Stub shaft
- 4: Pump head/motor stool
- 5: Wear rings

The pump housing is provided with a replaceable brass neck ring to reduce the amount of liquid running from the outlet side of the impeller to the inlet side. The impeller is secured to the shaft with a nut.

The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal. The flanges have tappings for mounting of pressure gauges.

The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring.

The central part of the motor stool is provided with guards for protection against the shaft and coupling. The pump shaft is fastened directly on the motor shaft with key and set screws.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (Code II).

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

TPED 150-160/4 A-F-A-BQQEThe terminal box holds terminals for these connections:

- pump start/stop input (potential-free contact)
- remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA
- 10 V voltage supply for setpoint potentiometer, Imax = 5 mA
- one analog sensor input, 0-10 V, 0(4)-20 mA
- 24 V voltage supply for sensor, Imax = 40 mA



Date: 22/08/2019

Qty. | Description

- one digital input
- two potential-free fault signal relays with changeover contact, reporting "Fault", "Operation" or "Ready"
- RS-485 GENIbus connection
- interface for Grundfos CIM fieldbus module.

TPED 150-160/4 A-F-A-BQQEThe terminal box holds terminals for these connections:

- pump start/stop input (potential-free contact)
- remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA
- 10 V voltage supply for setpoint potentiometer, Imax = 5 mA
- one analog sensor input, 0-10 V, 0(4)-20 mA
- 24 V voltage supply for sensor, Imax = 40 mA
- one digital input
- two potential-free fault signal relays with changeover contact, reporting "Fault", "Operation" or "Ready"
- cable for communication between the two power heads
- selector switch for alternating operation and standby operation
- RS-485 GENIbus connection
- interface for Grundfos CIU fieldbus module.

Technical data

Controls:

Frequency converter: Built-in

Liquid:

Pumped liquid: Water Liquid temperature range: -25 .. 120 °C

Selected liquid temperature: 20 °C

Density at selected liquid temperature: 998.2 kg/m³

Technical:

Pump speed on which pump data are based: 1460 rpm

Rated flow: 206 m³/h
Rated head: 12.4 m
Actual impeller diameter: 220 mm
Primary shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B

Materials:

Pump housing: Cast iron

EN-JL1040 ASTM A48-40 B

Impeller: Cast iron

EN-JL1030 ASTM A48-30 B

Installation:

Range of ambient temperature: -20 .. 40 °C

Maximum operating pressure: 16 bar

Flange standard: DIN

Pipe connection: DN 150

Pressure rating: PN 16

Port-to-port length: 800 mm

Flange size for motor: FF300

Electrical data:

Motor type: 160MB
IE Efficiency class: IE3
Rated power - P2: 11 kW
Mains frequency: 50 Hz



Date: 22/08/2019

Qty. | Description

3 x 380-480 V Rated voltage: Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F

Motor No: 86906182

Others:

Minimum efficiency index, MEI ≥: 0.65

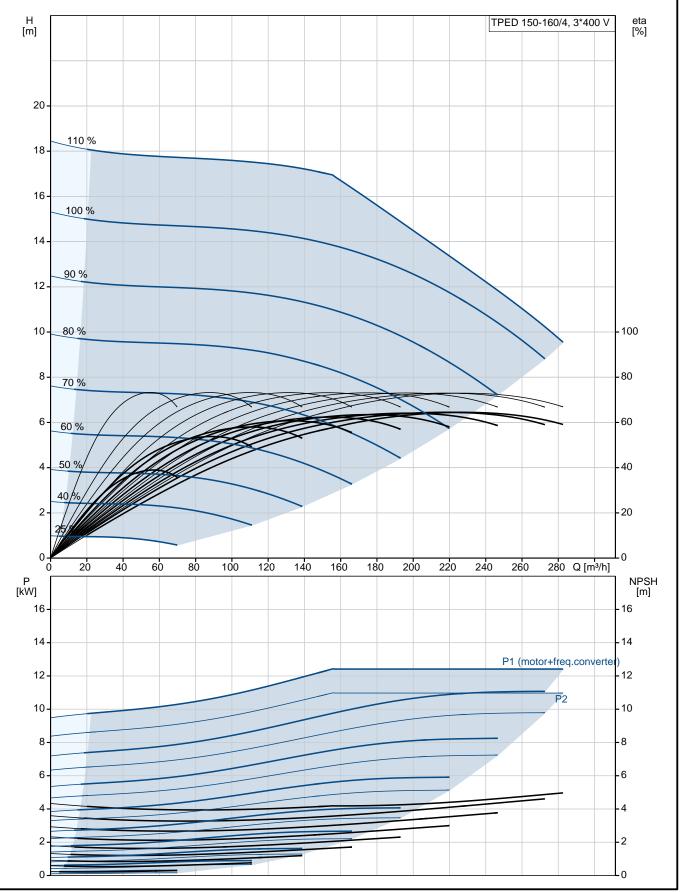
ErP status: EuP Standalone/Prod.

Net weight: 678 kg Gross weight: 787 kg Shipping volume: 1.84 m³



Date: 22/08/2019

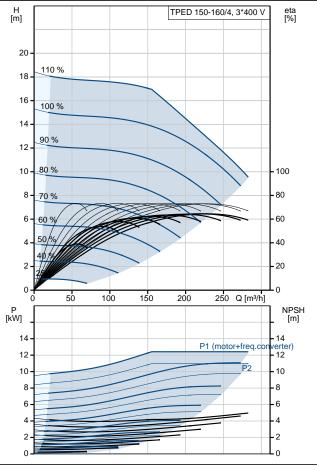
96110661 TPED 150-160/4 A-F-A-BQQE 50 Hz

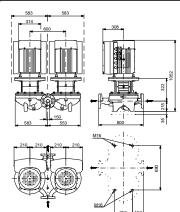


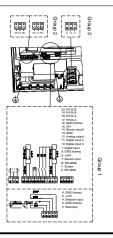


Date: 22/08/2019

Description Value General information: TPED 150-160/4 AF-A-BQQE Product No: 96110661 EAN number: 5700397027837 5700397027837 5700397027837 Technical: 1460 rpm Pump speed on which pump data are based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump yersion: A Model: A Model: A Materials: EN-JL1040 ASTIM 484-0 B EN-JL1040 ASTIM A48-40 B Impeller: Cast iron EN-JL1030 ASTIM A48-30 B A Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN DIN Pipe connection: <	Description	Value
Product name: AF-A-BQQE Product No: 96110661 EAN number: 5700397027837 Technical: Pump speed on which pump data are based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: Pump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB Ile Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: VES Motor Poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 34-5): IP55 Motor protec: YES Motor PED	Description General information:	Value
Product No: 96110661 EAN number: 5700397027837 Technical: Pump speed on which pump data are based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m	General information:	TDED 150-160/4
Product No: 96110661	Product name:	
EAN number: 5700397027837 Technical: Pump speed on which pump data are based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: Pump housing: Cast iron EN-JL 1040 ASTM A48-40 B Impeller: Cast iron EN-JL 1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Liquid temperature: 20 °C Selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated speed: 220-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91.4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 35): F Motor protec: YES Motor No: Control panel: Standard Function Module: TPED	Product No:	
Pump speed on which pump data are based: 206 m³/h Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Materials: Pump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B		
Technical: 1460 rpm Pump speed on which pump data are based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: Pump housing: Cast iron EN-JL 1040 ASTM A48-40 B EN-JL 1030 Masterial code: A Installation: Cast iron Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C		
based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: EN-JL1040 Fump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: EN-JL1030 Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Pumped liquid: Water Liquid temperature range: -25	Technical:	
based: 1460 rpm Rated flow: 206 m³/h Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: EN-JL1040 Fump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: EN-JL1030 Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Pumped liquid: Water Liquid temperature range: -25		1460 rpm
Rated head: 12.4 m Head max: 160 dm Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: EN-JL 1040 EN-JL 1040 ASTM A48-40 B Impeller: Cast iron EN-JL 1030 ASTM A48-30 B Material code: A Installation: EN-JL 1030 Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: F5300 Connect code: F Liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type:	based:	1460 rpm
Head max:	Rated flow:	206 m³/h
Actual impeller diameter: 220 mm Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: Pump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Pumped liquid temperature: -25 120 °C Selected liquid temperature: 20 °C Selectrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 86906182 Control panel: Standard Function Module: TPED		12.4 m
Primary shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: EN-JL 1040 Pump housing: Cast iron EN-JL 1030 ASTM A48-40 B Impeller: Cast iron EN-JL 1030 ASTM A48-30 B Material code: A Installation: A Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Pumped liquid: Water Liquid: Water Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB		
Curve tolerance: ISO9906:2012 3B Pump version: A Model: A Materials: Cast iron EN-J.1040 ASTM A48-40 B Impeller: Cast iron EN-J.1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated		
Pump version: A Model: A Materials: Cast iron En-JL 1040 ASTM A48-40 B Impeller: Cast iron En-JL 1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm FF300 Connect code: F F Liquid: Water Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated speed: 240-1750 rpm Efficiency		
Model: Materials: Pump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: Plange standard: DIN Pipe connection: Port-to-port length: Range size for motor: Fra00 Connect code: Fliquid: Pumped liquid: Water Liquid temperature: a0°C Selected liquid temperature: Possity at selected liquid temperature: Possity at selected liquid temperature: Possity at selected liquid temperature: Pated power - P2: Rated voltage: Rated voltage: Rated current: Rated speed: Efficiency: Rated speed: Efficiency: Rated speed: Efficiency: Electrical stall load: Pumped liquid: Pumped liquid: Pumped liquid: Pumped liquid: Big at a selected liquid temperature: Possity at selected liquid tem		
Materials: Pump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Liquid temperature: -25 120 °C Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: IE3 Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated speed: 240-1750 rpm Efficiency: IE3 91,4%		• •
Pump housing: Cast iron EN-JL1040 ASTM A48-40 B Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: IE3 Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated speed: 240-1750 rpm Efficiency: IE3 9		A
EN-JL1040		Cost iron
Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: Installation: Range of ambient temperature: Page of ambient temperature: 16 bar Flange standard: DIN Pipe connection: Port-to-port length: Fange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature: Port-to-port length: Fessure rating: Port-to-port length: For and a size for motor: Connect code: Fulquid: Fumped liquid: Water Liquid temperature range: Selected liquid temperature: Poessity at selected liquid temperature: Bettrical data: Motor type: IE Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated voltage: Rated voltage: Rated speed: Cos phi - power factor: O.91-0.90 Rated speed: Efficiency at full load: Mumber of poles: Fnotor protec: Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED	Fump nousing.	
Impeller: Cast iron EN-JL1030 ASTM A48-30 B Material code: A Installation: Range of ambient temperature: Plange standard: Pipe connection: Pressure rating: Port-to-port length: Range size for motor: Connect code: F- Liquid: Pumped liquid: Uiquid temperature: Paselected liquid temperature: Poselected liquid temperature: Poselected liquid temperature: Poselected liquid temperature: Paselected liquid temperature: Paselected liquid temperature: Poselected liquid		
EN-JL1030 ASTM A48-30 B Material code: Installation: Range of ambient temperature: Plange standard: Pipe connection: Pressure rating: Port-to-port length: Range size for motor: Plange size for motor: FF300 Connect code: F Liquid: Pumped liquid: Uater Liquid temperature range: Peeteted liquid temperature: Peeteted liquid temperature: Poetsity at selected liquid temperature: Peetetrical data: Motor type: Peetetrical data: Motor type: Pated voltage: Rated power - P2: Rated voltage: Rated voltage: Rated speed: Pated speed: Peete directed liquid load: Pated speed: Pated speed: Peete directed liquid load: Pated speed: Pated speed: Pated speed: Pated speed: Pated speed: Pated speed: Peete directed speed: Peete directed speed: Pated speed: Pat	Impeller:	
Material code: Installation: Range of ambient temperature: Range standard: Pipe connection: Pressure rating: Port-to-port length: Range diquid: Water Liquid: Pumped liquid: Water Liquid temperature: Pumped liquid temperature: Poesity at selected liquid temperature: Poesity at selected liquid temperature: Pated power - P2: Rated power - P2: Rated voltage: Rated voltage: Rated speed: Efficiency: Rated speed: Efficiency at full load: Motor rype: Rated speed: Pated voltage: Rated speed: Efficiency: Rated speed: Efficiency: Rated speed: Efficiency: Rated speed: Efficiency: Rated current: Pated voltage: Rated speed: Efficiency: Rated speed: Eff	impolior.	
Material code: Installation: Range of ambient temperature: Range of ambient temperature: Plange standard: Pipe connection: Pressure rating: Port-to-port length: Pumped liquid: Pumped liquid: Pumped liquid temperature: Poesity at selected liquid temperature: Petrical data: Motor type: Pated power - P2: Rated power - P2: Rated voltage: Rated current: Pated voltage: Rated speed: Efficiency: Rated speed: Efficiency at full load: Number of poles: Petrona diversible of the following selected: Petrona diversible of the following		
Installation: Range of ambient temperature: Range of ambient temperature: Plange standard: DIN Pipe connection: Pressure rating: Port-to-port length: Range size for motor: Connect code: FLiquid: Pumped liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Pupe: Befficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated voltage: Rated speed: Density at full load: Rated speed: Patential data: Motor efficiency at full load: Rated speed: Patential class (IEC 34-5): Insulation class (IEC 85): Motor No: Rated controls: Control panel: Function Module: TPED	Material code:	
Range of ambient temperature: Maximum operating pressure: Flange standard: DIN Pipe connection: Pressure rating: Port-to-port length: Flange size for motor: Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Electrical data: Motor type: Rated voltage: Rated voltage: Rated current: Cos phi - power factor: Efficiency at full load: Rated speed: Efficiency at full load: Rated speed: Efficiency at full load: Rated speed: Electorical class (IEC 34-5): Insulation class (IEC 85): Motor No: Rated controls: Control panel: Function Module: TPED		
Maximum operating pressure: Flange standard: DIN Pipe connection: DN 150 Pressure rating: PN 16 Port-to-port length: Flange size for motor: Connect code: F Liquid: Pumped liquid: Liquid temperature range: Pelectrical data: Motor type: IE Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated voltage: Rated speed: Cos phi - power factor: Efficiency: Efficiency at full load: Motor efficiency at full load: Motor opotec: F Insulation class (IEC 85): Motor No: Connect code: F No Ha 150 N Ha 150		-20 40 °C
Flange standard: Pipe connection: Pressure rating: Port-to-port length: Flange size for motor: Connect code: F Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Petrical data: Motor type: Fefficiency class: Rated power - P2: Rated voltage: Rated voltage: Rated current: Cos phi - power factor: Density at full load: Rotor efficiency at full load: Pick of the Motor of poles: Finsulation class (IEC 34-5): Insulation class (IEC 85): Motor No: Control panel: Function Module: PN 16 PN 150 PN 16 PN 150 PN 16 P		
Pipe connection: Pressure rating: Port-to-port length: Roman Size for motor: Flange size for motor: FF300 Connect code: F Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Pifficiency class: Rated power - P2: Rated voltage: Rated voltage: Rated speed: Cos phi - power factor: Power ficiency at full load: Rotor efficiency at full load: Rated speed: Fificiency at full load: Rated speed: Fificiency at full load: Rated speed: Fificiency at full load: Rated speed: Fificiency: Fi		DIN
Pressure rating: PN 16 Port-to-port length: 800 mm Flange size for motor: FF300 Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		DN 150
Flange size for motor: Connect code: F Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Bilectrical data: Motor type: IEfficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated voltage: Rated current: Cos phi - power factor: Bifficiency: IEG 91.4 % Motor efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor No: Controls: Control panel: Standard Function Module: FEO Water Water Liquid: Water Liquid: Water Liquid temperature: 20 °C P88.2 kg/m³ F60 B88.2 kg/m³ F88.2 kg/m³ E100MB IE3 Rated MB IE3 Rated MB IE3 Rated Name P1.4 WA P1.4 WA P1.4 WA P1.4 WA P1.4 WA P1.5 Insulation class (IEC 84-5): IP55 Insulation Class (IEC 85): Facer Standard FIPED		PN 16
Connect code: Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Pumped liquid temperature: Selectrical data: Motor type: Selectrical data: Selectrical data: Motor type: Selectrical data: Se	Port-to-port length:	800 mm
Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Pumped liquid temperature: Selectrical data: Motor type: Selectrical data: Selectrical data: Selectrical data: Motor type: Selectrical data:	Flange size for motor:	FF300
Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED	Connect code:	F
Liquid temperature range: Selected liquid temperature: Density at selected liquid temperature: Pelectrical data: Motor type: IE Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: Efficiency: IE 3 91,4% Motor efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor No: Controls: Control panel: Standard Function Module: TPED		
Selected liquid temperature: 20 °C Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		
Density at selected liquid temperature: 998.2 kg/m³ Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor Poote: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		
Electrical data: Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Function Module: TPED		
Motor type: 160MB IE Efficiency class: IE3 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Function Module: TPED		998.2 kg/m³
IE Efficiency class:		4 COMP
Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Standard Function Module: TPED		
Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Standard Function Module: TPED		
Rated voltage: 3 x 380-480 V Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Standard Function Module: TPED	·	
Rated current: 22.0-17.8 A Cos phi - power factor: 0.91-0.90 Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Function Module: TPED		
Cos phi - power factor: Rated speed: Efficiency: Efficiency: Motor efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor protec: YES Motor No: Controls: Control panel: Function Module: Dayler 44 Enclosure class (IEC 34-5): IP55 IP55 F Motor Protec: YES Motor No: Standard TPED		
Rated speed: 240-1750 rpm Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		
Efficiency: IE3 91,4% Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED	· '	
Motor efficiency at full load: 91.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		<u>'</u>
Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor protec: YES Motor No: 86906182 Controls: Control panel: Function Module: TPED		· · · · · · · · · · · · · · · · · · ·
Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor protec: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED	·	
Insulation class (IEC 85): Motor protec: YES Motor No: 86906182 Controls: Control panel: Function Module: TPED	·	
Motor protec: YES Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		
Motor No: 86906182 Controls: Control panel: Standard Function Module: TPED		
Control panel: Standard Function Module: TPED	•	
Function Module: TPED	Controls:	
	Control panel:	Standard
Frequency converter: Built-in	Function Module:	TPED
	Frequency converter:	Built-in









Date: 22/08/2019

Description	Value
Others:	
Minimum efficiency index, MEI ≥:	0.65
ErP status:	EuP Standalone/Prod.
Net weight:	678 kg
Gross weight:	787 kg
Shipping volume:	1.84 m³
Config. file no:	97912864



Date: 22/08/2019

96110661 TPED 150-160/4 A-F-A-BQQE 50 Hz

