

ENG

MOTION CONTROL

BDI50

COMPACT V/f & SENSORLESS INVERTER



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021-87700210

NIC SANAT

نیک صنعت



GEFRAN



Gefran, With forty years of experience, Gefran is the world's leading designer and producer of solutions for **measuring, controlling, and driving industrial production processes.**

We have 14 branches in 12 countries and a network of over 80 worldwide distributors.

QUALITY AND TECHNOLOGY

Gefran components are a **concentration of technology**, the result of constant research and of **cooperation with major research centers**.

This makes Gefran synonymous with quality and expertise in the design and production of:

- **sensors** for measuring main variables such as **temperature, pressure, position and force**
- **state-of-the-art components and solutions for indication and control**, satisfying demands for optimization of processes and intelligent management of energy consumption
- **automation platforms** of various complexities
- **electronic drives and electric motors** in AC and DC for all industrial automation, HVAC, water treatment and lift needs.

Gefran's know-how and experience guarantee continuity and tangible solutions.

SERVICES

A team of Gefran experts works with each customer to select the ideal product for its application and to help install and configure devices (technohelp@gefran.com).

Gefran offers a wide range of courses at different levels for the technical-commercial study of its product as well as specific courses *on demand*.





CONVEYOR AND TRASPORTATION MACHINERY



FOOD PROCESSING



MACHINE TOOL/METAL PROCESSING MACHINERY



WOOD WORKING MACHINERY



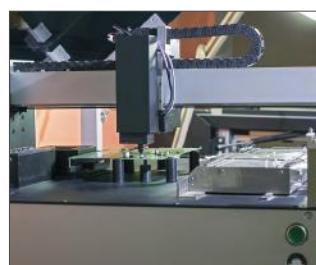
FAN AND PUMP



PAPER/TEXTILE MACHINE



PACKAGE MACHINE



PCB AUTOMATION



AUTOMATIC DOOR CONTROL

In addition to foreseeing the market's application needs, Gefran forms partnerships with its customers to find **the best way to optimise and boost the performance of various applications**.

Gefran products communicate with one another to provide integrated solutions, and can dialogue with devices by other companies thanks to compatibility with numerous fieldbuses.

Modbus

PROFINET[®]

CANopen

DeviceNet

BACnet[®]

DESCRIPTION



The Inverter BDI50 concentrates all the characteristics required by modern industrial processes in a single compact product. At the same time BDI50 series comply with the typical needs of installers and system integrators who require forefront, practical solutions that are, above all, advantageous in terms of space, cost and simplicity of use.

The BDI50 is simple and powerful and provide maximum flexibility in machine integration through standard and optional fieldbus compatibility. User friendly interface and easy operation make BDI50 the right solution for every user and for multi-purpose applications.

- > Sensorless and V/f motor control
- > Compact size and user friendly standard interface
- > High flexibility in machine integration
- > Conformity to global standards.

POWER RANGE

| | Power | | | | | | | |
|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|------------|
| kW (Hp) | 0.4 (0.5) | 0.75 (1.0) | 1.5 (2.0) | 2.2 (3.0) | 3.7 (5.0) | 5.5 (7.5) | 7.5 (10) | 11 (15) |
| 230 Vac, 1ph | Size 1 | | Size 2 | | | | | |
| 230 Vac, 3ph | Size 1 | | Size 2 | | | Size 3 | Size 4 | |
| 400 Vac, 3ph | Size 2 | | | Size 3 | | | Size 4 | |

DRIVE TYPE DESIGNATION

| | |
|-----------------------------|---|
| BDI50-XXXX-KXX-X-Y-Y | |
| EMI Filter: | F = included; [Empty] = not included |
| PNP / NPN: | N = NPN input; P = PNP input; NP = PNP and NPN |
| Rated voltage: | 2M = 230 Vac (200...240 Vac), 1ph; 2T = 230 Vac (200...240 Vac), 3ph; 4 = 400 Vac (380...480 Vac), 3ph |
| Software: | X = standard |
| Braking unit: | B = included; X = not included |
| Keypad: | K = Integrated (LED keypad with 5-digits 7-segment display) |
| Drive power, in kW | |
| Mechanical drive sizes | |
| BDI50 drive series | |

WEIGHTS AND DIMENSIONS

| Mechanical size | Dimensions: Width x Height x Depth | | Weight | |
|-----------------|------------------------------------|---------------------|--------------|----------------|
| | mm | inches | kg | lbs |
| 1 | 72.0 x 141.0 x 141.0 | 2.83 x 5.55 x 5.55 | 0.85 (0.95*) | 1.87 (2.09*) |
| 2 | 118.0 x 144.0 x 150.0 | 4.64 x 5.67 x 5.90 | 1.35 (1.45*) | 2.97 (3.20*) |
| 3 | 129.0 x 197.5 x 148.0 | 5.08 x 77.75 x 8.83 | 1.35 (1.45*) | 2.97 (3.20*) |
| 4 | 187.0 x 273.0 x 190.0 | 7.36 x 10.75 x 7.48 | 6 (6.3*) | 13.22 (13.89*) |

* with filter

GENERAL CHARACTERISTICS

| | | |
|---------------------------|---------------------------------------|---|
| Control Mode | | V/f Control, Sensorless control [SLV] |
| Speed control accuracy | | ±2% [SLV, overload 150% and control range 1 : 16 / 60...4Hz; 50...3Hz]. ±3% [V/f open-loop, overload 100% and control range 1 : 10 / 60...6Hz; 50...5Hz]. |
| Overload | | 150% rated current for 60sec |
| Frequency | Output freq. Range | 0.1~599.00Hz |
| | Setting | Keypad : Set directly with ▼▲ keys or the VR [Potentiometer integrated] External signal: <ul style="list-style-type: none">• AVI [0~10V / 2~10V], ACI [0~20mA, 4~20mA] input• multifunction digital inputs• by communication |
| | Frequency limit | Lower and upper frequency limits 3 -skip frequency settings |
| Run & Stop | Methods | <ul style="list-style-type: none"> • Keypad • Multifunction terminals (2/3 wire selection) • Jog function • By communication |
| Main Controls | V/f curve setting | 6 fixed + one customized |
| | Carrier frequency | 1~16kHz [default 5kHz] |
| | Acceleration and deceleration control | 2 sets Acc / dec time parameters 4 points S curve parameters |
| | Multifunction digital input | 5, 19 functions Sizes 1/2: NPN&PNP by separate models Sizes 3/4: NPN&PNP selection from terminals |
| | Multifunction digital output | 1 relay, 16 functions |
| | Multifunction analog input | 2, AVI: 0~10V/2~10V, ACI: 0~20mA/4~20mA |
| | Multifunction analog output | 1 [0~10V], 5 functions |
| | Main features | Autotune, Torque compensation, Slip compensation, 8 preset speeds, Auto-run, PID control, torque boost, V/f starting Frequency, Fault reset, Powerloss ride through, DC-brake, Mechanical brake control, AVR function, Fan control |
| Display | Info available | Parameter, parameter value, frequency, line speed, DC voltage, output voltage, output current, PID feedback, input and output terminal status, Heat sink temperature, Program Version, Fault Log |
| | LED Status Indicator | Run, stop, forward and reverse |
| Protection Functions | Overload Protection | Integrated motor and Inverter overload protection |
| | Motor over-temperature | By PTC [AVI] |
| | Overspeed | 230V Class : > 410V, 400V Class: > 820V |
| | Undervoltage | 230V Class: < 190V, 400V Class: < 380V |
| | Auto-Restart | Inverter auto-restart after a momentary power loss |
| | Stall Prevention | Stall prevention for Acceleration / Deceleration and continuous Run |
| | Additional protective functions | Heatsink over temperature protection, Auto carrier frequency reduction with temperature rise, Protection of reverse operation, Auto restart attempts setting, Parameter lock |
| Environment Specification | Protection degree | IP20 |
| | Operating Temperature | -10~+40°C [size 1], -10~+50°C [all other sizes] |
| | Storage Temperature | -20~+60°C |
| | Humidity | Under 95% RH [no condensation] |
| | Altitude | 1000 meters or lower |
| | Vibration | Under 20Hz, 1G [9.8m/s²]; 20~50Hz 0.6G [5.88m/s²] |
| Communication Function | | Built in: RS-485 with Modbus RTU / ASCII [standard RJ45 connection], BACnet Optionals: Profibus, DeviceNet, CANopen, TCP/IP |
| Braking unit | | Built-in on 3ph 400V Class and 3ph 230V Class from 3.7kW to 7.5kW |
| EMI filter | | Built-in on -F version 1ph 230V Class and 3ph 400V Class |
| Certification | CE RoHS | In compliance with EN61800-3 [CE & RE] and EN61800-5-1[LVD] Conformity to RoHS directive |
| | cUL us | UL508 |

GENERAL CHARACTERISTICS

INTEGRATED KEYPAD WITH POTENTIOMETER

The integrated programming keypad with 5 Digit 7 Segment LED display provide fast programming and immediate start-up. Simple speed adjustment through integrated potentiometer.

I/O CONFIGURATION

The BDI50 inverter features a standard I/O card to satisfy industrial standard applications.

- Digital inputs: 5, NPN/PNP
- Digital output: 1, relay
- Analog inputs: 2, AVI: 0~10V / 2~10V, ACI: 0~20mA / 4~20mA
- Analog output: 1, 0~10V
- Motor protection input: by PTC (AVI).

RFI-JUMPER FOR IT MAINS

Removable "y" capacitor for use on IT mains.

COMPACT AND ROBUST DESIGN

Coated PCB offers protection for harsh environments.

BDI50 Size 1 has fanless design with cooling heatsink for greater robustness against humidity, dust, oil mist, and vibration.



Sizes 2 to 4 with fan design to enhance the cooling ability.



COPY UNIT

- Copying parameters settings from one AC drive to another.
- Can be used as remote keypad.
- Standard RJ45 interface cable.



PROCESSOR

32 bit / 100MHz CPU design provides high performance, faster A/D conversion and torque compensation.

BUILT-IN EMI FILTER AND BRAKING TRANSISTOR

Integrated filter for interference suppression in compliance with EN61800-3 First environment and built-in braking transistor allow high installation flexibility and panel space reduction.

SERIAL COMMUNICATION Modbus

The BDI50 integrates a standard RS485 serial line with Modbus RTU/ASCII protocol.

A frontal RJ45 with dust-proof socket make it very easy to access and use.

PTC MOTOR PROTECTION

Motor overtemperature protection function.

EARTH TERMINALS

Earthing terminals built-in into heat sink to provide effective grounding protection.

FIELDBUS

The BDI50 can be easily integrated into machine architectures through integrated standard Bacnet and optional Profibus, CANopen, DeviceNet and TCP-IP communication modules.

| Model | Description |
|--------------------|----------------------------------|
| EXP-PDP-BDI/VDI | Profibus DP interface module |
| EXP-TCP/IP-BDI/VDI | Ethernet TCP/IP interface module |
| EXP-DN-BDI/VDI | DeviceNet interface module |
| EXP-CAN-BDI/VDI | CanBus interface module |



RJ45 TO USB CONNECTING CABLE

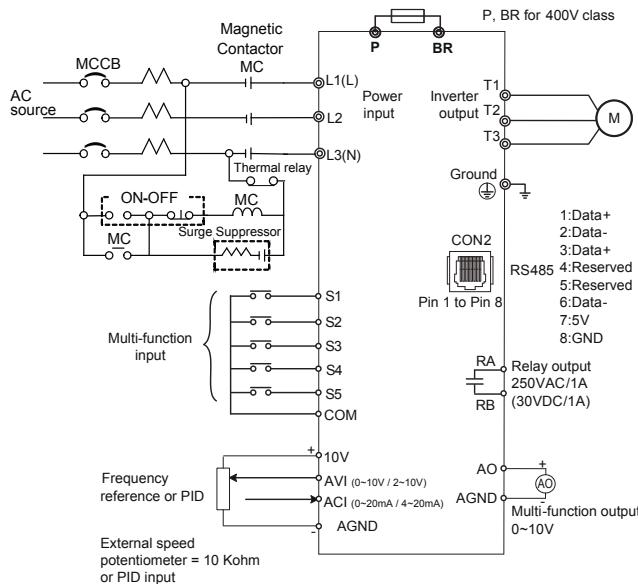
For the connection between inverter and PC using Gf_eXpress and PC Tools configurator.



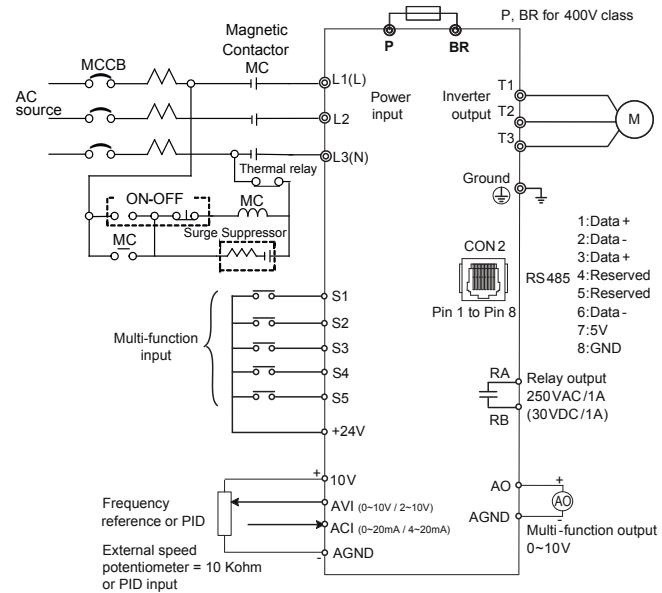
| Model | Description |
|------------------------|---|
| Cable RJ45 to USB 1.8m | RJ45 to USB connecting cable (1.8 m. cable) |
| Cable RJ45 to USB 3m | RJ45 to USB connecting cable (3 m. cable) |

WIRING DIAGRAM

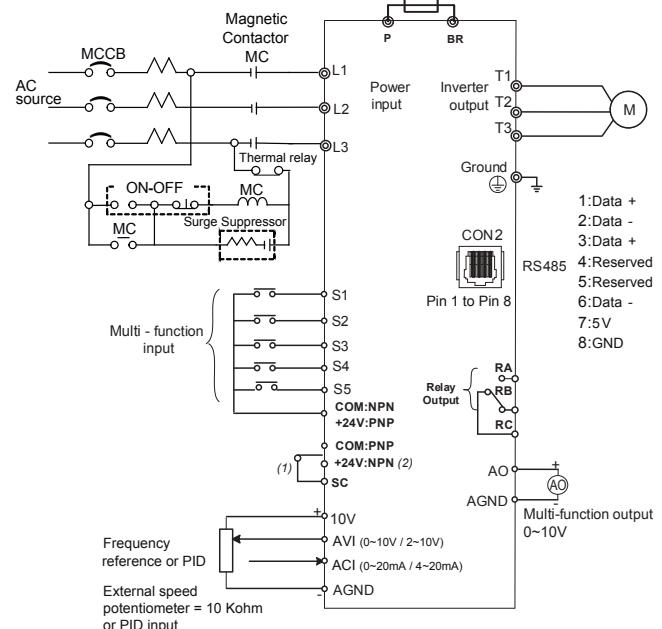
SIZES 1 / 2, NPN INPUT



SIZES 1 / 2, PNP INPUT



SIZES 3 / 4



| Wiring (AC Input) | Model | Power Input Terminal |
|--------------------|---------------------|----------------------|
| NPN | 200V (Single-Phase) | L1 (L) ; L3 (N) |
| | 200V (Three-Phase) | L1(L) ; L2 ; L3 (N) |
| 400V (Three-Phase) | | L1 ; L2 ; L3 |
| PNP | 200V (Single-Phase) | L1 (L) ; L3 (N) |
| | 400V (Three-Phase) | L1 ; L2 ; L3 |

- (1) NPN: 24V connected to SC.
PNP: COM connected to SC.
- (2) If SC is not connected, inverter parameter group 03-XX can't be enabled.

CHOOSING THE INVERTER: INPUT AND OUTPUT DATA

SINGLE PHASE - 230V CLASS

| Sizes BD150 | | 1004 | 1007 | 2015 | 2022 | |
|---------------|-------------------------------------|------|-------------------------------------|------|------|-----|
| Output Rating | Rated Output Capacity | kVA | 1.0 | 1.65 | 2.9 | |
| | Rated Output Current | A | 2.6 | 4.3 | 7.5 | |
| | Maximum Applicable Motor | HP | 0.5 | 1 | 2 | |
| | | kW | 0.4 | 0.75 | 1.5 | |
| Output Rating | Output Voltage | V | Three-Phase, 0 to 240V | | | |
| | Output Frequency | Hz | Based on parameter setting 0.1~599 | | | |
| Input Rating | Rated Voltage, Frequency | | Single-Phase, 200V to 240V, 50/60Hz | | | |
| | Allowable Voltage Fluctuation | | +10% ~ -15% | | | |
| | Allowable Frequency Fluctuation | | ±5% | | | |
| | Input current ⁽¹⁾ | A | 7.2 | 11 | 15.5 | 21 |
| | Allowable momentary power loss time | s | 1.0 | 1.0 | 2.0 | 2.0 |
| | Enclosure | | IP20 | | | |

THREE PHASE - 230V CLASS

| Sizes BD150 | | 1007 | 2015 | 2022 | 3037 | 4055 | 4075 |
|---------------|-------------------------------------|------|------------------------------------|------|------|------|------|
| Output Rating | Rated Output Capacity | kVA | 1.65 | 2.90 | 4.00 | 6.67 | 9.91 |
| | Rated Output Current | A | 4.3 | 7.5 | 10.5 | 17.5 | 26 |
| | Maximum Applicable Motor | HP | 1 | 2 | 3 | 5 | 7.5 |
| | | kW | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 |
| Output Rating | Output Voltage | V | Three-Phase, 0 to 240V | | | | |
| | Output Frequency | Hz | Based on parameter setting 0.1~599 | | | | |
| Input Rating | Rated Voltage, Frequency | | Three-Phase, 200V to 240V, 50/60Hz | | | | |
| | Allowable Voltage Fluctuation | | +10% ~ -15% | | | | |
| | Allowable Frequency Fluctuation | | ±5% | | | | |
| | Input current ⁽¹⁾ | A | 6.4 | 9.4 | 12.2 | 19.3 | 28.6 |
| | Allowable momentary power loss time | s | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| | Enclosure | | IP20 | | | | |

⁽¹⁾ The input current is calculated value at full rated output current.

THREE PHASE - 400V CLASS

| Sizes BDI50 | | 2007 | 2015 | 2022 | 3037 | 3055 | 4075 | 4110 |
|---------------|-------------------------------------|------|------------------------------------|------|------|------|------|-------|
| Output Rating | Rated Output Capacity | kVA | 1.7 | 2.9 | 4.0 | 7.01 | 9.91 | 13.34 |
| | Rated Output Current | A | 2.3 | 3.8 | 5.2 | 9.2 | 13.0 | 17.5 |
| | Maximum Applicable Motor | HP | 1 | 2 | 3 | 5 | 7.5 | 10 |
| | | kW | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 |
| Input Rating | Output Voltage | V | Three-Phase, 0 to 480V | | | | | |
| | Output Frequency | Hz | Based on parameter setting 0.1~599 | | | | | |
| | Rated Voltage, Frequency | | Three-Phase, 380V to 480V, 50/60Hz | | | | | |
| | Allowable Voltage Fluctuation | | +10% ~ -15% | | | | | |
| | Allowable Frequency Fluctuation | | ±5% | | | | | |
| | Input current ⁽¹⁾ | A | 4.2 | 5.6 | 7.3 | 10.1 | 14.3 | 19.3 |
| | Allowable momentary power loss time | s | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| | Enclosure | | IP20 | | | | | |

⁽¹⁾ The input current is calculated value at full rated output current.

POWERLOSS

| Sizes BDI50 | Power Loss W | Heat Loss kcal/hr |
|---|--------------|-------------------|
| 230 V Class : single phase and three phase | | |
| BDI50-1004-...-2M/2T-... | 27.0 | 23.2 |
| BDI50-1007-...-2M/2T-... | 45.0 | 38.7 |
| BDI50-2015-...-2M/2T-... | 64.0 | 55.0 |
| BDI50-2022-...-2M/2T-... | 70.0 | 60.2 |
| BDI50-3037-...-2T-... | 155.0 | 133.3 |
| BDI50-4055-...-2T-... | 148.0 | 127.3 |
| BDI50-4075-...-2T-... | 330.0 | 283.8 |
| 400 V Class: three phase | | |
| BDI50-2007-...-4-... | 30.0 | 25.8 |
| BDI50-2015-...-4-... | 37.0 | 31.8 |
| BDI50-2022-...-4-... | 61.0 | 52.5 |
| BDI50-3037-...-4-... | 98.3 | 84.5 |
| BDI50-3055-...-4-... | 157.0 | 135.0 |
| BDI50-4075-...-4-... | 234.0 | 201.2 |
| BDI50-4110-...-4-... | 297.0 | 255.4 |

All inverters are equipped with internal fans (excluding BDI50 size 1).

DRIVE MODELS & CODES

SINGLE PHASE - 230V CLASS

- Without EMI filter
- IP20

| Code | Model | Pn @ 230 Vac | Configuration |
|-------|---------------------|-----------------|--------------------------------|
| S6N01 | BDI50-1004-KXX-2M-N | 0.4 kW | Without EMI filter - NPN Input |
| S6N02 | BDI50-1007-KXX-2M-N | 0.75 kW | Without EMI filter - NPN Input |
| S6N03 | BDI50-2015-KXX-2M-N | 1.5 kW | Without EMI filter - NPN Input |
| S6N04 | BDI50-2022-KXX-2M-N | 2.2 kW | Without EMI filter - NPN Input |

- With integrated EMI filter
- IP20

| Code | Model | Pn @ 230 Vac | Configuration |
|-------|-----------------------|-----------------|-----------------------------|
| S6N05 | BDI50-1004-KXX-2M-P-F | 0.4 kW | With EMI filter - PNP Input |
| S6N06 | BDI50-1007-KXX-2M-P-F | 0.75 kW | With EMI filter - PNP Input |
| S6N07 | BDI50-2015-KXX-2M-P-F | 1.5 kW | With EMI filter - PNP Input |
| S6N08 | BDI50-2022-KXX-2M-P-F | 2.2 kW | With EMI filter - PNP Input |

THREE PHASE - 230V CLASS

- Without EMI filter
- IP20

| Code | Model | Pn @ 230 Vac | Configuration |
|-------|----------------------|-----------------|--|
| S6N09 | BDI50-1007-KXX-2T-N | 0.75 kW | Without EMI filter - NPN Input |
| S6N10 | BDI50-2015-KXX-2T-N | 1.5 kW | Without EMI filter - NPN Input |
| S6N11 | BDI50-2022-KXX-2T-N | 2.2 kW | Without EMI filter - NPN Input |
| S6N12 | BDI50-3037-KBX-2T-NP | 3.7 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |
| S6N13 | BDI50-4055-KBX-2T-NP | 5.5 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |
| S6N14 | BDI50-4075-KBX-2T-NP | 7.5 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |

THREE PHASE - 400V CLASS

- Without EMI filter
- IP20

| Code | Model | Pn @ 400 Vac | Configuration |
|-------|---------------------|-----------------|--|
| S6N15 | BDI50-2007-KBX-4-N | 0.75 kW | Internal Braking Unit - Without EMI filter - NPN Input |
| S6N16 | BDI50-2015-KBX-4-N | 1.5 kW | Internal Braking Unit - Without EMI filter - NPN Input |
| S6N17 | BDI50-2022-KBX-4-N | 2.2 kW | Internal Braking Unit - Without EMI filter - NPN Input |
| S6N18 | BDI50-3037-KBX-4-NP | 3.7 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |
| S6N19 | BDI50-3055-KBX-4-NP | 5.5 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |
| S6N20 | BDI50-4075-KBX-4-NP | 7.5 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |
| S6N21 | BDI50-4110-KBX-4-NP | 11 kW | Internal Braking Unit - Without EMI filter - PNP/NPN Input |

- With integrated EMI filter
- IP20

| Code | Model | Pn @ 400 Vac | Configuration |
|-------|-----------------------|-----------------|---|
| S6N22 | BDI50-2007-KBX-4-P-F | 0.75 kW | Internal Braking Unit - With EMI filter - PNP Input |
| S6N23 | BDI50-2015-KBX-4-P-F | 1.5 kW | Internal Braking Unit - With EMI filter - PNP Input |
| S6N24 | BDI50-2022-KBX-4-P-F | 2.2 kW | Internal Braking Unit - With EMI filter - PNP Input |
| S6N25 | BDI50-3037-KBX-4-NP-F | 3.7 kW | Internal Braking Unit - With EMI filter - PNP/NPN Input |
| S6N26 | BDI50-3055-KBX-4-NP-F | 5.5 kW | Internal Braking Unit - With EMI filter - PNP/NPN Input |
| S6N27 | BDI50-4075-KBX-4-NP-F | 7.5 kW | Internal Braking Unit - With EMI filter - PNP/NPN Input |
| S6N28 | BDI50-4110-KBX-4-NP-F | 11 kW | Internal Braking Unit - With EMI filter - PNP/NPN Input |

ACCESSORIES AND OPTIONS

| Code | Model | Dimension: WxHxL (mm) | Weight (kg) | Note |
|---------------------|-----------|-----------------------|-------------|----------------------|
| Input choke | | | | |
| S7AB3 | LR3y-1030 | 120 x 125 x 65 | 1.9 | For BDI50-1007...-2T |
| S7AAG | LR3y-2040 | 120 x 125 x 65 | 2 | For BDI50-2015...-2T |
| S7AB5 | LR3y-2055 | 120 x 125 x 75 | 2.2 | For BDI50-2022...-2T |
| S7AB6 | LR3y-2075 | 150 x 155 x 79 | 4.9 | For BDI50-3037...-2T |
| S7AB7 | LR3y-3110 | 150 x 155 x 79 | 5 | For BDI50-4055...-2T |
| S7AB8 | LR3y-3150 | 150 x 169 x 85 | 5.5 | For BDI50-4075...-2T |
| S7AAD | LR3y-1007 | 120 x 125 x 65 | 1.8 | For BDI50-2007...-4 |
| S7AAE | LR3y-1015 | 120 x 125 x 65 | 1.8 | For BDI50-2015...-4 |
| S7AAF | LR3y-1022 | 120 x 125 x 65 | 1.8 | For BDI50-2022...-4 |
| S7AAG | LR3y-2040 | 120 x 125 x 65 | 2 | For BDI50-3037...-4 |
| S7AB5 | LR3y-2055 | 120 x 125 x 75 | 2.2 | For BDI50-3055...-4 |
| S7AB6 | LR3y-2075 | 150 x 155 x 79 | 4.9 | For BDI50-4075...-4 |
| S7AB7 | LR3y-3110 | 150 x 155 x 79 | 5 | For BDI50-4110...-4 |
| Output choke | | | | |
| S7FG1 | LU3-001 | 120 x 128 x 71 | 2.7 | For BDI50-1004...-2M |
| S7FG1 | LU3-001 | 120 x 128 x 71 | 2.7 | For BDI50-1007...-2M |
| S7FG2 | LU3-003 | 180 x 170 x 110 | 5.2 | For BDI50-2015...-2M |
| S7FG3 | LU3-005 | 180 x 170 x 110 | 5.8 | For BDI50-2022...-2M |
| S7FG1 | LU3-001 | 120 x 128 x 71 | 2.7 | For BDI50-1007...-2T |
| S7FG2 | LU3-003 | 180 x 170 x 110 | 5.2 | For BDI50-2015...-2T |
| S7FG3 | LU3-005 | 180 x 170 x 110 | 5.8 | For BDI50-2022...-2T |
| S7FG4 | LU3-011 | 180 x 180 x 130 | 8 | For BDI50-3037...-2T |
| S7FG4 | LU3-011 | 180 x 180 x 130 | 8 | For BDI50-4055...-2T |
| S7FH2 | LU3-015 | 180 x 160 x 170 | 7.5 | For BDI50-4075...-2T |
| S7FG1 | LU3-001 | 120 x 128 x 71 | 2.7 | For BDI50-2007...-4 |
| S7FG1 | LU3-001 | 120 x 128 x 71 | 2.7 | For BDI50-2015...-4 |
| S7FG1 | LU3-001 | 120 x 128 x 71 | 2.7 | For BDI50-2022...-4 |
| S7FG2 | LU3-003 | 180 x 170 x 110 | 5.2 | For BDI50-3037...-4 |
| S7FG3 | LU3-005 | 180 x 170 x 110 | 5.8 | For BDI50-3055...-4 |
| S7FG4 | LU3-011 | 180 x 180 x 130 | 8 | For BDI50-4075...-4 |
| S7FG4 | LU3-011 | 180 x 180 x 130 | 8 | For BDI50-4110...-4 |

Note: Input chokes for inverter max frequency = 400 Hz and max Switching frequency = 20 kHz.

| Code | Model suggested | Dimension WxHxL (mm) | Weight (kg) | W | Ohm | ED (%) | Braking torque (%) | For BDI50.... |
|-------------------------|------------------|----------------------|-------------|------|-----|--------|--------------------|---------------|
| Braking resistor | | | | | | | | |
| S6F62 | RFH 600 40R | 320x27x36 | 0.6 | 390 | 40 | 10 | 117 | 3037...-2T |
| S8T0CZ | RFPD 750 DT 26R | 200x70x106 | 1.7 | 600 | 25 | 10 | 123 | 4055...-2T |
| S8SA28 | RF 780 20R | 155x27x36 | 0.26 | 780 | 20 | 10 | 117 | 4075...-2T |
| S8SA25 | RFH 165 720R | 155x27x36 | 0.26 | 60 | 750 | 8 | 123 | 2007...-4 |
| S8T0CR | RF 300 DT 400R | 260x38x106 | 1.4 | 150 | 400 | 10 | 117 | 2015...-4 |
| S8TCP | RF 220 T 250R | 300x27x36 | 0.5 | 200 | 250 | 8 | 123 | 2022...-4 |
| S6F64 | RFH 600 160R | 320x27x36 | 0.6 | 400 | 150 | 10 | 123 | 3037...-4 |
| S8T0CM | RFPD 900 DT 100R | 260x70x106 | 2.2 | 600 | 100 | 10 | 123 | 3055...-4 |
| S8SZ0 | RFPR 750 D 80R | 245x75x100 | 2.7 | 750 | 80 | 10 | 117 | 4075...-4 |
| S8SA30 | BRT 1K6 52R | 580x140x110 | 4.2 | 1600 | 50 | 10 | 123 | 4110...-4 |

Note:

Braking resistor: $W = (V_{pn} * V_{pn}) * ED\% / R_{min}$

1. W: The power consumption of braking action

2. V_{pn}: The voltage of braking action (220V=380VDC, 440V=760VDC)

3. ED%: The effective period of braking action

4. R_{min}: braking resistor minimum value (ohms)

| Code | Model | Description |
|------------------------------|------------------------|---|
| Communication modules | | |
| S6N218 | EXP-PDP-BDI/VDI | Profibus DP interface module |
| S6N219 | EXP-TCP/IP-BDI/VDI | Ethernet TCP/IP interface module |
| S6N220 | EXP-DN-BDI/VDI | DeviceNet interface module |
| S6N221 | EXP-CAN-BDI/VDI | CanBus interface module |
| Others | | |
| S6N228 | Memory KB-BDI/VDI | Copy unit |
| S6N229 | Cable RJ45 to USB 1.8m | RJ45 to USB connecting cable (1.8 m. cable) |
| S6N230 | Cable RJ45 to USB 3m | RJ45 to USB connecting cable (3 m. cable) |
| S6N238 | KIT DIN BDI50 Size 1 | DIN rail kit Size 1 |
| S6N239 | KIT DIN BDI50 Size 2 | DIN rail kit Size 2 |

SOFTWARE

GF-eXpress PROGRAMMING SOFTWARE

Applications

- Configuring parameters of Gefran devices (Instruments, Drives, Sensors)
- Tuning control parameters with on-line tests and trends
- Managing parameter archive for multiple configuration.

Features

- Guided product selection
- Multiple languages
- Creation and storage of recipes
- Oscilloscope
- Simplified settings
- Parameter printout
- Network autoscan

GF_eXpress software configures the parameters of the automation components, drives and sensors in the Gefran catalogue.

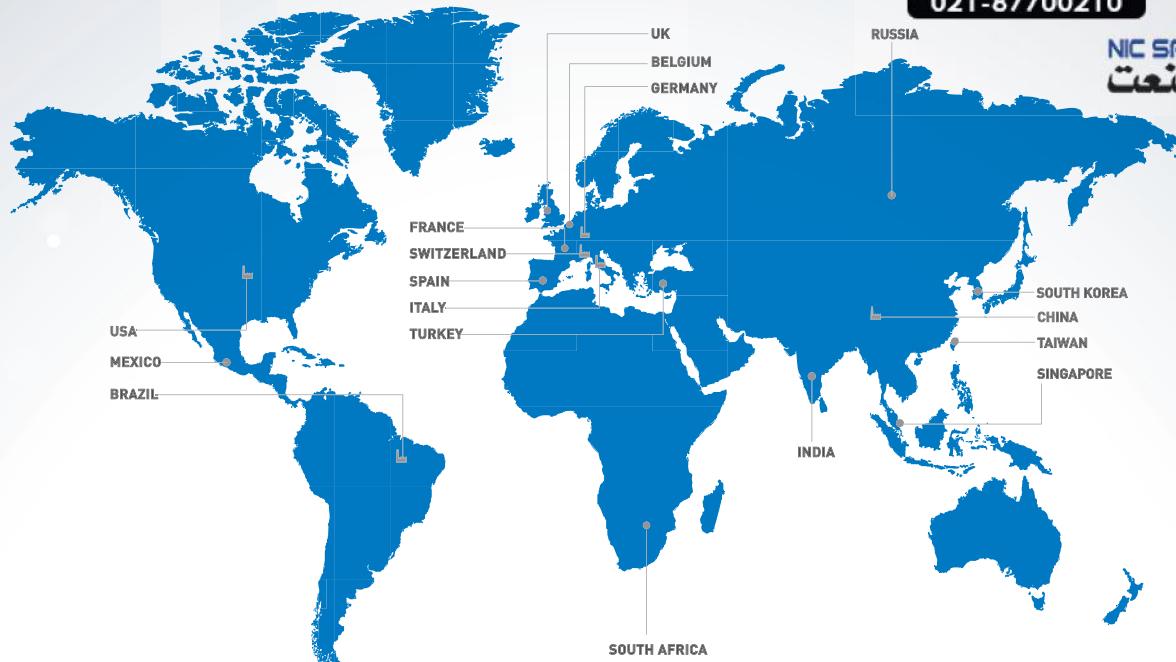
The graphic interface makes selecting and configuring parameters easy and intuitive. Devices are grouped according to product type and functions.

Products are searched by means of a context search and a display of product photos.

This provides a single device library for all Gefran products.

Complete configuration information for every device is given in XML format to facilitate expansion of the catalogue and parameters.





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