

# Individual Solutions for Demanding Sectors



DYNAVERT Drives

**LOHER**

# Loher stands for quality and reliability

Loher, with its headquarters in Ruhstorf close to Passau, Germany, is one of the few suppliers that can offer the complete range of electric drive technology. Loher can look back on 100 years of tradition in the design and construction of electric motors – for more than 40 years, state-of-the-art control technology has been developed based on this extensive experience.

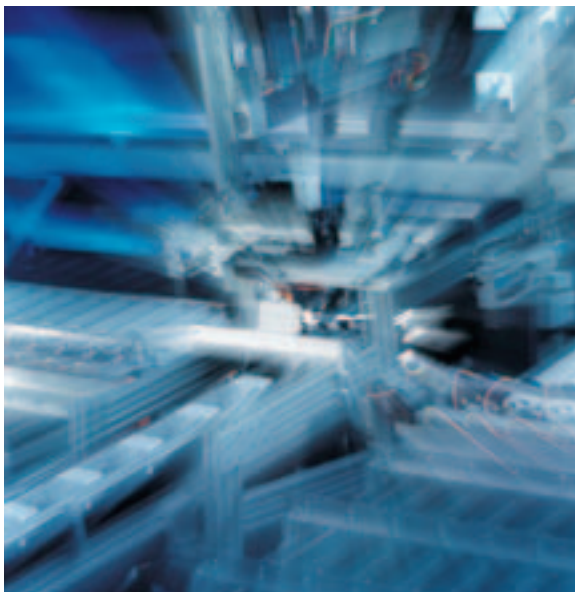
## **The specialist for many sectors**

Loher offers complete system solutions – from the power supply up to the motor shaft – from engineering in the quotation phase up to commissioning on-site. All of this from a single source.

Transformer, drive and motor, specifically adapted to the particular application, with an excellent price-performance ratio.

In addition to customized drive systems, we also offer a whole raft of drive inverter solutions. These are based on a standard range of accessory kits, which have enabled us to establish ourselves in the widest range of sectors.

Additional accessories allow the drive systems to be adapted to difficult line supply conditions, extremely long motor cables and various control and communication concepts – even in hazardous zones.



# Loher drive inverters and motors

Intelligent drive systems from a single source

**We are more than willing to clearly document both function and quality for you!**

We offer complete drive systems, comprising transformers, drive inverters and motor from a single source! As system supplier, we provide the complete drive package. Our customers clearly see this as the most important advantage.

To prove the function of our drive systems, we have our own test field equipped with state-of-the-art equipment that is available for customer acceptance tests. In addition to visual and function checks and tests, in the presence of customers, we can also document the power rating, the efficiency of the complete drive as well as the line supply behavior.

Loher quality – something that you can always depend on:

We are certified to DIN ISO 9001 and we are regularly subject to stringent quality audits from independent institutions.

- Complete drive from a single source – and therefore also clear responsibility for the complete drive
- Customer acceptance tests in the factory in compliance with all of the relevant standards and regulations
- Certified according to DIN ISO 9001
- Our test stands are equipped to handle drives up to 6,000 kVA incl. load and measuring equipments



# Four decades providing the highest reliability and availability

Loher DYNAVERT® drive inverters have already been in service for over four decades.

For applications where topmost priority is given to the highest degree of reliability and availability of the drives.

**DYNAVERT was specifically designed for the following sectors right from the very start**

- Chemical industry
- Oil and gas industries
- Power stations and utilities
- Plastic industry
- Basic materials industry
- Test stands
- Conveyor technology and applications in general machinery construction.

DYNAVERT can be flexibly integrated into any automation concept – whether using conventional control technology or bus systems.

DYNAVERT T can be connected to any of the normally encountered line supply voltages – and can feed both synchronous and asynchronous motors.

All of the drive requirements are taken into consideration from the word go – from the coupling, through the motor, cables, drive inverter, line supply situation and connection to the supervisory control system.

Our many years of experience and competence as a motor manufacturer have been efficiently incorporated in the design and adaptation of DYNAVERT, as motors and drive inverters are developed, closely harmonized with one another.

## Advantages

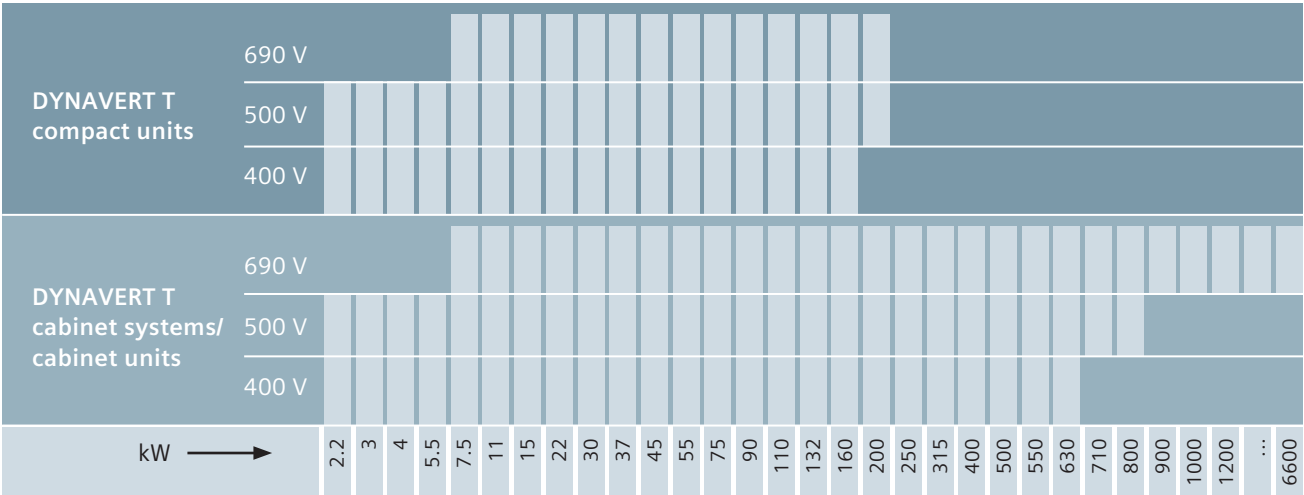
- Cabinet units and cabinet systems in IP21 or higher degrees of protection
- All of the drive units have their own connection space
- Compact dimensions
- Equipped with radio interference suppression
- Low harmonics fed back into the line supply, optionally according IEEE519
- Long motor cables can be used as a result of the integrated dv/dt filter for DYNAVERT T and as an inherent system feature for DYNAVERT I
- Wide supply voltage range
- A main contactor is not required\*
- Drive units with 500 V and 690 V rated line supply voltage can be connected to non-grounded line supplies (IT line supplies)
- ATEX-certified motors for hazardous zones\*

\*only for DYNAVERT T

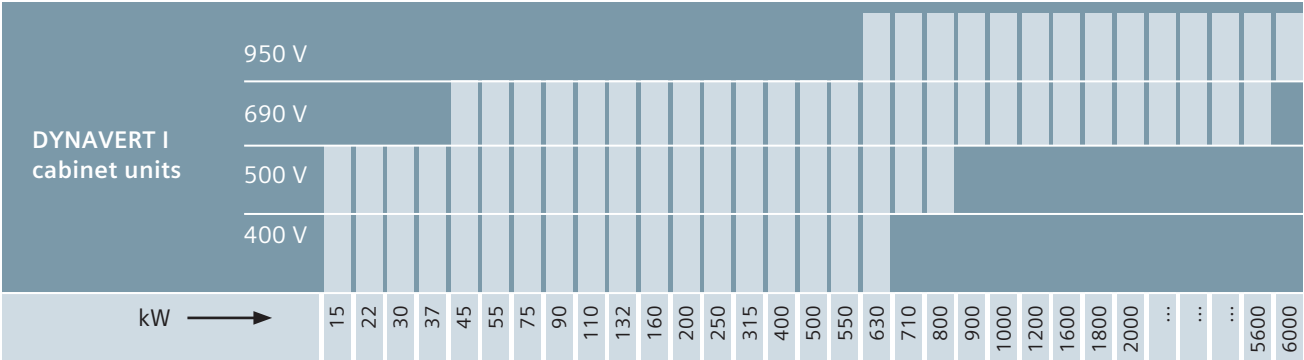


# Loher DYNAVERT – compact and cabinet units

Power ranges, DYNAVERT T



Power ranges, DYNAVERT I



Other power ranges / voltages  
on request





# Loher DYNAVERT

Compact and complete from 2.2 kW to 6,600 kW

## Supplementary equipment

- Radio interference suppression.  
The line filter according to DIN EN 61800-3, category C2 (compact devices) and C3 (cabinet devices) respectively allows the use in industrial and public (only C2) line supplies. For higher demands are filters of category C1 available.
- Harmonics fed back into the line supply  
The integrated line reactor reduces the line-side harmonics. For higher demands are Line Harmonics Filter or Active Front End optionally available.
- Long motor cables  
The dv/dt output filter for DYNAVERT T permits long motor cables to be used. Due to the inherent system characteristics – for DYNAVERT I – almost unlimited motor cable lengths can be used. This provides a high degree of flexibility when designing plants and equipment – especially for drives located in hazardous Zones 1 and 2.
- The filters allow overvoltage limit values to be maintained for the motor insulation as well as air and creepage distances without requiring any additional measures.
- Shutdown concept (option)  
The ATEX-certified shutdown concept of the DYNAVERT T drive inverter permits the drive system to be shut down without requiring a main contactor. This also applies when operating motors in hazardous Zone 1. This provides extensive cost-saving potential on the plant side.
- Dual processor technology  
The dual processor technology means that there is sufficient computational performance to optimally harmonize the pulse pattern. This reduces the motor noise and lowers drive inverter and motor losses.
- Insulation monitoring  
The 500 V and 690 V drive units have insulation monitoring for non-grounded line supplies. This insulation monitoring reliably protects the drive inverter, cabling and the motor when insulation faults occur. The 400 V drive units are equipped with a ground fault monitoring with the same functionality for grounded line supplies.

# Loher DYNAVERT

Highly versatile through distributed intelligence in the drive inverter

The control electronics – that have been completely new-designed – use dual processor technology and cover a wide range of applications. With the appropriate menu setting, DYNAVERT T can control both asynchronous as well as synchronous motors.

- Terminal strip in compliance with NAMUR Recommendation NE37, with
  - 4 freely parameterizable digital relay outputs
  - parameterizable group fault contact
  - 12 freely parameterizable digital inputs, 2 of which can be used either as PTC thermistor inputs or pulse inputs
  - 2 freely parameterizable analog inputs (0 –10 V, 0 –20 mA, 4 –20 mA or PTC), one of which can be used as an input for a temperature sensor

A field-orientated controller is also available for DYNAVERT T to address applications that demand a high dynamic performance.

- 2 freely parameterizable analog outputs (0 –10 V, 0 –20 mA, 4 –20 mA) with automatic change-over between current and voltage output

A field-orientated controller is also available for DYNAVERT T to address applications that demand a high dynamic performance.

- Peripheral board 1...4
- HTL encoder
- RS485 for an external operator panel
- RS232 for PC
- SIN-COS tachometer
- Technology board
- Relay
  - Protective separation according to VDE 0106/EN50178
- Optocoupler
  - Protective separation according to VDE 0106/EN50178
- Bus boards for Profibus-DP-V1, Profinet\*, Modbus TCP, Modbus RTU, Ethernet\*, Interbus-S\*, CANopen\*, DeviceNet\*, ControlNet\*

\* being prepared

	Peripheral board 1	Peripheral board 2	Peripheral board 3	Peripheral board 4
2 PTC thermistor inputs for ATEX-certified (only DYNAVERT T) motor temperature monitoring for motors located in hazardous zones (alarm/trip)		•		•
One "safe standstill" digital input acc. to ISO 13849-1, Cat. 3, PL d or SIL 2 acc. to IEC 61508			•	•
9 digital inputs (DI)			•	•
3 relay outputs (DO)			•	•
3 relay outputs (DO)	•	•	•	•
24 V, 300 mA power supply unit			•	•

# Loher DYNAVERT – the advantages at a glance

All DYNAVERT drive units are operated in the same way. This not only involves the compact units from 2.2 kW to 200 kW, but also the cabinet units up to 6,600 kW.

Operator control with multi-language plain text display and membrane keypad is both intuitive and extremely straightforward. Setpoints and parameters can be easily and transparently set using the menu structure.

## Advantages

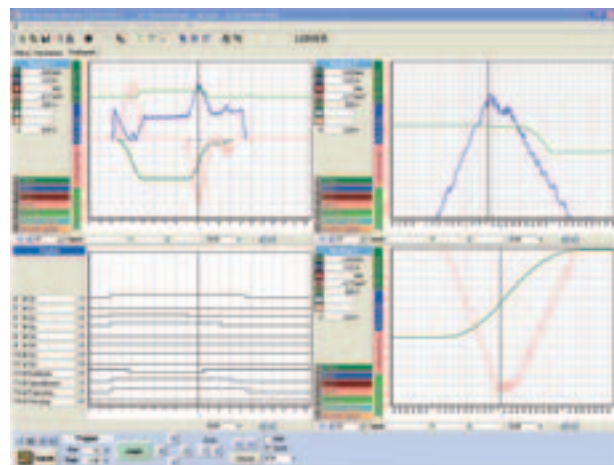
- User-friendly operator control using a menu-prompted plain text display
- Standard operator control across the complete product series
- Communications via terminal strip, serial interfaces, Profibus DP-V1, Modbus RTU or Modbus TCP

The transparently structured IMS\* PC operator program for communications between the PC and drive inverter via USB, RS232, RS485 or Profibus DP-V1 include the following functions:

- Prompted commissioning and operator control
- Online/offline Parametrierung
- Oscilloscope function
- It is possible to toggle between parameter and terminal strip view
- Function and message generators
- It is possible to toggle between various languages
- Extensive conversion and comparison functions
- Comments can be entered for all function terminals and messages
- Upload and download
- RS485 bus system with up to 253 drive inverters connected to a PC

- ASCII import of all parameters to automatically generate parameter sets
- Learning expert system
- Fault message and diagnostics evaluation

\* Can be downloaded at no charge under [www.loher.com](http://www.loher.com)



# Services and Features

## Explosion protection\*

- ATEX-certified for motors located in hazardous zones
- A main contactor is not required

## Safe Torque Off

- The Safe Torque Off function prevents unexpected starting in compliance with EN60204-1, realised according to ISO 13849-1 cat. 3, PL d and SIL 2 acc. to IEC 61508 respectively

## Power unit

- This corresponds to the EMC Directives (EN61800-3 environment 1 and 2) as a result of the line filter integrated as standard
- Low harmonics fed back into the line supply as a result of the integrated line reactor
- Output filter to permit longer motor cables for DYNAVERT T – or inherent to the system – almost unlimited motor cable lengths for DYNAVERT I
- Insulation monitoring for IT line supplies for 500/690 V drive units as well as ground fault monitoring for TN and TT line supplies integrated in the 400 V drive units
- Wide supply voltage range
- Low motor noise and low drive inverter and motor losses as a result of the optimized pulse pattern\*
- Normal fuses can be used for protection (gL characteristic)
- Optional with Line Harmonics Filter or Active Front End

## Control section

- High level of personnel and plant protection through protective separation between the analog and digital control peripheral and the power unit according to VDE 0106/EN50178

## Operator control and setting

- Transparent operator control and setting using a menu-prompted 4-line plain text display with membrane keypad at the drive inverter – or up to 1,000 m away in the main control room via RS485
- Extensive functions using the Windows-based PC operator control program

## Communication

- Communication via a conventional terminal strip with freely-programmable digital and analog inputs/outputs, with
  - parameterizable logic elements
  - parameterizable limit value signals
  - parameterizable timers
  - parameterizable logic elements
  - parameterizable damping elements
  - parameterizable drive inverter behavior when inputs/outputs respond
- Communication and parameterization via
  - PC using IMS (Inverter Management Software) via USB
  - external operator panel via RS485
  - bus systems such as Profibus DP-V1, Modbus RTU or Modbus TCP

## Drive behavior for DYNAVERT T

- Synchronous and asynchronous motors can be controlled
- Two closed-loop control types for induction motors:
  - field-oriented control for applications demanding a high dynamic performance
  - space-vector control for standard applications (without feedback)
- Optimum braking without supplementary equipment using super-saturation control

## The following generally apply

- Automatic slip compensation
- Stall protection using current limiting control
- Flying restart circuit to connect to a rotating motor
- Automatic adaptation of the overload times
- Parameterizable DC braking for precise braking down to standstill
- Closed-loop torque control

\*only for DYNAVERT T

# DYNAVERT T – versions and design

## Housing design for compact units

- Rugged aluminium housing
- Degree of protection IP20, optionally IP21
- Generous terminal space for connecting cables in compliance with EMC Directives
- Complete shock hazard protection
- Exchange of the fans during operation

## Cabinet systems

Compact drive units are complemented by a Rittal TS8 cabinet and control accessories to form cabinet systems.

### Advantages of the cabinet system

- Cost-optimized customized design using a modular system
- The complete system can be simply and quickly assembled by integrating various, industry sector-specific control packages
- High degree of flexibility and short delivery times by using CAE/CAM systems
- Can be integrated into any control concept using customer-specific versions
- Can be adapted to many bus systems
- Space-optimized overall concept
- Rittal TS8 cabinet system – guaranteeing worldwide acceptance
- Optimum space utilization through various cabinet sizes
- Can be simply adapted to the widest range of climatic conditions
- Simple to service and maintain as all of the components can be accessed from the front

## Number of compact units in the particular cabinet system

\*without additional control or with accessory kit N

Compact unit width	Compact system width			
	600 mm	800 mm	1.000 mm	1.200 mm
165 mm 2.2 kW – 11 kW (400 V) 2.2 kW – 15 kW (500 V)	3 / 6*	4 / 8*	5 / 10*	6 / 12*
225 mm 15 kW – 30 kW (400 V) 22 kW – 37 kW (500 V) 7,5 kW - 22 kW (690V)	2 / 4*	3 / 6*	4 / 8*	4 / 8*
350 mm 37 kW – 110 kW (400 V) 45 kW – 132 kW (500 V) 30 kW – 132 kW (690 V)	1	2	2	3
500 mm 132 kW – 160 kW (400 V) 160 kW – 200 kW (500 V) 160 kW – 200 kW (690 V)	1	1	1	2



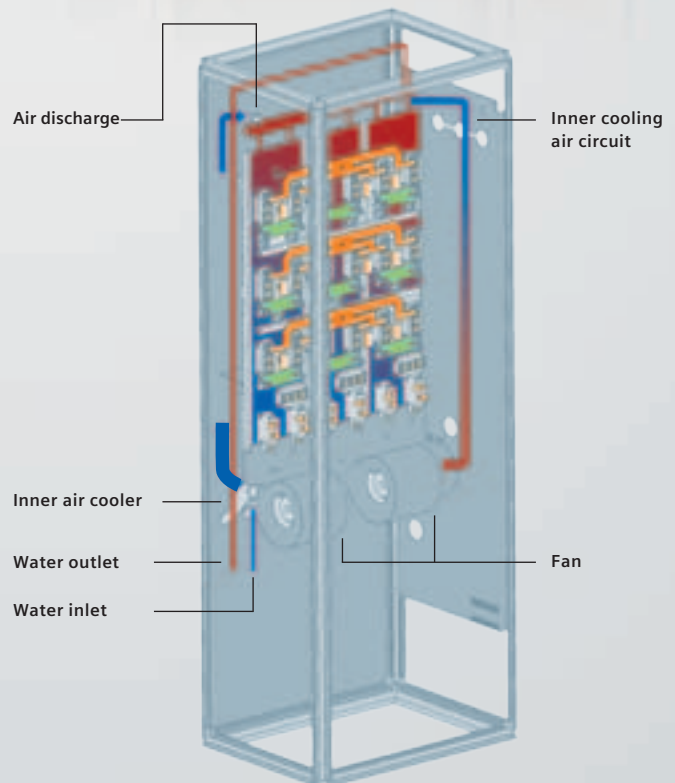


#### Cabinet unit design

- Rittal TS8 electrical cabinet
- IP21 degree of protection – higher degree of protection optionally available
- Integrated cable clamping bar and cable shield rail
- Generous terminal space for connecting cables in-line with EMC Directives
- Complete shock hazard protection

#### Cabinet units with direct water cooling

- No thermal load in electrical rooms
- Can be used almost everywhere – as a result of the IP55 degree of protection (display, IP54) even in environments that are damaging to machinery
- Reliable – even at high ambient temperatures up to 55°C (131F) – through the optimum cooling system
- Lower noise as there is no forced ventilation
- Improved efficiency
- The cooling system operates with almost any water quality thanks to the stainless steel components used in the water circuit





# DYNAVERT T

Standard accessory kits from 2.2 kW up to 6,600 kW

## Accessory kit Q

- Main switch as load disconnecter with door handle
- Changeover switch for local/remote operation - mounted in the cabinet door
- Peripheral board 2, including ATEX-certified PTC input

## Accessory kit N

- Terminal block according to NAMUR Empfehlung NE37
- Peripheral board 4, incl. forced line disconnection, implemented in compliance with ISO 13849-1 up to Cat. 3 PL d or SIL 2 acc. to IEC 61508 and ATEX-certified PTC input
- Changeover switch for test-normal operation – mounted in the cabinet

## Accessory kit S

- Main switch as load disconnecter with door handle
- Main contactor to disconnect from the line supply in a safety-relevant fashion
- Emergency Off safety relay according to ISO 13849-1 or SIL1\* acc. to IEC 61508
- Emergency Off button and Emergency Off reset in the cabinet door
- Changeover switch for local/remote operation - mounted in the cabinet door
- Peripheral board 2, including ATEX-certified PTC input

## Communication accessories i.e. for remote maintenance

- various Ethernet coupler or
- modem

## Accessories to comply with IEEE519

- Line Harmonics Filter
- Active Front End

## Accessory kit D

- Main switch as load disconnecter with door handle
- Possibility of disconnecting the inverter from the line supply at the input side
- Inverter contactor at the output side
- Bypass contactor
- Motor monitoring also in bypass operation
- Changeover switch for local/remote operation - mounted in the cabinet door
- Manual or automatic bypass changeover



\* SIL2/3 on request

# General technical data

## DYNAVERT T

Line supply voltage +10%, -15% +40%, optional, on request	2T...-..400-002...160 2T...-..401-200...630 2T...-..50-... 2T...-..69-...	3~AC 230 ... 500 V (for TN/TT line supplies) 3~AC 230 ... 415 V (for TN/TT line supplies) 3~AC 230 ... 500 V (for IT line supplies) 3~AC 400 ... 690 V (for TN/TT/IT line supplies)
Line supply cos phi (1)		approx. 0.99
Line supply frequency		47 ... 63 Hz
Maximum output frequency		120 ... 250 Hz***
Output voltage (basic fundamental)		3 x 0 ... line supply voltage
Clock frequency		1.5 ... 10 kHz, can be parameterized***
Typical motor cable length (detailed information in the manual)	2T...-..400-... (compact) 2T...-..401-... (cabinet) 2T...-..50-... 2T...-..69-...	200 m standard* 300 m standard 300 m standard 100 m standard**
Degree of protection	Compact drive units: Cabinet units/systems:	IP20 IP21, higher degrees of protection are optionally available
* 350 m filter can be optionally integrated into the drive unit ** 300 m filter can be optionally integrated into the drive unit with larger dimensions *** Setting range depends on the unit power rating		



# General technical data – compact units

DYNAVERT T 400 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T2A07400-002	6SE0102-1AA15-5AA5	3.7	5.5	6.5	2.2	410	x	165	x	320
2T2A07400-003	6SE0102-1AA17-0AA5	4.6	7	8	3	410	x	165	x	320
2T2A07400-004	6SE0102-1AA21-0AA5	6.4	9.5	11	4	410	x	165	x	320
2T2A07400-005	6SE0102-1AA21-3AA5	8.6	13	15	5.5	410	x	165	x	320
2T2A07400-007	6SE0102-1AA21-8AA5	12.1	18	20	7.5	510	x	165	x	320
2T2A07400-011	6SE0102-1AA22-5AA5	16	24.5	27	11	510	x	165	x	320
2T2A07400-015	6SE0102-1AA23-7AA5	24.4	37	44	15	610	x	225	x	320
2T2A07400-022	6SE0102-1AA24-8AA5	32	48	54	22	610	x	225	x	320
2T2A07400-030	6SE0102-1AA25-8AA5	39.2	58	63	30	610	x	225	x	320
2T2A07400-037	6SE0102-1AA27-8AA5	52.3	78	88	37	710	x	350	x	320
2T2A07400-045	6SE0102-1AA28-8AA5	57.5	88	110	45	710	x	350	x	320
2T2A07400-055	6SE0102-1AA31-1AA5	74.8	110	126	55	710	x	350	x	320
2T2A07400-075	6SE0102-1AA31-5AA5	98.4	145	165	75	1060	x	350	x	320
2T2A07400-090	6SE0102-1AA31-8AA5	119	175	204	90	1060	x	350	x	320
2T2A07400-110	6SE0102-1AA32-1AA5	136	205	240	110	1060	x	350	x	320
2T2A07400-132	6SE0102-1AA32-5AA5	161	245	300	132	1060	x	500	x	320
2T2A07400-160	6SE0102-1AA33-0AA5	197	295	360	160	1060	x	500	x	320
DYNAVERT T 500 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T2A07500-002	6SE0102-1AB14-5AA5	3.8	4.5	5	2.2	410	x	165	x	320
2T2A07500-003	6SE0102-1AB15-5AA5	4.5	5.5	6.5	3	410	x	165	x	320
2T2A07500-004	6SE0102-1AB17-0AA5	5.8	7	8	4	410	x	165	x	320
2T2A07500-005	6SE0102-1AB21-0AA5	8.2	9.5	11	5.5	410	x	165	x	320
2T2A07500-007	6SE0102-1AB21-3AA5	10.9	13	15	7.5	410	x	165	x	320
2T2A07500-011	6SE0102-1AB21-8AA5	15.2	18	20	11	510	x	165	x	320
2T2A07500-015	6SE0102-1AB22-5AA5	20.4	24.5	27	15	510	x	165	x	320
2T2A07500-022	6SE0102-1AB23-7AA5	31.3	37	44	22	610	x	225	x	320
2T2A07500-030	6SE0102-1AB24-8AA5	40.5	48	54	30	610	x	225	x	320
2T2A07500-037	6SE0102-1AB25-8AA5	49.6	58	63	37	610	x	225	x	320
2T2A07500-045	6SE0102-1AB27-8AA5	64.2	78	88	45	710	x	350	x	320
2T2A07500-055	6SE0102-1AB28-8AA5	76.1	88	110	55	710	x	350	x	320
2T2A07500-075	6SE0102-1AB31-1AA5	94.4	110	126	75	710	x	350	x	320
2T2A07500-090	6SE0102-1AB31-5AA5	124	145	165	90	1060	x	350	x	320
2T2A07500-110	6SE0102-1AB31-8AA5	147	175	204	110	1060	x	350	x	320
2T2A07500-132	6SE0102-1AB32-1AA5	171	205	240	132	1060	x	350	x	320
2T2A07500-160	6SE0102-1AB32-5AA5	206	245	300	160	1060	x	500	x	320
2T2A07500-200	6SE0102-1AB33-0AA5	248	295	360	200	1060	x	500	x	320
DYNAVERT T 690 V 6-pulse			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T2A07690-007	6SE0102-1AC21-0AA5	11.7	9.5	11	7.5	610	x	225	x	320
2T2A07690-011	6SE0102-1AC21-3AA5	15.3	13	16	11	610	x	225	x	320
2T2A07690-015	6SE0102-1AC21-8AA5	22.1	18.5	22	15	610	x	225	x	320
2T2A07690-022	6SE0102-1AC22-7AA5	32.4	27.1	33	22	610	x	225	x	320
2T2A07690-030	6SE0102-1AC23-4AA5	45.5	36	45	30	710	x	350	x	320
2T2A07690-037	6SE0102-1AC24-2AA5	52.6	43	55	37	710	x	350	x	320
2T2A07690-045	6SE0102-1AC25-0AA5	60.9	50	65	45	710	x	350	x	320
2T2A07690-055	6SE0102-1AC25-8AA5	74	60	75	55	710	x	350	x	320
2T2A07690-075	6SE0102-1AC28-0AA5	97.9	80	90	75	710	x	350	x	320
2T2A07690-090	6SE0102-1AC31-0AA5	123	95	120	90	1060	x	350	x	320
2T2A07690-110	6SE0102-1AC31-2AA5	143	120	140	110	1060	x	350	x	320
2T2A07690-132	6SE0102-1AC31-4AA5	184	150	175	132	1060	x	350	x	320
2T2A07690-160	6SE0102-1AC31-7AA5	216	175	210	160	1060	x	500	x	320
2T2A07690-200	6SE0102-1AC32-1AA5	266	210	255	200	1060	x	500	x	320

# General technical data – cabinet units

## 400 V und 500 V

DYNAVERT T 400 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB) air cooling/ water cooling	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T3A-87401-200 2T3A-77401-200	6SE0183-1BA34-2AA6/ 6SE0176-1BA34-2AA6	249	380	470	200	2002 2202	x	806	x	605
2T3A-87401-250 2T3A-77401-250	6SE0183-1BA34-7AA6/ 6SE0176-1BA34-7AA6	300	460	560	250	2002 2202	x	806	x	605
2T3A-87401-315 2T3A-77401-315	6SE0183-1BA35-8AA6/ 6SE0176-1BA35-8AA6	403	630	700	315	2002 2202	x	806	x	605
2T3A-87401-400 2T3A-77401-400	6SE0183-1BA37-0AA6/ 6SE0176-1BA37-0AA6	476	740	950	400	2002 2202	x	1206	x	605
2T3A-87401-500 2T3A-77401-500	6SE0183-1BA38-7AA6/ 6SE0176-1BA38-7AA6	602	910	1110	500	2002 2202	x	1606 1806	x	605
2T3A-87401-560 2T3A-77401-560	6SE0183-1BA41-0AA6/ 6SE0176-1BA41-0AA6	675	1020	1230	560	2002 2202	x	1606 1806	x	605
2T3A-87401-630 2T3A-77401-630	6SE0183-1BA41-1AA6/ 6SE0176-1BA41-1AA6	761	1140	1370	630	2002 2202	x	1606 1806	x	605
DYNAVERT T 500 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB) air cooling/ water cooling	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T3A-87501-250 2T3A-77501-250	6SE0183-1BB34-2AA6/ 6SE0176-1BB34-2AA6	303	370	450	250	2002 2202	x	806	x	605
2T3A-87501-315 2T3A-77501-315	6SE0183-1BB34-6AA6/ 6SE0176-1BB34-6AA6	378	460	560	315	2002 2202	x	806	x	605
2T3A-87501-400 2T3A-77501-400	6SE0183-1BB36-0AA6/ 6SE0176-1BB36-0AA6	514	640	700	400	2002 2202	x	806	x	605
2T3A-87501-500 2T3A-77501-500	6SE0183-1BB37-0AA6/ 6SE0176-1BB37-0AA6	606	730	950	500	2002 2202	x	1206	x	605
2T3A-87501-560 2T3A-77501-560	6SE0183-1BB38-2AA6/ 6SE0176-1BB38-2AA6	678	820	980	560	2002 2202	x	1606 1806	x	605
2T3A-87501-630 2T3A-77501-630	6SE0183-1BB38-8AA6/ 6SE0176-1BB38-8AA6	767	920	1100	630	2002 2202	x	1606 1806	x	605
2T3A-87501-710 2T3A-77501-710	6SE0183-1BB41-0AA6/ 6SE0176-1BB41-0AA6	848	1030	1230	710	2002 2202	x	1606 1806	x	605
2T3A-87501-800 2T6A-77501-800	6SE0183-1BB41-1AA6/ 6SE0176-1BB41-1AA6	944	1150	1380	800	2002 2202	x	1606 1806	x	605
<sup>1</sup> Inverters with higher pulse numbers, inverters with higher rating or Active Front End on request										
* The overload time is automatically controlled (thermal inverter model) – however, as a minimum 60 s at an ambient temperature of 40°C.										
** Typical mechanical shaft output with conventional 2- to 6-pole standard motors.										
*** Height without mounting lugs										



DYNAVERT T 690 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB) air cooling/ water cooling	Connection power [kVA]	Continuous current [A]	Short-time current* [A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T3A-87691-250 2T6A-77691-250	6SE0183-1BC33-2AA6/ 6SE0176-1BC33-2AA6	312	270	320	250	2002 2202	x	806	x	605
2T3A-87691-315 2T6A-77691-315	6SE0183-1BC33-6AA6/ 6SE0176-1BC33-6AA6	391	340	410	315	2002 2202	x	806	x	605
2T3A-87691-400 2T6A-77691-400	6SE0183-1BC34-2AA6/ 6SE0176-1BC34-2AA6	502	440	510	400	2002 2202	x	806	x	605
2T3A-87691-500 2T6A-77691-500	6SE0183-1BC35-2AA6/ 6SE0176-1BC35-2AA6	608	530	640	500	2002 2202	x	1206	x	605
2T3A-87691-560 2T6A-77691-560	6SE0183-1BC35-7AA6/ 6SE0176-1BC35-7AA6	676	590	710	560	2002 2202	x	1606 1806	x	605
2T3A-87691-630 2T6A-77691-630	6SE0183-1BC36-4AA6/ 6SE0176-1BC36-4AA6	762	660	800	630	2002 2202	x	1606 1806	x	605
2T3A-87691-710 2T6A-77691-710	6SE0183-1BC37-1AA6/ 6SE0176-1BC37-1AA6	856	750	890	710	2002 2202	x	1606 1806	x	605
2T3A-87691-800 2T6A-77691-800	6SE0183-1BC37-7AA6/ 6SE0176-1BC37-7AA6	956	840	980	800	2002 2202	x	1606 1806	x	605
2T3A-87691-909 2T6A-77691-909	6SE0183-1BC41-0AA6/ 6SE0176-1BC41-0AA6	1080	950	1060	900	2002 2202	x	1606 1806	x	605
2T3A-87691-910 2T6A-77691-910	6SE0183-1BC41-1AA6/ 6SE0176-1BC41-1AA6	1168	1040	1130	1000	2002 2202	x	1606 1806	x	605
2T3A-87692-912 2T6A-77692-912	6SE0183-1CC41-2AA6/ 6SE0176-1CC41-2AA6	1410	1260	1520	1210	2002 2202	x	3206 3606	x	605
2T3A-87692-913 2T6A-77692-913	6SE0183-1CC41-3AA6/ 6SE0176-1CC41-3AA6	1603	1430	1700	1380	2002 2202	x	3206 3606	x	605
2T3A-87692-915 2T6A-77692-915	6SE0183-1CC41-5AA6/ 6SE0176-1CC41-5AA6	1795	1600	1870	1540	2002 2202	x	3206 3606	x	605
2T3A-87692-917 2T6A-77692-917	6SE0183-1CC41-7AA6/ 6SE0176-1CC41-7AA6	2030	1810	2020	1750	2002 2202	x	3206 3606	x	605
2T3A-87692-919 2T6A-77692-919	6SE0183-1CC42-0AA6/ 6SE0176-1CC42-0AA6	2223	1980	2150	1910	2002 2202	x	3206 3606	x	605

<sup>1</sup> Inverters with higher pulse numbers, inverters with higher rating or Active Front End on request

\* The overload time is automatically controlled (thermal inverter model) - however, as a minimum 60s at an ambient temperature of 40°C.

\*\* Typical mechanical shaft output with conventional 2- to 6-pole standard motors.

\*\*\* Height without mounting lugs.

# General technical data – cabinet units

## 690 V

DYNAVERT T 690 V 12-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB) air cooling/ water cooling	Connection power [kVA]	Continuous current [A]	Short-time current* [A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2T3F-87691-500 2T6F-77691-500	6SE0183-2BC35-2AA6/ 6SE0176-2BC35-2AA6	600	530	640	500	2002 2202	x	1406	x	605
2T3F-87691-560 2T6F-77691-560	6SE0183-2BC35-7AA6/ 6SE0176-2BC35-7AA6	667	590	710	560	2002 2202	x	1806 2006	x	605
2T3F-87691-630 2T6F-77691-630	6SE0183-2BC36-4AA6/ 6SE0176-2BC36-4AA6	753	660	800	630	2002 2202	x	1806 2006	x	605
2T3F-87691-710 2T6F-77691-710	6SE0183-2BC37-1AA6/ 6SE0176-2BC37-1AA6	848	750	890	710	2002 2202	x	1806 2006	x	605
2T3F-87691-800 2T6F-77691-800	6SE0183-2BC37-7AA6/ 6SE0176-2BC37-7AA6	949	840	980	800	2002 2202	x	1806 2006	x	605
2T3F-87691-909 2T6F-77691-909	6SE0183-2BC41-0AA6/ 6SE0176-2BC41-0AA6	1076	950	1060	900	2002 2202	x	1806 2006	x	605
2T3F-87691-910 2T6F-77691-910	6SE0183-2BC41-1AA6/ 6SE0176-2BC41-1AA6	1164	1040	1130	1000	2002 2202	x	1806 2006	x	605
2T3F-87692-912 2T6F-77692-912	6SE0183-2CC41-2AA6/ 6SE0176-2CC41-2AA6	1405	1260	1520	1210	2002 2202	x	3206 3606	x	605
2T3F-87692-913 2T6F-77692-913	6SE0183-2CC41-3AA6/ 6SE0176-2CC41-3AA6	1597	1430	1700	1380	2002 2202	x	3206 3606	x	605
2T3F-87692-915 2T6F-77692-915	6SE0183-2CC41-5AA6/ 6SE0176-2CC41-5AA6	1781	1600	1870	1540	2002 2202	x	3206 3606	x	605
2T3F-87692-917 2T6F-77692-917	6SE0183-2CC41-7AA6/ 6SE0176-2CC41-7AA6	2010	1810	2020	1750	2002 2202	x	3206 3606	x	605
2T3F-87692-919 2T6F-77692-919	6SE0183-2CC42-0AA6/ 6SE0176-2DC42-0AA6	2199	1980	2150	1910	2002 2202	x	3206 3606	x	605
2T3F-87693-920 2T6F-77693-920	6SE0183-2DC42-2AA6/ 6SE0176-2DC42-2AA6	2369	2140	2540	2090	2002 2202	x	4806 5206	x	605
2T3F-87693-923 2T6F-77693-923	6SE0183-2DC42-4AA6/ 6SE0176-2DC42-4AA6	2648	2400	2800	2350	2002 2202	x	4806 5206	x	605
2T3F-87693-926 2T6F-77693-926	6SE0183-2DC42-7AA6/ 6SE0176-2DC42-7AA6	2983	2710	3030	2650	2002 2202	x	4806 5206	x	605
2T3F-87693-929 2T6F-77693-929	6SE0183-2DC43-0AA6/ 6SE0176-2DC43-0AA6	3272	2970	3230	2910	2002 2202	x	4806 5206	x	605
2T3F-87694-931 2T6F-77694-931	6SE0183-2EC43-2AA6/ 6SE0176-2EC43-2AA6	3516	3200	3730	3180	2002 2202	x	6406 7006	x	605
2T3F-87694-935 2T6F-77694-935	6SE0183-2EC43-6AA6/ 6SE0176-2EC43-6AA6	956	3610	4030	3590	2002 2202	x	6406 7006	x	605
2T3F-87694-939 2T6F-77694-939	6SE0183-2EC44-0AA6/ 6SE0176-2EC44-0AA6	4336	3960	4300	3930	2002 2202	x	6406 7006	x	605

<sup>1</sup> Inverters with higher pulse numbers, inverters with higher rating or Active Front End on request

\* The overload time is automatically controlled (thermal inverter model) - however, as a minimum 60s at an ambient temperature of 40°C.

\*\* Typical mechanical shaft output with conventional 2- to 6-pole standard motors.

\*\*\* Height without mounting lugs.

# DYNAVERT I

## 6-, 12- and 24-pulse versions

DYNAVERT® I drive units are current-source DC link inverters that are used to control induction motors. They have a fully controlled B6 bridge circuit on the line side and a B6 inverter circuit on the output side, which utilizes the principle of interphase commutation; this distributes the DC link current from the DC link reactors with a square waveform with frequency  $f$  to the motor winding. As a consequence, the motor cable length is almost unlimited.

The power flows from the line supply to the motor for a motoring load. For regenerative operation, the rectifier on the line-side feeds the regenerated energy back into the line supply. This means that from the inherent principle, 4-quadrant operation is possible without requiring any additional measures. 12- and 24-pulse versions further reduce the harmonics fed back into the line supply.

Customer-specific accessories are available on request.

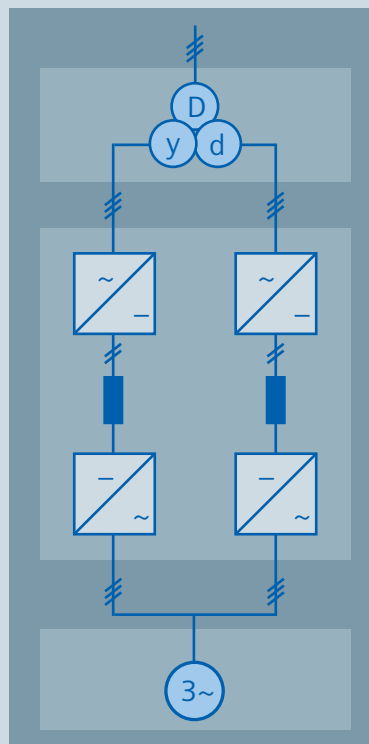
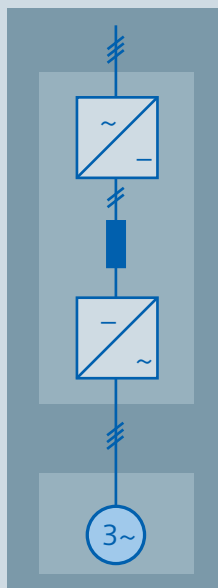
### Drive inverter in a 12-pulse version

DYNAVERT I drive units are available in a 12-pulse version to reduce the harmonics fed back to the line supply. In this case, for instance, the harmonics with harmonic Nos. 5 and 7 almost completely disappear. A three-winding transformer with windings offset through  $30^\circ$  is required to feed the drive inverter (this is generally included in the scope of supply). Depending on the actual version, the units can also be redundantly configured (partial load operation using just one of the system halves).

### 12/6-pulse version to supply 3-phase motors

The 2J\_F- ... drive units are only available equipped with a 12-pulse line side converter. This means that they are suitable to feed standard 3-phase motors. They comprise two 6-pulse standard units.

### 6/6-pulse version to feed 3-phase motors





### 12/12-pulse version to supply 6-phase motors

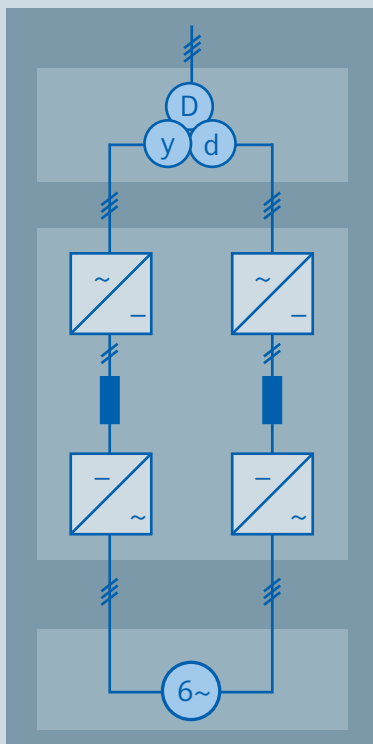
The 2J\_D-... drive units are suitable for controlling special 6-phase motors. This is the reason that they are mainly used in the upper power range.

Besides to low line harmonics, additional advantages include smoothing motor operation and low motor losses. They comprise two 6-pulse standard units.

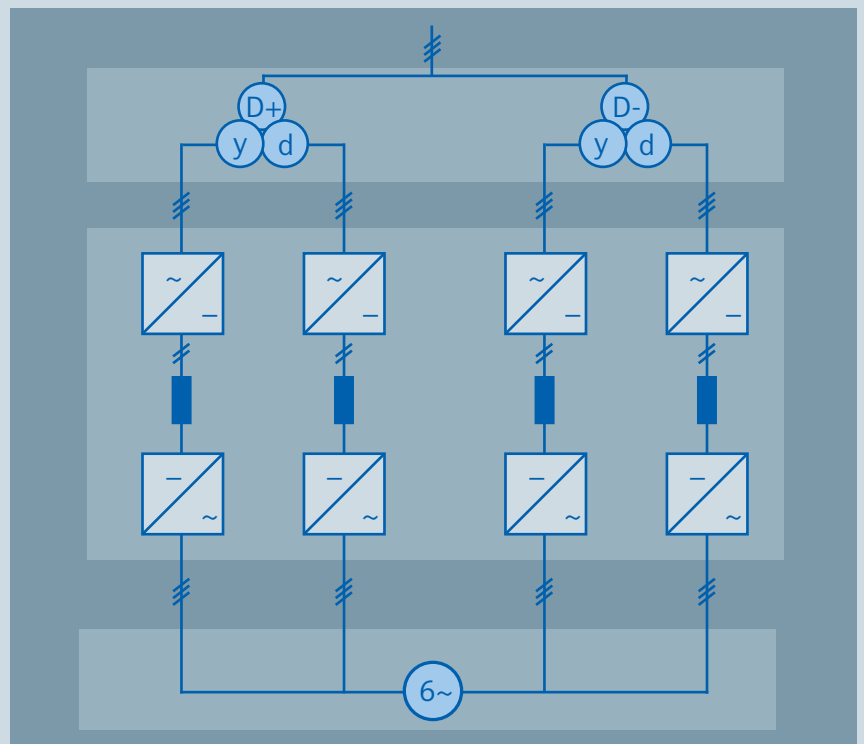
### Drive inverter in a 24-pulse version

Contrary to the 12-pulse circuits, for this version, the 11th and 13th harmonics of the line current disappear.

- gi line supply = 99.9%
- Highest level of line compatibility
- Standards are complied with – even under difficult line supply characteristics and even when braking
- Partial system redundancy possible, also for the inverter transformers
- Power ratings up to 6 MW
- 690 V or 950 V supply voltage (other voltages, e.g. 850 V or 1,100 V, are available on request)



### 24/12-pulse version to control 6-phase motors





2 systems (master, slave) of a 24-pulse DYNVERT I

## General technical data DYNVERT I

Line supply voltage +10%, -15% +40%, optional, on request	2J...-6400-... 2J...-6440-... 2J...-6500-... 2J...-6690-... 2J...-6950-...	3~AC 400 V, 415 V 3~AC 440 V, 460 V 3~AC 500 V 3~AC 690 V 3~AC 850 ... 1,140 V
Line supply cos phi (1)		Depends on the motor
Line frequency		50 Hz. optional 60 Hz
Maximum output frequency		60 Hz, higher on request
Output voltage (basic fundamental)		3 x 0 ... line supply voltage
Motor cable length (shielded or non-shielded)		500 m, longer on request
Degree of protection		IP21, higher degrees of protection optionally available

# General technical data

## 400 V and 500 V

DYNAVERT I 400 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3A-87401-015	6SE0383-1BA23-8AA6	26	38	42	15	2002	x	606	x	605
2J3A-87401-022	6SE0383-1BA25-0AA6	35	50	55	22	2002	x	606	x	605
2J3A-87401-030	6SE0383-1BA26-5AA6	45	65	72	30	2002	x	606	x	605
2J3A-87401-037	6SE0383-1BA28-0AA6	55	80	88	37	2002	x	606	x	605
2J3A-87401-045	6SE0383-1BA31-0AA6	66	95	105	45	2002	x	606	x	605
2J3A-87401-055	6SE0383-1BA31-1AA6	80	115	127	55	2002	x	606	x	605
2J3A-87401-075	6SE0383-1BA31-5AA6	105	150	165	75	2002	x	606	x	605
2J3A-87401-090	6SE0383-1BA31-8AA6	125	180	198	90	2202	x	606	x	605
2J3A-87401-110	6SE0383-1BA32-2AA6	155	225	248	110	2002	x	1206	x	605
2J3A-87401-132	6SE0383-1BA32-6AA6	185	265	292	132	2002	x	1206	x	605
2J3A-87401-160	6SE0383-1BA33-0AA6	210	305	336	160	2002	x	1206	x	605
2J3A-87401-200	6SE0383-1BA33-7AA6	255	370	407	200	2002	x	1206	x	605
2J3A-87401-250	6SE0383-1BA34-8AA6	335	480	530	250	2002	x	1406	x	605
2J3A-87401-315	6SE0383-1BA36-0AA6	415	600	660	315	2002	x	1406	x	605
2J3A-87401-350	6SE0383-1BA36-6AA6	455	660	725	350	2002	x	1406	x	605
2J3A-87401-400	6SE0383-1BA37-2AA6	500	725	800	400	2002	x	2406	x	605
2J3A-87401-500	6SE0383-1BA38-8AA6	665	960	1055	500	2002	x	2406	x	605
2J3A-87401-550	6SE0383-1BA41-0AA6	720	1040	1145	550	2002	x	2406	x	605
2J3A-87401-630	6SE0383-1BA41-1AA6	795	1150	1265	630	2002	x	2406	x	605

DYNAVERT I 500 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3A-87501-015	6SE0383-1BB22-8AA6	25	29	32	15	2002	x	606	x	605
2J3A-87501-022	6SE0383-1BB24-0AA6	35	40	44	22	2002	x	606	x	605
2J3A-87501-030	6SE0383-1BB25-0AA6	43	50	55	30	2002	x	606	x	605
2J3A-87501-037	6SE0383-1BB26-0AA6	52	60	66	37	2002	x	606	x	605
2J3A-87501-045	6SE0383-1BB27-5AA6	65	75	83	45	2002	x	606	x	605
2J3A-87501-055	6SE0383-1BB28-8AA6	78	90	99	55	2002	x	606	x	605
2J3A-87501-075	6SE0383-1BB31-2AA6	105	120	132	75	2002	x	606	x	605
2J3A-87501-090	6SE0383-1BB31-4AA6	125	145	160	90	2202	x	606	x	605
2J3A-87501-110	6SE0383-1BB31-8AA6	155	180	198	110	2002	x	606	x	605
2J3A-87501-132	6SE0383-1BB32-1AA6	185	215	237	132	2002	x	1206	x	605
2J3A-87501-160	6SE0383-1BB32-4AA6	210	240	264	160	2002	x	1206	x	605
2J3A-87501-200	6SE0383-1BB32-8AA6	255	295	325	200	2002	x	1206	x	605
2J3A-87501-250	6SE0383-1BB33-8AA6	330	380	418	250	2002	x	1206	x	605
2J3A-87501-315	6SE0383-1BB34-8AA6	415	480	530	315	2002	x	1406	x	605
2J3A-87501-350	6SE0383-1BB35-3AA6	460	530	585	350	2002	x	1406	x	605
2J3A-87501-400	6SE0383-1BB35-8AA6	500	580	640	400	2002	x	1406	x	605
2J3A-87501-500	6SE0383-1BB37-6AA6	660	760	835	500	2002	x	2406	x	605
2J3A-87501-550	6SE0383-1BB38-4AA6	725	840	925	550	2002	x	2406	x	605
2J3A-87501-630	6SE0383-1BB38-8AA6	800	925	1020	630	2002	x	2406	x	605
2J3A-87501-800	6SE0383-1BB41-2AA6	1040	1200	1320	800	2002	x	2406	x	605

\* The overload time is automatically controlled (thermal inverter model) – however, as a minimum 60 s at an ambient temperature of 40°C.

\*\* Typical mechanical shaft output with conventional 2- to 6-pole standard motors.

\*\*\* Height without mounting lugs

Other voltages on request

DYNAVERT I 690 V 6-pulse			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3A-87691-045	6SE0383-1BC25-5AA6	66	55	61	45	2002	x	606	x	605
2J3A-87691-055	6SE0383-1BC26-5AA6	78	65	72	55	2002	x	606	x	605
2J3A-87691-075	6SE0383-1BC28-8AA6	108	90	99	75	2002	x	606	x	605
2J3A-87691-090	6SE0383-1BC31-1AA6	130	110	121	90	2202	x	606	x	605
2J3A-87691-110	6SE0383-1BC31-3AA6	160	135	149	110	2202	x	606	x	605
2J3A-87691-132	6SE0383-1BC31-5AA6	185	155	171	132	2202	x	606	x	605
2J3A-87691-160	6SE0383-1BC31-7AA6	210	175	193	160	2002	x	1206	x	605
2J3A-87691-200	6SE0383-1BC32-1AA6	255	215	237	200	2002	x	1206	x	605
2J3A-87691-250	6SE0383-1BC32-7AA6	330	275	303	250	2002	x	1206	x	605
2J3A-87691-315	6SE0383-1BC33-4AA6	410	345	380	315	2002	x	1206	x	605
2J3A-87691-350	6SE0383-1BC34-0AA6	465	390	429	350	2002	x	1206	x	605
2J3A-87691-400	6SE0383-1BC34-2AA6	500	420	460	400	2002	x	1406	x	605
2J3A-87691-500	6SE0383-1BC35-5AA6	655	550	605	500	2002	x	1606	x	605
2J3A-87691-550	6SE0383-1BC36-0AA6	715	600	660	550	2002	x	1606	x	605
2J3A-87691-630	6SE0383-1BC36-7AA6	800	670	735	630	2002	x	2406	x	605
2J3A-87691-800	6SE0383-1BC38-7AA6	1040	870	955	800	2002	x	2406	x	605
2J3A-87691-909	6SE0383-1BC38-8AA6	1145	960	1055	900	2002	x	3206	x	605
2J3A-87691-910	6SE0383-1BC41-0AA6	1290	1080	1190	1000	2002	x	3206	x	605
2J3A-87691-911	6SE0383-1BC41-1AA6	1375	1150	1265	1100	2002	x	3206	x	605
2J3A-87691-912	6SE0383-1BC41-3AA6	1600	1340	1475	1200	2002	x	3206	x	605
2J3A-87691-914	6SE0383-1BC41-5AA6	1830	1530	1685	1400	2002	x	3206	x	605
DYNAVERT I 690 V 12/6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3F-87692-220	6SE0383-2CC32-7AA6	320	270	297	220	2002	x	1206	x	605
2J3F-87692-250	6SE0383-2CC33-1AA6	370	310	341	250	2002	x	1206	x	605
2J3F-87692-315	6SE0383-2CC33-5AA6	420	350	385	315	2002	x	2406	x	605
2J3F-87692-400	6SE0383-2CC34-3AA6	510	430	475	400	2002	x	2406	x	605
2J3F-87692-500	6SE0383-2CC35-5AA6	660	550	605	500	2002	x	2406	x	605
2J3F-87692-630	6SE0383-2CC37-0AA6	820	690	760	630	2002	x	2406	x	605
2J3F-87692-700	6SE0383-2CC37-8AA6	930	780	860	700	2002	x	2406	x	605
2J3F-87692-800	6SE0383-2CC38-4AA6	1000	840	925	800	2002	x	2806	x	605
2J3F-87692-910	6SE0383-2CC41-1AA6	1310	1100	1210	1000	2002	x	3206	x	605
2J3F-87692-911	6SE0383-2CC41-2AA6	1430	1200	1320	1100	2002	x	3206	x	605
2J3F-87692-912	6SE0383-2CC41-3AA6	1600	1340	1475	1200	2002	x	4806	x	605
2J3F-87692-916	6SE0383-2CC41-7AA6	2080	1740	1915	1600	2002	x	4806	x	605
2J3F-87692-918	6SE0383-2CC42-0AA6	2290	1920	2110	1800	2002	x	3206	x	1210
2J3F-87692-920	6SE0383-2CC42-1AA6	2580	2160	2375	2000	2002	x	3206	x	1210
2J3F-87692-922	6SE0383-2CC42-3AA6	2750	2300	2530	2200	2002	x	3206	x	1210
2J3F-87692-925	6SE0383-2CC42-6AA6	3200	2680	2950	2500	2002	x	3206	x	1210
2J3F-87692-928	6SE0383-2CC43-0AA6	3660	3060	3365	2800	2002	x	3206	x	1210
DYNAVERT I 690 V 12/12-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3D-87692-315	6SE0383-5CC31-7AA6	420	2*170	2*187	315	2002	x	2406	x	605
2J3D-87692-400	6SE0383-5CC32-0AA6	510	2*209	2*230	400	2002	x	2406	x	605
2J3D-87692-500	6SE0383-5CC32-6AA6	660	2*267	2*297	500	2002	x	2406	x	605
2J3D-87692-630	6SE0383-5CC33-3AA6	820	2*335	2*369	630	2002	x	2406	x	605
2J3D-87692-700	6SE0383-5CC33-7AA6	930	2*378	2*416	700	2002	x	2406	x	605
2J3D-87692-800	6SE0383-5CC34-0AA6	1000	2*407	2*450	800	2002	x	2806	x	605
2J3D-87692-910	6SE0383-5CC35-3AA6	1310	2*534	2*585	1000	2002	x	3206	x	605
2J3D-87692-911	6SE0383-5CC35-8AA6	1430	2*582	2*640	1100	2002	x	3206	x	605
2J3D-87692-912	6SE0383-5CC36-5AA6	1600	2*650	2*715	1200	2002	x	4806	x	605
2J3D-87692-916	6SE0383-5CC38-4AA6	2080	2*844	2*930	1600	2002	x	4806	x	605
2J3D-87692-918	6SE0383-5CC38-8AA6	2290	2*931	2*1025	1800	2002	x	3206	x	1210
2J3D-87692-920	6SE0383-5CC41-0AA6	2580	2*1048	2*1155	2000	2002	x	3206	x	1210
2J3D-87692-922	6SE0383-5CC41-1AA6	2750	2*1116	2*1230	2200	2002	x	3206	x	1210
2J3D-87692-925	6SE0383-5CC41-3AA6	3200	2*1300	2*1430	2500	2002	x	3206	x	1210
2J3D-87692-928	6SE0383-5CC41-4AA6	3660	2*1484	2*1630	2800	2002	x	3206	x	1210

\* The overload time is automatically controlled (thermal inverter model) – however, as a minimum 60 s at an ambient temperature of 40°C.

\*\* Typical mechanical shaft output with conventional 2- to 6-pole standard motors. \*\*\*Height without mounting lugs  
Other voltages on request

# General technical data

DYNAVERT I 690 V 24/12-pulse			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3G-87694-800	6SE0383-6EC34-1AA6	1020	2*417	2*460	800	2002	x	4806	x	605
2J3G-87694-910	6SE0383-6EC35-3AA6	1320	2*534	2*585	1000	2002	x	4806	x	605
2J3G-87694-912	6SE0383-6EC36-6AA6	1640	2*669	2*735	1200	2002	x	4806	x	605
2J3G-87694-914	6SE0383-6EC37-5AA6	1860	2*757	2*835	1400	2002	x	4806	x	605
2J3G-87694-916	6SE0383-6EC38-1AA6	2000	2*815	2*895	1600	2002	x	5606	x	605
2J3G-87694-920	6SE0383-6EC41-0AA6	2620	2*1067	2*1175	2000	2002	x	6406	x	605
2J3G-87694-922	6SE0383-6EC41-1AA6	2860	2*1164	2*1280	2200	2002	x	6406	x	605
2J3G-87694-924	6SE0383-6EC41-3AA6	3200	2*1300	2*1430	2400	2002	x	4806	x	1210
2J3G-87694-932	6SE0383-6EC41-6AA6	4160	2*1688	2*1855	3200	2002	x	4806	x	1210
2J3G-87694-936	6SE0383-6EC41-8AA6	4580	2*1862	2*2050	3600	2002	x	6406	x	1210
2J3G-87694-940	6SE0383-6EC42-0AA6	5160	2*2095	2*2305	4000	2002	x	6406	x	1210
2J3G-87694-944	6SE0383-6EC42-2AA6	5500	2*2231	2*2455	4400	2002	x	6406	x	1210
2J3G-87694-948	6SE0383-6EC42-6AA6	6400	2*2600	2*2860	4800	2002	x	6406	x	1210
2J3G-87694-956	6SE0383-6EC43-0AA6	7320	2*2968	2*3265	5600	2002	x	6406	x	1210
DYNAVERT I 950 V 6-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3A-87951-630	6SE0383-1BJ34-8AA6	805	490	539	630	2002	x	2406	x	605
2J3A-87951-800	6SE0383-1BJ36-3AA6	1035	630	693	800	2002	x	2406	x	605
2J3A-87951-909	6SE0383-1BJ37-0AA6	1150	700	770	900	2002	x	2406	x	605
2J3A-87951-910	6SE0383-1BJ37-8AA6	1298	790	869	1000	2002	x	3206	x	605
2J3A-87951-911	6SE0383-1BJ38-4AA6	1381	840	924	1100	2002	x	3206	x	605
2J3A-87951-912	6SE0383-1BJ38-8AA6	1578	960	1056	1200	2002	x	3206	x	605
2J3A-87951-915	6SE0383-1BJ41-1AA6	1939	1180	1298	1500	2002	x	3206	x	605
DYNAVERT I 950 V 12/12-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3D-87952-912	6SE0383-2CJ41-0AA6	1610	2*475	2*525	1200	2002	x	4806	x	605
2J3D-87952-916	6SE0383-2CJ41-2AA6	2070	2*611	2*670	1600	2002	x	4806	x	605
2J3D-87952-918	6SE0383-2CJ41-4AA6	2300	2*679	2*745	1800	2002	x	4806	x	605
2J3D-87952-920	6SE0383-2CJ41-5AA6	2600	2*766	2*845	2000	2002	x	3206	x	1210
2J3D-87952-922	6SE0383-2CJ41-6AA6	2760	2*815	2*895	2200	2002	x	3206	x	1210
2J3D-87952-925	6SE0383-2CJ41-8AA6	3160	2*931	2*1025	2500	2002	x	3206	x	1210
2J3D-87952-930	6SE0383-2CJ42-3AA6	3880	2*1145	2*1260	3000	2002	x	3206	x	1210
DYNAVERT I 950 V 24/12-pulse <sup>1</sup>			Output			Mechanical system				
Inverter type	Order No. (MLFB)	Connection power [kVA]	Continuous current [A]	Short-time current*[A]	Shaft output** [kW]	Dimension*** [mm]				
						H	x	W	x	D
2J3G-87954-960	6SE0383-6EI42-2AA6	7760	2*2289	2*2520	6000	2002	x	6406	x	1210

## <sup>1</sup> Additional types on request

\* The overload time is automatically controlled (thermal inverter model) – however, as a minimum 60 s at an ambient temperature of 40°C.

\*\* Typical mechanical shaft output with conventional 2- to 6-pole standard motors.

\*\*\* Height without mounting lugs

Other voltages (e.g. 850 V or 1,100 V) on request

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