



**Safe.
Efficient.
Controlled.**

**Dedrive Pro 880
frequency inverters**

DEMAG



High versatility

When cranes perform central operations within a process chain, all relevant parameters must be configured with precision. This ensures safe and efficient use of the drives.

With its implemented Demag CraneControl system, Dedrive Pro 880 frequency inverters offer many crane-specific settings. Parameters can be set conveniently and scaled flexibly according to requirements.

With Demag CraneControl, you achieve maximum safety and reliability for your crane installation and ensure non-stop monitoring. You can control each drive for all motion axes, support the most important field bus protocols and have a wide range of voltages and power ratings at your disposal.

Additional modules make for easy system communication and diagnostics. It is also possible to implement requirement-specific applications. The integrated safety functions reduce the need for additional safety components.

This means the costs and efforts involved in engineering and commissioning your installation are minimised.

**Safe. Efficient.
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**Demag Dedrive Pro 880
for cranes**



DIRECT TORQUE CONTROL

Thanks to the Direct Torque Control (DTC), the control performance for the various requirements of the applications is always guaranteed



MASTER/FOLLOWER APPLICATION

Torque is shared between mechanically connected geared motors on a hoist unit



LOAD-SWAY REDUCTION

High handling rates and safe operation of the crane installation by means of sensor-less load-sway damping



MECHANICAL BRAKE CONTROL

Brake control with system check by monitoring brake feedback



SYNCHRONISATION

Precise load handling by synchronous control of several hoist units. Up to 4 slaves possible.



ENERGY EFFICIENCY

Reduction in energy consumption: integrated efficiency calculator to help with analysis and process optimisation



Demag Dedrive Pro 880 frequency inverters with Demag CraneControl have been developed for specific and robust control of drives for starting-and-stopping applications for materials handling. Safety and communication modules make it possible to comply with all system requirements.



HIGH DEGREE OF SAFETY AND RELIABILITY

- The STO (Safe Torque Off) is already integrated as standard. Further functions are supported by an optional safety module:
 - Safe Stop 1 (SS1)
 - Safe Stop Emergency (SSE)
 - Safe Brake Control (SBC)
 - Safe Limited Speed (SLS)
 - Safe Maximum Speed (SMS)



PRECISION CONTROL

Direct Torque Control (DTC): direct control and monitoring for virtually all AC motors – even without encoder feedback. Highly dynamic vector control.



RETRIEVABLE SETTINGS

The complete software and parameter configurations are saved on the removable memory unit. These can be retrieved at any time – even if the equipment is replaced, quick re-commissioning is ensured.



CONVENIENT OPERATION

- Intuitive control panel for easy menu navigation for convenient parameter programming and diagnostics
- Available in 20 languages
- Handy device with high-contrast display



EFFICIENT ENGINEERING

With the crane control implemented, the Dedrive Pro 880 offers completely configured software solutions and minimises the work and costs related to engineering.

DIRECT SYNCHRONISATION

Several frequency inverters can be connected to each other for directly synchronised drive-to-drive communication (D2D) – without the need for additional hardware.



PRO-ACTIVE SERVICE

- Comprehensive service functions for preventive maintenance (lifetime counters), e.g.:
 - Crane elapsed operating time counter
 - Frequency inverter elapsed operating time counter
 - Fan operating time counter
 - Brake starting frequency counter
 - Hoist load spectrum recorder
 - Inverter starting frequency counter

EFFICIENT OPERATION

The frequency inverter features an energy optimiser and uses data for energy efficiency. This means that energy consumption can be optimised and energy can be saved in processes.

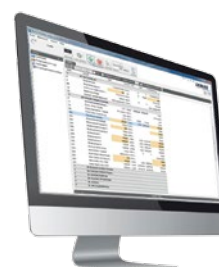
TRANSPARENCY AT ALL TIMES

- Remote diagnostics tool with integrated web server - the installation operator is always in the picture concerning current operating data and has remote access to the drives via internet or local Ethernet
 - Process and drive data are recorded and saved
 - Processes are monitored by means of integrated
 - warning and fault reporting functions



EASY COMMISSIONING

- Drive Composer PC tool: commissioning, configuration and monitoring can be carried out via the Drive Composer PC tool
- Drive Composer Pro: user-defined parameter windows, control diagrams for installation configuration and setting safety functions
- Can be connected via Ethernet or USB.



OPEN COMMUNICATION

- Data exchange with many automation systems is possible thanks to the plug-in field bus adapter.
 - PROFIBUS DPV0 and DPV1
 - 2-port Ethernet/IP, Modbus TCP, PROFINET IO, PROFIsafe (requires safety function module)
- To meet further requirements that go beyond the standard interfaces, the Demag Dedrive Pro 880 has three additional ports available for I/O extension modules and rotary encoder interface modules.



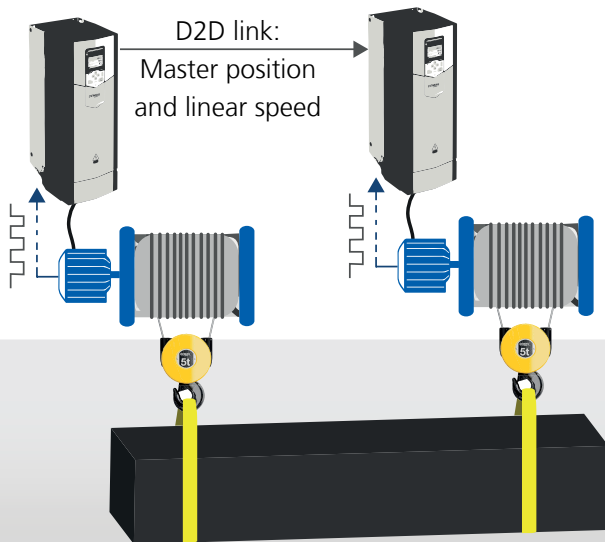
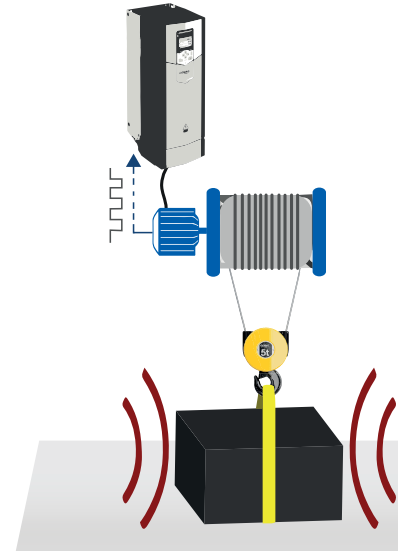
Crane-specific functions

HIGHER PRODUCTIVITY THANKS TO LOAD-SWAY DAMPING

The sensor-less load-sway damping makes it possible to move the load virtually without sway. The operator is helped to transport loads safely, particularly in manual operation.

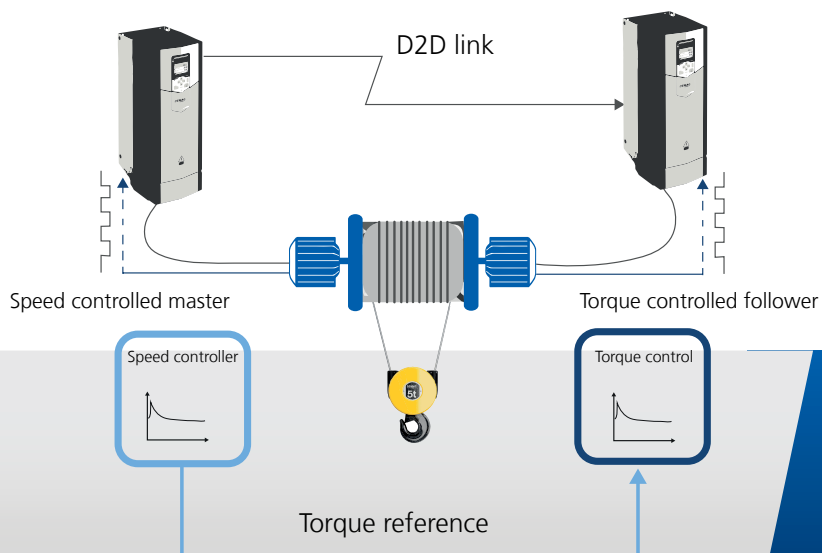
Load-sway damping increases productivity thanks to

- a reduction in unwanted crane movements
- higher speeds
- shorter acceleration and deceleration times



MASTER/SLAVE

Safe transport of long materials and large-volume loads is ensured by precise synchronous control of 2 to 5 hoists.



TORQUE SHARED THROUGH MASTER/FOLLOWER

Even with two mechanically connected drives on one hoist, the torque is shared with precision

Technical details

The Dedrive Pro 880 frequency inverter is available as wall-mounted units in nine varying frame sizes (R1 - R9). Two other models with frame sizes R10 - R11 are available as free-standing units. The power ratings range from 0.55 kW to 560 kW. The Dedrive Pro 880 frequency inverters are also available as an integral part of an application module.

Rated voltage							Rated voltage								
400 V		Frame size	Ihd **	Height	IP21 enclosure (IP55 optional)			500 V		Frame size	Ihd **	Height	IP21 enclosure (IP55 optional)		
					Width	Depth	Weight						Width	Depth	Weight
ACS880-DEMAG 01-			[A]	[mm]	[mm]	[mm]	[kg]	ACS880-DEMAG 01-			[A]	[mm]	[mm]	[mm]	[kg]
02A4-3			1,8	409	155	226	6	02A1-5			1,7	409	155	226	6
03A4-3			2,4	409	155	226	6	03A0-5			2,1	409	155	226	6
04A0-3			3,3	409	155	226	6	03A4-5			3	409	155	226	6
05A6-3			4	409	155	226	6	04A8-5			3,4	409	155	226	6
07A2-3			5,6	409	155	226	6	05A2-5			4,8	409	155	226	6
09A4-3			8	409	155	226	6	07A6-5			5,2	409	155	226	6
12A6-3			10	409	155	226	6	11A0-5			7,6	409	155	226	6
017A-3			12,6	409	155	249	8	014A-5			11	409	155	249	8
025A-3			17	409	155	249	8	021A-5			14	409	155	249	8
032A-3			25	475	172	261	10	027A-5			21	475	172	261	10
038A-3			32	475	172	261	10	034A-5			27	475	172	261	10
045A-3			38	576	203	274	18,5	040A-5			34	576	203	274	18,5
061A-3			45	576	203	274	18,5	052A-5			40	576	203	274	18,5
072A-3			61	730	203	274	23	065A-5			52	730	203	274	23
087A-3			72	730	203	274	23	077A-5			65	730	203	274	23
105A-3			87	726	251	357	45	096A-5			77	726	251	357	45
145A-3			105	726	251	357	45	124A-5			96	726	251	357	45
169A-3			145	880	284	365	55	156A-5			124	880	284	365	55
206A-3			169	880	284	365	55	180A-5			156	880	284	365	55
246A-3			206	963	300	386	70	240A-5			180	963	300	386	70
293A-3			246 *	963	300	386	70	260A-5			240 *	963	300	386	70
363A-3			293	955	380	413	98	361A-5			302	955	380	413	98
430A-3			363 *	955	380	413	98	414A-5			361 *	955	380	413	98
ACS880-DEMAG 04-							ACS880-DEMAG 04-								
505A-3			361	1366	322,3	506	161	460A-5			330	1366	322,3	506	161
585A-3			429	1366	322,3	506	161	503A-5			361	1366	322,3	506	161
650A-3			477	1366	322,3	506	161	583A-5			414	1366	322,3	506	161
725A-3			566	1566	322,3	506	199	635A-5			477	1366	322,3	506	161
820A-3			625	1566	322,3	506	199	715A-5			566	1566	322,3	506	199
880A-3			725 *	1566	322,3	506	199	820A-5			625	1566	322,3	506	199
								880A-5			697 *	1566	322,3	506	199

Line voltage 380 V to 415 V +/- 10%:

** output current Ihd: with 150% heavy-duty use 1 min. every 5 min.

* reduced overload capability (see technical data)

Line voltage 380 V to 500 V +/- 10%:

** output current Ihd: with 150% heavy-duty use 1 min. every 5 min.

* reduced overload capability (see technical data)

Rated voltage			IP21 enclosure (IP55 optional)			
690 V	Frame size	Ihd **	Height	Width	Depth	Weight
ACS880-DEMAG 01-		[A]	[mm]	[mm]	[mm]	[kg]
07A3-7	R5	5,6	730	203	274	23
09A8-7		7,3	730	203	274	23
14A2-7		9,8	730	203	274	23
018A-7		14,2	730	203	274	23
022A-7		18	730	203	274	23
026A-7		22	730	203	274	23
035A-7		26	730	203	274	23
042A-7		35	730	203	274	23
049A-7		42	730	203	274	23
061A-7	R6	49	726	251	357	45
084A-7		61	726	251	357	45
098A-7	R7	84	880	284	365	55
119A-7		98	880	284	365	55
142A-7	R8	119	963	300	386	70
174A-7		142	963	300	386	70
210A-7	R3	174	955	380	413	98
271A-7		210	955	380	413	98
ACS880-DEMAG 04-			IP20 enclosure			
330A-7	R10	255	1366	322,3	506	161
370A-7		325	1366	322,3	506	161
430A-7		360 *	1366	322,3	506	161
470A-7	R11	415	1566	322,3	506	199
522A-7		455	1566	322,3	506	199
590A-7		505	1566	322,3	506	199
650A-7		571 *	1566	322,3	506	199
721A-7		571 *	1566	322,3	506	199

Line voltage 525 V to 690 V +/- 10%

** output current Ihd: with 150% heavy-duty use 1 min. every 5 min.

* reduced overload capability (see technical data)



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