

PacDrive™ Servo Drive MC-4

The digital Servo Drive MC-4 is characterised by its compact and autonomous structure suitable for wall mounting as well as its leading-edge technology. The innovative MC-4 has the mains supply unit, end stage and software regulator for one axis integrated in a compact casing.

As it communicates with the PacDrive Controller only via fibre optical cable, it is also suitable for a decentralized structure. It requires no user program, comes with single- and multi-turn processing features as standard and configures itself with the help of the electronic name plate in the SM/SH servo motor.

The technical data at a glance:

- World-wide voltage range
- Integrated mains supply unit
- Max. power 34,5 / 69 kVA
- Automatic motor recognition
- Minimum size
- Safety input Inverter Enable
- 250 % overload
- Integrated SERCOS interface



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This Technical Data Sheet does not replace the Operating manual.

For a complete description of the PacDrive MC-4 see the Operating manual PacDrive MC-4

For planning and project activities see the PacDrive Projecting manual

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Technical Data

**NOTE**

The PacDrive MC-4 supports motors with firmware up to V00.20.XX with a rotary speed up to 6000 min⁻¹.

On firmware versions V00.22.XX, the rated speed is supported up to 12000 min⁻¹.

In case of ambient temperatures >45 °C, for additional exchange of cooling air provide external fan in the switching cabinet.

**NOTE**

The MC-4 is not suitable for fault current protection by means of a commercially available fault circuit-breaker with 30 mA trigger limit.

The device leakage current can trigger the fault circuit-breaker. The following solutions are possible:

Use a default circuit-breaker (RCD, type B) with a trigger limit of 500 mA.

**NOTE**

The PacDrive MC-4 / 1,5 A is adequate only when using firmware versions as from V00.22.XX, in connection with the SH Motor 055.

If a motor used with a differing power class, the error message „138 invalid motor“ will appear.

Servo drive MC-4 / 1.5A

	Parameter	Value
Product configuration	Product name	MC-4 / 11 / 01 / 400 V
	Order number	13 13 02 44
Power supply	- rated connection voltage	3 AC 380 V (-10%) to 480 V (+10%) - min. 3 AC 380 V (-10%) - max. 3 AC 480 V (+10%)
	- mains frequency - control voltage/current	48 ... 62 Hz DC 24 V (-15% / +25%) / 1 A
DC circuit	- DC-circuit voltage	DC 530 V to 680 V
	- capacity	165 µF
	- U _{Bleeder ON}	DC 820 V
	- U _{Bleeder OFF}	DC 800 V
	- excess voltage	DC 860 V
	- bleeder resistance	120 Ohm
	- bleeder - permanent power - bleeder - peak power	50 W 5 kW
Motor connection	- rated power 8 kHz	1.5 Aeff
	- peak current 1 s	3.75 Aeff
	- rated power	1.1 kVA
Stray power	- electronics supply	approx. 12 W
	- bleeder (internal)	0 ... 50 W (depending on the application)
	- power part	approx. 15 W / A
I/Os	Inputs	
	- inputs voltage / current - ie-input - input filter	DC 20 ... 30 V / 5 mA DC 20 ... 30 V / 30 mA [5 ms]
	Outputs	
	- relay outputs	DC 20 ... 30 V / 2 A
Environment	Product size	see chapter Dimensions
	Box size	width: 100 mm height: 400 mm depth: 320 mm
	Product weight Boxed weight	3.1 kg 4.0 kg
	Ventilation	natural convection
	Ambient conditions Protection class - casing - installation location - ambient temperature during operation - for storage and transport - insulation - excess voltage category - excess voltage proofness - degree of radio distortion rel. humidity	IP20 IP54, if the safety wiring is used with Inverter Enable +5 ... +45 °C (+55 °C with reduced power) -2% per K at I _{NC} and I _{SC}) -25 ... +70 °C degree of pollution 2 ..., dewing prohibited K III, T2 (DIN VDE 0110) class 1 (DIN VDE 0160) class A EN 55011 / EN 61800 - 3 5% - 85% climatic category 3K3 EN 60 721
Approval	Approvals	CE, UL, cUL

Table 2-1: Technical data of the MC-4 Servo drive / 01