

# MotorControl RMC400 control unit



The Ridder MotorControl RMC400 is an intelligent control system for activating, regulating and protecting a Ridder motor gearbox with an integrated limit-switch system. The compact RMC400 has a fully cast-in printed circuit board with a microprocessor and a semiconductor relay. As a result, the RMC400 is protected against moisture, dirt and vibrations. The RMC400 can be used throughout the world with 3-phase supply voltages of 208 V to 600 V and 1-phase supply voltages of 115 V to 230 V for 50 Hz and 60 Hz mains frequencies.

The RMC400 has an inverter as standard for switching the main current. It has an inverting delay of 3 seconds to prevent continued running in the same direction of rotation and to prevent unnecessarily overloading the drive. For a 3-phase mains, the RMC400 continuously checks the phase order of the supply voltage. If a change of phase is detected, the RMC400 internally corrects the phase order so that the drive's original and expected direction of rotation remains unchanged. The RMC400 also detects a phase failure. During a phase failure, activation is interrupted to prevent the electric motor from overheating.

The PTC thermistor that is present in the electric motor can be connected to the RMC400 to protect the electric motor and, consequently, the entire drive against overheating and overloading. If the RMC400 measures a temperature that is too high the activation is interrupted until the electric motor has cooled down sufficiently. This prevents consequential damage and thermal cut-out.

The RMC400 is connected to the motor gearbox's limit-switch system. Activation is stopped when an end position is reached. If a safety switch is unintentionally operated when an end position is switched, both automatic and manual activation in the opposite direction of rotation is possible under the correct conditions.

The RMC400 is prepared for the use of a Ridder PositioningUnit RPU (RW motor-gearbox). The RMC400 has a 24 V DC power connection and reference position outputs (end positions).

External activation of the RMC400 is possible with a 24 V AC/DC control signal or (optional) external manual controls. The RMC400 monitors the control input. The motor gearbox is not activated if there is simultaneous activation in two directions of rotation.

The RMC400 has signal LEDs for displaying the operating status and any faults. Normal operation, activation of the safety switch, thermal overloading and phase failure are displayed via an LED signal. In the event of a fault, the LED signal remains active, even after the fault has been rectified. The signal can be reset using the manual controls. The RMC400 also includes a fault contact (NC) for external notification of a fault situation.

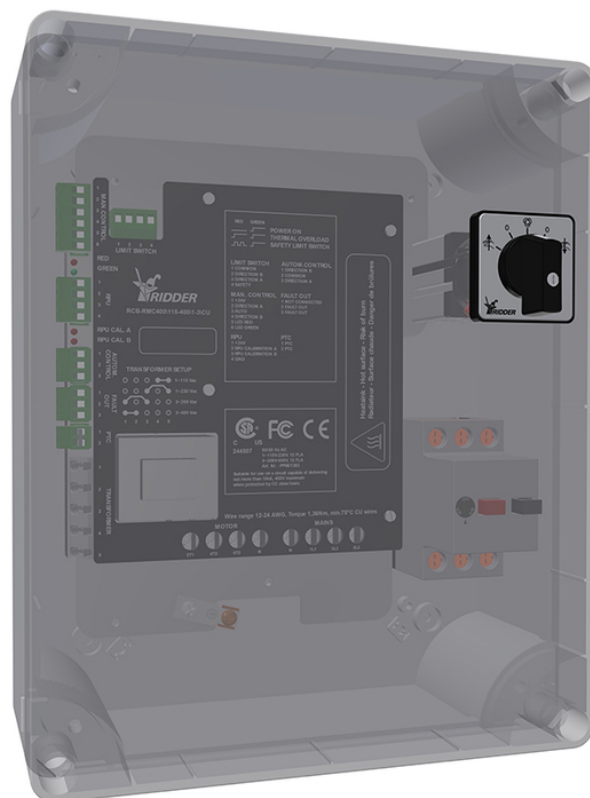
The RMC400 is available as a separate module or integrated in a plastic housing (IP54) with a transparent cover. Cable glands are included with the housing. The RMC400 has reliable terminal blocks for connecting the incoming and outgoing supply voltage. The RMC400 has easily accessible plug connectors for connecting the other cables.

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## RMC400 Motor control unit:

- 24 V AC/DC control;
- 3-phase and 1-phase models available;
- Models up to 600V;
- Supply with or without motor-protection circuit-breaker and manual control.



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Item no.	Description	[m] kg	Type	[U] V	F -	[I] A	[p] Hz	IP
584820	RMC400\115-400\1-3	3,1	PH	115/400	1-3	12	50/60	54
584825	RMC400\400\3	3,1	PH	400	3	10	50/60	54
584830	RMC400\440-600\3	2,4	PH	440-600	3	10	50/60	54
584640	RMC400\115-400\1-3\0.4-0.6	3,2	PH	115/400	1-3	0.4-0.6	50/60	54
584641	RMC400\115-400\1-3\0.6-1.0	3,2	PH	115/400	1-3	0.6-1.0	50/60	54
584642	RMC400\115-400\1-3\1.0-1.6	3,2	PH	115/400	1-3	1.0-1.6	50/60	54
584643	RMC400\115-400\1-3\1.6-2.5	3,2	PH	115/400	1-3	1.6-2.5	50/60	54
584644	RMC400\115-400\1-3\2.5-4.0	3,2	PH	115/400	1-3	2.5-4.0	50/60	54
584645	RMC400\115-400\1-3\4.0-6.3	3,2	PH	115/400	1-3	4.0-6.3	50/60	54
584646	RMC400\115-400\1-3\6.3-10	3,2	PH	115/400	1-3	6.3-10	50/60	54
584660	RMC400\400\3\0.4-0.6	3,2	PH	400	3	0.4-0.6	50/60	54
584661	RMC400\400\3\0.6-1.0	3,2	PH	400	3	0.6-1.0	50/60	54
584662	RMC400\400\3\1.0-1.6	3,2	PH	400	3	1.0-1.6	50/60	54
584663	RMC400\400\3\1.6-2.5	3,2	PH	400	3	1.6-2.5	50/60	54
584664	RMC400\400\3\2.5-4.0	3,2	PH	400	3	2.5-4.0	50/60	54
584665	RMC400\400\3\4.0-6.3	3,2	PH	400	3	4.0-6.3	50/60	54
584666	RMC400\400\3\6.3-10	3,2	PH	400	3	6.3-10	50/60	54
584680	RMC400\440-600\1-3\0.4-0.6	3,2	PH	440-600	1-3	0.4-0.6	50/60	54
584681	RMC400\440-600\1-3\0.6-1.0	3,2	PH	440-600	1-3	0.6-1.0	50/60	54
584682	RMC400\440-600\1-3\1.0-1.6	3,2	PH	440-600	1-3	1.0-1.6	50/60	54
584683	RMC400\440-600\1-3\1.6-2.5	3,2	PH	440-600	1-3	1.6-2.5	50/60	54
584684	RMC400\440-600\1-3\2.5-4.0	3,2	PH	440-600	1-3	2.5-4.0	50/60	54
584685	RMC400\440-600\1-3\4.0-6.3	3,2	PH	440-600	1-3	4.0-6.3	50/60	54
584686	RMC400\440-600\1-3\6.3-10	3,2	PH	440-600	1-3	6.3-10	50/60	54