

9.3 System error messages

VNC Automation - Hỗ trợ Kỹ thuật: 0915.283.693

9.3.1 General error messages



Note!

In the case of a query via system bus (CAN), the fault messages are represented as numbers (see first column of the table).

Fault message		Description	Cause	Remedy
No.	Display			
---	---	No fault	-	-
0011	OC1	Short circuit of motor cable	Short circuit	<ul style="list-style-type: none"> ● Search for cause of short circuit. ● Check motor cable.
			Excessive capacitive charging current in the motor cable.	Use motor cable which is shorter or of lower capacitance.
0012	OC2	Motor cable earth fault	One of the motor phases has earth contact.	<ul style="list-style-type: none"> ● Search for cause of short circuit. ● Check motor cable.
0015	OC5	I_{xt} overload	<ul style="list-style-type: none"> ● Frequent and too long acceleration with overcurrent ● Continuous overload with $I_{motor} > 1.05 \times I_{rx}$. 	Check drive dimensioning.
0016	OC6	I_{xt}^2 overload	<ul style="list-style-type: none"> ● Frequent and too long acceleration processes with motor overcurrent. ● Permanent motor overload with $I_{motor} > I_{rmotor}$ 	Check drive dimensioning.
x018	OC8	I_{xt}^2 overload advance warning	<ul style="list-style-type: none"> ● Frequent and too long acceleration processes with motor overcurrent. ● Permanent motor overload with $I_{motor} > I_{rmotor}$ 	Check drive dimensioning.
1020	OU	Overvoltage in DC bus	Braking energy is too high. (DC-bus voltage is higher than set in C0173.)	<ul style="list-style-type: none"> ● Use braking unit or regenerative module. ● Check dimensioning of the brake resistance.
1030	LU	Undervoltage in the DC bus	DC bus voltage is lower than specified in C0173.	<ul style="list-style-type: none"> ● Check mains voltage ● Check supply cable
x032	LP1	Motor phase failure	A current-carrying motor phase has failed.	<ul style="list-style-type: none"> ● Check motor. ● Check motor cable. ● Switch off monitoring (C0597 = 3).
			The current limit value is set too low.	<ul style="list-style-type: none"> ● Set higher current limit value via C0599.
0050	OH	Heatsink temperature $> +90$ °C	Ambient temperature $T_u > +40$ °C or $> +50$ °C	<ul style="list-style-type: none"> ● Allow module to cool and ensure better ventilation. ● Check ambient temperature in the control cabinet.
			Heatsink is very dirty.	Clean heatsink.
			Wrong mounting position	Change mounting position.

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9.2.3 Fault analysis via LECOM status words (C0150/C0155)

The LECOM status words (C0150/C0155) are coded as follows:

Code		Possible settings		IMPORTANT
No.	Designation	Lenze/ {Appl.}	Selection	
C0150	Status word	0		Device status word for networking via automation interface (AIF) Read only
			0	{1}
			Bit 0 Not assigned Bit 1 Pulse inhibit (IMP) Bit2 Not assigned Bit3 Not assigned Bit4 Not assigned Bit5 Not assigned Bit 6 n = 0 Bit 7 Controller inhibit (CINH) Bit 8 Device status bit 1 Bit 9 Device status bit 2 Bit10 Device status bit 3 Bit11 Device status bit 4 Bit12 Warning Bit13 Message Bit14 Not assigned Bit15 Not assigned	
C0155	Status word 2	0		Status word 2 (advanced status word) Display only
			0	{1}
			Bit 0 Active fault Bit 1 M_{max} reached Bit 2 I_{max} reached Bit 3 Pulse inhibit(IMP) Bit 4 Ready for operation (RDY) Bit 5 Controller inhibit (CINH) Bit 6 TRIP active Bit 7 Initialisation Bit 8 Motor direction of rotation (Cw/CCw) Bit 9 Not assigned Bit 10 Not assigned Bit 11 Not assigned Bit 12 Not assigned Bit 13 Not assigned Bit 14 Not assigned Bit 15 Not assigned	

Field			History buffer location	Entry	Note
④	⑤	⑥	3	Next to last fault	<ul style="list-style-type: none"> • The content of memory units 1 ... 7 is shifted "upwards" by one memory unit. • The content of memory unit 8 is removed from the history buffer and can no longer be retrieved. • Memory unit 1 is deleted (= no active fault).
			4	Third to last fault	
			5	Fourth to last fault	
			6	Fifth to last fault	
			7	Sixth to last fault	
			8	Seventh to last fault	

Explanations

①, ④	<p>Fault indication and fault response (C0168)</p> <ul style="list-style-type: none"> • The entry is effected as LECOM error number. • If several faults with a different response occur at the same time: <ul style="list-style-type: none"> – Only the fault the response of which has the highest priority is entered (1. TRIP, 2. message, 3. warning). • If faults with the same response occur (e. g. 2 messages) at the same time: <ul style="list-style-type: none"> – Only the fault that was triggered first is entered. – The OH7 and OH3 warnings are exceptions. If an OH7 warning is pending and the OH3 motor temperature threshold is reached, the OH7 warning is overwritten by the OH3 warning. If the motor temperature decreases again, the OH7 warning reappears.
②, ⑤	<p>Time of the fault (C0169)</p> <ul style="list-style-type: none"> • Reference time is the content of the power-on time meter ⑩. • If a fault is immediately followed by another fault for several times, only the time of the last occurrence is stored.
③, ⑥	<p>Frequency of occurrence of the fault (C0170)</p> <ul style="list-style-type: none"> • The time of the last occurrence is stored.
⑦	Click on Fault memory reset to clear the history buffer. The history buffer can only be cleared if no fault is active.
⑧	Click on TRIP reset to reset the fault.

9.2 Troubleshooting

Detecting breakdowns A breakdown can be detected quickly via the LEDs at the controller or via the status information at the keypad.

Analysing errors Analyse the error using the history buffer. The list of fault messages gives you advice how to remove the fault. (📖 9.3-1)

9.2.1 Status display via controller LEDs

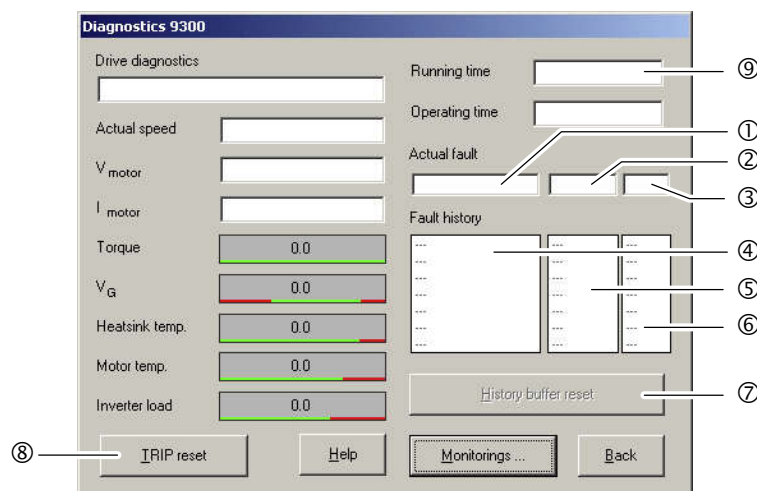
During operation the operating status of the controller is shown by 2 LEDs.

LED		Operating status	
Red ①	Green ②		
Off	On	Controller enabled	
On	On	Mains switched on and automatic start inhibited	
Off	Blinking slowly	Controller inhibited	
Blinking quickly	Off	Undervoltage or overvoltage	
Blinking slowly	Off	Fault active	

9.2.2 Fault analysis with the history buffer

The history buffer can be used to trace faults. The fault messages are stored in the 8 memory locations in the order of their occurrence.

► Open the **Diagnostics** dialog box in the parameter menu.



9300std230

Fig. 9.2-1 "Diagnostics" dialog box

Field	History buffer location	Entry	Note
① ② ③	1	Active fault	If the fault is no longer pending or has been acknowledged:
	2	Last fault	• The content of memory units 1 – 7 is

