

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
1	<b>Power up</b>		TAC Computer has been powered up									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	No	Yes	No	No	No	Yes	No	Yes	No	
	Reference:		Reset explanation:									
			When the computer has been powered up for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	10 sec	0	No	Yes	Yes	No	No	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
2	<b>Asymmetric voltage</b>		If one phase voltage is different from the average phase voltage by more than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	2 %	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0,2 %	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
3	<b>High voltage L1</b>		Phase - neutral voltage on L1 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	440 V	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	5 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

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Alarm No:	Alarm name:		Alarm explanation:									
4	<b>High voltage L2</b>		Phase - neutral voltage on L2 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	440 V	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	5 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
5	<b>High voltage L3</b>		Phase - neutral voltage on L3 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	440 V	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	5 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
6	<b>Low voltage L1</b>		Phase - neutral voltage on L1 is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	360 V	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	5 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

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Alarm No:	Alarm name:		Alarm explanation:									
7	<b>Low voltage L2</b>		Phase - neutral voltage on L2 is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	360 V	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	5 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
8	<b>Low voltage L3</b>		Phase - neutral voltage on L3 is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	360 V	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	5 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
9	<b>Grid spikes L1</b>		Phase - neutral voltage on L1 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	450 V	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	10 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

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Alarm No:	Alarm name:		Alarm explanation:									
10	<b>Grid spikes L2</b>		Phase - neutral voltage on L2 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	450 V	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	10 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
11	<b>Grid spikes L3</b>		Phase - neutral voltage on L3 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	450 V	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	10 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
12	<b>Grid drop voltage L1</b>		Phase - neutral voltage on L1 is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	340 V	No	Yes	No	No	No	Yes	No	No	Yes	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	10 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

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Alarm No:	Alarm name:		Alarm explanation:									
13	<b>Grid drop voltage L2</b>		Phase - neutral voltage on L2 is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	340 V	No	Yes	No	No	No	Yes	No	No	Yes	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	10 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
14	<b>Grid drop voltage L3</b>		Phase - neutral voltage on L3 is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	340 V	No	Yes	No	No	No	Yes	No	No	Yes	
	Reference:		Reset explanation:									
			When the voltage has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	10 V	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
26	<b>Error Cleared, Warning Active</b>		Turbine error free, warning active									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	No	Yes	No	No	No	No	No	0	0	

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Alarm No:	Alarm name:		Alarm explanation:									
30	<b>Asymmetric current fast</b>		If one phase current differs from the average phase current by more than max limit (large difference in a short time span)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	50 %	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the current has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0 %	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
31	<b>Asymmetric current slow</b>		If one phase current differs from the average phase current by more than max limit (small difference in a short time span)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	20 %	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the current has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0 %	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
41	<b>Grid recovery fault 1</b>		The grid recovery time after a grid fault has exceeded the limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,02 sec	0 volt	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When voltage has been within limits for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	180 volt	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
42	<b>Grid recovery fault 2</b>		The grid recovery time after a grid fault has exceeded the limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,02 sec	60 volt	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When voltage has been within limits for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	120 volt	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
43	<b>Grid recovery fault 3</b>		The grid recovery time after a grid fault has exceeded the limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,02 sec	320 volt	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When voltage has been within limits for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	40 volt	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
44	<b>Grid recovery fault 4</b>		The grid recovery time after a grid fault has exceeded the limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,02 sec	320 volt	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When voltage has been within limits for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0 volt	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

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Alarm No:	Alarm name:		Alarm explanation:									
45	<b>Grid recovery fault 5</b>		The grid recovery time after a grid fault has exceeded the limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	360 volt	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When voltage has been within limits for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0 volt	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
49	<b>Vector surge</b>		The frequency changes more than the alarm set point, during all measurements in the alarm time									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,04 sec	0,1 Hz	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been OK for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0 Hz	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
50	<b>Phase sequence fault</b>		Phase sequence not correct									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	1	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When phase sequence has been OK for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	5 sec	1	No	Yes	Yes	No	No	No	No	0	0	



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Alarm No:	Alarm name:		Alarm explanation:									
60	<b>Low frequency L1</b>		The frequency on phase L1 is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	47 Hz	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0,1 Hz	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
63	<b>High frequency L1</b>		The frequency on phase L1 is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	51 Hz	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0,1 Hz	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
66	<b>High frequency level 1</b>		The frequency is greater than level 1 limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	62,2 Hz	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	1,2 Hz	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

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Alarm No:	Alarm name:		Alarm explanation:									
67	<b>High frequency level 2</b>		The frequency is greater than level 2 limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	62 Hz	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	1 Hz	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
68	<b>High frequency level 3</b>		The frequency is greater than level 3 limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	6 sec	61,5 Hz	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0,5 Hz	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
69	<b>High frequency level 4</b>		The frequency is greater than level 4 limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	50 sec	61,2 Hz	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0,2 Hz	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

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Alarm No:	Alarm name:		Alarm explanation:									
70	<b>High frequency level 5</b>		The frequency is greater than level 5 limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	61 Hz	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When the frequency has been ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0 Hz	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
81	<b>Short avg. power gen. G high</b>		The power is greater than max limit (10 min average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	1732 kW	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the wind speed is under the reset value for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	20 m/s	Yes	No	Yes	Yes	Yes	Yes	No	3	120	

Alarm No:	Alarm name:		Alarm explanation:									
82	<b>Short avg. power gen. g high</b>		The power is greater than max limit (10 min average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	990 kW	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the wind speed is under the reset value for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	20 m/s	Yes	No	Yes	Yes	Yes	Yes	No	3	120	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
83	<b>Power gen. G high</b>		The power is greater than max limit (1 sec average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	2390 kW	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the wind speed is under the reset value for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	20 m/s	Yes	No	Yes	Yes	Yes	Yes	No	2	120	

Alarm No:	Alarm name:		Alarm explanation:									
84	<b>Power gen. g high</b>		The power is greater than max limit (1 sec average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	2 sec	1170 kW	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the wind speed is under the reset value for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	20 m/s	Yes	No	Yes	Yes	Yes	Yes	No	2	120	

Alarm No:	Alarm name:		Alarm explanation:									
87	<b>Negative power gen. G</b>		The power is less than the minimum limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,15 sec	-400 kW	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0 kW	Yes	No	Yes	Yes	Yes	Yes	No	2	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
88	<b>Negative power gen. g</b>		The power is less than the minimum limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	-200 kW	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0 kW	Yes	No	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
89	<b>Negative power high</b>		The power is less than the minimum limit and the generator is cut out									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	-150 kW	No	Yes	No	No	No	No	Yes	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
90	<b>Low dB stop</b>		The turbine is within a given angel / time and power is greater than max limit (10 min average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	8,5 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the wind speed is under the reset value for the reset time or low dB is enabled									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	2 m/s	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
98	<b>Gear bear. rear gen. side temp. High</b>		Gear bearing reargen. side temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	105 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	10 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
100	<b>Ambient temp. high</b>		Ambient temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	30 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	1 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	7200	

Alarm No:	Alarm name:		Alarm explanation:									
101	<b>Ambient temp. low</b>		Ambient temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	1800 sec	2 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
102	<b>Nacelle temp. high</b>		Nacelle temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
103	<b>Nacelle temp. low</b>		Nacelle temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
106	<b>Generator G temp. high</b>		Generator G temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	155 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	30 °C	Yes	No	Yes	Yes	Yes	Yes	No	1	120	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
107	<b>Generator G temp. low</b>		Generator G temperature less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-40 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
108	<b>Generator g temp. high</b>		Generator g temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	155 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	30 °C	Yes	No	Yes	Yes	Yes	Yes	No	1	120	

Alarm No:	Alarm name:		Alarm explanation:									
109	<b>Generator g temp. low</b>		Generator g temperature less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-40 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
112	<b>Gear oil temp. high</b>		Gear oil temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	80 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	20 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
113	<b>Gear oil temp. low</b>		Gear oil temperature less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	2 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
114	<b>Gear bear. front temp. high</b>		Gear bearing front temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	105 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	10 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
116	<b>Gear bear. rear temp. high</b>		Gear bearing rear temperature is greater than the max limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	1 sec	105 °C	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
			When the temperature is ok for the reset time								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	10 °C	Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:								
118	<b>Main bearing temp. high</b>		Main bearing temperature is greater than the max limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	60 sec	80 °C	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
			When the temperature is ok for the reset time								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:								
119	<b>Main bearing temp. low</b>		Main bearing temperature less than the min limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	60 sec	-20 °C	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
			When the temperature is ok for the reset time								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C	No	Yes	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
122	<b>Control panel temp. high</b>		Control panel temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	Yes	Yes	Yes	Yes	No	2	120	

Alarm No:	Alarm name:		Alarm explanation:									
123	<b>Control panel temp. low</b>		Control panel temperature less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-40 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
124	<b>Thyristor temp. high</b>		Thyristor temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	70 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	Yes	Yes	Yes	Yes	No	2	120	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
125	<b>Thyristor temp. low</b>		Thyristor temperature less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-10 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
128	<b>Transformer temp. high</b>		Transformer temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	150 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	20 °C	Yes	No	Yes	Yes	Yes	Yes	No	2	120	

Alarm No:	Alarm name:		Alarm explanation:									
129	<b>Transformer temp. low</b>		Transformer temperature less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
140	<b>Phase comp. panel temp. high</b>		Phase compensation panel temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
141	<b>Phase comp. panel temp. low</b>		Phase compensation panel temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-40 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
144	<b>Hub panel temp. high</b>		Hub panel temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
145	<b>Hub panel temp. low</b>		Hub panel temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
146	<b>Generator bear. front temp. high</b>		Generator bearing front temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	100 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
148	<b>Generator bear. rear temp. high</b>		Generator bearing rear temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	100 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
150	<b>Pitch oil temp. high</b>		Pitch oil temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	75 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	Yes	Yes	Yes	Yes	No	1	60	

Alarm No:	Alarm name:		Alarm explanation:									
151	<b>Pitch oil temp. low</b>		Pitch oil temperature is less than min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
152	<b>Main panel temp. high</b>		Main panel temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
153	<b>Main panel temp. low</b>		Main panel temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
154	<b>Top box temp. high</b>		Top box temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
155	<b>Top box temp. low</b>		Top box temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
156	<b>Tower base temp. high</b>		Tower base temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
182	<b>Pitch Accumulator temp. Low</b>		Pitch akkumulator temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-20 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
183	<b>Pitch Accumulator temp. High</b>		Pitch akkumulator temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	70 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
186	<b>Interm. gear front temp. High</b>		Interm. Gear bearing front temperature is greather than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	95 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
187	<b>Ups panel temp. High</b>		Ups panel temperature is greater than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	No	No	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
188	<b>Interm. gear rear temp. High</b>		Interm. Gear bearing rear temperature is greather than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	95 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	5 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
189	<b>Ups panel temp. Low</b>		Ups panel temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-10 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	10 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
190	<b>Main bearing oil temp. High</b>		Main bearing oil temperature is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	80 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
191	<b>Main bearing oil temp. Low</b>		Main bearing oil temperature is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-1 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
192	<b>Gear oil temp. high short term</b>		Gear oil temperature is greater than the max limit (10 min average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	70 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	20 °C	Yes	No	Yes	Yes	Yes	Yes	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
193	<b>Gear oil temp. high long term</b>		Gear oil temperature is greater than the max limit (1 hour average)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	60 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	10 °C	Yes	No	Yes	Yes	Yes	Yes	No	1	1440	

Alarm No:	Alarm name:		Alarm explanation:									
198	<b>Untwist CW fault</b>		The CW limit switch is active for too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	0	No	Yes	Yes	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	No	Yes	No	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
199	<b>Untwist CCW fault</b>		The CCW limit switch is active for too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	0	No	Yes	Yes	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
200	<b>Yaw box fault</b>		Both CW and CCW limit switches have been activated at the same time									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	Yes	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
202	<b>High wind yawing activated</b>		Turbine will ignore untwist switches, must be checked before startup									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
204	<b>Short untwist CW</b>		CW Low power cable untwist has started									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	-720 °	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When reset time is reached, or centerswitch reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °	No	Yes	Yes	Yes	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
205	<b>Short untwist CCW</b>		CCW Low power cable untwist has started									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	720 °	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When reset time is reached, or centerswitch reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °	No	Yes	Yes	Yes	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
206	<b>Long untwist CW</b>		Yaw CW limit switch is activated									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When reset time is reached, or centerswitch reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	2 sec	0	No	Yes	Yes	No	Yes	No	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
207	<b>Long untwist CCW</b>		Yaw CCW limit switch is activated									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			When reset time is reached, or centerswitch reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	2 sec	0	No	Yes	Yes	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
208	<b>Too long CW yaw</b>		The turbine is yawing CW for too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	840 sec	0	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	1800 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	1	300	

Alarm No:	Alarm name:		Alarm explanation:									
209	<b>Too long CCW yaw</b>		The turbine is yawing CCW for too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	840 sec	0	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	1800 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	1	300	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
210	Too long untwist time		The turbine has exceeded maximum time for doing an untwist								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	5400 sec	0	Yes	No	No	No	No	No	No	No	Yes
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
212	Nacelle position CW fault		The WTG is yawing CW and the nacelle position is not changing								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	60 sec	5 °	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
213	Nacelle position CCW fault		The WTG is yawing CCW and the nacelle position is not changing								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	60 sec	-5 °	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °	Yes	Yes	No	Yes	Yes	Yes	No	0	0	



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
214	<b>FT702 Left 0 m/s but wind ok</b>		Sensor error on left FT702 wind sensor									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0		No	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
215	<b>FT702 Right 0 m/s but wind ok</b>		Sensor error on right FT702 wind sensor									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0		No	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
219	<b>Wind sensor fault</b>		Both sensor left and sensor right is not in function due to validation of wind data or sensor communication									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	15 sec	0	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	600 sec	0		Yes	No	Yes	No	Yes	No	No	2	1440

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
220	<b>Wind speed signal mismatch</b>		The difference between the wind speed signals from the two wind sensors is too large									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	3 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	1 m/s	Yes	No	Yes	No	Yes	No	No	4	1440	

Alarm No:	Alarm name:		Alarm explanation:									
221	<b>Wind direction signal mismatch</b>		The difference between the wind direction signals from the two wind sensors is too large									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	12 °	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	3 °	Yes	No	Yes	No	Yes	No	No	4	1440	

Alarm No:	Alarm name:		Alarm explanation:									
222	<b>Wind sensor left fault</b>		Sensor left is not in function due to validation of wind data or sensor communication									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	360 sec	3	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	Yes	Yes	Yes	No	Yes	No	No	2	1440	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
223	<b>Wind sensor right fault</b>		Sensor right is not in function due to validation of wind data or sensor communication									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	360 sec	3	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	Yes	Yes	Yes	No	Yes	No	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
224	<b>Long term yaw fault</b>		The yaw fault averaged in a long time period is too large									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	20 °	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	3 sec	5 °	No	No	Yes	Yes	Yes	No	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
225	<b>Short term yaw fault</b>		The yaw fault averaged in a short time periode is too large									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	40 °	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	3 sec	15 °	No	No	Yes	Yes	Yes	No	No	2	1440	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
226	<b>10 min wind speed high</b>		The 10 min. average wind speed is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	20 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			Windspeed is less than the (alarm set point - reset point) for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
		600 sec	2 m/s	No	Yes	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
228	<b>1 min wind speed high</b>		The 1 min. average wind speed is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	24 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			Windspeed is less than the (alarm set point - reset point) for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
		600 sec	4 m/s	No	Yes	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
230	<b>1 sec wind speed high</b>		The 1 sec. wind speed is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	32 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			Windspeed is less than the (alarm set point - reset point) for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
		600 sec	6 m/s	No	Yes	Yes	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
232	<b>Anemometer 1 fault</b>		No wind speed measurement when the generator is connected to the grid.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	5 %	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	3 m/s	Yes	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
234	<b>Wind vane 1 fault</b>		The wind vane 1 signals have not been changing for the alarm time and the power is more than the alarm set point									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	150 kW	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			The wind vane 1 signals has changed a number of times (reset time)									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	100 sec	0 kW	Yes	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
235	<b>Wind vane 2 fault</b>		The wind vane 2 signals have not been changing for the alarm time and the power is more than the alarm set point									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	150 kW	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
			The wind vane 2 signals has changed a number of times (reset time)									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	100 sec	0 kW	Yes	No	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
236	<b>Wind vane fault</b>		The signals from the two wind vanes deviates more than the alarm set point a number of times in a row (alarm time)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 times	50 %	Yes	No	No	No	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	100 sec	0 %		Yes	No	Yes	Yes	Yes	Yes	No	2	1440

Alarm No:	Alarm name:		Alarm explanation:									
237	<b>Extreme flap moment protection</b>		Extreme flap moment occurred									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	4604 kNm	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	4000 kNm		Yes	No	Yes	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
238	<b>Extreme flap moment safety stop</b>		It is not possible to estimate extreme flap moment, so as a preventive measure the turbine is stopped in high winds									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	25 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	20 m/s		Yes	No	Yes	No	Yes	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
240	<b>Ice detected</b>		The ice sensor has detected ice									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When the temperature is ok for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	3600 sec	5 °C	No	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
241	<b>Ice sensor fault</b>		No feedback from the ice sensor									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	No	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
242	<b>De-icing system fault</b>		No feedback from De-icing system									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
244	<b>EFM yaw error too high</b>		10 min. yaw error too large from wind sensor used for Extreme Flap Moment (EFM) protection									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	20 deg	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	10 deg	Yes	Yes	Yes	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
245	<b>EFM wind speed mismatch</b>		10 min. wind speed from wind sensor used for Extreme Flap Moment (EFM) protection deviates too much from 10 min. wind speed from anemometer									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	3 m/s	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	1,5 m/s	Yes	Yes	Yes	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
246	<b>Cup Anemometer defect</b>		Cup anemometer defect, turbine has switched to Ft sensor automatically									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	Yes	No	No	Yes	No	No	0	0	



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
247	<b>Wind vane defect</b>		Wind vane defect, turbine has switched to Ft sensor automatically									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
250	<b>Gear box ratio fault</b>		The speed on the generator shaft does not correspond with the speed on the rotor shaft									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	0,5	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
251	<b>Generator overspeed 1</b>		The generator speed is greater than the limit for overspeed 1									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	1040 RPM	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0 RPM		Yes	No	Yes	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
252	<b>Generator overspeed 2</b>		The generator speed is greater than the limit for overspeed 2									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	1100 RPM	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0 RPM		Yes	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
253	<b>Cut-in overspeed</b>		The generator speed is greater than the limit for overspeed during cut-in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	1033 RPM	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 RPM		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
254	<b>Rotor overspeed</b>		The rotor speed is greater than the limit for overspeed on the rotor shaft									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	15 RPM	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0 RPM		Yes	No	No	No	Yes	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
260	<b>Generator speed sensor 1 fault</b>		The generator speed (1) does not correspond with the rotor speed (1)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,04 sec	3 RPM	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 RPM		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
262	<b>Rotor speed sensor 1 fault</b>		The rotor speed (1) does not correspond with the generator speed (1)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,68 sec	500 RPM	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 RPM		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
286	<b>Transformer fan overload</b>		Circuit breaker for transformer fan tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	600 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	2	60

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
287	<b>Recooler fan overload</b>		Circuit breaker for recool fan tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	600 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	2	60

Alarm No:	Alarm name:		Alarm explanation:									
290	<b>Lubr. pump overload - generator</b>		Circuit breaker for lubrication pump for generator bearing is tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
291	<b>Nacelle fan overload</b>		Circuit breaker for nacelle fan is tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
293	<b>Yaw motor 6 overload</b>		Circuit breaker for yaw motor 6 has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
301	<b>Yaw motor 1 overload</b>		Circuit breaker for yaw motor 1 has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
302	<b>Yaw motor 2 overload</b>		Circuit breaker for yaw motor 2 has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
303	<b>Yaw motor 3 overload</b>		Circuit breaker for yaw motor 3 has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
304	<b>Yaw motor 4 overload</b>		Circuit breaker for yaw motor 4 has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
305	<b>Gear oil pump overload</b>		Circuit breaker for the gear oil pump has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
307	<b>Water pump overload</b>		Circuit breaker for the water pump has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
308	<b>Main bearing pump overload</b>		Circuit breaker for the main bearing oil pump has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		Yes	No	Yes	Yes	Yes	Yes	No	2	1440

Alarm No:	Alarm name:		Alarm explanation:									
310	<b>Shaft brake pump overload</b>		Circuit breaker for the shaft brake hydraulic pump has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
311	<b>Yaw brake pump overload</b>		Circuit breaker for the yaw brake hydraulic pump has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
312	<b>Pitch feeder pump overload</b>		Circuit breaker for the feeder pump (pitch) has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,3 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
313	<b>Pitch main pump overload</b>		Circuit breaker for the oil pump in hub (pitch) has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
315	<b>Off-line filter pump overload</b>		Circuit breaker for the gear oil off-line filter pump has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
316	<b>Yaw motor 5 overload</b>		Circuit breaker for yaw motor 5 has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
319	<b>Lubrication pump overload</b>		Circuit breaker for lubrication system has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
321	<b>Pump time shaft brake too long</b>		The hydraulic motor for the shaft brake has been running for too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	90 sec	0	Yes	No	No	Yes	No	No	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
322	<b>Pump time yaw brake too long</b>		The hydraulic motor for the yaw system has been running for too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	90 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	Yes	No	No	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
323	<b>Pump time pitch too long</b>		The hydraulic motor for the pitch system has been running for too long trying to reach stop pressure									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	Yes	No	No	No	Yes	No	No	0	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
324	<b>Pitch relief valve setting low</b>		The hydraulic motor for the pitch system has been running for too long trying to reach stop pressure									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	No	No	Yes	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
326	<b>Pump time shaft brake restart</b>		The hydraulic motor for the shaft brake has been running too long doing a recharge									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	No	No	Yes	Yes	Yes	Yes	No	2	120	

Alarm No:	Alarm name:		Alarm explanation:									
329	<b>Too freq. pitch idle valve ops</b>		The idle valve for the pitch system has been operated too many times within a short period									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	10 times	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	No	Yes	No	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
330	<b>Too freq. hub pump starts</b>		The hub pump starts too frequently in a time limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	600 sec	6 number	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:								
331	<b>Too freq. shaft brake recharge</b>		The pump for the shaft brake has been activated too many times								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3600 sec	5	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0	No	No	Yes	Yes	Yes	Yes	No	3	1440

Alarm No:	Alarm name:		Alarm explanation:								
332	<b>Max lubr. faults - generator</b>		Max number of periodical lubrications faults for generator bearing lubrication system.								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	18 times	0	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
333	<b>Max missing lubr. - generator</b>		Max number of missing lubrication on the generator bearing lubrication system									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	154 times	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
340	<b>Shaft brake 1 hot</b>		The shaft brake 1 is too hot (thermistor)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	Yes	No	No	No	No	No	
	Reference:		Reset explanation:									
			When temperature is OK for the reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	1	120	

Alarm No:	Alarm name:		Alarm explanation:									
342	<b>Shaft brake 1 worn</b>		The brake pad on shaft brake 1 is worn									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	No	Yes	No	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
344	<b>Shaft brake 1 not released</b>		Shaft brake 1 not released when requested									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	15 sec	10 bar	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
349	<b>Shaft brake locked</b>		The shaft brake lock pin is inserted									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		No	No	Yes	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
350	<b>Shaft brake too slow</b>		The time from the shaft brake being applied too the turbine stopping is too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	600 RPM	Yes	No	No	No	Yes	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 RPM		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
352	<b>Safety braking too slow</b>		The time from safety shutdown start to the turbine stopping is too long									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	13 sec	0	No	Yes	No	No	Yes	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
354	<b>Shaft brake slipping</b>		Generator rpm higher than limit in "prepare to start" mode									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5,5 sec	30 RPM	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 RPM		Yes	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
355	<b>Too slow rotation</b>		Set during "High speed start up" mode if generator speed < limit and wind speed > limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	8 m/s	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 m/s		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
356	<b>Aerodynamic braking slow</b>		The time for aerodynamic braking to stop the turbine is greater than limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	12 sec	255 RPM	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec		0 RPM	Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
357	<b>Shaft brake not released</b>		The turbine is in stop mode and the brake is applied									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	8 m/s	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec		0	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
358	<b>Gearbox oil level pressure high</b>		The gearbox oil level sensor signal is high									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	30 mBar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec		0	Yes	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
359	<b>Pitch oil low</b>		Either the very low level switch is off, or the low level switch is off and the pitch hydraulic pressure is above a limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	-100 bar	No	Yes	No	Yes	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 bar		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
360	<b>No lubric. flow main bearing</b>		The sensor for oil flow to the main bearing is off, while the pump is running									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
362	<b>Gearbox oil low</b>		The gearbox oil level sensor is off									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	40 °C	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	900 sec	0		Yes	No	Yes	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
363	<b>Max no. of lubrication faults</b>		Max number of periodical lubrications faults.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	16 times	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
364	<b>Max no. of missing lubrication</b>		Max number of missing lubrication.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	170 times	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
365	<b>Gearbox oil level pressure low</b>		The gearbox oil level sensor signal is low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	900 sec	0	No	No	Yes	Yes	Yes	Yes	No	2	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
368	<b>Hub pump inlet pressure low</b>		Pressure measured at the hub pump inlet is too low while the feeder pump is running									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	0,3 bar	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
369	<b>Hub pump inlet pressure high</b>		Pressure measured at the hub pump inlet is too high while the feeder pump is running.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	20 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
371	<b>Shaft brake pressure too high</b>		The shaft brake pressure is greater than the max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,6 sec	180 bar	Yes	No	No	Yes	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0 bar	Yes	No	Yes	Yes	Yes	Yes	No	1	1440	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
372	<b>Yaw brake pressure too high</b>		The yaw brake pressure has exceed the max limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	180 bar	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	1	1440

Alarm No:	Alarm name:		Alarm explanation:								
376	<b>Shaft brake pressure too low</b>		The shaft brake pressure is less than the min limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	35 bar	Yes	No	No	No	Yes	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0 bar	Yes	No	Yes	Yes	Yes	Yes	No	1	1440

Alarm No:	Alarm name:		Alarm explanation:								
377	<b>Yaw brake pressure too low</b>		The yaw brake pressure is less than the min limit								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	0,5 sec	100 bar	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
378	<b>Active brake pressure too low</b>		The active brake pressure is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	28 bar	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		Yes	No	Yes	Yes	Yes	No	No	3	60

Alarm No:	Alarm name:		Alarm explanation:									
379	<b>Gear oil pressure too low</b>		The gearbox oil pressure is less than the min limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	0,5 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 bar		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
380	<b>Platform switch</b>		The limit switch on the trapdoor on the platform has been activated									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
381	<b>Yaw brake not released</b>		Yaw brake not released when requested									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	30 bar	Yes	No	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 sec		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
382	<b>Yaw brake bypass valve defect</b>		Yaw brake by-pass valve is defect									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	5 sec	5 bar	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 sec		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
383	<b>Drip tray level high</b>		The level switch in the lubrication pump drip tray is off									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
384	<b>Hub filter clogged</b>		The sensor for hub filters clogged is off									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	10 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
387	<b>Off-line filter clogged</b>		The sensor for the off-line filter clogged is off while the off-line filter pump is running									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	600 sec	30 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
388	<b>Gear oil filter clogged</b>		The sensor for the gearbox oil cooler filter clogged is off while the oil cooling pump is running and the gearbox temp > [parameter]									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	300 sec	55 °C	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	Yes	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
389	Feeder pump filter clogged		The sensor for feeder pump filter clogged is off								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	60 sec	10 °C	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
391	Speed sensor fault TAC84		One of the speed sensors connected to the TAC84 does not agree with the other								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	0	No	Yes	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
392	Vibration sensor fault TAC84		The accelerometer connected to the TAC84 is not working								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
393	<b>Vibration TAC84</b>		The TAC84 has detected a high vibration level									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	300 sec	20 m/s		Yes	No	Yes	Yes	Yes	Yes	No	3	180

Alarm No:	Alarm name:		Alarm explanation:									
394	<b>Overspeed guard TAC84</b>		The overspeed guard TAC 84 has been activated									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,3 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0		Yes	No	Yes	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
395	<b>Vibration in nacelle</b>		The vibration ball has come off its holder									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
396	<b>Sensor fault / direction TAC85</b>		One of the speed sensors connected to the TAC85 is not working or the rotor is turning in the wrong direction									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
397	<b>Overspeed guard TAC85</b>		The overspeed guard TAC 85 has been activated									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,3 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	30 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
398	<b>TAC 84 com. fault</b>		Communication to TAC 84 missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	3	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	600 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	2	1440

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
399	<b>TAC 85 com. fault</b>		Communication to TAC 85 missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	3	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	Yes	Yes	Yes	Yes	Yes	Yes	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
400	<b>Speed change g-&gt;G fault</b>		The speed change time from g to G has exceeded the alarm time. (Not tested when the generator speed is below the alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3600 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	No	No	Yes	Yes	Yes	Yes	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
401	<b>Speed change G-&gt;g fault</b>		The speed change time from G to g has exceeded the alarm time.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3600 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	No	No	Yes	Yes	Yes	Yes	No	2	1440	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
403	<b>Pitch ac. pressure deviation</b>		The pressure of two accumulators differs by more than lower limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	25 bar	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 bar		No	No	Yes	No	Yes	No	No	0	1440

Alarm No:	Alarm name:		Alarm explanation:									
404	<b>Pitch accel. fault blade 1</b>		Blade 1 has not moved far enough toward stop position during the start of a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	3 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
405	<b>Pitch accel. fault blade 2</b>		Blade 2 has not moved far enough toward stop position during the start of a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	3 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
406	<b>Pitch accel. fault blade 3</b>		Blade 3 has not moved far enough toward stop position during the start of a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	3 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
432	<b>Blade 1 not at stop</b>		Indicates that blade 1 has not pitched back close enough to stop during a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	45 sec	-94 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
433	<b>Blade 2 not at stop</b>		Indicates that blade 2 has not pitched back close enough to stop during a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	45 sec	-94 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
434	<b>Blade 3 not at stop</b>		Indicates that blade 3 has not pitched back close enough to stop during a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	45 sec	-94 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
438	<b>Hub valve supply off</b>		The supply to the hub valves is missing.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
440	<b>Hub hatch open</b>		The limit switch on the hub hatch is off									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	No	Yes	No	No	Yes	Yes	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
441	<b>Hub hatch override</b>		The power supply for the manual control pendant is on									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	No	Yes	No	No	Yes	Yes	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	2 sec	0		Yes	No	Yes	No	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
445	<b>Hub computer com. fault</b>		Communication between the TAC and hub computer has failed. Must be disabled if running without hubcomputer.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	4 number	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When communication has been OK for reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	Yes	No	Yes	Yes	Yes	Yes	Yes	3	120	

Alarm No:	Alarm name:		Alarm explanation:									
448	<b>Charging pitch in stop mode</b>		Charging pitch in stop mode, due to a blade not fully back in stop or pressure very low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	60 sec	0 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
449	<b>Hub interlock triggered</b>		The pitch system is in shutdown state and the hub computer cannot bring the pitch system in the state required by the TAC. Probably caused by an fault in the pitch system or a slip ring problem									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
451	<b>Pitch seized</b>		Shutting down, but any blade angle greater than a limit after a time									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3 sec	-20 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
457	<b>Unbalanced pitch shutdown</b>		The difference in pitch position between any blades is greater than max limit during a shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	10 °	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0 °		Yes	Yes	Yes	Yes	Yes	Yes	No	3	120



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
458	<b>Two blades too far from stop</b>		Two blades are too far from stop position during manual control by the control pendent (control box), further pitching prohibited									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	-80 °	No	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	5 sec	0,5 °		No	No	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
459	<b>Run pitch pressure low</b>		Pressure is too low in the run position									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	180 bar	No	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 bar		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
463	<b>High press. pitching prohibited</b>		Pressure too high to move blade manually from stop									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	-90 °	No	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	5 sec	0,5 °		No	No	Yes	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
467	<b>Pitch ac. pressure high</b>		Accumulator pressure is too high									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	260 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
468	<b>Pitch ac. pressure mismatch</b>		The pressure of two accumulators differs by more than max limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	50 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
469	<b>Pitch ac. press. sensor fault</b>		The signal from one of the accumulator pressure sensors is missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	16 bar	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 number	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
473	<b>Hub output supply unstable</b>		The supply for hydraulic valves in hub is unstable (monitered by hub computer)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	5 sec	2 times	No	Yes	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0

Alarm No:	Alarm name:		Alarm explanation:								
474	<b>Pitch pos sensor fault blade 1</b>		The signal from one of the pitch position sensors is missing blade 1								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	0,04 sec	3 °	No	Yes	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0

Alarm No:	Alarm name:		Alarm explanation:								
475	<b>Pitch pos sensor fault blade 2</b>		The signal from one of the pitch position sensors is missing blade 2								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	0,04 sec	3 °	No	Yes	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
476	<b>Pitch pos sensor fault blade 3</b>		The signal from one of the pitch position sensors is missing blade 3									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,04 sec	3 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
477	<b>Pitch pos sig unstable blade 1</b>		There is too much variation in the pitch position signal blade 1									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0,4 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
478	<b>Pitch pos sig unstable blade 2</b>		There is too much variation in the pitch position signal blade 2									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0,4 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
479	<b>Pitch pos sig unstable blade 3</b>		There is too much variation in the pitch position signal blade 3									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0,4 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
480	<b>Mode timeout fault</b>		The turbine has been in a short-time mode (e.g. 'Prepare to start') longer then allowed									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1800 sec	0	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		Yes	No	Yes	Yes	Yes	Yes	No	3	120

Alarm No:	Alarm name:		Alarm explanation:									
481	<b>Shut down system check</b>		The turbine has is performing a shutdown system check									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	40 day	7 hour	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0 hour		No	Yes	Yes	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
485	<b>Too freq. pitch recharge</b>		Too many recharge operations in a [parameter] period									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3600 sec	5 times	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0 times	Yes	Yes	No	Yes	Yes	Yes	No	3	120	

Alarm No:	Alarm name:		Alarm explanation:									
486	<b>Unbalanced pitch</b>		The angle on two blades differs more than max limit when not in shutdown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	2 sec	1 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			After reset time									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0 °	Yes	No	Yes	Yes	Yes	Yes	No	3	120	

Alarm No:	Alarm name:		Alarm explanation:									
487	<b>Pitching to run fault blade 1</b>		Pitch position has not reached demand within a time limit on pitching to run blade 1. Act. alarm time=alarm time+(change in pitch angle*alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	2 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
488	<b>Pitching to run fault blade 2</b>		Pitch position has not reached demand within a time limit on pitching to run blade 2. Act. alarm time=alarm time+(change in pitch angle*alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	2 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
489	<b>Pitching to run fault blade 3</b>		Pitch position has not reached demand within a time limit on pitching to run blade 3. Act. alarm time=alarm time+(change in pitch angle*alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	2 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
490	<b>Pitching to stop fault blade 1</b>		Pitch position has not reached demand within a time limit on pitching to stop blade 1. Act. alarm time=alarm time+(change in pitch angle*alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	2 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
491	<b>Pitching to stop fault blade 2</b>		Pitch position has not reached demand within a time limit on pitching to stop blade 2. Act. alarm time=alarm time+(change in pitch angle*alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	2 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
492	<b>Pitching to stop fault blade 3</b>		Pitch position has not reached demand within a time limit on pitching to stop blade 3. Act. alarm time=alarm time+(change in pitch angle*alarm set point)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	2 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
499	<b>Unbalanced pitch - Generation</b>		The angle on two blades differs more than alarm setpoint, when turbine is in a stationary operation mode (not stop mode)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0,5 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
500	<b>24 VDC supply off</b>		The 24VDC supply for the sensors is missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	10 sec	0		Yes	No	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
504	<b>Main CB 1 tripped</b>		Main Circuit Breaker 1 tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,02 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
508	<b>Gen. g CB tripped</b>		Main circuit breaker for small generator is tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
510	<b>CB tripped main panel</b>		Circuit breaker in the main panel has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
511	<b>CB tripped valve supply</b>		Circuit breaker for supply in top box to valves has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
512	<b>CB tripped hub supply</b>		Circuit breaker for supply to hub computer (pitch) has tripped									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
515	<b>Emergency relay open</b>		The emergency relay is still open after a reset of emergency line									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,8 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
516	<b>Safety relay open</b>		The safety relay is still open after a reset of safety line									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,8 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
518	<b>24 VDC Supply off top box</b>		The input in topbox for monitoring 24VDC supply is off									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,03 sec	0	No	Yes	No	No	No	No	No	No	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
530	<b>Gen. G contactor open</b>		Auxiliary contact open on contactor generator G, when output is set high									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
531	<b>Gen. g contactor open</b>		Auxiliary contact open on contactor generator g, when output is set high									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
532	<b>By-pass contactor open</b>		Auxiliary contact open on by-pass contactor, when output is set high									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
563	<b>Thyristor fuse blown</b>		Thyristor fuse blown									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
564	<b>Pitch soft starter fault</b>		The soft start for the hub oil pump has not reached top of of ramp within a time limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	15 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
570	<b>Dynamic phase comp. com. Fault</b>		Communication between the TAC and the dynamic phase compensation unit (Elspec) has failed. Must be disabled if running without dynamic phase compensation									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	4 number	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	120 sec	0	No	Yes	Yes	Yes	Yes	Yes	No	2	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
571	<b>Dynamic phase comp. Alarm</b>		Alarm has occurred in the dynamic phase compensation module. More specific alarm codes are implemented later.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	120 sec	500 kW	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	120 sec	0		No	Yes	Yes	Yes	Yes	Yes	No	1	360

Alarm No:	Alarm name:		Alarm explanation:									
572	<b>Dynamic phase comp. group fault</b>		Alarm has occurred in one or more of the dynamic phase compensation groups.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	8400 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	120 sec	0		No	Yes	Yes	Yes	Yes	Yes	No	1	360

Alarm No:	Alarm name:		Alarm explanation:									
574	<b>Alstom PCS communication fault</b>		Communication or heartbeat from Alstom PCS missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	4 number	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	120 sec	0		No	Yes	Yes	Yes	Yes	Yes	No	2	60

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
575	<b>Alstom PCS fault</b>		Alstom PCS reports fault or the PCS has not been able to achieve set point									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	120 sec	500 kW	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	120 sec	0	No	Yes	Yes	Yes	Yes	Yes	No	3	60	

Alarm No:	Alarm name:		Alarm explanation:									
590	<b>TAC 84 downwind com. fault</b>		Communication to TAC 84 downwind missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	3	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	Yes	Yes	Yes	Yes	Yes	Yes	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
591	<b>Speed sensor fault TAC84 downwind</b>		The speed sensor connected to the TAC84 downwind is not giving sufficient output compared to the vibration sensor (sensor control). Note, this alarm code is received by serial communication to the module.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
592	<b>Vibration sensor fault TAC84 downwind</b>		The accelerometer connected to the TAC84 downwind is not giving sufficient output compared to the speed sensor (sensor control). Note, this alarm code is received by serial communication to the module.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
593	<b>Vibration TAC84 downwind</b>		TAC84 downwind has detected a high vibration level. Note, this alarm code is received by serial communication to the module.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		No	No	Yes	Yes	Yes	Yes	No	2	60

Alarm No:	Alarm name:		Alarm explanation:									
594	<b>TAC84 fault - downwind</b>		Input from TAC 84 downwind, indicating an alarm is active in the module (vibration, sensor fault)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
595	<b>TAC 84 lateral com. Fault</b>		Communication to TAC 84 lateral missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	3	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	Yes	Yes	Yes	Yes	Yes	Yes	No	2	1440	

Alarm No:	Alarm name:		Alarm explanation:									
596	<b>Speed sensor fault TAC84 lateral</b>		The speed sensors connected to the TAC84 lateral is not giving sufficient output compared to the vibration sensor (sensor control). Note, this alarm code is recieved by serial communication to the module.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
597	<b>Vibration sensor fault TAC84 lateral</b>		The accelerometer connected to the TAC84 lateral is not giving sufficient output compared to the speed sensor (sensor control). Note, this alarm code is recieved by serial communication to the module.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
598	<b>Vibration TAC84 lateral</b>		TAC84 lateral has detected a high vibration level. Note, this alarm code is recieved by serial communication to the module.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		No	No	Yes	Yes	Yes	Yes	No	2	60

Alarm No:	Alarm name:		Alarm explanation:									
599	<b>TAC84 fault - lateral</b>		Input from TAC 84 lateral, indicating an alarm is active in the module (vibration, sensor fault)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,2 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
600	<b>Manual stop top box</b>		Stop button on the top box has been pressed									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	Yes	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	No	No	No	Yes	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
601	<b>Manual stop keyboard</b>		Stop button on the TAC keyboard has been pressed									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	Yes	No	No	No	Yes	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	No	No	Yes	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
602	<b>Emergency stop</b>		Emergency Stop 1									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,4 sec	0	No	Yes	No	No	Yes	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
603	<b>Safety stop</b>		Emergency Stop 2									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	No	Yes	No	No	No	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
604	<b>Remote stop</b>		The turbine has been stopped by remote stop command									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
605	<b>Remote start</b>		The turbine has been started by remote start command									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	Yes	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
608	<b>Remote power management stop</b>		The turbine has been stopped by the remote system (Windman Server)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	Yes	No	No	No	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
609	<b>Remote curtailment stop</b>		The turbine has been stopped by the remote system (Windman Server)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	Yes	No	No	No	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
610	<b>Remote environmental stop</b>		The turbine has been stopped by the remote system (Windman Server)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	Yes	No	No	No	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
611	<b>Remote owner stop</b>		The turbine has been stopped by owner via the remote system (Windman Server)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	Yes	No	No	No	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
612	<b>Remote utility stop</b>		The turbine has been stopped by utility via the remote system (Windman Server)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	No	Yes	No	No	No	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
613	<b>Remote manufacturer stop</b>		The turbine has been stopped by manufacturer via the remote system (Windman Server)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	0	Yes	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	No	Yes	No	No	No	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
621	<b>Service key</b>		The service key on the main/computer panel is activated									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	No	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	1 sec	0	No	No	Yes	No	No	No	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
630	Gen. G contactor closed		Auxiliary contact closed on contactor generator G, when output is set low								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	1 sec	0	Yes	No	No	No	No	No	Yes	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
631	Gen. g contactor closed		Auxiliary contact closed on contactor generator g, when output is set low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0		

Alarm No:	Alarm name:		Alarm explanation:									
632	By-pass contactor closed		Auxiliary contact closed on by-pass contactor, when output is set low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
684	Transient - control panel		No feedback from the Dehnguard over voltage protection in the control panel								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	1 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
686	Battery charger fault		Input for brake back up battery charger fault is low								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	10 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
687	Battery voltage low		Input for brake back up battery voltage level is low								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	1 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
689	Beacon light fault		Input from the navigation beacon is low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
60 sec	0	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0		

Alarm No:	Alarm name:		Alarm explanation:									
691	External alarm 1		External alarm 1									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	10 sec	0	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
692	External alarm 2		External alarm 2									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	10 sec	0	Yes	Yes	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
750	<b>Safety line test fault</b>		The test of the safety line has failed									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
754	<b>Pitch press test fault blade 1</b>		Testing of pitch accumulator pressure in blade 1 showed a larger deviation than limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	300 sec	0	No	No	Yes	No	Yes	No	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
755	<b>Pitch press test fault blade 2</b>		Testing of pitch accumulator pressure in blade 2 showed a larger deviation than limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	300 sec	0	No	No	Yes	No	Yes	No	No	2	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
756	<b>Pitch press test fault blade 3</b>		Testing of pitch accumulator pressure in blade 3 showed a larger deviation than limit									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,2 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	300 sec	0	No	No	Yes	No	Yes	No	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
758	<b>Hub valve supply test fault</b>		The test of the feedback for valve supply has been detected ON when safety line is open during testing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1,5 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
760	<b>Phase comp. test fault</b>		The test of the phase compensation has failed									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	25 %	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 %	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
761	<b>Shutdown test fault blade 1</b>		Blade 1 has not moved sufficiently during the shutdown valve test.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	4 °	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
762	<b>Shutdown test fault blade 2</b>		Blade 2 has not moved sufficiently during the shutdown valve test.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	4 °	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
763	<b>Shutdown test fault blade 3</b>		Blade 3 has not moved sufficiently during the shutdown valve test.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	4 °	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	No	Yes	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
764	<b>Safety line shutdown test fault</b>		Safety line shutdown test failed - blades did not move into stop.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	20 sec	-90 °	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
765	<b>Flush valve test fault</b>		Opening the flush valve does not change the hub inlet pressure as expected.									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	1,5 bar	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	7200 sec	0		Yes	No	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
775	<b>UPS load protected</b>		The UPS system for control supply reports a fault in the UPS									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	2	60

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
776	<b>UPS battery fault</b>		There is a fault in the battery in the UPS system is low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	2	60

Alarm No:	Alarm name:		Alarm explanation:									
780	<b>Ext. generator active</b>		An external generator is supplying auxiliary power when grid is off									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,03 sec	0	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	5 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
800	<b>Phase comp. 1 fault</b>		The reactive power is not correct for the number of capacitors switched in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
801	<b>Phase comp. 2 fault</b>		The reactive power is not correct for the number of capacitors switched in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
802	<b>Phase comp. 3 fault</b>		The reactive power is not correct for the number of capacitors switched in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
803	<b>Phase comp. 4 fault</b>		The reactive power is not correct for the number of capacitors switched in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
804	<b>Phase comp. 5 fault</b>		The reactive power is not correct for the number of capacitors switched in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
810	<b>Pt100 fault main bearing oil</b>		The signal from the temperature sensor in the main bearing oil is outside limits (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
816	<b>Pt100 fault Ups Panel</b>		The signal from the temperature sensor in the Ups panel is outside limits (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		No	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
820	<b>Thyristor L1 open circuit</b>		The current on Phase L1 is less than the min limit during the thyristor test									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	10 A	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
821	<b>Thyristor L2 open circuit</b>		The current on Phase L2 is less than the min limit during the thyristor test									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	10 A	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	No	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
822	<b>Thyristor L3 open circuit</b>		The current on Phase L3 is less than the min limit during the thyristor test									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,5 sec	10 A	Yes	No	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	No	Yes	No	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
823	<b>Thyristor L1 short circuit</b>		The current on Phase L1 is greater than the max limit and the thyristor has not been started									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	200 kW	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 A		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
824	<b>Thyristor L2 short circuit</b>		The current on Phase L2 is greater than the max limit and the thyristor has not been started									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	200 kW	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 A		Yes	No	No	No	Yes	No	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
825	<b>Thyristor L3 short circuit</b>		The current on Phase L3 is greater than the max limit and the thyristor has not been started									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	200 kW	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 A		Yes	No	No	No	Yes	No	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
833	Pt100 fault water after cooler 2		The signal from the 2nd temperature sensor after the water cooler is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
834	Pt100 fault gear bear. rear gen. side		The signal from the temperature sensor on gearbox bearing rear gen. side is out limit (-40 to 200 °C) The signal from the temperature sensor on gearbox bearing rear is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
835	Power consumption sensor fault		The signal from module to measurement of power consumption is missing								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	-5 kW	No	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0	Yes	Yes	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
836	<b>Press. sensor fault yaw br. Ac.</b>		The signal from the pressure sensor for yaw brake hyd. is missing								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	-5 bar	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0

Alarm No:	Alarm name:		Alarm explanation:								
837	<b>Press. sensor fault brake Acc.</b>		The signal from the pressure sensor for brake hyd. is missing								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	-5 bar	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number
	0 sec	0		Yes	No	No	Yes	Yes	Yes	No	0

Alarm No:	Alarm name:		Alarm explanation:								
841	<b>Press. sensor fault shaft brake</b>		The signal from the pressure sensor for the shaft brake is missing								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	3 sec	-5 bar	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number
	0 sec	0 bar		Yes	No	No	Yes	Yes	Yes	No	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
842	<b>Press. sensor fault hub inlet</b>		The signal from the pressure sensor for the Hub Inlet is missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3 sec	-1 bar	No	Yes	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
843	<b>Press. sensor fault yaw brake</b>		The signal from the pressure sensor for the yaw brakes is missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3 sec	-5 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
844	<b>Press. sensor fault gear oil</b>		The signal from the pressure sensor for gear oil is missing									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	3 sec	-0,5 bar	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 bar	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
848	<b>Pt100 fault interm. gear front</b>		The signal from the temperature sensor in the stator filter is outside limits (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
849	<b>Pt100 fault interm. gear rear</b>		The signal from the temperature sensor in the stator filter is outside limits (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
851	<b>Pt100 fault Pitch Accumulator</b>		The signal from the temperature sensor in pitch accumulator tank is out limit (-45 to 85 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
860	<b>Pt100 fault generator G</b>		The signal from the temperature sensor in generator G is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
861	<b>Pt100 fault gear oil</b>		The signal from the temperature sensor in the gearbox is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
862	<b>Pt100 fault ambient</b>		The signal from the ambient temperature sensor is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
863	<b>Pt100 fault pitch oil</b>		The signal from the temperature sensor in the hub is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
864	<b>Pt100 fault thyristor</b>		The signal from the temperature sensor on the thyristor is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
865	<b>Pt100 fault main panel</b>		The signal from the temperature sensor in the main panel is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
866	<b>Pt100 fault nacelle</b>		The signal from the temperature sensor in the nacelle is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
867	<b>Pt100 fault generator g</b>		The signal from the temperature sensor in generator g is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
869	<b>Pt100 fault gear bear. front</b>		The signal from the temperature sensor on gearbox bearing front is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
870	Pt100 fault gear bear. rear		The signal from the temperature sensor on gearbox bearing rear is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
871	Pt100 fault main bearing		The signal from the temperature sensor on the main bearing is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
873	Pt100 fault yaw rim		The signal from the temperature sensor on the yaw rim is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
875	<b>Pt100 fault transformer</b>		The signal from the temperature sensor in the transformer is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
876	<b>Pt100 fault gen. bear. front</b>		The signal from the temperature sensor on generator bearing front is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
877	<b>Pt100 fault gen. bear. rear</b>		The signal from the temperature sensor on generator bearing rear is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
878	<b>Pt100 fault hub panel</b>		The signal from the temperature sensor in the hub computer panel is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
880	<b>Pt100 fault water before cooler</b>		The signal from the temperature sensor before the water cooler is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
881	<b>Pt100 fault water after cooler</b>		The signal from the temperature sensor after the water cooler is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:								
882	Pt100 fault gear oil exchanger		The signal from the temperature sensor after the gearbox oil cooler is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
885	Pt100 fault transformer W1		The signal from the temperature sensor in winding 1 of the main transformer is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:								
886	Pt100 fault transformer W2		The signal from the temperature sensor in winding 2 of the main transformer is out limit (-40 to 200 °C)								
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:
	30 sec	0	Yes	No	No	No	No	No	No	No	No
	Reference:		Reset explanation:								
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
887	<b>Pt100 fault transformer W3</b>		The signal from the temperature sensor in winding 3 of the main transformer is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
888	<b>Pt100 fault control panel</b>		The signal from the temperature sensor in the control panel is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
889	<b>Pt100 fault phase comp.</b>		The signal from the temperature sensor in the phase compensation panel is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 °C		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
890	<b>Pt100 fault tower base</b>		The signal from the temperature sensor in the tower base is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
891	<b>Pt100 fault top box</b>		The signal from the temperature sensor in the top box is out limit (-40 to 200 °C)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	30 sec	0	Yes	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 °C	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
906	<b>No grid measurement</b>		The TAC computer is not receiving grid data from the DSP									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,02 sec	0	Yes	No	No	No	No	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	100 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
908	<b>MCU1b timeout</b>		Internal TAC II fault									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,03 sec	0	No	Yes	No	No	No	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	100 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
914	<b>MCU1b EEPROM fault</b>		Internal TAC II fault, calibration data lost									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	No	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
920	<b>Remote programming</b>		Downloading is in progress									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	0	No	Yes	No	No	No	No	No	No	Yes	
	Reference:		Reset explanation:									
			When reset time is reached after download has finished									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	600 sec	0	No	No	Yes	Yes	Yes	Yes	No	0	0	



## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
930	<b>Internal battery low</b>		The voltage of the internal battery is low									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	10 sec	100 number	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	10 sec	1000 number	Yes	Yes	Yes	No	No	No	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
950	<b>Parameter fault 1</b>		There is an internal parameter fault in the TAC II									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
951	<b>Parameter fault 2</b>		There is an internal parameter fault in the TAC II									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
952	<b>Recall factory parameters</b>		A recall of factory parameters has been made									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	Yes	No	No	No	Yes	No	Yes	Yes	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0	No	No	No	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
981	<b>Cut-in phase sequence fault</b>		Phase sequence fault during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	0	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
			When reset time is reached									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	3	60	

Alarm No:	Alarm name:		Alarm explanation:									
982	<b>Cut-in frequency fault</b>		Frequency fault during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	0	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	60 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	3	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
983	<b>Cut-in phase vector fault</b>		Phase voltage vector fault during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	0 %	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0 %		Yes	No	No	Yes	Yes	Yes	No	3	60

Alarm No:	Alarm name:		Alarm explanation:									
984	<b>Cut-in peak current L1</b>		During cut-in the peak current is greater than the max limit during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	3069 A	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 A		Yes	No	No	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
985	<b>Cut-in peak current L2</b>		During cut-in the peak current is greater than the max limit during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	3069 A	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0 A		Yes	No	No	Yes	Yes	Yes	No	0	0

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
986	<b>Cut-in peak current L3</b>		During cut-in the peak current is greater than the max limit during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,01 sec	3069 A	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
987	<b>Cut-in avg. current L1</b>		During cut-in the average current is greater than the max limit during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	2300 A	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
988	<b>Cut-in avg. current L2</b>		During cut-in the average current is greater than the max limit during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	2300 A	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	Yes	Yes	Yes	No	0	0	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
989	<b>Cut-in avg. current L3</b>		During cut-in the average current is greater than the max limit during cut in									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,1 sec	2300 A	No	Yes	No	No	No	Yes	No	No	No	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	0 sec	0 A	Yes	No	No	Yes	Yes	Yes	No	0	0	

Alarm No:	Alarm name:		Alarm explanation:									
992	<b>TOI number 1 comm. Fault</b>		TOI II number 1 is not communicating correctly with the TAC computer									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,03 sec	0	No	Yes	No	No	No	No	No	No	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	20 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	2	60	

Alarm No:	Alarm name:		Alarm explanation:									
993	<b>TOI number 2 comm. Fault</b>		TOI II number 2 is not communicating correctly with the TAC computer									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	0,03 sec	0	No	Yes	No	No	No	No	No	No	Yes	
	Reference:		Reset explanation:									
	Reset time:	Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:	
	20 sec	0	Yes	No	Yes	Yes	Yes	Yes	No	2	60	

## Stop and reset functions for V82/NM82/1650 2 speed 50Hz Standard Type 470

Alarm No:	Alarm name:		Alarm explanation:									
998	<b>Max stop time</b>		The turbine has been with failure for too long (warning)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	6 hours	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	60 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	0	0

Alarm No:	Alarm name:		Alarm explanation:									
999	<b>Max automatic reset times</b>		Automatic reset has been attempted too many times within a time limit (stops automatic reset)									
	Alarm time:	Alarm set point:	Pitch control- led to stop:	Pitch shutdown:	Open safety line:	Apply brake on speed:	Apply brake immediately:	Cut-out generator:	Trip main circuit breaker:	Stop auto yaw:	Stop all yaw:	
	1 sec	0	No	No	No	No	No	No	No	No	No	
	Reference:		Reset explanation:									
	Reset time:		Reset set point:	Alarm call:	Event availability:	Automatic reset:	Manual reset:	Service reset:	Remote reset:	Power up reset:	Max number	Time between reset:
	0 sec	0		Yes	Yes	Yes	Yes	Yes	Yes	No	0	0