IDNext 974 P/B -HC

Electronic controllers compatible with flammable refrigerant gases

Parameters Tables

by Schneider Electric

Legal Information

User Parameters IDNext 974 P/B

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
SEt	Control setpoint with range between the minimum **LSE** setpoint and the maximum **HSE** setpoint. The setpoint value is set in the 'Machine Status' menu.	**LSE**...**HSE**	°C/°F		3.0	3.0	0.0	-18.0
diF	Compressor relay activation differential; the compressor stops when the setpoint value is reached (as indicated by the control probe) and restarts at a temperature value equal to the setpoint plus the differential value.	0.1...30.0	°C/°F		2.0	2.0	2.0	2.0
LSE	Minimum setpoint value.	-67.0...**HSE**	°C/°F		-55.0	-55.0	-55.0	-55.0
HSE	Maximum setpoint value.	**LSE**...302	°C/°F		140.0	140.0	140.0	140.0
dEt	Defrost timeout. Determines the maximum duration of the defrost	1...250	min		30	30	30	30
dS1	Evaporator 1 defrost end temperature (measured by probe Pb2)	-67.0...302	°C/°F		8.0	8.0	8.0	8.0
dit	Time interval between one defrost and the next	0...250	hours		6	6	6	6
FSt	Fan disabling temperature; a value, read by the evaporator probe.	-67.0...320	°C/°F		8.0	8.0	8.0	8.0
Fdt	Fan activation delay time after a defrost.	0...250	min		0	0	0	0
dt	Dripping time.	0...250	min		0	0	0	0
dFd	Used to select or deselect the exclusion of the evaporator fans during defrosting. • **n**(0) = no • **y**(1) = yes (fan excluded - off).	n/y	flag		y	y	y	y
HAL	Maximum temperature alarm. Temperature value (in an absolute or relative value - see **Att**) which, when exceeded, will lead to the activation of alarm signaling.	**LAL**...302	°C/°F		150.0	150.0	150.0	150.0
LAL	Minimum temperature alarm. Temperature value (in an absolute or relative value - see **Att**) which, when not reached, will lead to the activation of alarm signaling.	-67,0...**HAL**	°C/°F		-50.0	-50.0	-50.0	-50.0
CA1 (!)	Positive or negative temperature value to be added to the value of Pb1.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
CA2 (!)	Positive or negative temperature value to be added to the value of Pb2.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
PS1	When enabled (**PS1**≠0) this is the access key for the user parameters.	0...250	num		0	0	0	0
H42	Probe Pb2 present. • **n**(0) = not present • **y**(1) = present.	n/y	flag		y	y	y	y
tAb	Reserved: read-only parameter.	/	/		/ (not in applications)			

Note: the “User” menu parameters also include **PA2**, which allows access to the "Installer" menu.

Note: for the full list of parameters, see the section "**Installer parameters**".

Installer Parameters IDNext 974 P/B

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
SEt	Control setpoint with range between the minimum **LSE** setpoint and the maximum **HSE** setpoint. The setpoint value is set in the 'Machine Status' menu.	**LSE**...**HSE**	°C/°F		3.0	3.0	0.0	-18.0
CP (Compressor)								
diF	Compressor relay activation differential; the compressor stops when the setpoint value is reached (as indicated by the control probe) and restarts at a temperature value equal to the setpoint plus the differential value.	0.1...30.0	°C/°F		2.0	2.0	2.0	2.0
LSE	Minimum setpoint value.	-67.0...**HSE**	°C/°F		-55.0	-55.0	-55.0	-55.0
HSE	Maximum setpoint value.	**LSE**...302	°C/°F		140.0	140.0	140.0	140.0
HC	The regulator implements either cold operation (set "**C**(0)") or for hot (set "**H**(1)").	C/H	flag		0	0	0	0
ont	Regulator power-on time for a inoperable probe: • if **Ont** = 1 and **OFt** = 0 compressor is always on • if **Ont** = 1 and **OFt** > 0 compressor in duty cycle mode	0...250	min		15	15	15	15
oFt	Regulator power-off time for a inoperable probe: • if **OFt** = 1 and **Ont** = 0 compressor is always off • if **OFt** = 1 and **Ont** > 0 compressor in duty cycle mode	0...250	min		15	15	15	15
don	Compressor relay activation delay time after request	0...250	s		0	0	0	0
doF	Delay time after power-off: the delay time indicated must elapse between deactivation of the compressor relay and the next power-on.	0...250	min		0	0	0	0
dbi	Delay time between power-ons; the delay time indicated must elapse between two consecutive compressor power-ons.	0...250	min		0	0	0	0
Cit	Minimum compressor activation time before it can be deactivated. If **Cit** = 0 it is not active.	0...250	min		0	0	0	0
CAt	Maximum compressor activation time before it can be deactivated. If **CAt** = 0 it is not active.	0...250	min		0	0	0	0
odo (!)	Delay in activating outputs after the controller is powered on or after a power failure. **0** = not active.	0...250	min		0	0	0	0
dcS	"Deep Cooling Cycle" setpoint	-67.0...302	°C/°F		0.0	0.0	0.0	0.0
tdC	"Deep Cooling Cycle" duration	0...250	min		0	0	0	0
dcc	Defrost activation delay after a "Deep Cooling Cycle"	0...250	min		0	0	0	0
CP2	Compressor 2 activation delay.	0...250	min		0	0	0	0
dFA	Condenser fan and compressor activation delay from the request.	0...250	s		0	0	0	0
dEF (Defrost)								
dty	Type of defrost. • **0** = electric defrost or due to stoppage - compressor OFF during defrost • **1** = cycle inversion (hot gas) defrost; compressor on during defrost • **2** = defrost with "Free" mode; defrost independent of compressor.	0/1/2	num		0	0	0	0
doH	Defrost cycle activation delay from the call	0...250	min		0	0	0	0
dEt	Defrost timeout. Determines the maximum duration of the defrost	1...250	min		30	30	30	30
dS1	Evaporator 1 defrost end temperature (measured by probe Pb2)	-67.0...302	°C/°F		8.0	8.0	8.0	8.0
dPo	Defrost activation request at power-on, if the temperature measured by Pb2 allows. • **n**(0) = no • **y**(1) = yes.	n/y	flag		n	n	n	n

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
tCd	Minimum period of time with the compressor ON or OFF before defrost is activated.	-127...127	min		0	0	0	0
Cod	Time with the compressor OFF before defrost is activated	0...250	min		0	0	0	0
dMr	Enables the defrost count reset in the case of manual defrosting. • **n** = count reset does not take place • **y** = count reset takes place	n/y	flag		n	n	n	n
d00	Compressor running time before defrost is activated	0...250	hours		0	0	0	0
d01	**d00** unit of measure. • **0** = hours • **1** = minutes • **2** = seconds.	0/1/2	num		0	0	0	0
dit	Time interval between one defrost and the next	0...250	hours		6	6	6	6
d11	**dit** unit of measure. • **0** = hours • **1** = minutes • **2** = seconds.	0/1/2	num		0	0	0	0
d20	Can be used to activate the defrost when the compressor is off. • **0** = disabled. Defrost is not activated. • **1** = enabled. Defrost is activated when the compressor is off.	0/1	flag		0	0	0	0
d40	Enables/disables use of probe Pb2. • **0** = disabled. Defrost does not take Pb2 into account • **1** = enabled. Defrost runs according to the value read by Pb2 (only refers to defrost with threshold)	0/1	flag		0	0	0	0
d41	Sets the defrost activation threshold	-67.0...302	°C/°F		0.0	0.0	0.0	0.0
d42	Sets the maximum time for which the evaporator can remain under the threshold **d41**	0...250	min		0	0	0	0
d43	Sets the type of time count in which the evaporator temperature remains under the threshold value. • **0** = count independent of the compressor status • **1** = count with compressor on (when the compressor is off the count begins again) • **2** = count independent of the compressor status. The count stops when the temperature rises above the threshold **d41** • **3** = count with compressor on and until the temperature rises above the threshold **d41**	0...3	num		0	0	0	0
d44	Sets the threshold management mode. • **0** = absolute value (for example: **d41** = -25°C means that the threshold temperature is exactly -25°C) • **1** = relative value (negative offset, relative to the value measured by the defrost probe Pb2 (if **d40** = 1) at the end of the first cooling cycle or on power-on)	0/1	flag		0	0	0	0
Fan (Fans)								
FPt	Sets whether parameter **FSt** is expressed as an absolute temperature value or as a value relative to the Setpoint. • **0** = absolute • **1** = relative.	0/1	flag		0	0	0	0
FSt	Fan disabling temperature; a value, read by the evaporator probe.	-67.0...320	°C/°F		8.0	8.0	8.0	8.0
FAd	Evaporator fan trigger differential.	0.1...25.0	°C/°F		2.0	2.0	2.0	2.0
Fdt	Fan activation delay time after a defrost.	0...250	min		0	0	0	0
dt	Dripping time.	0...250	min		0	0	0	0

<table>
<tr><th>Parameter</th><th>Description</th><th>Range</th><th>MU</th><th>Custom</th><th>Default</th><th>AP1</th><th>AP2</th><th>AP3</th></tr>
<tr><td>dFd</td><td>Used to select or deselect the exclusion of the evaporator fans during defrosting.
n(0) = no
y(1) = yes (fan excluded - off).</td><td>n/y</td><td>flag</td><td></td><td>y</td><td>y</td><td>y</td><td>y</td></tr>
<tr><td>FCo</td><td>Evaporator fan operating mode.
<table>
<tr><th rowspan="2">Pb2</th><th rowspan="2">H42</th><th rowspan="2">FCo</th><th colspan="2">day</th><th colspan="2">night</th></tr>
<tr><th>Cn</th><th>Cf</th><th>Cn</th><th>Cf</th></tr>
<tr><td rowspan="4">ok</td><td rowspan="4">y</td><td>0</td><td>T</td><td>Off</td><td>T</td><td>Off</td></tr>
<tr><td>1</td><td>T</td><td>T</td><td>T</td><td>T</td></tr>
<tr><td>2</td><td>T</td><td>DCd</td><td>T</td><td>DCn</td></tr>
<tr><td>3</td><td>T</td><td>DCd</td><td>T</td><td>DCn</td></tr>
<tr><td rowspan="4">ko</td><td rowspan="4">y</td><td>0</td><td>On</td><td>Off</td><td>On</td><td>Off</td></tr>
<tr><td>1</td><td>On</td><td>On</td><td>On</td><td>On</td></tr>
<tr><td>2</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
<tr><td>3</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
<tr><td rowspan="4">no</td><td rowspan="4">n</td><td>0</td><td>On</td><td>Off</td><td>On</td><td>Off</td></tr>
<tr><td>1</td><td>On</td><td>On</td><td>On</td><td>On</td></tr>
<tr><td>2</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
<tr><td>3</td><td>On</td><td>DCd</td><td>On</td><td>DCd</td></tr>
</table>
Headings legend:
Pb2 = probe Pb2 status (ok = present; ko = in E2 error and no = absent; day = day mode; night = night mode; Cn = compressor on; Cf = compressor off.
Status legend:
T = thermostat controlled fans; On = fans on; Off= fans off; DCd = Day duty cycle or DCn = Night duty cycle.</td><td>0...3</td><td>num</td><td></td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>Fon</td><td>Day duty cycle: time with fans on.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>FoF</td><td>Day duty cycle: time with fans off.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Fnn</td><td>Night duty cycle: time with fans on.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>FnF</td><td>Night duty cycle: time with fans off.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>ESF</td><td>"Night" mode activation.
n(0) = no
y(1) = yes.</td><td>n/y</td><td>flag</td><td></td><td>n</td><td>n</td><td>n</td><td>n</td></tr>
<tr><td colspan="9">AL (Alarms)</td></tr>
<tr><td>Att</td><td>Sets the absolute or relative value for parameters HAL and LAL.
0 = absolute value
1 = relative value</td><td>0/1</td><td>flag</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>AFd</td><td>Alarm differential.</td><td>0,1...25,0</td><td>°C/°F</td><td></td><td>2.0</td><td>2.0</td><td>2.0</td><td>2.0</td></tr>
<tr><td>HAL</td><td>Maximum temperature alarm.
Temperature value (in an absolute or relative value - see Att) which, when exceeded, will lead to the activation of alarm signaling.</td><td>LAL...302</td><td>°C/°F</td><td></td><td>150.0</td><td>150.0</td><td>150.0</td><td>150.0</td></tr>
<tr><td>LAL</td><td>Minimum temperature alarm.
Temperature value (in an absolute or relative value - see Att) which, when not reached, will lead to the activation of alarm signaling.</td><td>-67,0...HAL</td><td>°C/°F</td><td></td><td>-50.0</td><td>-50.0</td><td>-50.0</td><td>-50.0</td></tr>
<tr><td>PAo</td><td>Alarm exclusion time when switching on the controller, after a power failure.</td><td>0...10</td><td>min*10</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>dAo</td><td>Temperature alarm exclusion time after defrosting.</td><td>0...999</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>oAo</td><td>Alarm signaling delay after deactivation of the digital input (door closure). Alarm refers to high and low temperature alarms.</td><td>0...10</td><td>hours</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>tdo</td><td>Door open alarm activation delay time.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>tAo</td><td>Temperature alarm signaling delay time.</td><td>0...250</td><td>min</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
</table>

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
dAt	Defrost ended due to timeout alarm indication. • **n**(0) = alarm not activated • **y**(1) = alarm activated.	n/y	flag		0	0	0	0
EAL	An external alarm inhibits the regulators. • **0** = does not inhibit the regulators • **1** = compressor and defrost inhibited • **2** = fans, compressor and defrost inhibited;	0/1/2	flag		n	n	n	n
AoP	Alarm output polarity. • **0** = NO (Normally open) • **1** = NC (Normally closed).	0/1	flag		1	1	1	1
rFt	Low refrigerant alarm signaling delay.	0...250	min		0 (non nelle applicazioni)			
Lit (Lights and digital inputs)								
dOd	Digital input shuts off utilities. • **0** = disabled • **1** = disables fans • **2** = disables compressor • **3** = disables fans and compressor.	0...3	num		0	0	0	0
dAd	Digital input activation delay	0...250	min		0	0	0	0
dCo	Compressor switch-off delay from door opening.	0...250	min		0	0	0	0
AUP	Auxiliary (AUX) output activation when the door is opened. • **n**(0) = disabled • **y**(1) = AUX output activation	n/y	flag		n	n	y	n
PrE (Pressure switch)								
PEn	Number of errors permitted per minimum/maximum pressure switch input	0...15	num		0	0	0	0
PEi	Minimum/maximum pressure switch error count interval	1...99	min		1	1	1	1
PEt	Compressor activation delay after pressure switch deactivation	0...255	min		0	0	0	0
EnS (Energy Saving)								
oSP	Temperature value to be added to the setpoint in the case of an enabled reduced set (Economy function).	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
odF	Differential offset during an energy saving cycle or reduced set.	0.1...30.0	°C/°F		2.0	2.0	2.0	2.0
Add (Communication)								
Adr	Modbus protocol controller address.	1...247	num		1 (not in applications)			
bAU	Modbus Baudrate selection. • **96** (0) = 9600 baud • **192** (1) = 19200 baud • **384** (2) = 38400 baud	96/192/384	num		96 (not in applications)			
Pty	Modbus parity bit. • **n**(0) = none • **E**(1) = even • **o**(2) = odd.	n/E/o	num		E (not in applications)			
diS (Display)								
dro	Selects the unit of measure used when displaying the temperature read by the probes. (**0** = °C, **1** = °F). **Note**: changing from °C to °F or vice-versa does NOT change the **SEt**, **diF** values, etc. (example: **SEt** = 10°C becomes 10°F).	0/1	flag		0	0	0	0
CA1 (!)	Positive or negative temperature value to be added to the value of Pb1.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0
CA2 (!)	Positive or negative temperature value to be added to the value of Pb2.	-30.0...30.0	°C/°F		0.0	0.0	0.0	0.0

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
CAi	Activation of the calibration value. • **0** = Adds the value to the temperature value displayed • **1** = Adds the value to the temperature used by the regulators and not to the one displayed • **2** = Adds the value to the temperature used by the regulators and to the temperature displayed.	0/1/2	num		2	2	2	2
LoC	Keypad lock. • **n**(0) = Keypad lock disabled • **y**(1) = Keypad lock enabled (on startup or when 30 seconds have passed since the last action carried out on the user interface)	n/y	flag		y	y	y	y
ddd	Selects the type of value to show on the display. • **0** = setpoint • **1** = Pb1 probe • **2** = Pb2 probe • **3** = Pb3 probe.	0...3	num		1	1	1	1
ddL	Display mode during defrosting. • **0** = display the temperature read by Pb1 • **1** = inhibits reading on the value of Pb1 at the start of defrost and until the setpoint is reached • **2** = displays label **dEF** during defrost until the setpoint is reached.	0/1/2	num		0	0	0	0
Ldd	Display unlock timeout value - label **dEF**	0...250	min		30	30	30	30
ndt	Display with decimal point. • **n**(0) = no • **y**(1) = yes.	n/y	flag		y	y	y	y
FSE	Sets the value (COEFF) used by the low-pass filter to calculate the temperature value to be displayed. • **0** = disabled • **1** = 200 • **2** = 100 • **3** = 50 • **4** = 25 • **5** = 12 • **6** = 6 • **7** = 3.	0...7	num		0	0	0	0
FdS	Filter disabling threshold.	-67.0...302	°C/°F		0.0	0.0	0.0	0.0
Ftt	Time that has passed beyond the value of **FdS** before the filter is disabled.	0...250	min		0	0	0	0
FHt	Filter sampling interval.	1...250	s		1	1	1	1
PS1	When enabled (**PS1**≠0) this is the access key for the user parameters.	0...250	num		0	0	0	0
PS2	When enabled (**PS2**≠0) this is the access key for the installer parameters.	0...250	num		15	15	15	15
CnF (Configuration)								
H00	Selects the probe type. • **0** = PTC • **1** = NTC • **2** = Pt1000.	0/1/2	flag		1	1	1	1
H08	Stand-by operating mode. • **0** = display off; the regulators are active and the device signals possible alarms by reactivating the display • **1** = display off; the regulators and the alarms are blocked • **2** = the display shows the label “OFF”; the regulators and alarms are inhibited.	0/1/2	num		2	2	2	2

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
H11	Configurazione ingresso digitale 1 (**DI**)/ polarità. • **0** = disabilitato • **±1** = sbrinamento • **±2** = set ridotto • **±3** = ausiliario • **±4** = micro-porta • **±5** = allarme esterno • **±6** = stand-by • **±7** = pressostato • **±8** = abbattimento rapido • **±9** = luce • **±10** = risparmio energetico **Nota**: • segno "+" indica che l'ingresso è attivo se il contatto è chiuso. • segno "-" indica che l'ingresso è attivo se il contatto è aperto.	-10...+10	num		0	0	0	0
H21	Configuration of digital output 1 (**Out1**). • **0** = disabled • **1** = compressor • **2** = defrost • **3** = evaporator fans • **4** = alarm • **5** = auxiliary • **6** = stand-by • **7** = light • **8** = buzzer • **9** = compressor 2 • **10** = reserved • **11** = condenser fans • **12** = heater deadband control • **13** = reserved	0...13	num		1	1	1	1
H22	Configuration of digital output 2 (**Out2**). • **0** = disabled • **1** = compressor • **2** = defrost • **3** = evaporator fans • **4** = alarm • **5** = auxiliary • **6** = stand-by • **7** = light • **8** = buzzer • **9** = compressor 2 • **10** = reserved • **11** = condenser fans • **12** = heater deadband control.	0...12	num		2	2	2	2
H23	Configuration of digital output 3 (**Out3**). Same as **H22**.	0...12	num		3	3	3	3
H25	Enables/disables the buzzer. • **0** = disabled • **1** = enabled.	0/1	flag		1	1	1	1
H31	Configuration of ∧ key. • **0** = disabled • **1** = defrost • **2** = auxiliary • **3** = reduced set • **4** = stand-by • **5** = reserved • **6** = reserved • **7** = deep cooling • **8** = light.	0...8	num		1	1	1	1
H32	Configuration of ∨ key. Same as **H31**.	0...8	num		0	0	0	0
H33	Configuration of ⏻ key. Same as **H31**.	0...8	num		4	4	4	4
H34	Configuration of 💡 key. Same as **H31**.	0...8	num		0	0	0	0
H35	Configuration of ☆ key. Same as **H31**.	0...8	num		0	0	0	0

Parameter	Description	Range	MU	Custom	Default	AP1	AP2	AP3
H42	Probe Pb2 present. • **n**(0) = not present • **y**(1) = present.	n/y	flag		y	y	y	y
H60	Display selected application. **0** = disabled; **1** = AP1; **2** = AP2; **3** = AP3.	0...3	num		1 (not in applications)			
tAb	Reserved: read-only parameter.	/	/		/ (not in applications)			
FPr (UNICARD)								
UL	Transfer of the programming parameters from the controller to the UNICARD.	/	/		- (not in applications)			
Fr	UNICARD formatting. Deletes all data on the UNICARD. **Note**: the use of parameter **Fr** results in the loss of all data entered. This operation cannot be reversed.	/	/		- (not in applications)			
FnC (Functions)								
tAL	Force alarm acknowledgment	/	/		- (not in applications)			
rAP	Reset pressure switch alarms	/	/		- (not in applications)			
Cnt	Reset TelevisAir diagnostic counters (see Reset TelevisAir diagnostic counters)	/	/		- (not in applications)			

Note: if one or more parameters in folder **CnF** or marked with (!) are changed, the controller must be switched off and then on again to make sure it works properly.

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