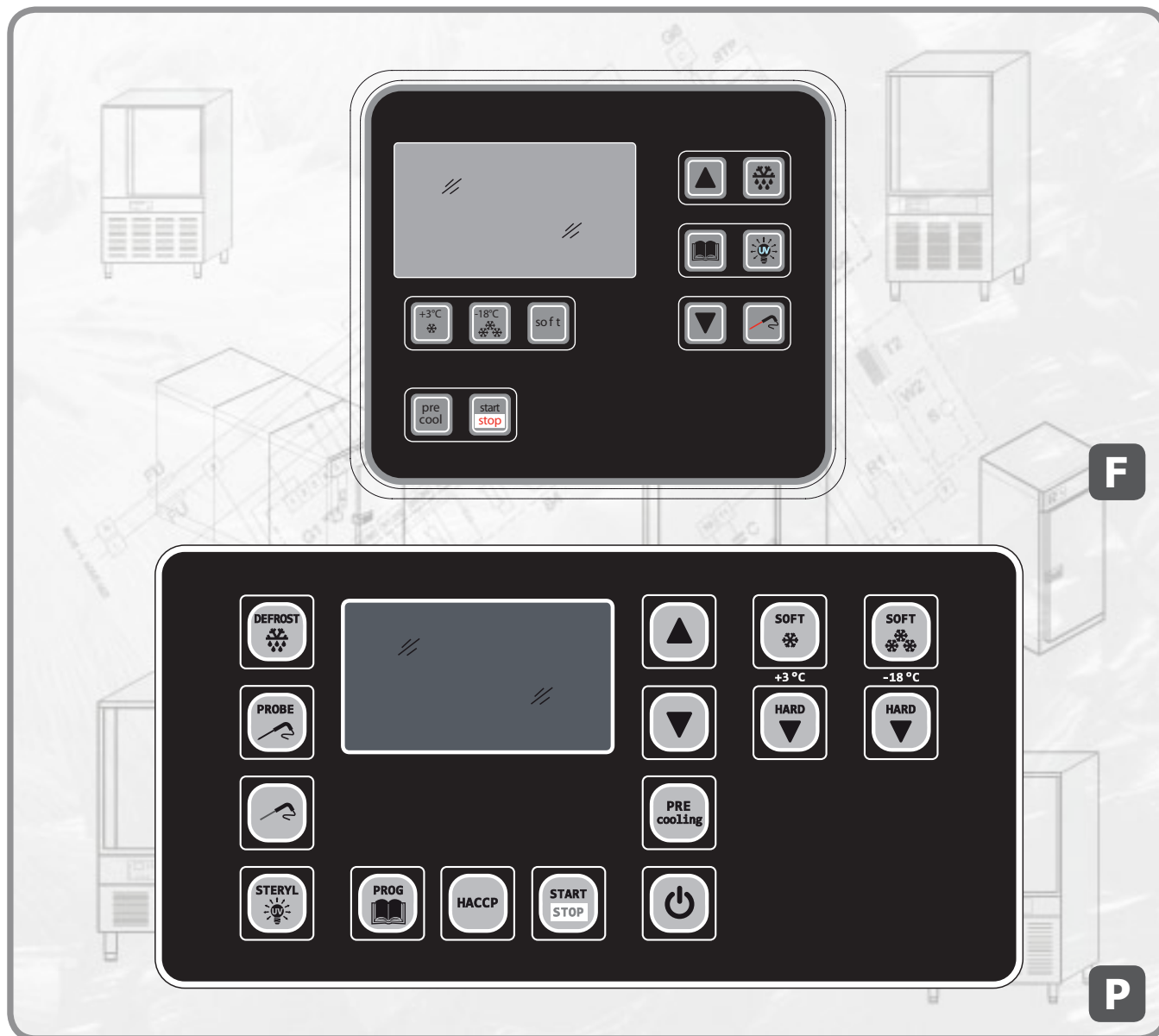


# MANUALE TECNICO TECHNICAL MANUAL



version: 14/03/12

cod. 7NU0311GG81C

## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

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# “F”






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## 4 - IT



### SETPOINT

Con la macchina spenta da tasto , è possibile accedere alla modifica parametri tenendo premuti contemporaneamente per cinque secondi il tasto  e il tasto .


- Il DISPLAY 1 visualizza il valore del setpoint.
- Il DISPLAY 2 il nr del setpoint lampeggiante '01'.
- Il DISPLAY 3 la lettera 'S' lampeggiante.

Con i tasti  e  è possibile selezionare il parametro. Premendo il tasto  è possibile entrare in modifica parametro:

- Il DISPLAY 1 visualizza il valore del setpoint selezionato lampeggiante.
- Il DISPLAY 2 il numero del setpoint '-25'.
- Il DISPLAY 3 visualizzata la lettera 'S'.

Con i tasti  e  è possibile modificare il valore del parametro.

Premendo il tasto  si conferma il nuovo valore e si ritorna alla selezione del parametro.



L'uscita dal menù parametri avviene automaticamente dopo un time out di 60 sec. o manualmente premendo il tasto .

SetPoint	Descrizione	Default	min	MAX
S01	SetPoint cella FASE1 in abbattimento +3°C Soft	0°C	-60°C	100°C
S02	SetPoint cuore FASE1 in abbattimento +3°C Soft	10°C	-60°C	100°C
S03	SetPoint tempo FASE1 in abbattimento +3°C Soft	30 min	0 min	900 min
S04	SetPoint cella FASE2 in abbattimento +3°C Soft	0°C	-60°C	100°C
S05	SetPoint cuore FASE2 in abbattimento +3°C Soft	5°C	-60°C	100°C
S06	SetPoint tempo FASE2 in abbattimento +3°C Soft	30 min	0 min	900 min
S07	SetPoint cella FASE3 in abbattimento +3°C Soft	0°C	-60°C	100°C
S08	SetPoint cuore FASE3 in abbattimento +3°C Soft	3°C	-60°C	100°C
S09	SetPoint tempo FASE3 in abbattimento +3°C Soft	30 min	0 min	900 min
S10	SetPoint cella in conservazione +3°C	2°C	-60°C	100°C
S11	SetPoint cella FASE1 in abbattimento +3°C Hard	-20°C	-60°C	100°C
S12	SetPoint cuore FASE1 in abbattimento +3°C Hard	22°C	-60°C	100°C
S13	SetPoint tempo FASE1 in abbattimento +3°C Hard	30 min	0 min	900 min
S14	SetPoint cella FASE2 in abbattimento +3°C Hard	-9°C	-60°C	100°C
S15	SetPoint cuore FASE2 in abbattimento +3°C Hard	10°C	-60°C	100°C
S16	SetPoint tempo FASE2 in abbattimento +3°C Hard	30 min	0 min	900 min
S17	SetPoint cella FASE3 in abbattimento +3°C Hard	0°C	-60°C	100°C
S18	SetPoint cuore FASE3 in abbattimento +3°C Hard	3°C	-60°C	100°C
S19	SetPoint tempo FASE3 in abbattimento +3°C Hard	30 min	0 min	900 min
S20	SetPoint tempo in P0 +3°C	900 min	0 min	900 min
S21	SetPoint cella FASE1 in congelamento -18°C Soft	-10°C	-60°C	100°C
S22	SetPoint cuore FASE1 in congelamento -18°C Soft	3°C	-60°C	100°C
S23	SetPoint tempo FASE1 in congelamento -18°C Soft	80 min	0 min	900 min
S24	SetPoint cella FASE2 in congelamento -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint cuore FASE2 in congelamento -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint tempo FASE2 in congelamento -18°C Soft	80 min	0 min	900 min
S27	SetPoint cella FASE3 in congelamento -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint cuore FASE3 in congelamento -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint tempo FASE3 in congelamento -18°C Soft	80 min	0 min	900 min
S30	SetPoint cella in conservazione -18°C	-20°C	-60°C	100°C
S31	SetPoint cella FASE1 in congelamento -18°C Hard	-40°C	-60°C	100°C
S32	SetPoint cuore FASE1 in congelamento -18°C Hard	-18°C	-60°C	100°C
S33	SetPoint tempo FASE1 in congelamento -18°C Hard	80 min	0 min	900 min
S34	SetPoint cella FASE2 in congelamento -18°C Hard	-40°C	-60°C	100°C
S35	SetPoint cuore FASE2 in congelamento -18°C Hard	-18°C	-60°C	100°C
S36	SetPoint tempo FASE2 in congelamento -18°C Hard	80 min	0 min	900 min
S37	SetPoint cella FASE3 in congelamento -18°C Hard	-40°C	-60°C	100°C
S38	SetPoint cuore FASE3 in congelamento -18°C Hard	-18°C	-60°C	100°C
S39	SetPoint tempo FASE3 in congelamento -18°C Hard	80 min	0 min	900 min
S40	SetPoint tempo in P0 -18°C	900 min	0 min	900 min
S41	SetPoint tempo massimo abbattimento con ciclo a tempo +3°C	120 min	0 min	900 min
S42	SetPoint tempo massimo abbattimento con ciclo a tempo -18°C	300 min	0 min	900 min
S43	SetPoint cella in abbattimento +3°C a tempo infinito	0°C	-60°C	100°C
S44	SetPoint cella in abbattimento -18°C a tempo infinito	-35°C	-60°C	100°C
s45	Set point Camera PreCooling cicli abbattimento +3°	-10°C	-60°C	100°C
s46	Set point Camera PreCooling cicli abbattimento -18°	-25°C	-60°C	100°C
s47	Funzionamento come conservatore 0=no; 1=si	0	0	1
s48	SetPoint Camera Conservatore +3°C	2°C	-60°C	100°C
s49	SetPoint camera Conservatore -18°C	-20°C	-60°C	100°C

## PARAMETRI



Con la macchina spenta da tasto , è possibile accedere alla modifica parametri, tenendo premuti contemporaneamente per cinque secondi il tasto  e il tasto .

- Sul DISPLAY 1 viene visualizzato il valore del parametro.
- Sul DISPLAY 2 viene visualizzato il numero del parametro lampeggiante '01'.
- Sul DISPLAY 3 viene visualizzata la lettera 'P' lampeggiante.

Con i tasti  e  è possibile selezionare il parametro


Premendo il tasto  è possibile entrare in modifica parametro:

- Sul DISPLAY 1 viene visualizzato il valore del parametro selezionato lampeggiante.
- Sul DISPLAY 2 viene visualizzato il numero del parametro '15'.
- Sul DISPLAY 3 viene visualizzata la lettera 'P'.

Con i tasti  e  è possibile modificare il valore del parametro.

Premendo il tasto  si conferma il nuovo valore del parametro e si ritorna alla selezione del parametro.

L'uscita dal menu parametri avviene automaticamente dopo un time out di 60 secondi, oppure manualmente




premendo il tasto .

Param.	Descrizione	Default	min	MAX
P01	Isteresi per rientro allarme di temperatura	2°C	0°C	10°C
P02	Soglia allarme alta temp. in cons. positiva relativa al Set CONS	7°C	0°C	50°C
P03	Soglia allarme bassa temperatura in conservazione positiva	0°C	-10°C	0°C
P04	Soglia allarme alta t. in cons. negativa relativa al Set CONS	6°C	0°C	50°C
P05	Soglia allarme bassa t. in cons. negativa relativa al Set CONS	-10°C	-50°C	0°C
P06	Ritardo allarme temperatura da inizio conservazione o defrost	60 min	0 min	300 min
P07	Ritardo allarme temperatura	30 min	0 min	300 min
P10	Unità di misura della temperatura (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset sonda cella	0°C	-10°C	10°C
P12	Polarità porta 0: DI chiuso = Chiusa 1: DI chiuso = Aperta	0	0	1
P13	Ritardo allarme porta aperta	2 min	0 min	60 min
P15	Abilita buzzer (0 disabilitato; 1 Abilitato)	1	0	1
P16	Durata buzzer a fine ciclo di abbattimento	10 sec	0	600 sec
P17	Durata buzzer in allarme	1 min	0 min	90 min
P18	Verifica Inserimento Spillone 0=no 1=si	1	0	1
P20	Rele Sterilizzazione 0=assente 1=presente	1	0	1
P21	Solo cicli abbattimento: 0=Positivi/Negativi 1 =solo Positivi	0	0	1
P22	Tempo rilevazione allarme pressostato	5 sec	0 sec	60 sec
P23	Polarità ingresso digitale alta pressione 0: DI Aperto = Allarme HP attivo 1: DI chiuso = Allarme HP attivo	0	0	1
P25	Durata Sterilizzazione	15 min	0 min	90 min
P26	Minima temperatura per inizio Sterilizzazione	15°C	0°C	100°C
P27	Minima temperatura per inizio riscaldamento spillone	-5°C	-50°C	50°C
P28	Durata Riscaldamento Spillone	90 sec	0 sec	600 sec
P29	Temperatura fine riscaldamento spillone	30°C	0°C	100°C
P30	Isteresi accensione spegnimento del compressore	1°C	0°C	20°C
P31	Tempo minimo tra OFF - ON compressore	2 min	0 min	30 min
P32	Delta Setpoint in controllo Spillone con Errore Sonda Cella	-2°C	-10°C	10°C
P33	Minima temperatura dello spillone per inizio abbattimento	70°C	0°C	90°C
P34	Durata test inserimento spillone (0=test escluso)	3 min	0 min	240 min
P35	Ventole ON con compressore spento in conservazione	30 sec	0 sec	999 sec
P36	Ventole OFF con compressore spento in conservazione	300 sec	0 sec	999 sec
P37	Differenza di temp. Cuore nel test inserimento spillone	4°C	0	10°C
P38	Differenza di temp. Cella-Cuore nel test inserimento spillone	5°C	0	10°C
P40	Indirizzo dello strumento	1	1	147
P41	Gestione della Seriale: 0=non utilizzata 1=Stampa 2=ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity : 0= no parity; 1= odd; 2 = even	2	0	2
P44	Tempo di campionamento	10 min	1 min	60 min




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Param.	Descrizione	Default	min	MAX
P50	Esegue uno sbrinamento all'inizio dell'abbattimento 0=No;1=Si	0	0	1
P51	Temperatura di fine sbrinamento	8°C	-10°C	30°C
P52	Durata massima di un defrost	15 min	1 min	90 min
P53	Intervallo tra due sbrinamenti in conservazione (0=escluso)	0 ore	0	18 ore
P54	Tipo di sbrinamento: 0=ad aria 1=a gas caldo 2=elettrico	0	0	2
P55	Tempo di sgocciolamento	1 min	0 min	90 min
P56	Ritardo attivazione compres. con sbrinamento a gas caldo	0 sec	0 sec	600 sec
P57	Temperatura minima per inizio sbrinamento	0°C	-10°C	30°C
P58	Differenziale di temp. per fermata ventole dopo lo sbrinamento	5°C	0°C	10°C
P60	Tempo Compres. ON in cicli +3°C con Sonda Cella guasta	3 min	0 min	60 min
P61	Tempo Compres. OFF in cicli +3°C con Sonda Cella guasta	7 min	0 min	60 min
P62	Tempo Compres. ON in cicli -18°C con Sonda Cella guasta	8 min	0 min	60 min
P63	Tempo Compres. OFF in cicli -18°C con Sonda Cella guasta	2 min	0 min	60 min
P65	Ritardo accensione compressore da Power-On	2 min	0 min	60 min
P66	Set temperatura abilita regolazione ventole evaporatore	25°C	-50°C	50°C
P70	Offset sonda spillone	0°C	-10°C	10°C
P71	Offset sonda evaporatore	0°C	-10°C	10°C
P72	Lingua di stampa: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P73	Periodo Suono Buzzer alla fine del PreCooling	60 sec	3 sec	600 sec
P74	Ritardo spergnimento compressore (PumpDown)	10 sec	0 sec	600 sec
P75	Ritardo accensione Solenoide	5 sec	0 sec	600 sec
P76	Solenoide: 0- PUMPDOWN; 1- SBRINAMENTO GAS CALDO.	0	0	1



## SET POINT



With the machine turned off by the  button, it is possible to change the parameter setting by keeping the  and  buttons pressed simultaneously for five seconds.

- DISPLAY 1 indicates the setpoint value
- DISPLAY 2 the number of the setpoint '01', flashing.
- DISPLAY 3 flashing letter 'S'.

Select the parameter using buttons  and . By pressing button  it is possible to change the parameters:




- DISPLAY 1 indicates the setpoint value flashing.
- DISPLAY 2 indicates the number of the parameter '-25'.
- DISPLAY 3 indicates the letter 'S'.

Change the parameter value by using buttons  and .



Press button  to confirm the new parameter value and return to the parameter selection. Exit from the parameters menu occurs automatically after a time-out of 60 sec. or manually by pressing the  button.

SetPoint	Description	Default	min	MAX
S01	Cabinet SetPoint PHASE 1 in +3°C soft blast chiller	0°C	-60°C	100°C
S02	Core SetPoint PHASE 1 in soft +3°C blast chiller	10°C	-60°C	100°C
S03	Time SetPoint PHASE 1 in +3°C soft blast chiller	30 min	0 min	900 min
S04	Cabinet SetPoint PHASE 2 in +3°C soft blast chiller	0°C	-60°C	100°C
S05	Core SetPoint PHASE 2 in +3°C soft blast chiller	5°C	-60°C	100°C
S06	Time SetPoint PHASE 2 in +3°C soft blast chiller	30 min	0 min	900 min
S07	Cabinet SetPoint PHASE 3 in +3°C soft blast chiller	0°C	-60°C	100°C
S08	Core SetPoint PHASE 3 in +3°C soft blast chiller	3°C	-60°C	100°C
S09	Time SetPoint PHASE 3 in +3°C soft blast chiller	30 min	0 min	900 min
S10	Cabinet SetPoint in +3°C conservation	2°C	-60°C	100°C
<b>S11</b>	<b>Cabinet SetPoint PHASE 1 in +3°C hard blast chiller</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S12</b>	<b>Core SetPoint PHASE 1 in +3°C hard blast chiller</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S13</b>	<b>Time SetPoint PHASE 1 in +3°C hard blast chiller</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S14</b>	<b>Cabinet SetPoint PHASE 2 in +3°C hard blast chiller</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S15</b>	<b>Core SetPoint PHASE 2 in +3°C hard blast chiller</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S16</b>	<b>Time SetPoint PHASE 2 in +3°C hard blast chiller</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S17</b>	<b>Cabinet SetPoint PHASE 3 in +3°C hard blast chiller</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S18</b>	<b>Core SetPoint PHASE 3 in +3°C hard blast chiller</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S19</b>	<b>Time SetPoint PHASE 3 in +3°C hard blast chiller</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S20</b>	<b>Time SetPoint in P0 +3°C</b>	<b>900 min</b>	<b>0 min</b>	<b>900 min</b>
S21	Cabinet SetPoint PHASE 1 in -18°C soft shock freezer	-10°C	-60°C	100°C
S22	Core SetPoint PHASE 1 in -18°C soft shock freezer	3°C	-60°C	100°C
S23	Time SetPoint PHASE 1 in -18°C soft shock freezer	80 min	0 min	900 min
S24	Cabinet SetPoint PHASE 2 in -18°C soft shock freezer	-25°C	-60°C	100°C
S25	Core SetPoint PHASE 2 in -18°C soft shock freezer	-5°C	-60°C	100°C
S26	Time SetPoint PHASE 2 in -18°C soft shock freezer	80 min	0 min	900 min
S27	Cabinet SetPoint PHASE 3 in -18°C soft shock freezer	-40°C	-60°C	100°C
S28	Core SetPoint PHASE 3 in -18°C soft shock freezer	-18°C	-60°C	100°C
S29	Time SetPoint PHASE 3 in -18°C soft shock freezer	80 min	0 min	900 min
S30	Cabinet SetPoint in -18°C conservation	-20°C	-60°C	100°C
<b>S31</b>	<b>Cabinet SetPoint PHASE 1 in -18°C hard conservation</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S32</b>	<b>Core SetPoint PHASE 1 in -18°C hard conservation</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S33</b>	<b>Time SetPoint PHASE 1 in -18°C hard conservation</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S34</b>	<b>Cabinet SetPoint PHASE 2 in -18°C hard conservation</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S35</b>	<b>Core SetPoint PHASE 2 in -18°C hard conservation</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S36</b>	<b>Time SetPoint PHASE 2 in -18°C hard conservation</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S37</b>	<b>Cabinet SetPoint PHASE 3 in -18°C hard conservation</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S38</b>	<b>Core SetPoint PHASE 3 in -18°C hard conservation</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S39</b>	<b>Time SetPoint PHASE 3 in -18°C hard conservation</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S40</b>	<b>Time SetPoint in P0 -18°C</b>	<b>900 min</b>	<b>0 min</b>	<b>900 min</b>
S41	SetPoint Max Time Blast Chiller with cycle in +3°C time	120 min	0 min	900 min
S42	SetPoint Max Time Blast Chiller with cycle in -18°C time	300 min	0 min	900 min
S43	Cabinet SetPoint in Blast Chiller +3°C infinite time	0°C	-60°C	100°C
S44	Cabinet SetPoint in Blast Chiller -18°C infinite time	-35°C	-60°C	100°C
s45	Room setpoint in +3° blast chilling PreCooling cycles	-10°C	-60°C	100°C
s46	Room setpoint in -18° blast chilling PreCooling cycles	-25°C	-60°C	100°C
s47	Operation as storage compartment 0=no; 1=yes	0	0	1
s48	+3°C Storage compartment setpoint	2°C	-60°C	100°C
s49	-18°C Storage compartment setpoint	-20°C	-60°C	100°C

## PARAMETERS



With the machine turned off by the  button, it is possible to change the parameter setting by keeping the  and  buttons pressed simultaneously for five seconds.

- DISPLAY 1 indicates the parameter value
- DISPLAY 2 indicates the number of the parameter flashing '01'.
- DISPLAY 3 indicates the letter 'P' flashing.


Select the parameter using buttons  and .

By pressing button  it is possible to change the parameters:

- DISPLAY 1 indicates the value of the parameter selected flashing.
- DISPLAY 2 indicates the number of the parameter '15'.
- DISPLAY 3 indicates the letter 'P'.

Change the parameter value by using buttons  and .

Press button  to confirm the new parameter value and return to the parameter selection.




Exit from the parameter menu occurs automatically after a time out of 60 seconds or manually by pressing the  button.

Param.	Description	Default	min	MAX
P01	Hysteresis for temperature alarm cancellation	2°C	0°C	10°C
P02	Threshold of high temperature alarm in posit. conser. compared to the Set CONS	7°C	0°C	50°C
P03	Threshold of low temperature in positive conservation	0°C	-10°C	0°C
P04	Threshold of high temperature alarm in neg. conser.n compared to the Set CONS	6°C	0°C	50°C
P05	Threshold of low temperature alarm in neg. conser. compared to the Set CONS	-10°C	-50°C	0°C
P06	Delay of temperature alarm at start of conservation or defrost	60 min	0 min	300 min
P07	Delay of temperature alarm	30 min	0 min	300 min
P10	Temperature unit of measure (1 Celsius, 0 Fahrenheit)	1	0	1
P11	Cabinet probe offset	0°C	-10°C	10°C
P12	Polarity door 0: DI closed = Closed 1: DI closed = Open	0	0	1
P13	Delay door open alarm	2 min	0 min	60 min
P15	Buzzer activation (0 Disabled; 1 Enabled)	1	0	1
P16	Duration of buzzer at end of blast chiller cycle	10 sec	0	600 sec
P17	Duration of buzzer alarm	1 min	0 min	90 min
P18	Verification food probe insertion 0=No 1=Yes	1	0	1
P20	Sterilisation relay 0=Absent 1=Present	1	0	1
P21	Only blast chill cycles: 0=positive/negative 1=only positive	0	0	1
P22	Pressure switch alarm time	5 sec	0 sec	60 sec
P23	High pressure digital entry polarity 0: DI Open = Alarm HP active 1: DI closed = Alarm HP active	0	0	1
P25	Duration of sterilisation	15 min	0 min	90 min
P26	Minimum temperature for sterilisation start	15°C	0°C	100°C
P27	Minimum temperature for food probe heating start	-5°C	-50°C	50°C
P28	Duration of food probe heating	90 sec	0 sec	600 sec
P29	Temperature at end of food probe heating	30°C	0°C	100°C
P30	Hysteresis compressor OFF - ON	1°C	0°C	20°C
P31	Min. time between OFF-ON compressor	2 min	0 min	30 min
P32	Delta SetPoint in food probe check with Cabinet Probe Error	-2°C	-10°C	10°C
P33	Minimum temperature of probe for blast chiller start	70°C	0°C	90°C
P34	Duration of probe insertion test (0=test omitted)	3 min	0 min	240 min
P35	Fans ON with compressor OFF in conservation mode	30 sec	0 sec	999 sec
P36	Fans OFF with compressor OFF in conservation mode	300 sec	0 sec	999 sec
P37	Difference in core temperature in food probe insertion test	4°C	0	10°C
P38	Difference in cabinet-core temperature in food probe insertion test	5°C	0	10°C
P40	Location of the instrument	1	1	147
P41	Serial management: 0=Unused 1=Print 2=ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity: 0= no parity; 1= odd; 2 = even	2	0	2
P44	Sampling time	10 min	1 min	60 min






Param.	Description	Default	min	MAX
P50	Defrosting performed at start of blast chill 0=No; 1=Yes	0	0	1
P51	Temperature at defrost end	8°C	-10°C	30°C
P52	Maximum duration of defrost	15 min	1 min	90 min
P53	Interval between two defrosting phases in conservation mode (0=omitted)	0 hour	0	18 hour
P54	Type of defrosting: 0=air 1=hot gas 2=electrical	0	0	2
P55	Draining time	1 min	0 min	90 min
P56	Delay activation compressor with hot gas defrosting	0 sec	0 sec	600 sec
P57	Minimum temperature for defrosting start	0°C	-10°C	30°C
P58	Temperature differential for fan stop after defrosting	5°C	0°C	10°C
P60	Time compressor ON in +3°C cycles with defective cabinet probe	3 min	0 min	60 min
P61	Time compressor OFF in +3°C cycles with defective cabinet probe	7 min	0 min	60 min
P62	Time compressor ON in -18°C cycles with defective cabinet probe	8 min	0 min	60 min
P63	Time compressor OFF in -18°C cycles with defective cabinet probe	2 min	0 min	60 min
P65	Delay in turning compressor power ON	2 min	0 min	60 min
P66	Set temperatur it qualifies regulation fans	25°C	-50°C	50°C
P70	Offset probe sonde	0°C	-10°C	10°C
P71	Offset evaporator sonde	0°C	-10°C	10°C
P72	Language of print: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
p73	Buzzer sounding time at the end of the PreCooling cycle	60 sec	3 sec	600 sec
p74	Compressor switch-off delay (PumpDown)	10 sec	0 sec	600 sec
p75	Solenoid switch-on delay	5 sec	0 sec	600 sec
p76	Solenoid: 0- PUMPDOWN; 1- HOT GAS DEFROSTING	0	0	1





**SETPOINT**

Wenn das Gerät mit  ausgeschaltet wurde, kann man mit der Veränderung der Parameter beginnen, indem man gleichzeitig 5 Sek. lang  und  drückt:

- Am DISPLAY 1 wird der Wert des Setpoint angezeigt.
- Am DISPLAY 2 wird die N. des Setpoint durch Blinken von '01' angezeigt.
- Am DISPLAY 3 erscheint die blinkende Anzeige des Buchstaben 'S'.


Mit  und  kann man den Parameter auswählen. Durch Drücken  ist es möglich, in den Änderungsmodus des Parameters einzusteigen:

- Am DISPLAY 1 Display1 erscheint eine blinkende Anzeige des Werts des ausgewählten Setpoint.
- Am DISPLAY 2 wird die N. des Setpoint '-25' angezeigt.
- Am DISPLAY 3 wird der Buchstabe 'S' angezeigt.



Mit  und  kann man den Wert des Parameters verändern. Durch Drücken  wird der neue Wert des Parameters bestätigt und man kehrt zur Auswahl des Parameters zurück. Der Ausstieg aus dem Menüpunkt Parameter erfolgt automatisch nach einem Timeout von 60 Sekunden, oder indem man manuell  drückt.


SetPoint	Beschreibung	Default	min.	MAX
S01	SetPoint Zelle PHASE1 bei Schockkühlung +3°C Soft	0°C	-60°C	100°C
S02	SetPoint Kern PHASE1 bei Schockkühlung +3°C Soft	10°C	-60°C	100°C
S03	SetPoint Zeit PHASE1 bei Schockkühlung +3°C Soft	30 min	0 min	900 min
S04	SetPoint Zelle PHASE2 bei Schockkühlung +3°C Soft	0°C	-60°C	100°C
S05	SetPoint Kern PHASE2 bei Schockkühlung +3°C Soft	5°C	-60°C	100°C
S06	SetPoint Zeit PHASE2 bei Schockkühlung +3°C Soft	30 min	0 min	900 min
S07	SetPoint Zelle PHASE3 bei Schockkühlung +3°C Soft	0°C	-60°C	100°C
S08	SetPoint Kern PHASE3 bei Schockkühlung +3°C Soft	3°C	-60°C	100°C
S09	SetPoint Zeit PHASE3 bei Schockkühlung +3°C Soft	30 min	0 min	900 min
S10	SetPoint Zelle bei Konservierung +3°C	2°C	-60°C	100°C
S11	<b>SetPoint Zelle PHASE1 bei Schockkühlung +3°C Hard</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
S12	<b>SetPoint Kern PHASE1 bei Schockkühlung +3°C Hard</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
S13	<b>SetPoint Zeit PHASE1 bei Schockkühlung +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S14	<b>SetPoint Zelle PHASE2 bei Schockkühlung +3°C Hard</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
S15	<b>SetPoint Kern PHASE2 bei Schockkühlung +3°C Hard</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
S16	<b>SetPoint Zeit PHASE2 bei Schockkühlung +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S17	<b>SetPoint Zelle PHASE3 bei Schockkühlung +3°C Hard</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
S18	<b>SetPoint Kern PHASE3 bei Schockkühlung +3°C Hard</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
S19	<b>SetPoint Zeit PHASE3 bei Schockkühlung +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S20	<b>SetPoint Zeit in P0 +3°C</b>	<b>900 min</b>	<b>0 min</b>	<b>900 min</b>
S21	SetPoint Zelle PHASE1 bei Gefrieren -18°C Soft	-10°C	-60°C	100°C
S22	SetPoint Kern PHASE1 bei Gefrieren -18°C Soft	3°C	-60°C	100°C
S23	SetPoint Zeit PHASE1 bei Gefrieren -18°C Soft	80 min	0 min	900 min
S24	SetPoint Zelle PHASE2 bei Gefrieren -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint Kern PHASE2 bei Gefrieren -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint Zeit PHASE2 bei Gefrieren -18°C Soft	80 min	0 min	900 min
S27	SetPoint Zelle PHASE3 bei Gefrieren -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint Kern PHASE3 bei Gefrieren -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint Zeit PHASE3 bei Gefrieren -18°C Soft	80 min	0 min	900 min
S30	SetPoint Zelle bei Konservierung -18°C	-20°C	-60°C	100°C
S31	<b>SetPoint Zelle PHASE1 bei Gefrieren -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
S32	<b>SetPoint Kern PHASE1 bei Gefrieren -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S33	<b>SetPoint Zeit PHASE1 bei Gefrieren -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S34	<b>SetPoint Zelle PHASE2 bei Gefrieren -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
S35	<b>SetPoint Kern PHASE2 bei Gefrieren -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S36	<b>SetPoint Zeit PHASE2 bei Gefrieren -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S37	<b>SetPoint Zelle PHASE3 bei Gefrieren -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
S38	<b>SetPoint Kern PHASE3 bei Gefrieren -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S39	<b>SetPoint Zeit PHASE3 bei Gefrieren -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S40	<b>SetPoint Zeit in P0 -18°C</b>	<b>900 min</b>	<b>0 min</b>	<b>900 min</b>
S41	SetPoint max. Abkuehlungszeit mit Zeitzyclus +3°C	120 min	0 min	900 min
S42	SetPoint max. Abkuehlungszeit mit Zeitzyclus -18°C	300 min	0 min	900 min
S43	SetPoint Kern bei Schockkühlung +3°C	0°C	-60°C	100°C
S44	SetPoint Kern bei Schockkühlung -18°C	-35°C	-60°C	100°C
s45	Sollwert Vorkühlkammer Schockfrostzyklen +3°	-10°C	-60°C	100°C
s46	Sollwert Vorkühlkammer Schockfrostzyklen -18°	-25°C	-60°C	100°C
s47	Betrieb als Tiefkühlfach 0=nein; 1=j	0	0	1
s48	Sollwert Tiefkühlfach +3°C	2°C	-60°C	100°C
s49	Sollwert Tiefkühlfach -18°C	-20°C	-60°C	100°C

## PARAMETER


Wenn die Maschine mit der Taste  ausgeschaltet wurde, kann man in den Änderungsmodus des Parameters einsteigen, indem man gleichzeitig 5 Sekunden lang die Taste  und die Taste  drückt:


- Am DISPLAY 1 wird der Wert des Parameters angezeigt.
- Am DISPLAY 2 erscheint blinkend die Anzeige der Nummer des Parameters '01'.
- Am DISPLAY 3 erscheint blinkend die Anzeige des Buchstaben 'P'.


Mit den Tasten  und  kann man den Parameter auswählen.

Durch drücken der Taste  kann man in den Änderungsmodus des Parameters einsteigen:

- Am DISPLAY 1 erscheint blinkend die Anzeige des Wertes des ausgewählten Parameters .
- Am DISPLAY 2 wird die Nummer des Parameters '15' angezeigt.
- Am DISPLAY 3 wird der Buchstabe 'P' angezeigt.

Mit den Tasten  und  kann man den Wert des Parameters ändern.

Durch Drücken der Taste  wird der neue Wert des Parameters bestätigt und man kehrt zur Auswahl des Parameters zurück. Der Ausstieg aus dem Menüpunkt Parameter erfolgt automatisch nach einem Timeout von 60 Sekunden

oder manuell durch Drücken der Taste .

Param.	Beschreibung	Default	min.	MAX
P01	Hysterese wegen Verschwindens des Temperaturalarms	2°C	0°C	10°C
P02	Alarmschwelle hohe Temp. bei pos. Kons. bezogen auf Set CONS	7°C	0°C	50°C
P03	Alarmschwelle niedrige Temperatur bei positiver Konservierung	0°C	-10°C	0°C
P04	Alarmschwelle hohe Temp. bei neg. Kons. bezogen auf Set CONS	6°C	0°C	50°C
P05	Alarmschwelle niedrige Temp. bei neg. Kons. bezogen auf Set CONS	-10°C	-50°C	0°C
P06	Verzögerung Temperaturalarm ab Beginn der Konservierung o. Defrost	60 min	0 min	300 min
P07	Verzögerung Temperaturalarm	30 min	0 min	300 min
P10	Messeinheit der Temperatur (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset Zellsonde	0°C	-10°C	10°C
P12	Polar. Tür offen 0: DI geschl. = Tür geschl. 1: DI geschl.=Tür offen	0	0	1
P13	Verzögerung Alarm Tür offen	2 min	0 min	60 min
P15	Freischaltung Buzzer (0 gesperrt; 1 freigeschaltet)	1	0	1
P16	Dauer Buzzer am Ende des Schockkühlzyklus	10 sec	0	600 sec
P17	Dauer Buzzer bei Alarm	1 min	0 min	90 min
P18	Überprüfung Einschaltung Kerntemperatursonde 0=nein 1=ja	1	0	1
P20	Relais Sterilisation 0=n. vorhanden 1=vorhanden	1	0	1
P21	Nur Schockkühlzyklus: 0=Positive/Negative 1 =nur Positive	0	0	1
P22	Erfassungszeit Alarm Druckregler	5 sec	0 sec	60 sec
P23	Polarität Digitaleingang Hochdruck 0: DI offen = Alarm HP aktiv 1: DI geschlossen = Alarm HP aktiv	0	0	1
P25	Dauer der Sterilisation	15 min	0 min	90 min
P26	Mindesttemperatur für Beginn der Sterilisation	15°C	0°C	100°C
P27	Mindesttemperatur für Beginn der Heizung der Kerntemperatursonde	-5°C	-50°C	50°C
P28	Dauer Heizung der Kerntemperatursonde	90 sec	0 sec	600 sec
P29	Temperatur Ende der Heizung der Kerntemperatursonde	30°C	0°C	100°C
P30	Hysterese Einschalten Ausschalten des Kompressors	1°C	0°C	20°C
P31	Mindestzeit zwischen OFF - ON des Kompressors	2 min	0 min	30 min
P32	Delta Setpoint bei Kont. Kerntemperatursonde mit Error Zellsonde	-2°C	-10°C	10°C
P33	Mindesttemp. der Kerntemperatursonde für Beginn der Schockkühlung	70°C	0°C	90°C
P34	Mindesttemperatur der Kerntemperatursonde für Beginn der Schockkühlung	3 min	0 min	240 min
P35	Lüfter ON bei abgeschaltetem Kompressor bei Konservierung	30 sec	0 sec	999 sec
P36	Lüfter OFF bei abgeschaltetem Kompressor bei Konservierung	300 sec	0 sec	999 sec
P37	Temp.diff. im Kern beim Test Einschalten der Kerntemperatursonde	4°C	0	10°C
P38	Temp.diff. zw. Zelle u. Kern bei Test Eins. der Kerntemp.sonde	5°C	0	10°C
P40	Adresse des Instruments	1	1	147
P41	Verwalt. der seriellen Stelle: 0=n. verwendet 1=Drucken 2=ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity : 0= no parity; 1= odd; 2 = even	2	0	2
P44	Stichprobenzeit	10 min	1 min	60 min




Param.	Beschreibung	Default	min.	MAX
P50	Bei Beginn der Schockkühl. wird eine Abtauung durchgeführt 0=Nein;1=Ja	0	0	1
P51	Temperatur bei Ende der Abtauung	8°C	-10°C	30°C
P52	Maximaldauer eines Defrost-Zyklus	15 min	1 min	90 min
P53	Intervall zw. zwei Abtauungen bei der Konservierung (0=Ausschluss)	0 Std.	0	18 Std.
P54	Art der Abtauung: 0=mit Luft 1=mit heißem Gas 2=elektrisch	0	0	2
P55	Abtropfzeit	1 min	0 min	90 min
P56	Verzögerung der Aktiv. des Kompressors mit Abtauung mit heißem Gas	0 sec	0 sec	600 sec
P57	Mindesttemperatur für den Beginn der Abtauung	0°C	-10°C	30°C
P58	Temp.differenzial Anhalten Lüfter nach dem Abtauen	5°C	0°C	10°C
P60	Zeit Kompressor ON bei Zyklen +3°C bei defekter Zellsonde	3 min	0 min	60 min
P61	Zeit Kompressor OFF bei Zyklen +3°C bei defekter Zellsonde	7 min	0 min	60 min
P62	Zeit Kompressor ON bei Zyklen -18°C bei defekter Zellsonde	8 min	0 min	60 min
P63	Zeit Kompressor OFF bei Zyklen -18°C bei defekter Zellsonde	2 min	0 min	60 min
P65	Verzögerung Einschalten Kompressor durch Power-On	2 min	0 min	60 min
P66	Stellen Sie temperatur ein, das es vorgeschriebene Ventilatoren qualifiziert	25°C	-50°C	50°C
P70	Offset kerntemperaturfühler	0°C	-10°C	10°C
P71	Offset verdampfersonde	0°C	-10°C	10°C
P72	Sprache des Druckes: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P73	Dauer des Buzzers am Ende der Vorkühlung	60 sec	3 sec	600 sec
P74	Abschaltverzögerung Kompressor (PumpDown)	10 sec	0 sec	600 sec
P75	Einschaltverzögerung Magnetventil	5 sec	0 sec	600 sec
P76	Magnetventil: 0- PUMPDOWN; 1- ABTAUEN HEISSGAS.	0	0	1

## SETPOINT





Lorsque la machine a été éteinte à l'aide de la Touche  , il est possible d'accéder à la modification paramètres en

appuyant simultanément sur la touche  et la touche  .

- L'ECRAN 1 affiche la valeur du setpoint.
- L'ECRAN 2 affiche le numéro du setpoint clignotant '01'
- Sur l'ECRAN 3 la lettre 'S' clignote.

Les touches  et  permettent de sélectionner le paramètre. En appuyant sur la Touche  il est possible d'accéder au mode de modification du paramètre:

- L'ECRAN 1 affiche la valeur du setpoint clignotante sélectionné.
- L'ECRAN 2 affiche le numéro du setpoint '-25'
- L'ECRAN 3 affiche la lettre 'S'.



Les touches  ou  permettent de modifier la valeur du paramètre. Un appui sur la touche  sconfirme la nouvelle valeur du paramètre et ramène à la sélection du paramètre. Après 60 secondes, le menu Paramètres se ferme automatiquement après un time out de 60 secondes. Pour fermer manuellement le menu, appuyer sur la touche .

SetPoint	Description	Par défaut	min	MAX
S01	SetPoint cellule PHASE1 en mode refroidissement +3°C Soft	0°C	-60°C	100°C
S02	SetPoint noyau PHASE1 en mode refroidissement +3°C Soft	10°C	-60°C	100°C
S03	SetPoint temps PHASE1 en mode refroidissement +3°C Soft	30 min	0 min	900 min
S04	SetPoint cellule PHASE2 en mode refroidissement +3°C Soft	0°C	-60°C	100°C
S05	SetPoint noyau PHASE2 en mode refroidissement +3°C Soft	5°C	-60°C	100°C
S06	SetPoint temps PHASE2 en mode refroidissement +3°C Soft	30 min	0 min	900 min
S07	SetPoint cellule PHASE3 en mode refroidissement + 3°C Soft	0°C	-60°C	100°C
S08	SetPoint noyau PHASE3 en mode refroidissement +3°C Soft	3°C	-60°C	100°C
S09	SetPoint temps PHASE3 en mode refroidissement +3°C Soft	30 min	0 min	900 min
S10	SetPoint cellule en mode congélation +3°C	2°C	-60°C	100°C
S11	<b>SetPoint cellule PHASE1 en mode refroidissement +3°C Hard</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
S12	<b>SetPoint noyau PHASE1 en mode refroidissement +3°C Hard</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
S13	<b>SetPoint temps PHASE1 en mode refroidissement +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S14	<b>SetPoint cellule PHASE2 en mode refroidissement +3°C Hard</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
S15	<b>SetPoint noyau PHASE2 en mode refroidissement +3°C Hard</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
S16	<b>SetPoint temps PHASE2 en mode refroidissement +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S17	<b>SetPoint cellule PHASE3 en mode refroidissement +3°C Hard</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
S18	<b>SetPoint noyau PHASE3 en mode refroidissement +3°C Hard</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
S19	<b>SetPoint temps PHASE3 en mode refroidissement +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S20	<b>Setpoint temps en P0 +3°C</b>	<b>900 min</b>	<b>0 min</b>	<b>900 min</b>
S21	SetPoint cellule PHASE1 en mode congélation -18°C Soft	-10°C	-60°C	100°C
S22	SetPoint noyau PHASE1 en mode congélation -18°C Soft	3°C	-60°C	100°C
S23	SetPoint temps PHASE1 en mode congélation -18°C Soft	80 min	0 min	900 min
S24	SetPoint cellule PHASE2 en mode congélation -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint noyau PHASE2 en mode congélation -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint temps PHASE2 en mode congélation -18°C Soft	80 min	0 min	900 min
S27	SetPoint cellule PHASE3 en mode congélation -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint noyau PHASE3 en mode congélation -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint temps PHASE3 en mode congélation -18°C Soft	80 min	0 min	900 min
S30	SetPoint cellule en conservation -18°C	-20°C	-60°C	100°C
S31	<b>SetPoint cellule PHASE1 en mode congélation -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
S32	<b>SetPoint noyau PHASE1 en mode congélation -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S33	<b>SetPoint temps PHASE1 en mode congélation -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S34	<b>SetPoint cellule PHASE2 en mode congélation -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
S35	<b>SetPoint noyau PHASE2 en mode congélation -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S36	<b>SetPoint temps PHASE2 en mode congélation -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S37	<b>SetPoint cellule PHASE3 en mode congélation -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
S38	<b>SetPoint noyau PHASE3 en mode congélation -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S39	<b>SetPoint temps PHASE3 en mode congélation -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S40	<b>SetPoint temps en P0 -18°C</b>	<b>900 min</b>	<b>0 min</b>	<b>900 min</b>
S41	SetPoint temps maximum pour refroidissement avec cycle à temps +3°C	120 min	0 min	900 min
S42	SetPoint temp maximum pour refroidissement avec cycle à temps -18°C	300 min	0 min	900 min
S43	SetPoint cellule en refroidissement +3°C à temps infini	0 °C	-60°C	100°C
S44	SetPoint cellule en refroidissement -18°C à temps infini	-35°C	-60°C	100°C
s45	Valeur de réglage de la Chambre PreCooling des cycles de refroidissement +3°	-10°C	-60°C	100°C
s46	Valeur de réglage de la Chambre PreCooling des cycles de refroidissement -18°	-25°C	-60°C	100°C
s47	Fonctionnement en tant que conservateur 0=non ; 1=oui	0	0	1
s48	Valeur de réglage de la Chambre du Conservateur +3°C	2°C	-60°C	100°C
s49	Valeur de réglage de la Chambre du Conservateur -18° C	-20°C	-60°C	100°C

## PARAMETRES

Lorsque la machine a été éteinte à l'aide de la Touche  , il est possible d'accéder à la modification des Paramètres en appuyant simultanément sur la touche  et la touche  pendant cinq secondes:


- L'ECRAN 1 affiche la valeur du paramètre.
- L'ECRAN 2 affiche le numéro du paramètre clignotant '01'.
- Sur l'ECRAN 3 la lettre 'P' clignote.


Les touches  et  permettent de sélectionner le paramètre

En appuyant sur la Touche  il est possible d'accéder au mode de modification du Paramètre:

- L'ECRAN 1 affiche la valeur du paramètre clignotante sélectionné.
- L'ECRAN 2 affiche le numéro du paramètre '15'.
- L'ECRAN 3 affiche la lettre 'P'.

Les touches  et  permettent de modifier la valeur du paramètre.




Un appui sur la Touche  confirme la nouvelle valeur du paramètre et ramène à la sélection du paramètre. Après 60 secondes, le menu Paramètres se ferme automatiquement après un time out de 60 secondes.

Pour fermer manuellement le menu, appuyer sur la touche  .




Paramèt.	Description	Par défaut	min	MAX
P01	Hystérésis par désactivation de l'alarme de température	2°C	0°C	10°C
P02	Seuil d'alarme de température élevée en mode conservation positive par rapport au Set CONS	7°C	0°C	50°C
P03	Seuil d'alarme de basse température en mode conservation positive	0°C	-10°C	0°C
P04	Seuil d'alarme de température élevée en mode conservation négative par rapport au Set CONS	6°C	0°C	50°C
P05	Seuil d'alarme de basse température en mode conservation négative par rapport au Set CONS	-10°C	-50°C	0°C
P06	Retard de l'alarme de température du début de la conservat. ou de defrost	60 min	0 min	300 min
P07	Retard de l'alarme de température	30 min	0 min	300 min
P10	Unité de mesure de la température (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset (décalage) de la sonde cellule	0°C	-10°C	10°C
P12	Polarité porte ouverte 0: DI fermé = porte Fermée 1: DI fermé = porte Ouverte	0	0	1
P13	Retard de l'alarme de porte ouverte	2 min	0 min	60 min
P15	Activation ronfleur (0 désactivé ; 1 activé)	1	0	1
P16	Durée du ronfleur au terme du cycle de refroidissement	10 sec	0	600 sec
P17	Durée du ronfleur en mode alarme	1 min	0 min	90 min
P18	Activation de l'insertion de l'Aiguille 0 = non 1 = oui	1	0	1
P20	Relais stérilisation 0 = absent 1 = présent	1	0	1
P21	Cycles de refroid. uniquement: 0=cycles Positifs/Négatifs 1=cycles Positifs uniq.	0	0	1
P22	Temps de détection d'alarme de manostat	5 sec	0 sec	60 sec
P23	Polarité d'entrée digitale haute pression 0: DI Ouvert = Alarme HP activé 1: DI fermé = Alarme HP activé	0	0	1
P25	Durée de Stérilisation	15 min	0 min	90 min
P26	Température minimum pour début de Stérilisation	15°C	0°C	100°C
P27	Température minimum pour début de chauffage de l'aiguille	-5°C	-50°C	50°C
P28	Durée de chauffage de l'Aiguille	90 sec	0 sec	600 sec
P29	Température de fin de chauffage de l'Aiguille	30°C	0°C	100°C
P30	Hystérésis activation/désactivation du compresseur	1°C	0°C	20°C
P31	Temps minimum entre compresseur OFF - ON	2 min	0 min	30 min
P32	Delta Setpoint en mode de contrôle de l'Aiguille avec Erreur de Sonde Cellule	-2°C	-10°C	10°C
P33	Température minimum de l'aiguille pour début de refroidissement	70°C	0°C	90°C
P34	Durée du test d'insertion de l'aiguille (0=test terminé)	3 min	0 min	240 min
P35	Ventilateurs ON avec compresseur éteint en mode conservation	30 sec	0 sec	999 sec
P36	Ventilateurs OFF avec compresseur éteint en mode conservation	300 sec	0 sec	999 sec
P37	Différence de température au niveau du Noyau lors du test d'insertion de l'aiguille	4°C	0	10°C
P38	Différence de température entre la Cellule et le Noyau lors du test insertion de l'aiguille	5°C	0	10°C
P40	Adresse de l'outil	1	1	147
P41	Gestion de la Sériele : 0 = non utilisée 1 = Impression 2 = ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity : 0= no parity; 1= odd; 2 = even	2	0	2

Paramèt.	Description	Par défaut	min	MAX
P44	Intervalle d'impression	10 min	1 min	60 min
P50	Exécute un dégivrage au début de le refroidissement 0=Non;1=Oui	0	0	1
P51	Température de fin de dégivrage	8°C	-10°C	30°C
P52	Durée maximum d'un defrost	15 min	1 min	90 min
P53	Intervalle entre deux dégivrages en mode conservation (0=exclu)	0 ore	0	18 ore
P54	Type de dégivrage : 0= à air 1= à gaz chaud 2= électrique	0	0	2
P55	Temps d'égouttement	1 min	0 min	90 min
P56	Retard d'activation du compress. avec dégivrage à gaz chaud	0 sec	0 sec	600 sec
P57	Température minimum pour début de dégivrage	0°C	-10°C	30°C
P58	Delta de température d'arrêt des ventilateurs après dégivrage + 5°C	5°C	0°C	10°C
P60	Temps Compres. ON pendant cycles +3°C avec sonde cellule défectueuse	3 min	0 min	60 min
P61	Temps Compres. OFF pendant cycles +3°C avec sonde cellule défectueuse	7 min	0 min	60 min
P62	Temps Compres. ON pendant cycles -18°C avec sonde cellule défectueuse	8 min	0 min	60 min
P63	Temps Compres. OFF pendant cycles -18°C avec sonde cellule défectueuse	2 min	0 min	60 min
P65	Retard d'activation du compresseur depuis Power-On	2 min	0 min	60 min
P66	Set température habilite de la régulation ventilateurs evaporateurs	25°C	-50°C	50°C
P70	Offset sonde aiguille	0°C	-10°C	10°C
P71	Offset sonde evaporateur	0°C	-10°C	10°C
P72	Langue de presse: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P73	Période du Son Buzzer à la fin du PreCooling	60 sec	3 sec	600 sec
P74	Retard de l'extinction du compresseur (PumpDown)	10 sec	0 sec	600 sec
P75	Retard d'allumage Solénoïde	5 sec	0 sec	600 sec
P76	Solénoïde : 0- PUMPDOWN ; 1- DÉGIVRAGE GAZ CHAUD.	0	3 sec	1




## SETPOINT

Con el aparato apagado con la tecla , es posible acceder a la modificación de parámetros, manteniendo durante 5 segundos pulsadas la tecla  y la tecla  :

- En el DISPLAY 1 aparece el valor del setpoint.
- En el DISPLAY 2 parpadea el número de setpoint '01'.
- En el DISPLAY 3 parpadea la letra 'S'.

Con la tecla  y la  es posible seleccionar el parámetro. Pulsando la tecla  es posible acceder a la modificación del parámetro:

- En el DISPLAY 1 parpadea el valor del setpoint seleccionado.
- En el DISPLAY 2 se lee el número de setpoint '-25'.
- En el DISPLAY 3 se lee la letra 'S'.




Con la tecla  y la  es posible modificar el valor del parámetro. Pulsando la tecla  se confirma el nuevo valor del parámetro y se vuelve a la selección del parámetro. La salida del menú parámetros es automática transcurrido


un time out de 60 seg., o bien manualmente pulsando la tecla .


SetPoint	Descripción	V. por defecto	mín	MÁX
S01	SetPoint cámara FASE1 en enfriamiento rápido +3°C Soft	0°C	-60°C	100°C
S02	SetPoint corazón FASE1 en enfriamiento rápido +3°C Soft	10°C	-60°C	100°C
S03	SetPoint tiempo FASE1 en enfriamiento rápido +3°C Soft	30 min	0 min	900 min
S04	SetPoint cámara FASE2 en enfriamiento rápido +3°C Soft	0°C	-60°C	100°C
S05	SetPoint corazón FASE2 en enfriamiento rápido +3°C Soft	5°C	-60°C	100°C
S06	SetPoint tiempo FASE2 en enfriamiento rápido +3°C Soft	30 min	0 min	900 min
S07	SetPoint cámara FASE3 en enfriamiento rápido +3°C Soft	0°C	-60°C	100°C
S08	SetPoint corazón FASE3 en enfriamiento rápido +3°C Soft	3°C	-60°C	100°C
S09	SetPoint tiempo FASE3 en enfriamiento rápido +3°C Soft	30 min	0min	900min
S10	SetPoint cámara en conservación +3°C	2°C	-60°C	100°C
S11	SetPoint cámara FASE1 en enfriamiento rápido +3°C Hard	-20°C	-60°C	100°C
S12	SetPoint corazón FASE1 en enfriamiento rápido +3°C Hard	22°C	-60°C	100°C
S13	SetPoint tiempo FASE1 en enfriamiento rápido +3°C Hard	30 min	0 min	900 min
S14	SetPoint cámara FASE2 en enfriamiento rápido +3°C Hard	-9°C	-60°C	100°C
S15	SetPoint corazón FASE2 en enfriamiento rápido +3°C Hard	10°C	-60°C	100°C
S16	SetPoint tiempo FASE2 en enfriamiento rápido +3°C Hard	30 min	0 min	900 min
S17	SetPoint cámara FASE3 en enfriamiento rápido +3°C Hard	0°C	-60°C	100°C
S18	SetPoint corazón FASE3 en enfriamiento rápido +3°C Hard	3°C	-60°C	100°C
S19	SetPoint tiempo FASE3 en enfriamiento rápido +3°C Hard	30 min	0 min	900 min
S20	SetPoint tiempo en P0 +3°C	900 min	0 min	900 min
S21	SetPoint cámara FASE1 en congelación -18°C Soft	-10°C	-60°C	100°C
S22	SetPoint corazón FASE1 en congelación -18°C Soft	3°C	-60°C	100°C
S23	SetPoint tiempo FASE1 en congelación -18°C Soft	80 min	0 min	900 min
S24	SetPoint cámara FASE2 en congelación -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint corazón FASE2 en congelación -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint tiempo FASE2 en congelación -18°C Soft	80 min	0 min	900 min
S27	SetPoint cámara FASE3 en congelación -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint corazón FASE3 en congelación -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint tiempo FASE3 en congelación -18°C Soft	80 min	0 min	900 min
S30	SetPoint cámara en conservación -18°C	-20°C	-60°C	100°C
S31	SetPoint cámara FASE1 en congelación -18°C Hard	-40°C	-60°C	100°C
S32	SetPoint corazón FASE1 en congelación -18°C Hard	-18°C	-60°C	100°C
S33	SetPoint tiempo FASE1 en congelación -18°C Hard	80 min	0 min	900 min
S34	SetPoint cámara FASE2 en congelación -18°C Hard	-40°C	-60°C	100°C
S35	SetPoint corazón FASE2 en congelación -18°C Hard	-18°C	-60°C	100°C
S36	SetPoint tiempo FASE2 en congelación -18°C Hard	80 min	0 min	900 min
S37	SetPoint cámara FASE3 en congelación -18°C Hard	-40°C	-60°C	100°C
S38	SetPoint corazón FASE3 en congelación -18°C Hard	-18°C	-60°C	100°C
S39	SetPoint tiempo FASE3 en congelación -18°C Hard	80 min	0 min	900 min
S40	SetPoint tiempo en P0 -18°C	900 min	0 min	900 min
S41	SetPoint tiempo máximo enfriamiento rápido con ciclo a tiempo +3°C	120 min	0 min	900 min
S42	SetPoint tiempo máximo enfriamiento rápido con ciclo a tiempo -18°C	300 min	0 min	900 min
S43	SetPoint cámara en enf. rápido +3°C por tiempo infinitamente	0°C	-60°C	100°C
S44	SetPoint cámara en enf. rápido -18°C por tiempo infinitamente	0°C	-60°C	100°C
s45	Set point Cámara PreCooling ciclos enfriamiento rápido +3°	-10°C	-60°C	100°C
s46	Set point Cámara PreCooling ciclos enfriamiento rápido -18°	-25°C	-60°C	100°C
s47	Funcionamiento como conservador 0=no; 1=si	0	0	1
s48	Set point Cámara Conservador +3°C	2°C	-60°C	100°C
s49	Set point cámara Conservador -18°C	-20°C	-60°C	100°C







## PARÁMETROS

Con el aparato apagado por medio de la tecla , es posible acceder a la modificación de parámetros, manteniendo pulsadas durante 5 segundos la tecla  y la tecla  : • En el DISPLAY 1 se lee el valor del parámetro.  
• En el DISPLAY 2 parpadea el número del parámetro '01'.  
• En el DISPLAY 3 parpadea la letra 'P'.

Con la tecla  y la  es posible seleccionar el parámetro.

Pulsando la tecla  es posible entrar en la modificación de parámetro:

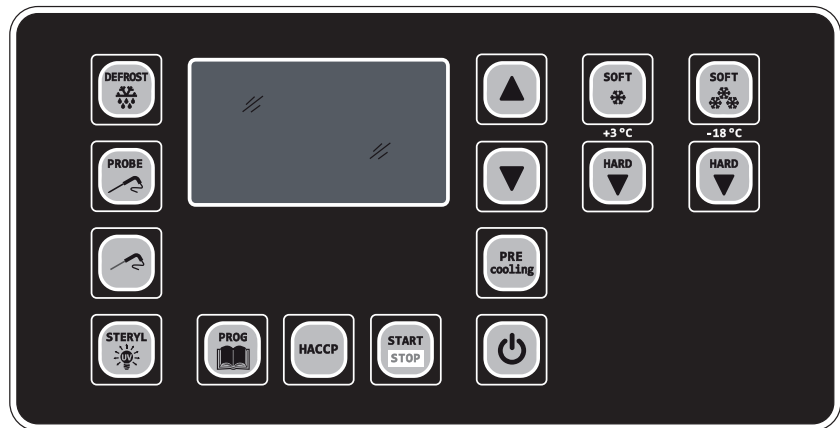
- En el DISPLAY 1 parpadea el valor del parámetro seleccionado.
- En el DISPLAY 2 se lee el número del parámetro '15'.
- En el DISPLAY 3 se lee la letra 'P'.

Con las teclas  y  es posible modificar el valor del parámetro. Pulsando la tecla  se confirma el nuevo valor del parámetro y se vuelve a la selección del parámetro. La salida del menú parámetros es automática transcurrido un time out de 60 segundos, o bien manualmente pulsando la tecla .

Parám.	Descripción	V. por defecto	mín.	MÁX.
P01	Histéris para desactivación alarma de temperatura	2°C	0°C	10°C
P02	Umbral alarma alta temp. en cons. positiva relativa al Set CONS	7°C	0°C	50°C
P03	Umbral alarma baja temperatura en conservación positiva	0°C	-10°C	0°C
P04	Umbral alarma alta t. en cons. negativa relativa al Set CONS	6°C	0°C	50°C
P05	Umbral alarma baja t. en cons. negativa relativa al Set CONS	-10°C	-50°C	0°C
P06	Retardo alarma temperatura desde inicio conservación o defrost	60 min	0 min	300 min
P07	Retardo alarma temperatura	30 min	0 min	300 min
P10	Unidad de medida de la temperatura (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset sonda cámara	0°C	-10°C	10°C
P12	Polaridad puerta- 0: DI cerrada = Cerr. - 1: DI cerrada = Abta.	0	0	1
P13	Retardo alarma por puerta abierta	2 min	0 min	60 min
P15	Activa zumbador (0 desactivado; 1 activado)	1	0	1
P16	Duración zumbador a fin de ciclo de enfriamiento rápido	10 seg	0	600 seg
P17	Duración zumbador en alarma	1 min	0 min	90 min
P18	Control Introducción Aguja 0=no 1=si	1	0	1
P20	Relé Esterilización 0=no presente 1=presente	1	0	1
P21	Solo ciclos enf. rápido: 0=Positivos/Negativos 1 =solo Positivos	0	0	1
P22	Tiempo lectura alarma presostato	5 seg	0 seg	60 seg
P23	Polaridad entrada digital de alta presión 0: DI abierta = Alarma HP activada 1: DI cerrada = Alarma HP activada	0	0	1
P25	Duración Esterilización	15 min	0 min	90 min
P26	Temperatura mínima para inicio Esterilización	15°C	0°C	100°C
P27	Temperatura mínima para inicio calentamiento de aguja	-5°C	-50°C	50°C
P28	Duración Calentamiento de aguja	90 seg	0 seg	600 seg
P29	Temperatura fin calentamiento de aguja	30°C	0°C	100°C
P30	Histérisis encendido-apagado del compresor	1°C	0°C	20°C
P31	Tiempo mínimo entre OFF - ON del compresor	2 min	0 min	30 min
P32	Delta Setpoint para control Aguja con Error Sonda Cámara	-2°C	-10°C	10°C
P33	Temperatura mínima de la aguja para inicio enfriamiento rápido	70°C	0°C	90°C
P34	Duración test de introducción aguja (0=test desactivado)	3 min	0 min	240 min
P35	Ventiladores ON con compresor apagado en conservación	30 seg	0 seg	999 seg
P36	Ventiladores OFF con compresor apagado en conservación	300 seg	0 seg	999 seg
P37	Diferencia de temp. corazón en test introducción aguja	4°C	0	10°C
P38	Diferencia de temp. Cámara-Corazón en test introducción aguja	5°C	0	10°C
P40	Dirección del instrumento	1	1	147
P41	Gestión de la Serial: 0=no utilizada 1=Impresión 2=ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity : 0= no parity; 1= odd; 2 = even	2	0	2
P44	Tiempo de muestreo	10 min	1 min	60 min
P50	Efectuar un deshielo al inicio del enfriamiento rápido 0=No;1=Si	0	0	1
P51	Temperatura de fin deshielo	8°C	-10°C	30°C
P52	Duración máxima de un defrost	15 min	1 min	90 min




Parám.	Descripción	V. por defecto	mín.	MÁX.
P53	Intervalo entre dos deshielos en conservación (0=desactivado)	0 horas	0	18 horas
P54	Tipo de deshielo: 0=con aire 1=con gas caliente 2=eléctrico	0	0	2
P55	Tiempo de escurrimiento	1 min	0 min	90 min
P56	Retardo activación compres. con deshielo con gas caliente	0 seg	0 seg	600 seg
P57	Temperatura mínima para inicio deshielo	0°C	-10°C	30°C
P58	Diferencial de temp. para paro de ventiladores tras deshielo	5°C	0°C	10°C
P60	Tiempo Compres. ON en ciclos +3°C con Sonda Cámara averiada	3 min	0 min	60 min
P61	Tiempo Compres. OFF en ciclos +3°C con Sonda Cámara averiada	7 min	0 min	60 min
P62	Tiempo Compres. ON en ciclos -18°C con Sonda Cámara averiada	8 min	0 min	60 min
P63	Tiempo Compres. OFF en ciclos -18°C con Sonda Cámara averiada	2 min	0 min	60 min
P65	Retardo encendido compresor desde Power-On	2 min	0 min	60 min
P66	Set temperatura habilita del reglamento ventiladores evapora	25°C	-50°C	50°C
P70	Offset aguja sonde	0°C	-10°C	10°C
P71	Offset evaporador sonde	0°C	-10°C	10°C
P72	Lengua de impresión: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P73	Periodo Sonido Zumbador al final del PreCooling	60 sec	3 sec	600 sec
P74	Retardo apagado compresor (PumpDown)	10 sec	0 sec	600 sec
P75	Retardo encendido Solenoide	5 sec	0 sec	600 sec
P76	Solenoide: 0- PUMPDOWN; 1- DESESCARCHE GAS CALIENTE.	0	0	1

# “P”



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## SETPOINT



Con la macchina spenta da tasto , è possibile accedere alla modifica parametri, tenendo premuti contemporaneamente per cinque secondi il tasto  e il tasto .



- Sul DISPLAY 1 viene visualizzato il valore del setpoint.
- Sul DISPLAY 2 viene visualizzato il numero del setpoint lampeggiante '01'.
- Sul DISPLAY 3 viene visualizzata la lettera 'S' lampeggiante.

Premendo il tasto  o  è possibile selezionare il setpoint.

Premendo il tasto  è possibile entrare in modifica setpoint:

- Sul DISPLAY 1 viene visualizzato il valore del setpoint selezionato lampeggiante.
- Sul DISPLAY 2 viene visualizzato il numero del setpoint '-25'.
- Sul DISPLAY 3 viene visualizzata la lettera 'S'.


Premendo il tasto  o  è possibile modificare il valore del parametro.



Premendo il tasto  si conferma il nuovo valore e si ritorna alla selezione dei setpoint. L'uscita dal menù avviene automaticamente dopo un time out di 60 sec., oppure manualmente premendo il tasto .

SetPoint	Descrizione	Default	min	MAX
S01	SetPoint cella FASE1 in abbattimento +3°C Soft	0°C	-60°C	100°C
S02	SetPoint cuore FASE1 in abbattimento +3°C Soft	10°C	-60°C	100°C
S03	SetPoint tempo FASE1 in abbattimento +3°C Soft	30 min	0 min	900 min
S04	SetPoint cella FASE2 in abbattimento +3°C Soft	0°C	-60°C	100°C
S05	SetPoint cuore FASE2 in abbattimento +3°C Soft	5°C	-60°C	100°C
S06	SetPoint tempo FASE2 in abbattimento +3°C Soft	30 min	0 min	900 min
S07	SetPoint cella FASE3 in abbattimento +3°C Soft	0°C	-60°C	100°C
S08	SetPoint cuore FASE3 in abbattimento +3°C Soft	3°C	-60°C	100°C
S09	SetPoint tempo FASE3 in abbattimento +3°C Soft	30 min	0 min	900 min
S10	SetPoint cella in conservazione +3°C	2°C	-60°C	100°C
<b>S11</b>	<b>SetPoint cella FASE1 in abbattimento +3°C Hard</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S12</b>	<b>SetPoint cuore FASE1 in abbattimento +3°C Hard</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S13</b>	<b>SetPoint tempo FASE1 in abbattimento +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S14</b>	<b>SetPoint cella FASE2 in abbattimento +3°C Hard</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S15</b>	<b>SetPoint cuore FASE2 in abbattimento +3°C Hard</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S16</b>	<b>SetPoint tempo FASE2 in abbattimento +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S17</b>	<b>SetPoint cella FASE3 in abbattimento +3°C Hard</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S18</b>	<b>SetPoint cuore FASE3 in abbattimento +3°C Hard</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S19</b>	<b>SetPoint tempo FASE3 in abbattimento +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S21	SetPoint cella FASE1 in congelamento -18°C Soft	-10°C	-60°C	100°C
S22	SetPoint cuore FASE1 in congelamento -18°C Soft	3°C	-60°C	100°C
S23	SetPoint tempo FASE1 in congelamento -18°C Soft	80 min	0 min	900 min
S24	SetPoint cella FASE2 in congelamento -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint cuore FASE2 in congelamento -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint tempo FASE2 in congelamento -18°C Soft	80 min	0 min	900 min
S27	SetPoint cella FASE3 in congelamento -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint cuore FASE3 in congelamento -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint tempo FASE3 in congelamento -18°C Soft	80 min	0 min	900 min
S30	SetPoint cella in conservazione -18°C	-20°C	-60°C	100°C
<b>S31</b>	<b>SetPoint cella FASE1 in congelamento -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S32</b>	<b>SetPoint cuore FASE1 in congelamento -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S33</b>	<b>SetPoint tempo FASE1 in congelamento -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S34</b>	<b>SetPoint cella FASE2 in congelamento -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S35</b>	<b>SetPoint cuore FASE2 in congelamento -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S36</b>	<b>SetPoint tempo FASE2 in congelamento -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S37</b>	<b>SetPoint cella FASE3 in congelamento -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S38</b>	<b>SetPoint cuore FASE3 in congelamento -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S39</b>	<b>SetPoint tempo FASE3 in congelamento -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S41	SetPoint cella in abbattimento +3°C Multipoint	0°C	-60°C	100°C
S42	SetPoint cuore in abbattimento +3°C Multipoint	3°C	-60°C	100°C



SetPoint	Descrizione	Default	min	MAX
S43	SetPoint tempo in abbattimento +3°C Multipoint	90 min	0 min	599 min
S44	Isteresi cella in abbattimento +3°C Multipoint	1°C	0°C	10°C
S45	SetPoint cella in congelamento -18°C Multipoint	-39°C	-60°C	100°C
S46	SetPoint cuore in congelamento -18°C Multipoint	-18°C	-60°C	100°C
S47	SetPoint tempo in congelamento -18°C Multipoint	240 min	0 min	599 min
S48	SetPoint tempo in P0 +3°C	∞(600 min)	0 min	600 min
S49	SetPoint tempo in P0 -18°C	∞(600 min)	0 min	600 min
S50	Velocità ventole FASE1	100%	0%	100%
S51	Velocità ventole FASE2	100%	0%	100%
S52	Velocità ventole FASE3	100%	0%	100%
S53	Velocità ventole in conservazione	100%	0%	100%
S54	Velocità ventole cella in abbattimento +3°C Multipoint	100%	0%	100%
S55	Velocità ventole cella in congelamento -18°C Multipoint	100%	0%	100%
S56	SetPoint tempo massimo abbattimento P0 +3°C	900 min	0 min	900 min
S57	SetPoint tempo massimo abbattimento P0 -18°C	900 min	0 min	900 min
S58	SetPoint camera abbattimento +3°C a tempo infinito	0°C	-60°C	100°C
S59	SetPoint camera abbattimento -18°C a tempo infinito	-35°C	-60°C	100°C
S60	SetPoint Camera Precooling cicli abbattimento +3°C	-10°C	-60°C	100°C
S61	SetPoint Camera Precooling cicli congelamento -18°C	-25°C	-60°C	100°C


## PARAMETRI

Con la macchina spenta da tasto , è possibile accedere alla modifica parametri, tenendo premuti



contemporaneamente per cinque secondi il tasto  e il tasto .


- Sul DISPLAY 1 viene visualizzato il valore del parametro.
- Sul DISPLAY 2 viene visualizzato il numero del parametro lampeggiante '01'.
- Sul DISPLAY 3 viene visualizzata la lettera 'P' lampeggiante.

Premendo il tasto  o  è possibile selezionare il parametro.


Premendo il tasto  è possibile entrare in modifica parametro:

- Sul DISPLAY 1 viene visualizzato il valore del parametro selezionato lampeggiante.
- Sul DISPLAY 2 viene visualizzato il numero del parametro '15'.
- Sul DISPLAY 3 viene visualizzata la lettera 'P'.

Premendo il tasto  o  è possibile selezionare il parametro.

Premendo il tasto  si conferma il nuovo valore del parametro e si ritorna alla selezione del parametro.

L'uscita dal menù parametri avviene automaticamente dopo un time out di 60 secondi, oppure manualmente




premendo il tasto .

Param.	Descrizione	Default	min	MAX
P01	Isteresi per rientro allarme di temperatura	2°C	0°C	10°C
P02	Soglia allarme alta temp. in cons. positiva relativa al Set CONS	7°C	0°C	50°C
P03	Soglia allarme bassa temperatura in conservazione positiva	0°C	-10°C	0°C
P04	Soglia allarme alta t. in cons. negativa relativa al Set CONS	6°C	0°C	50°C
P05	Soglia allarme bassa t. in cons. negativa relativa al Set CONS	-10°C	-50°C	0°C
P06	Ritardo allarme temperatura da inizio conservazione o defrost	60 min	0 min	300 min
P07	Ritardo allarme temperatura	30 min	0 min	300 min
P08	Durata massima BlackOut	2 min	0 min	300 min
P10	Unità di misura della temperatura (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset sonda cella	0°C	-10°C	10°C
P12	Polarità porta 0: DI chiuso = Chiusa 1: DI chiuso = Aperta	0	0	1
P13	Ritardo allarme porta aperta	2 min	0 min	60 min
P14	Funzione sonda Spillone: 0 = Standard 1 = Multipoint 2,3,4 = numero di Spilloni in Multisonde	1	0	4
P15	Abilita buzzer (0=disabilitato; 1=Abilitato)	1	0	1
P16	Durata buzzer a fine ciclo di abbattimento	10 sec	0	600 sec
P17	Durata buzzer in allarme	1 min	0 min	90 min




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Param.	Descrizione	Default	min	MAX
P18	Abilita riconoscimento Inserimento Spillone 0=no 1=si	1	0	1
P20	Funzione rele 0=Luce 1=Allarme	1	0	1
P21	Solo cicli abbattimento: 0=Positivi/Negativi 1=solo Positivi	0	0	1
P22	Tempo rilevazione allarme pressostato	5 sec	0 sec	60 sec
P23	Polarità ingresso digitale alta pressione 0: DI Aperto = Allarme HP attivo 1: DI Chiuso = Allarme HP attivo	0	0	1
P24	SetPoint accensione Resistenze	10°C	-10°C	20°C
P25	Durata Sterilizzazione	15 min	0 min	90 min
P26	Minima temperatura per inizio Sterilizzazione	15°C	0°C	100°C
P27	Minima temperatura per inizio riscaldamento spillone	-5°C	-50°C	50°C
P28	Durata Riscaldamento Spillone	90 sec	0 sec	600 sec
P29	Temperatura fine riscaldamento spillone	30°C	0°C	100°C
P30	Isteresi accensione spegnimento del compressore	1°C	0°C	20°C
P31	Tempo minimo tra OFF - ON compressore	2 min	0 min	30 min
P32	Delta Setpoint in controllo Spillone con Errore Sonda Cella	-2°C	-10°C	10°C
P33	Minima temperatura dello spillone per inizio abbattimento	70°C	0°C	90°C
P34	Durata test inserimento spillone	3 min	1 min	240 min
P35	Ventole ON con compressore spento in conservazione	30 sec	0 sec	999 sec
P36	Ventole OFF con compressore spento in conservazione	300 sec	0 sec	999 sec
P37	Differenza di temp. Cuore nel test inserimento spillone	4°C	0	10°C
P38	Differenza di temp. Cella-Cuore nel test inserimento spillone	5°C	0	10°C
P39	Fermata compressore in Test Spillone Multipoint	2 min	0 min	60 min
P40	Indirizzo dello strumento	1	1	147
P41	Gestione della Seriale: 0=non utilizzata 1=Stampa 2=ModBus	0	0	2
P42	BaudRate: 0=2400; 1=4800; 2=9600; 3=19200	3	0	3
P43	Parity : 0=no parity; 1=odd; 2=even	2	0	2
P44	Tempo di campionamento	10 min	1 min	60 min
P50	Esegue uno sbrinamento all'inizio dell'abbattimento 0=No; 1=Si	0	0	1
P51	Temperatura di fine sbrinamento	8°C	-10°C	30°C
P52	Durata massima di un defrost	15 min	1 min	90 min
P53	Intervallo tra due sbrinamenti in conservazione (0=escluso)	0 ore	0	18 ore
P54	Tipo di sbrinamento: 0=ad aria; 1=a gas caldo; 2=elettrico	0	0	2
P55	Tempo di sgocciolamento	1 min	0 min	90 min
P56	Ritardo attivazione compres. con sbrinamento a gas caldo	0 sec	0 sec	600 sec
P57	Temperatura minima per inizio sbrinamento	3°C	-10°C	30°C
P58	Differenziale di temp. per fermata ventole dopo lo sbrinamento	5°C	0°C	10°C
P60	Tempo Compres. ON in cicli +3°C con Sonda Cella guasta	3 min	0 min	60 min
P61	Tempo Compres. OFF in cicli +3°C con Sonda Cella guasta	7 min	0 min	60 min
P62	Tempo Compres. ON in cicli -18°C con Sonda Cella guasta	8 min	0 min	60 min
P63	Tempo Compres. OFF in cicli -18°C con Sonda Cella guasta	2 min	0 min	60 min
P64	Tempo rotazione visualizzazione spilloni	2 sec	0 sec	100 min
P65	Ritardo accensione compressore da Power-On	2 min	0 min	30 min
P70	Velocità minima ventole	0%	0%	100%
P71	Velocità massima ventole	100%	0%	100%
P72	Velocità spunto ventole	80%	0%	100%
P73	Tempo spunto ventole	15 sec	0 sec	600 sec
P74	Abilita programmi automatici P00: 0=no; 1=si	1	0	1
P75	Numero di scatti dell'encoder	3	1	24
P76	Velocità % per ventole ferme	0%	0%	100%
P77	Velocità % per ventole al massimo	100	0	100
P80	Set temperatura abilita regolazione ventole evaporatore	25°C	-50°C	50°C
P81	Offset sonda evaporatore	0°C	-10°C	10°C
P82	Offset sonda spillone 1	0°C	-10°C	10°C
P83	Offset sonda spillone 2	0°C	-10°C	10°C
P84	Offset sonda spillone 3	0°C	-10°C	10°C
P85	Offset sonda spillone 4	0°C	-10°C	10°C
P86	Lingua di stampa: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P87	Ritardo spegnimento compressore (PumpDown)	10 sec	0 sec	600 sec
P88	Ritardo accensione Solenoide	5 sec	0 sec	600 sec
P89	Periodo Suono Buzzer alla fine del PreCooling	60 sec	3 sec	600 sec
P90	Banda proporzionale abbattimenti positivi	10°	0°	20°
P91	Banda proporzionale abbattimenti negativi	10°	0°	20°
P92	Abilita Inverter compressore 0=no; 1=si	0	0	1



## SET POINT


With the machine turned off by the  button, it is possible to change the parameter setting by keeping the  and  buttons pressed simultaneously for five seconds.

- DISPLAY 1 indicates the setpoint value
- DISPLAY 2 the number of the setpoint '01', flashing.
- DISPLAY 3 flashing letter 'S'.

By using the  or  it is possible to select the setpoint. By pressing button  it is possible to change the parameters:

- DISPLAY 1 indicates the setpoint value flashing.
- DISPLAY 2 indicates the number of the parameter '-25'.
- DISPLAY 3 indicates the letter 'S'.




By using the  or  it is possible to select the setpoint.

Press button  to confirm the new parameter value and return to the parameter selection.



SetPoint	Description	Default	min	MAX
S01	Cabinet SetPoint PHASE 1 in +3°C soft blast chill	0°C	-60°C	100°C
S02	Core SetPoint PHASE 1 in soft +3°C blast chill	10°C	-60°C	100°C
S03	Time SetPoint PHASE 1 in +3°C soft blast chill	30 min	0 min	199 min
S04	Cabinet SetPoint PHASE 2 in +3°C soft blast chill	0°C	-60°C	100°C
S05	Core SetPoint PHASE 2 in +3°C soft blast chill	5°C	-60°C	100°C
S06	Time SetPoint PHASE 2 in +3°C soft blast chill	30 min	0 min	199 min
S07	Cabinet SetPoint PHASE 3 in +3°C soft blast chill	0°C	-60°C	100°C
S08	Core SetPoint PHASE 3 in +3°C soft blast chill	3°C	-60°C	100°C
S09	Time SetPoint PHASE 3 in +3°C soft blast chill	30 min	0 min	199 min
S10	Cabinet SetPoint in +3°C conservation	2°C	-60°C	100°C
<b>S11</b>	<b>Cabinet SetPoint PHASE 1 in +3°C hard blast chill</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S12</b>	<b>Core SetPoint PHASE 1 in +3°C hard blast chill</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S13</b>	<b>Time SetPoint PHASE 1 in +3°C hard blast chill</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S14</b>	<b>Cabinet SetPoint PHASE 2 in +3°C hard blast chill</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S15</b>	<b>Core SetPoint PHASE 2 in +3°C hard blast chill</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S16</b>	<b>Time SetPoint PHASE 2 in +3°C hard blast chill</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S17</b>	<b>Cabinet SetPoint PHASE 3 in +3°C hard blast chill</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S18</b>	<b>Core SetPoint PHASE 3 in +3°C hard blast chill</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S19</b>	<b>Time SetPoint PHASE 3 in +3°C hard blast chill</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
S21	Cabinet SetPoint PHASE 1 in -18°C soft shock freeze	-10°C	-60°C	100°C
S22	Core SetPoint PHASE 1 in -18°C soft shock freeze	3°C	-60°C	100°C
S23	Time SetPoint PHASE 1 in -18°C soft shock freeze	80 min	0 min	199 min
S24	Cabinet SetPoint PHASE 2 in -18°C soft shock freeze	-25°C	-60°C	100°C
S25	Core SetPoint PHASE 2 in -18°C soft shock freeze	-5°C	-60°C	100°C
S26	Time SetPoint PHASE 2 in -18°C soft shock freeze	80 min	0 min	199 min
S27	Cabinet SetPoint PHASE 3 in -18°C soft shock freeze	-40°C	-60°C	100°C
S28	Core SetPoint PHASE 3 in -18°C soft shock freeze	-18°C	-60°C	100°C
S29	Time SetPoint PHASE 3 in -18°C soft shock freeze	80 min	0 min	199 min
S30	Cabinet SetPoint in -18°C conservation	-20°C	-60°C	100°C
<b>S31</b>	<b>Cabinet SetPoint PHASE 1 in -18°C hard conservation</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S32</b>	<b>Core SetPoint PHASE 1 in -18°C hard conservation</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S33</b>	<b>Time SetPoint PHASE 1 in -18°C hard conservation</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S34</b>	<b>Cabinet SetPoint PHASE 2 in -18°C hard conservation</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S35</b>	<b>Core SetPoint PHASE 2 in -18°C hard conservation</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S36</b>	<b>Time SetPoint PHASE 2 in -18°C hard conservation</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S37</b>	<b>Cabinet SetPoint PHASE 3 in -18°C hard conservation</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S38</b>	<b>Core SetPoint PHASE 3 in -18°C hard conservation</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S39</b>	<b>Time SetPoint PHASE 3 in -18°C hard conservation</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
S41	Cabinet SetPoint in +3°C hard blast chill multipoint	0°C	-60°C	100°C
S42	Core SetPoint in +3°C hard blast chill multipoint	3°C	-60°C	100°C


SetPoint	Description	Default	min	MAX
S43	Time SetPoint in +3°C hard blast chill multipoint	90 min	0 min	599 min
S44	Interesi SetPoint in +3°C hard blast chill multipoint	1°C	0°C	10°C
S45	Cabinet SetPoint in -18°C hard blast chill multipoint	-39°C	-60°C	100°C
S46	Core SetPoint in -18°C hard blast chill multipoint	-18°C	-60°C	100°C
S47	Time SetPoint in -18°C hard blast chill multipoint	240 min	0 min	599 min
S48	Time SetPoint in P0 +3°C	∞ (600 min)	0 min	600 min
S49	Time SetPoint in P0 -18°C	∞ (600 min)	0 min	600 min
S50	Fan speed PHASE 1	100%	0%	100%
S51	Fan speed PHASE 2	100%	0%	100%
S52	Fan speed PHASE 3	100%	0%	100%
S53	Fan speed on conservation	100%	0%	100%
S54	Cabinet fan speed in +3°C hard blast chill multipoint	100%	0%	100%
S55	Cabinet fan speed in -18°C hard blast chill multipoint	100%	0%	100%
S56	Time SetPoint Max Time Blast Chill in P0 +3°C	900 min	0 min	900 min
S57	Time SetPoint Max Time Blast Chill in P0 -18°C	900 min	0 min	900 min
S58	Cabinet SetPoint in Blast Chill +3°C infinite time	0°C	-60°C	100°C
S59	Cabinet SetPoint in Blast Chill -18°C infinite time	-35°C	-60°C	100°C
S60	Room setpoint in +3°C blast chilling PreCooling cycles	-10°C	-60°C	100°C
S61	Room setpoint in -18°C freezing PreCooling cycles	-25°C	-60°C	100°C

**PARAMETERS**



With the machine turned off by the  button, it is possible to change the parameter setting by keeping the  and  buttons pressed simultaneously for five seconds.

- DISPLAY 1 indicates the parameter value
- DISPLAY 2 indicates the number of the param. flashing '01'.
- DISPLAY 3 indicates the letter 'P' flashing.

By using the  or  it is possible to select the setpoint.

By pressing button  it is possible to change the parameters:

- DISPLAY 1 indicates the value of the parameter selected flashing.
- DISPLAY 2 indicates the number of the parameter '15'.
- DISPLAY 3 indicates the letter 'P'.

By using the  or  it is possible to select the setpoint.

Press button  to confirm the new parameter value and return to the parameter selection.




Exit from the parameter menu occurs automatically after a time out of 60 seconds or manually by pressing the  button.

Param.	Description	Default	min	MAX
P01	Hysteresis for temperature alarm cancellation	2°C	0°C	10°C
P02	Threshold of high temperature alarm in posit. conser. compared to the Set CONS	7°C	0°C	50°C
P03	Threshold of low temperature in positive conservation	0°C	-10°C	0°C
P04	Threshold of high temperature alarm in neg. conser.n compared to the Set CONS	6°C	0°C	50°C
P05	Threshold of low temperature alarm in neg. conser. compared to the Set CONS	-10°C	-50°C	0°C
P06	Delay of temperature alarm at start of conservation or defrost	60 min	0 min	300 min
P07	Delay of temperature alarm	30 min	0 min	300 min
P08	Blackout max duration	2 min	0 min	300 min
P10	Temperature unit of measure (1 Celsius, 0 Fahrenheit)	1	0	1
P11	Cabinet probe offset	0°C	-10°C	10°C
P12	Polarity door 0: DI closed = Closed 1: DI closed = Open	0	0	1
P13	Delay door open alarm	2 min	0 min	60 min
P14	Probe Function: 0 = Standard; 1 = Multipoint; 2,3,4 = nr probes in Multisonde	1	0	4
P15	Buzzer activation (0 Disabled; 1 Enabled)	1	0	1





Param.	Description	Default	min	MAX
P16	Duration of buzzer at end of blast chill cycle	10 sec	0	600 sec
P17	Duration of buzzer alarm	1 min	0 min	90 min
P18	Verification food probe insertion 0=No 1=Yes	1	0	1
P20	Relay function 0=Absent 1=Present	1	0	1
P21	Only blast chill cycles: 0=positive/negative 1=only positive	0	0	1
P22	Pressure switch alarm time	5 sec	0 sec	60 sec
P23	High pressure digital entry polarity 0: DI Open = Alarm HP active 1: DI closed = Alarm HP active	0	0	1
P24	Resistance SetPoint power	10°C	-10°C	20°C
P25	Duration of sterilisation	15 min	0 min	90 min
P26	Minimum temperature for sterilisation start	15°C	0°C	100°C
P27	Minimum temperature for food probe heating start	-5°C	-50°C	50°C
P28	Duration of food probe heating	90 sec	0 sec	600 sec
P29	Temperature at end of food probe heating	30°C	0°C	100°C
P30	Hysteresis compressor OFF - ON	1°C	0°C	20°C
P31	Min. time between OFF-ON compressor	2 min	0 min	30 min
P32	Delta SetPoint in food probe check with Cabinet Probe Error	-2°C	-10°C	10°C
P33	Minimum temperature of probe for blast chill start	70°C	0°C	90°C
P34	Duration of probe insertion test (0=test omitted)	3 min	0 min	240 min
P35	Fans ON with compressor OFF in conservation mode	30 sec	0 sec	999 sec
P36	Fans OFF with compressor OFF in conservation mode	300 sec	0 sec	999 sec
P37	Difference in core temperature in food probe insertion test	4°C	0	10°C
P38	Difference in cabinet-core temperature in food probe insertion test	5°C	0	10°C
P39	Compressor stop on probe test	2 min	0 min	60 min
P40	Location of the instrument	1	1	147
P41	Serial management: 0=Unused 1=Print 2=ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity: 0= no parity; 1= odd; 2 = even	2	0	2
P44	Sampling time	10 min	1 min	60 min
P50	Defrosting performed at start of blast chill 0=No; 1=Yes	0	0	1
P51	Temperature at defrost end	8°C	-10°C	30°C
P52	Maximum duration of defrost	15 min	1 min	90 min
P53	Interval between two defrosting phases in conservation mode (0=omitted)	0 hour	0	18 hour
P54	Type of defrosting: 0=air 1=hot gas 2=electrical	0	0	2
P55	Draining time	1 min	0 min	90 min
P56	Delay activation compressor with hot gas defrosting	0 sec	0 sec	600 sec
P57	Minimum temperature for defrosting start	3°C	-10°C	30°C
P58	Temperature differential for fan stop after defrosting	5°C	0°C	10°C
P60	Time compressor ON in +3°C cycles with defective cabinet probe	3 min	0 min	60 min
P61	Time compressor OFF in +3°C cycles with defective cabinet probe	7 min	0 min	60 min
P62	Time compressor ON in -18°C cycles with defective cabinet probe	8 min	0 min	60 min
P63	Time compressor OFF in -18°C cycles with defective cabinet probe	2 min	0 min	60 min
P64	Time visualisation rotation probe	2 sec	0 sec	100 sec
P65	Delay in turning compressor power ON	2 min	0 min	60 min
P70	Fan speed min.	0%	0%	100%
P71	Fan speed max	100%	0%	100%
P72	Fan speed spurt	80%	0%	100%
P73	Fan time spurt	15 sec	0 sec	600 sec
P74	Program automatic Activation P00: 0= no; 1= si;	1	0	1
P75	Number spurt of encoder	3	1	24
P76	Fan speed % for stop	0%	0%	100%
P77	Fan speed % for max	100%	0%	100%
P80	Set temperatur it qualifies regulation fans	25°C	-50°C	50°C
P81	Offset evaporator sonde	0°C	-10°C	10°C
P82	Offset probe sonde 1	0°C	-10°C	10°C
P83	Offset probe sonde 2	0°C	-10°C	10°C
P84	Offset probe sonde 3	0°C	-10°C	10°C
P85	Offset probe sonde 4	0°C	-10°C	10°C
P86	Language of print: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P87	Compressor switch-off delay (PumpDown)	10 sec	0 sec	600 sec
P88	Solenoid switch-on delay	5 sec	0 sec	600 sec
P89	Buzzer sounding time at the end of the PreCooling cycle	60 sec	3 sec	600 sec
P90	Positive blast chilling proportional band	10°C	0°C	20°C
P91	Negative blast chilling proportional band	10°C	0°C	20°C
P92	Enable compressor inverter 0=no; 1=yes	0	0	1

**SETPOINT**



Wenn das Gerät mit  ausgeschaltet wurde, kann man mit der Veränderung der Setpoint beginnen, indem man gleichzeitig 5 Sek. lang  und  drückt:



- Am DISPLAY 1 wird der Wert des Setpoint angezeigt.
- Am DISPLAY 2 wird die N. des Setpoint durch Blinken von '01' angezeigt.
- Am DISPLAY 3 erscheint die blinkende Anzeige des Buchstaben 'S' .

Mit den Tasten  oder  ist es möglich das setpoint zu wählen

Durch Drücken  ist es möglich, in den Änderungsmodus des Setpoint einzusteigen:

- Am DISPLAY 1 Display1 erscheint eine blinkende Anzeige des Werts des ausgewählten Setpoint.
- Am DISPLAY 2 wird die N. des Setpoint '-25' angezeigt.
- Am DISPLAY 3 wird der Buchstabe 'S' angezeigt.

Mit den Tasten  oder  ist es möglich das setpoint zu wählen

Durch Drücken  wird der neue Wert des Setpoint bestätigt und man kehrt zur Auswahl des Setpoint zurück. Der Ausstieg aus dem Menüpunkt Setpoint erfolgt automatisch nach einem Timeout von 60 Sekunden, oder indem man manuell  drückt.



SetPoint	Beschreibung	Default	min.	MAX
S01	SetPoint zelle PHASE1 bei schockkühlung +3°C soft	0°C	-60°C	100°C
S02	SetPoint kern PHASE1 bei schockkühlung +3°C soft	10°C	-60°C	100°C
S03	SetPoint zeit PHASE1 bei schockkühlung +3°C soft	30 min	0 min	900 min
S04	SetPoint zelle PHASE2 bei schockkühlung +3°C soft	0°C	-60°C	100°C
S05	SetPoint kern PHASE2 bei schockkühlung +3°C soft	5°C	-60°C	100°C
S06	SetPoint zeit PHASE2 bei schockkühlung +3°C soft	30 min	0 min	900 min
S07	SetPoint zelle PHASE3 bei schockkühlung +3°C soft	0°C	-60°C	100°C
S08	SetPoint kern PHASE3 bei schockkühlung +3°C soft	3°C	-60°C	100°C
S09	SetPoint zeit PHASE3 bei schockkühlung +3°C soft	30 min	0 min	900 min
S10	SetPoint zelle bei konservierung +3°C	2°C	-60°C	100°C
<b>S11</b>	<b>SetPoint zelle PHASE1 bei schockkühlung +3°C hard</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S12</b>	<b>SetPoint kern PHASE1 bei schockkühlung +3°C hard</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S13</b>	<b>SetPoint zeit PHASE1 bei schockkühlung +3°C hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S14</b>	<b>SetPoint zelle PHASE2 bei schockkühlung +3°C hard</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S15</b>	<b>SetPoint kern PHASE2 bei schockkühlung +3°C hard</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S16</b>	<b>SetPoint zeit PHASE2 bei schockkühlung +3°C hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S17</b>	<b>SetPoint zelle PHASE3 bei schockkühlung +3°C hard</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S18</b>	<b>SetPoint kern PHASE3 bei schockkühlung +3°C hard</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S19</b>	<b>SetPoint zeit PHASE3 bei schockkühlung +3°C hard</b>	<b>30 min</b>	<b>0 min</b>	<b>900 min</b>
S21	SetPoint zelle PHASE1 bei gefrieren -18°C soft	-10°C	-60°C	100°C
S22	SetPoint kern PHASE1 bei gefrieren -18°C soft	3°C	-60°C	100°C
S23	SetPoint zeit PHASE1 bei gefrieren -18°C soft	80 min	0 min	900 min
S24	SetPoint zelle PHASE2 bei gefrieren -18°C soft	-25°C	-60°C	100°C
S25	SetPoint kern PHASE2 bei gefrieren -18°C soft	-5°C	-60°C	100°C
S26	SetPoint zeit PHASE2 bei gefrieren -18°C soft	80 min	0 min	900 min
S27	SetPoint zelle PHASE3 bei gefrieren -18°C soft	-40°C	-60°C	100°C
S28	SetPoint kern PHASE3 bei gefrieren -18°C soft	-18°C	-60°C	100°C
S29	SetPoint zeit PHASE3 bei gefrieren -18°C soft	80 min	0 min	900 min
S30	SetPoint zelle bei konservierung -18°C	-20°C	-60°C	100°C
<b>S31</b>	<b>SetPoint zelle PHASE1 bei gefrieren -18°C hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S32</b>	<b>SetPoint kern PHASE1 bei gefrieren -18°C hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S33</b>	<b>SetPoint zeit PHASE1 bei gefrieren -18°C hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S34</b>	<b>SetPoint zelle PHASE2 bei gefrieren -18°C hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S35</b>	<b>SetPoint kern PHASE2 bei gefrieren -18°C hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S36</b>	<b>SetPoint zeit PHASE2 bei gefrieren -18°C hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
<b>S37</b>	<b>SetPoint zelle PHASE3 bei gefrieren -18°C hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S38</b>	<b>SetPoint kern PHASE3 bei gefrieren -18°C hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S39</b>	<b>SetPoint zeit PHASE3 bei gefrieren -18°C hard</b>	<b>80 min</b>	<b>0 min</b>	<b>900 min</b>
S41	SetPoint zeit bei schockkühlung +3°C multipoint	0°C	-60°C	100°C
S42	SetPoint kern bei schockkühlung +3°C multipoint	3°C	-60°C	100°C

SetPoint	Beschreibung	Default	min.	MAX
S43	SetPoint zeit bei schockkühlung +3°C multipoint	90 min	0 min	100 min
S44	Isteresi zelle bei schockkühlung +3°C multipoint	1°C	0°C	10°C
S45	<b>SetPoint kern bei gefrieren -18°C multipoint</b>	<b>-39°C</b>	<b>-60°C</b>	<b>100°C</b>
S46	<b>SetPoint kern bei gefrieren -18°C multipoint</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S47	<b>SetPoint kern bei gefrieren -18°C multipoint</b>	<b>240 min</b>	<b>0 min</b>	<b>599 min</b>
S48	SetPoint zeit im P0 +3°C	∞ (600 min)	0 min	600 min
S49	SetPoint zeit im P0 -18°C	∞ (600 min)	0 min	600 min
S50	<b>SetPoint flügel-Geschwindigkeit Phase 1</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S51	<b>SetPoint flügel-Geschwindigkeit Phase 2</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S52	<b>SetPoint flügel-Geschwindigkeit Phase 3</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S53	<b>SetPoint flügel-Geschwindigkeit in Konservierng</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S54	<b>SetPoint flügel-Geschwindigkeit im schockkühlung +3°C multipoint</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S55	<b>SetPoint flügel-Geschwindigkeit im gefrieren -18°C multipoint</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S56	SetPoint hochstgranze schockkühlung P0 +3°C	900 min	0 min	900 min
S57	SetPoint hochstgranze gefrieren P0 -18°C	900 min	0 min	900 min
S58	<b>SetPoint schockkühlung +3°C unendlicher zeit</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
S59	<b>SetPoint gefrieren -18°C unendlicher zeit</b>	<b>-35°C</b>	<b>-60°C</b>	<b>100°C</b>
S60	<b>Sollwert Vorkühlkammer Schockfrostzyklen +3°C</b>	<b>-10°C</b>	<b>-60°C</b>	<b>100°C</b>
S61	<b>Sollwert Vorkühlkammer Gefrierzyklen -18°C</b>	<b>-25°C</b>	<b>-60°C</b>	<b>100°C</b>

## PARAMETER



Wenn die Maschine mit der Taste  ausgeschaltet wurde, kann man in den Änderungsmodus des Parameters einsteigen, indem man gleichzeitig 5 Sekunden lang die Taste  und die Taste  drückt:



- Am DISPLAY 1 wird der Wert des Parameters angezeigt.
- Am DISPLAY 2 erscheint blinkend die Anzeige der Nummer des Parameters '01'.
- Am DISPLAY 3 erscheint blinkend die Anzeige des Buchstaben 'P'.

Mit den Tasten  oder  ist es möglich das parameters zu wählen

Durch drücken der Taste  kann man in den Änderungsmodus des Parameters einsteigen:

- Am DISPLAY 1 erscheint blinkend die Anzeige des Wertes des ausgewählten Parameters .
- Am DISPLAY 2 wird die Nummer des Parameters '15' angezeigt.
- Am DISPLAY 3 wird der Buchstabe 'P' angezeigt.

Mit den Tasten  oder  ist es möglich das parmeters zu wählen

Durch Drücken der Taste  wird der neue Wert des Parameters bestätigt und man kehrt zur Auswahl des Parameters zurück. Der Ausstieg aus dem Menüpunkt Parameter erfolgt automatisch nach einem Timeout von 60 Sekunden oder manuell durch Drücken der Taste .




Param.	Beschreibung	Default	min.	MAX
P01	Hysterese wegen Verschwindens des Temperaturalarms	2°C	0°C	10°C
P02	Alarmschwelle hohe Temp. bei pos. Kons. bezogen auf Set CONS	7°C	0°C	50°C
P03	Alarmschwelle niedrige Temperatur bei positiver Konservierung	0°C	-10°C	0°C
P04	Alarmschwelle hohe Temp. bei neg. Kons. bezogen auf Set CONS	6°C	0°C	50°C
P05	Alarmschwelle niedrige Temp. bei neg. Kons. bezogen auf Set CONS	-10°C	-50°C	0°C
P06	Verzögerung Temperaturalarm ab Beginn der Konservierung o. Defrost	60 min	0 min	300 min
P07	Verzögerung Temperaturalarm	30 min	0 min	300 min
P08	Maximum dauer Blackout	2 min	0 min	300 min
P10	Messeinheit der Temperatur (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset Zellsonde	0°C	-10°C	10°C
P12	Polar. Tür offen 0: DI geschl. = Tür geschl. 1: DI geschl.=Tür offen	0	0	1
P13	Verzögerung Alarm Tür offen	2 min	0 min	60 min
P14	Kerntemperatursonde 0 = Standard 1 = Multipoint 2,3,4 = drehanzahl di multipoint	1	0	4
P15	Freischaltung Buzzer (0 gesperrt; 1 freigeschaltet)	1	0	1

Param.	Beschreibung	Default	min.	MAX
P16	Dauer Buzzer am Ende des Schockkühlzyklus	10 sec	0	600 sec
P17	Dauer Buzzer bei Alarm	1 min	0 min	90 min
P18	Überprüfung Einschaltung Kerntemperatursonde 0=nein 1=ja	1	0	1
P20	Relais Funktion 0=n. vorhanden 1=vorhanden	1	0	1
P21	Nur Schockkühlzyklus: 0=Positive/Negative 1 =nur Positive	0	0	1
P22	Erfassungszeit Alarm Druckregler	5 sec	0 sec	60 sec
P23	Polarität Digitaleingang Hochdruck 0: DI offen = Alarm HP aktiv 1: DI geschlossen = Alarm HP aktiv	0	0	1
P24	Setpoint Power-On widerstand	10°C	-10°C	20°C
P25	Dauer der Sterilisation	15 min	0 min	90 min
P26	Mindesttemperatur für Beginn der Sterilisation	15°C	0°C	100°C
P27	Mindesttemperatur für Beginn der Heizung der Kerntemperatursonde	-5°C	-50°C	50°C
P28	Dauer Heizung der Kerntemperatursonde	90 sec	0 sec	600 sec
P29	Temperatur Ende der Heizung der Kerntemperatursonde	30°C	0°C	100°C
P30	Hysteresse Einschalten Ausschalten des Kompressors	1°C	0°C	20°C
P31	Mindestzeit zwischen OFF - ON des Kompressors	2 min	0 min	30 min
P32	Delta Setpoint bei Kont. Kerntemperatursonde mit Error Zellsonde	-2°C	-10°C	10°C
P33	Mindesttemp. der Kerntemperatursonde für Beginn der Schockkühlung	70°C	0°C	90°C
P34	Mindesttemperatur der Kerntemperatursonde für Beginn der Schockkühlung	3 min	0 min	240 min
P35	Lüfter ON bei abgeschaltetem Kompressor bei Konservierung	30 sec	0 sec	999 sec
P36	Lüfter OFF bei abgeschaltetem Kompressor bei Konservierung	300 sec	0 sec	999 sec
P37	Temp.diff. im Kern beim Test Einschalten der Kerntemperatursonde	4°C	0	10°C
P38	Temp.diff. zw. Zelle u. Kern bei Test Eins. der Kerntemp.sonde	5°C	0	10°C
P39	Aufenthalt des Kompressors Test Kerntemperatursonde Multipoint	2 min	0 min	60 min
P40	Adresse des Instruments	1	1	147
P41	Verwalt. der seriellen Stelle: 0=n. verwendet 1=Drucken 2=ModBus	1	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	2	0	2
P43	Parity : 0= no parity; 1= odd; 2 = even	2	0	2
P44	Stichprobenzeit	10 min	1 min	60 min
P50	Bei Beginn der Schockkühl. wird eine Abtauung durchgeführt 0=Nein;1=Ja	0	0	1
P51	Temperatur bei Ende der Abtauung	8°C	-10°C	30°C
P52	Maximaldauer eines Defrost-Zyklus	15 min	1 min	90 min
P53	Intervall zw. zwei Abtauungen bei der Konservierung (0=Ausschluss)	0 Std.	0	18 Std.
P54	Art der Abtauung: 0=mit Luft 1=mit heißem Gas 2=elektrisch	0	0	2
P55	Abtropfzeit	1 min	0 min	90 min
P56	Verzögerung der Aktiv. des Kompressors mit Abtauung mit heißem Gas	0 sec	0 sec	600 sec
P57	Mindesttemperatur für den Beginn der Abtauung	3°C	-10°C	30°C
P58	Temp.differenzial Anhalten Lüfter nach dem Abtauen	5°C	0°C	10°C
P60	Zeit Kompressor ON bei Zyklen +3°C bei defekter Zellsonde	3 min	0 min	60 min
P61	Zeit Kompressor OFF bei Zyklen +3°C bei defekter Zellsonde	7 min	0 min	60 min
P62	Zeit Kompressor ON bei Zyklen -18°C bei defekter Zellsonde	8 min	0 min	60 min
P63	Zeit Kompressor OFF bei Zyklen -18°C bei defekter Zellsonde	2 min	0 min	60 min
P64	Zeit rotation visualisierung Kerntemperatursonde	2 sec	0 sec	100 sec
P65	Verzögerung Einschalten Kompressor durch Power-On	2 min	0 min	60 min
P70	Minimum Flügel-geschwindigkeit	0%	0%	100%
P71	Maximum Flügel-geschwindigkeit	100%	0%	100%
P72	Zeit Flügel-schwindigkeit	80%	0%	100%
P73	Flügel Anfang-zeit	15 sec	0 sec	600 sec
P74	Automatische programmen P00: 0=nein 1=ja, starten	1	0	0
P75	Encoder drehzahl	3	1	24
P76	Geschwindigkeit % Flügel-stop	0%	0%	100%
P77	Geschwindigkeit % Flügel-stop	100%	0%	100%
P80	Stellen Sie temperatur ein, das es vorgeschriebene Ventilatoren qualifiziert	25°C	-50°C	50°C
P81	Offset verdampfersonde	0°C	-10°C	10°C
P82	Offset kerntemperaturfühler 1	0°C	-10°C	10°C
P83	Offset kerntemperaturfühler 2	0°C	-10°C	10°C
P84	Offset kerntemperaturfühler 3	0°C	-10°C	10°C
P85	Offset kerntemperaturfühler 4	0°C	-10°C	10°C
P86	Sprache des Druckes: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P97	Abschaltverzögerung Kompressor (PumpDown)	10 sec	0 sec	600 sec
P88	Einschaltverzögerung Magnetventil	5 sec	0 sec	600 sec
P89	Dauer des Buzzertons am Ende der Vorkühlung	60 sec	3 sec	600 sec
P90	Proportionalbereich positives Schockfrost	10°C	0°C	20°C
P91	Proportionalbereich positives Schockfrost	10°C	0°C	20°C
P92	Freigabe Inverter Kompressor 0=nein; 1=ja	0	0	1





## SETPOINT

Lorsque la machine a été éteinte à l'aide de la touche , il est possible d'accéder à la modification setpoint en appuyant simultanément sur la touche  et la touche  pendant cinq secondes.

- L'ECRAN 1 affiche la valeur du setpoint.
- L'ECRAN 2 affiche le numéro du setpoint clignotant '01'
- Sur l'ECRAN 3 la lettre 'S' clignote.

Avec les touches  ou  on peut sélectionner le setpoint. En appuyant sur la Touche  il est possible d'accéder au mode de modification du setpoint:

- L'ECRAN 1 affiche la valeur du setpoint clignotante sélectionnée.
- L'ECRAN 2 affiche le numéro du setpoint '-25'
- L'ECRAN 3 affiche la lettre 'S'.

Avec les touches  ou  on peut modifier la valeur du paramètre. Un appui sur la touche  confirme la nouvelle valeur du setpoint et ramène à la sélection du setpoint. Le menu Paramètres se ferme automatiquement après un time out de 60 secondes. Pour fermer manuellement le menu, appuyer sur la touche .

SetPoint	Description	Par défaut	min.	MAX
S01	SetPoint cellule PHASE1 en mode refroidissement +3°C Soft	0°C	-60°C	100°C
S02	SetPoint noyau PHASE1 en mode refroidissement +3°C Soft	10°C	-60°C	100°C
S03	SetPoint temps PHASE1 en mode refroidissement +3°C Soft	30 min	0 min	199 min
S04	SetPoint cellule PHASE2 en mode refroidissement +3°C Soft	0°C	-60°C	100°C
S05	SetPoint noyau PHASE2 en mode refroidissement +3°C Soft	5°C	-60°C	100°C
S06	SetPoint temps PHASE2 en mode refroidissement +3°C Soft	30 min	0 min	900 min
S07	SetPoint cellule PHASE3 en mode refroidissement + 3°C Soft	0°C	-60°C	100°C
S08	SetPoint noyau PHASE3 en mode refroidissement +3°C Soft	3°C	-60°C	100°C
S09	SetPoint temps PHASE3 en mode refroidissement +3°C Soft	30 min	0 min	199 min
S10	SetPoint cellule en mode congélation +3°C	2°C	-60°C	100°C
<b>S11</b>	<b>SetPoint cellule PHASE1 en mode refroidissement +3°C Hard</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S12</b>	<b>SetPoint noyau PHASE1 en mode refroidissement +3°C Hard</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S13</b>	<b>SetPoint temps PHASE1 en mode refroidissement +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S14</b>	<b>SetPoint cellule PHASE2 en mode refroidissement +3°C Hard</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S15</b>	<b>SetPoint noyau PHASE2 en mode refroidissement +3°C Hard</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S16</b>	<b>SetPoint temps PHASE2 en mode refroidissement +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S17</b>	<b>SetPoint cellule PHASE3 en mode refroidissement +3°C Hard</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S18</b>	<b>SetPoint noyau PHASE3 en mode refroidissement +3°C Hard</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S19</b>	<b>SetPoint temps PHASE3 en mode refroidissement +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
S21	SetPoint cellule PHASE1 en mode congélation -18°C Soft	-10°C	-60°C	100°C
S22	SetPoint noyau PHASE1 en mode congélation -18°C Soft	3°C	-60°C	100°C
S23	SetPoint temps PHASE1 en mode congélation -18°C Soft	80 min	0 min	199 min
S24	SetPoint cellule PHASE2 en mode congélation -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint noyau PHASE2 en mode congélation -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint temps PHASE2 en mode congélation -18°C Soft	80 min	0 min	199 min
S27	SetPoint cellule PHASE3 en mode congélation -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint noyau PHASE3 en mode congélation -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint temps PHASE3 en mode congélation -18°C Soft	80 min	0 min	199 min
S30	SetPoint cellule en conservation -18°C	-20°C	-60°C	100°C
<b>S31</b>	<b>SetPoint cellule PHASE1 en mode congélation -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S32</b>	<b>SetPoint noyau PHASE1 en mode congélation -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S33</b>	<b>SetPoint temps PHASE1 en mode congélation -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S34</b>	<b>SetPoint cellule PHASE2 en mode congélation -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S35</b>	<b>SetPoint noyau PHASE2 en mode congélation -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S36</b>	<b>SetPoint temps PHASE2 en mode congélation -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S37</b>	<b>SetPoint cellule PHASE3 en mode congélation -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S38</b>	<b>SetPoint noyau PHASE3 en mode congélation -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S39</b>	<b>SetPoint temps PHASE3 en mode congélation -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
S41	SetPoint cellule en mode refroidissement +3°C MultiPoint	0°C	-60°C	100°C
S42	SetPoint noyau en mode refroidissement +3°C MultiPoint	3°C	-60°C	100°C




SetPoint	Description	Par défaut	min.	MAX
S43	SetPoint temps en mode refroidissement +3°C MultiPoint	90 min	0 min	599 min
S44	Hystérésis cellule en mode refroidissement +3°C Multipoint	1°C	0°C	10°C
S45	<b>SetPoint cellule en mode refroidissement -18°C MultiPoint</b>	<b>-39°C</b>	<b>-60°C</b>	<b>100°C</b>
S46	<b>SetPoint noyau en mode refroidissement -18°C MultiPoint</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S47	<b>SetPoint temps en mode refroidissement -18°C MultiPoint</b>	<b>240 min</b>	<b>0 min</b>	<b>599 min</b>
S48	SetPoint temps en mode P0 +3°C	∞ (600 min)	0 min	600 min
S49	SetPoint temps en mode P0 -18°C	∞ (600 min)	0 min	600 min
S50	<b>Velocité ventilateurs PHASE1</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S51	<b>Velocité ventilateurs PHASE2</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S52	<b>Velocité ventilateurs PHASE3</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S53	<b>Velocité ventilateurs en mode conservation</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S54	<b>Velocité ventilateurs cell. en mode refroidissement +3°C MultiPoint</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S55	<b>Velocité ventilateurs cell. en mode refroidissement -18°C MultiPoint</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S56	SetPoint temps maximum pour refroidissement P0 +3°C	900 min	0 min	900 min
S57	SetPoint temps maximum pour refroidissement P0 -18°C	900 min	0 min	900 min
S58	<b>SetPoint cellule en refroidissement +3°C à temps infini</b>	<b>0 °C</b>	<b>-60°C</b>	<b>100°C</b>
S59	<b>SetPoint cellule en refroidissement -18°C à temps infini</b>	<b>-35°C</b>	<b>-60°C</b>	<b>100°C</b>
S60	Valeur de réglage de la Chambre Precooling des cycles de refroidissement +3°C	-10°C	-60°C	100°C
S61	Valeur de réglage de la Chambre Precooling des cycles de congélation -18°C	-25°C	-60°C	100°C

## PARAMETRES




Lorsque la machine a été éteinte à l'aide de la Touche  , il est possible d'accéder à la modification des Paramètres

en appuyant simultanément sur la touche  et la touche  pendant cinq secondes:

- L'ECRAN 1 affiche la valeur du paramètre.
- L'ECRAN 2 affiche le numéro du paramètre clignotant '01'.
- Sur l'ECRAN 3 la lettre 'P' clignote.

Avec les touches  ou  on peut sélectionner le paramètre. En appuyant sur la Touche  il est possible d'accéder au mode de modification Paramètre:

- L'ECRAN 1 affiche la valeur du paramètre clignotante sélectionné.
- L'ECRAN 2 affiche le numéro du paramètre '15'.
- L'ECRAN 3 affiche la lettre 'P'.




Avec les touches  ou  on peut modifier la valeur du paramètre. Un appui sur la touche  confirme la nouvelle valeur du paramètre et ramène à la sélection du paramètre. Le menu Paramètres se ferme automatiquement après

un time out de 60 secondes. Pour fermer manuellement le menu, appuyer sur la touche .

Param.	Description	Par défaut	min.	MAX
P01	Hystérésis par désactivation de l'alarme de température	2°C	0°C	10°C
P02	Seuil d'alarme de temp. élevée en mode conserv. positive par rapport au Set CONS	7°C	0°C	50°C
P03	Seuil d'alarme de basse température en mode conservation positive	0°C	-10°C	0°C
P04	Seuil d'alarme de temp. élevée en mode conserv. négative par rapport au Set CONS	6°C	0°C	50°C
P05	Seuil d'alarme de basse température en mode conservation négative par rapport au Set CONS	-10°C	-50°C	0°C
P06	Retard de l'alarme de tempér. du début de la conservat. ou de defrost	60 min	0 min	300 min
P07	Retard de l'alarme de température	30 min	0 min	300 min
P08	Durée maximum BlackOut	2 min	0 min	300 min
P10	Unité de mesure de la température (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset (décalage) de la sonde cellule	0°C	-10°C	10°C
P12	Polarité porte ouverte 0: DI fermé = porte Fermée 1: DI fermé = porte Ouverte	0	0	1
P13	Retard de l'alarme de porte ouverte	2 min	0 min	60 min
P14	Fonction sonde aiguille: 0 = Standard 1 = MultiPoint 2,3,4 = n° aiguilles	1	0	4
P15	Activation ronfleur (0 = désactivé ; 1 = activé)	1	0	1

Param.	Description	Par défaut	min.	MAX
P16	Durée du ronfleur au terme du cycle de refroidissement	10 sec	0	600 sec
P17	Durée du ronfleur en mode alarme	1 min	0 min	90 min
P18	Activation de l'insertion de l'Aiguille (0 = non; 1 = oui)	1	0	1
P20	Function Relais (0 = Luce; 1 = Alarm)	1	0	1
P21	Cycles de refroid. uniqu.: 0=cycles Positifs et Négatifs 1=cycles Positifs uniquement	0	0	1
P22	Temps de détection d'alarme de manostat	5 sec	0 sec	60 sec
P23	Polarité d'entrée digitale haute pression 0: DI Ouvert = Alarme HP activé 1: DI fermé = Alarme HP activé	0	0	1
P24	SetPoint allumage résistances	10°C	-10°C	20°C
P25	Durée de Stérilisation	15 min	0 min	90 min
P26	Température minimum pour début de Stérilisation	15°C	0°C	100°C
P27	Température minimum pour début de chauffage de l'aiguille	-5°C	-50°C	50°C
P28	Durée de chauffage de l'Aiguille	90 sec	0 sec	600 sec
P29	Température de fin de chauffage de l'Aiguille	30°C	0°C	100°C
P30	Hystérésis activation/désactivation du compresseur	1°C	0°C	20°C
P31	Temps minimum entre compresseur OFF - ON	2 min	0 min	30 min
P32	Delta Setpoint en mode de contrôle de l'Aiguille avec Erreur de Sonde Cellule	-2°C	-10°C	10°C
P33	Température minimum de l'aiguille pour début de refroidissement	70°C	0°C	90°C
P34	Durée du test d'insertion de l'aiguille (0 = test terminé)	3 min	1 min	240 min
P35	Ventilateurs ON avec compresseur éteint en mode conservation	30 sec	0 sec	999 sec
P36	Ventilateurs OFF avec compresseur éteint en mode conservation	300 sec	0 sec	999 sec
P37	Différence de tempér. au niveau du Noyau lors du test d'insertion de l'aiguille	4°C	0	10°C
P38	Différence de température entre la Cellule et le Noyau lors du test insertion de l'aiguille	5°C	0	10°C
P39	Arrêt compresseur en Test Aiguille Multipoint	2 min	0 min	60 min
P40	Adresse de l'outil	1	1	147
P41	Gestion de la Sérielle: 0 = non utilisée; 1 = Impression; 2 = ModBus	0	0	2
P42	BaudRate: 0 = 2400; 1 = 4800; 2 = 9600; 3 = 19200	3	0	3
P43	Parity : 0 = no parity; 1 = odd; 2 = even	2	0	2
P44	Intervalle d'impression	10 min	1 min	60 min
P50	Exécute un dégivrage au début du refroidissement 0 = Non; 1 = Oui	0	0	1
P51	Température de fin de dégivrage	8°C	-10°C	30°C
P52	Durée maximum d'un defrost	15 min	1 min	90 min
P53	Intervalle entre deux dégivrages en mode conservation (0=exclu)	0 heures	0	18 heures
P54	Type de dégivrage : 0 = à air; 1 = à gaz chaud; 2 = électrique	0	0	2
P55	Temps d'égouttement	1 min	0 min	90 min
P56	Retard d'activation du compresseur avec dégivrage à gaz chaud	0 sec	0 sec	600 sec
P57	Température minimum pour début de dégivrage	3°C	-10°C	30°C
P58	Delta de température d'arrêt des ventilateurs après dégivrage	5°C	0°C	10°C
P60	Temps Compres. ON pendant cycles +3°C avec sonde cellule défectueuse	3 min	0 min	60 min
P61	Temps Compres. OFF pendant cycles +3°C avec sonde cellule défectueuse	7 min	0 min	60 min
P62	Temps Compres. ON pendant cycles -18°C avec sonde cellule défectueuse	8 min	0 min	60 min
P63	Temps Compres. OFF pendant cycles -18°C avec sonde cellule défectueuse	2 min	0 min	60 min
P64	Temps rotation visualisation aiguille	2 sec	0 sec	100 sec
P65	Retard d'activation du compresseur depuis Power-On	2 min	0 min	60 min
P70	Velocité minimum ventilateurs	0%	0%	100%
P71	Velocité maximum ventilateurs	100%	0%	100%
P72	Velocité décollage ventilateurs	80%	0%	100%
P73	Temps décollage ventilateurs	15 sec	0 sec	600 sec
P74	Activation Programmes Automatiques P00: 0 = no; 1 = si	1	0	1
P75	Numéro déclenchements encodeur	3	1	24
P76	Velocité % à ventilateurs arrêté	0%	0%	100%
P77	Velocité % des ventilateurs au maximum	100%	0%	100%
P80	Set température habilite de la régulation ventilateurs evaporat.	25°C	-50°C	50°C
P81	Offset sonde evaporateur	0°C	-10°C	10°C
P82	Offset sonde aiguille 1	0°C	-10°C	10°C
P83	Offset sonde aiguille 2	0°C	-10°C	10°C
P84	Offset sonde aiguille 3	0°C	-10°C	10°C
P85	Offset sonde aiguille 4	0°C	-10°C	10°C
P86	Langue de presse: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P87	Retard de l'extinction du compresseur (PumpDown)	10 sec	0 sec	600 sec
P88	Retard d'allumage Solénoïde	5 sec	0 sec	600 sec
P89	Période du Son Buzzer à la fin du PreCooling	60 sec	3 sec	600 sec
P90	Bande proportionnelle des refroidissements positifs	10°C	0°C	20°C
P91	Banda proportionnelle des refroidissements négatifs	10°C	0°C	20°C
P92	Validation de l'Inverter du compresseur 0=non ; 1=oui	0	0	1

## SETPOINT




Con el aparato apagado con la tecla , es posible acceder a la modificación de setpoint, manteniendo durante 5 segundos pulsadas la tecla  y la tecla :

- En el DISPLAY 1 aparece el valor del setpoint.
- En el DISPLAY 2 parpadea el número de setpoint '01'.
- En el DISPLAY 3 parpadea la letra 'S'.

Pulsando la tecla  o la  es posible seleccionar el setpoint. Pulsando la tecla  es posible acceder a la modi-

ficación del setpoint:

- En el DISPLAY 1 parpadea el valor del setpoint seleccionado.
- En el DISPLAY 2 se lee el numero de setpoint '-25'.
- En el DISPLAY 3 se lee la letra 'S'.




Pulsando la tecla  o la  es posible modificar el valor del setpoint. Pulsando la tecla  se confirma el nuevo valor del setpoint y se vuelve a la selección del parámetro.

SetPoint	Descripción	V.por defecto	mín.	MÁX
S01	SetPoint cámara FASE1 en enfriamiento rápido +3°C Soft	0°C	-60°C	100°C
S02	SetPoint corazón FASE1 en enfriamiento rápido +3°C Soft	10°C	-60°C	100°C
S03	SetPoint tiempo FASE1 en enfriamiento rápido +3°C Soft	30 min	0 min	199 min
S04	SetPoint cámara FASE2 en enfriamiento rápido +3°C Soft	0°C	-60°C	100°C
S05	SetPoint corazón FASE2 en enfriamiento rápido +3°C Soft	5°C	-60°C	100°C
S06	SetPoint tiempo FASE2 en enfriamiento rápido +3°C Soft	30 min	0 min	900 min
S07	SetPoint cámara FASE3 en enfriamiento rápido +3°C Soft	0°C	-60°C	100°C
S08	SetPoint corazón FASE3 en enfriamiento rápido +3°C Soft	3°C	-60°C	100°C
S09	SetPoint tiempo FASE3 en enfriamiento rápido +3°C Soft	30 min	0 min	199 min
S10	SetPoint cámara en conservación +3°C	2°C	-60°C	100°C
<b>S11</b>	<b>SetPoint cámara FASE1 en enfriamiento rápido +3°C Hard</b>	<b>-20°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S12</b>	<b>SetPoint corazón FASE1 en enfriamiento rápido +3°C Hard</b>	<b>22°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S13</b>	<b>SetPoint tiempo FASE1 en enfriamiento rápido +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S14</b>	<b>SetPoint cámara FASE2 en enfriamiento rápido +3°C Hard</b>	<b>-9°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S15</b>	<b>SetPoint corazón FASE2 en enfriamiento rápido +3°C Hard</b>	<b>10°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S16</b>	<b>SetPoint tiempo FASE2 en enfriamiento rápido +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S17</b>	<b>SetPoint cámara FASE3 en enfriamiento rápido +3°C &lt;xHard</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S18</b>	<b>SetPoint corazón FASE3 en enfriamiento rápido +3°C Hard</b>	<b>3°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S19</b>	<b>SetPoint tiempo FASE3 en enfriamiento rápido +3°C Hard</b>	<b>30 min</b>	<b>0 min</b>	<b>199 min</b>
S21	SetPoint cámara FASE1 en congelación -18°C Soft	-10°C	-60°C	100°C
S22	Setpoint corazón FASE1 en congelación -18°C Soft	3°C	-60°C	100°C
S23	SetPoint tiempo FASE1 en congelación -18°C Soft	80 min	0 min	900 min
S24	SetPoint cámara FASE2 en congelación -18°C Soft	-25°C	-60°C	100°C
S25	SetPoint corazón FASE2 en congelación -18°C Soft	-5°C	-60°C	100°C
S26	SetPoint tiempo FASE2 en congelación -18°C Soft	80 min	0 min	199 min
S27	SetPoint cámara FASE3 en congelación -18°C Soft	-40°C	-60°C	100°C
S28	SetPoint corazón FASE3 en congelación -18°C Soft	-18°C	-60°C	100°C
S29	SetPoint tiempo FASE3 en congelación -18°C Soft	80 min	0 min	199 min
S30	SetPoint cámara en conservación -18°C	-20°C	-60°C	100°C
<b>S31</b>	<b>SetPoint cámara FASE1 en congelación -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S32</b>	<b>SetPoint corazón FASE1 en congelación -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S33</b>	<b>SetPoint tiempo FASE1 en congelación -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S34</b>	<b>SetPoint cámara FASE2 en congelación -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S35</b>	<b>SetPoint corazón FASE2 en congelación -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S36</b>	<b>SetPoint tiempo FASE2 en congelación -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
<b>S37</b>	<b>SetPoint cámara FASE3 en congelación -18°C Hard</b>	<b>-40°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S38</b>	<b>SetPoint corazón FASE3 en congelación -18°C Hard</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
<b>S39</b>	<b>SetPoint tiempo FASE3 en congelación -18°C Hard</b>	<b>80 min</b>	<b>0 min</b>	<b>199 min</b>
S41	SetPoint cámara en enfriamiento rápido +3°C multipunt	0°C	-60°C	100°C
S42	SetPoint corazón en enfriamiento rápido +3°C multipunt	3°C	-60°C	100°C




SetPoint	Descripción	V. por defecto	mín.	MÁX
S43	SetPoint tiempo en enfriamiento rápido +3°C multipunt	90 min	0 min	599 min
S44	Histéresi cámara en enfriamiento rápido +3°C multipunt	1°C	0°C	10°C
S45	<b>SetPoint cámara en enfriamiento rápido +3°C multipunt</b>	<b>-39°C</b>	<b>-60°C</b>	<b>100°C</b>
S46	<b>SetPoint corazón en enfriamiento rápido -18°C multipunt</b>	<b>-18°C</b>	<b>-60°C</b>	<b>100°C</b>
S47	<b>SetPoint tiempo en enfriamiento rápido -18°C multipunt</b>	<b>240 min</b>	<b>0 min</b>	<b>599 min</b>
S48	SetPoint tiempo en P0 +3°C	∞(600 min)	0 min	600 min
S49	SetPoint tiempo en P0 -18°C	∞(600 min)	0 min	600 min
S50	<b>Velocidad ventilador Fase 1</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S51	<b>Velocidad ventilador Fase 2</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S52	<b>Velocidad ventilador Fase 3</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S53	<b>Velocidad ventilador en conservacion</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S54	<b>Velocidad ventilador cámara en enfriamiento rápido +3°C multipunt</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S55	<b>Velocidad ventilador cámara en enfriamiento rápido -18°C multipunt</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
S56	SetPoint tiempo máximo enfriamiento rápido tiempo en P0 +3°C	900 min	0 min	199 min
S57	SetPoint tiempo máximo enfriamiento rápido tiempo en P0 -18°C	900 min	0 min	199 min
S58	<b>SetPoint cámara en enf. rápido +3°C por tiempo infinitamente</b>	<b>0°C</b>	<b>-60°C</b>	<b>100°C</b>
S59	<b>SetPoint cámara en enf. rápido +3°C por tiempo infinitamente</b>	<b>-35°C</b>	<b>-60°C</b>	<b>100°C</b>
S60	<b>Set point Cámara Precooling ciclos enfriamiento rápido +3°C</b>	<b>-10°C</b>	<b>-60°C</b>	<b>100°C</b>
S61	<b>Set point Cámara Precooling ciclos congelación -18°C</b>	<b>-25°C</b>	<b>-60°C</b>	<b>100°C</b>



## PARÁMETROS


Con el aparato apagado por medio de la tecla , es posible acceder a la modificación de parámetros, manteniendo pulsadas durante 5 segundos la tecla  y la tecla  : • En el DISPLAY 1 se lee el valor del parámetro.  
• En el DISPLAY 2 parpadea el número del parámetro '01'.  
• En el DISPLAY 3 parpadea la letra 'P'.

Pulsando la tecla  o la  es posible seleccionar el parámetro.

Pulsando la tecla  es posible entrar en la modificación de parámetro:

- En el DISPLAY 1 parpadea el valor del parámetro seleccionado.
- En el DISPLAY 2 se lee el número del parámetro '15'.
- En el DISPLAY 3 se lee la letra 'P'.

Pulsando la tecla  o la  es posible modificar el valor del parámetro.

Pulsando la tecla  se confirma el nuevo valor del parámetro y se vuelve a la selección del parámetro.

La salida del menú parámetros es automática transcurrido un time out de 60 seg., o bien manualmente pulsando la tecla .

Parám.	Descripción	V. por defecto	mín.	MÁX.
P01	Histéris para desactivación alarma de temperatura	2°C	0°C	10°C
P02	Umbral alarma alta temp. en cons. positiva relativa al Set CONS	7°C	0°C	50°C
P03	Umbral alarma baja temperatura en conservación positiva	0°C	-10°C	0°C
P04	Umbral alarma alta temp. en cons. negativa relativa al Set CONS	6°C	0°C	50°C
P05	Umbral alarma baja temp. en cons. negativa relativa al Set CONS	-10°C	-50°C	0°C
P06	Retardo alarma temperatura desde inicio conservación o defrost	60 min	0 min	300 min
P07	Retardo alarma temperatura	30 min	0 min	300 min
P08	Duración máxima Blackout	2 min	0 min	300 min
P10	Unidad de medida de la temperatura (1 Celsius; 0 Fahrenheit)	1	0	1
P11	Offset sonda cámara	0°C	-10°C	10°C
P12	Polaridad puerta- 0: DI cerrada = Cerr. - 1: DI cerrada = Abta.	0	0	1
P13	Retardo alarma por puerta abierta	2 min	0 min	60 min
P14	Funcion sonda aguja: 0 = standard 1 = multipunt 2,3,4 = n. aguja	1	0	4
P15	Activa zumbador (0 desactivado; 1 activado)	1	0	1

Parám.	Descripción	V. por defecto	mín.	MÁX.
P16	Duración zumbador a fin de ciclo de enfriamiento rápido	10 seg	0	600 seg
P17	Duración zumbador en alarma	1 min	0 min	90 min
P18	Control Introducción Aguja 0=no 1=si	1	0	1
P20	Funcion Relé 0=no presente 1=presente	1	0	1
P21	Solo ciclos enf. rápido: 0=Positivos/Negativos 1=solo Positivos	0	0	1
P22	Tiempo lectura alarma presostato	5 seg	0 seg	60 seg
P23	Polaridad entrada digital de alta presión 0: DI abierta = Alarma HP activada 1: DI cerrada = Alarma HP activada	0	0	1
P24	Setpoint encendido resistencia	10°C	-10°C	20°C
P25	Duración esterilización	15 min	0 min	90 min
P26	Temperatura mínima para inicio Esterilización	15°C	0°C	100°C
P27	Temperatura mínima para inicio calentamiento de aguja	-5°C	-50°C	50°C
P28	Duración Calentamiento de aguja	90 seg	0 seg	600 seg
P29	Temperatura fin calentamiento de aguja	30°C	0°C	100°C
P30	Histéresis encendido-apagado del compresor	1°C	0°C	20°C
P31	Tiempo mínimo entre OFF - ON del compresor	2 min	0 min	30 min
P32	Delta Setpoint para control Aguja con Error Sonda Cámara	-2°C	-10°C	10°C
P33	Temperatura mínima de la aguja para inicio enfriamiento rápido	70°C	0°C	90°C
P34	Duración test de introducción aguja (0=test desactivado)	3 min	0 min	240 min
P35	Ventiladores ON con compresor apagado en conservación	30 seg	0 seg	999 seg
P36	Ventiladores OFF con compresor apagado en conservación	300 seg	0 seg	999 seg
P37	Diferencia de temp. corazón en test introducción aguja	4°C	0	10°C
P38	Diferencia de temp. Cámara-Corazón en test introducción aguja	5°C	0	10°C
P39	Fermada compresor en test aguja multipunt	2 min	0 min	60 min
P40	Dirección del instrumento	1	1	147
P41	Gestión de la Serial: 0=no utilizada 1=Impresión 2=ModBus	0	0	2
P42	BaudRate: 0= 2400; 1 = 4800; 2 = 9600	3	0	3
P43	Parity : 0= no parity; 1= odd; 2 = even	2	0	2
P44	Tiempo de muestreo	10 min	1 min	60 min
P50	Efectuar un deshielo al inicio del enfriamiento rápido 0=No;1=Si	0	0	1
P51	Temperatura de fin deshielo	8°C	-10°C	30°C
P52	Duración máxima de un defrost	15 min	1 min	90 min
P53	Intervalo entre dos deshielso en conservación (0=desactivado)	0 horas	0 horas	18 horas
P54	Tipo de deshielo: 0=con aire 1=con gas caliente 2=eléctrico	0	0	2
P55	Tiempo de escurrimiento	1 min	0 min	90 min
P56	Retardo activación compres. con deshielo con gas caliente	0 seg	0 seg	600 seg
P57	Temperatura mínima para inicio deshielo	3°C	-10°C	30°C
P58	Diferencial de temp. para paro de ventiladores tras deshielo	5°C	0°C	10°C
P60	Tiempo Compres. ON en ciclos +3°C con Sonda Cámara averiada	3 min	0 min	60 min
P61	Tiempo Compres. OFF en ciclos +3°C con Sonda Cámara averiada	7 min	0 min	60 min
P62	Tiempo Compres. ON en ciclos -18°C con Sonda Cámara averiada	8 min	0 min	60 min
P63	Tiempo Compres. OFF en ciclos -18°C con Sonda Cámara averiada	2 min	0 min	60 min
P64	Tiempo rotacion visualización aguja	2 seg	0 seg	60 seg
P65	Retardo encendido compresor desde Power-On	2 min	0 min	60 min
P70	Velocidad mínima ventilador	0%	0%	100%
P71	Velocidad máxima ventilador	100%	0%	100%
P72	Velocidad principio ventilador	80%	0%	100%
P73	Tiempo principio ventilador	15 seg	0 seg	600 seg
P74	Habilita programas automatico P00: 0=no 1=si	1	0	1
P75	Numero de pasos de encoder	3	1	24
P76	Velocidad % par ventilador firme	0%	0%	100%
P77	Velocidad % par ventilador máximo	100%	0%	100%
P80	Set temperatura habilita del reglamento ventiladores evapora	25°C	-50°C	50°C
P81	Offset evaporador sonde	0°C	-10°C	10°C
P82	Offset aguja sonde 1	0°C	-10°C	10°C
P83	Offset aguja sonde 2	0°C	-10°C	10°C
P84	Offset aguja sonde 3	0°C	-10°C	10°C
P85	Offset aguja sonde 4	0°C	-10°C	10°C
P86	Lengua de impresión: 0-ITA, 1GB, 2F, 3D, 4E, 5P, 6NL, 7FIN	0	0	7
P87	Retardo apagado compresor (PumpDown)	10 seg	0 seg	600 seg
P88	Retardo encendido Solenoide	5 seg	0 seg	600 seg
P89	Periodo Sonido Zumbador al final del PreCooling	60 seg	3 seg	600 seg
P90	Banda proporcional enfriamientos rápidos positivos	10°C	0°C	20°C
P91	Banda proporcional enfriamientos rápidos negativos	10°C	0°C	20°C
P92	Habilitar Inverter compresor 0=no; 1=si	0	0 seg	1

**SPECIFICHE TECNICHE  
TECHNICAL SPECIFICATIONS**

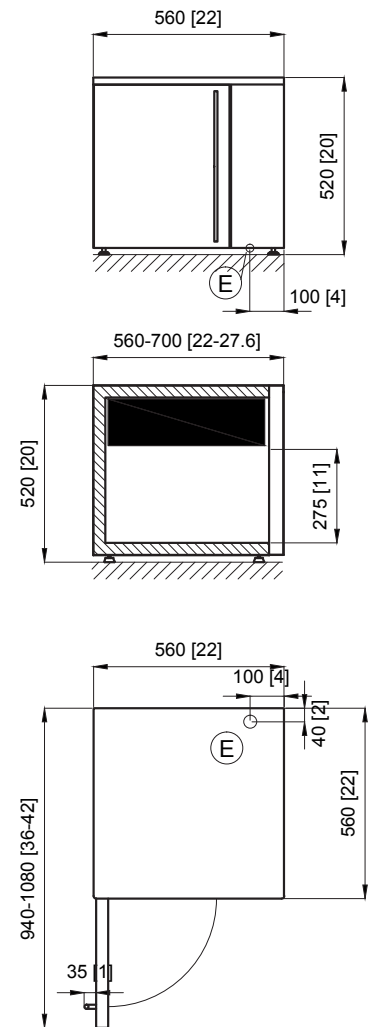
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**SCHEMI ELETTRICI  
WIRING DIAGRAMS**

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Controllo / control			_BF 030 AF	_PF 030 AF	_CF 031 AF
Dimensioni <i>Dimensions</i>	LxPxH [WxDxH]	mm [in]	560x560x520 [22.x22.x20.5]		560x700x520 [22x27.6x20.5]
Larghezza luce porta <i>Door opening width</i>		mm [in]	330 [13]		
Altezza luce porta <i>Door opening height</i>		mm [in]	275 [11]		
Profondità interna <i>Internal depth</i>		mm [in]	475 [18.7]		600 [23.6]
Spessore <i>Thickness</i>		mm [in]	35 [1.4]		35 [1.4]
Classe climatica <i>Climatic class</i>			ST		
Ciclo abbattimento <i>Chilling cycle</i>		°C °F	+90 → +3 +194 → +37	+90 → +3 +194 → +37	+90 → +3 +194 → +37
Ciclo congelamento <i>Freezing cycle</i>		°C °F	+90 → -18 +194 → 0	+90 → -18 +194 → 0	+90 → -18 +194 → 0
Capacità abbattimento <i>Chilling capacity</i>	90'	kg lb	8 17.6	8 17.6	8 17.6
Capacità congelamento <i>Freezing capacity</i>	240'	kg lb	5 11	5 11	5 11
Resa oraria in surgelaz. <i>Hour yield in freezing</i>		kg/h lb/h	-	5 11	5 11
Refrigerante <i>Refrigerant</i>		gas	R404A		
Capacità refrigerazione <i>Refrigeration capacity</i>	(*) W		487	487	487
Alimentazione elettrica <i>Electric power supply</i>		V~/Hz	230/1/50		
Potenza elettrica <i>Input electric power</i>	(°) W		587	587	587
Compressore <i>Compressor</i>		HP	1/2	1/2	1/2
Corrente max <i>Max. absorbed current</i>	(°) A		3,4	3,4	3,4
Allestimento Catering / Baking (griglie) <i>Setting up Catering / Baking (grids)</i>	n°		3 GN2/3		-
Allestimento Catering / Baking (coppie guida) <i>Setting up Catering / Baking (pair of slides)</i>	n°		3 GN2/3		3 GN1/1
Passo tra le griglie Catering / Baking <i>Interstep Catering / Baking</i>		mm [in]	35 - 2x(80) [1.4] - 2x[3.1]		35 - 5x(40) [1.4] - 5x[1.6]
Allestimento Ice-cream (griglie) <i>Setting up Ice-cream (grids)</i>	n°		1	1	1
Allestimento Ice-cream (coppie guida) <i>Setting up Ice-cream (pair of slides)</i>	n°		1	1	1
Passo tra le griglie Ice-cream <i>Interstep Ice-cream</i>		mm [in]	-		
Peso Netto <i>Net weigh</i>		kg lb	47 104	47 104	52 115
Rumorosità <i>Noise level</i>		dB(A)	< 70		



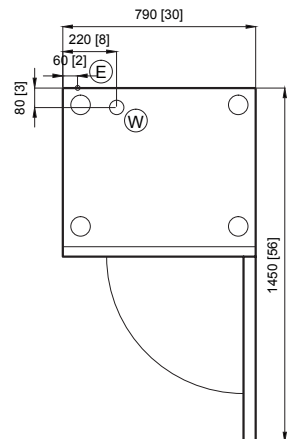
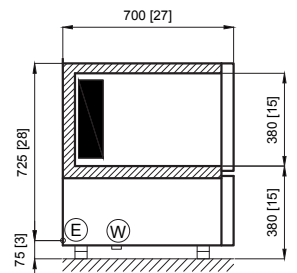
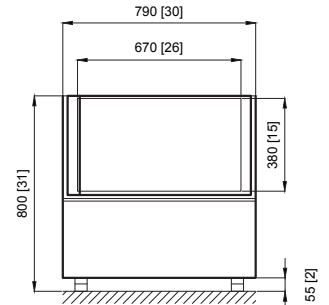
Ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION  
DIMENSIONI mm  
DIMENSIONS [in]

mod. \_\_\_C \_\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_\_F \_\_\_ (\*) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C  
(■) t<sub>in</sub> = +20°C / t<sub>out</sub> = +40°C

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Controllo / control		_ IC 051 DF	_ IF 051 DF	_ IC 051 AF	_ IF 051 AF	_ IG 06 AF
Dimensioni <i>Dimensions</i>	LxPxH [WxDxA]	790x700x800 [31.1x27.56x31.5]				
Larghezza luce porta <i>Door opening width</i>	mm [in]	670 [26.4]				
Altezza luce porta <i>Door opening height</i>	mm [in]	380 [15]				
Profondità interna <i>Internal depth</i>	mm [in]	415 [16.34]				
Spessore <i>Thickness</i>	mm [in]	60 [2.4]				
Classe climatica / <i>Climatic class</i>		ST				
Capacità abbattimento <i>Chilling capacity</i>	90' kg lb	12 26	12 26	18 40	18 40	-
Capacità congelamento <i>Freezing capacity</i>	240' kg lb	-	8 18	-	12 26	30 66
Resa oraria in surgelazione <i>Hour yield in freezing</i>	kg/h lb/h	-	10 22	-	15 33	-
Refrigerante / <i>Refrigerant</i>		R404A				
Capacità refrigerazione <i>Refrigeration capacity</i>	(*) W	940	690	1070	810	810
Alimentazione elettrica <i>Electric power supply</i>		230/1/50				
Potenza elettrica <i>Input electric power</i>	(°) W	1000	1200	1130	1400	1400
Compressore / <i>Compressor</i>		3/4 3/4 1 1 1				
Corrente max / <i>Max abs. current</i>		4,4 6,2 5,4 6,7 6,7				
Potenza el. Predisposto <i>Input el. power without R. Unit</i>		160 180 160 180 180				
Corr. max Predisposto <i>Max abs. current without R. Unit</i>		1,0 1,1 1,0 1,1 1,1				
Allestimento Catering <i>Setting up Catering</i>		5 GN1/1				
Passo tra le griglie Catering <i>Interstep Catering</i>		65 [2.6]				
Allestimento Baking <i>Setting up Baking</i>		5 EN				
Passo tra le griglie Baking (fori montante) <i>Interstep Baking (upright holes)</i>		32,5 (10) - 50 (6) [1.3] (10) - [1.9] (6)				
Allestimento ice-cream (griglie) <i>Setting up ice-cream (shelves)</i>		- - - 1 EN 1 EN				
Passo tra le griglie Ice-cream (fori montante) <i>Interstep Ice-cream (upright holes)</i>		- - - 35 (10) - 50 (6) [1.4] (10) - [1.9] (6)				
Peso Netto <i>Net weigh</i>		97 100 103 106 109 214 220 227 234 240				
Rumorosità / <i>Noise level</i>		dB(A) < 70				



- Ⓔ CONNESSIONE ELETTRICA  
ELECTICAL CONNECTION
- Ⓘ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## UNITA' REMOTE / REMOTE UNITS (a=a ir w=water)

UMC <i>Remote Unit</i>	cod.	990505 a (▲) 990599 a 990506 w	990507 a (▲) 990594 a 990508 w	990509 a (▲) 990650 a 990510 w	990513 a (▲) 990595 a 990514 w	990513 a (▲) 990595 a 990514 w
Refrigerante / <i>Refrigerant</i>		gas R404A				
Capacità refrigerazione <i>Refrigeration capacity</i>	(*) W	940 a 940 w	690 a 690 w	1070 a 1070 w	810 a 810 w	810 a 810 w
Alimentazione elet. / <i>Elec. power supply</i>		VI~/Hz 230/1/50				
Potenza elettrica <i>Input electric power</i>	(°) W	890 a 850 w	1080 a 1040 w	1080 a 1040 w	1270 a 1230 w	1270 a 1230 w
Potenza / <i>Rated output</i>		HP 3/4 a 5/8 a 7/8 a 7/8 a 7/8 a				
Corrente max <i>Max. absorbed current</i>		A - 3,5 a 4,5 a 3,9 a 3,9 a				
Peso net <i>Net weight</i>		kg - 25a 55a 56a 26a 26a lb 55a 123a 57a 57a 57a				
Dimensioni <i>Dimensions</i>		LxPxH mm 785X755X260 a/w [WxDxA] [in] [30.9x29.7x10.2] a/w				

## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max <i>Connections - max distance</i>		m 15 [ft] [49]				
Cavi elettrici <i>Electrical cables</i>		n° x mm² M1+M2 → (2+1)x2,5 P → (2)x1				
Tubi liquido <i>Liquid tubes</i>		Ø mm 6 6 6 6 6 in/SAE 1/4 1/4 1/4 1/4 1/4				
Tubi gas <i>Gas tubes</i>		Ø mm 8 8 8 8 8 in/SAE 5/16 5/16 5/16 5/16 5/16				
Connessione idrica UMC ad acqua <i>Drain connection water UMC</i>		Ø pollici out coil 3/4 → 1/2 conn. H2O				
Consumo max acqua <i>Max water expenditure</i>		l/min 1,4 1,4 1,6 1,6 1,6				
Tubi scarico / <i>Drain tubes</i>		Ø pollici 1 1 1 1 1				
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>		bar 0.2 (0.7) - 27 (4)				
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>		bar 14 (2) 14 (2) 14 (2) 14 (2) 14 (2)				

mod. \_ \_ C \_ \_ \_ (\*) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_ \_ F \_ \_ \_ (\*) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(▲) fino al 2008 / until 2008  
(■) t in = +20°C / t out = +40°C

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Controllo / control			--C 051 DF	--F 051 DF	--C 051 AF	--F 051 AF	--GF 06 AF
Dimensioni <i>Dimensions</i>	LxDxH [WxDxA]	mm [in]	790x700x850 [31.1x27.6x33]				
Larghezza luce porta <i>Door opening width</i>		mm [in]	670 [26.4]				
Altezza luce porta <i>Door opening height</i>		mm [in]	380 [15]				
Profondità interna <i>Internal depth</i>		mm [in]	415 [16.34]				
Spessore <i>Thickness</i>		mm [in]	60 [2.4]				
Classe climatica / Climatic class			T				
Capacità abbattimento <i>Chilling capacity</i>	90'	kg lb	12 26	12 26	18 40	18 40	-
Capacità congelamento <i>Freezing capacity</i>	240'	kg lb	-	8 18	-	12 26	30 66
Resa oraria in surgelazione <i>Hour yield in freezing</i>		kg/h lb/h	-	10 22	-	15 33	-
Refrigerante / Refrigerant			R404A				
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	940	690	1070	810	810
Alimentazione elet. / Elec. power supply			VI~/Hz				
Potenza elettrica <i>Input electric power</i>	(°)	W	1000	1200	1130	1400	1400
Compressore / Compressor	(°)	HP	3/4	3/4	1	1	1
Corrente max / Max abs. current	(°)	A	4,4	6,2	5,4	6,7	6,7
Potenza el. Predisposto <i>Input el. power without R. Unit</i>	(°)	W	160	180	160	180	180
Corr. max Predisposto <i>Max abs. current without R. Unit</i>	(°)	A	1,0	1,1	1,0	1,1	1,1
Allestimento Catering <i>Setting up Catering</i>			5 GN1/1				
Passo tra le griglie Catering <i>Interstep Catering</i>		mm [in]	65 [2.6]				
Allestimento Baking <i>Setting up Baking</i>			5 EN				
Passo tra le griglie Baking (fori montante) <i>Interstep Baking (upright holes)</i>		mm [in]	32,5 (10) - 50 (6) [1.3] (10) - [1.9] (6)				
Allestimento ice-cream (griglie) <i>Setting up ice-cream (shelves)</i>			-				
Passo tra le griglie Ice-cream (fori montante) <i>Interstep Ice-cream (upright holes)</i>		mm [in]	-				
Peso Netto <i>Net weigh</i>		kg lb	100 220	103 227	106 234	109 240	109 240
Rumorosità / Noise level			dB(A) < 70				

## UNITA' REMOTE / REMOTE UNITS (a=a ir w=water)

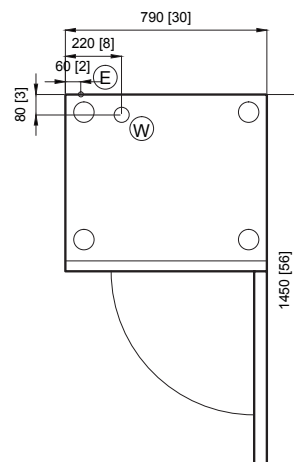
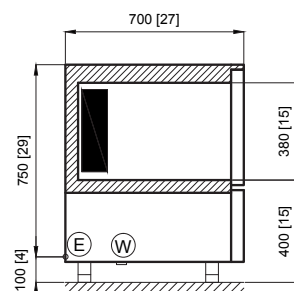
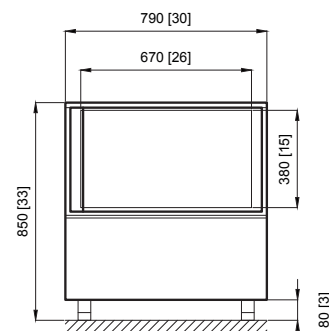
UMC <i>Remote Unit</i>	cod.	990505 a (▲) 990599 a 990506 w	990507 a (▲) 990594 a 990508 w	990509 a (▲) 990650 a 990510 w	990513 a (▲) 990595 a 990514 w	990513 a (▲) 990595 a 990514 w
Refrigerante / Refrigerant		gas R404A				
Capacità refrigerazione <i>Refrigeration capacity</i>		940 a 940 w	690 a 690 w	1070 a 1070 w	810 a 810 w	810 a 810 w
Alimentazione elet. / Elec. power supply		VI~/Hz				
Potenza elettrica <i>Input electric power</i>		890 a 850 w	1080 a 1040 w	1080 a 1040 w	1270 a 1230 w	1270 a 1230 w
Potenza / Rated output		3/4 a	5/8 a	7/8 a	7/8 a	7/8 a
Corrente max <i>Max. absorbed current</i>		-	3,5 a	4,5 a	3,9 a	3,9 a
Peso net <i>Net weight</i>		-	25a 55a	56a 123a	26a 57a	26a 57a
Dimensioni <i>Dimensions</i>		LxDxH mm [WxDxA] [in]				
		785X755X260 a/w [30.9x29.7x10.2] a/w				

## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max <i>Connections - max distance</i>		m [ft]				
		15 [49]				
Cavi elettrici <i>Electrical cables</i>		n° x mm <sup>2</sup>				
		M1+M2 → (2+1)x2,5 P → (2)x1				
Tubi liquido <i>Liquid tubes</i>		Ø mm in/SAE	6 1/4	6 1/4	6 1/4	6 1/4
Tubi gas <i>Gas tubes</i>		Ø mm in/SAE	8 5/16	8 5/16	8 5/16	8 5/16
Connessione idrica UMC ad acqua <i>Drain connection water UMC</i>		Ø pollici	out coil 3/4 → 1/2 conn. H2O			
Consumo max acqua <i>Max water expenditure</i>		(■) l/min	1,4	1,4	1,6	1,6
Tubi scarico / Drain tubes		Ø pollici	1	1	1	1
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>		bar	0.2 (0.7) - 27 (4)			
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>		bar	14 (2)	14 (2)	14 (2)	14 (2)

mod. --C --- (\*) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. --F --- (\*) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(▲) fino al 2008 / until 2008  
(■) t in = +20°C / t out = +40°C



(E) CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION

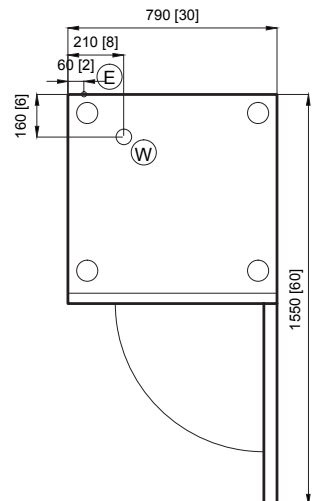
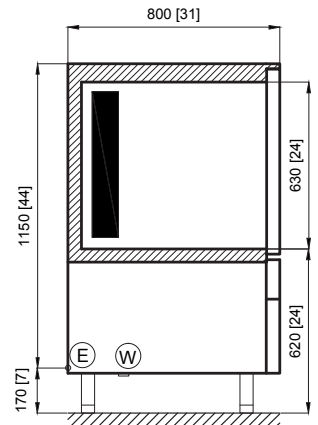
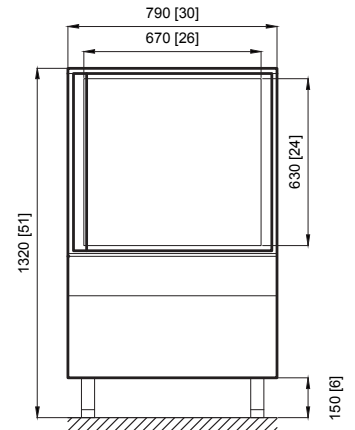
(W) CONNESSIONE IDRICA  
DRAIN CONNECTION

DIMENSIONI mm  
DIMENSIONS [in]

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Controllo / control			__C 081 AF / AP	__F 081 AF / AP	_GF 12 AF
Dimensioni <i>Dimensions</i>	LxPxH [WxDxA]	mm [in]	790x800x1320 [31.1x31.5x52]		
Larghezza luce porta <i>Door opening width</i>		mm [in]	670 [26.4]		
Altezza luce porta <i>Door opening height</i>		mm [in]	630 [24.8]		
Profondità interna <i>Internal depth</i>		mm [in]	460 [18.1]		
Spessore <i>Thickness</i>		mm [in]	60 [2.4]		
Classe climatica / <i>Climatic class</i>					
Capacità abbattimento <i>Chilling capacity</i>	90'	kg lb	25 55	25 55	-
Capacità congelamento <i>Freezing capacity</i>	240'	kg lb	-	16 35	60 132
Resa oraria in surgelazione <i>Hour yield in freezing</i>		kg/h lb/h	-	24 53	-
Refrigerante / <i>Refrigerant</i>					
R404A					
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	1720	1300	1300
Alimentazione elettrica / <i>Electric power supply</i>					
V/~Hz 230/1/50					
Potenza elettrica <i>Input electric power</i>	(°)	W	1500	2000	2100
Compressore / <i>Compressor</i>	(°)	HP	1 1/2	1 1/2	1 1/2
Corrente max / <i>Max abs. current</i>	(°)	A	6,5	9,2	9,2
Potenza el. Predisposto <i>Input el. power without R. Unit</i>	(°)	W	150	170	170
Corr. max Predisposto <i>Max abs. current without R. Unit</i>	(°)	A	0,9	1,1	1,1
Allestimento Catering / <i>Setting up Catering</i>					
8 GN1/1					
Passo tra le griglie Catering <i>Interstep Catering</i>		mm [in]	65 [2.6]		
Allestimento Baking / <i>Setting up Baking</i>					
8 EN					
Passo tra le griglie Baking (fori montante) <i>Interstep Baking (upright holes)</i>		mm [in]	32,5 (17) - 50 (11) [1.3] (17) - [1.9] (11)		
Allestimento ice-cream (griglie) <i>Setting up ice-cream (shelves)</i>					
3 EN					
Passo tra le griglie Ice-cream (fori montante) <i>Interstep Ice-cream (upright holes)</i>		mm [in]	32,5 (17) - 50 (11) [1.3] (17) - [1.9] (11)		
Peso Netto <i>Net weigh</i>		kg lb	138 304	142 313	142 313
Rumorosità / <i>Noise level</i>					
< 70					



Ⓔ CONNESSIONE ELETTRICA  
ELECTICAL CONNECTION  
Ⓔ CONNESSIONE IDRICA  
DRAIN CONNECTION

DIMENSIONI mm  
DIMENSIONS [in]

## UNITA' REMOTE / REMOTE UNITS (a=air w=water)

UMC <i>Remote Unit</i>	cod.	990515 a (▲) 990651 a 990516 w	990517 a (▲) 990651 a 990518 w	990517 a (▲) 990651 a 990518 w
Refrigerante / <i>Refrigerant</i>		gas R404A		
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W 1720 a	W 1720 a	W 1720 a
Alimentazione elet. / <i>Elec. power supply</i>		V/~Hz 230/1/50		
Potenza elettrica <i>Input electric power</i>	(°)	W 1350 a	W 1350 a	W 1350 a
Potenza / <i>Rated output</i>		HP 1 1/8 a	HP 1 1/2 a	HP 1 1/2 a
Corrente max <i>Max. absorbed current</i>	(°)	A 6,0 a	A 6,0 a	A 6,0 a
Peso net <i>Net weight</i>		kg 63a lb 139a	kg 63a lb 139a	kg 63a lb 139a
Dimensioni <i>Dimensions</i>		LxPxH mm 785X755X320 [WxDxA] [in] [30.9x29.7x12.6]		

## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max <i>Connections - max distance</i>	m [ft]	15 [49]		
Cavi elettrici <i>Electrical cables</i>	n° x mm <sup>2</sup>	M1 → (2+1)x2,5 / M2 → (2+1)x1 P → (2)x1		
Tubi liquido <i>Liquid tubes</i>	Ø mm in/SAE	6 1/4	6 1/4	6 1/4
Tubi gas <i>Gas tubes</i>	Ø mm in/SAE	8 5/16	8 5/16	8 5/16
Connessione idrica UMC ad acqua <i>Drain connection water UMC</i>		out coil 3/4 → 1/2 conn. H2O		
Consumo max acqua <i>Max water expenditure</i>	(■) l/min	2,3	2,4	2,4
Tubi scarico / <i>Drain tubes</i>	Ø pollici	1	1	1
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>		bar 0.2 (0.7) - 27 (4)		
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>		bar 14 (2)	bar 14 (2)	bar 14 (2)

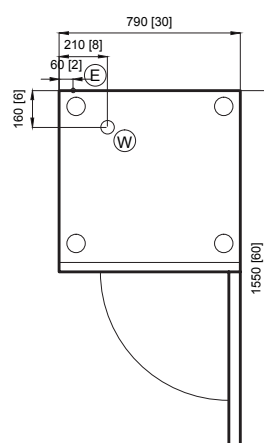
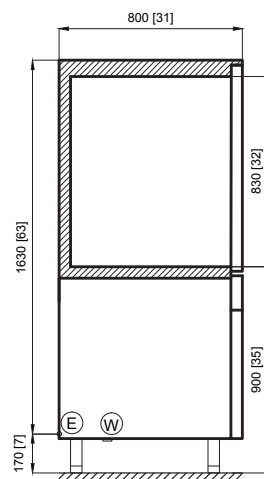
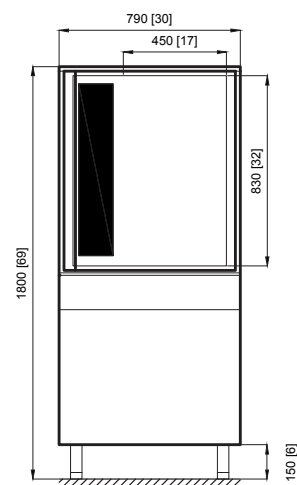
mod. \_\_C \_\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F \_\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(▲) fino al 2008 / until 2008  
(■) t in = +20°C / t out = +40°C

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOKE FREEZER



Modello / model Controllo / control			_C 120 AF / AP	_F 120 AF / AP
Dimensioni <i>Dimensions</i>	LxPxH [WxDxA]	mm [in]	790x800x1800 [31.1x31.5x70.9]	
Larghezza luce porta <i>Door opening width</i>		mm [in]	450 [17.7]	
Altezza luce porta <i>Door opening height</i>		mm [in]	830 [32.7]	
Profondità interna <i>Internal depth</i>		mm [in]	680 [26.8]	
Spessore <i>Thickness</i>		mm [in]	60 [2.4]	
Classe climatica / Climatic class				
T				
Capacità abbattimento <i>Chilling capacity</i>	90'	kg lb	36 79	36 79
Capacità congelamento <i>Freezing capacity</i>	240'	kg lb	-	24 53
Resa oraria in surgelazione <i>Hour yield in freezing</i>		kg/h lb/h	-	-
Refrigerante / Refrigerant				
gas R404A				
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	2770	2850
Alimentazione elettrica <i>Electric power supply</i>				
V~/Hz 400/3/50				
Potenza elettrica <i>Input electric power</i>	(°)	W	2100	3500
Compressore / Compressor	(°)	HP	1 1/2	2 1/5
Corrente max / Max abs. current	(°)	A	3,1	4,2
Potenza el. Predisposto <i>Input el. power without R. Unit</i>	(°)	W	250	270
Corr. max Predisposto <i>Max abs. current without R. Unit</i>	(°)	A	1,6	1,7
Allestimento Catering modelli B-series <i>Setting up Catering B-series models</i>				
12 GN1/1				
Passo tra le griglie Catering <i>Interstep Catering</i>		mm [in]	65 [2.6]	
Allestimento Baking modelli B-series <i>Setting up Baking B-series models</i>				
12 EN				
Passo tra le griglie Baking (fori montante) <i>Interstep Baking (upright holes)</i>		mm [in]	-	
Allestimento ice-cream (griglie) <i>Setting up ice-cream (shelves)</i>				
-				
Passo tra le griglie Ice-cream (fori montante) <i>Interstep Ice-cream (upright holes)</i>		mm [in]	-	
Allestimento (carrelli) <i>Setting up (trolleys)</i>				
1 GN1/1 - 1 EN 600x400				
Peso Netto <i>Net weigh</i>		kg lb	225 496	
Rumorosità / Noise level		dB(A)	< 70	



(E) CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION

(W) CONNESSIONE IDRICA  
DRAIN CONNECTION

DIMENSIONI mm  
DIMENSIONS [in]

UNITA' REMOTE / REMOTE UNITS (a=a ir w=water)				
UMC <i>Remote Unit</i>	cod.		990519 a 990520 w	990525 a 990526 w
Refrigerante / Refrigerant				
gas R404A				
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	2770 a -	2850 a 2850 w
Alimentazione elet. / Elec. power supply				
V~/Hz 400/3/50				
Potenza elettrica <i>Input electric power</i>	(°)	W	1950 a -	3350 a 3350 w
Potenza / Rated output		HP	1 1/2 a	2 1/2 a
Corrente max <i>Max. absorbed current</i>	(°)	A	3,0 a	3,8 a
Peso net <i>Net weight</i>		kg lb	80a 176a	80 a/w 176 a/w
Dimensioni <i>Dimensions</i>				
LxPxH [WxDxA] mm [in]				
-				

ALLACCIAMENTI / CONNECTIONS				
Allacciamenti - distanza max <i>Connections - max distance</i>		m [ft]	15 [49]	
Cavi elettrici <i>Electrical cables</i>	n° x mm²		M1 → (2+1)x2,5 / M2 → (2+1)x1 P → (2)x1	
Tubi liquido <i>Liquid tubes</i>	Ø mm in/SAE		6 1/4	8 5/16
Tubi gas <i>Gas tubes</i>	Ø mm in/SAE		12 1/2	14 9/16
Connessione idrica UMC ad acqua <i>Drain connection water UMC</i>				
Ø pollici out coil 3/4 → 1/2 conn. H2O				
Consumo max acqua <i>Max water expenditure</i>	(■)	l/min	3,5	4,6
Tubi scarico / Drain tubes		Ø pollici	1	1
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>				
bar 0.2 (0.7) - 27 (4)				
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>				
bar 14 (2) 14 (2)				

mod. \_\_C\_\_ (\*) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F\_\_ (\*) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

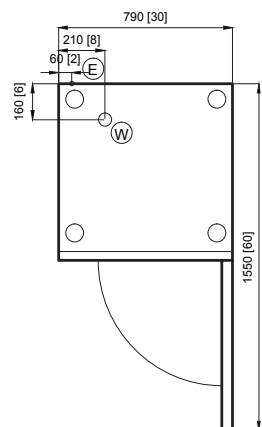
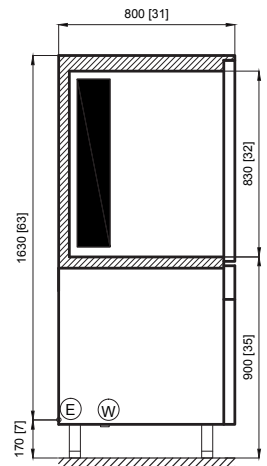
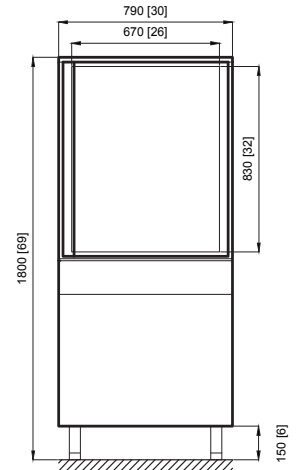
(■) t in = +20°C / t out = +40°C



# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Controllo / control		__C 121 DF	__F 121 DF	__C 121 AF/AP	__F 121 AF/AP	_GF 15 AF
Dimensioni Dimensions	LxPxH [WxDxA] mm [in]	790x800x1800 [31.1x31.5x70.9]				
Larghezza luce porta Door opening width	mm [in]	670 [26.4]				
Altezza luce porta Door opening height	mm [in]	830 [32.7]				
Profondità interna Internal depth	mm [in]	460 [18.1]				
Spessore Thickness	mm [in]	60 [2.4]				
Classe climatica / Climatic class						
T						
Capacità abbattimento Chilling capacity	90' kg lb	25 55	25 55	36 79	36 79	-
Capacità congelamento Freezing capacity	240' kg lb	-	16 35	-	24 53	75 165
Resa oraria in surgelazione Hour yield in freezing	kg/h lb/h	-	24 53	-	36 79	-
Refrigerante / Refrigerant						
R404A						
Capacità refrigerazione Refrigeration capacity	(*) W	1720	1300	2770	2850	2850
Alimentazione elettrica Electric power supply	V/~Hz	230/1/50		400/3/50		
Potenza elettrica Input electric power	(°) W	1550	2000	2100	3500	3500
Compressore / Compressor	(°) HP	1 1/2	1 1/2	2 1/2	2 1/2	2 1/2
Corrente max / Max abs. current	(°) A	7,1	9,7	3,1	4,2	4,2
Potenza el. Predisposto Input el. power without R. Unit	(°) W	250	270	250	270	270
Corr. max Predisposto Max abs. current without R. Unit	(°) A	1,6	1,7	1,6	1,7	1,7
Allestimento Catering Setting up Catering		12 GN1/1				-
Passo tra le griglie Catering Interstep Catering	mm [in]	65 [2.6]				-
Allestimento Baking Setting up Baking		12 EN				-
Passo tra le griglie Baking (fori montante) Interstep Baking (upright holes)	mm [in]	32,5 (23) - 50 (15) [1.3] (23) - [1.9] (15)				-
Allestimento Ice-cream (griglie) Setting up ice-cream (shelves)		-	-	-	-	4 EN
Passo tra le griglie Ice-cream (fori montante) Interstep Ice-cream (upright holes)	mm [in]	-	-	-	-	32,5 (23) - 50 (15) [1.3] (23) - [1.9] (15)
Peso Netto Net weigh	kg lb	170 375				
Rumorosità / Noise level	dB(A)	< 70				



## UNITA' REMOTE / REMOTE UNITS (a=a air w=water)

UMC Remote Unit	cod.	990515 a (▲) 990651 a 990516 w	990517 a (▲) 990597 a 990518 w	990519 a 990520 w	990525 a 990526 w	990525 a 990526 w
Refrigerante / Refrigerant	gas	R404A				
Capacità refrigerazione Refrigeration capacity	(*) W	1720 a -	1300 a -	2770 a -	2850 a 2850 w	2850 a 2850 w
Alimentazione elet. / Elec. power supply	V/~Hz	230/1/50		400/3/50		
Potenza elettrica Input electric power	(°) W	1350 a -	1830 a -	1950 a -	3350 a 3350 w	3350 a 3350 w
Potenza / Rated output	HP	1 1/8 a	1 1/2 a	1 1/2 a	2 1/2 a	2 1/2 a
Corrente max Max. absorbed current	(°) A	6,0 a	5,9 a	3,0 a	3,8 a	3,8 a
Peso net Net weight	kg lb	63a 139a	39a 86a	80a 176a	80 a/w 176 a/w	80 a/w 176 a/w
Dimensioni Dimensions	LxPxH [WxDxA] mm [in]	785X755X320 [30.9x29.7x12.6]				

## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max Connections - max distance	m [ft]	15 [49]				
Cavi elettrici Electrical cables	n° x mm²	M1+M2 → (2+1)x2,5 P → (2)x1		M1 → (3+1)x2,5 / M2 → (2+1)x1 P → (2)x1		
Tubi liquido Liquid tubes	Ø mm in/SAE	6 1/4	6 1/4	6 1/4	8 5/16	8 5/16
Tubi gas Gas tubes	Ø mm in/SAE	8 5/16	8 5/16	12 1/2	14 9/16	14 9/16
Connessione idrica UMC ad acqua Drain connection water UMC	Ø pollici	out coil 3/4 → 1/2 conn. H2O				
Consumo max acqua Max water expenditure	(■) l/min	2,3	2,4	3,5	4,6	4,6
Tubi scarico / Drain tubes	Ø pollici	1	1	1	1	1
Set LP-HP (differenziale) LP-HP set (differential)	bar	0.2 (0.7) - 27 (4)				
Parzializzazione ventilat. HP (diff.) Fans choking HP (diff.)	bar	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)

(E) CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION

(W) CONNESSIONE IDRICA  
DRAIN CONNECTION

DIMENSIONI mm  
DIMENSIONS [in]

mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

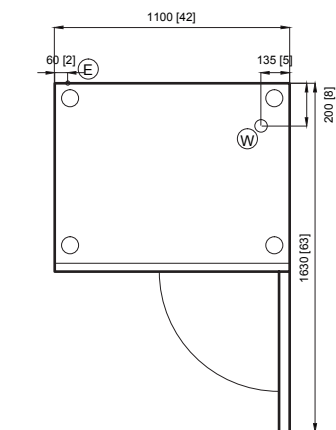
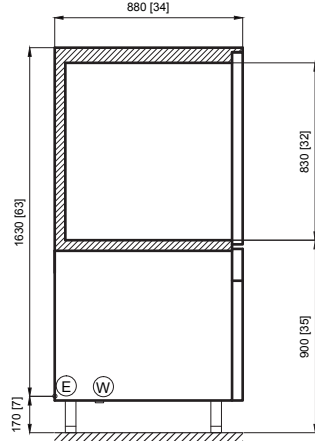
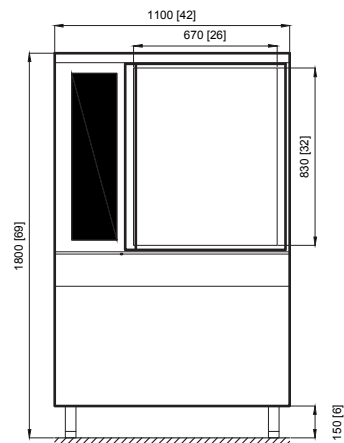
(▲) fino al 2008 / until 2008

(■) t in = +20°C / t out = +40°C

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOKE FREEZER



Modello / model Controllo / control			--C 122 DF	--F 122 DF	--C 122 AFIAP	--F 122 AFIAP	
Dimensioni Dimensions			1100x880x1800 [43.3x34.6x70.9]				
Larghezza luce porta Door opening width			670 [26.4]				
Altezza luce porta Door opening height			830 [32.7]				
Profondità interna Internal depth			750 [29.5]				
Spessore Thickness			60 [2.4]				
Classe climatica / Climatic class			T				
Capacità abbattimento Chilling capacity			90' kg lb	50 110	50 110	72 159	72 159
Capacità congelamento Freezing capacity			240' kg lb	- 71	32 71	- 71	48 106
Resa oraria in surgelazione Hour yield in freezing			kg/h lb/h				- -
Refrigerante / Refrigerant			gas R404A				
Capacità refrigerazione Refrigeration capacity			(*) W	4730	3930	6420	5970
Alimentazione elettrica Electric power supply			V~/Hz 400/3/50				
Potenza elettrica Input electric power			(°) W	3000	3176	3950	6120
Compressore / Compressor			(°) HP	3 1/5	3 1/5	4	4
Corrente max / Max abs. current			(°) A	4,3	5,4	4,9	6,9
Potenza el. Predisposto Input el. power without R. Unit			(°) W	360	380	360	380
Corr. max Predisposto Max abs. current without R. Unit			(°) A	2,2	2,4	2,2	2,4
Allestimento Catering modelli B-series Setting up Catering B-series models			12 GN 2/1				
Passo tra le griglie Catering Interstep Catering			mm [in]	65 [2.6]			
Allestimento Baking modelli B-series Setting up Baking B-series models			12 EN				
Passo tra le griglie Baking (fori montante) Interstep Baking (upright holes)			mm [in]	-	-	-	-
Allestimento ice-cream (griglie) Setting up ice-cream (shelves)			-				
Passo tra le griglie Ice-cream (fori montante) Interstep Ice-cream (upright holes)			mm [in]	-	-	-	-
Allestimento (carrelli) Setting up (trolleys)			1 GN2/1 - 1 EN 600x400				
Peso Netto Net weigh			kg lb	230 507			
Rumorosità / Noise level			dB(A) < 70				



Ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION  
Ⓕ CONNESSIONE IDRICA  
DRAIN CONNECTION  
DIMENSIONI mm  
DIMENSIONS [in]

## UNITA' REMOTE / REMOTE UNITS (a=a air w=water)

UMC		990527 a 990528 w	990529 a 990530 w	990531 a 990532 w	990533 a 990534 w
Remote Unit		cod.			
Refrigerante / Refrigerant		gas R404A			
Capacità refrigerazione Refrigeration capacity		(*) W 4730 a 4730 w	3930 a -	6420 a 6400 w	5970 a -
Alimentazione elet. / Elec. power supply		V~/Hz 400/3/50			
Potenza elettrica Input electric power		(°) W 2000 a 2000 a	5050 a -	3700 a 3500 w	5900 a -
Potenza / Rated output		HP 2 1/2 a	3 1/2 a	3 a	4 a
Corrente max Max. absorbed current		(°) A 3,2 a	5,0 a	4,0 a	12,0 a
Peso net Net weight		kg lb	90a 198a	90w 198w	119a 262a
Dimensioni Dimensions		LxPxH mm [WxDxA] [in]			

## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max Connections - max distance		m [ft]				
Cavi elettrici Electrical cables		n° x mm² M1 → (3+1)x2,5 / M2 → (2+1)x1 P → (2)x1				
Tubi liquido Liquid tubes		Ø mm in/SAE	8 5/16	8 5/16	12 1/2	12 1/2
Tubi gas Gas tubes		Ø mm in/SAE	16 5/8	16 5/8	18 3/4	18 3/4
Connessione idrica UMC ad acqua Drain connection water UMC		Ø pollici	out coil 3/4 → 1/2 conn. H2O			
Consumo max acqua Max water expenditure		(■) l/min	5,5	5,1	7,4	8,7
Tubi scarico / Drain tubes		Ø pollici	1	1	1	1
Set LP-HP (differenziale) LP-HP set (differential)		bar	0.2 (0.7) - 27 (4)			
Parzializzazione ventilat. HP (diff.) Fans choking HP (diff.)		bar	14 (2)	14 (2)	14 (2)	14 (2)

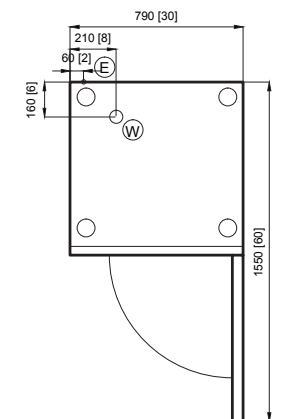
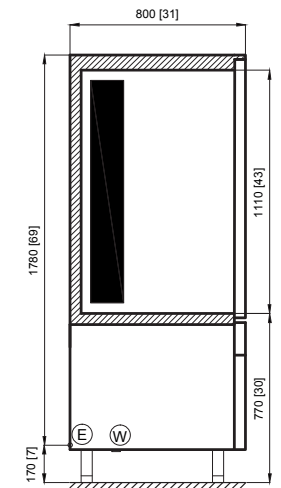
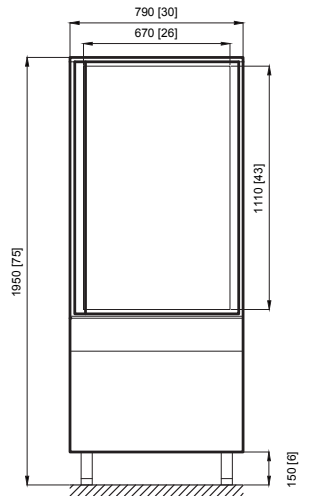
mod. --C -- (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. --F -- (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Modello / model		--_C 161 DF	--_F 161 DF	--_C 161 AF/AP	--_F 161 AF/AP	_GF 21 AF		
Dimensioni Dimensions		790 x 800 x 1950 [31.1x31.5x76.8]						
Larghezza luce porta Door opening width		670 [26.4]						
Altezza luce porta Door opening height		1100 [43.3]						
Profondità interna Internal depth		460 [18.1]						
Spessore Thickness		60 [2.4]						
Classe climatica / Climatic class		T						
Capacità abbattimento Chilling capacity		90'	kg lb	36 79	36 79	55 121	55 121	-
Capacità congelamento Freezing capacity		240'	kg lb	- 53	24 53	- 79	36 79	105 231
Resa oraria in surgelazione Hour yield in freezing			kg/h lb/h	- 79	36 79	- 123	56 123	-
Refrigerante / Refrigerant		gas R404A						
Capacità refrigerazione Refrigeration capacity		(°)	W	2770	2850	4730	3930	3930
Alimentazione elettrica Electric power supply		V~/Hz 400/3/50						
Potenza elettrica Input electric power		(°)	W	2170	3500	3300	5250	5250
Compressore / Compressor		(°)	HP	2 1/2	2 1/2	3 1/5	3 1/2	3 1/5
Corrente max / Max abs. current		(°)	A	3,5	4,5	4,4	5,7	5,7
Potenza el. Predisposto Input el. power without R. Unit		(°)	W	360	380	360	380	380
Corr. max Predisposto Max abs. current without R. Unit		(°)	A	2,2	2,3	2,2	2,3	2,3
Allestimento Catering Setting up Catering		16 GN1/1					-	
Passo tra le griglie Catering Interstep Catering		mm [in]					65 [2.6]	-
Allestimento Baking Setting up Baking		16 EN					-	
Passo tra le griglie Baking (fori montante) Interstep Baking (upright holes)		mm [in]					32,5 (31) - 50 (20) [1.3] (31) - [1.9] (20)	-
Allestimento ice-cream (griglie) Setting up ice-cream (shelves)		-					-	6 EN
Passo tra le griglie Ice-cream (fori montante) Interstep Ice-cream (upright holes)		mm [in]					-	32,5 (31) - 50 (20) [1.3] (31) - [1.9] (20)
Peso Netto Net weigh		kg lb					200 441	
Rumorosità / Noise level		dB(A)					< 70	



- Ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
- Ⓘ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## UNITA' REMOTE / REMOTE UNITS (a=a ir w=water)

UMC Remote Unit		cod.	990519 a 990520 w	990525 a 990526 w	990527 a 990528 w	990529 a 990530 w	990529 a 990530 w	
Refrigerante / Refrigerant		gas	R404A					
Capacità refrigerazione Refrigeration capacity		(°)	W	2770 a -	2850 a 2850 w	4730 a 4730 w	3930 a -	3930 a -
Alimentazione elet. / Elec. power supply		V~/Hz	400/3/50					
Potenza elettrica Input electric power		(°)	W	1950 a -	3350 a 3350 w	2000 a 2000 w	5050 a -	5050 a -
Potenza / Rated output		HP	1 1/2	2 1/2	2 1/2	3 1/2	3 1/2	
Corrente max Max. absorbed current		(°)	A	3,0	3,8	3,2	5,0	5,0
Peso net Net weight		kg lb	80a 176a	80 a/w 176 a/w	-	90a 198a	90a 198a	
Dimensioni Dimensions		LxPxH [WxDxA]	mm [in]					

## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max Connections - max distance		m [ft]	15 [49]				
Cavi elettrici Electrical cables		n° x mm²	_161_F: M1→(3+1)x2,5 / M2→(2+1)x1 / P→(2)x1 _161_P: M1→(2+1)x2,5 / M2→(2+1)x1 / P→(2)x1				vedi: _161_F see: _161_F
Tubi liquido Liquid tubes		Ø mm in/SAE	8 5/16	8 5/16	8 5/16	8 5/16	8 5/16
Tubi gas Gas tubes		Ø mm in/SAE	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
Connessione idrica UMC ad acqua Drain connection water UMC		Ø pollici	out coil 3/4 → 1/2 conn. H2O				
Consumo max acqua Max water expenditure		(■) l/min	3,5	4,6	5,8	6,6	6,6
Tubi scarico / Drain tubes		Ø pollici	1	1	1	1	1
Set LP-HP (differenziale) LP-HP set (differential)		bar	0.2 (0.7) - 27 (4)				
Parzializzazione ventilat. HP (diff.) Fans choking HP (diff.)		bar	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)

mod. \_\_C \_\_\_ (\*) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F \_\_\_ (\*) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C

# ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER



Modello / model Controllo / control	PANNELLATO / PANELED-UP				MONOSCOCCA / MONOCOQUE			
	--C200 DP (-R)	--F200 DP (-R)	--C200 AP (-R)	--F200 AP (-R)	--C200 DP	--F200 DP	--C200 AP	--F200 AP
Dimensioni LxPxH mm Dimensions [WxDxA] [in]	1000x1100x2150 (1000x1300x2150) [39.4x43.3x84.6] [(39.4x51.2x84.6)]				890x1100x2180 [35x43.3x85.8]			
Profondità con porta 90° Depth with 90° door	2080 (1980) [81.9] [(78)]				1980 [77]			
Larghezza luce porta Door opening width	800 [31.5]				740 [29.1]			
Luce porta LXH mm Door opening [WxA] [in]	770x1920 [30.3x75.6]				710x1880 [27x74]			
Profondità interna P mm Internal depth [D] [in]	600 (850) [23.6] [(33.5)]				770 [30.3]			
Spessore Thickness mm [in]	80 [3.1]				80 [3.1]			
Classe climatica Climatic class	T				T			
Capacità abbattimento Chilling capacity 90' kg lb	70 154	70 154	105 231	105 231	70 154	70 154	105 231	105 231
Capacità congelamento Freezing capacity 240' kg lb	-	48 106	-	70 154	-	48 106	-	70 154
Resa oraria in surgelazione Hour yield in freezing kg/h lb/h	-	70 154	-	105 231	-	70 154	-	105 231
Refrigerante / Refrigerant	gas R404A				gas R404A			
Capacità refrigerazione Refrigeration capacity (*) W	6420 (*)	5970 (*)	9620 (*)	6750 (*)	6420 (*)	5970 (*)	9620 (*)	6750 (*)
Alimentazione elettrica Electric power supply	VI~/Hz 230/1/50				VI~/Hz 230/1/50			
Potenza elettrica Input electric power (°) W	500	500	500	550	500	500	500	550
Corrente max Max. absorbed current (°) A	3,3	3,3	3,3	3,7	3,3	3,3	3,3	3,7
Allestimento Setting up	1 carrello GN1/1 (1 carrello EN 400x600) 1 GN1/1 trolley (1 EN trolley 400x600)				1 carrello GN1/1 (1 carrello EN 400x600) 1 GN1/1 trolley (1 EN trolley 400x600)			
Dimensioni imballo LxPxH mm Packing dimensions [WxDxA] [in]	2250x1200x1150 (2250x1500x1150) [88.6x47.2x45.3] [(88.6x59.1x45.3)]				2280x1200x1040 [89.8x47.2x41]			
Volume m³ Volume ft³	4,5 (-) 158,9 (-)				2,73 96,4			
Peso netto kg [net lb] Weight lordo kg [gross lb]	340 [750] (-) [(-)] 420 [926] (-) [(-)]				280 [617] 310 [683]			

## UNITÀ REMOTE / REMOTE UNITS (a=air w=water)

UMC Remote Unit	cod.	990543 a 990557 w	990545 a 990559 w	990544 a 990558 w	990546 a 990560 w	990543 a 990557 w	990545 a 990559 w	990544 a 990558 w	990546 a 990560 w
Refrigerante / Refrigerant	gas	R404A				R404A			
Capacità refrigerazione Refrigeration capacity (*) W		6420 a 8790 w	5970 a 8506 w	9620 a 6027 w	6750 a 8840 w	6420 a 8790 w	5970 a 8506 w	9620 a 6027 w	6750 a 8840 w
Alimentazione elettrica Electric power supply	VI~/Hz	4000/3/50				4000/3/50			
Potenza elettrica Input electric power (°) W		3330 a 5647 w	4220 a 6411 w	4740 a 6176 w	4960 a 7176 w	3330 a 5647 w	4220 a 6411 w	4740 a 6176 w	4960 a 7176 w
Potenza / Rated output	HP	3 a	4 a	4 a	5 a	3 a	4 a	4 a	5 a
Corrente max Max. absorbed current (°) A		9,6 a/w	10,9 a/w	10,9 a 10,5 w	12,2 a/w	9,6 a/w	10,9 a/w	10,9 a 10,5 w	12,2 a/w
Peso net Net weight	kg lb	92a 91w 203a 201w	119a 116w 262a 256w	120a 93w 265a 205w	121a 121w 267a 267w	92a 91w 203a 201w	119a 116w 262a 256w	120a 93w 265a 205w	121a 121w 267a 267w
Dimensioni - a LxPxH mm Dimensions - a [WxDxA] [in]		935x700x575 [36.8x27.6x22.6]		1004x700x650 [39.5x27.6x25.6]		935x700x575 [36.8x27.6x22.6]		1004x700x650 [39.5x27.6x25.6]	
Dimensioni - w LxPxH mm Dimensions - w [WxDxA] [in]		910x330x623 [35.8x13x24.5]		910x327x624 [35.8x12.9x24.6]		910x330x623 [35.8x13x24.5]		910x327x624 [35.8x12.9x24.6]	

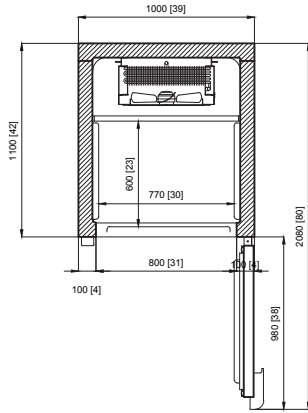
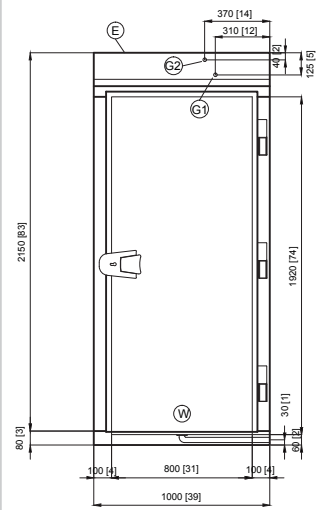
## ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max Connections - max distance	m [ft]	20 [66]				20 [66]			
Cavi elettrici / Electrical cables	n° x mm²	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes	Ø mm [in/SAE]	12 [1/2]	12 [1/2]	12 [1/2]	14 [9/16]	12 [1/2]	12 [1/2]	12 [1/2]	14 [9/16]
Tubi gas / Gas tubes	Ø mm [in/SAE]	22 [7/8]	28 [1" 1/16]	28 [1" 1/16]	28 [1" 1/16]	22 [7/8]	28 [1" 1/16]	28 [1" 1/16]	28 [1" 1/16]
Connex. idrica UMC ad acqua Drain connection water UMC	Ø pollici	out coil 3/4 → 1/2 conn. H2O				out coil 3/4 → 1/2 conn. H2O			
Consumo max acqua Max water consumption (■) l/min		9,4	9,9	13,9	11,3	9,4	9,9	13,9	11,3
Tubi scarico Drain tubes	Ø mm [in]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]
Set LP-HP (differenziale) LP-HP set (differential)	bar	0 (0.5) - 26 (3)				0 (0.5) - 26 (3)			
Parzializzazione ventilat. HP (diff.) Fans choking HP (diff.)	bar	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)

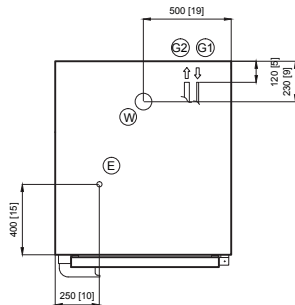
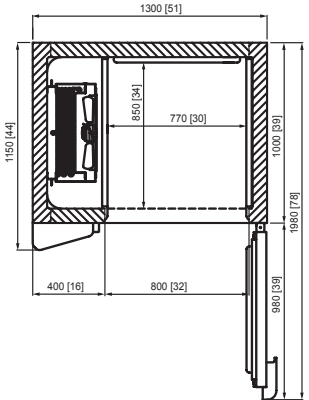
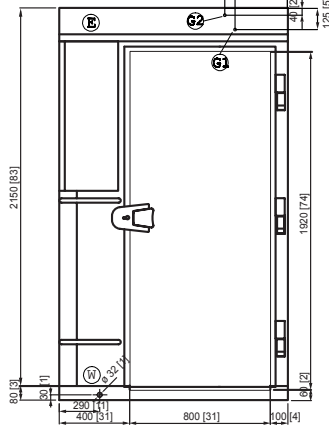
mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
 mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C

# Pannellato Panelled-up

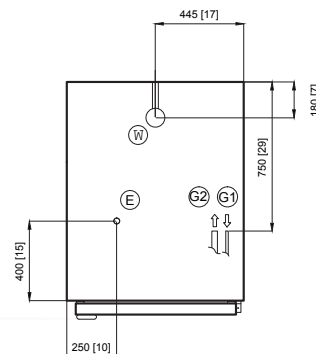
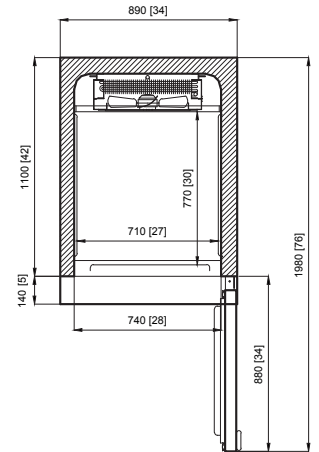
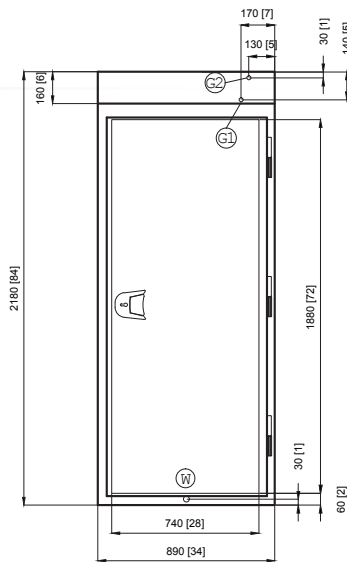


(-R)



- Ⓜ INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ USCITA REFRIGERANTE  
REFRIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

# Monoscocca Monocoque



- Ⓜ INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ USCITA REFRIGERANTE  
REFRIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			--C201 (PC201) DP	--F201 (PF201) DP	--C201 (PC201) AP	--F201 (PF201) AP
Dimensioni Dimensions	LxPxH [WxDxA]	mm [in]	1200x1150x2230 / (1200x1050x2430) 2 porte: P → +140 [47.2x45.3x87.8] / [(47.2x41.3x95.7)] 2 doors: D → [+5.5]			
Profondità con porta 90° Depth with 90° door		mm [in]	1880 / (1780) [74] / [(70.1)]			
Larghezza luce porta Door opening width		mm [in]	700 [27.6]			
Luce porta Door opening	LXH [WxA]	mm [in]	670x1920 / (670x2120) [26.4x75.6] / [(26.4x83.5)]			
Profondità interna Internal depth	P [D]	mm [in]	850 / (750) [33.5] / [(29.5)]			
Spessore Thickness		mm [in]	80 [3.1]			
Classe climatica Climatic class			T			
Capacità abbattimento Chilling capacity	90°	kg lb	70 154	70 154	105 231	105 231
Capacità congelamento Freezing capacity	240°	kg lb	-	48 106	-	70 154
Resa oraria in surgelazione Hour yield in freezing		kg/h lb/h	-	(70) (154)	-	(105) (231)
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione Refrigeration capacity	(*)	W	6420	5970	9620	6750
Alimentazione elettrica Electric power supply		V/~Hz	230/1/50			
Potenza elettrica Input electric power	(°)	W	500	500	500	550
Corrente max Max. absorbed current	(°)	A	3,3	3,3	3,3	3,7
Allestimento Setting up			1 carrello GN1/1 (1 carrello EN 400x600) 1 GN1/1 trolley (1 EN trolley 400x600)			
Dimensioni imballo Packing dimensions	LxPxH [WxDxA]	mm [in]	2330x1250x1350 / (2530x1150x1350) 2 porte: P → +140 [91.7x49.2x53.1] / [(99.6x45.3x53.1)] 2 doors: D → [+55]			
Volume Volume		m³ ft³	4,18 / (4,50) 147.6 / (158.9)			
Peso Weight	netto kg [net lb] lordo kg [gross lb]		310 [683] / (316) [(697)] 390 [860] / (397) [(875)]			

### UNITÀ REMOTE / REMOTE UNITS (a=a ir w=water)

UMC Remote Unit		cod.	990543 a 990557 w	990545 a 990559 w	990544 a 990558 w	990546 a 990560 w
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione Refrigeration capacity	(*)	W	6420 a 8790 w	5970 a 8506 w	9620 a 6027 w	6750 a 8840 w
Alimentazione elettrica Electric power supply		V/~Hz	4000/3/50			
Potenza elettrica Input electric power	(°)	W	3330 a 5647 w	4220 a 6411 w	4740 a 6176 w	4960 a 7176 w
Potenza / Rated output		HP	3 a	4 a	4 a	5 a
Corrente max Max. absorbed current	(°)	A	9,6 a/w	10,9 a/w	10,9 a 10,5 w	12,2 a/w
Peso net Net weight		kg lb	92 a 91 w 203 a 201 w	119 a 116 w 262 a 256 w	120 a 93 w 265 a 205 w	121 a 121 w 267 a 267 w
Dimensioni - a Dimensions - a	LxPxH [WxDxA]	mm [in]	935x700x575 [36.8x27.6x22.6]		1004x700x650 [39.5x27.6x25.6]	
Dimensioni - w Dimensions - w	LxPxH [WxDxA]	mm [in]	910x330x623 [35.8x13x24.5]			910x327x624 [35.8x12.9x24.6]

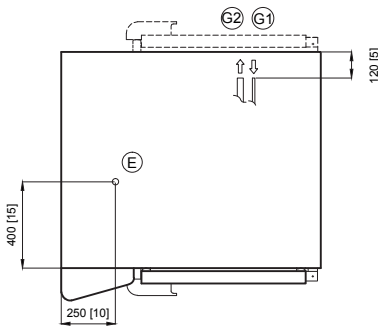
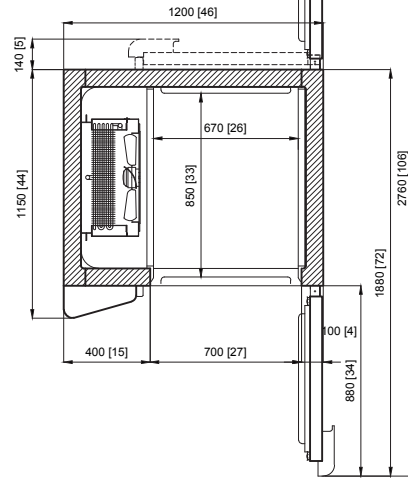
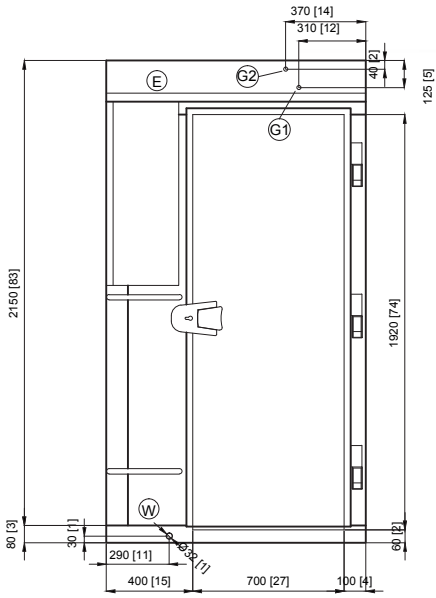
### ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max Connections - max distance		m [ft]	20 [66]			
Cavi elettrici / Electrical cables	n° x mm²		5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes	Ø mm [in/SAE]		12 [1/2]	12 [1/2]	12 [1/2]	14 [9/16]
Tubi gas / Gas tubes	Ø mm [in/SAE]		22 [7/8]	28 [1" 1/16]	28 [1" 1/16]	28 [1" 1/16]
Connessione idrica UMC ad acqua Drain connection water UMC		Ø pollici	out coil 3/4 → 1/2 conn. H2O			
Consumo max acqua Max water consumption	(■)	l/min	9,4	9,9	13,9	11,3
Tubi scarico Drain tubes		Ø mm Ø [in]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]
Set LP-HP (differenziale) LP-HP set (differential)		bar	0 (0.5) - 26 (3)			
Parzializzazione ventilat. HP (diff.) Fans choking HP (diff.)		bar	14 (2)	14 (2)	14 (2)	14 (2)

mod. \_\_ C \_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_ F \_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

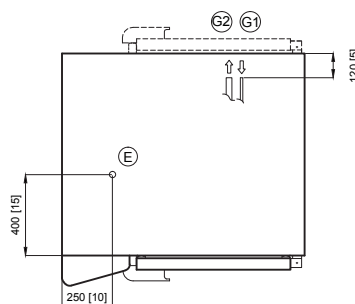
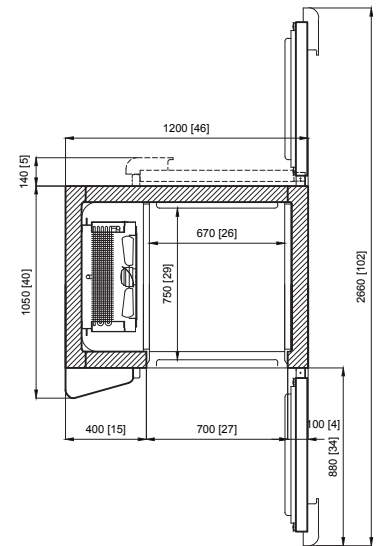
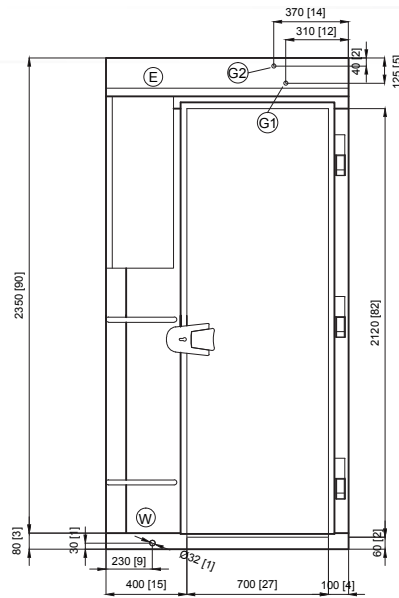
(■) t in = +20°C / t out = +40°C

# Catering



- Ⓜ1 INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ2 USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

# Baking



- Ⓜ1 INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ2 USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			_RC201 DP	_RF201 DP	_RC201 AP	_RF201 AP	_RC202 DP	_RF202 DP	_RC202 AP	_RF202 AP
Dimensioni	LxPxH	mm	1200x1050x2280				1600x1350x2280			
Dimensions	[WxDxA]	[in]	[47.2x45.3x87.8]				[59.1x53.1x87.8]			
Profondità con porta 90°		mm	1780				2180			
Depth with 90° door		[in]	[70.1]				[85.8]			
Larghezza luce porta		mm	700				900			
Door opening width		[in]	[27.6]				[35.4]			
Luce porta	LXH	mm	670x1700				870x1700			
Door opening	[WxA]	[in]	[26.4x66.9]				[34.3x66.9]			
Profondità interna	P	mm	820				1120			
Internal depth	[D]	[in]	[32.3]				[44.1]			
Spessore		mm	80				80			
Thickness		[in]	[3.1]				[3.1]			
Classe climatica			T				T			
Climatic class			T				T			
Capacità abbattimento	90'	kg	70	70	105	105	150	150	210	210
Chilling capacity		lb	154	154	231	231	331	331	463	463
Capacità congelamento	240'	kg	-	48	-	70	-	100	-	135
Freezing capacity		lb	-	106	-	154	-	220	-	298
Resa oraria in surgelazione		kg/h	-	-	-	-	-	-	-	-
Hour yield in freezing		lb/h	-	-	-	-	-	-	-	-
Refrigerante / Refrigerant		gas	R404A				R404A			
Capacità refrigerazione	(*)	W	-	5970	-	-	-	9650	-	12100
Refrigeration capacity										
Alimentazione elettrica		V~/Hz	230/1/50				400/3/50 (baking → 230/1/50)			
Electric power supply										
Potenza elettrica	(°)	W	-	500	-	-	-	800	-	800
Input electric power										
Corrente max	(°)	A	-	3,3	-	-	-	2,4	-	2,4
Max. absorbed current										
Allestimento			1 carrello GN1/1 (1 carrello EN 400x600)				1 carrello GN2/1 (1 carrello EN 600x800)			
Setting up			1 GN1/1 trolley (1 EN trolley 400x600)				1 GN2/1 trolley (1 EN trolley 600x800)			
Dimensioni imballo	LxPxH	mm	2380x1150x1350				2380x1450x1750			
Packing dimensions	[WxDxA]	[in]	[93.7x45.3x53.1]				[93.7x57.1x68.9]			
Volume		m³	2,81				5,75			
Volume		ft³	147,6				206,9			
Peso netto	kg [net lb]		310 [683]				400 [838]			
Weight	lordo kg [gross lb]		390 [860]				520 [1058]			

### UNITÀ REMOTE / REMOTE UNITS (a=a ir w=water)

UMC	cod.	990543 a	990545 a	990544 a	990546 a	990547 a	990549 a	990548 a	990550 a	
Remote Unit		990557 w	990559 w	990558 w	990560 w	990561 w	990563 w	990562 w	990564 w	
Refrigerante / Refrigerant	gas	R404A				R404A				
Capacità refrigerazione	(*)	6420 a	5970 a	9620 a	6750 a	11030 a	9650 a	15730 a	12100 a	
Refrigeration capacity		8790 w	8506 w	6027 w	8840 w	13190 w	11780 w	17580 w	13926 w	
Alimentazione elettrica		4000/3/50				400/3/50				
Electric power supply	V~/Hz									
Potenza elettrica	(°)	3330 a	4220 a	4740 a	4960 a	4820 a	6650 a	7630 a	8470 a	
Input electric power		5647 w	6411 w	6176 w	7176 w	7176 w	7176 w	10294 w	10000 w	
Potenza / Rated output	HP	3 a	4 a	4 a	5 a	5 a	7,5 a	7,5 a	10 a	
Corrente max	(°)	9,6 a/w	10,9 a/w	10,9 a	12,2 a/w	12,2 a/w	17,0 a	17,0 a	21,0 a	
Max. absorbed current				10,5 w			12,2 w	17,5 w	17,0 w	
Peso net	kg	92a 91w	119a 116w	120a 93w	121a 121w	138a 121w	186a 125w	141a 124w	194a 163w	
Net weight	lb	203a 201w	262a 256w	265a 205w	267a 267w	304a 267w	410a 276w	311a 273w	428a 359w	
Dimensioni - a	LxPxH	mm	935x700x575		1004x700x650		1004x700x650		1370x950x785	
Dimensions - a	[WxDxA]	[in]	[36.8x27.6x22.6]		[39.5x27.6x25.6]		[39.5x27.6x25.6]		[53.9x37.4x30.9]	
Dimensioni - w	LxPxH	mm	910x330x623		910x327x624		910x330x630		910x327x624	
Dimensions - w	[WxDxA]	[in]	[35.8x13x24.5]		[35.8x12.9x24.6]		[35.8x13x24.8]		[35.8x12.9x24.6]	

### ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max	m	20				20			
Connections - max distance	[ft]	[66]				[66]			
Cavi elettrici / Electrical cables	n° x mm²	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes	Ø mm [in/SAE]	12 [1/2]	12 [1/2]	12 [1/2]	14 [9/16]	14 [9/16]	16 [5/8]	16 [5/8]	18 [3/4]
Tubi gas / Gas tubes	Ø mm [in/SAE]	22 [7/8]	28 [1" 1/16]	28 [1" 1/16]	28 [1" 1/16]	28 [1" 1/16]	35 [1" 3/8]	35 [1" 3/8]	42 [1" 5/8]
Conness. idrica UMC ad acqua	Ø pollici	out coil 3/4 → 1/2 conn. H2O				out coil 3/4 → 1/2 conn. H2O			
Drain connection water UMC									
Consumo max acqua	(■) l/min	9,4	9,9	13,9	11,3	15,4	15,8	22,6	19,9
Max water consumption									
Tubi scarico	Ø mm	32	32	32	32	32	32	32	32
Drain tubes	Ø [in]	[1.3]	[1.3]	[1.3]	[1.3]	[1.3]	[1.3]	[1.3]	[1.3]
Set LP-HP (differenziale)	bar	0 (0.5) - 26 (3)				0 (0.5) - 26 (3)			
LP-HP set (differential)									
Parzializzazione ventilat. HP (diff.)	bar	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)	14 (2)
Fans choking HP (diff.)									

mod. \_\_C\_\_ (\*) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
 mod. \_\_F\_\_ (\*) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C





## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			--C202 (PC202) DP	--F202 (PF202) DP	--C202 (PC202) AP	--F202 (PF202) AP
Dimensioni <i>Dimensions</i>	LxPxH [WxDxA]	mm [in]	1500x1350x2230 / (1600x1450x2430) 2 porte: P → +140 [59.1x53.1x87.8] / [(63x57.1x95.7)] 2 doors: D → [+5.5]			
Profondità con porta 90° <i>Depth with 90° door</i>		mm [in]	2180 / (2280) [85.8] / [(89.8)]			
Larghezza luce porta <i>Door opening width</i>		mm [in]	800 / (900) [31.5] / [(35.4)]			
Luce porta <i>Door opening</i>	LXH [WxA]	mm [in]	770x1920 / (870x2120) [30.3x75.6] / [(34.3x83.5)]			
Profondità interna <i>Internal depth</i>	P [D]	mm [in]	1050 / (1219) [41.3] / [(48)]			
Spessore <i>Thickness</i>		mm [in]	80 [3.1]			
Classe climatica <i>Climatic class</i>			T			
Capacità abbattimento <i>Chilling capacity</i>	90'	kg lb	150 331	150 331	210 463	210 463
Capacità congelamento <i>Freezing capacity</i>	240'	kg lb	-	100 220	-	135 298
Resa oraria in surgelazione <i>Hour yield in freezing</i>		kg/h lb/h	-	(150) (331)	-	(210) (463)
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	11030	9650 (=)	15730	9650 (12100)
Alimentazione elettrica <i>Electric power supply</i>		VI~/Hz	400/3/50 (230/1/50)			
Potenza elettrica <i>Input electric power</i>	(°)	W	800	800 (800)	800	800 (990)
Corrente max <i>Max. absorbed current</i>	(°)	A	2,4	2,4 (2,4)	2,4	2,4 (4,3)
Allestimento <i>Setting up</i>			1 carrello GN2/1 (1 carrello EN 600x800) 1 GN2/1 trolley (1 EN trolley 600x800)			
Dimensioni imballo <i>Packing dimensions</i>	LxPxH [WxDxA]	mm [in]	2330x1450x1650 / (2530x1550x1750) 2 porte: P → +140 [91.7x57.1x65] / [(99.6x61x68.9)] 2 doors: D → [+5.5]			
Volume <i>Volume</i>		m³ ft³	5,86 / (6,50) 206.9 / (229.5)			
Peso <i>Weight</i>	netto kg [net lb] lordo kg [gross lb]		380 [838] / (426) [(939)] 480 [1058] / (547) [(1206)]			

### UNITÀ REMOTE / REMOTE UNITS (a=a ir w=water)

UMC			990547 a	990549 a	990548 a	990550 a
Remote Unit	cod.		990561 w	990563 w	990562 w	990564 w
Refrigerante / Refrigerant	gas		R404A			
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	11030 a 13190 w	9650 a 11780 w	15730 a 17580 w	12100 a 13926 w
Alimentazione elettrica <i>Electric power supply</i>		VI~/Hz	400/3/50			
Potenza elettrica <i>Input electric power</i>	(°)	W	4820 a 7176 w	6650 a 7176 w	7630 a 10294 w	8470 a 10000 w
Potenza / Rated output		HP	5 a	7,5 a	7,5 a	10 a
Corrente max <i>Max. absorbed current</i>	(°)	A	12,2 a/w	17,0 a 12,2 w	17,0 a 17,5 w	21,0 a 17,0 w
Peso net <i>Net weight</i>		kg lb	138 a 121 w 304 a 267 w	186 a 125 w 410 a 276 w	141 a 124 w 311 a 273 w	194 a 163 w 428 a 359 w
Dimensioni - a <i>Dimensions - a</i>	LxPxH [WxDxA]	mm [in]	1004x700x650 [39.5x27.6x25.6]		1370x950x785 [53.9x37.4x30.9]	
Dimensioni - w <i>Dimensions - w</i>	LxPxH [WxDxA]	mm [in]	910x330x630 [35.8x13x24.8]		910x327x624 [35.8x12.9x24.6]	910x405x684 [35.8x15.9x26.9]

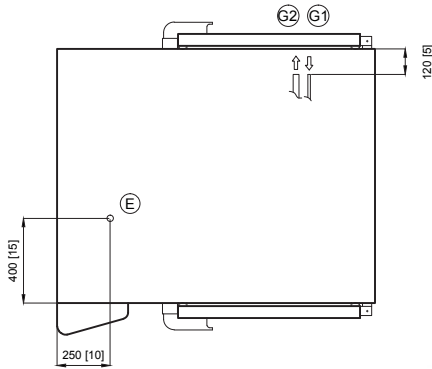
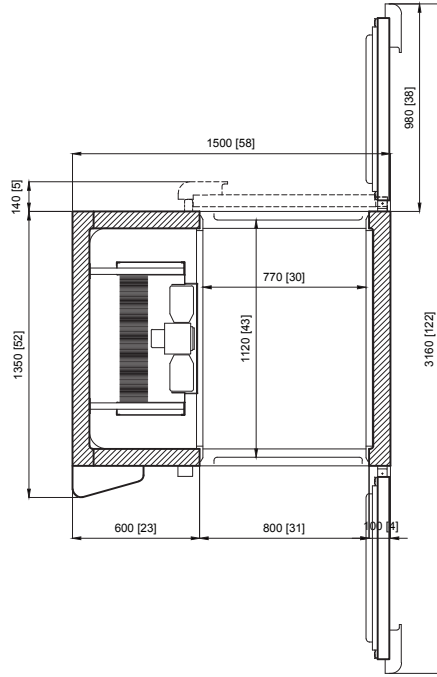
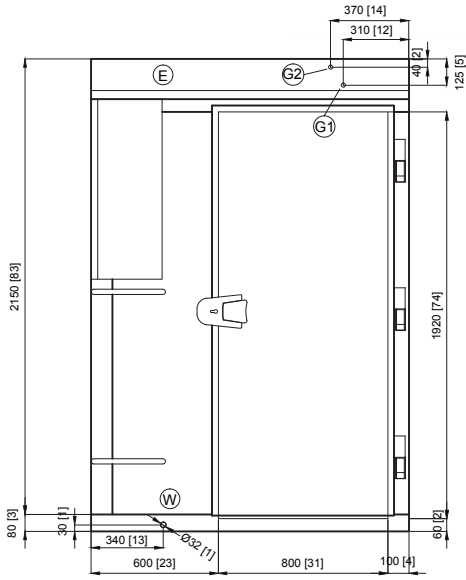
### ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max <i>Connections - max distance</i>	m [ft]	20 [66]			
Cavi elettrici / Electrical cables	n° x mm²	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes	Ø mm [in/SAE]	14 [9/16]	16 [5/8]	16 [5/8]	18 [3/4]
Tubi gas / Gas tubes	Ø mm [in/SAE]	28 [1" 1/16]	35 [1" 3/8]	35 [1" 3/8]	42 [1.7]
Conn. idrica UMC ad acqua <i>Drain connection water UMC</i>	Ø pollici	out coil 3/4 → 1/2 conn. H2O			
Consumo max acqua <i>Max water consumption</i>	(■) l/min	15,4	15,8	22,6	19,9
Tubi scarico <i>Drain tubes</i>	Ø mm [in]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>	bar	0 (0.5) - 26 (3)			
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>	bar	14 (2)	14 (2)	14 (2)	14 (2)

mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

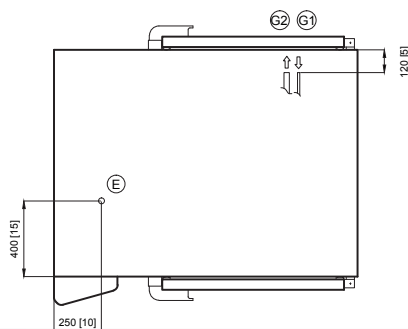
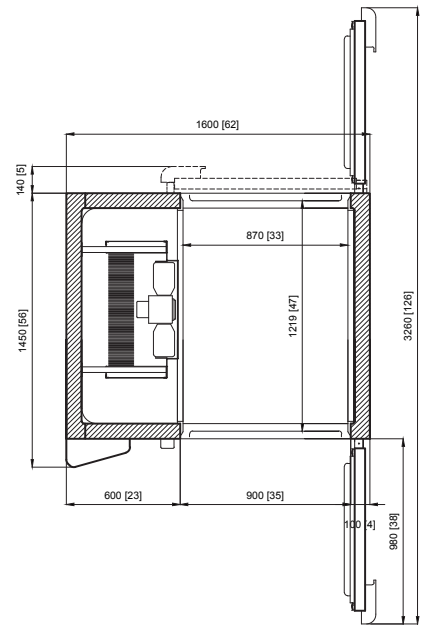
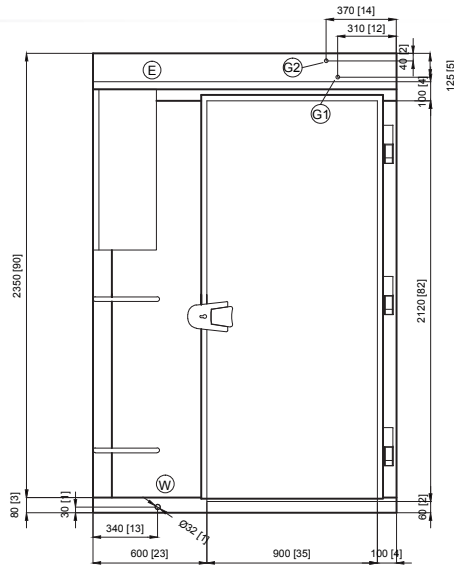
(■) t in = +20°C / t out = +40°C

# Catering



- Ⓜ INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

# Baking



- Ⓜ INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			__C400 (PC400) DP	__F400 (PC400) DP	__C400 (PC400) AP	__F400 (PC400) AP
Dimensioni	LxPxH	mm	1300x1950x2230 / (1400x1950x2430) 2 porte: P → +140			
Dimensions	[WxDxA]	[in]	[51.2x76.8x87.8] / [(55.1x76.8x95.7)] 2 doors: D → [+5.5]			
Profondità con porta 90°		mm	2780			
Depth with 90° door		[in]	[109.4]			
Larghezza luce porta		mm	800 / (900)			
Door opening width		[in]	[31.5] / [(35.4)]			
Luce porta	LXH	mm	770x1920 / [(870x2120)]			
Door opening	[WxA]	[in]	[30.3x75.6] / [(34.3x83.5)]			
Profondità interna	P	mm	1720			
Internal depth	[D]	[in]	[67.7]			
Spessore		mm	80			
Thickness		[in]	[3.1]			
Classe climatica			T			
Climatic class						
Capacità abbattimento	90°	kg	140	140	210	210
Chilling capacity		lb	309	309	463	463
Capacità congelamento	240°	kg	-	96	-	140
Freezing capacity		lb	-	212	-	309
Resa oraria in surgelazione		kg/h	-	(140)	-	(210)
Hour yield in freezing		lb/h	-	(309)	-	(463)
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione	(*)	W	-	-	-	-
Refrigeration capacity						
Alimentazione elettrica		V/~Hz	230/1/50			
Electric power supply						
Potenza elettrica	(°)	W	-	-	-	-
Input electric power						
Corrente max	(°)	A	-	-	-	-
Max. absorbed current						
Allestimento			2 carrelli GN1/1 (2 carrelli EN 400x600) 2 GN1/1 trolleys (2 EN trolleys 400x600)			
Setting up						
Dimensioni imballo	LxPxH	mm	2330x2050x1450 / (2530x2050x1550) 2 porte: P → +140			
Packing dimensions	[WxDxA]	[in]	[91.7x80.7x57.1] / [(99.6x80.7x61)] 2 doors: D → [+5.5]			
Volume		m³	2x4,5			
Volume		ft³	2x158.9			
Peso netto	kg [net lb]		2x340 / [2x750]			
Weight	lardo kg [gross lb]		2x420 / [2x926]			

### UNITÀ REMOTE / REMOTE UNITS ( a=a ir w=water )

UMC			990547 a	990549 a	990548 a	990550 a
Remote Unit	cod.		990561 w	990563 w	990562 w	990564 w
Refrigerante / Refrigerant	gas		R404A			
Capacità refrigerazione	(*)	W	11030 a	9650 a	15730 a	12100 a
Refrigeration capacity			13190 w	11780 w	17580 w	13926 w
Alimentazione elettrica		V/~Hz	400/3/50			
Electric power supply						
Potenza elettrica	(°)	W	4820 a	6650 a	7630 a	8470 a
Input electric power			7176 w	7176 w	10294 w	10000 w
Potenza / Rated output		HP	5 a	7,5 a	7,5 a	10 a
Corrente max	(°)	A	12,2 a/w	17,0 a	17,0 a	21,0 a
Max. absorbed current				12,2 w	17,5 w	17,0 w
Peso net	kg		138 a 121 w	186 a 125 w	141 a 124 w	194 a 163 w
Net weight	lb		304 a 267 w	410 a 276 w	311 a 273 w	428 a 359 w
Dimensioni - a	LxPxH	mm	1004x700x650			
Dimensions - a	[WxDxA]	[in]	[39.5x27.6x25.6]			
Dimensioni - w	LxPxH	mm	910x327x624			
Dimensions - w	[WxDxA]	[in]	[35.8x12.9x24.6]			
			1370x950x785			
			[53.9x37.4x30.9]			
			910x405x684			
			[35.8x15.9x26.9]			

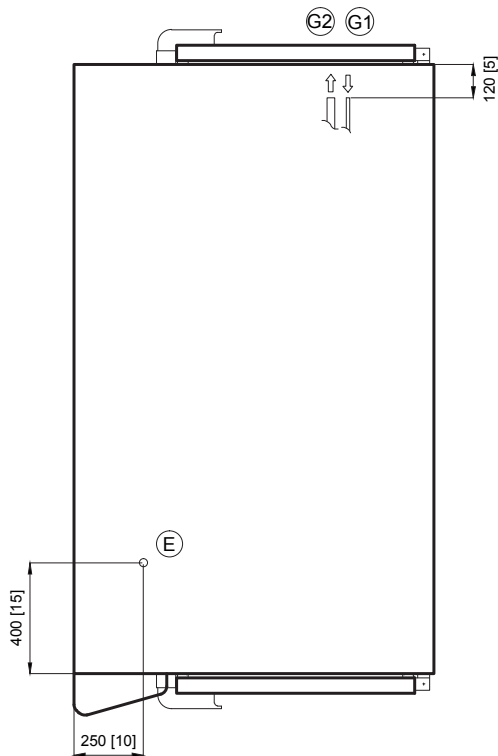
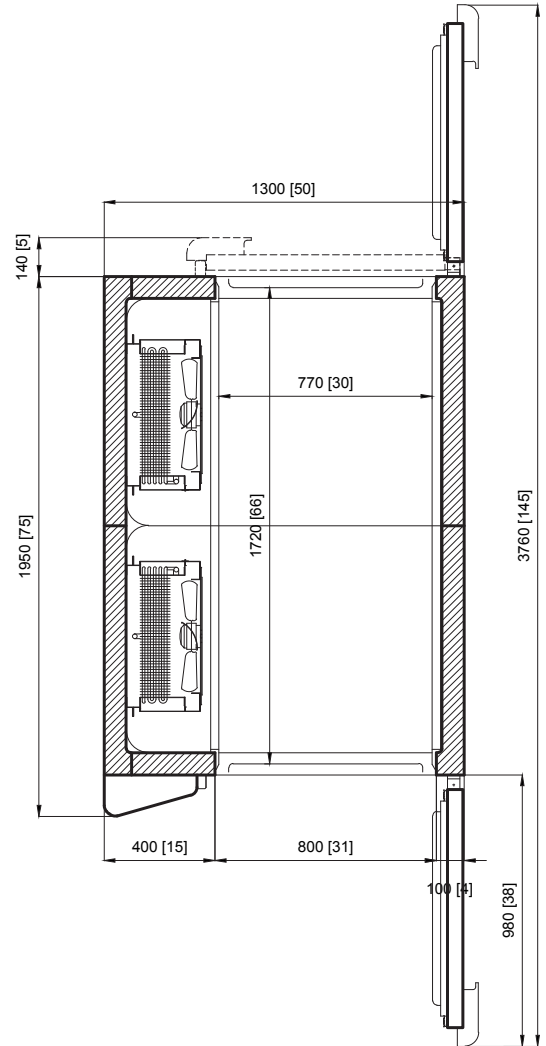
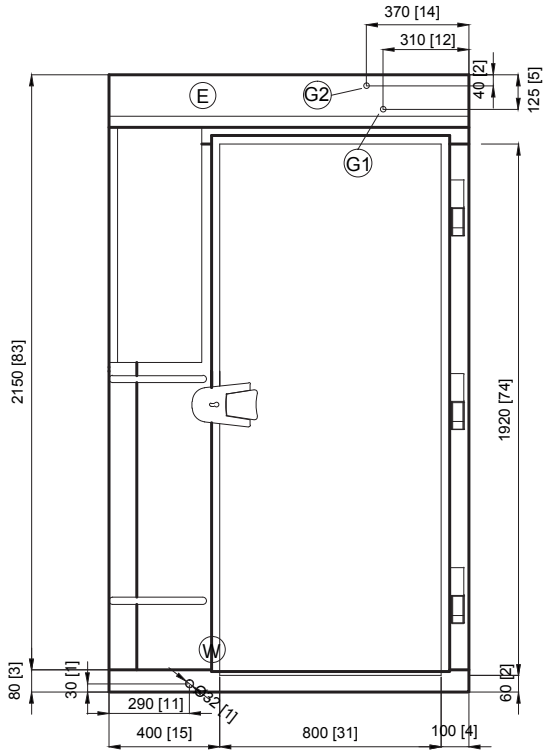
### ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max	m	20			
Connections - max distance	[ft]	[66]			
Cavi elettrici / Electrical cables	n° x mm²	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes	Ø mm [in/SAE]	14 [9/16]	16 [5/8]	16 [5/8]	18 [3/4]
Tubi gas / Gas tubes	Ø mm [in/SAE]	28 [1" 1/16]	35 [1" 3/8]	35 [1" 3/8]	42 [1" 5/8]
Conn. idrica UMC ad acqua	Ø pollici	out coil 1 → 1/2 conn. H2O			
Drain connection water UMC					
Consumo max acqua	(■) l/min	15,4	15,8	22,6	19,9
Max water consumption					
Tubi scarico	Ø mm	32	32	32	32
Drain tubes	Ø [in]	[1.3]	[1.3]	[1.3]	[1.3]
Set LP-HP (differenziale)	bar	0 (0.5) - 26 (3)			
LP-HP set (differential)					
Parzializzazione ventilat. HP (diff.)	bar	14 (2)	14 (2)	14 (2)	14 (2)
Fans choking HP (diff.)					

mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
 mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C

# Catering



- (G1) INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - (G2) USCITA REFRIGERANTE  
REFRIGERANT OUTLET
  - (E) CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - (W) CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			--C401 (PC401) DP	--F401 (PF401) DP	--C401 (PC401) AP	--F401 (PF401) AP
Dimensioni <i>Dimensions</i>	LxPxH [WxDxA]	mm [in]	1200x1950x2230 / (1200x1749x2430) 2 porte: P → +140 [47.2x76.8x87.8] / [(42.7x68.9x95.7)] 2 doors: D → [+5.5]			
Profondità con porta 90° <i>Depth with 90° door</i>		mm [in]	2680 / (2480) [105.5] / [(97.6)]			
Larghezza luce porta <i>Door opening width</i>		mm [in]	700 [27.6]			
Luce porta <i>Door opening</i>	LXH [WxA]	mm [in]	670x1920 / (670x2120) [26.4x75.6] / [(26.4x83.5)]			
Profondità interna <i>Internal depth</i>	P [D]	mm [in]	1720 / (1520) [67.7] / [(59.8)]			
Spessore <i>Thickness</i>		mm [in]	80 [3.1]			
Classe climatica <i>Climatic class</i>			T			
Capacità abbattimento <i>Chilling capacity</i>	90'	kg lb	140 309	140 309	210 463	210 463
Capacità congelamento <i>Freezing capacity</i>	240'	kg lb	-	96 212	-	140 309
Resa oraria in surgelazione <i>Hour yield in freezing</i>		kg/h lb/h	-	(140) (309)	-	(210) (463)
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione <i>Refrigeration capacity</i>	(*) W		-	-	-	12100
Alimentazione elettrica <i>Electric power supply</i>	V/~Hz		230/1/50			
Potenza elettrica <i>Input electric power</i>	(°) W		-	-	-	1100
Corrente max <i>Max. absorbed current</i>	(°) A		-	-	-	7,4
Allestimento <i>Setting up</i>			2 carrelli GN1/1 (2 carrelli EN 400x600) 2 GN1/1 trolleys (2 EN trolleys 400x600)			
Dimensioni imballo <i>Packing dimensions</i>	LxPxH [WxDxA]	mm [in]	2330x2050x1350 / (2530x1849x1350) 2 porte: P → +140 [91.7x80.7x53.1] / [99.6x72.8x53.1] 2 doors: D → [+5.5]			
Volume <i>Volume</i>		m³ ft³	2x4,18 / (2x4,70) 2x147.6 / (2x166)			
Peso netto <i>Weight</i>	kg [net lb]		2x320 [2x705] / (2x350) [(2x772)]			
	kg [gross lb]		2x400 [2x882] / (2x430) [(2x948)]			

### UNITÀ REMOTE / REMOTE UNITS (a=a ir w=water)

UMC Remote Unit			cod.	990547 a 990561 w	990549 a 990563 w	990548 a 990562 w	990550 a 990564 w	
Refrigerante / Refrigerant		gas	R404A					
Capacità refrigerazione <i>Refrigeration capacity</i>	(*) W		11030 a 13190 w	9650 a 11780 w	15730 a 17580 w	12100 a 13926 w		
Alimentazione elettrica <i>Electric power supply</i>		V/~Hz	400/3/50					
Potenza elettrica <i>Input electric power</i>	(°) W		4820 a 7176 w	6650 a 7176 w	7630 a 10294 w	8470 a 10000 w		
Potenza / Rated output		HP	5 a	7,5 a	7,5 a	10 a		
Corrente max <i>Max. absorbed current</i>	(°) A		12,2 a/w	17,0 a 12,2 w	17,0 a 17,5 w	21,0 a 17,0 w		
Peso net <i>Net weight</i>		kg lb	138 a 121 w 304 a 267 w	186 a 125 w 410 a 276 w	141 a 124 w 311 a 273 w	194 a 163 w 428 a 359 w		
Dimensioni - a <i>Dimensions - a</i>	LxPxH [WxDxA]	mm [in]	1004x700x650 [39.5x27.6x25.6]				1370x950x785 [53.9x37.4x30.9]	
Dimensioni - w <i>Dimensions - w</i>	LxPxH [WxDxA]	mm [in]	910x330x630 [35.8x13x24.8]	910x327x624 [35.8x12.9x24.6]		910x405x684 [35.8x15.9x26.9]		

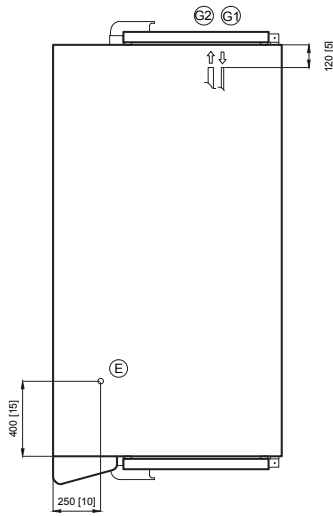
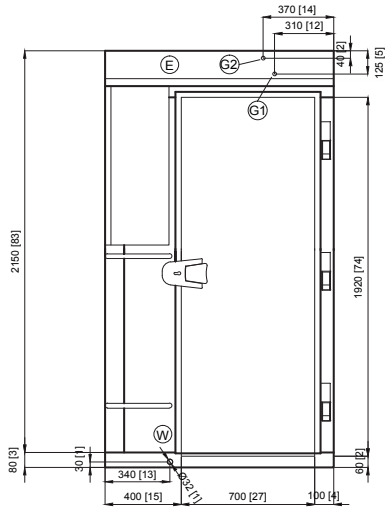
### ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max <i>Connections - max distance</i>		m [ft]	20 [66]			
Cavi elettrici / Electrical cables		n° x mm²	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes		Ø mm [in/SAE]	14 [9/16]	16 [5/8]	16 [5/8]	18 [3/4]
Tubi gas / Gas tubes		Ø mm [in/SAE]	28 [1" 1/16]	35 [1" 3/8]	35 [1" 3/8]	42 [1" 5/8]
Connessione idrica UMC ad acqua <i>Drain connection water UMC</i>		Ø pollici	out coil 1 → 1/2 conn. H2O			
Consumo max acqua <i>Max water consumption</i>	(■) l/min		15,4	15,8	22,6	19,9
Tubi scarico <i>Drain tubes</i>		Ø mm [in]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>		bar	0 (0.5) - 26 (3)			
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>		bar	14 (2)	14 (2)	14 (2)	14 (2)

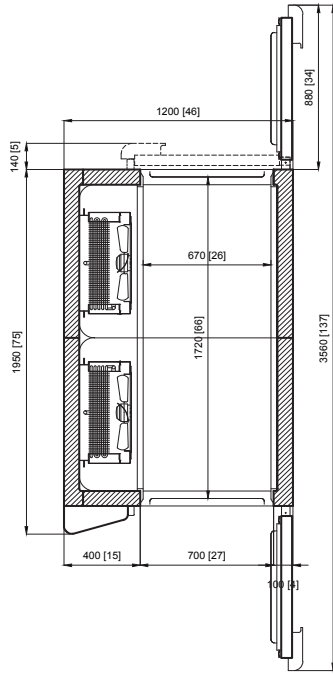
mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
 mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C

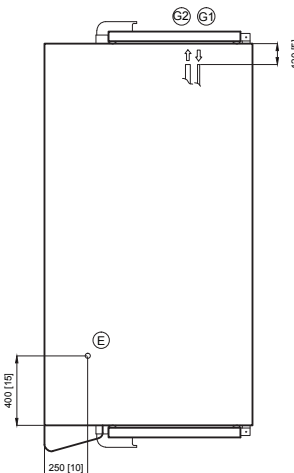
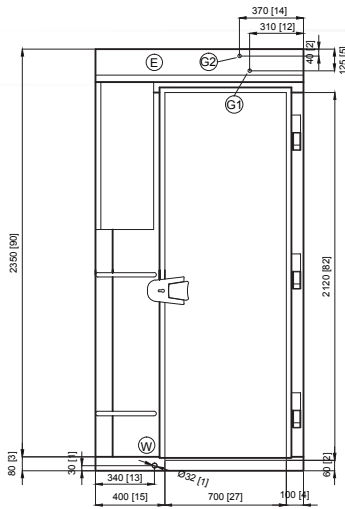
# Catering



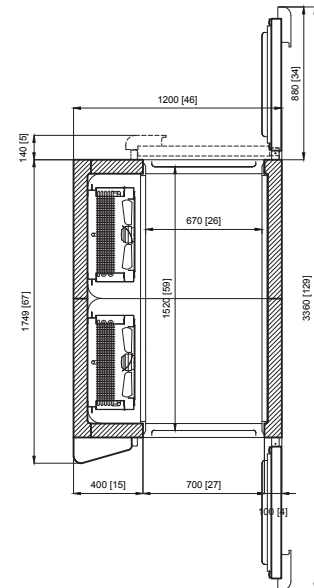
- Ⓜ INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓝ USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓦ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]



# Baking



- Ⓜ INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓝ USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓦ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]



## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			--_C402 (PC402) DP	--_F402 (PF402) DP	--_C402 (PC402) AP	--_F402 (PF402) AP
Dimensioni Dimensions	LxPxH [WxDxA]	mm [in]	1500x2350x2230 / (1600x2550x2430) 2 porte: P → +140 [59.1x92.5x87.8] / [(63x100.4x95.7)] 2 doors: D → [+5.5]			
Altezza pavimento Floor height	H [A]	mm [in]	80 [3.1]			
Dimensioni interne nette Internal net dimensions	LxPxH [WxDxA]	mm [in]	770x2120x1920 / (870x2320x2120) [30.3x83.5x75.6] / [(34.3x91.3x83.5)]			
Profondità con porta 90° Depth with 90° door	mm [in]		3180 / (3380) [125.2] / [(133.1)]			
Larghezza luce porta Door opening width	mm [in]		800 / (900) [31.5] / [(35.4)]			
Luce porta Door opening	LXH [WxA]	mm [in]	770x1920 / (870x2120) [30.3x75.6] / [(34.3x83.5)]			
Profondità interna Internal depth	P [D]	mm [in]	2120 / (2320) [83.5] / [(91.3)]			
Spessore isolamento Insulation thickness	mm [in]		80 [3.1]			
Classe climatica Climatic class			T			
Capacità abbattimento Chilling capacity	90' kg lb		300 661	300 661	420 926	420 926
Capacità congelamento Freezing capacity	240' kg lb		-	200 441	-	270 595
Resa oraria in surgelazione Hour yield in freezing	kg/h lb/h		-	(300) (661)	-	(420) (926)
Refrigerante / Refrigerant	gas		R404A			
Capacità refrigerazione Refrigeration capacity	(*) W		19900	16290	-	19900
Alimentazione elettrica Electric power supply	V~/Hz		400/3/50 (230/1/50)			
Potenza elettrica Input electric power	(°) W		700	1600 (-)	-	1600 (-)
Corrente max Max. absorbed current	(°) A		4,2	4,8 (-)	-	4,8 (-)
Allestimento Setting up			2 carrelli GN2/1 (2 carrelli EN 600x800) 2 GN2/1 trolleys (2 EN trolleys 600x800)			
Peso Netto Net weigh	kg lb		-	640 1411	-	640 1411
Volume netto Net volume	m³ ft³		-	7,8 275.5	-	8,4 296.6
Dimensioni imballo Packing dimensions	LxPxH [WxDxA]	mm [in]	2330x2450x1650 / (2530x2650x1750) 2 porte: P → +140 [91.7x96.5x65] / [(99.6x104.3x68.9)] 2 doors: D → [+5.5]			

### UNITÀ REMOTE / REMOTE UNITS (a=a ir w=water)

UMC Remote Unit	cod.		990551 a 990565 w	990553 a 990567 w	990552 a 990566 w	990554 a 990568 w
Refrigerante / Refrigerant	gas		R404A			
Capacità refrigerazione Refrigeration capacity	(*) W		19900 a 23650 w	16290 a 19420 w	26720 a 26176 w	19920 a 26420 w
Alimentazione elettrica Electric power supply	V~/Hz		400/3/50			
Potenza elettrica Input electric power	(°) W		8520 a 8480 w	12860 a 12352 w	12860 a 14241 w	13680 a 18230 w
Potenza / Rated output	HP		10 a	15 a	15 a	20 a
Corrente max Max. absorbed current	(°) A		21 a 17,5 w	31 a 21 w	31 a 21 w	37 a 31 w
Peso net Net weight	kg lb		127 a 165 w 483 a 364 w	229 a 168 w 505 a 370 w	225 a 195 w 496 a 430 w	251 a 240 w 553 a 529 w
Dimensioni - a Dimensions - a	LxPxH [WxDxA]	mm [in]	1520x950x960 [59.8x37.4x37.8]			
Dimensioni - w Dimensions - w	LxPxH [WxDxA]	mm [in]	910x405x684 [35.8x15.9x26.9]		1610x465x795 [63.4x18.3x31.3]	

### ALLACCIAMENTI / CONNECTIONS

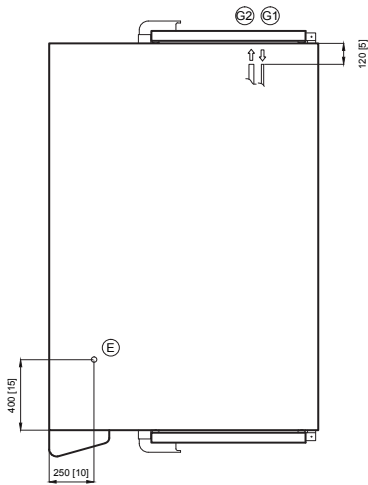
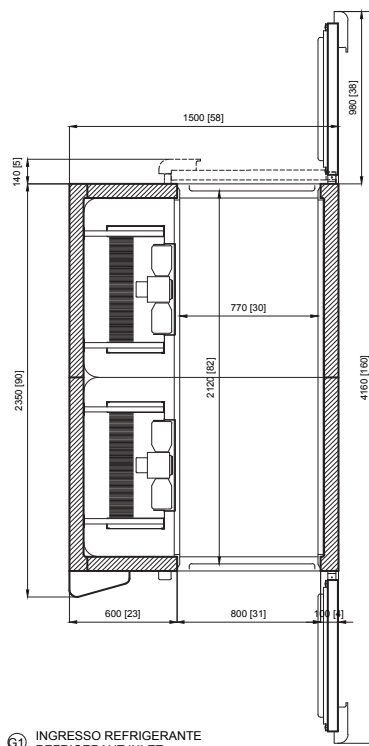
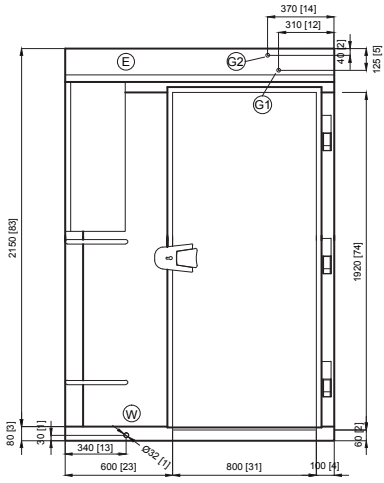
Allacciamenti - distanza max Connections - max distance	m [ft]		20 [66]			
Cavi elettrici / Electrical cables	n° x mm²		5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes	Ø mm [in/SAE]		16 [5/8]	18 [3/4]	18 [3/4]	22 [7/8]
Tubi gas / Gas tubes	Ø mm [in/SAE]		35 [1" 3/8]	42 [1" 5/8]	42 [1" 5/8]	54 [2" 2/16]
Connessione idrica UMC ad acqua Drain connection water UMC	Ø pollici		out coil 1 → 1/2 conn. H2O			
Consumo max acqua Max water consumption	(■) l/min		27,5	28,5	38,4	32,6
Tubi scarico Drain tubes	Ø mm Ø [in]		32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]
Set LP-HP (differenziale) LP-HP set (differential)	bar		0 (0.5) - 26 (3)			
Parzializzazione ventilat. HP (diff.) Fans choking HP (diff.)	bar		14 (2)	14 (2)	14 (2)	14 (2)

mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

(■) t in = +20°C / t out = +40°C

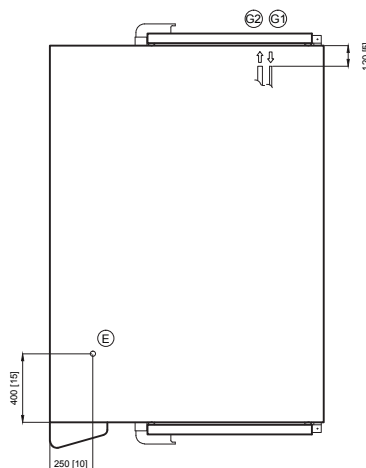
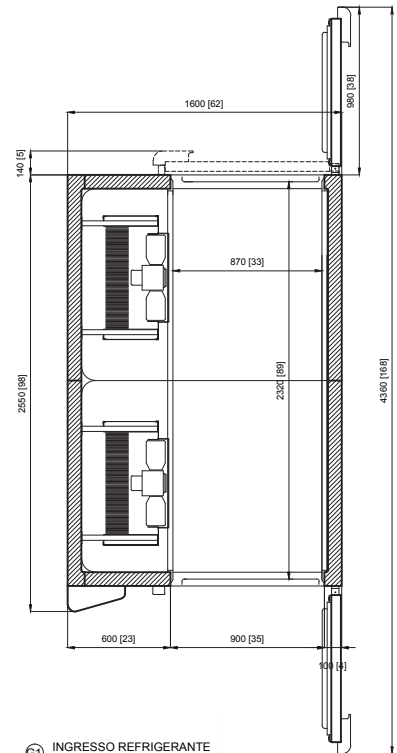
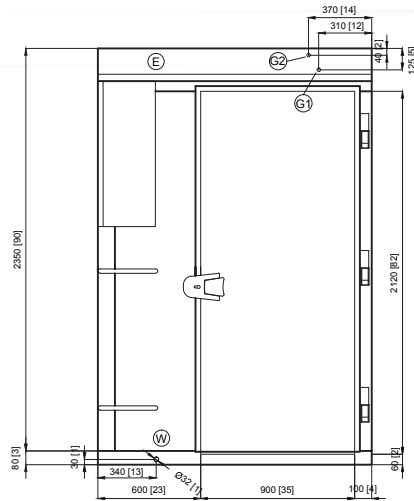


# Catering



- Ⓜ1 INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ2 USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

# Baking



- Ⓜ1 INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - Ⓜ2 USCITA REFRIGERANTE  
FERIGERANT OUTLET
  - Ⓜ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓜ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

## ABBATTITORE / CONGELATORE BLAST CHILLER / SHOCK FREEZER

Modello / model Controllo / control			--C602 (PC602) DP	--F602 (PF602) DP	--C602 (PC602) AP	--F602 (PF602) AP
Dimensioni <i>Dimensions</i>	LxPxH [WxDxA]	mm [in]	1500x3350x2230 / (1600x3650x2430) 2 porte: P → +140 [59.1x131.9x87.8] / [(63x143.7x95.7)] 2 doors: D → [+5.5]			
Profondità con porta 90° <i>Depth with 90° door</i>		mm [in]	4180 / (4480) [164.6] / [(176.4)]			
Larghezza luce porta <i>Door opening width</i>		mm [in]	800 / (900) [31.5] / [(35.4)]			
Luce porta <i>Door opening</i>	LXH [WxA]	mm [in]	770x1920 / (870x2120) [30.3x75.6] / [(34.3x83.5)]			
Profondità interna <i>Internal depth</i>	P [D]	mm [in]	3120 / (3420) [122.8] / [(134.6)]			
Spessore <i>Thickness</i>		mm [in]	80 [3.1]			
Classe climatica <i>Climatic class</i>			T			
Capacità abbattimento <i>Chilling capacity</i>	90°	kg lb	450 992	450 992	630 1389	630 1389
Capacità congelamento <i>Freezing capacity</i>	240°	kg lb	-	300 661	-	405 893
Resa oraria in surgelazione <i>Hour yield in freezing</i>		kg/h lb/h	-	(450) (992)	-	(630) (1389)
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W		24620		27950
Alimentazione elettrica <i>Electric power supply</i>		V/~ / Hz	400/3/50 (230/1/50)			
Potenza elettrica <i>Input electric power</i>	(°)	W	-	2400 (-)	-	2400 (-)
Corrente max <i>Max. absorbed current</i>	(°)	A	-	7,2 (-)	-	7,2 (-)
Allattamento <i>Setting up</i>			3 carrelli GN2/1 (3 carrelli EN 600x800) 3 GN2/1 trolley s (3 EN trolleys 600x800)			
Dimensioni imballo <i>Packing dimensions</i>	LxPxH [WxDxA]	mm [in]	2330x3450x1650 / (2530x3750x1750) 2 porte: P → +140 [91.7x135.8x65] / [(99.6x147.6x68.9)] 2 doors: D → [+5.5]			
Volume <i>Volume</i>		m³ ft³	3x5,86 (3X6,50) 3x206.9 (3x229.5)			
Peso netto <i>Weight</i>	kg [net lb]		3x380 [3x838] / (3X410) [(3x904)]			
	lordo kg [gross lb]		3x480 [3x1058] / (3X510) [(3x1124)]			

### UNITÀ REMOTE / REMOTE UNITS (a=a ir w=water)

UMC			990552 a	990554 a	990555 a	990556 a
Remote Unit	cod.		990566 w	990568 w	990569 w	990570 w
Refrigerante / Refrigerant		gas	R404A			
Capacità refrigerazione <i>Refrigeration capacity</i>	(*)	W	24196 a 24620 w	19920 a 26420 w	31880 a 37533 w	24620 a 39780 w
Alimentazione elettrica <i>Electric power supply</i>		V/~ / Hz	400/3/50			
Potenza elettrica <i>Input electric power</i>	(°)	W	18234 a 17250 w	13680 a 18234 w	16220 a 25100 w	17250 a 26470 w
Potenza / Rated output		HP	15 a	20 a	25 a	30 a
Corrente max <i>Max. absorbed current</i>	(°)	A	31 a 45 w	37 a 31 w	45 a 37 w	45 a/w
Peso net <i>Net weight</i>		kg lb	225 a 168 w 496 a 370 w	251 a 240 w 553 a 529 w	281 a 201 w 619 a 443 w	391 a 296 w 862 a 653 w
Dimensioni - a <i>Dimensions - a</i>	LxPxH [WxDxA]	mm [in]	1520x950x960 [59.8x37.4x37.8]			
Dimensioni - w <i>Dimensions - w</i>	LxPxH [WxDxA]	mm [in]	910x405x684 [35.8x15.9x26.9]	1610x465x795 [63.4x18.3x31.3]	1610x405x690 [63.4x15.9x27.2]	1610x512x845 [63.4x20.2x33.3]

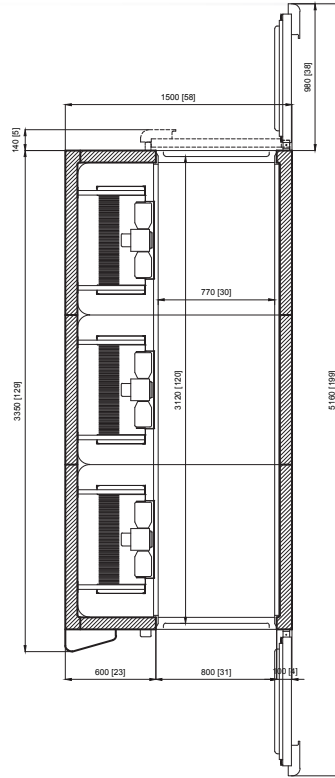
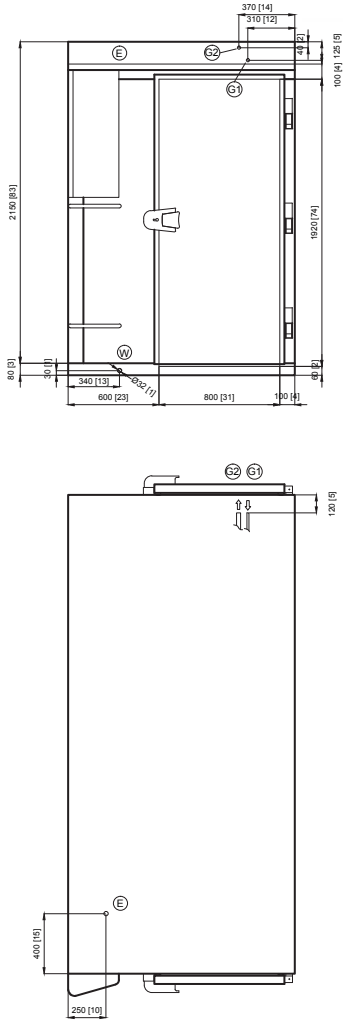
### ALLACCIAMENTI / CONNECTIONS

Allacciamenti - distanza max <i>Connections - max distance</i>		m [ft]	20 [66]			
Cavi elettrici / Electrical cables		n° x mm²	5 x 1,5	5 x 1,5	5 x 1,5	5 x 1,5
Tubi liquido / Liquid tubes		Ø mm [in/SAE]	22 [7/8]	22 [7/8]	22 [7/8]	28 [1" 1/16]
Tubi gas / Gas tubes		Ø mm [in/SAE]	42 [1" 5/8]	54 [2" 2/16]	54 [2" 2/16]	64 [2" 1/2]
Connessione idrica UMC ad acqua <i>Drain connection water UMC</i>		Ø pollici	out coil 1 → 1/2 conn. H2O			
Consumo max acqua <i>Max water consumption</i>	(■)	l/min	38,4	40,6	46,6	47,8
Tubi scarico <i>Drain tubes</i>		Ø mm Ø [in]	32 [1.3]	32 [1.3]	32 [1.3]	32 [1.3]
Set LP-HP (differenziale) <i>LP-HP set (differential)</i>		bar	0 (0.5) - 26 (3)			
Parzializzazione ventilat. HP (diff.) <i>Fans choking HP (diff.)</i>		bar	14 (2)	14 (2)	14 (2)	14 (2)

mod. \_\_C\_\_ (°) Temp. evap. -10°C Temp. cond. +45°C / (°) Temp. evap. 0°C Temp. cond. +55°C  
mod. \_\_F\_\_ (°) Temp. evap. -25°C Temp. cond. +45°C / (°) Temp. evap. -10°C Temp. cond. +55°C

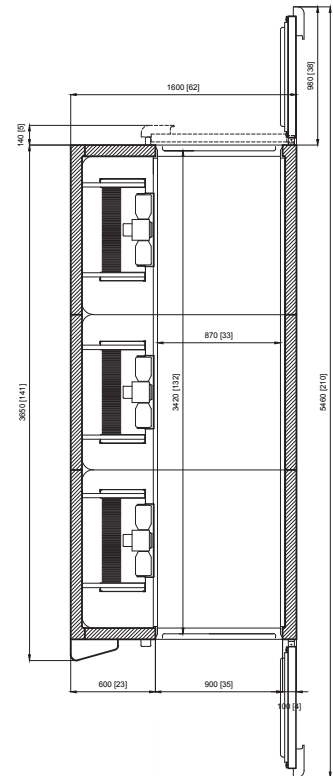
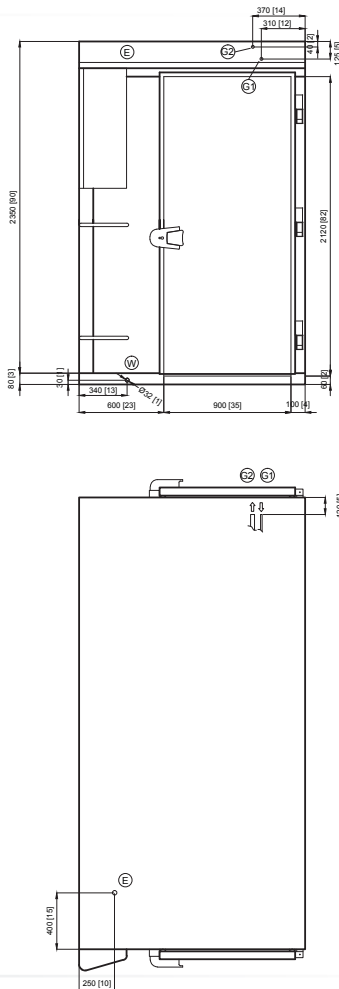
(■) t in = +20°C / t out = +40°C

# Catering



- ⓔ1 INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - ⓔ2 USCITA REFRIGERANTE  
REFRIGERANT OUTLET
  - ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓦ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

# Baking

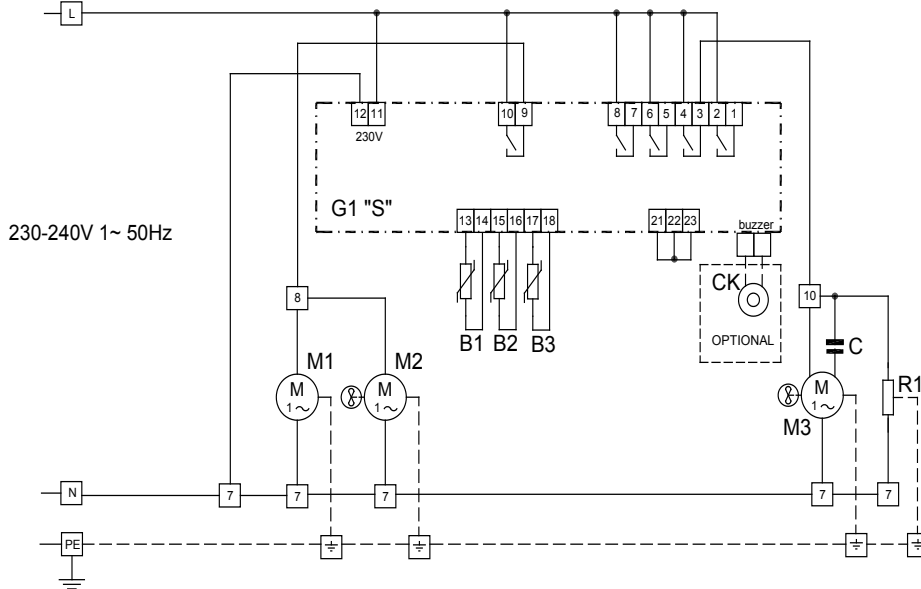


- ⓔ1 INGRESSO REFRIGERANTE  
REFRIGERANT INLET
  - ⓔ2 USCITA REFRIGERANTE  
REFRIGERANT OUTLET
  - ⓔ CONNESSIONE ELETTRICA  
ELECTRICAL CONNECTION
  - Ⓦ CONNESSIONE IDRICA  
DRAIN CONNECTION
- DIMENSIONI mm  
DIMENSIONS [in]

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# \_\_ F 030-031 AF

230/1~/50 Hz



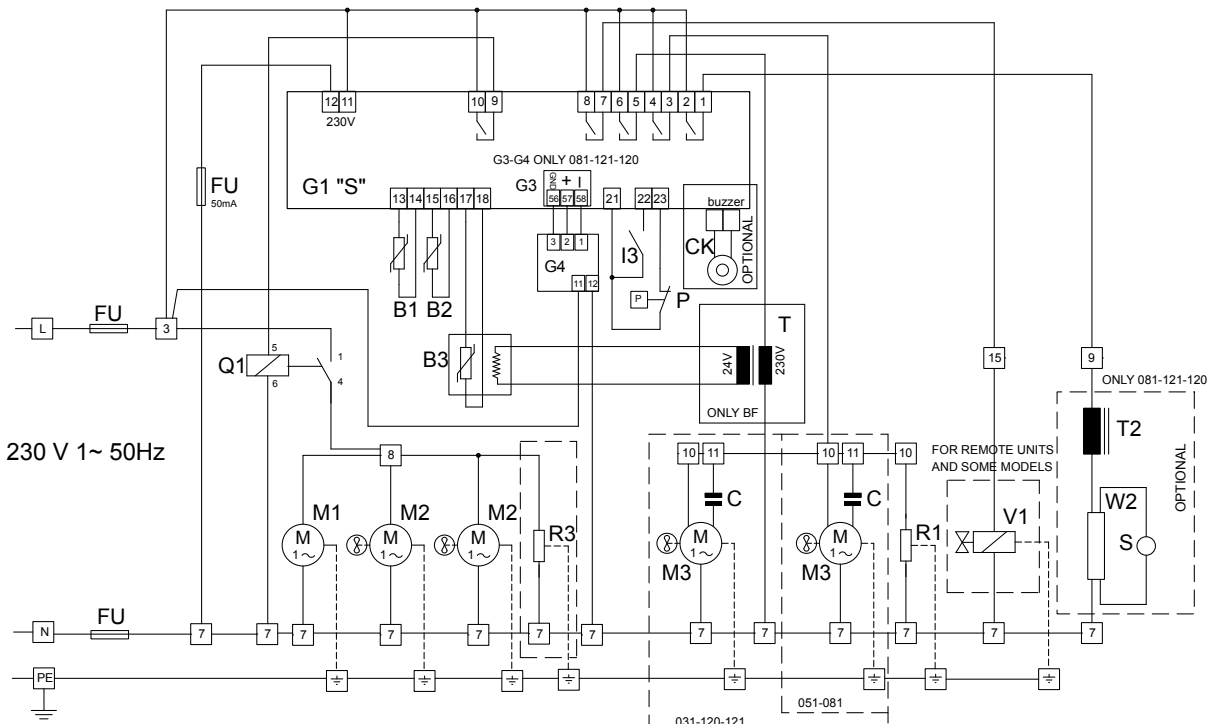
711.829.0

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# \_\_ C/ \_\_ F 031-051-081 AF/DF • GF 06-12-15 AF

# \_\_ C/ \_\_ F 121-120 DF • \_\_ RC/ \_\_ RF 121-120 DF

230/1~/50 Hz



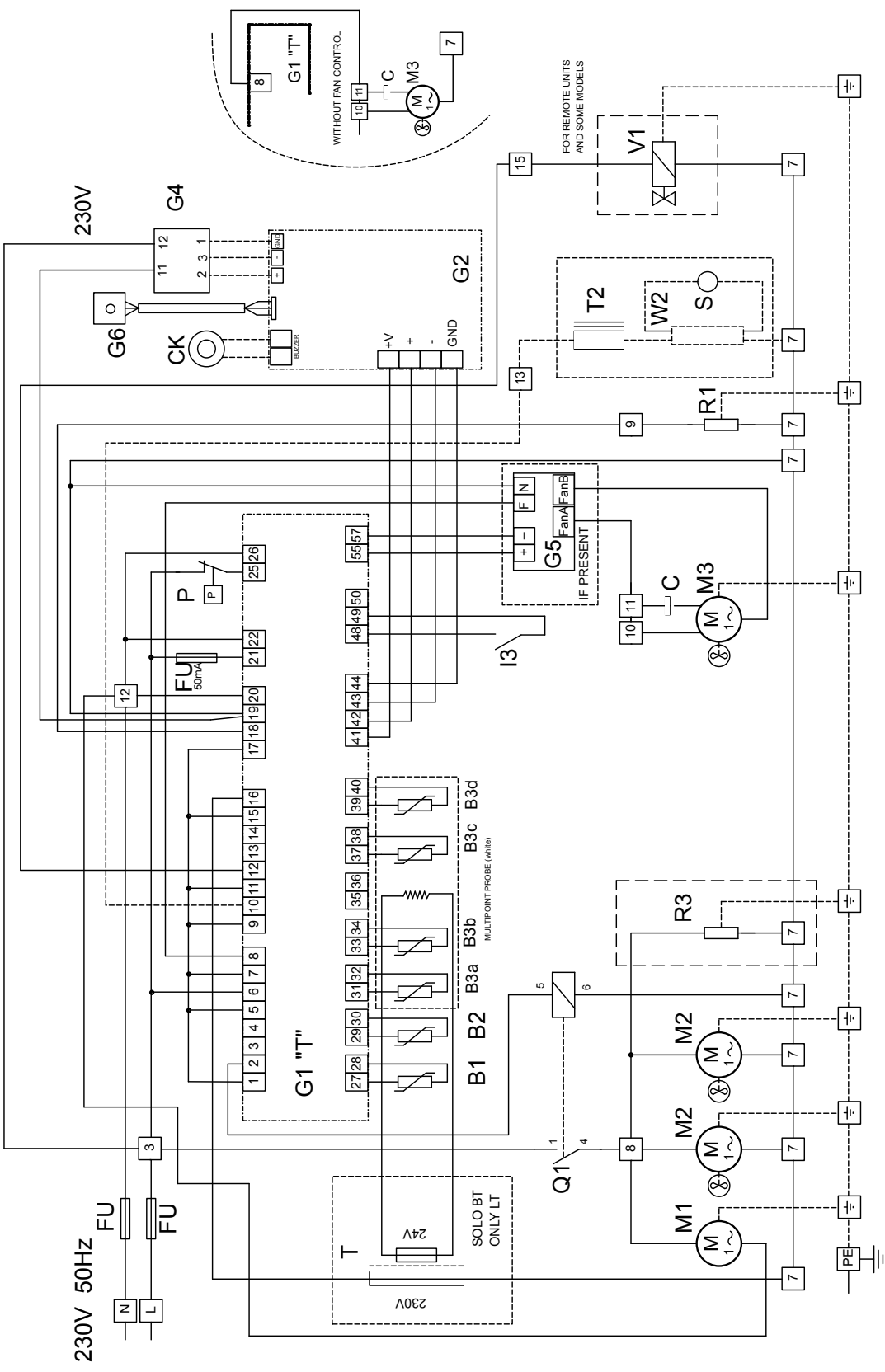
711.817.2

V1:  
 Solenoide montato di serie su predisposti e su alcuni modelli motorizzati  
 Solenoids that are installed standard on pre-set and some motorised models.  
 Bei dafür vorbereiteten und einigen motorisierten Modellen serienmäßig installierte Zylinderspule  
 Solénoïde de série sur modèles préinstallés et sur certains modèles motorisés  
 Solenoïde montado de serie en los modelos preparados y en algunos modelos motorizados

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# \_\_C/\_\_F 081 AP

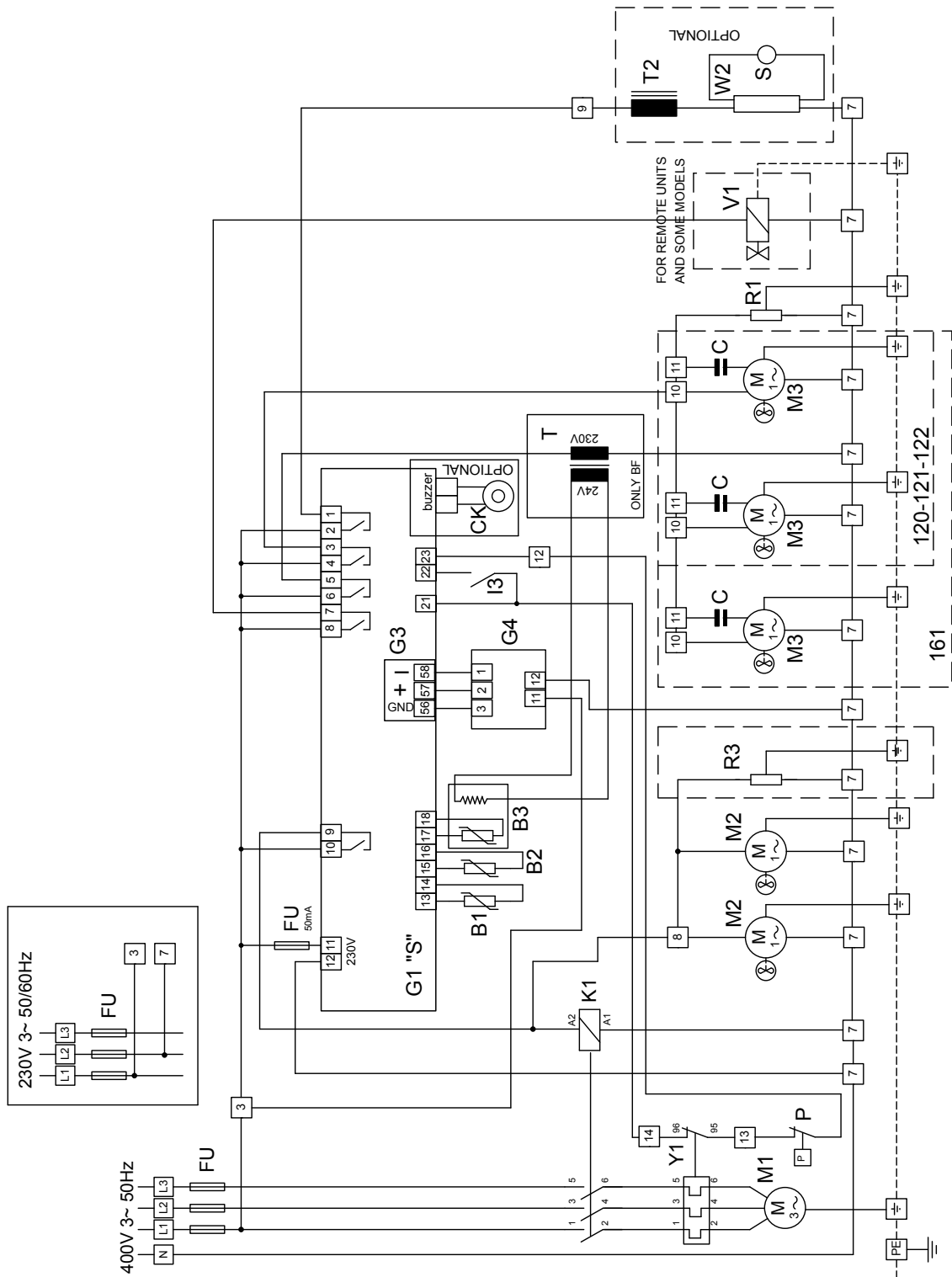
230/1~/50 Hz



V1:  
 Solenoide montato di serie su predisposti e su alcuni modelli motorizzati  
 Solenoids that are installed standard on pre-set and some motorised models.  
 Bei dafür vorbereiteten und einigen motorisierten Modellen serienmäßig installierte Zylinderspule  
 Solenoïde de série sur modèles préinstallés et sur certains modèles motorisés  
 Solenoïde montado de serie en los modelos preparados y en algunos modelos motorizados

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

**\_\_C/\_\_F 120-121 AF • \_\_RC/\_\_RF 120-121 AF**  
**\_\_C/\_\_F 122 DF • \_\_RC/\_\_RF 122 DF**  
**\_\_C/\_\_F 161 AF/DF • GF 21 AF**  
 400/3~/50 Hz

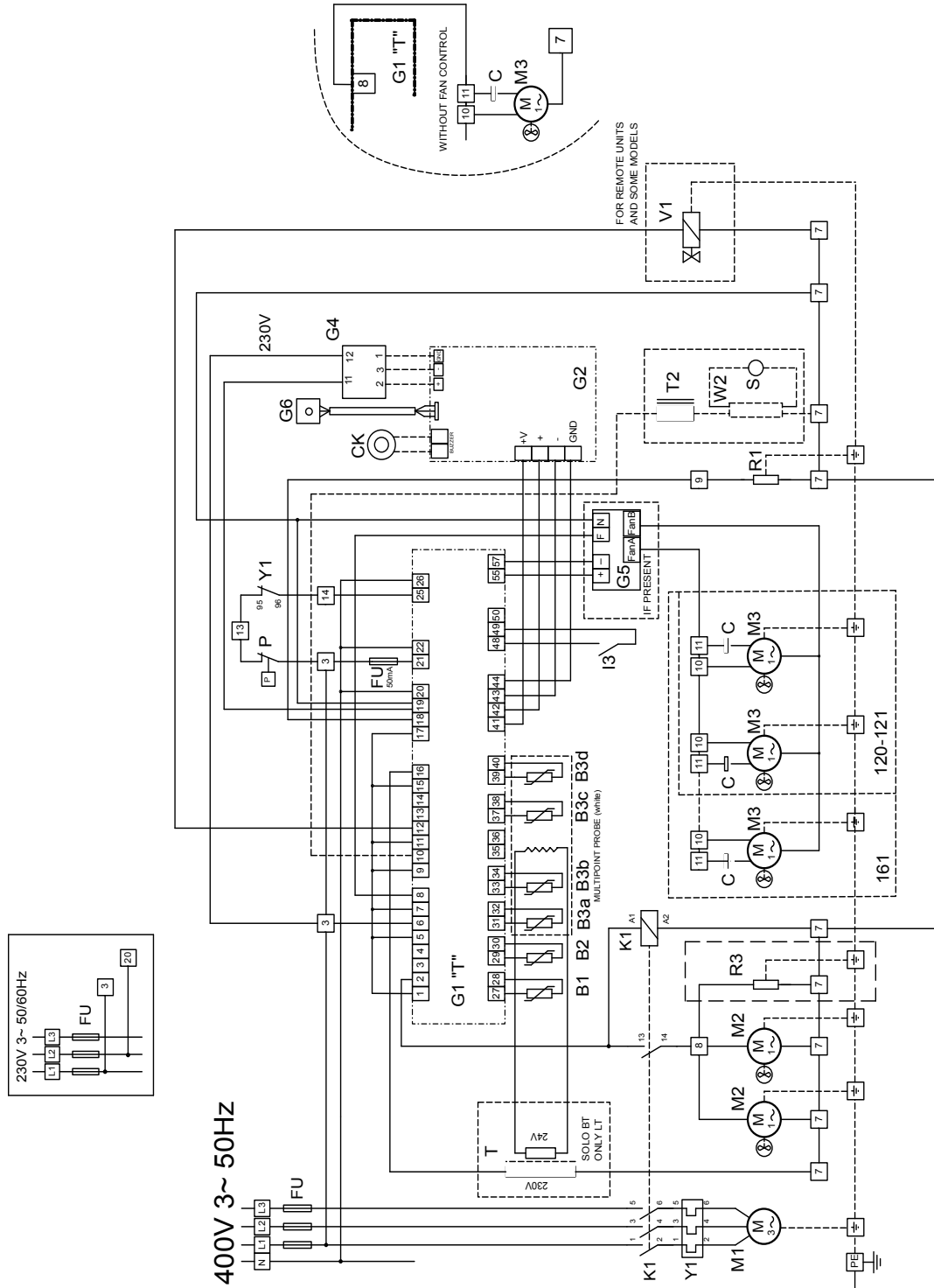


V1:  
 Solenoide montato di serie su predisposti e su alcuni modelli motorizzati  
 Solenoids that are installed standard on pre-set and some motorised models.  
 Bei dafür vorbereiteten und einigen motorisierten Modellen serienmäßig installierte Zylinderspule  
 Solénoïde de série sur modèles préinstallés et sur certains modèles motorisés  
 Solenoide montado de serie en los modelos preparados y en algunos modelos motorizados

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# \_ \_ C/ \_ \_ F 120-121-161 AP \_ RC/ \_ RF 120-122 DP

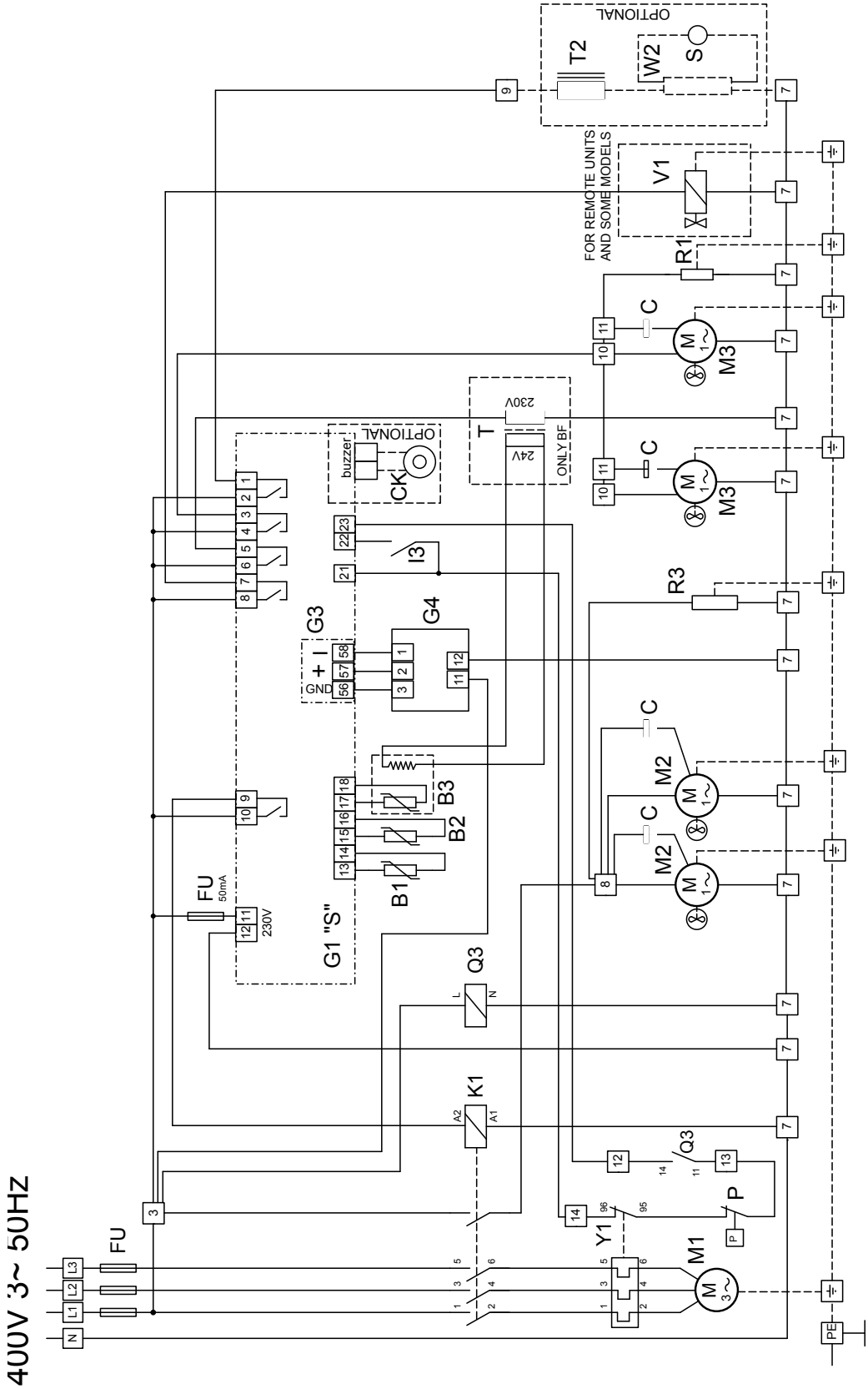
400/3~ /50 Hz



V1:  
 Solenoide montato di serie su predisposti e su alcuni modelli motorizzati  
 Solenoids that are installed standard on pre-set and some motorised models.  
 Bei dafür vorbereiteten und einigen motorisierten Modellen serienmäßig installierte Zylinderspule  
 Solénoïde de série sur modèles préinstallés et sur certains modèles motorisés  
 Solenoide montado de serie en los modelos preparados y en algunos modelos motorizados

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

**\_ \_ C / \_ \_ F 122 AF**  
**\_ RC / \_ RF 122 AF**  
 400/3~/50 Hz



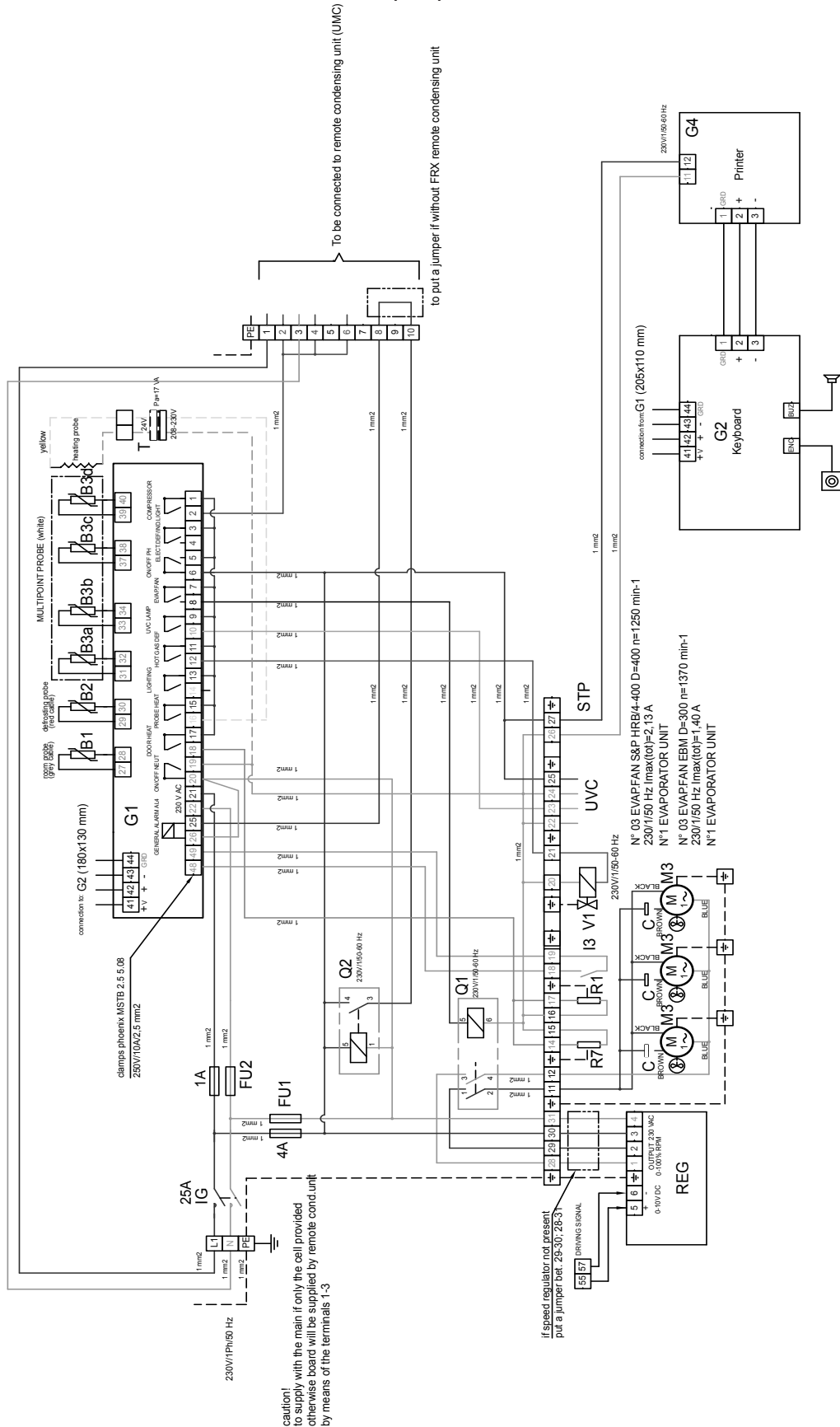
V1: Solenoide montato di serie su predisposti e su alcuni modelli motorizzati  
 Solenoids that are installed standard on pre-set and some motorised models.  
 Bei dafür vorbereiteten und einigen motorisierten Modellen serienmäßig installierte Zylinderspule  
 Solénoïde de série sur modèles préinstallés et sur certains modèles motorisés  
 Solenoïde montado de serie en los modelos preparados y en algunos modelos motorizados





# \_ \_ C / \_ \_ F 200-201 DP \_ RC / \_ RF 200-201 DP

230/1~/50 HZ



caution!  
to supply with the main if only the cell provided  
otherwise board will be supplied by remote cond unit  
by means of the terminals 1-3

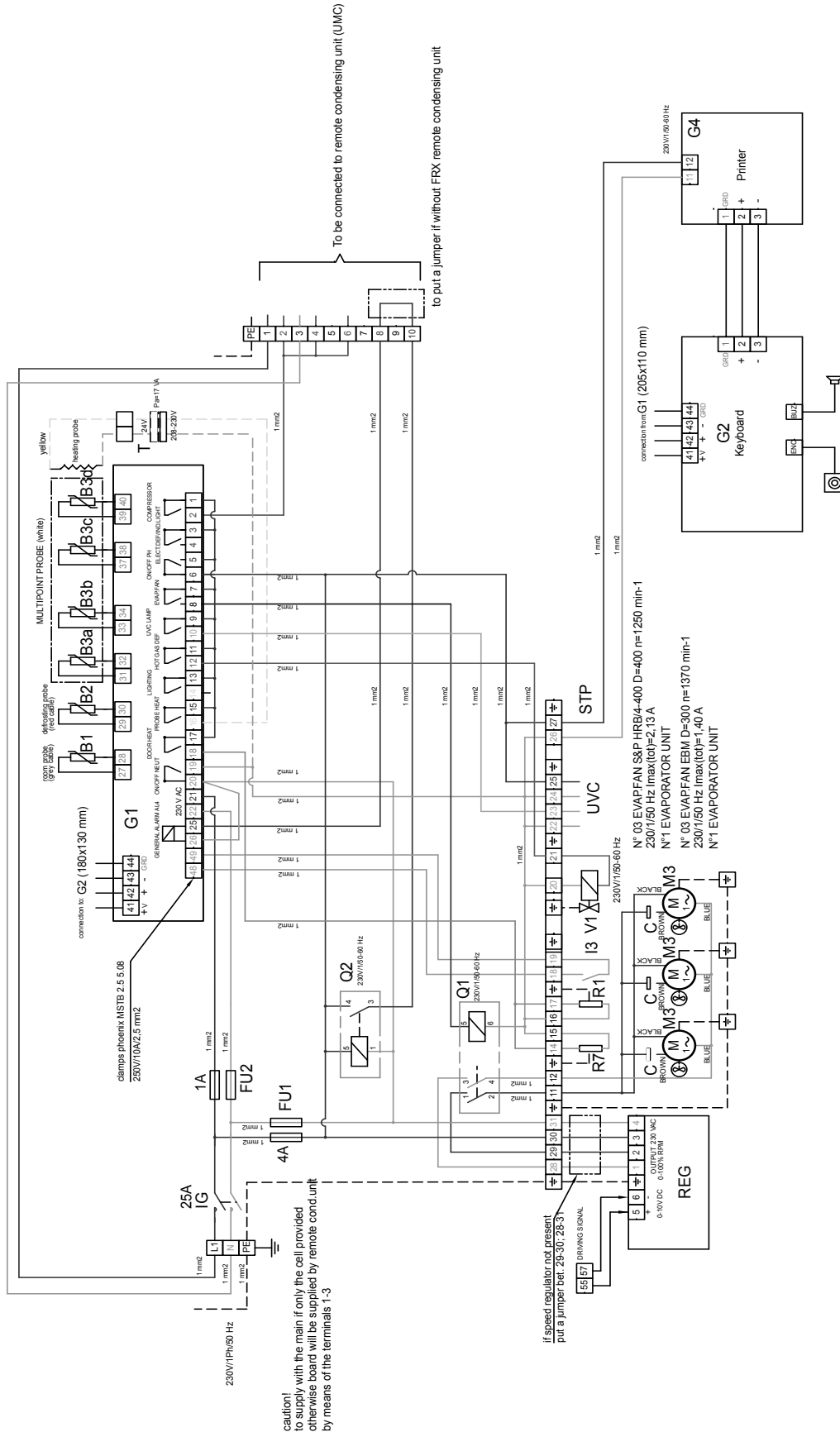
To be connected to remote condensing unit (UVC)  
to put a jumper if without FRX remote condensing unit

if speed regulator not present  
put a jumper bet. 29-30; 28-31

SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# C/ F 200-201 AP RC/ RF 200-201 AP

230/1~/50 Hz

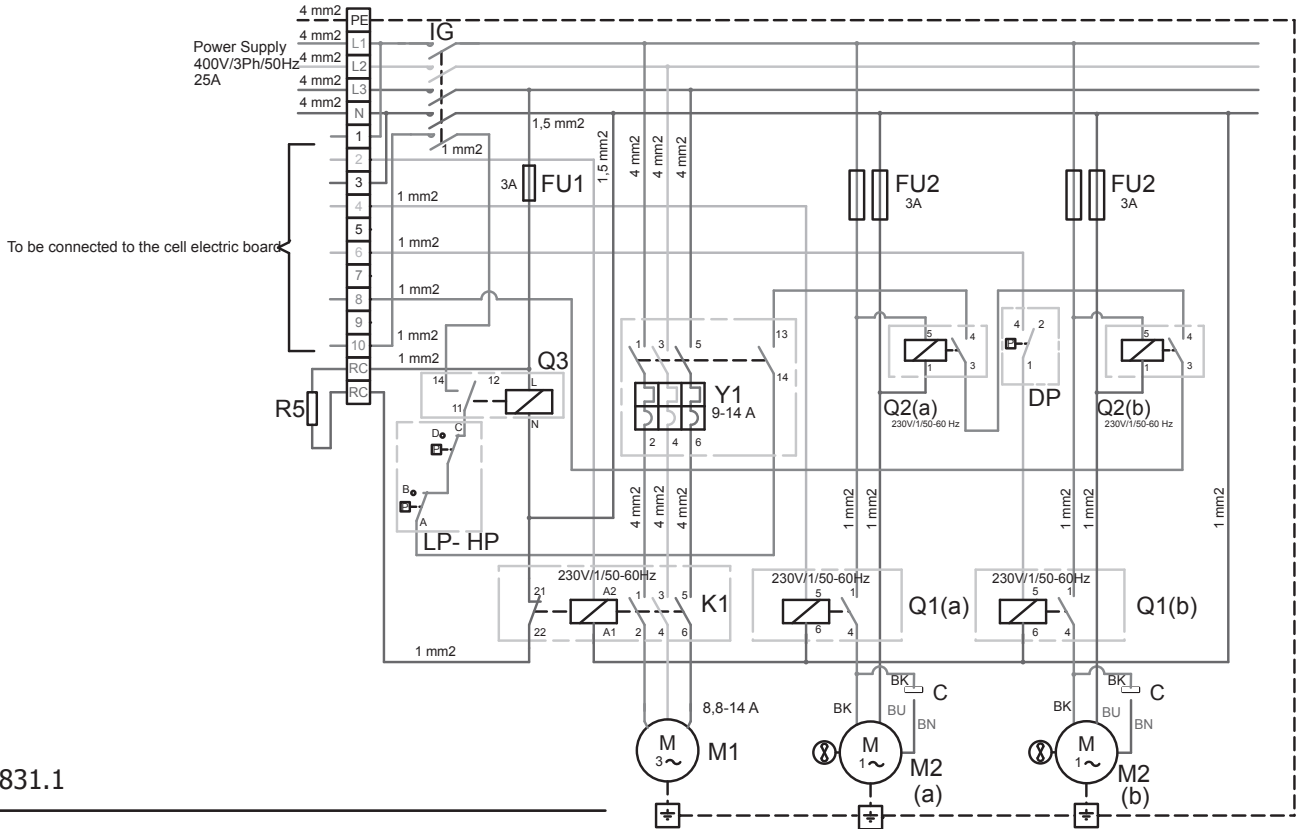


SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

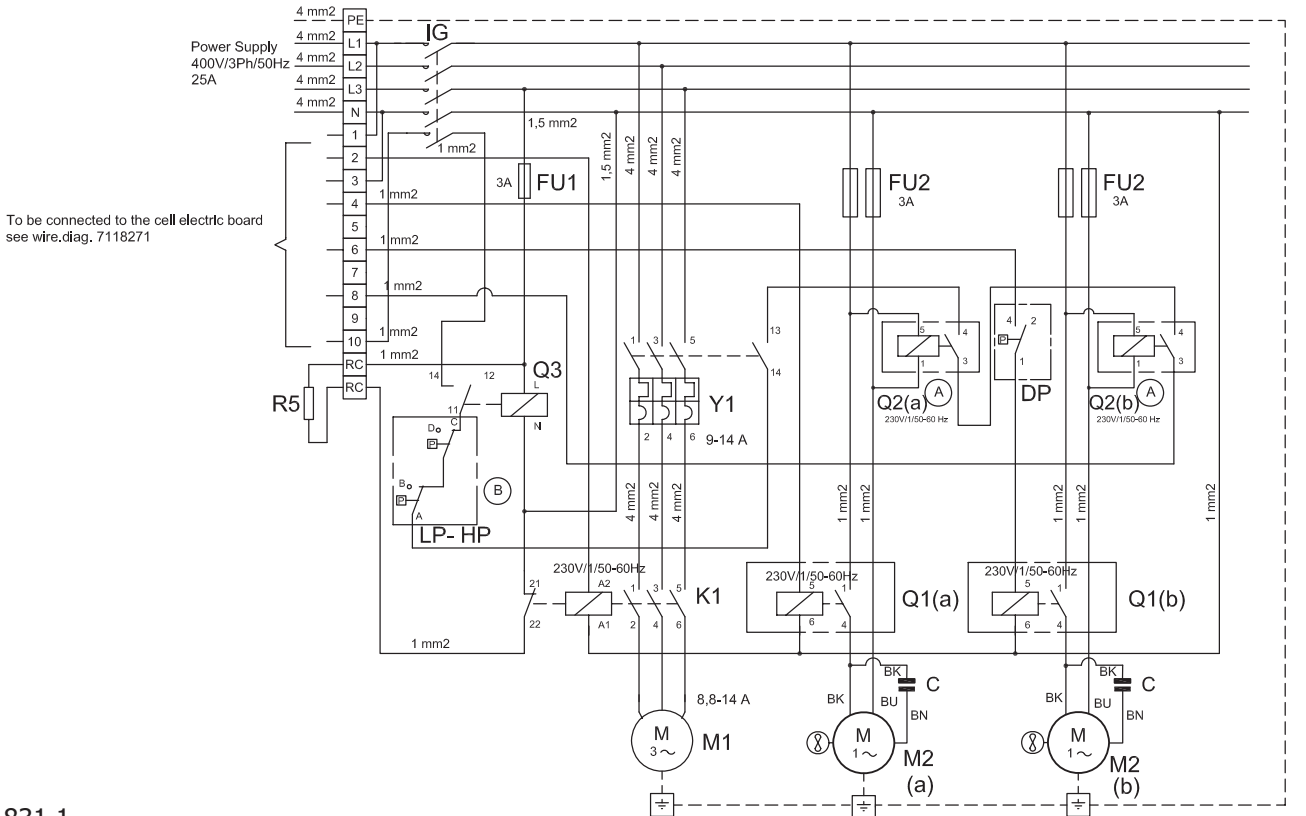
# GRUPPO REMOTO - REMOTE UNIT

**\_\_C/\_\_F 200-201 DP • \_\_C/\_\_F 200-201 AP**  
**\_\_RC/\_\_RF 200-201 DP • \_\_RC/\_\_RF 200-201 AP**

400/3~/50 Hz



711.831.1



711.831.1

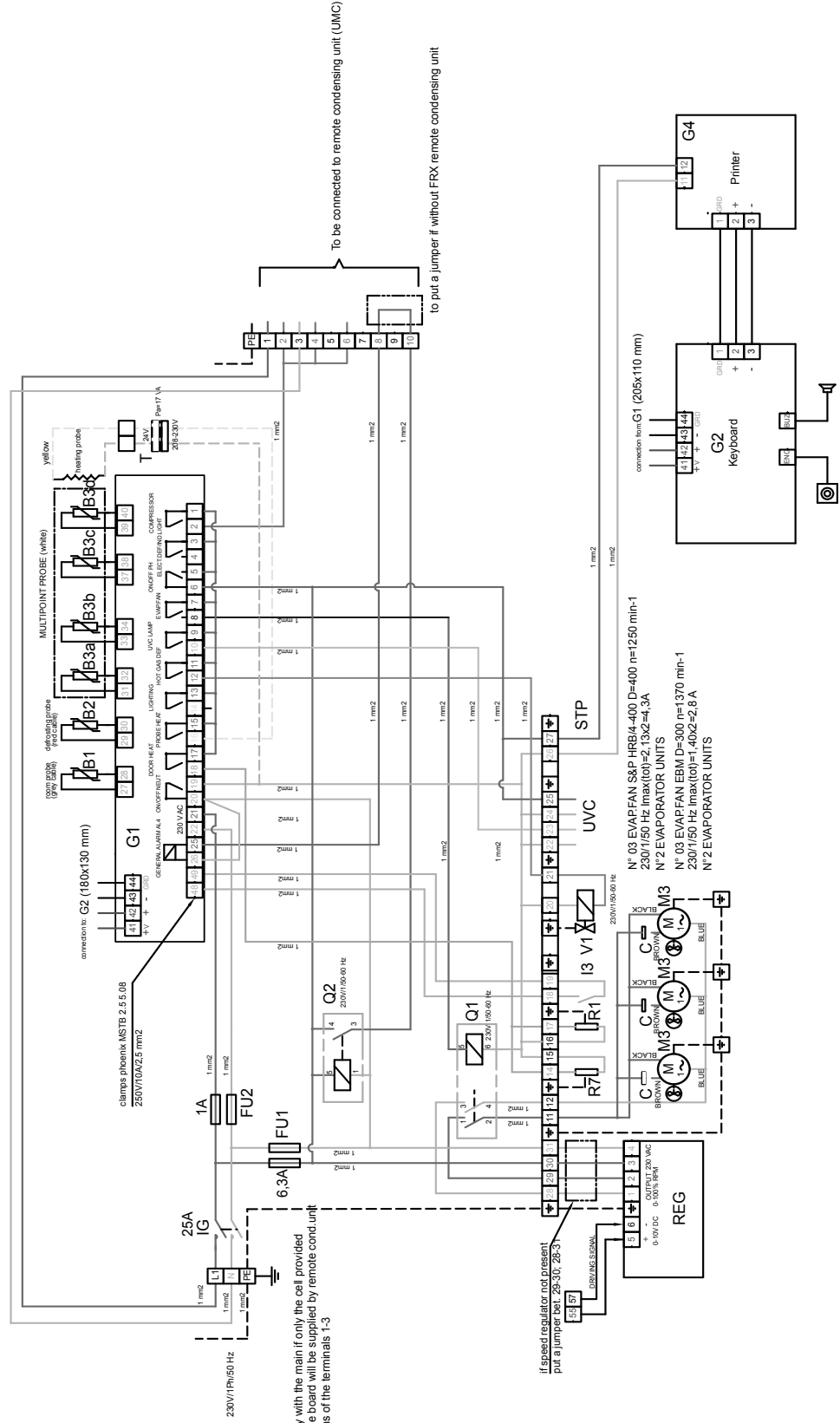




SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# \_\_C/\_\_F 400-401 AP

230/1~/50 Hz



To be connected to remote condensing unit (UVC)

to put a jumper if without FRX remote condensing unit

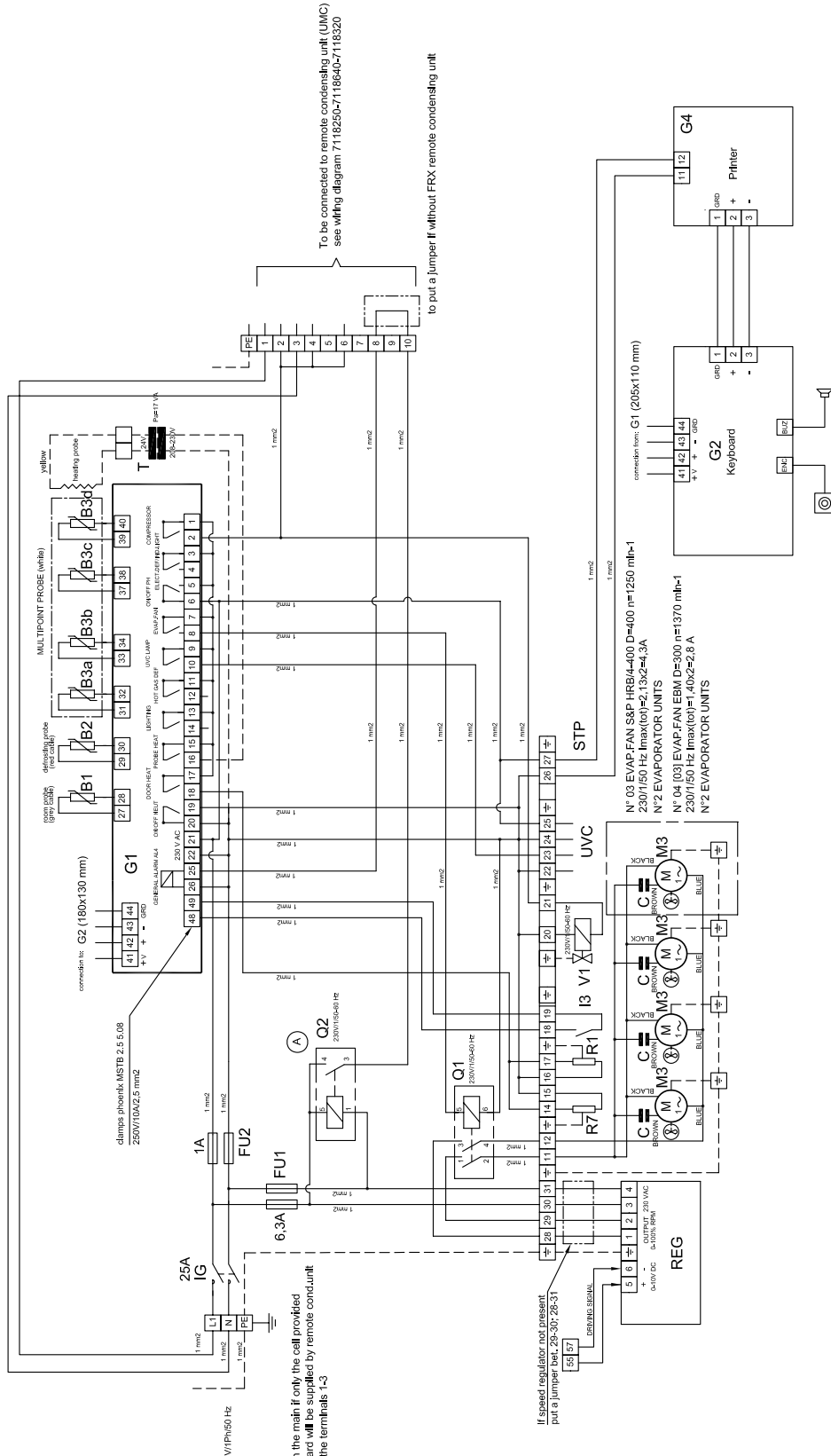
caution!  
to supply with the main if only the cell provided  
otherwise board will be supplied by remote cond. unit  
by means of the terminals 1-3

if speed regulator not present  
put a jumper bet. 29-30, 28-3

NB - Vedi pagina seguente  
See next page

# \_\_C/\_\_F 400-401 AP

230/1~/50 Hz



To be connected to remote condensing unit (UMC) see wiring diagram 7118260-7118640-7118320

to put a jumper if without FRX remote condensing unit

caution!  
do supply with the main if only the cell provided operates board will be supplied by remote conduit by means of the terminals 1-3

If speed regulator not present put a jumper bet. 26-30; 26-31

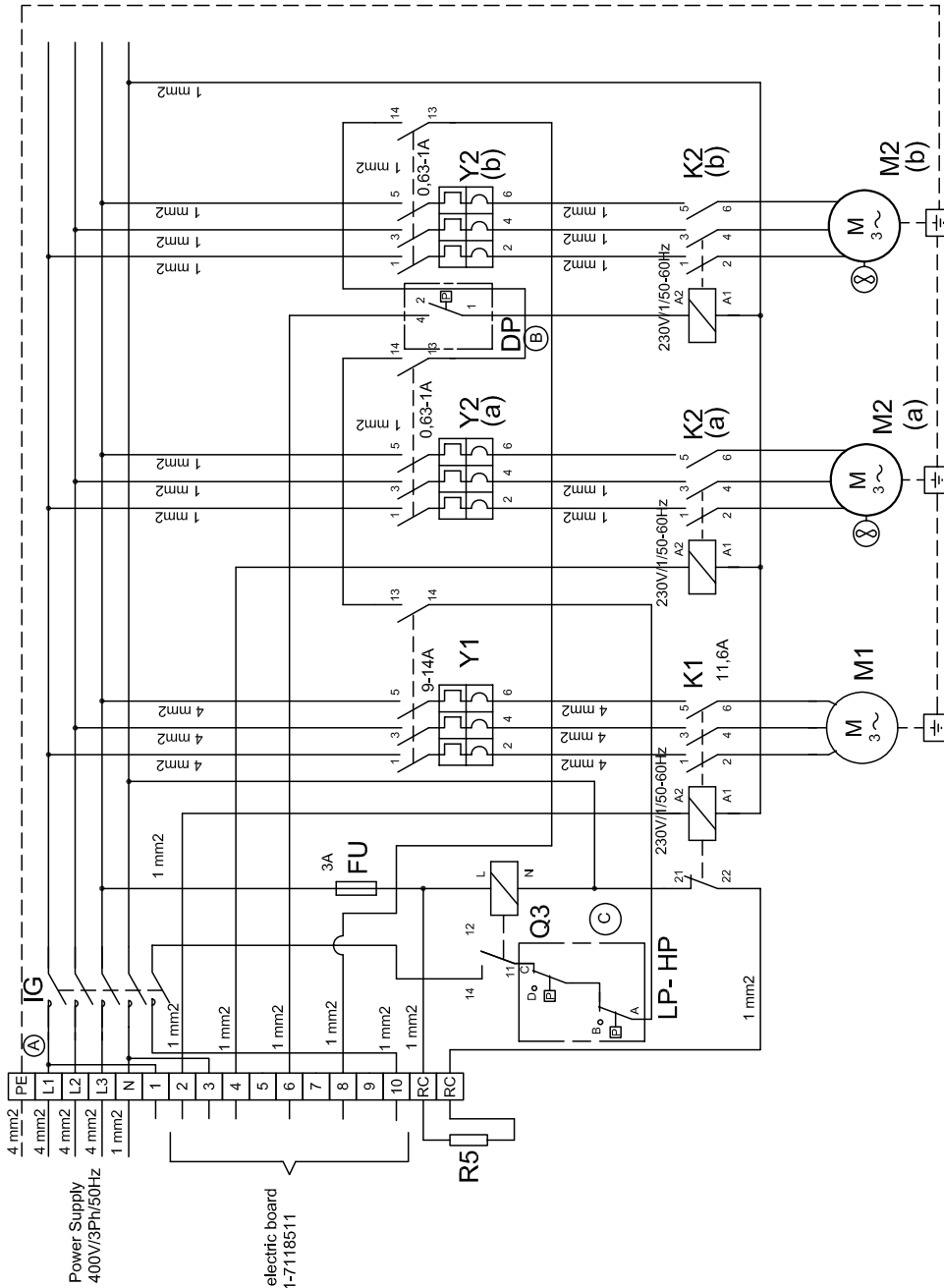
NB - Vedi pagina precedente  
See previous page



SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# GRUPPO REMOTO - REMOTE UNIT

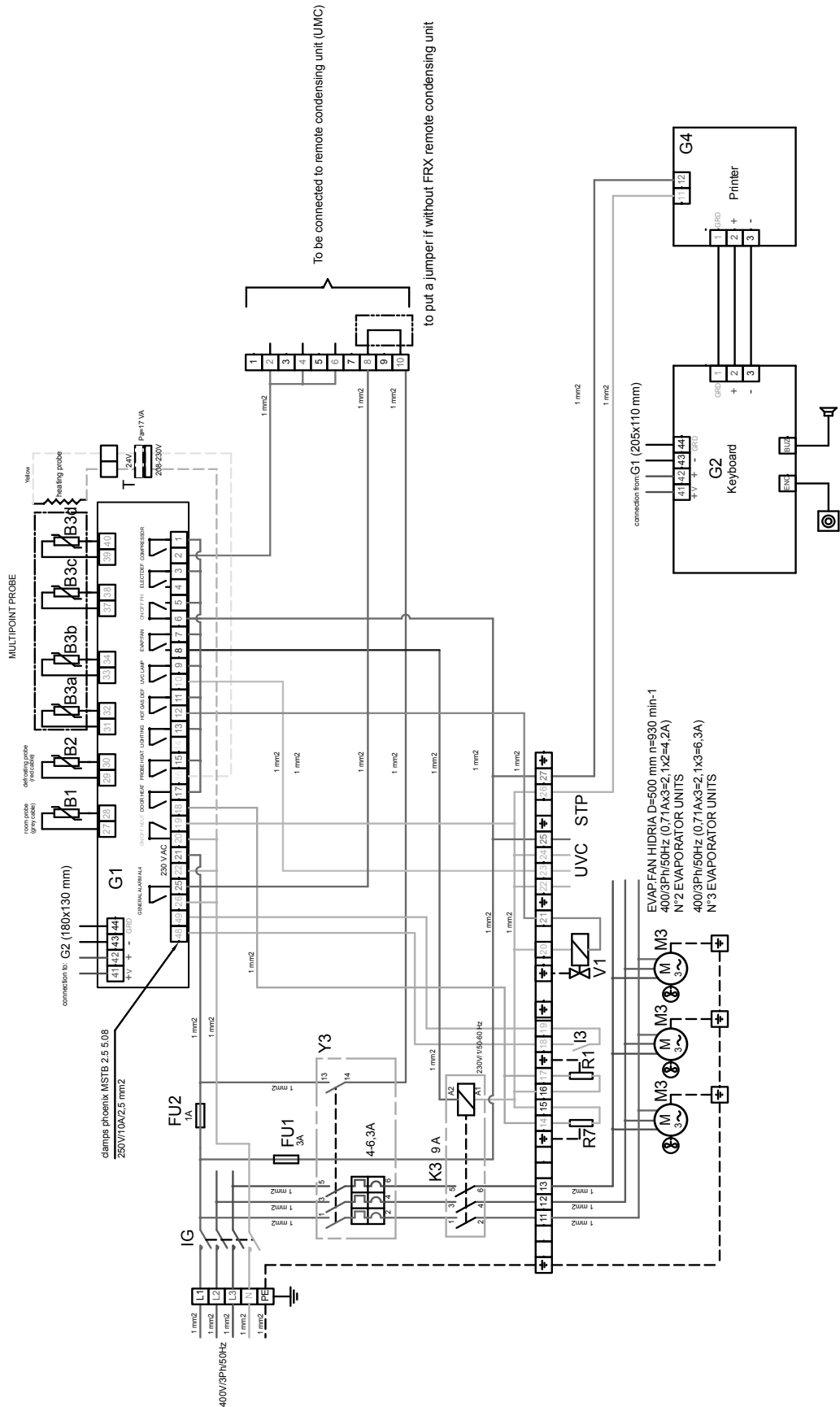
\_\_C/ \_\_F 202 DP • \_\_C/ \_\_F 202 AP  
 \_\_C/ \_\_F 400-401 DP • \_\_C/ \_\_F 400-401 AP  
 \_\_C 402 DP  
 400/3~/50 Hz



To be connected to the cell electric board see wiring diagram 7118271-7118511

MODELLO / MODEL	K1	Y1	Y2 (a)	Y2 (b)
__C 202 DP	12,2 A	9-14	0,63-1 A	0,63-1 A
__F 202 DP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A
__C 202 AP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A
__F 202 AP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A
__C 401 DP	12,2 A	9-14	0,63-1 A	0,63-1 A
__F 401 DP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A
__C 401 AP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A
__F 401 AP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A
__C 402 DP	18 A	17-23 A	1,6-2,5 A	1,6-2,5 A

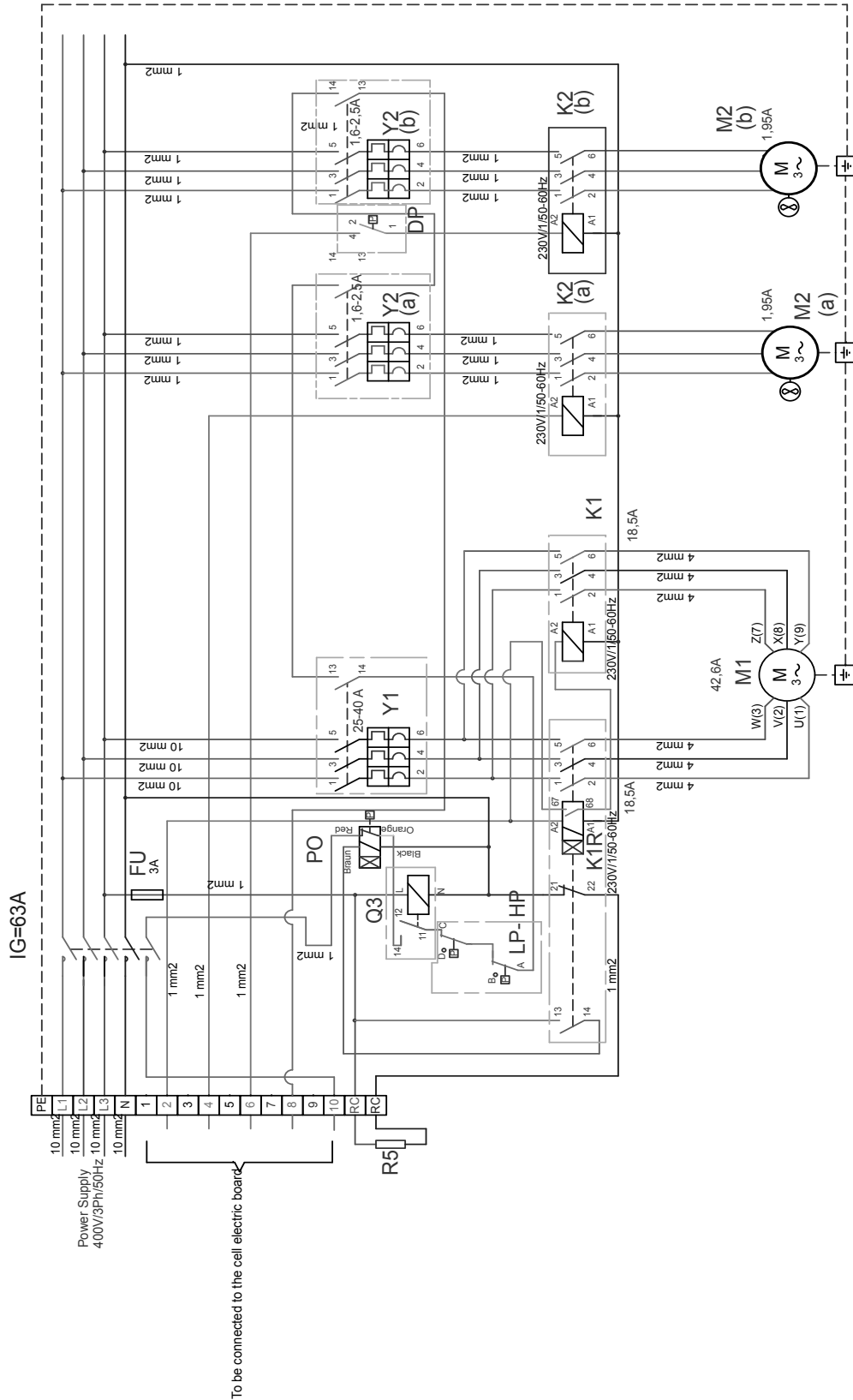
**C/ F 402 DP**  
**C/ F 402 AP**  
 400/3~/50 Hz



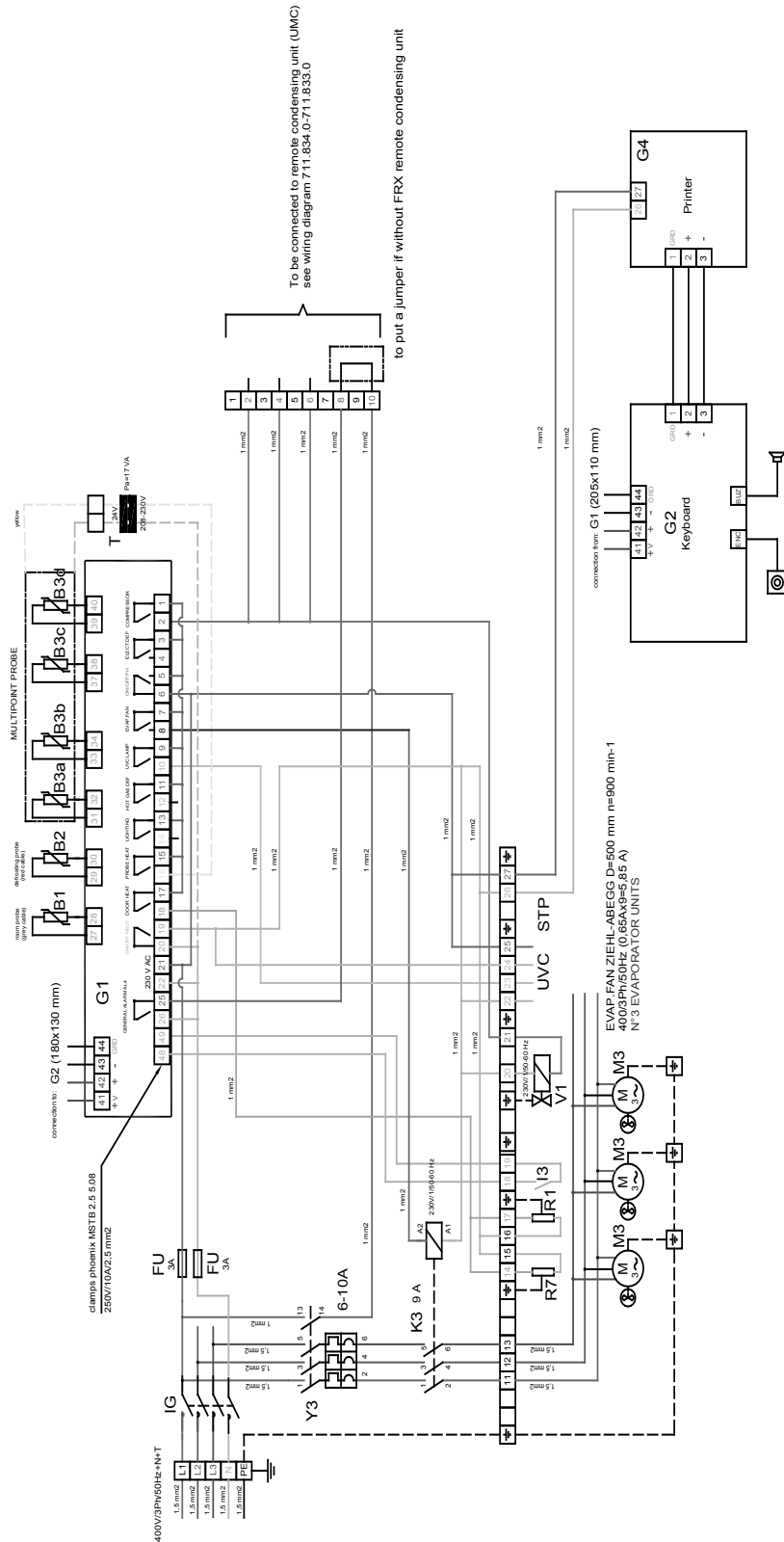
SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# GRUPPO REMOTO - REMOTE UNIT

\_\_ F 402 DP • \_\_ C/ \_\_ F 402 AP  
 \_\_ C 602 DP  
 400/3~/50 Hz



**\_\_C/\_\_F 602 DP**  
**\_\_C/\_\_F 602 AP**  
 400/3~/50 Hz



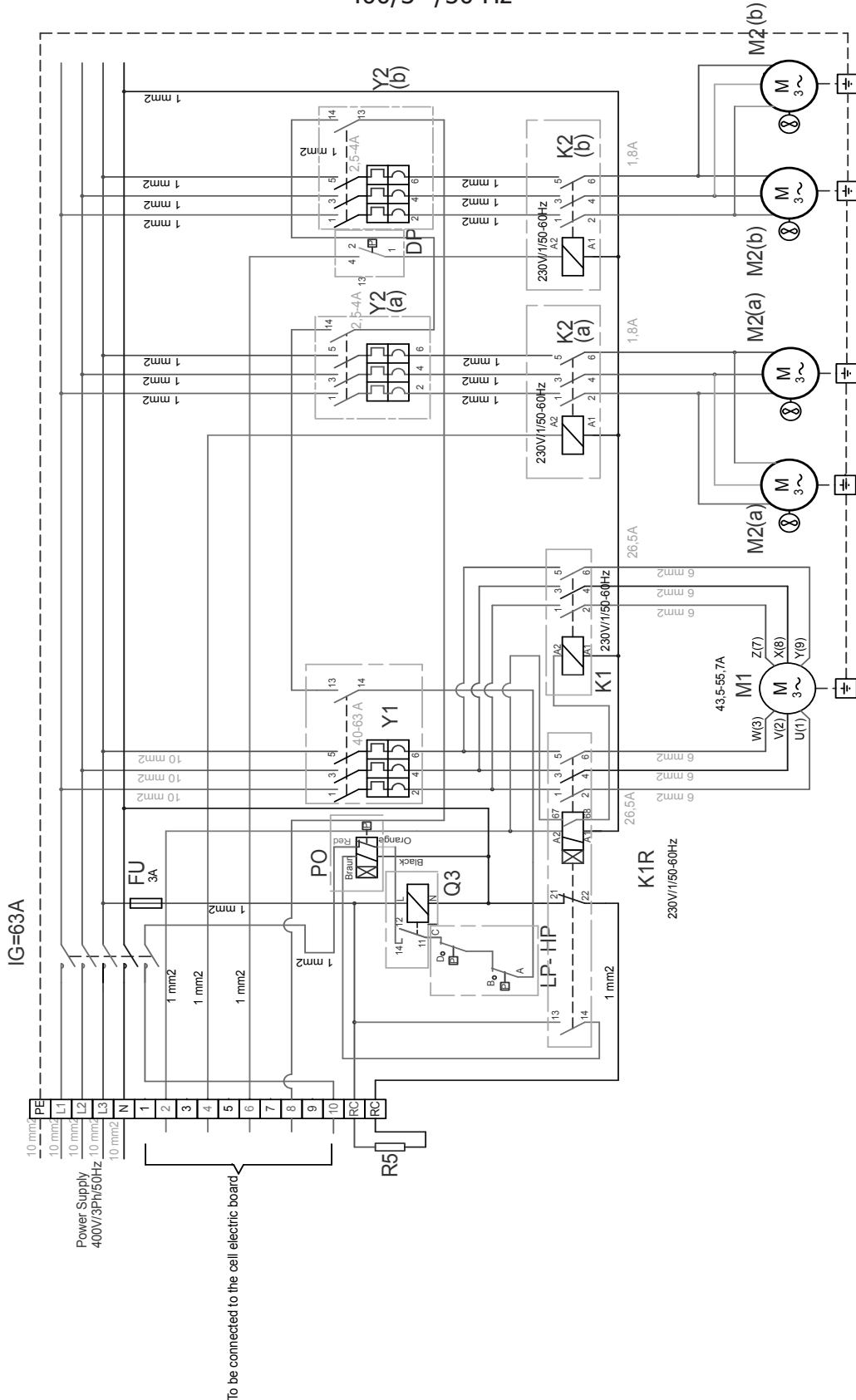
SCHEMA ELETTRICO - WIRING DIAGRAM - ELEKTROSCHALTPLAN - SCHEMA ELECTRIQUE - ESQUEMA ELECTRICO

# GRUPPO REMOTO - REMOTE UNIT

## F 602 DP

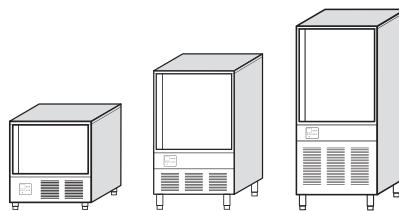
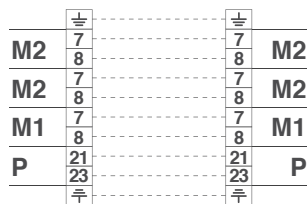
## C/ F 602 AP

400/3~/50 Hz

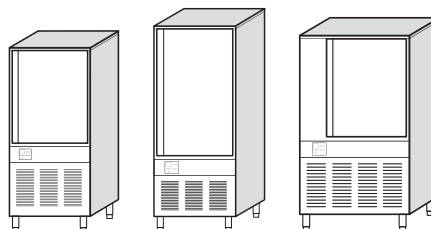
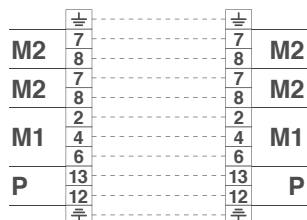


## Connessione Unità Remote Remote Units connection

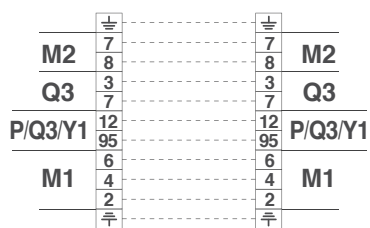
### Mod. 031-051-081 DF/AF · 120-121 DF



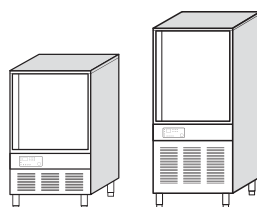
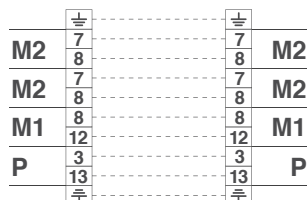
### Mod. 120-121 AF · 161 DF/AF · 122 DF



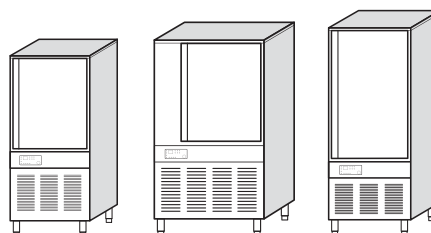
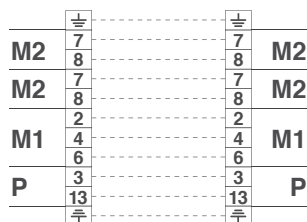
### Mod. 122 AF



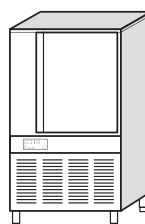
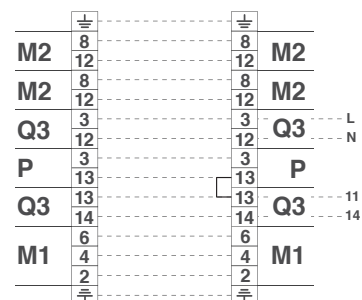
### Mod. 081 DP/AP · 120-121 DP



### Mod. 120-121 AP · 122 DP · 161 DP/AP



### Mod. 122 AP



**LEGENDA GENERALE  
GENERAL KEY  
ALLGEMEINE ZEICHENERKLÄRUNGEN  
LEGENDE GENERALE  
LEYENDA GENERAL**

	IT	EN	DE	FR	ES
<b>A</b>	Alimentatore	Power supply unit	Netzteil	Alimentateur	Alimentador
<b>A1</b>	Alimentatore lampeggiante	Lamp power supply unit	Lampennetzteil	Alimentateur clignotant	Alimentador intermitente
<b>A2</b>	Alimentatore stampante	Printer power supply unit	Druckernetzteil	Alimentateur imprimante	Alimentador impresora
<b>B</b>	Sonda	Probe	Sonde	Sonde	Sonda
<b>B1</b>	Sonda temperatura	Temperature probe	Temperaturfühler	Sonde de température	Sonda temperatura
<b>B2</b>	Sonda sbrinamento	Defrosting probe	Abtausonde	Sonde de dégivrage	Sonda descongelación
<b>B3</b>	Sonda al cuore	Core probe	Kühlgutsonde	Sonde à coeur	Sonda al corazón
<b>B4</b>	Sonda condensatore	Condenser probe	Verflüssigersonde	Sonde du condensateur	Sonda condensador
<b>B5</b>	Sonda sottovuoto	Vacuum probe	Vakuumsfühler	Sonde sous vide	Sonda al vacío
<b>B6</b>	Sonda umidità	Humidity probe	Feuchtefühler	Sonde d'humidité	Sonda humedad
<b>C</b>	Condensatore elettrico	Electric condenser	Elektrischer Kondensator	Condensateur électrique	Condensador eléctrico
<b>CK</b>	Buzzer	Buzzer	Buzzer	Buzzer	Zumbador
<b>D</b>	Variatore di tensione	Voltage variator	Spannungsregler	Variateur de tension	Variador de tensión
<b>E</b>	Termostato	Thermostat	Temperaturregler	Thermostat	Termóstato
<b>E1</b>	Termostato di sicurezza	Safety thermostat	Sicherheitsthermostat	Thermostat de sécurité	Termóstato de seguridad
<b>E2</b>	Termostato controllo	Control thermostat	Kontrollthermostat	Thermostat de contrôle	Termóstato de control
<b>FU</b>	Fusibile	Fuse	Sicherung	Fusible	Fusible
<b>G</b>	Teletermostato	Thermostat	Fernthermostat	Telethermostat	Teletermóstato
<b>G1</b>	Scheda potenza	Power card	Leistungskarte	Carte de puissance	Tarjetas de potencia
<b>G2</b>	Scheda comando	Command card	Steuerkarte	Carte de commande	Tarjeta de control
<b>G3</b>	Scheda ausiliaria	Auxiliary card	Hilfskarte	Carte auxiliaire	Tarjeta auxiliar
<b>G4</b>	Stampante + IF RICS	Printer + IF RICS	Drucker + IF RICS	Imprimante + IF RICS	Impresora + IF RICS
<b>G5</b>	Regolatore ventole	Fan control	Lüfter regler	Régulateur ventilateurs	Regulador ventiladores
<b>G6</b>	Encoder	Encoder	Kodierer	Encodeur	Codificador
<b>H</b>	Spia	Indicator light	Kontrollleuchte	Voyant	Indicador luminoso
<b>H1</b>	Spia tensione	Power indicator light	Spannungsanzeige	Voyant tension	Indicador luminoso tensión
<b>H2</b>	Spia allarme	Alarm indicator light	Alarmanzeige	Voyant alarme	Indicador luminoso alarma
<b>H3</b>	Spia sbrinamento	Defrosting indicator light	Abtauanzeige	Voyant dégivrage	Indicador luminoso descongelación
<b>H4</b>	Spia ciclo	Cycle indicator light	Kreislaufanzeige	Voyant cycle	Indicador luminoso ciclo
<b>IG</b>	Interruttore generale	Main switch	Hauptschalter	Interrupteur général	Interruptor general
<b>I1</b>	Interruttore	Switch	Schalter	Interrupteur	Interruptor
<b>I2</b>	Deviatore	Switch	Wechselschalter	Déviateur	Desviador
<b>I3</b>	Micro porta	Door microswitch	Tür-Mikroschalter	Microcontact porte	Microinterruptor puerta
<b>I4</b>	Galleggiante	Float	Schwimmer	Flotteur	Flotador
<b>I5</b>	Selettore	Selector	Wahlschalter	Sélecteur	Selector
<b>K1</b>	Contattore compressore	Compressor contactor	Kompressorschütz	Contacteur compresseur	Contactador compresor
<b>K2</b>	Contattore condensatore	Condenser contactor	Kondensatorschütz	Contacteur condensateur	Contactador condensador
<b>K3</b>	Contattore evaporatore	Evaporator contactor	Verdampferschütz	Contacteur évaporateur	Contactador evaporador
<b>K4</b>	Contattore UVC	UVC contactor	UVC Schalter	Contacteur UVC	Contactador UVC
<b>K5</b>	Contattore sbrinamento	Defrosting contactor	Schalter abtau	Contacteur dégivrage	Contactador descongelación
<b>K6</b>	Contatto ritardato	Delayed contact	Verzögerter kontakt	Contact retardé	Contacto retardado
<b>K8</b>	Contattore riscaldamento	Room heating contactor	Raumheizung Schalter	Contacteur chauffage	Contactador calentamiento
<b>L</b>	Linea	Line	Wechselstromleitung	Ligne	Línea
<b>L1</b>	Linea 1 trifase	3-phase line #1	Drehstromleitung 1	Ligne 1 triphasée	Línea 1 trifásica
<b>L2</b>	Linea 2 trifase	3-phase line #2	Drehstromleitung 2	Ligne 2 triphasée	Línea 2 trifásica
<b>L3</b>	Linea 3 trifase	3-phase line #3	Drehstromleitung 3	Ligne 3 triphasée	Línea 3 trifásica
<b>M</b>	Motore elettrico	Electric motor	Elektromotor	Moteur électrique	Motor eléctrico
<b>M1</b>	Motocompressore	Compressor	Kompressor	Motocompresseur	Motocompresor
<b>M2</b>	Motoventilatore condensatore	Condenser fan	Verflüssigerventilator	Motoventilateur condensateur	Motoventilador condensador
<b>M3</b>	Motoventilatore evaporatore	Evaporator fan	Verdampferventilator	Motoventilateur évaporateur	Motoventilador evaporador

	IT	EN	DE	FR	ES
<b>M4</b>	Motoventilatore supplementare	Additional motorised fan	Hilfsventilator	Motoventilateur complémentaire	Motoventilador suplementario
<b>M5</b>	Attuatore lineare	Linear actuator	Linearantrieb	Actionneur linéaire	Actuador lineal
<b>M6</b>	Motoventilatore riscaldamento e deumidificazione	Heating and dehumidification fan	Heiz- und Entfeuchtungs-luefter	Motoventilateur chauffage et déshumidification	Motoventilador calentamiento y deshumidificación
<b>N</b>	Neutro	Neutral	Mittelleiter	Neutre	Neutro
<b>O</b>	Timer	Timer	Timer	Timer	Temporizador
<b>P</b>	Pressostato	Pressure switch	Druckwächter	Pressostat	Presóstato
<b>PE</b>	Punto terra	Earth point	Potentialausgleichspunkt	Point de mise à la terre	Punto tierra
<b>P1</b>	Trasduttore di pressione	Pressure transducer	Druckgeber	Transducteur de pression	Transductor de presión
<b>P2</b>	Pressostato differenz. ritardato	Pressure transducer	Druckgeber	Pressostat différentiel retardé	Presostato diferencial retardado
<b>Q</b>	Relè	Relay	Relais	Relais	Relé
<b>Q1</b>	Relè di potenza	Power relay	Leistungsrelais	Relais de puissance	Relé de potencia
<b>Q2</b>	Relè doppio scambio	Relay with 2 contacts	Relais mit 2 Umschaltern	Relais à 2 contacts	Relé doble intercambio
<b>Q3</b>	Relè protettore termico compressore	Thermal protection relay for compressor	Kompressor Wärmeschutzrelais	Relais protecteur thermique compresseur	Relé protector térmico compresor
<b>Q4</b>	Relè alimentazione acqua	Water supply relay	Wasser versorgung Relais	Relais alimentation eau	Relé alimentación agua
<b>Q5</b>	Relè alimentazione detergente	Detergent supply relay	Reinigungsmittelversorgungs-Relais	Relais alimentation détergent	Relé alimentación detergente
<b>Q6</b>	Relè pompa detergente	Detergent pump relay	Reinigungsmittelpumpe-Relais	Relais pompe détergent	Relé bomba detergente
<b>Q7</b>	Relè valvola drenaggio	Drain valve relay	Abflußventil-Relais	Relais vanne de drainage	Relé válvula drenaje
<b>Q8</b>	Relè riscaldamento	Heating relay	Heizungsrelais	Relais chauffage	Relé calentamiento
<b>Q9</b>	Relè sistema scarico	Drain safety relay	Abfluß-System-Relais	Relais système de vidange	Relé sistema descarga
<b>R</b>	Resistenza	Resistance	Widerstand	Résistance	Resistencia
<b>R1</b>	Resistenza cornici	Frames resistance	Heizwiderstand Türrahmen	Résistance cadres	Resistencia marcos
<b>R2</b>	Resistenza sbrinamento	Defrosting resistance	Abtau-Widerstand	Résistance dégivrage	Resistencia descongelación
<b>R3</b>	Resistenza evaporazione	Evaporation resistance	Verdampfung-Widerstand	Résistance évaporation	Resistencia evaporación
<b>R4</b>	Resistenza riscaldamento	Heating resistance	Heizwiderstand	Résistance chauffage	Resistencia calentamiento
<b>R5</b>	Resistenza carter	Guard resistance	Heizwiderstand Gehäuse	Résistance carter	Resistencia resguardo
<b>R6</b>	Resistenza scarico	Discharge resistance	Auslasswiderstand	Résistance vidange	Resistencia descarga
<b>R7</b>	Resistenza valvola bilanciamento pressione	Pressure balancing valve resistance	Druckausgleichsventil-Heizung	Résistance vanne d'équilibrage de la pression	Resistencia válvula equilibrio presión
<b>R8</b>	Resistenza porte vetro (nel vetro)	Frame heating glass doors (on the glass)	Glasstürheizung (auf dem Glas)	Résistance porte vitrée (sur la porte vitrée)	Resistencia puertas vidrio (vidriera)
<b>R9</b>	Resistenza perimetrale porte vetro	Perimetrical heater for glass doors	Perimeter-Heizung Glastüre	Résistance périmétrale portes vitrées	Resistencia perimetral puertas vidrio
<b>R10</b>	Resistenza umidificazione	Humidify heating element	Befeuchter Widerstand	Résistance humidification	Resistencia humidificación
<b>S</b>	Starter	Starter	Starter	Starter	Starter
<b>T</b>	Trasformatore	Transformer	Transformator	Transformateur	Transformador
<b>T1</b>	Autotrasformatore	Automatic transformer	Spartransformator	Autotransformateur	Autotransformador
<b>T2</b>	Reattore	Ballast	Vorschaltgerät	Réacteur	Reactor
<b>U</b>	Termometro	Thermometer	Thermometer	Thermomètre	Termómetro
<b>V1</b>	Valvola solenoide	Solenoid-valve	Solenoidventil	Vanne solénoïde	Válvula solenoide
<b>V2</b>	Elettrovalvola acqua	Water solenoid-valve	Wasser Elektroventil	Electrovanne eau	Electroválvula agua
<b>V3</b>	Valvola solenoide gas caldo	Solenoid-valve warm gas	Warmes des ventil solenoides	Vanne solénoïde gaz chaud	Válvula solenoide gas caliente
<b>W</b>	Lampada	Lamp	Lampe	Lampe	Lámpara
<b>W1</b>	Lampada neon	Neon lamp	Neonleuchte	Lampe au néon	Lámpara neón
<b>W2</b>	Lampada UVC	UVC lamp	UVC-Lampe	Lampe UVC	Lámpara UVC
<b>X</b>	Morsetto	Terminal	Klemme	Borne	Borne
<b>X1</b>	Morsettiera	Terminal board	Klemmbrett	Bornier	Regleta de bornes
<b>Y1</b>	Magnetotermico compressore	Compressor thermal-breaker	Thermomagnetschalter Kompressor	Magnétothermique compresseur	Interruptor magnetotérmico compresor
<b>Y2</b>	Magnetotermico condensatore	Condenser thermal-breaker	Thermomagnetschalter Kondensator	Magnétothermique condensateur	Interruptor magnetotérmico condensador
<b>Y3</b>	Magnetotermico evaporatore	Evaporator thermal-breaker	Thermomagnetschalter Verdampfer	Magnétothermique évaporateur	Interruptor magnet. evaporador
<b>Y5</b>	Magnetotermico sbrinamento	Defrosting thermal-breaker	Thermomagnetschalter abtau	Magnétothermique dégivrage	Interruptor magn. descongelación
<b>Z</b>	Filtro antidisturbo	Noise prevention filter	Störschutzfilter	Filtre anti-perturbations	Filtro antiinterferencia