

Code
2205601302
Edition 06/2014

SCREW AIR COMPRESSOR CONTROLLER

TYPE: CS5000



USER MANUAL



۱۳۶۲
جهان کمپرسور

NOTICE



Please read instruction manual before usage



Installation of CS5000 can be performed only by professional technicians



Assembling position shall be considered carefully during mechanical installation in order to ensure good heat dissipation and reduce electromagnetism interferences



Wiring shall be performed respectively according to regulations for heavy and weak current to reduce electromagnetism interferences



Surge absorber must be communicated with inductive load such as AC contactor of output control of relay



Output wiring shall be inspected carefully before switch up



Earthing terminal of this body part shall be earthed correctly (the third type of earthing) to increase product's capacity of resisting signal noise.



Motor's rated current (current for stopping instrument automatically) shall be set according to rated current indicated on motor's name plate \times overload current multiplication factor of motor/ 1.2

- LCD Chinese / English display
- With all-round protection functions of short-circuit, locking, phase failure, overload and imbalance for motor.
- With control functions of starting, stopping and operation for motor.
- With protection functions of preventing reverse rotation of air compressor.
- Measuring and controlling temperature
- Automatic adjusting of rate of load and controlling of pressure balance
- Selections of remote and local control
- Selections of interlocking and independent
- Function of RS485 communication

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1、 Basic Operation

(1).Button Explanation



Figure 1.1.1

-  — Start Button: Press this button to start the compressor. .
-  — Stop button: Press this button to stop the compressor. .
-  — Set Button/ Loading / unloading Button: After modification, press this to confirm and save modified data; When the compressor is running ,press this to load or unload under a certain pressure.
-  — Move up button/increase button: Data at current position is increased by pressing this button when data are modified; Menu is moved upwards when menu is selected.
-  — Move down” button / Descending button: Data at current position is descended by pressing this button when data are modified; menu is moved downwards when menu is selected.
-  — Shift button /Enter button: This button services as shift button when data are modified and services as enter button when menu is selected.
-  — Back button / Reset button: This button services as back button when operate menu to come back parent menu; resetting is carried out by pressing this button for a little long time when failure shutdowns

(2). Display of status and operations

The display screen will be as follow when the units are powered on:

WELCOME USING
SCREW COMPRESSOR

CS5000 screw compressor controller

After 5 seconds, the main page will show up as:

AIR T: 20°C
AIR P: 0.60MPA
NORMAL STOP
C001 NEAR

Press “▼” to enter into Menu Selection Interface:

RUN PARAMETER
CUSTOMER SET
FACTORY SET

Viewing Run Parameter:

Press “▼” or “▲” to move the black cursor to “RUN PARAMETER”, press “▶” to pop up submenu:

MOTORS CURRENT
TOTAL RUN TIME
CURRENT RUN TIME
MAINTENANCE SET

Press “▶” again to pop up:

	MAIN (A)	FAN (A)
R	0.0	0.0
S	0.0	0.0
T	0.0	0.0

If the menu popped up is at the last level, the black cursor will disappear. Press the return button “C” to return to the upper menu or the main page. If the operation stops at a certain page, it will automatically return to the main page shortly.

Using moving buttons “▼”, “▲”; confirm button “▶” to view other parameters like: Maintenance Parameter, History Failure, Production Time, Current Failure and etc. and to return to the upper menu by using return button “C”.

User Parameter (Customer Parameter):

Parameter Modification

----- User Parameter and Manufacturer Default Parameter can not be modified during running status and stop delay period -----

To view and modify User Parameter you can use the same method of “Viewing Run Parameter”, If you want to modify “HOST START”, please follow the instructions below:

Press “▼” or “▲” black moving cursor to “Customer Parameter” and then press “▶” to pop up:

SET P、T
SET TIME
OPERATION MODE
BLOCKING MODE

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Press “▼” move the cursor to “SET TIME” and then Press “▶” again to pop up:

```

HOST START:0012S
FAN START :0006S
STAR DELAY:0010S
LOAD DELAY:0006S
    
```

Now you can view the data, if you press “▶” again, the following interface will be popped up which requires you to input password.

```

ENTER PASSWORD
****
    
```

Attention: User Password can be modified in the “Customer Parameter”; Factory Password is fixed to be _____

Now you can modify the data in the previous page. There will be a blinking cursor. “▼” and “▲” now turn to be descending and increase Buttons to modify the data. When finish modification, press “M” to confirm and save.

For example:

```

HOST START:0012S *
FAN START :0006S
STAR DELAY:0010S
LOAD DELAY:0006S
    
```

when there is a * displayed at the up right corner which means user can modify the data now.

When pressing “▲” or “▼” button to move black cursor to “HOST START ” and press “▶” to confirm. Now the blinking cursor with * appears. User can press “▼”, “▲” and “▶” button to modify the present data. Press “S” button to confirm when finished. The blinking cursor will disappear. “▲”, “▼” and “▶” can be used for modifying other parameter and data. If there is no need for further modification, press “C” to go back to upper menu or main menu.

(3).Customer Parameter (CUSTOMER SET) and Functions

First Submenu	Second submenu	Preset Value	Functions
SET P. T.	LOAD P.	*.**MPa	LOADING PRESSURE VALUE
	UNLOAD P.	*.**Mpa	UNLOADING PRESSURE VALUE
	FAN START	***°C	Control the fan starting. This value will be set as “120°C” if there is no fan present or the fan is not required to be protected.”
	FAN STOP	***°C	Control the stopping of the fan
SETTIME	HOST START	0008S	When using the controller to protect the motor, it is required that the time set here will not meet the impulse starting current of the motor, the value here must be longer than the STAR DELAY TIME plus LOAD DELAY TIME
	FAN START	0006S	When using the controller to protect the motor, it is required that the time set here will not meet the impulse starting current of the motor.

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	STAR DELAY	0006S	Star pressure descending start delay time.
	LOAD DELAY	0002S	The loading delay time after star pressure descending.
	EMPTY DELAY	0020M	Load free continuous running time, the machine will automatically stop after this time
	STOP DELAY	0010S	The machine will not stop until the load free running status lasting till this time
	START DELAY	0100S	Machine can not be restarted before this set time after stopped or over time operation at load free state
OPERATION MODE	ON/OFF MODE	NEAR/FAR	When the remote mode is set, both the button on the controller and the remote control button can turn on and off the machines; When the near mode is set, only the button on the controller can turn on and off the machines.
	LOAD MODE	AUTO/MANU	When the manual mode is set, the Load/Unload function can only be executed by pressing "load/unload" button
	COM MODE	BAN/COMP/BLOCK	When this is set as "BAN" the communication function is not available When this is set as "COMP." the Controller as a slave, in accordance with MODBUS protocol communications with external devices When this is set block, block control active
	COM ADD	0255	Communication address
BLOCKING MODE	BLK STATE	SLAVE	Service as main or assistant air compressor during interlocking operation. The MAIN controls the SLAVE
	BLK ON/OFF	ORDER	Standby
	TURN TIME	9999 Hours	During interlocking operation, if one air compressor continuously operates for time period more than time set here and rest time of one air compressor in interlocking network has reached the time set here, alternative rest is achieved by starting the resting air compressor and stopping the operating air compressor
	BLK NUMER	0016	Number of air compressors in interlocking network during interlocking operation
	BLK MIN	*.**MPa	The main air compressor searches for one device in the interlocking network for loading or starting when main air compressor's gas supply pressure is less than the value set here during interlocking operation
	BLK MAX	*.**MPa	The main air compressor searches for one device in the interlocking network for unloading or stopping when main air compressor's gas supply pressure is more than the value set here during interlocking operation
	BLK DELAY	0000S	The least waiting time that the main air compressor needs to continuously send control commands two time

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CLR LIFE TIME	OIL FILTER	0000 HOURS	Reset time for the duration of oil filter changing
	O/A FILTER	0000	Reset time for O/G Separator changing
	AIR FILTER	0000	Reset time for gas filter changing
	LUBE	0000	Reset time for Lubricate Oil Changing
	GREASE	0000	Reset time for Lubricate Grease Changing
MAX LIFE TIME	OIL FILTER	9999s	Set this value to "0" will make the oil filter alarm not available
	O/A SEPARATOR	9999s	Set this value to "0" to disable the O/G separator alarm function
	AIR FILTER	9999	Set this value to "0" to disable the alarm function of gas filter
	LUB	9999	Set this value to "0" to disable the time alarm of lub. oil
	GREASE	9999	Set this value to "0" to disable the time alarm of Lub. Grease
LANG.SELECT	EN	CH	Set this value to "EN" , Display text in English Set this value to "CH" , Display text in Chinese
NEW USER PIN	****	****	Customer could modify the user password

(4).Manufacturer Parameters

The difference between manufacturer parameters and user parameters is in that manufacturer parameters can be looked over and modified with manufacturer password, but its operation method is the same as that of user parameters. Please refer to following table for main functions and purposes.

PARAMETER	Initial Value	Functions
HOST CUR	MAXIMUM OVERLOAD VAULE OF THE MOTOR /1.2	After the starting delay time, when the motor current is greater than 1.2 times of the set value and less than 4 times of the set value, the unit will jump as per overload feature.
FAN CUR	Maximum allowable motor overload value/1.2	Same as above
ALARM T.	105℃	Pre-alarm when the temperature reaches this set value
STOP T.	110℃	Alarm when the air exhausting temperature reaches this set value.
STOP P.	1.00MPa	Alarm and stop the machine when the air supply temperature reaches this set value
ULD MAX	0.80MPa	The Unload Limit Pressure in the Customer Parameter must be set lower than this value.
MOD LOAD	****Hours	The manufacturer can modify the load running time
MOD RUN	****Hours	The manufacturer can modify the total running time
RST FAULT	****	Input the history failure password to clear all the history failures.
CUR UN.BAL.	0006	When (the max. phase current / min. phase current) is not greater than (1+set value), the unbalance protection will stop the machine. If the set value is greater than 15, the unbalance protection will be unavailable.
LACK PAHSE	005.0	If set time of phase failure ≥ 20 seconds, phase failure doesn't function; If unbalance protection is activated, it will stop operation.
POWER FREQ	50H/60HZ	Set the power frequency
PROD	****Y**M**D	The manufacturer input the product date of the unit.
PROD NO.	*****	The manufacturer input the product No. of the unit

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PAR.1	9999	When the compressor run time is greater than PAR.1 value, the controller will stop the compressor and alarm ; If the value set as '0000'the function is disable.
PHASE PROT.	OFF	ON:Select sequence protection OFF:Not select sequence protection

2、 Technical parameters and functions

- (1). Digital input: Digital input of 3# circuit; digital output of relay of 10# circuit;
- (2).Simulation quantity: NTC temperature input of 1# circuit; 4~20mA input of transducer of 1# circuit; two groups of three phase current input(CT provided);
- (3). Input voltage of phase sequence: three phase 380V/220V;
- (4).Controller's power supply: AC20V~AC24V、 50Hz、 40VA;
- (5).Measurement range displayed:
 - ①、 Oil temperature:-20~150℃; precision: ±1℃.
 - ②、 Air temperature:-20~150℃; precision:±1℃.
 - ③、 Operation time: 0~999999 hours.
 - ④、 Measurement range displayed for current:0~999.9A.
 - ⑤、 Pressure: 0~1.80MPa. Precision: 0.01Mpa.
- (6). Phase-sequence protection: When protector inspects wrong phase, response time≤2s (optional);
- (7). Protection of motor: this controller has five basic protection functions for main motor and fan's motor
 - ①、 block protection: When working current reaches to from 4 times to 8 times of set current after finish starting, response time ≤0.2s;
 - ②、 Short circuit protection: when testing current reaches above 8 times of set current, response time≤0.2s;
 - ③、 Protection of phase failure: in case of phase failure of any one phase, operation time equals setup time;
 - ④、 Unbalance protection: when currents of any two phase differ 60~75%,operation time equals set time;
 - ⑤、 Protection characteristics of reverse time limit of overload (time unit: second), please see following

table (table 2.1.1), $\text{multiple} = I_{\text{actual}} / I_{\text{set}}$

motor operates with delay time according to overload factors and operation time shown in following table (table 2.1.1) when motor's working current is larger or equal to from 1.2 times and 3.0 times of set current.

$I_{\text{actual}}/I_{\text{set}}$ Time parameters	≥1.2	≥1.3	≥1.5	≥1.6	≥2.0	≥3.0
Operation time (S)	60	48	24	8	5	1

Table 2.1.1 curve table of reverse time limit for protection of motor

- (8). Temperature protection: when actual temperature measured is larger than temperature set; response time≤ 2s;
- (9). Contact capacity of output relay: 250V,5A; Contact endurance 500000 times
- (10). Error of displayed current is less than 1.0%.;
- (11). RS485 communication

3、 Control principles

(1)、 Local Automatic control(ON/OFF mode: Beside Machine; Loading method: Automatic)

①. press down start button “ | ”for starting: (Y- Δ start)

There is three seconds of self-test after controller is energized and it can not be started by pressing down start button “ | ”.The air compressor starts by pressing start button “ | ”after self-test finished. The course of compressor’s start as followed: KM3 and KM2 are energized \rightarrow Y-type status of start \rightarrow delay time is reached (Y- Δ change-over time); KM3 is de-energized (KM1 and KM3 are interlocked) and KM1 is energized \rightarrow motor operates with Δ type to finish start. During the course of starting, all electromagnetism valves are de-energized to achieve no load start.

②. Automatic operation control:

When the motor is started to running in Δ status and load the magnetic valve with power applied after a certain period of delay. air compressor is loaded and pressure inside gas tank begins to increase. When increased air pressure is more than higher pressures limit (value of unload pressure), electromagnetism valve for loading is de-energized and electromagnetism valve for discharging is energized, meanwhile, the air compressor operates without load. If air pressure decreases to set lower pressure limits (value of load pressure), the electromagnetism valve for loading is energized again and electromagnetism valve for discharging is de-energized. Air compressor operates normally to increase pressure in air tank. If the unload run time exceeds the set delay time of non-load, the compressor will automatically stop motor’s operation to achieve automatic shutdown after works without load for long time. Only when pressure decreases to lower pressure limits, the motor start operation according to course of starting, then circularly repeat this step.

③. Manual loading/unloading under automatic status

When compressor in automatically runs state and runs at unload operation, press down load or unloading button “S “, the electromagnetism valve for loading joggles a little and comes back to unloading status; if the pressure is less than relief pressure, the electromagnetism valve for loading is energized and it returns to unloading status until gas supply pressure becomes larger than relief pressure and device is at loading status. Unloading is performed when press down unloading button “S”. If the pressure is higher than loading pressure, the electromagnetism valve for loading is de-energized and turns to status of loading until gas supply pressure is less than loading pressure. If pressure is less than loading pressure, the unloading button do not function.

④. Normal shutdown:

Press the button “O”, the load magnetic valve will loss power and the unload magnetic will be applied with power, after a while of delay (stop delay), the motor contactor will loss power, the host and fan will stop running, after the restarting delay completed, the unload magnetic will loss power. Only pressing the button “ | ”could restart the motor.

⑤. Control of preventing frequent starting

Press stop button “O” to stop operation; Air compressor can not be started up immediately after shutdown due to operation without load for long time or failure shutdowns, and it can be started up again when remaining delay time is zero which the time display window of the controller in a variety of shutdown state shows.

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2). Remote automatic control (way of starting and stopping: remote; way of loading: automatic)

Remote automatic control and local automatic control are basically same, but the difference is that starting up or stopping of devices can be achieved by means of control of remote switch.

3). Local manual control (way of starting and stopping: local; way of loading: manual)

Control of starting and stopping are same as automatic control, but device is in status of unloading operation after finish starting up and loading is carried out by pressing down loading and unloading button “S” to load. When gas supply pressure is more than relief pressure, the device unloads automatically. If doesn’t press loading, unloading button “S”, the device will operate with unloading until stops without load. During unloading, press loading and unloading button “S” to load. During loading, press loading and unloading button “S” to unload.

4). Remote Manual Control (On/Off Mode: Remote; Load mode: Manual)

The remote automatic control is almost the same as the local manual control, the only difference is that the start and stop of the unit is controlled by remote control.

(2). Network control

- ①: When communication method is set “computer”, network control between computer and controllers can be achieved
- ②: When communication method is set “interlocking”, network control between controllers can be achieved, but the main air compressor only can service as 1# compressor.

(3). Temperature control of fan

When exhausting temperature is higher than fan’s starting temperature, fan operates; when exhausting temperature is lower than fan’s stopping temperature, fan stops operation.

(4). Failure shutdown and emergency shutdown

When electrical failure or high exhausting temperature appears during process of operation, the controller stops motor’s operation immediately. Air compressor only can be started up after failure is eliminated. In case of emergency, press down emergency stop button to cut off power of controller and contactors

6、 Early-warning and prompts

(1). Prompts on display

1). Indication of early warning of air filter

①. early warning for blockage of air filter

the controller displays “AIR FILTER BLOCK” for blockage of air filter on the display through measuring pressure difference of air filter and switch action.

②. Setting of early warning for using time of air filter

By using time of air filter, the display changes air filter’s using time into “**AIR LIFE END**”,

2). Indication of early warning for oil filter

setting of early warning for using time of oil filter, By using time of air filter, display changes using time of oil filter into “**OIL LIFE END**”

3). Indication of early warning for oil distributor

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setting of early warning for using time of oil distributor,By using time of oil distributor, display changes using time of oil distributor into **“O/A LIFE END”**

4).Indication of early warning for lubricating oil

By using time of lubricating oil, display changes using time of lubricating oil into **“LUBE LIFE END”**

5). Indication of early warning for grease

By using time of grease, display changes using time of grease into **“GREASE LIFE END”**

7、 Controller protection

(1). Motor protection

CS5000 air compressor controller provides all-round protection functions of short-circuit, locking, phase failure, overload and imbalance for motor.

Electronic failure	Failure Display	Reason
Short circuit	Display failure “HOST/FAN SHORT”	Short circuit or rated current is set by mistake
Blocked	Display failure “HOST/FAN BLOCK”	Too large load, bearing wear and other mechanical failure
Overload	Display failure “HOST/FAN OVER CARRY”	Too large load, bearing wear and other mechanical failure
Phase failure	Display failure “HOST/FAN LACK PHASE”	Power supply, contactor and phase failure of motor
Unbalance	Display failure “HOST/FAN UNBLANCE”	Poor contact of contactor, inside open-loop of motor

(2). Gas Exhaust Over-temperature Protection

When the Air exhaust temperature is higher than the upper limit of set temperature, the controller would be stopped ,The display will show **“HIGHT T”**.

(3). Non-reversing Protection of Air Compressor

When three-phase supply phase sequence connected to the air compressor is not the same with that set for the controller, the on-site failure is displayed as **“PHASE REVERSAL”**, as a result, the controller cannot start up the motor. Then just change any arbitrary two-phase power lines leading to check the rotation of motor.

(4). Overpressure Protection of Pressure Supply

When the gas exhaust pressure is higher than the upper limit of set pressure, the controller would be stopped for warning, the on-site failure is displayed as **“HIGH P”**.

(5). Malfunction Protection of Sensor

When pressure sensor or temperature sensor is disconnected, the controller would be stopped for warning. the on-site failure is displayed as **“**SENSOR FAULT”**.

8、 Removal of Common Failures

(1). Failures Review

Shutdown caused by the external parts of controllers may be removed by inquiring the on-site failure or historic failure, with the details shown as below:

Press Down button “▼” or Up button “▲”, to move the black scroll bar to “**RUN PARAMETER**” menu, then press Enter button “▶”, the lower menu would be popped out:

```

MOTORS CURRENT
TOTAL RUN TIME
THIS RUN TIME
MAINTENANCE SET
    
```

Press Down key “▼” always and the following menu will appear:

```

HISTORY FAULT
PROD DATE NO.
THIS FAULT
    
```

Press Enter key “▶” and the following failure causes will appear:

```

STOP:T1 SENSOR FAULT
0170°C
    
```

In this case, just check if the temperature sensor is disconnected and if the sensor is damaged, etc.

(2). Common Failures and Causes

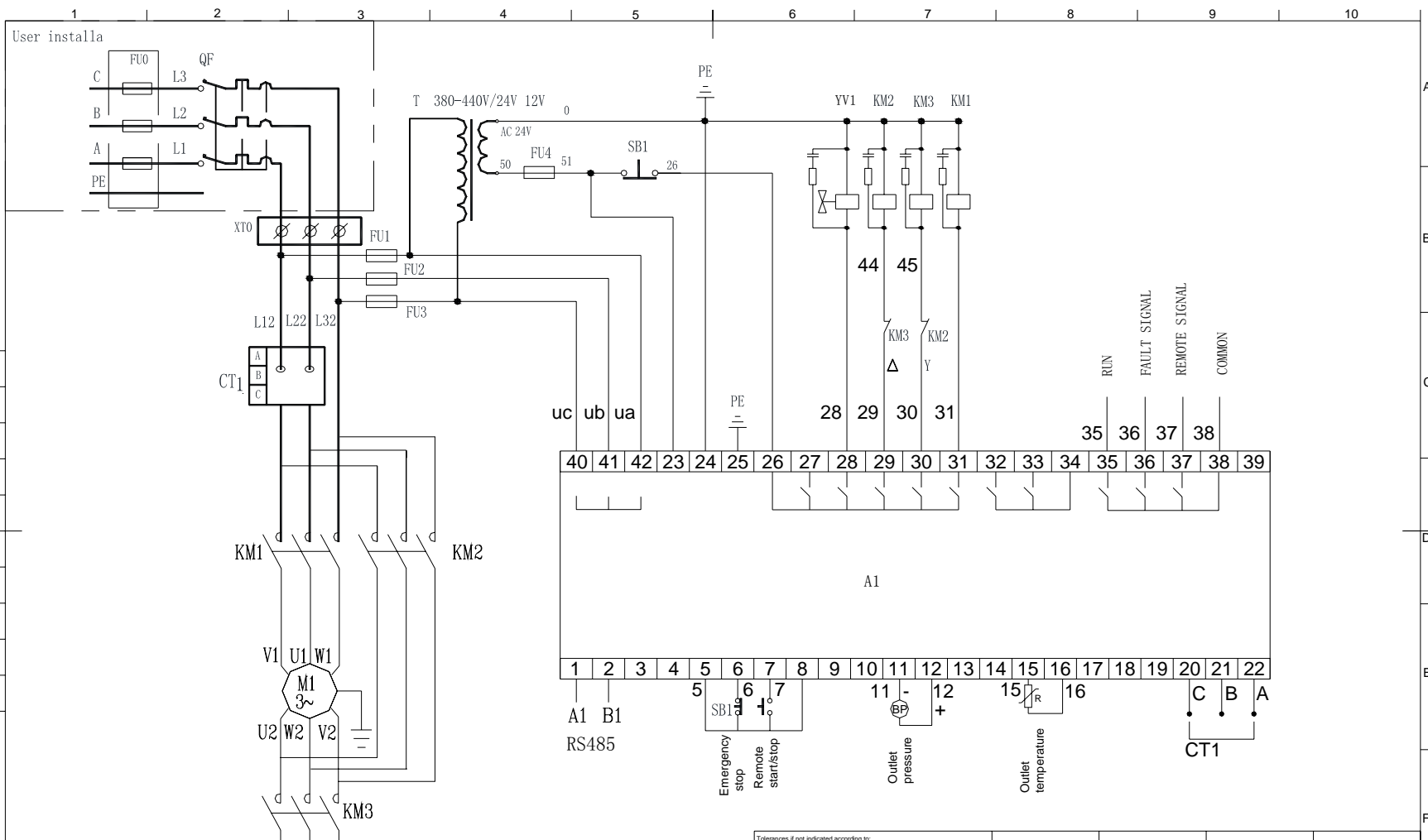
Failure	Reason	Disposal method
Air Exhaust Temperature too high	Bad vent condition, Oil lacking etc.	Check the vent condition and lubricant amount etc.
Temperature Sensor Failure	Cable off or NTC damaged	Checking the wiring and NTC
Over Pressure	The pressure too high or the pressure sensor failure	Check the pressure and the pressure sensor
Pressure Sensor Failure	Cable off, Sensor damaged or the cable connected reversed	Check the wiring and sensor transformer
Water Lacking	Water Pressure switch damaged	Check the water pressure switch
Lack Phase	Power phase lacking or the Contactor terminal damaged	Check the power and contactors
Overloaded	Voltage too low, tubes blocked, Bearing Wear off or other mechanical failure or wrong set data etc.	Check the set data, Voltage, bearings, tubes and other mechanical system.

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Unbalance	Power unbalance, Contactor damaged or the internal open of the motor	Check the power, contactors and the motor
Rotor Lock	Voltage too low, tubes blocked, Bearing Wear off or other mechanical failure or wrong set data etc.	Check the set data, Voltage, bearings, tubes and other mechanical system.
Short Circuit	Wrong Wiring, Incorrect Data setting etc.	Checking the wiring and set the data correctly
Wrong Phase Sequence	Reversed Phase sequence or phase off	Check the wiring
Fan stopped	Fan damaged, Contactor damaged, no control output	Check the wiring and control output
Overload or Rotor locking during starting process	Host start time set to a valueless than the star angel time delay	Reset the host starting time to be longer than star angel delay + Load delay time
Main Contactor activate time to time	The emergency button loose	Check the wiring
Air Exhaust Temperature too high	Bad vent condition, Oil lacking etc.	Check the vent condition and lubricant amount etc.
Temperature Sensor Failure	Cable off or NTC damaged	Checking the wiring and NTC
Over Pressure	The pressure too high or the pressure sensor failure	Check the pressure and the pressure sensor

CONFIDENTIAL:

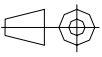
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A1	B1	0	28	5	7	15	16	35	36	37	38	PE
----	----	---	----	---	---	----	----	----	----	----	----	----

Nota	Position	Modified from	Date	Intr./Appd.
00				

Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name				Confidentiality class	
5.5-30KW(7.5-40HP) 380V/400V/440V 50HZ/60HZ CS5000				acc. to 1102 K	
Material				Treatment	
				ACD	
Scale		Family		Compare	
Drawn by		Blank nr.		Replaces	
Version Drwg		Blank wt.		Kg	
STATUS		Fini wt.		Kg	
Preliminary		Des checked.		Date	
		Prod checked.		Approved.	
				Date	
				Designation	
				Sheet () 01 02	
				2205600096	



Drawing owner

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1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

CODE	NAME	TYPE							QUT.
		COMMON	5.5-7.5KW/7.5-10HP	11KW/15HP	15KW/20HP	18KW/25HP	22KW/30KW	30KW/40HP	
SB1	Push-button	ZB2-BS54C + ZB2-104C							1
TR	Transformer		JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	1
FU4	Fuse	6A							1
CT1	Current Transformer	200A							1
FU1-3	Fuse	2A							3
A1	Controller	CS5000							1
YV1	Unloader	AC24V							1
BP	Pressure sensor	0-18bar 4-20mA							1
R	Temp. sensor	NTC 100K -20/+120°C							1
XT0	Terminal		TC-60A-3P	TC-60A-3P	TC-60A-3P / TC-100A-3P	TC-100A-3P	TC-100A-3P	TC-100A-3P	1
KM3	Contactora		LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	1
KM2	Contactora		LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	1
KM1	Contactora		LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	1
QF	Breaker	User installa	C65N/3P D32A	C65N/3P D32A	C65N/3P 40A	N120H/3P 63A	N120H/3P 63A	N120H/3P 80A	1
M1	Motor		5.5-7.5KW	11KW	15KW	18.5KW	22KW	30KW	1
	sheet metal	2205600449							

CABLE							
L1, L2, L3	6mm ²	6mm ²	6mm ²	10mm ²	10mm ²	16mm ²	
L12, L22, L32,	4mm ²	4mm ²	4mm ²	6mm ²	6mm ²	10mm ²	
U1, V1, W1, U2, V2, W2	4mm ²	4mm ²	4mm ²	6mm ²	6mm ²	10mm ²	

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Tolerances if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name 5.5-30KW(7.5-40HP) 380V/400V/440V 50HZ/60HZ CS5000				Confidentiality class acc. to 1102 K	
Material				ACD	
Treatment				Drawing owner	
Scale		Family		Compare	
Drawn by		Blank nr.		Replaces	
Version Drawg		Blank wt.		Kg	
status		Kg		Kg	
Preliminary		Des checked.		Prod checked.	
		Approved.		Date	
				Designation Sheet () 02 02	
				2205600096	

Note	Position	Modified from	Date	Intr./Appd.		
00					Parent 3D Model	Ed.Version 3D

CS5000 screw compressor controller

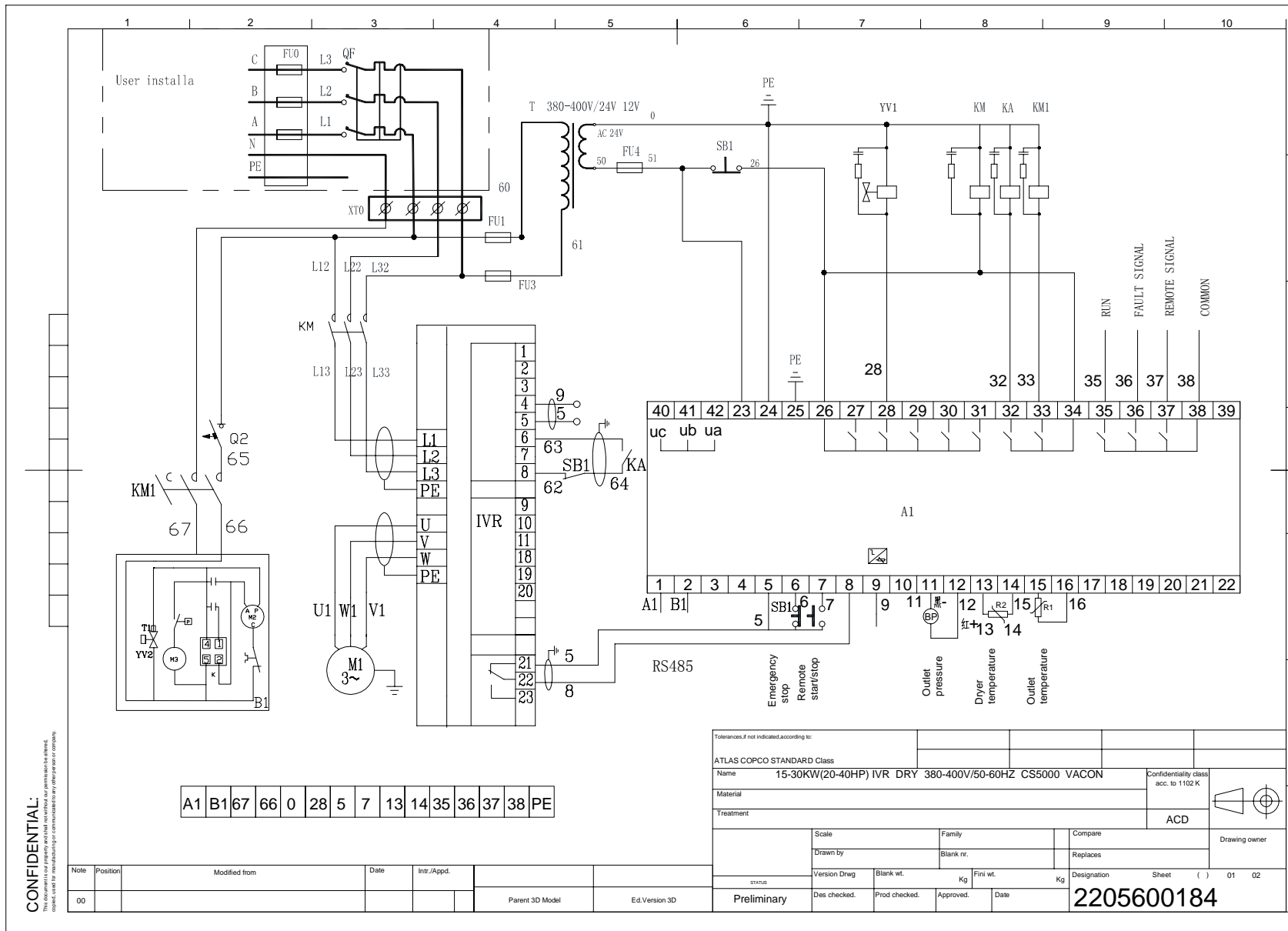
CODE	NAME	TYPE								QUT.
		COMMON	5.5KW/7.5HP	7.5KW/10HP	11KW/15HP	15KW/20HP	18KW/25HP	22KW/30HP	30KW/40HP	
SB1	Push-button	ZB2-BS54C + ZB2-104C								1
TR	Transformer		JBK5-160,220V/24V,12V	JBK5-160,220V/24V,12V	JBK5-160,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	1
FU4	Fuse	6A								1
CT1	Current Transformer	200A								1
FU1-3	Fuse	2A								3
A1	Controller	CS5000								1
YV1	Unloader	AC24V								1
BP	Pressure sensor	0~18bar 4~20mA								1
R	Temp. sensor	NTC 100K -20/+120 °C								1
XT0	Terminal		TC-60A-3P	TC-60A-3P	TC-60A-3P	TC-100A-3P	TC-100A-3P	TC-100A-3P	TC-150A-3P	1
KM3	Contact		LC1-D0901B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	1
KM2	Contact		LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	1
KM1	Contact		LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	1
QF	Breaker	User installa	32A	40A	60A	80A	80A	100A	125A	1
M1	Motor		5.5KW	7.5KW	11KW	15KW	18.5KW	22KW	30KW	1
	sheet metal	2205600449								

CABLE	6mm ²	6mm ²	10mm ²	16mm ²	16mm ²	25mm ²	50mm ²
L1,L2,L3	6mm ²	6mm ²	10mm ²	16mm ²	16mm ²	25mm ²	50mm ²
L12,L22,L32	2X4mm ²	2X4mm ²	2X6mm ²	2X10mm ²	2X10mm ²	2X16mm ²	2X25mm ²
U1,V1,W1,U2,V2,W2	4mm ²	4mm ²	6mm ²	10mm ²	10mm ²	16mm ²	25mm ²

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Tolerances, if not indicated according to:					
ATLAS COPCO STANDARD Class					
Name 5.5-30KW(7.5-40HP) 220V 50HZ/60HZ CS5000					Confidentiality class acc. to 1102 K
Material					
Treatment					
					ACD
Scale		Family		Compare	
Drawn by		Blank nr.		Replaces	
Drawing owner		Drawing owner		Drawing owner	
Version Drwg		Blank wt. Kg		Fini wt. Kg	
status		Designation		Sheet () 02 02	
Preliminary		Des checked.		Prod checked.	
		Approved.		Date	
				2205600461	

CS5000 screw compressor controller



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Note	Position	Modified from	Date	Intr./Appd.
00				

Tolerances if not indicated according to:			
ATLAS COPCO STANDARD Class			
Name		15-30KW(20-40HP) IVR DRY 380-400V/50-60HZ CS5000 VACON	
Material		Confidentiality class acc. to 1102 K	
Treatment		ACD	
Scale	Family	Compare	
Drawn by	Blank nr.	Replaces	
Version Drwg	Blank wt.	Kg	Designation
status	Blank wt.	Kg	Sheet () 01 02
Preliminary	Des checked.	Prod checked.	Approved. Date
			2205600184

CS5000 screw compressor controller

CODE	NAME	TYPE				QUT.	
		COMMON	15KW	18KW	22KW		30KW
XTO	Terminal	TC-100A-4P				1	
SB1	Push-button	ZB2-BS54C + ZB2-104C				1	
T	Transformer	JBK5-250,380V/24V,12V				1	
FU4	Fuse	6A				1	
B1	Dryer					1	
FU1-3	Fuse	2A				2	
A1	Controller	CS5000				1	
YV1	Unloader	AC24V				1	
BP	Pressure sensor	0~18bar 4~20mA				1	
R1	Temp. sensor	NTC 100K -20/+120°C				1	
Q2	Breaker	C65N/1P D10				1	
KM1	Contacteur	LC1-D0901B7C				1	
KA	Relay	TP68X-HH62P/L AC24V				1	
KM	Contacteur		LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	1
IVR	Inverter		NXL 0038 5CTH1SSS00	NXL 0046 5CTH1SSS00	NXL 0061 5CTH1SSS00	NXL 0061 5CTH1SSS00	1
QF	Breaker	User installa	C65N/3P 40A	N120H/3P 63A	N120H/3P 80A	N120H/3P 80A	1
M1	Motor		18.5KW	22KW	30KW	30KW	1
	sheet metal	2205600449					

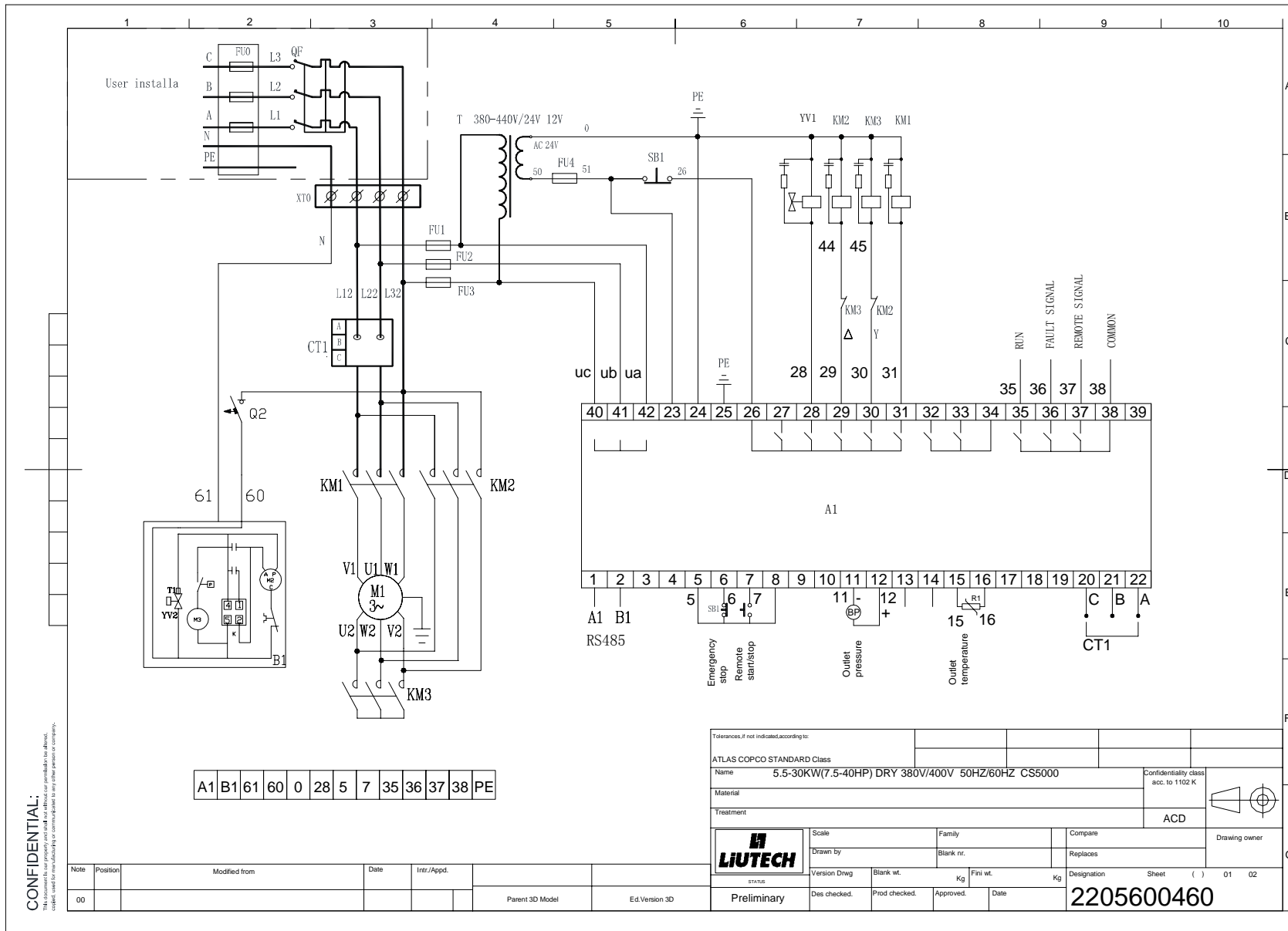
CABLE				
L1,L2,L3	6mm ²	10mm ²	10mm ²	16mm ²
L12,L22,L32,L13,L23,L33	6mm ²	10mm ²	10mm ²	16mm ²
U1,V1,W1,	6mm ²	10mm ²	10mm ²	16mm ²

Note		Position	Modified from	Date	Intr./Appd.	Parent 3D Model	Ed.Version 3D
00							


Tolerances, if not indicated, according to:							
ATLAS COPCO STANDARD Class							
Name		15-30KW(20-40HP) IVR DRY 380-400V/50-60HZ CS5000 VACON		Confidentiality class		acc. to 1102 K	
Material				ACD			
Treatment							
Scale		Family		Compare		Drawing owner	
Drawn by		Blank nr.		Replaces			
Version Drwg		Blank wt. Kg		Fini wt. Kg		Designation Sheet () 02 02	
STATUS		Des. checked.		Prod. checked.		Approved. Date	
Preliminary						2205600184	

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CS5000 screw compressor controller



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Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name				Confidentiality class	
5.5-30KW(7.5-40HP) DRY 380V/400V 50HZ/60HZ CS5000				acc. to 1102 K	
Material				ACD	
Treatment				Drawing owner	
		Scale		Family	
		Drawn by		Blank nr.	
Version Draw		Blank wt.		Kg	
Fini wt.		Kg		Designation	
Des checked.		Prod checked.		Approved.	
Date		Date		Sheet () 01 02	
STATUS: Preliminary				Designation: 2205600460	

CS5000 screw compressor controller

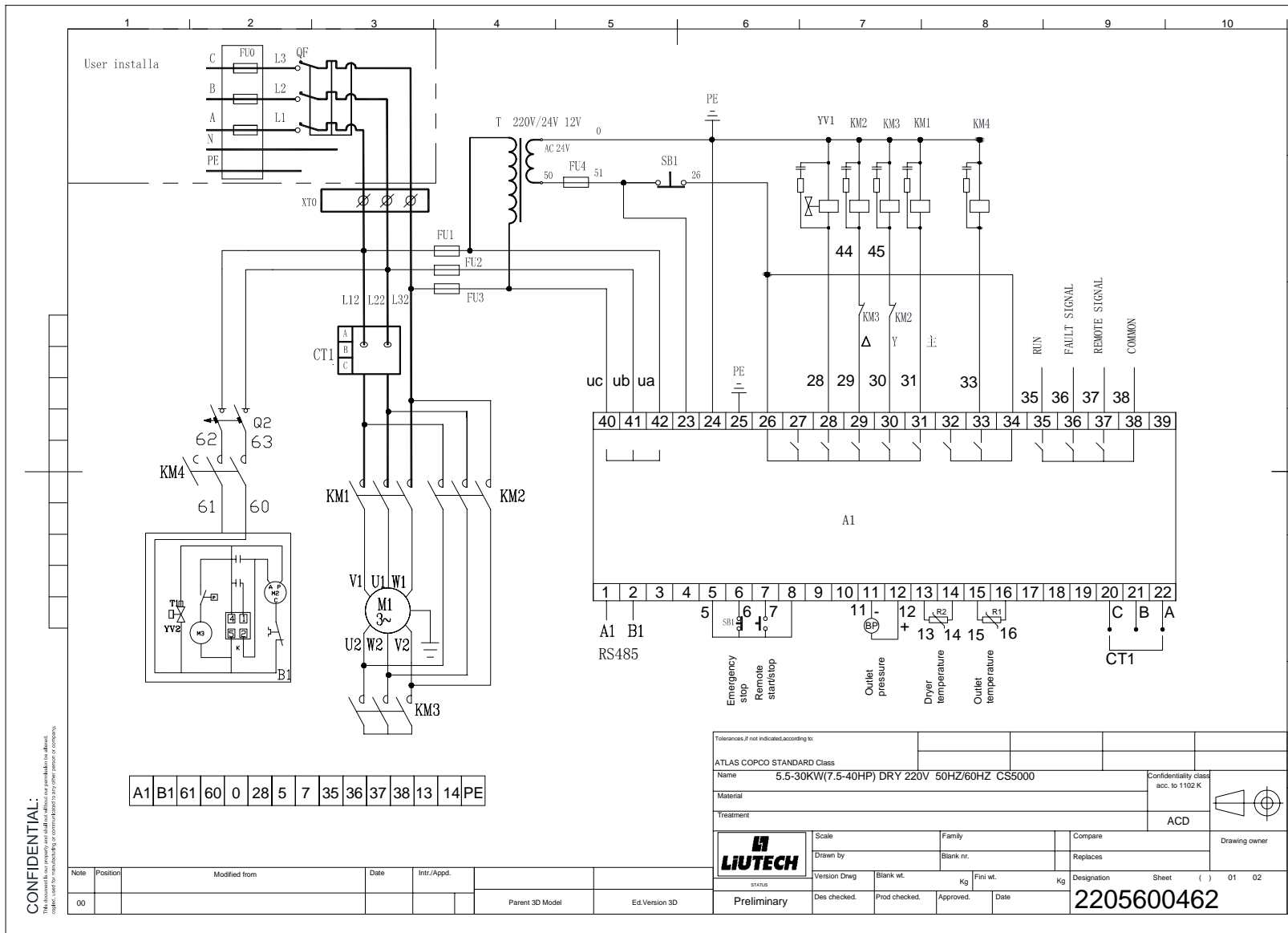
CODE	NAME	TYPE						QUT.	
		COMMON	5.5-7.5KW/7.5-10HP	11KW/15HP	15KW/20HP	18KW/25HP	22KW/30KW		30KW/40HP
Q2	Breaker	C65N/IP D10						1	
SB1	Push-button	ZB2-BS54C + ZB2-104C						1	
T	Transformer		JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	
FU4	Fuse	6A						1	
CT1	Current Transformer	200A						1	
FU1-3	Fuse	2A						3	
A1	Controller	CS5000						1	
YV1	Unloader	AC24V						1	
BP	Pressure sensor	0-18bar 4-20mA						1	
R1	Temp. sensor	NTC 100K -20/+120°C						1	
XT0	Terminal		TC-60A-4P	TC-60A-4P	TC-60A-4P / TC-100A-4P	TC-100A-4P	TC-100A-4P	TC-100A-4P	1
KM3	Contact		LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	1
KM2	Contact		LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	1
KM1	Contact		LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	1
QF	Breaker	User installa	C65N/3P D32A	C65N/3P D32A	C65N/3P 40A	N120H/3P 63A	N120H/3P 63A	N120H/3P 80A	1
M1	Motor		5.5-7.5KW	11KW	15KW	18.5KW	22KW	30KW	1
	sheet metal	2205600449							

CABLE						
L1,L2,L3	6mm ²	6mm ²	6mm ²	10mm ²	10mm ²	16mm ²
L12,L22,L32,	4mm ²	4mm ²	4mm ²	6mm ²	6mm ²	10mm ²
U1,V1,W1,U2,V2,W2	4mm ²	4mm ²	4mm ²	6mm ²	6mm ²	10mm ²

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Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name 5.5-30KW(7.5-40HP) DRY 380V/400V 50HZ/60HZ CS5000				Confidentiality class acc. to 1102 K	
Material				ACD	
Treatment				Drawing owner	
Scale		Family		Compare	
Drawn by		Blank nt.		Replaces	
Version Drwg		Blank wt.		Kg	
Fini wt.		Kg		Designation Sheet () 02 02	
status Preliminary		Des checked.		Prod checked.	
Approved.		Date		2205600460	

CS5000 screw compressor controller



CS5000 screw compressor controller

		1	2	3	4	5	6	7	8	9	10	
CODE	NAME	TYPE									QUT.	
		COMMON	5.5KW/7.5HP	7.5KW/10HP	11KW/15HP	15KW/20HP	18KW/25HP	22KW/30HP	30KW/40HP			
KM4	Contactar	LC1-D0901B7C.AC24V										
Q2	Breaker	C65N2P D10										
SB1	Push-button	ZB2-BS54C + ZB2-104C									1	
TR	Transformer		JBK5-160,220V/24V,12V	JBK5-160,220V/24V,12V	JBK5-160,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	1	
FU4	Fuse	熔芯6A									1	
CT1	Current Transformer	200A										
FU1-3	Fuse	熔芯2A									3	
A1	Controller	CS5000									1	
YV1	Unloader	AC24V									1	
BP	Pressure sensor	0-18bar 4-20mA									1	
R	Temp. sensor	NTC 100K -20/+120℃									1	
XT0	Terminal		TC-60A-3P	TC-60A-3P	TC-60A-3P	TC-100A-3P	TC-100A-3P	TC-100A-3P	TC-100A-3P	TC-150A-3P	1	
KM3	Contactar	LC1-D0901B7C.AC24V	LC1-D1201B7C.AC24V	LC1-D1801B7C.AC24V	LC1-D2501B7C.AC24V	LC1-D3201B7C.AC24V	LC1-D4011B7C.AC24V	LC1-D4011B7C.AC24V	LC1-D5011B7C.AC24V	LC1-D5011B7C.AC24V	1	
KM2	Contactar	LC1-D1801B7C.AC24V	LC1-D2501B7C.AC24V	LC1-D3201B7C.AC24V	LC1-D4011B7C.AC24V	LC1-D5011B7C.AC24V	LC1-D6511B7C.AC24V	LC1-D6511B7C.AC24V	LC1-D8011B7C.AC24V	LC1-D8011B7C.AC24V	1	
KM1	Contactar	LC1-D1801B7C.AC24V	LC1-D2501B7C.AC24V	LC1-D3201B7C.AC24V	LC1-D4011B7C.AC24V	LC1-D5011B7C.AC24V	LC1-D6511B7C.AC24V	LC1-D6511B7C.AC24V	LC1-D8011B7C.AC24V	LC1-D8011B7C.AC24V	1	
QF	Breaker	User installa	32A	40A	60A	80A	80A	100A	100A	125A	1	
M1	Motor		5.5KW	7.5KW	11KW	15KW	18.5KW	22KW	22KW	30KW	1	
	sheet metal	2205600449										

CABLE							
L1, L2, L3	6mm ²	6mm ²	10mm ²	16mm ²	16mm ²	25mm ²	50mm ²
L12, L22, L32.	2X4mm ²	2X4mm ²	2X6mm ²	2X10mm ²	2X10mm ²	2X16mm ²	2X25mm ²
U1, V1, W1, U2, V2, W2	4mm ²	4mm ²	6mm ²	10mm ²	10mm ²	16mm ²	25mm ²

Tolerances, if not indicated, according to:											
ATLAS COPCO STANDARD Class											
Name 5.5-30KW(7.5-40HP) DRY 220V 50HZ/60HZ CS5000										Confidentiality class acc. to 1102 K	
Material										ACD	
Treatment											
Scale			Family			Compare			Drawing owner		
Drawn by			Blank nr.			Replaces					
Version Drwg		Blank wt.		Kg		Fini wt.		Kg		Designation Sheet () 02 02	
STATUS Preliminary		Des checked.		Prod checked.		Approved.		Date		2205600462	

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CS5000 screw compressor controller

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10


CODE	NAME	TYPE							OUT.
		COMMON	5.5-7.5KW/7.5-10HP	11KW/15HP	15KW/20HP	18KW/25HP	22KW/30KW	30KW/40HP	
KM4	Contacteur	LC1-D0901B7C,AC24V							1
Q2	Breaker	C65N/1P D10							1
SB1	Push-button	ZB2-BS54C + ZB2-104C							1
T	Transformer		JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-160,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	1
FU4	Fuse	6A							1
CT1	Current Transformer	200A							1
FU1-3	Fuse	2A							3
A1	Controller	CS5000							1
YV1	Unloader	AC24V							1
BP	Pressure sensor	0-18bar 4-20mA							1
R1	Temp. sensor	NTC 100K -20/+120°C							1
XT0	Terminal		TC-60A-4P	TC-60A-4P	TC-60A-4P	TC-100A-4P	TC-100A-4P	TC-100A-4P	1
KM3	Contacteur	LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D2501B7C,AC24V	1
KM2	Contacteur	LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	1
KM1	Contacteur	LC1-D1201B7C,AC24V	LC1-D1801B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D2501B7C,AC24V	LC1-D3201B7C,AC24V	LC1-D4011B7C,AC24V	LC1-D4011B7C,AC24V	1
QF	Breaker	User installa	C65N/3P D32A	C65N/3P D32A	C65N/3P 40A	N120H/3P 63A	N120H/3P 63A	N120H/3P 80A	1
M1	Motor	sheet metal	5.5-7.5KW	11KW	15KW	18.5KW	22KW	30KW	1
		2205600449							

CABLE						
L1,L2,L3	6mm ²	6mm ²	6mm ²	10mm ²	10mm ²	16mm ²
L12,L22,L32,	4mm ²	4mm ²	4mm ²	6mm ²	6mm ²	10mm ²
U1,V1,W1,U2,V2,W2	4mm ²	4mm ²	4mm ²	6mm ²	6mm ²	10mm ²

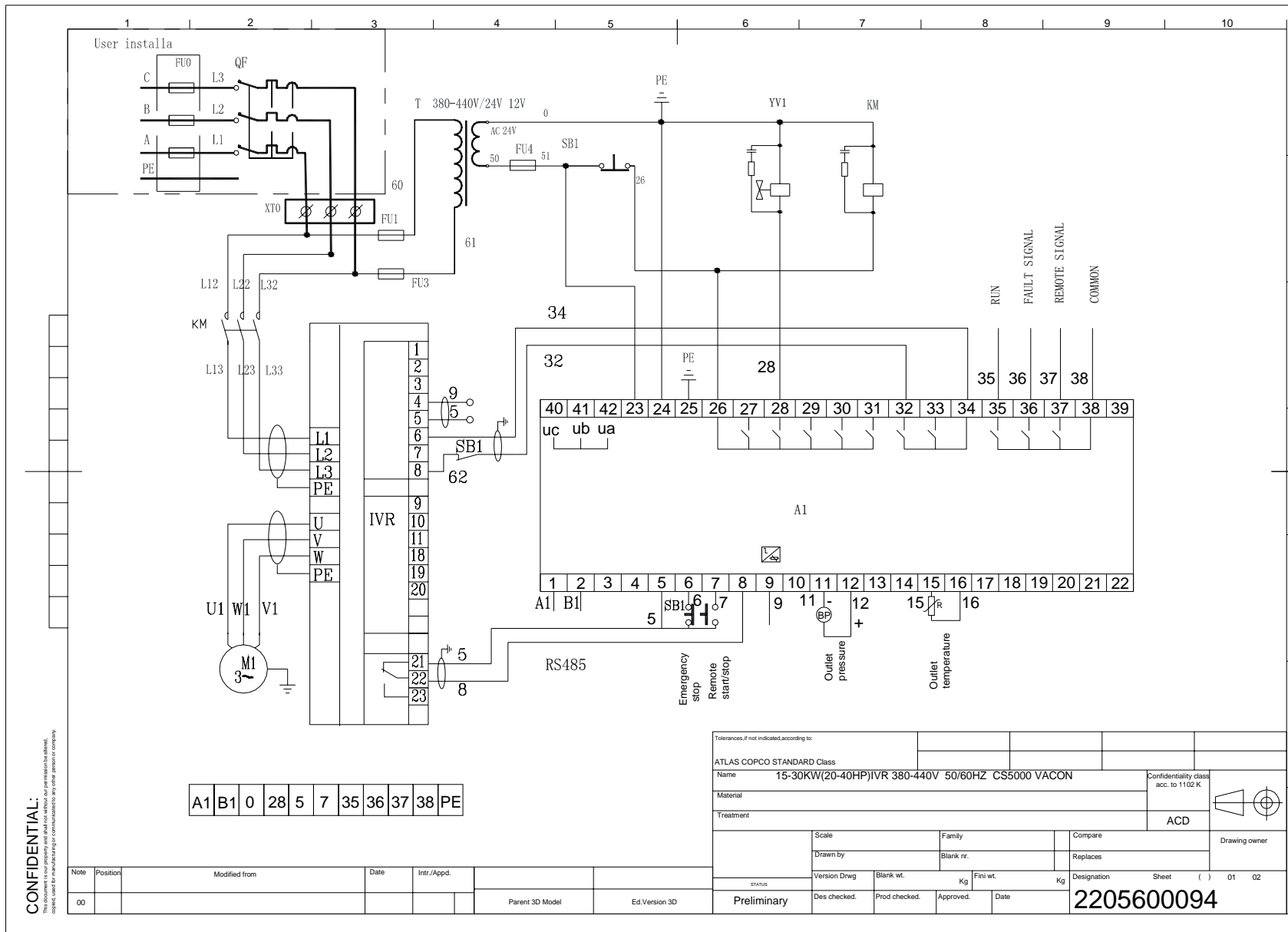
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Note	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	Ed.Version 3D
00						

Tolerances, if not indicated according to:					
ATLAS COPCO STANDARD Class					
Name				Confidentiality class	
5.5-30KW(7.5-40HP) DRY 380V/400V 50HZ/60HZ CS5000				acc. to 1102 K	
Material				ACD	
Treatment					
Scale		Family		Compare	
Drawn by		Blank nr.		Replaces	
Version Dwg		Blank wt.		Kg	
Fin. wt.		Kg		Designation	
Sheet		()		02 02	
Des checked. Prod checked. Approved. Date				2205600098	

CS5000 screw compressor controller



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CS5000 screw compressor controller

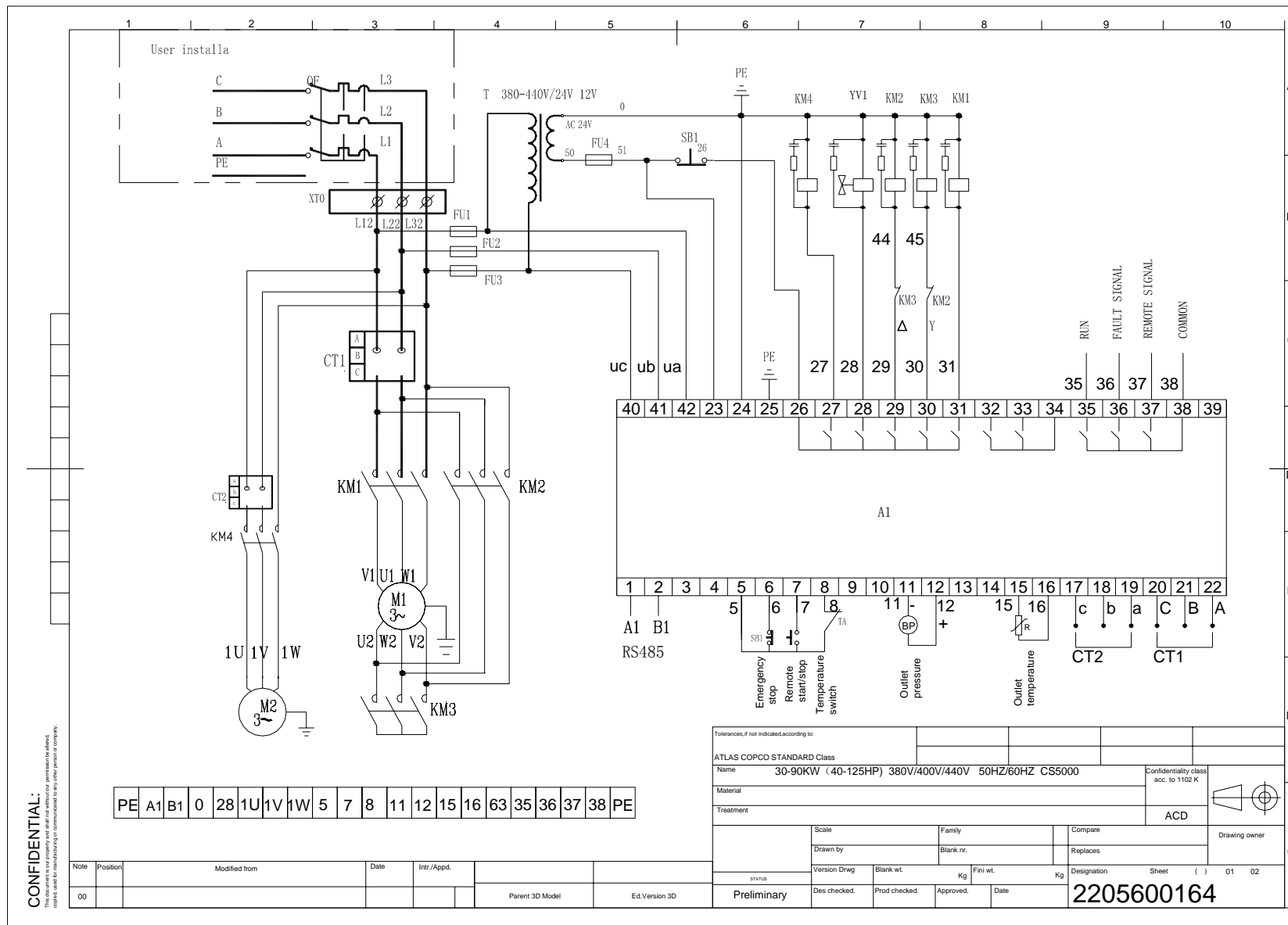
CODE	NAME	TYPE				QUT.	
		COMMON	15KW/20HP IVR	18KW/25HP IVR	22KW/30HP IVR		30KW/40HP IVR
SB1	Push-button	ZB2-BS54C + ZB2-104C				1	
T	Transformer	JBK5-250,380-440V/24V,12V				1	
FU4	Fuse	6A				1	
FU1-3	Fuse	2A				2	
A1	Controller	CS5000				1	
YV1	Unloader	AC24V				1	
BP	Pressure sensor	0-18bar 4~20mA				1	
R	Temp. sensor	NTC 100K -20/+120°C				1	
XT0	Terminal	TC-100A-3P				1	
KM1	Contactor		LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	1
IVR	Inverter		NXL 0038 5CTH1SSS00	NXL 0046 5CTH1SSS00	NXL 0061 5CTH1SSS00	NXL 0061 5CTH1SSS00	1
QF	Breaker	User installa	C65N/3P 40A	N120H/3P 63A	N120H/3P 80A	N120H/3P 80A	1
M1	Motor		15KW	18KW	22KW	30KW	1
	sheet metal	2205600449					

CABLE				
L1,L2,L3	6mm ²	10mm ²	10mm ²	16mm ²
L12,L22,L32,L13,L23,L33	6mm ²	10mm ²	10mm ²	16mm ²
U1,V1,W1,	6mm ²	10mm ²	10mm ²	16mm ²

Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name	15-30KW(20-40HP)IVR 380-440V 50/60HZ CS5000 VACON			Confidentiality class	
Material				acc. to 1102 K	
Treatment				ACD	
Scale	Family	Compare	Drawing owner		
Drawn by	Blank nr.	Replaces			
Version Dwg	Blank wt. Kg	Fin. wt. Kg	Designation Sheet () 02 02		
status	Des. checked.	Prod. checked.	Approved.	Date	2205600094
Parent 3D Model	Ed. Version 3D				

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CS5000 screw compressor controller



CS5000 screw compressor controller

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

CODE	NAME	TYPE							QUT.
		COMMON	30KW/40HP	37KW/50HP	45KW/60HP	55KW/75HP	75KW/100HP	90KW/125HP	
CT1	Current Transformer	200A							1
CT2	Current Transformer	40A							1
SB1	Push-button	ZB2-BS54C + ZB2-104C							1
T	Transformer		JBK5-250,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	JBK5-350,380-440V/24V,12V	1
KM4	Contacteur		LC1-D0901B7C	LC1-D0901B7C	LC1-D0901B7C	LC1-D0901B7C	LC1-D0901B7C	LC1-D0901B7C	1
FU4	Fuse	6A							1
FU1-3	Fuse	2A							3
A1	Controller	CS5000							1
YV1	Unloader	AC24V							1
BP	Pressure sensor	0-18bar 4-20mA							1
R	Temp. sensor	NTC 100K -20/+120°C							1
M2	Motor	AC380V/50HZ							1
KM3	Contacteur		LC1-D2510B7C,AC24V	LC1-D3210B7C,AC24V	LC1-D3810B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	1
KM2	Contacteur		LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	LC1-D9511B7C,AC24V	LC1-D11500B7C,AC24V	1
KM1	Contacteur		LC1-D4011B7C,AC24V	LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	LC1-D9511B7C,AC24V	LC1-D11500B7C,AC24V	1
XT0	Terminal	150A-3P	150A-3P	150A-3P	150A-3P	200A-3P	200A-3P	200A-3P	1
M1	Motor		30KW	37KW	45KW	55KW	65KW/75KW	90KW	1
QF	Breaker	User installa	80A	100A	125A	125A	200A	225A	1
	sheet metal	2205600449							

CABLE						
L1,L2,L3	16mm ²	25mm ²	35mm ²	50mm ²	70mm ²	95mm ²
L12,L22,L32,	2x10mm ²	2x16mm ²	2x16mm ²	2x25mm ²	2x35mm ²	2x50mm ²
U1,V1,W1,U2,V2,W2	10mm ²	16mm ²	16mm ²	25mm ²	35mm ²	50mm ²
Y-D	6mm ²	10mm ²	10mm ²	16mm ²	25mm ²	35mm ²

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Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name 30-90KW (40-125HP) 380V/400V/440V 50HZ/60HZ CS5000				Confidentiality class acc. to 1102 K	
Material				ACD	
Treatment					
Scale		Family		Compare	
Drawn by		Blank nr.		Replaces	
Version Dwg		Blank wt. Kg		Fini wt. Kg	
Designation		Sheet () 02 02		Drawing owner	
Parent 3D Model		Ed.Version 3D		Preliminary	
Des checked.		Prod checked.		Approved.	
Date		Date		Date	
				2205600164	

Note	Position	Modified from	Date	Intr./Appd.
00				

CS5000 screw compressor controller

CODE	NAME	TYPE							QUT.
		COMMON	30KW/40HP IVR	37KW/50HP IVR	45KW/60HP IVR	55KW/75HP IVR	65KW/90HP IVR	75KW/100HP IVR	
CT2	Current Transformer	40A							1
SB1	Push-button	ZB2-BS54C + ZB2-104C							1
T	Transformer		JBK5-250,380-440V/24V,12V	JBK5-250,380-440V/24V,12V	JBK5-350,380-440V/24V,12V	JBK5-350,380-440V/24V,12V	JBK5-350,380-440V/24V,12V	JBK5-350,380-440V/24V,12V	1
FU3	Fuse	6A							1
XT0	Terminal		150A-3P	150A-3P	150A-3P	150A-3P	200A-3P	200A-3P	1
FU1-2	Fuse	2A							2
A1	Controller	CS5000							1
YV1	Unloader	AC24V							1
BP	Pressure sensor	0-18bar 4-20mA							1
R	Temp. sensor	NTC 100K -20/+120°C							1
KM2	Contactor		LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	LC1-D0901B7C,AC24V	1
M2	Motor	AC380-440V/50HZ							1
KM1	Contactor		LC1-D8011B7C,AC24V	LC1-D9511B7C,AC24V	LC1-D11500B7C,AC24V	LC1-D15000B7C,AC24V	LC1-D15000B7C,AC24V	LC1-D17000B7C,AC24V	1
IVR	Inverter		NXS 0072 5GTH0STS00	NXS 0087 5GTH0STS00	NXS 00105 5GTH0STS00	NXS 0140 5GTH0STS00	NXS 0140 5GTH0STS00	NXS 0168 5GTH0STS00	1
QF	Breaker		80A	100A	125A	160A	200A	200A	1
M1	Motor		30KW	37KW	45KW	55KW	65KW	75KW	1
	sheet metal	2205600449							

CABLE						
L1,L2,L3	16mm ²	25mm ²	35mm ²	50mm ²	70mm ²	70mm ²
L12,L22,L32,L13,L23,L33	16mm ²	25mm ²	35mm ²	50mm ²	70mm ²	70mm ²
U1,V1,W1	2X10mm ²	2X16mm ²	2X25mm ²	2X25mm ²	2X35mm ²	2X35mm ²

Note		Position	Modified from	Date	Intr./Appd.				
00						Parent 3D Model	Ed.Version 3D		

Tolerances, if not indicated, according to:									
ATLAS COPCO STANDARD Class									
Name 30-75KW(40-100HP) IVR VACON CS5000 380V-440V/50-60HZ							Confidentiality class acc. to 1102 K		
Material							ACD		
Treatment									
Scale		Family		Compare					
Drawn by		Blank nr.		Replaces					
Version Drwg		Blank wt. Kg		Fini wt. Kg		Designation Sheet () 02 02			
STATUS		Des checked.		Prod checked.		Approved.		Date	
Preliminary		2205600192							

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CS5000 screw compressor controller

CODE	NAME	TYPE					QUT.
		COMMON	40HP/30KW	50HP/37KW	60HP/45KW	75HP/55KW	
CT1	Current Transformer	200A					1
CT2	Current Transformer	40A					1
SB1	Push-button	ZB2-BS54C + ZB2-104C					1
T	Transformer		JBK5-250,220V/24V,12V	JBK5-250,220V/24V,12V	JBK5-350,220V/24V,12V	JBK5-350,220V/24V,12V	1
KM4	Contactor		LC1-D0901B7C	LC1-D0901B7C	LC1-D0901B7C	LC1-D1201B7C	1
FU4	Fuse	6A					1
FU1-3	Fuse	2A					3
A1	Controller	CS5000					1
YV1	Unloader	AC24V					1
BP	Pressure sensor	0~18bar 4~20mA					1
R	Temp. sensor	NTC 100K -20/+120°C					1
M2	Motor	AC220V/50HZ					1
KM3	Contactor		LC1-D5011B7C,AC24V	LC1-D6511B7C,AC24V	LC1-D8011B7C,AC24V	LC1-D8011B7C,AC24V	1
KM2	Contactor		LC1-D8011B7C,AC24V	LC1-D9511B7C,AC24V	LC1-D11500B7C,AC24V	LC1-D11500B7C,AC24V	1
KM1	Contactor		LC1-D8011B7C,AC24V	LC1-D9511B7C,AC24V	LC1-D11500B7C,AC24V	LC1-D17000B7C,AC24V	1
XM1	Terminal		150A-3P	200A-3P	200A-3P	300A-3P	1
XT0	Terminal		150A-3P	200A-3P	200A-3P	300A-3P	1
M1	Motor		30KW/220V/100A	37KW/220V/120A	45KW/220V/146A	55KW/220V/177A	1
QF	Breaker	User installa	150A	200A	200A	250A	1
	sheet metal	2205600449					

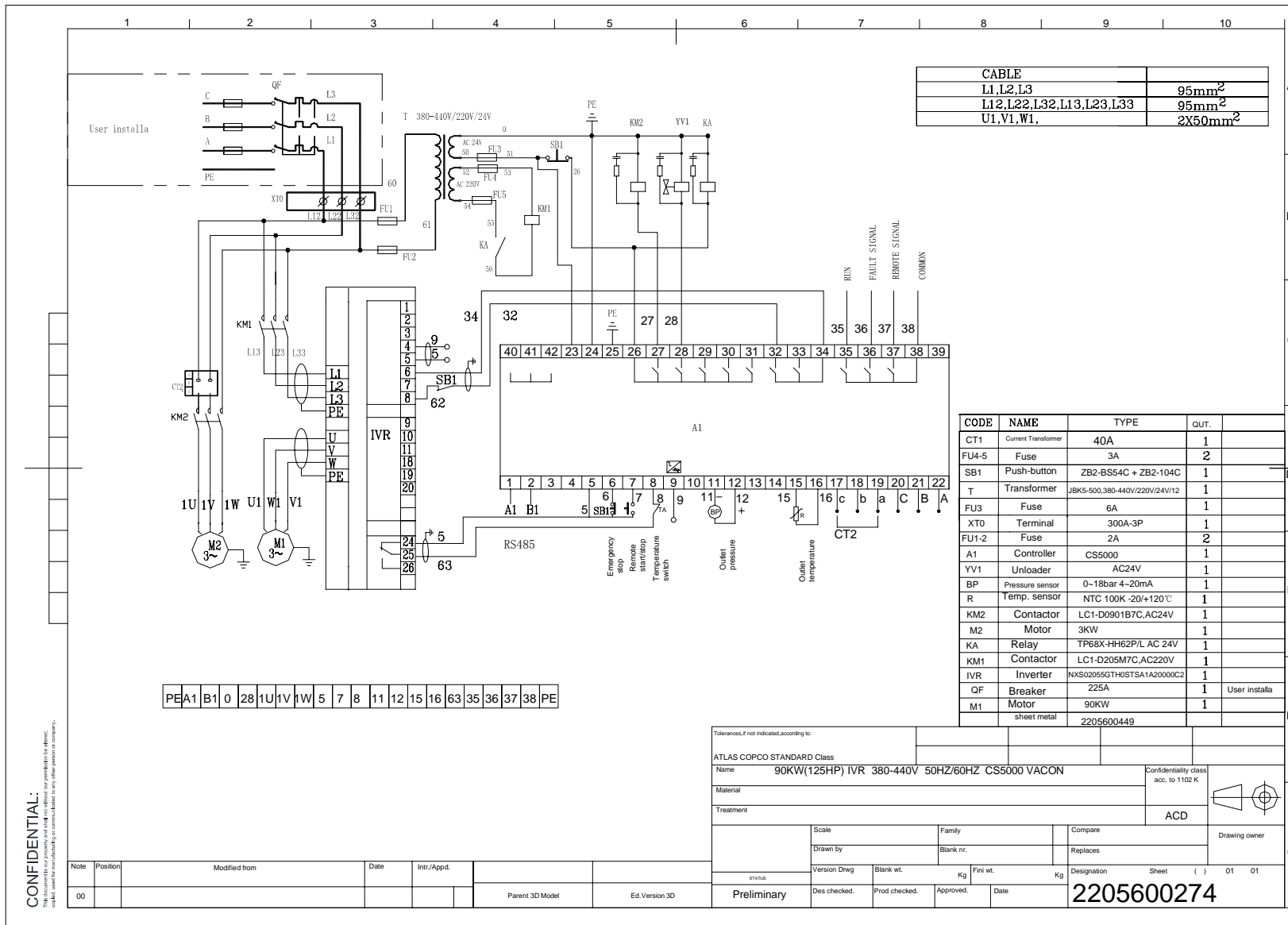
CABLE					
L1,L2,L3	50mm ²	70mm ²	70mm ²	95mm ²	120mm ²
L12,L22,L32,	2x25mm ²	2x35mm ²	2x35mm ²	2x50mm ²	2x50mm ²
U1,V1,W1,U2,V2,W2	25mm ²	35mm ²	35mm ²	50mm ²	50mm ²
KM2-KM3	16mm ²	25mm ²	25mm ²	35mm ²	35mm ²

Tolerances, if not indicated, according to:					
ATLAS COPCO STANDARD Class					
Name	40-100HP(30-75KW) 220V 50HZ/60HZ CS5000			Confidentiality class	acc. to 1102 K
Material				ACD	
Treatment					
Scale	Family	Compare	Drawing owner		
Drawn by	Blank nr.	Replaces			
Version Drwg	Blank wt.	Kg	Fin. wt.	Kg	Designation Sheet () 02 02
status	Des checked.	Prod checked.	Approved.	Date	2205600471

Note	Position	Modified from	Date	Intr./Appd.		
00					Parent 3D Model	Ed. Version 3D

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CS5000 screw compressor controller



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