![cutes logo] **cutes**

Special Model for Textile/Spinning

CT-2000 PRO/PRO-i

The Ultimate Driving Machine

AC MOTOR SPEED CONTROLLER

🍃 CT-2000PRO/PRO-i 220V SERIES (7.5KW~112KW)

Motor (KW)	7.5	11	15	22	30	37	45	55	75	93	112
Model CT-2000PRO-☐☐☐	7A5	011	015	022	030	037	045	055	075	093	112
Model CT-2000PRO-i-☐☐☐	7A5	011	015	022	030	037	045	055	075	093	112
Rated Current (A)	33	48	61	86	125	150	170	210	278	330	396
Rated Capacity (KVA)	13.1	19.1	24.3	34.3	49	60	68	84	111	131	158
Power Supply	3φ 200~230V±10% 50/60Hz±5%										
Output Voltage	3φ 200V, 220V, 230V										
Cooling Systems	Forced air-cooling										
Weight (KG)	13	13	22	23	46	49	50	75	83	89	90

🍃 CT-2000PRO/PRO-i 400V SERIES (7.5KW~220KW)

Motor (KW)	7.5	11	15	22	25	30	37	45	55	75	93	112	130	150	188	220
Model CT-2000PRO-☐☐☐	7A5	011	015	022	025	030	037	045	055	075	093	112	130	150	188	220
Model CT-2000PRO-i-☐☐☐	7A5	011	015	022	025	030	037	045	055	075	093	112	130	150	188	220
Rated Current (A)	17.3	24	31	52	61	65	71	93	110	156	180	225	260	290	360	460
Rated Capacity (KVA)	13.8	19.1	24.7	41.4	47.1	51.8	56.6	74	87.6	124	143	180	207	231	286	356
Power Supply	3φ 380~460V±10% 50/60Hz±5%															
Output Voltage	3φ 380V, 400V, 415V, 440V, 460V															
Cooling Systems	Forced air-cooling															
Weight (KG)	15	15	16	25	25	26	49	51	53	79	82	91	98	128	129	145

🍃 Standard Specifications

Control system	Sine P.W.M control
Frequency accuracy	Digital setting: ±0.1% Analog setting: ±0.5% (35℃)
Frequency resolution	Digital: 0.5~100Hz→ 0.01Hz 100Hz~240Hz→ 0.1Hz Analog setting: (setting value/1000) Hz
Frequency range	0.5~240Hz (starting frequency 0.5~30 Hz)
V/F ratio	10 patterns, or any V/F pattern
Voltage compensation	0~15.0% voltage compensation, automatic voltage compensation
Accel./Decel. time	0.1~6000 sec. (linear, two-step setting)
Motor braking	DB100% (2.2—3.7 KW include DBR), DB20%(5.5 KW and above)
DC injection braking	DC Injection Braking (setting mode, torque, time, active frequency)
Standard feature	Free run restart, jogging speed, upper/lower frequency limit setting, jump frequency setting, 8-step speed setting. Frequency increase/decrease (UP/DOWN) function, BIAS, frequency indicated output (DC0~10V), operation direction setting, forward/reverse prohibit, voltage/current limit, data lock, multi-step function, auto record when power off, 6 memory pattern of multi-step function.
Ext. input terminal	FWD/REV/STOP, frequency increase/decrease, jogging, 8-step speed selection, free run stop, reset, 2-step acceleration/deceleration time selection.
RELAY output indication	Time reach, fault, stop, acceleration, speed reach, deceleration, speed over.
Frequency setting	Digital setting by keypad or external analog signal (DC0—10V, DC4—20mA)
Operating display	7-segment LED & LCD dual display: Frequency, current, voltage, setting value, function, fault status, temperature of PIM module, status of multi-step function, average speed of multi-step function, instant power, power factor, KWH, MWH.
Protective function	Low voltage, over voltage, instantaneous power failure, over voltage stall, overload, over current stall, instantaneous over current, acceleration over current, deceleration over current, overheat.
Overload capacity	150% for 1 min, anti-time limit function, adjustable (25~100%)
Altitude	Altitude 1,000m or lower, keep from corrosive gasses, liquid and dust.
Ambient temperature	-10℃~40℃ (50℃ with cover removed)
Storage temperature	-20℃—60℃
Ambient vibration	Below 0.5G
Humidity	Relative humidity between 45% and 90% (non-condensing)

Applications: Specialized functions for Textile industry

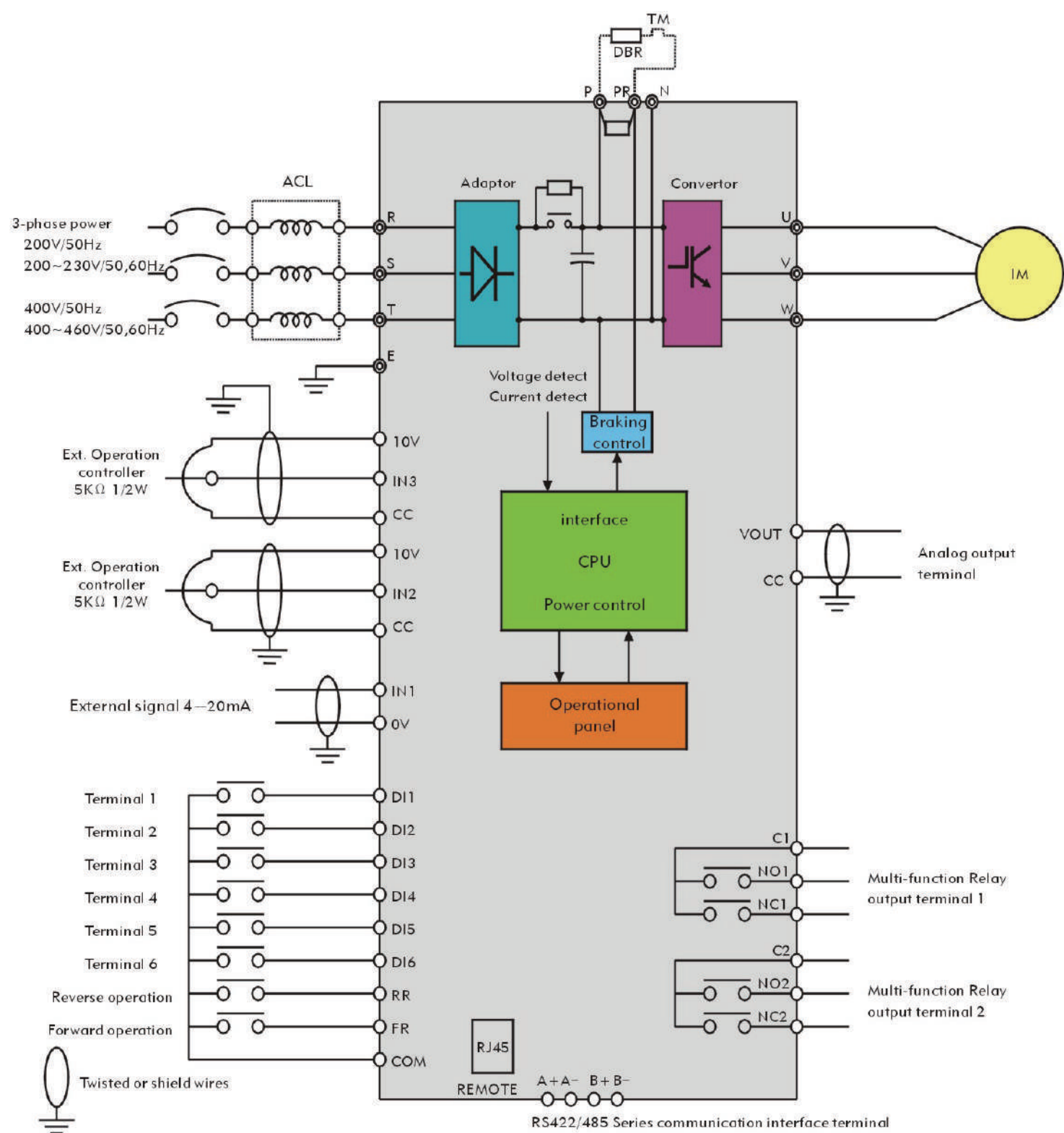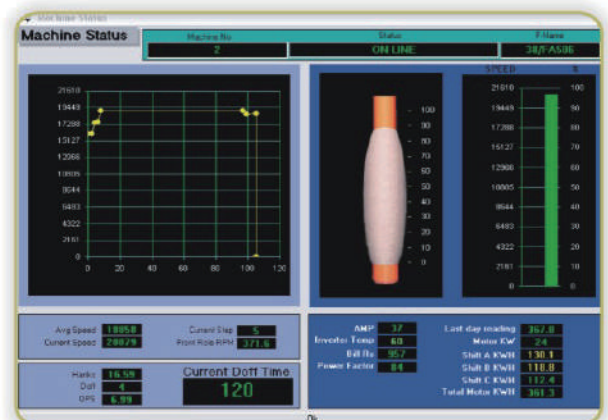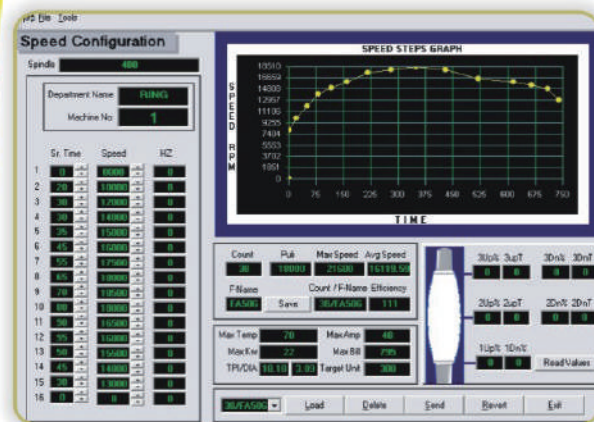|	
16 speed steps (Gradually & Linear)	CT-2000PRO/PRO-i have 16 speed steps to control the RPM of motors according to doff position, we can increase or decrease speed at any stage where breakage is high. CT-2000PRO/PRO-i have gradually and linear steps option. It can be selected according to customer needs or its applications. *Available in CT-2000PRO/PRO-i.*
6 Memories	6 sets of programmable memories for the 16 steps speed setting. Each memory has its own 16 steps for customers' needs. Moreover you can store data according to different counts setting in each memory. *Available in CT-2000PRO/PRO-i.*
Restore and backup	By using lcd keypad memory all or selected group of function codes can be uploaded and downloaded inverter to inverter. *Available in CT-2000PRO/PRO-i.*
RTMS (Real Time Monitoring System), Cutes PRO-i Energy Management System **(Optional software)**	**Features:** While sitting anywhere (in factory or outside of factory) on your computer screen you can control and see live ON & OFF status of machine, Spindle Speed and Current step and its time period also current doff time. Machine wise Hanks and OPS, Efficiency, on/off details with time in reports. Average speed, and different count speed settings in RTMS. **Reports:** User-friendly reporting formats. Current reports base on machine wise, shift wise, daily, monthly and yearly record. *Available in CT-2000PRO-i only.*
Bob sine control system (Balloon controller)	The probability for the yarn breakage is highest at the start of doff, where the radius of a balloon is greatest. The ring rail constantly moves up and down to obtain the desired form of doff. At the same time, ring rail changes position until doff is full. At start, the build up diameter of the doff gradually increased to the maximum value. As the diameter increasing, the speed should be decreased in order to keep the yarn tension in constant. By adding 2 sensors on ring rail's cam or any machine according to application. It can control the balloon size of yarn by giving required percentage in balloon control's steps according to doff time and doff position. Sensors will judge ring rail position and will give signal to inverter to decrease and increase the speed accordingly. *Available in CT-2000PRO-i only.*
Communication	Built in standard RS422/RS485 communication port, support international standard MODBUS protocol, it works with various PLC, PC, industrial computer or other equipment, which support MODBUS protocol. *Available in CT-2000PRO-i only.*

CT-2000 PRO
CT-2000 PRO-i

⚑ Standard External Connection Diagram

(Note: While external is required for DBR, disconnect inter DBR first)

TM
DBR
P PR N

ACL
Adaptor
Convertor

3-phase power
200V/50Hz
200~230V/50,60Hz

400V/50Hz
400~460V/50,60Hz

R
S
T
E

U
V
W

IM

Voltage detect
Current detect

Braking
control

10V
IN3
CC

Ext. Operation
controller
5KΩ 1/2W

interface

CPU

Power control

VOUT
CC

Analog output
terminal

10V
IN2
CC

Ext. Operation
controller
5KΩ 1/2W

IN1
0V

External signal 4—20mA

Operational
panel

Terminal 1   DI1
Terminal 2   DI2
Terminal 3   DI3
Terminal 4   DI4
Terminal 5   DI5
Terminal 6   DI6
Reverse operation RR
Forward operation FR
COM

C1
NO1
NC1

Multi-function Relay
output terminal 1

C2
NO2
NC2

Multi-function Relay
output terminal 2

Twisted or shield wires

RJ45

REMOTE

A+ A- B+ B-

RS422/485 Series communication interface terminal

⚓ Cutes PRO-i Energy Management System

Energy Management System is an ideal tool for the objective analysis of the motor energy consumption. It essentially monitors the KW, KWH, PF, AMP and RPM.

For our clients convenience we have prepared the following screens in order to communicate with our clients on better ground.

Main Interface:

Our software can be controlled and monitor online information from anywhere in the world by connecting to the main server i.e. via the internet or direct dial up connection.

Machine Configuration:

Our software helps you in setting count speed with the help of sixteen gradually steps & time setting. You can view the changes immediately on your accurately integrated graph. Our trajectory motion implied on the graph shows that our speed increases uniformly in a projectile motion.

Machine Status Window:

Our machine wise status window can show you live each machine working status, such as average speed, current step & rpm, front roll rpm, hanks, doffs, ops, amp, temp, motor kwh, shift wise machine kwh, total kwh of all shifts, p.f, and machine-wise energy consumption cost in desired format.

Machine Alerts:

Our main interface window can show the alerts when any machine will be exceeded than its limits given by users to get the alert of "over amp" or "over unit" to inform you that motor is having some problem or machine mechanical structure getting jam.

Application Reference from Mill Site

Cutes Inverter with JingWei FA1520 Ring Frame

Cutes Inverter with Marzoli DTM129 Ring Frame

Cutes Inverter with Hawa Japan Ring Frame

Cutes Inverter with Shanghai EJM128 Ring Frame

九德松益股份有限公司
CUTES CORPORATION

總公司 -

⌖ 桃園市中壢工業區南園路2-22號
NO.2-22, Nanyuan Rd., Zhongli Dist.,
Taoyuan City 320, Taiwan(R.O.C.)

☎ +886-3-452-6161 (總機 Hunting)

🖷 +886-3-451-1347 · 886-3-452-6227

✉ sales@cutes.com.tw

浙江廠 -

⌖ 浙江省平湖市新埭鎮創業路588號
NO.588, Chuangye Road, Xinyi Town,
Pinghu City, Jiaxing City, Zhejiang Province

☎ +86-573-8560-9911

🖷 +86-573-8560-1093