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3.3kV/6kV/10kV



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深圳市库马克新技术股份有限公司
SHENZHEN CUMARK NEW TECHNOLOGY CO.,LTD.

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务实高效 开拓创新

证券代码: 831251



公众微信 官方网站

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深圳市库马克新技术股份有限公司
SHENZHEN CUMARK NEW TECHNOLOGY CO.,LTD.

矿用隔爆兼本质安全型高可靠
MINE EXPLOSION-PROOF AND INTRINSICALLY SAFE HIGH RELIABILITY

高性能高压变频器系列产品
HIGH PERFORMANCE HIGH-VOLTAGE SERIES FREQUENCY INVERTERS



库马克智能驱动与自动化研发总部基地
Cumark Intelligent Drive and Automation R&D Headquarters Base



Create a better life with smart drive
以智能驱动创造美好生活

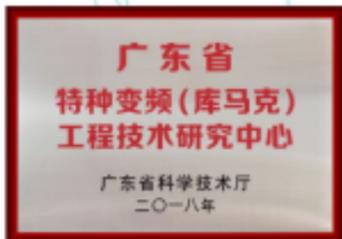
深圳市库马克新技术股份有限公司成立于2001年3月19日，证券代码831251。公司是一家专注于电力电子传动与自动化产品研发、生产和销售的国家级高新技术企业，依靠优异的技术和多年积累的行业应用经验，为用户提供高效可靠的智能驱动产品和自动化完整解决方案。

Shenzhen Cumark New Technology Co., Ltd. was founded on March 19, 2001. Its security code is 831251. The company is a state-level national enterprise focusing on R&D, production and sales of power electronic transmission and automation products, relying on excellent technology and years of accumulated industry application experience, providing users with high-efficiency and reliable intelligent driving products and automation complete solutions.



企业资质荣誉

Enterprise qualification honor



水冷却、薄煤层矿用防爆高压变频器

Water-Cooled, Thin Coal Seam Explosion-Proof high-Voltage Inverter



直接水冷

Direct Water Cooled Combination

BPJV₃-2200/3.3 BPJV₃-1600/3.3

BPJV₃-1250/3.3 BPJV₃-855/3.3

尺寸/重量: 2480mm×1190mm×1250mm/≤ 5t



主要应用(Main Application):

- ◆ 重型刮板输送机的重载软启软停与调速、自动节能运行
load soft start/ stop, speed regulation and automatic energy saving operation of heavy scraper conveyor.
- ◆ 重型胶带输送机的重载软启软停与调速、自动节能运行
Heavy duty tape conveyor soft start/ stop, speed regulation, automatic energy saving operation.
- ◆ 转载机、破碎机的重载软启软停与调速
Heavy-duty soft start and stop and speed regulation of reloader and crusher.
- ◆ 适用于异步电动机和永磁同步电动机
Suitable for asynchronous motor and PMSM.

主要技术参数 (Main Technical Data) :

专用移变输入侧 Special transformer input side	额定电压 Rated Voltage	6kV/10kV-15%~+10% (额定负载)
	相数/频率 Of Phase/Frequenc	3 / 50Hz ± 5%
额定输入 Rated input	额定电压 Rated Voltage	2×1903(1700)V-15%~+10% (额定负载)
	相数/频率 Of Phase/Frequenc	6/50Hz ± 5%
输出 output	额定功率 Frequency	BPJV ₃ -2200/3.3 BPJV ₃ -1600/3.3 BPJV ₃ -1250/3.3 BPJV ₃ -855/3.3
	电压 Voltage	正弦波, 0V-3.3kV连续可调 Sine wave, 0V-3.3kV continuously adjustable
	过载能力 Over Load	典型150%1分钟 (120%-250%可选择) Typical 150% 1min(120%-250%Optional)
	频率 Frequency	0-50Hz (0-66Hz)
控制 Control	输入/输出接口 Input/Output	16数字量输入/16数字量输出 16 DI/16 DO
	通讯接口 Communication	以太网Earth net/CAN/PROFIBUS/RS485
	信号隔离方式 Isolation	光电隔离 Photoelectric
	控制信号传输 Signal Transmission	光纤传输 Fibre-optical
	效率 Efficiency	>97%
环境 Environment	振动 Vibration	10-150Hz, 0.5g以下
	存放条件 Storage	-20-70℃
防护等级 Degree of Protection		IP54, ExdI
变频器(长x宽x高)/重量 Dimension/Weight		2480mm × 1190mm × 1250mm/≤ 5t

特点: 基于大功率IGBT的高可靠和高效, 基于高性能矢量(DTC)控制技术。基于12脉波的低谐波整流技术, 输出正弦波滤波技术。主回路采用三(五)电平拓扑结构, 逆变触发信号采用光纤隔离。采用水冷技术, 最大启动转矩和最大电流达到额定2.5倍, 适于重负荷、大转矩的设备使用。变频器到电机距离可达3公里。具有主从动态跟踪控制, 快速负载动态功率(转矩)平衡。标准一拖一运行模式和可选一拖二运行模式。防爆高压变频器机芯采用模块化设计。机芯底部有活动轮, 方便机芯推进和拉出, 使设备维修更换非常便捷。变频器采用无感叠层母排专利技术, 具备无线WIFI通讯功能。输入和输出电缆进出箱体采用电缆连接器。

Features: High reliability and high efficiency based on high-power IGBT, based on high-performance vector (DTC) control technology. Based on 12 Pulse wave low harmonic rectification technology, output sine wave filtering technology. The main circuit adopts a three-level topology structure and is triggered by inverter. The signal is isolated by optical fiber. Adopt water cooling technology. The maximum starting torque and maximum current reach 2.5 times of rated, suitable for heavy Load, high torque equipment. The distance from the inverter to the motor can be up to 3 kilometers. With fast master-slave dynamic tracking control. Speed/load dynamic power (torque) balance. Standard one-drag-one operation mode and optional one-drag-two operation mode. Explosion-proof high voltage The frequency converter is adopted modular design. There are movable wheels at the bottom of the inverter, which is easy to draw in and out. Maintenance is very convenient. The inverter adopts patented technology of non-inductive laminated bus bar, which has wireless WIFI communication function. Input and output Cable connectors are used for cable entry and exit.

3.3kV矿用防爆高压独立组合变频器

3.3kV Mine Explosion-Proof High Voltage Independent Combination Frequency Converter



直接水冷2组合式

Direct Water Cooling 2 Independent Combination

BPJV₃-2×2200/3.3 BPJV₃-2×1600/3.3
BPJV₃-2×1250/3.3 BPJV₃-2×855/3.3

尺寸/重量: 3650mm×1190mm×1250mm/≤ 7.5t



直接水冷3组合式

Direct Water Cooling 3 Independent Combination

BPJV₃-3×2200/3.3 BPJV₃-3×1600/3.3
BPJV₃-3×1250/3.3 BPJV₃-3×855/3.3

尺寸/重量: 4275mm×1290mm×1585mm/≤ 10.5t



主要应用(Main Application):

- ◆ 重型刮板输送机的重载软启软停与调速、自动节能运行
load soft start/ stop, speed regulation and automatic energy saving operation of heavy scraper conveyor.
- ◆ 重型胶带输送机的重载软启软停与调速、自动节能运行
Heavy duty tape conveyor soft start/ stop, speed regulation, automatic energy saving operation.
- ◆ 转载机、破碎机的重载软启软停与调速
Heavy-duty soft start and stop and speed regulation of reloader and crusher.
- ◆ 适用于异步电动机和永磁同步电动机
Suitable for asynchronous motor and PMSM.

主要技术参数(Main Technical Data):

专用移变输入侧 Special transformer input side	额定电压 Rated Voltage	6kV/10kV-15%~+10% (额定负载)
	相数/频率 Of Phase/Frequenc	3 / 50Hz ± 5%
额定输入 Rated input	额定电压 Rated Voltage	2×1903(1700)V-15%~+10% (额定负载)
	相数/频率 Of Phase/Frequenc	6/50Hz ± 5%
输出 output	额定功率 Rataing Power	BPJV ₃ -2×2200/3.3 BPJV ₃ -2×1600/3.3 BPJV ₃ -2×1250/3.3 BPJV ₃ -2×855/3.3 BPJV ₃ -3×2200/3.3 BPJV ₃ -3×1600/3.3 BPJV ₃ -3×1250/3.3 BPJV ₃ -3×855/3.3
	电压 Voltage	正弦波, 0V~3.3kV连续可调 Sine wave, 0v~3.3kV continuously adjustable
	过载能力 Over Load	典型150%1分钟 (120%~250%可选择) Typical 150%1min(120%~250%Optional)
	频率 Frequency	0~50Hz(0~66Hz)
控制 Control	输入/输出接口 Input/Output	16数字量输入/16数字量输出 16 DI/16 DO
	通讯接口 Communication	以太网Earth net/CAN/PROFIBUS/RS485
	信号隔离方式 Isolation	光电隔离 Photoelectric
	控制信号传输 Signal Transmission	光纤传输 Fibre-optical
	效率 Efficiency	>97%
环境 Environment	振动 Vibration	10~150Hz, 0.5g以下
	存放条件 Storage	-20~70℃
防护等级 Degree of Protection		IP54, ExdI

产品特性:矿用隔爆兼本质安全型高压独立组合变频器,采用库马克专利技术,真正的高压独立组合变频器,放置于一台组合壳体内部的三(二)台变频器之间相互独立,互不影响,特点:基于大功率IGBT的高可靠和高效率,基于高性能矢量(DTC)控制技术。基于12脉波的低谐波整流技术,输出正弦波滤波技术。主回路采用三(五)电平拓扑结构,逆变触发信号采用光纤隔离。采用水冷技术。最大起动转矩和最大电流达到额定2.5倍,适于重负荷、大转矩的设备使用。变频器到电机距离可达3公里。具有主从动态跟踪控制,快速负载动态功率(转矩)平衡。组合变频器内的每台变频器分别以一拖一方式给电动机供电,既可同时驱动三台电动机,也可以实现同时驱动两台电动机、备用一台变频器的功能。组合变频器采用共直(交)流母线技术,无感叠层母排专利技术,具备无线WIFI通讯功能。输入和输出电缆进出箱体采用电缆连接器。

Product features: Mine explosion-proof and intrinsically safe high-voltage inverters, using Cumark's patented technology, a true high-voltage combined inverter, three (two) inverters placed in a combined enclosure which are independent of each other. Characteristics: High reliability and high efficiency based on high-power IGBT, based on high-performance vector (DTC) control technology. Based on 12-pulse low-harmonic rectification technology, output sine wave filtering technology. The main circuit adopts a three-level topology structure, and the trigger signal of the inverter is isolated by optical fiber. Using water cooling technology. The maximum starting torque and maximum current reach 2.5 times of the rated, suitable for equipment with heavy load and large torque. The distance from the inverter to the motors can reach 3 kilometers. With master-slave dynamic tracking control, fast load dynamic power (torque) balance. Each inverter in the combined inverter supplies power to the motor in a one-to-one mode, which can drive three motors at the same time, or driving two motors at the same time with one inverter back up. The combined inverter adopts common DC (AC) bus technology, patented technology of non-inductive laminated bus bar, and has wireless WIFI communication function. Input and output cables enter and exit the box with cable connectors.

完美无谐波6kV矿用隔爆兼本质安全型 高压变电变频一体机

Perfect harmony 6kV Flameproof & Intrinsically Safe High Voltage Inverter For Mine

主要产品特点(Key Product Features):

功率范围: 710kW ~ 1000kW
Power range: 710kW ~ 1000kW.

标配内置移相整流变,高度集成一体化,体积小,重量轻
Built-in rectifier transformer, small size, light weight.

30脉冲完美无谐波整流技术,有效降低变频器网侧谐波干扰,更适用于智能化、安全化煤矿建设
30 pulse perfect harmonic rectification technology, suitable for intelligent & safe coal mining industry.

高效水冷设计,体积小,噪音低
High efficiency water cooling design, small size, low noise.

基于大功率IGBT的高可靠和高效率
High reliability and high efficiency based on the IGBT power semiconductors.

基于高性能矢量控制技术平台的杰出高转矩和高精度速度控制
Exceptionally high torque and speed performance based on VECTOR control platform.

启动转矩大,软启软停,消除机械及电流冲击,延长设备使用寿命
High starting torque, soft start&stop, eliminate the mechanical shock&inrush current, extend the life time of equipment.

11(21)电平输出电压拓扑结构,输出波形好
11 (21) level output voltage topology structure, best wave form.

变频器到电机电缆距离可达5公里
Long cable from the VFD to motor is permitted for 5km.

全调速范围综合功率因数达0.95以上
Total power factor: 0.95 ↑ over speed range.

低速高转矩功能
High output torque at very low speed.

可选择运行、检修、维护模式,满足生产工况需要
Normal running, regular examine and repairing mode can be selected to meet the demand of production.

主从动态跟踪控制,快速负载动态功率(转矩)平衡
Master-follower dynamic tracing control, fast dynamic mutual co-ordination and load share.

标准一拖一运行模式、可选一拖二运行模式
Standard one to one running mode and selected one to two running mode.

完善的保护功能:
Perfect protection function:

如:电机堵转、电机缺相、输入缺相、过载、短路、过压、欠压、漏电闭锁、漏电、通讯错误、断链等保护功能
Such as motor stall, motor phase loss, supply phase loss, overload, short circuit, overvoltage, undervoltage, earth leakage lockout, earth leakage, communication fault, chain breakage.

可实现工艺联锁控制
Easy to realize process interlock control.

具有本质安全型先导控制功能
With intrinsically safe piloting function.



高可靠高效水冷

High Reliability & High Efficiency Water Cooling

BPBJV-710/6 BPBJV-1000/6

尺寸 / 重量: 3933mm x 1420mm x 1690mm / ≤ 10T



主要应用(Main Application):

- ◆ 重型胶带输送机的重载软启软停与调速、自动节能运行
Soft start/ stop and speed control of heavy-duty belt conveyor, automatic energy saving running mode.
- ◆ 风机泵类负载的软启软停与调速、自动节能运行
Soft start/ stop and speed control of fan & pumps, automatic energy saving running mode.
- ◆ 适用于异步电动机和永磁同步电动机
Suitable for asynchronous motor and PMSM.

6 kV 变电变频一体机主要技术参数(Main Technical Data):

额定输入 Rated input	电压 Voltage	6kV(-15% ~ +10%) (满载情况下Full load)
	额定频率 Frequency	50/60Hz ± 5%
输出 output	额定功率 Rated power	BPBJV-710/6 BPBJV-1000/6
	电压 Voltage	正弦波, 0V~6kV连续可调 Sine wave, 0V~6kV continuously adjustable
	过载能力 Over Load	典型150%1分钟(120%~300%可选择) Typical 150% 1min(120%~300%Optional)
	频率 Frequency	0~50 (60) Hz
控制 Control	输入/输出接口 Input/Output	大于16数字量输入/大于16数字量输出 16 DI/16 DO
	通讯接口 Communication	以太网Earth net/CAN/PROFIBUS/RS485
	信号隔离方式 Isolation	光电隔离 Photoelectric
	控制信号传输 Signal Transmission	光纤传输 Fibre-optical
	效率 Efficiency	>97%
环境 Environment	振动 Vibration	10~150Hz, 0.5g以下
	存放条件 Storage	-20~70℃ 遵照说明书要求 Follow the instruction manual
防护等级 Degree of Protection		IP54, ExdI
变频器(长x宽x高)重量 Dimension/Weight		3933mmx1420mmx1690mm/ ≤ 10T

完美无谐波 10kV矿用隔爆兼本质安全型 高压变电变频一体机

Perfect harmony 10kV Flameproof & Intrinsically Safe High Voltage Inverter For Mine

主要产品特点(Key Product Features):

功率范围: 710kW ~ 2000kW
Power range: 710kW ~ 2000kW.

标配内置移相整流变,高度集成一体化,体积小,重量轻
Built-in rectifier transformer, small size, light weight.

48脉冲完美无谐波整流技术,有效降低变频器网侧谐波干扰,更适用于智能化、安全化煤矿建设
48 pulse perfect harmony rectification technology, suitable for intelligent & safe coal mining industry.

高效水冷设计,体积小,噪音低
High efficiency water cooling design, small size, low noise.

基于大功率IGBT的高可靠和高效
High reliability and high efficiency based on the IGBT power semiconductors.

基于高性能矢量控制技术平台的杰出高转矩和高精度速度控制
Exceptionally high torque and speed performance based on VECTOR control platform.

启动转矩大,软启软停,消除机械及电流冲击,延长设备使用寿命
High starting torque, soft start & stop, eliminate the mechanical shock & inrush current, extend the life time of equipment.

17(33)电平输出电压拓扑结构,输出波形好
17 (33) level output voltage topology structure, best wave form.

变频器到电机电缆距离可达5公里
Long cable from the VFD to motor is permitted for 5km.

全调速范围综合功率因数达0.95以上
Total power factor: 0.95 ↑ over speed range.

低速高转矩功能
High output torque at very low speed.

可选择运行、检修、维护模式,满足生产工况需要
Normal running, regular examine and repairing mode can be selected to meet the demand of production.

主从动态跟踪控制,快速负载动态功率(转矩)平衡
Master-follower dynamic tracing control, fast dynamic mutual co-ordination and load share.

标准一拖一运行模式、可选一拖二运行模式
Standard one to one running mode and selected one to two running mode.

完善的保护功能:
Perfect protection function:

如:电机堵转、电机缺相、输入缺相、过载、短路、过压、欠压、漏电闭锁、漏电、通讯错误、断链等保护功能
Such as motor stall, motor phase loss, supply phase loss, overload, short circuit, overvoltage, undervoltage, earth leakage lockout, earth leakage, communication fault, chain breakage.

可实现工艺连锁控制
Easy to realize process interlock control.

具有本质安全型先导控制功能
With intrinsically safe piloting function.

高可靠 高效水冷
High Reliability & High Efficiency Water Cooling

BPBJV-710/10 BPBJV-1000/10
尺寸/重量: 3933mm x 1420mm x 1690mm/≤10.5T

BPBJV-1600/10 BPBJV-2000/10
尺寸/重量: 4395mm x 1564mm x 1863mm/≤15T



主要应用(Main Application):

- ◆ 重型胶带输送机的重载软启软停与调速、自动节能运行
Soft start/ stop and speed control of heavy-duty belt conveyor, automatic energy saving running mode.
- ◆ 风机泵类负载的软启软停与调速、自动节能运行
Soft start/ stop and speed control of fan & pumps, automatic energy saving running mode.
- ◆ 适用于异步电动机和永磁同步电动机
Suitable for asynchronous motor and PMSM.

10 kV 变电变频一体机主要技术参数(Main Technical Data):

额定输入 Rated input	电压 Voltage	10kV(-15% ~ +10%) (满载情况下Full load)
	额定频率 Frequency	50/60Hz ± 5%
输出 output	额定功率 Rated power	BPBJV-710/10 BPBJV-1600/10 BPBJV-1000/10 BPBJV-2000/10
	电压 Voltage	正弦波, 0V~10kV连续可调 Sine wave, 0V~10kV continuously adjustable
	过载能力 Over Load	典型150%1分钟(120%~300%可选择) Typical 150%1min(120%~300%Optional)
	频率 Frequency	0-50 (60) Hz
控制 Control	输入/输出接口 Input/Output	大于16数字量输入/大于16数字量输出 16 DI/16 DO
	通讯接口 Communication	以太网Earth net/CAN/PROFIBUS/RS485
	信号隔离方式 Isolation	光电隔离 Photoelectric
	控制信号传输 Signal Transmission	光纤传输 Fibre-optical
	效率 Efficiency	>97%
环境 Environment	振动 Vibration	10-150Hz, 0.5g以下
	存放条件 Storage	-20~70℃ 遵照说明书要求 Follow the instruction manual
防护等级 Degree of Protection		IP54, ExdI
变频器(长x宽x高)重量(710/1000) kW Dimension/Weight(710/1000)kW		3933mmx1420mmx1690mm/≤10.5T
变频器(长x宽x高)重量(1600/2000)kW Dimension/Weight(1600/2000)kW		4395mm x 1564mm x 1863mm/≤15T