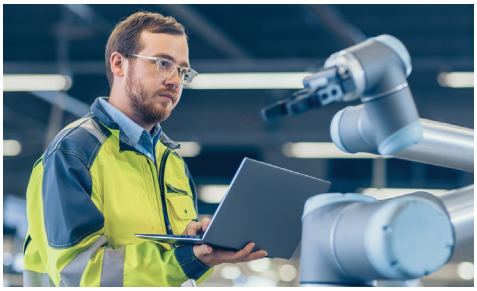


APPLICATION BRIEF:

Industrial Cobots (Collaborative Robots)

TYPICAL ENVIRONMENTS

Manufacturing and Warehousing/Logistics

APPLICATION DESCRIPTION

Collaborative robots, or cobots, are designed to support and work with a human in a defined collaborative workspace. Applications in factories and warehouses include machine tending, material handling, welding, finishing, assembly, inspection and palletizing.

Defining features of cobots:

- Safety-rated stop monitoring
- Hand guiding – teaching by demonstration
- Power and force limiting

Cobots also tend to have smaller payload capacities (< 20 kg) and shorter reach (< 178 cm) than traditional industrial robots.

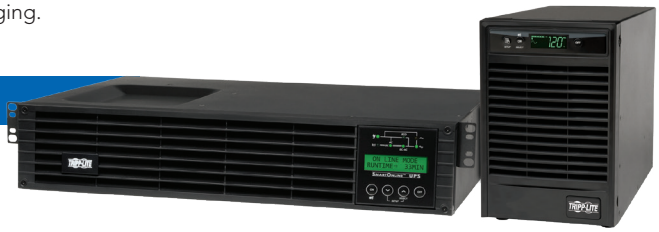
BUSINESS CHALLENGES

- Industrial customers are facing challenges such as factory labor shortages (hire/train/retain), worker safety requirements and the need for flexibility to redeploy quickly.
- Demand volatility leads to lower capital investment and the need for quick implementation with a fast ROI.
- Industrial customers want to minimize downtime, safety issues and lost productivity.

TECHNICAL/OPERATIONAL CHALLENGES

- Unlike traditional industrial robots, cobots have a quick adoption time (weeks vs. quarters) and the ability to move frequently between jobs/machines. This means that source power is not planned for the cobot and power reliability is not assured, especially during teaching and operational modes.
- Considerable work from a teaching/programming session for a cobot can easily be lost if there is unexpected power loss. Power sags, surges and outages can also cause performance glitches that are undetected by the cobot and difficult to recreate, making maintenance support challenging.

TRIPP LITE SOLUTIONS



UPS Battery Backup Systems for Cobots

- Ensure quality, reliability and availability of source power.
- Prevent lost programming, downtime, safety problems and operational errors.

Industrial Cobot User Need	UPS Model	UPS Type	Form Factor	Load Capacity (VA/W)	Estimated Runtime (50%/100% Load)	Surge Protection	Alerts/Comms
Teaching Mode Prevent loss of programming/ teaching in case of accidental power loss.	BC450	Standby	Desktop	450/255	6.9/1.5 min.	Yes (316 Joules)	LED, Audible
	BC500	Standby	Desktop	500/260	6.9/1.5 min.	Yes (316 Joules)	LED, Audible
	BC600TU	Line Interactive (AVR)	Desktop	600/360	5.7/0.5 min.	Yes (316 Joules)	LEDs, Audible, USB
Operational Mode Prevent downtime and improve safety by handling power loss, power sags and power surges.	SU1000XLCD	On-Line (Double Conversion)	Tower	1000/900	12.8/3.8 min. (Expandable)	Yes (570 Joules)	LCD, Audible, USB, RS232
Operational Mode - Integrated Prevent downtime and improve safety by handling power loss, power sags and power surges with integrated communications – SNMP, Modbus TCP.	SU750RTXLCD2U + SNMP Card (TLNETCARD)	On-Line (Double Conversion)	2U Rack/ Tower	750/675	13.9/4.3 min. (Expandable)	Yes (570 Joules)	LCD, Audible, USB, RS232, SNMP, Modbus TCP
	SU1000RTXLCD2U + SNMP Card (TLNETCARD)	On-Line (Double Conversion)	Rack/ Tower	1000/900	14/4.8 min. (Expandable)	Yes (570 Joules)	LCD, Audible, USB, RS232, SNMP, Modbus TCP

- Industrial Cables – Ethernet, USB, HDMI, AV
- Industrial USB Hubs
- PoE Network Switches

Contact your Tripp Lite representative for more information.

Manufacturing Excellence.

ISO 9001 Certified Quality Systems

Tripp Lite Corporate Headquarters
1111 West 35th Street, Chicago, IL 60609 USA
773.869.1773 | tripplite.com

21-03-148