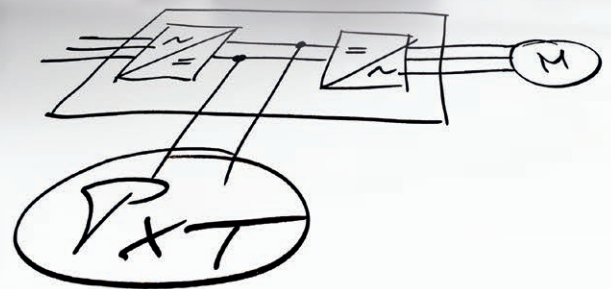
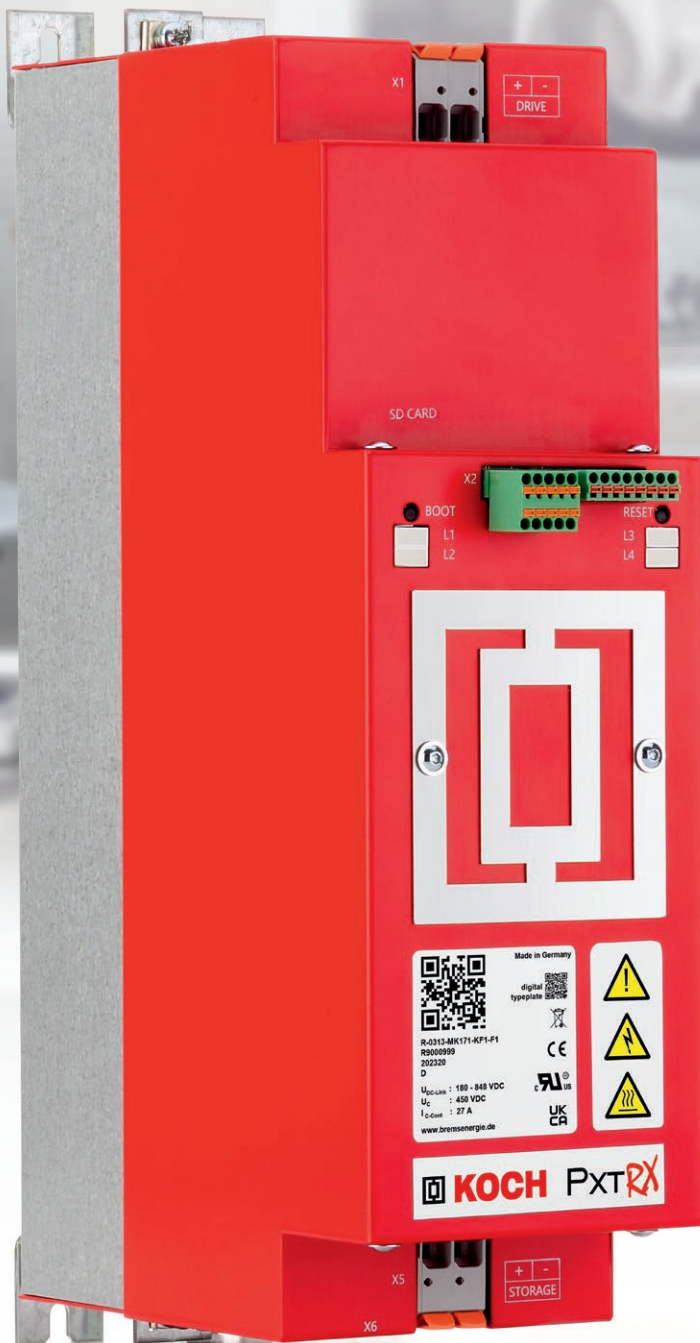


Active Energy Management Device for Electric Drive Technology



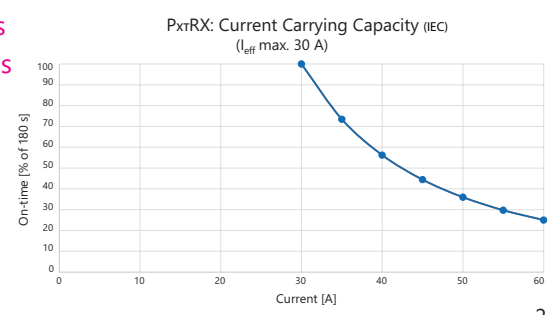
Technical data P_xT_RX



Version April 14, 2023

Criteria	P _x T _R X
Weight	10.0 kg
Dimensions H x W x D	380 x 105 x 217 mm
Protection class	IP 20
Ambient temperature	-10°C up to +65°C (transport, storage) 0°C up to +40°C (in operation)
Humidity	≤ 95% (transport, storage) ≤ 85% (in operation)
Cooling	Forced air cooling via fan. Operation in relation to heat sink temperature. Adjustable, e.g. for UPS application
Limitation for installations in elevated areas	<2000 m: No limitations / overvoltage category III >2000 m: reduction of performance / overvoltage category II
Min. starting voltage level for the system (DC link or Energy storage)	Approx. 45 VDC
Min. Operating voltage level U _{Zmin}	180 VDC (Wake-up-phase: U _{Zstart} 48-180 VDC)
Max. Operating voltage level U _{Zmax}	848 VDC (UL) / 1000 VDC (IEC)
Max. Voltage level energy storage U _{Cmax}	450 VDC (UL) / 800 VDC (IEC)
Operation conditions	U _Z > U _C . Otherwise immediate stop = safe separation of DC link from energy storage
24 VDC In	Galvanically isolated. For communication tasks with P _x T _R X without connecting it to DC link or energy storage, e.g. for setting parameters at the desk (Note: not protected against polarity reversal)
Energy of integrated capacities	0 kJ
External capacities ¹	P _x T _E X (UL) in steps of 2 kJ DLCM (Double-Layer Capacitor Module) Batteries No limitation of capacities

Max. Energy Storage current I_c
 27 A (UL) continuous
 30 A (IEC) continuous
 60 A peak for 45s
 (I_{eff} = 30 A at
 t_{cycle} = 180s)



¹ Data refer to connection to a DC link of a drive controller with 400 V AC supply voltage, UL only with P_xT_EX. Other data on request.

Technical data P_{xT}RX

Version April 14, 2023

Criteria	P _{xT} RX
Ground rule for power flow	$P_c = P_z$
Max. Power P_{max}^1	13,5 kW (UL) / 24 kW (IEC) continuous 27,0 kW (UL) / 48 kW (IEC) peak
Operation frequency level	15 kHz, in operation load-dependent reduction down to 7.5 kHz Adjustable to 18 kHz (with power reduction)
Load monitoring	DC link side and energy storage side (in each case I^2t)
Connection DC link	Front, top
Connection Energy storage	Front, bottom
Communication	3 digital inputs 3 digital outputs K-Bus interface for operating data output 4 LEDs SD card Reset button for restart Boot button for boot loading from SD card Option: P _{xT} MX plug-on module for fieldbus communication etc.
Firmware-Updates	On Koch company site (Fabrikle) or With SD-Card at customers site or Via P _{xT} CC (USB K-Bus interface) with PC
Protection	Internal fuses. External capacities have to be fused separately.
Precharging circuit	Connection directly to DC link interference-free possible, independent from further precharging circuits
Reverse polarity protection	To DC link: In case connecting with reverse polarity P _{xT} RX blocks and disconnects the DC link side from energy storage side
Charging protection	To DC link
Charging protection switch LSS	Connection of charged Energy storage modules interference-free possible (But: No protection against connecting with reverse polarity!)
Max. cable length to DC link	20 m
Max. cable length to energy storage modules	20 m
Parallel operation	Theoretically unlimited number of devices Self-adjusting Automated Master-/Slave-setting for communication

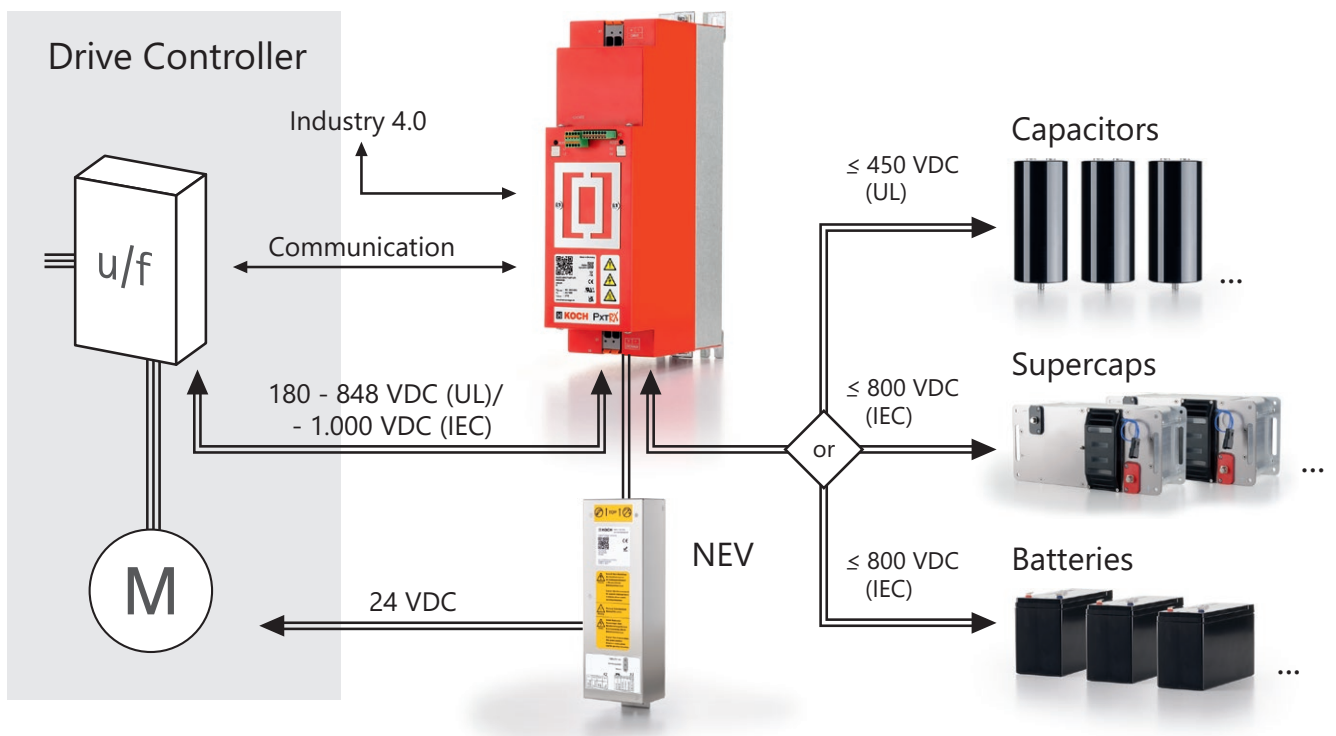
¹ Data refer to connection to a DC link of a drive controller with 400 V AC supply voltage. Other data on request.

Technical data PxtRX

Version April 14, 2023

Criteria	PxtRX
Retrofit	Can be retrofitted into existing systems
Typeplate/Device information	Electronic via QR-Code: Further device specific information Management-features
Internal digital storage	Operation hours meter
Capacity monitoring	Parameterizable

Schematic of PxtRX system



We look forward to hearing from you!



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Technical changes reserved. Version April 14, 2023. MK_DAT_PxtRX_ENG_R01_0

