Voltage limitation

Translation of the "Original Dokumentation"
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Name: FKT_Spannungsbegrenzung_en

Version:

Version: 2019/45	
Change	**Letter symbol**
• Controller card KW-R27 added	STL

Previous version: 2018/44

Product version:

Product (AMK part no.)	**Firmware Version (AMK part no.)**
KW-R06 (O835) KW-R07 (O807) KW-R16 (O872) KW-R17 (O873)	AE-R05/R06 V1.10 2013/15 (204486)
KW-R24 (O901)	AE-R24 V2.03 2015/06 (205587)
KW-R24-R (O954)	AE-R24-R V2.11 2016/46 (206643)
KW-R25 (O902)	AE-R25 V2.03 2015/06 (205588)
KW-R26 (O903)	AE-R26 V2.03 2015/06 (205589)
KW-R27 (O957)	AE-R26 V2.12 2018/40 (207284)
iX / iC / iDT5 /	iX V1.03 2013/18 (204515)
iX(-R3) / iC(-R3) / iDT5(-R3) /	iX V2.08 2015/46 (206017)
ihXT /	ihX V1.00 2015/06 (205440)

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1 Voltage limitation

Supported hardware:	KW-R06 / KW-R16 / KW-R07 / KW-R17 / KW-R24 / KW-R24-R / KW-R25 / KW-R26 / KW-R27 / iX / iC / iDT5 / iX(-R3) / iC(-R3) / iDT5(-R3) / ihXT /

By means of voltage limitation, the motor voltage at the PWM output can be limited in order to ensure a stable control

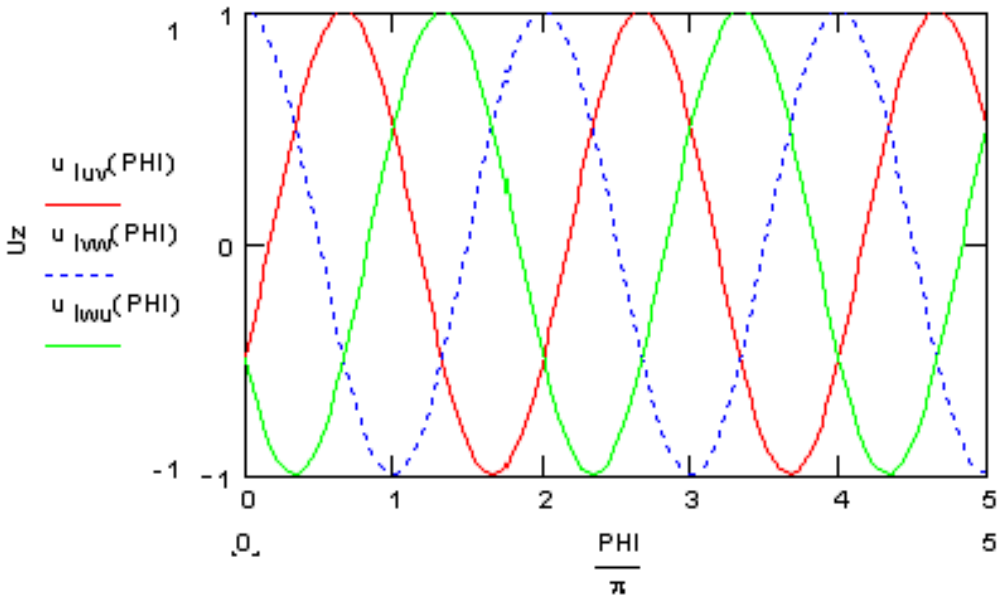
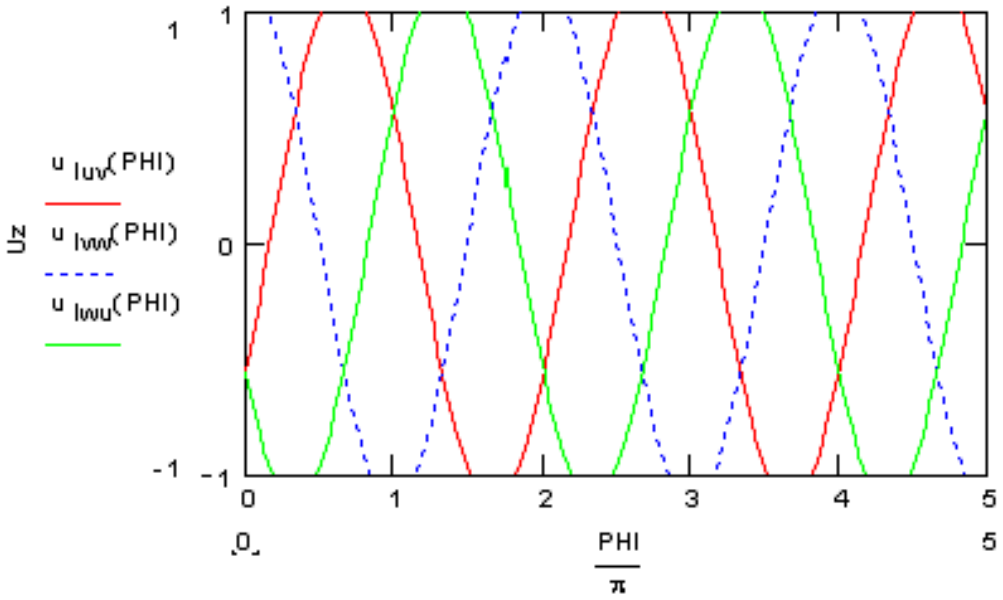
2 Relevant parameters

Parameter	Name	Meaning See document 'Parameter description' (AMK part no. 203704)
ID34235 1)	'Increase motor voltage'	Limitation of the motor voltage at the PWM output

1) The parameter value must be set specific to the application

3 Startup instructions

ID34235 'Increase motor voltage'

ID34235	Meaning
100 %	The output voltage is below the DC bus voltage.
115,5%	The output voltage uses the whole voltage reserve of the DC bus voltage. The control behavior is sufficiently robust. Peak value phase-to-phase line voltage ($\hat{U}_L$) = DC bus voltage (U_Z)  (Example: ID34235 = 115,5%)
115,5 - 150%	The PWM is driven into saturation. The output voltage is distorted. A stable control behavior cannot be guaranteed. The control behavior must be assessed in relation to the application. Over current trips can occur.  (Example: ID34235 = 130 %)