



circuit breaker 3VA2 IEC frame 160 breaking capacity class M Icu=55kA @ 415V 4-pole, line protection ETU330, LIG, In=160A overload protection Ir=63A...160A short-circuit protection Ii=1.5...10 x In N conductor protection adjustable (OFF, 50%, 100%) ground-fault protection Ig=0.2...1 x In= tg=0.1/0.3s nut keeper kit

Model	
product brand name	SETRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	ETU330
protection function of the overcurrent release	LIG
number of poles	4
General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
power loss [W] / maximum	25.5 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	8.5 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	12 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Summation current formation L + N conductor
product function	
• communication function	No
• other measurement function	No
net weight	2.93 kg
Current	
Max. rated operational current of the frame size	160 A
Courant permanent assigné Iu	160 A
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	160 A
• at 60 °C	160 A
• at 65 °C	160 A
• at 70 °C	160 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (Icu)	

<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	85 kA
	55 kA
	55 kA
	36 kA
	2.5 kA
breaking capacity operating short-circuit current (Ics)	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	85 kA
	55 kA
	55 kA
	36 kA
	2.5 kA
short-circuit current making capacity (Icm)	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	187 kA
	121 kA
	121 kA
	76 kA
	3.8 kA
<b>Adjustable parameters</b>	
Adjustable response value current / I <sub>g</sub> min.	63 A
Adjustable response value current / I <sub>g</sub> min.	160 A
Adjustable response value current / I <sub>g</sub> min.	0.5
Adjustable response value current / I <sub>g</sub> min.	17
Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Adjustable response value current / I <sub>i</sub> min.	240 A
Adjustable response value current / I <sub>i</sub> max.	1 600 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
Ground fault protection can be switched ON/OFF	No
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	Yes
Adjustable response value current / I <sub>g</sub> min.	32 A
Adjustable response value current / I <sub>g</sub> max.	160 A
Adjustable response value current / t <sub>g</sub> min.	0.1 s
Adjustable response value current / I <sub>g</sub> min.	0.3 s
Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / min.	0 A
Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / max.	0 A
<b>Mechanical Design</b>	
height [in]	7.1 in
Height	181 mm
width [in]	5.5 in
Width	140 mm
depth [in]	3.4 in
depth	86 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	on both sides nut keeper kit
Type of connectable conductor cross-section, connection screw, width x thickness , min.	13 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	25 x 8.5 mm
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	Yes
<b>Environmental conditions</b>	
protection class IP / on the front	IP40
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> </ul>	-25 °C

- during operation / maximum
- during storage / minimum
- during storage / maximum

70 °C  
-40 °C  
80 °C

### Certificates

reference code / acc. to IEC 81346-2

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### General Product Approval



[Miscellaneous](#)



EMC	Declaration of Conformity	Test Certificates			Shipping Approval
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Shipping Approval	other			
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[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)

### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2116-5HM42-0AA0>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-5HM42-0AA0>

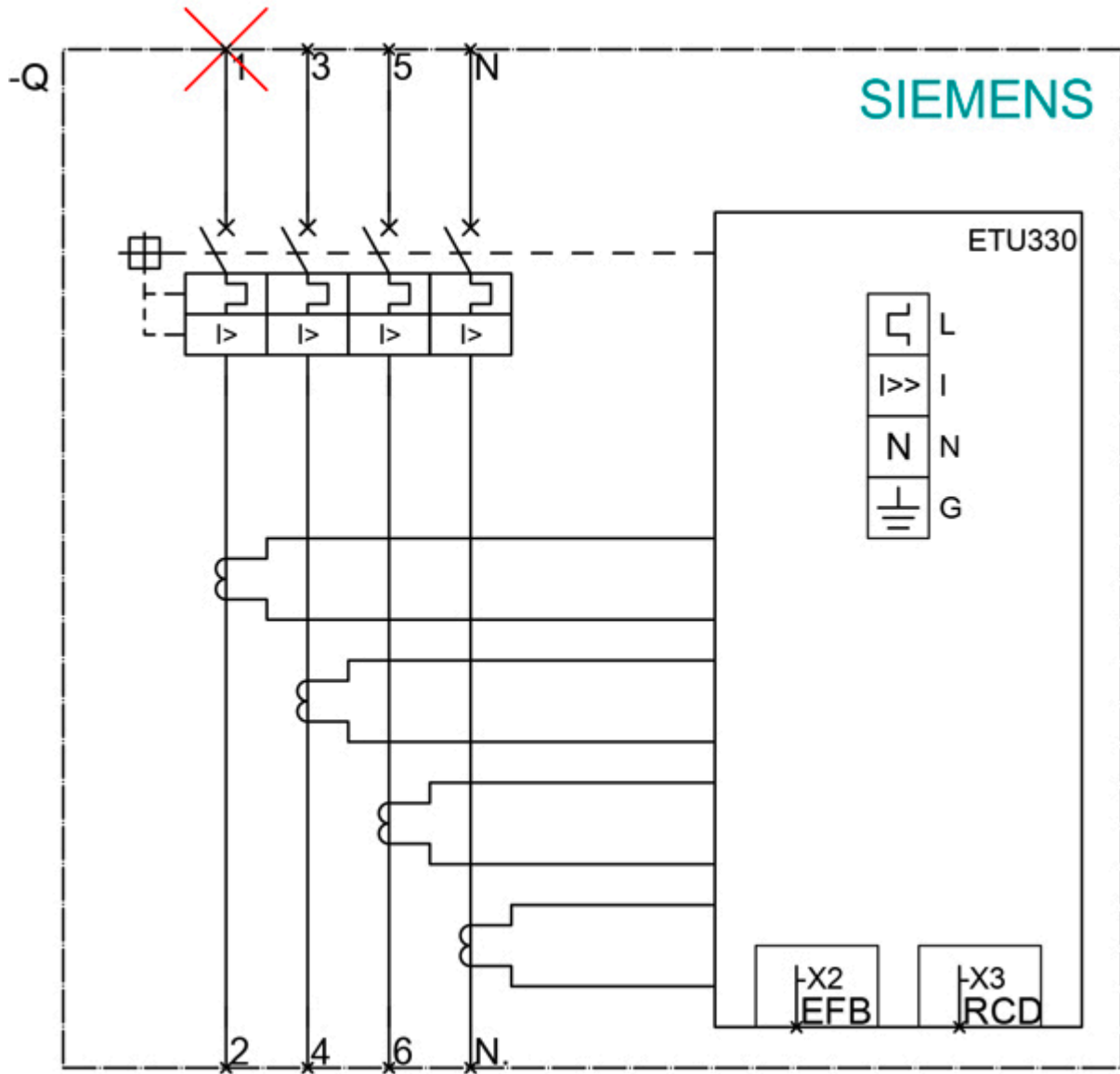
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2116-5HM42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-5HM42-0AA0)

Tender specifications

<http://www.siemens.com/specifications>





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