## SIEMENS

Product data sheet


SIRIUS, COMPACT STARTER,
REVERSING STARTER 400 V ,
110 ... 240 V AC/DC, 50 ... 60 HZ,
8 ... 32 A, IP20,
MAIN CIRCUIT CONNECTION: SCREW TERMINAL, AUXILIARY CIRCUIT CONNECTION: SCREW TERMINAL

## General technical data:

Product brand name
product designation
Design of the product
Trip class

## Product function

- control circuit interface to parallel wiring
- bus-communication
- short circuit protection
- control circuit interface with IO link

| Type of assignement |
| :--- |
| Protection class IP |
| Degree of pollution |
| Built in orientation / recommended |
| Installation altitude / at a height over sea level |
| • maximum |

## Ambient temperature

- during storage
- during operating
- during transport


## SIRIUS

compact starter
reversing feeder
CLASS 10 and 20 adjustable

No
continous operation according to IEC 60947-6-2 IP20

3
vertical, on horizontal standard mounting rail
$m \quad 2,000$

| ${ }^{\circ} \mathrm{C}$ | $-55 \ldots 80$ |
| :--- | :--- | :--- |
| ${ }^{\circ} \mathrm{C}$ | $-20 \ldots 60$ |
| ${ }^{\circ} \mathrm{C}$ | $-55 \ldots 80$ |


| Relative humidity <br> - during operating phase | \% | $10 \ldots 90$ |
| :---: | :---: | :---: |
|  |  |  |
| Resistance against shock |  | $\mathrm{a}=60 \mathrm{~m} / \mathrm{s} 2(6 \mathrm{~g})$ with 10 ms per 3 shocks in all axes |
| Resistance against vibration |  | $\begin{aligned} & \mathrm{f}=4 \ldots 5.8 \mathrm{~Hz}, \mathrm{~d}=15 \mathrm{~mm} ; \mathrm{f}=5.8 \ldots 500 \mathrm{~Hz}, \mathrm{a}=20 \\ & \mathrm{~m} / \mathrm{s}^{2} ; 10 \text { cycles } \end{aligned}$ |
| Impulse voltage resistance / rated value | v | 6,000 |
| Field-bound parasitic coupling <br> - according to IEC 61000-4-3 |  | $10 \mathrm{~V} / \mathrm{m}$ |
| Insulation voltage / rated value | v | 690 |
| Conductor-bound parasitic coupling conductor-earth SURGE <br> - according to IEC 61000-4-5 |  | 4 kV main contacts, 2 kV auxiliary contacts |
| Conductor-bound parasitic coupling conductor-conductor SURGE <br> - according to IEC 61000-4-5 |  | 2 kV main contacts, 1 kV auxiliary contacts |
| Conductor-bound parasitic coupling BURST <br> - according to IEC 61000-4-4 |  | 4 kV main contacts, 2 kV auxiliary contacts |
| Maximum permissible voltage for safe disconnection <br> - between main circuit and auxiliary circuit <br> - between control and auxiliary circuit <br> - between auxiliary circuit and auxiliary circuit | V v v | $\begin{aligned} & 400 \\ & 300 \\ & 250 \end{aligned}$ |
| Item designation <br> - according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 <br> - according to DIN EN 61346-2 |  | Q Q |
| Main circuit: |  |  |
| Operating voltage / at AC-3 / rated value <br> - maximum | V | 400 |
| Number of poles / for main current circuit |  | 3 |
| Adjustable response current <br> - of the current-dependent overload release | A | 8 ... 32 |
| Formula for making capacity limit current |  | $12 \times \mathrm{le}$ |
| Formula for interruption capacity limit current |  | $10 \times \mathrm{le}$ |
| Emitted mechanical power / for 4-pole three-phase motor <br> - at $400 \mathrm{~V} /$ rated value | kW | 15 |
| Service power / at AC-3 / at $400 \mathrm{~V} /$ rated value | kW | 15 |
| Frequency of operation / at AC-41 / according to IEC 60947-6-2 / maximum | 1/h | 750 |
| Frequency of operation / at AC-43 / according to IEC 60947-6-2 / maximum | 1/h | 250 |
| Off-load operating frequency | 1/h | 3,600 |
| Mechanical operating cycles as operating time |  |  |


| - of the main contacts / typical | $10,000,000$ |
| :--- | :--- |
| - of the auxiliary contacts / typical | $10,000,000$ |
| - of the signal contacts / typical | $10,000,000$ |



## Auxiliary circuit:

| Product extension <br> - auxiliary switch |  | Yes |
| :---: | :---: | :---: |
| Number of NC contacts <br> - for auxiliary contacts |  | 0 |
| Number of NO contacts <br> - for auxiliary contacts <br> - of the non-delayed short-circuit release / for alarm contact |  | $\begin{aligned} & 2 \\ & 1 \end{aligned}$ |
| Number of changeover contacts / of the current-dependent overload release / for alarm contact |  | 1 |
| Operating current / of the auxiliary contacts / at AC-12 <br> - maximum | A | 10 |
| Electrical switching cycle as operating time / of the auxiliary contacts <br> - at AC-15 / at $6 \mathrm{~A} /$ at $230 \mathrm{~V} /$ typical <br> - at DC-13 / at $6 \mathrm{~A} /$ at $24 \mathrm{~V} /$ typical |  | $\begin{aligned} & 500,000 \\ & 100,000 \end{aligned}$ |
| Electrical switching cycle as operating time / of the signal contacts <br> - at AC-15 / at $6 \mathrm{~A} /$ at $230 \mathrm{~V} /$ typical |  | 500,000 |

## Short-circuit:

Design of the fuse link / for short-circuit protection of the auxiliary switch

- required
fuse $\mathrm{gL} / \mathrm{gG}$ : 10 A


## Installation/mounting/dimensions:

| Type of mounting |  |  | screw and snap-on mounting |
| :--- | :--- | :--- | :--- |
| Width | mm | 90 |  |
| Height |  | mm | 170 |
| Depth | mm | 165 |  |
| Built in orientation |  | any |  |

## Connections:

## Product function

- removable terminal for main circuit
- removable terminal for auxiliary and control circuit
Design of the electrical connection
- for main current circuit
- for auxiliary and control current circuit
screw-type terminals screw-type terminals


## Type of the connectable conductor cross-section

- for main contacts
- solid
- finely stranded
- with conductor end processing
- for auxiliary contacts
- solid
- finely stranded
- with conductor end processing
- for AWG conductors
- for main contacts
- for auxiliary contacts
$2 \times\left(2.5 \ldots 6 \mathrm{~mm}^{2}\right), 1 \times 10 \mathrm{~mm}^{2}$
$2 \times\left(2.5 \ldots 6 \mathrm{~mm}^{2}\right)$
$0.5 \ldots 4 \mathrm{~mm}^{2}, 2 x\left(0.5 \ldots 2.5 \mathrm{~mm}^{2}\right)$
$0.5 \ldots 2.5 \mathrm{~mm}^{2}, 2 x\left(0.5 \ldots 1.5 \mathrm{~mm}^{2}\right)$
$2 x(14 \ldots 10), 1 \times 8$
$2 x(20 \ldots 14)$


## Certificates/approvals:

Verification of suitability

## IEC / EN 60947-6-2

| General Product Approval |  |  | Functional Safety <br> Safety of <br> Machinery | Test Certificates |
| :---: | :---: | :---: | :---: | :---: |
|  | ROSTEST |  | other | Manufacturer |
| Shipping Approval |  |  | other |  |
|  |  |  | Manufacturer | other |

## UL/CSA ratings:

yielded mechanical performance (hp) / for three-phase squirrel cage motors

> - at $200 / 208 \mathrm{~V} /$ rated value
> - at $220 / 230 \mathrm{~V} /$ rated value
> - at $460 / 480 \mathrm{~V} /$ rated value

## Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value

Contact rating designation / for auxiliary contacts / according to UL

| hp | 7.5 |
| :--- | :--- |
| hp | 10 |

hp 20

A 32
contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300

## Reliability figures:

B10 value
Proportion of dangerous failures
Proportion of dangerous failures / with low demand rate / according to SN 31920

Protection against electrical shock
Failure rate (FIT value) / with low demand rate / according to SN 31920

## $3,000,000$

\% 50
\% 40
finger-safe
100

## Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)
http://www.siemens.com/industrial-controls/catalogs
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

## Cax online generator:

http://www.siemens.com/cax
Service\&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RA6250-1EP32/all
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA6250-1EP32

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