ExpressoLivre - ExpressoMail

Remetente:	"RVTech Automação" <rvtechautomacao@gmail.com>
Para:	"Comissao Permanente de Licitacoes" <cplc.appa@appa.pr.gov.br>
Data:	26/11/2025 11:13 (04:47 horas atrás)
Assunto:	Re: Diligência LE 282/2025 lote 01
Anexos:	1jarh57g1.jpg (138.83 KB) 1jarh6bdu.jpg (55.64 KB) Planilha de Exequebilidade - Appa.pdf (719.63 KB) Catálogos.zip (2.09 MB)

Prezada Comissão, boa tarde.

Em atendimento à diligência, encaminhamos os catálogos e a exequibilidade solicitados.

Gostaríamos de reforçar que estamos ofertando os mesmos materiais previstos, **com exceção do item 06**. O edital solicita uma *"spare part"*, porém esse tipo de material não é disponibilizado com facilidade pelo fabricante e possui prazo de entrega extremamente dilatado. Por esse motivo, estamos ofertando o **inversor completo**, que é plenamente compatível e atende às necessidades técnicas do item.

Com relação aos catálogos, deixamos de anexar o PDF referente ao **item 14** porque o catálogo completo possui mais de 600 páginas e não há uma folha de dados individualizada para esse produto. Assim, disponibilizamos abaixo o link direto para o catálogo oficial do fabricante:

Lote 4: 6SL3255-0AA00-4JA2 - Siemens SiePortal
Lote 14: download.sew-eurodrive.com/download/pdf/16838181.pdf

Permanecemos à disposição para quaisquer esclarecimentos ou dificuldades no acesso aos documentos técnicos.

Pietro Chiusoli
RV Tech Automação
(43) 99989-0667

On Mon, Nov 24, 2025 at 3:34 PM RVTech Automação <rvtechautomacao@gmail.com> wrote:

> Boa tarde!!
>
> Recebemos o pedido de diligência e providenciaremos o mais rápido possível.
>
> Abraços,
>
> **Pietro Chiusoli**
> RV Tech Automação
> (43) 99989-0667
>
> On Mon, Nov 24, 2025 at 3:17 PM Comissao Permanente de Licitacoes <cplc.appa@appa.pr.gov.br> wrote:

Referente Licitação Eletrônica nº 282/2025 - LOTE 01

Boa tarde,

Realizada a competente análise da habilitação técnica pelo setor requisitante, conforme print abaixo, foi identificado que a empresa não atendeu aos requisitos técnicos do edital e termo de referência, para o que solicitamos, em diligência, os documentos necessários ao prosseguimento do certame.

a) **RVTECH AUTOMAÇÃO LTDA – Lote 1**

Conforme análise efetuada sobre a documentação apresentada pela empresa **RVTECH AUTOMAÇÃO LTDA** acostada no documento "DOCUMENTOS LE SAP 282 LOTE 01" do processo 1000000282, a empresa não apresentou os catálogos previstos no item 14.2.A do Termo de Referência, estando, portanto, **inapta** para a qualificação técnica.

Outro aspecto a ser considerado é o valor apresentado para o lote. Verificamos que o montante proposto está substancialmente inferior ao orçamento elaborado pela Portos do Paraná, o que pode caracterizar risco de inexequibilidade. Assim, sugerimos que seja conduzida uma diligência para que a empresa apresente justificativas e demonstre a viabilidade econômica de sua proposta.

RESUMO:

Lote 1 – Empresa não apresentou os catálogos dos produtos e deve comprovar a viabilidade de sua proposta, sendo, portanto, necessário a realização de diligência junto a empresa para apresentação dos catálogos dos produtos ofertados e comprovação da viabilidade de sua proposta.

Prazo de resposta: 3 (três) dias úteis ou seja até o final do dia 27/11/2025.

Colocamo-nos à disposição para eventuais esclarecimentos.

PORTOS DO PARANÁ
LOGÍSTICA INTELIGENTE

COMISSÃO PERMANENTE DE LICITAÇÃO E CADASTRO - CPLC
COORDENADORIA DE LICITAÇÕES | DAF
+55 (41) 3420-1127- (41) 3420-1373
cplc.appa@appa.pr.gov.br
www.portosdoparana.pr.gov.br
Palácio Taguaré- Avenida Ayrton Senna da Silva, 161
DOM PEDRO II - Paranaguá/PR

A APPA – Administração dos Portos de Paranaguá e Antonina

Pregoeiro (a) e Equipe de Apoio

Ref.: Edital de Pregão Eletrônico **LRE N° 282/2025**

Objeto: Aquisição através de Sistema de Registro de Preços, de materiais elétricos para automação, em atendimento às necessidades de manutenção do Corredores de Exportação (Leste e Oeste) da Administração dos Portos de Paranaguá e Antonina, a serem entregues ao longo de 12 (doze) meses, conforme justificativas, especificações técnicas e demais condições estabelecidas no Edital, Termo de Referência e anexos.

1. Relação de Materiais

CÓDIGO	QTDE	DESCRIÇÃO	MARCA
6ES7155-6AU01-0CN0	1	Módulo de interface PROFINET, SIMATIC ET 200SP	Siemens
6ES7193-6AR00-0AA0	1	Adaptador bus PROFINET, SIMATIC ET 200SP, BusAdapter	Siemens
6SL3-244-0BB12-1FA0	14	Unidade Controle CU 240E-2 PN - SINAMICS G120 STO PROFINET 6DI, 3DO, 2AI, 2AO	Siemens
6SL32550AA004JA2	13	Painel de Operação inteligente (IOP) SIEMENS G IOP-2 para SIEMENS G120	Siemens
6SL3210-1PE32-1UL0	1	Inversor de Frequência, Módulo de potência Siemens G120 110kw	Siemens
6SL3210-1PE23-8UL0	1	Inversor de Frequência Siemens conforme potência do Spare Parts	Siemens
6SL3210-1PE32-5UL0	2	Inversor de Frequência, Módulo de Potência Siemens G120 110kw	Siemens
6SL3210-1PE27-5AL0	1	Inversor de Frequência, Módulo de Potência Siemens G120 37kw	Siemens
6SL3-210-1PE33-0CL0	1	Inversor de Frequência, Módulo de Potência Siemens G120 160kw	Siemens
6SL3210-1PE31-8UL0	1	Inversor de Frequência, Módulo de Potência Siemens G120 90kw	Siemens
6SL3210-1PE23-3UL0	1	Inversor de Frequência, Módulo de Potência Siemens G120 15kw	Siemens
6SL3210-1PE26-0UL0	1	Inversor de Frequência, Módulo de Potência Siemens G120 22kw	Siemens
6AV7882-0CB20-2CA0	2	HM – Interface Homem Máquina, Modelo: SIMATIC 277E	Siemens
GA80U4038ABM	1	Inversor para Motor de acionamento, CA, 20 HP, 480	Eurodrive
MDX61B0040-5A3-4-00	1	INVERSOR DE FREQUÊNCIA , UNIDADE DE CONTROLE: MDX61B-00,	Yaskawa

Comprovação da Exequibilidade da Proposta – Lote 01 Global

2. Descrição dos Serviços, Percentual Administrativo, Quantitativo e Valores:
   a. Lote 01 – Global – Planilha de Custos

Descrição	Porcentagem	Valor Unitário (R$)
1. Custo do Material		
Custo de Material	79,55%	R$ 325.757,25
2. Impostos e taxas		
Impostos Totais (Simples Nacional)	10,00%	R$ 40.950,00
3. Taxa de Risco		
3.1 Seguro	0,25%	R$ 1.023,75
3.2 Risco	0,25%	R$ 1.023,75
3.3 Frete	1,00%	R$ 4.095,00
4. Despesas Administrativas		
Administrativo / Financeiro	0,25%	R$ 1.023,75
Engenharia	0,50%	R$ 2.047,50
Contabilidade / Fiscal	0,25%	R$ 1.023,75
Plataforma de pregão	0,05%	R$ 204,75
5. Custo Total		R$ 377.149,50
6. Valor da Venda		R$ 409.500,00
7. Lucro Líquido	**7,90%**	**R$ 32.350,50**

Atenciosamente,

Victor Baccaro Sposti
Diretor
RV Tech Automação

SIEMENS

Data sheet 6AV7882-0CB20-2CA0

SIMATIC IPC277E (Nanopanel PC); 12" Touch TFT; 2x 10/100/1000 Mbps Ethernet RJ45; 1x display port graphic; 1x USB 3.0; 3x USB 2.0; 1x serial (COM 1); CFast slot; 24 V DC power supply Celeron N2930 (4C/4T) 4 GB RAM; WIN Embedded Standard 7E SP1, English; 64 bit 240 GB SSD without SIMATIC software

General information	
Product type designation	IPC277E
Display	
Design of display	12" TFT touch
Screen diagonal	12 in
Resolution (pixels)	
● Horizontal image resolution	1 280 pixel
● Vertical image resolution	800 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	80 000 h
Control elements	
Touch operation	
● Design as touch screen	Yes; analog, resistive
Installation type/mounting	
central design	Yes
Mounting in portrait format possible	Yes
Power loss	
In full configuration	32 W
Dimensions	
Width of the housing front	330 mm
Height of housing front	241 mm
Mounting cutout, width	310 mm
Mounting cutout, height	221 mm
Overall depth	73 mm
Weights	
Weight, approx.	2.75 kg

Classifications

	Version	Classification
eClass	14	19-20-01-03
eClass	12	19-20-01-03
eClass	9.1	19-20-01-03
eClass	9	19-20-01-03
eClass	8	27-24-23-01
eClass	7.1	27-24-23-01
eClass	6	27-24-23-01
ETIM	10	EC001414
ETIM	9	EC001414
ETIM	8	EC001414
ETIM	7	EC001414

Approvals / Certificates

General Product Approval	Maritime application

Manufacturer Declaration

Miscellaneous

Maritime application

NK / Nippon Kaiji Kyokai

last modified: 8/26/2025

SIEMENS

Data sheet 6ES7155-6AU01-0CN0

SIMATIC ET 200SP, PROFINET, 2-port interface module IM 155-6PN/2 High Feature, 1 slot for BusAdapter, max. 64 I/O modules and 16 ET 200AL modules, S2 redundancy, multi-hotswap, 0.25 ms, isochronous mode, optional PN strain relief, including server module

General information	
Product type designation	IM 155-6 PN/2 HF
HW functional status	From FS02
Firmware version	V4.2
● FW update possible	Yes
Product function	
● I&M data	Yes; I&M0 to I&M3
● Module swapping during operation (hot swapping)	Yes; Multi-hot swapping
● Isochronous mode	Yes
● Tool changer	Yes; Docking station and docking unit
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V15.1
● STEP 7 configurable/integrated from version	use GSD file
● PROFINET from GSD version/GSD revision	GSDML V2.34
Configuration control	
via dataset	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
● Mains/voltage failure stored energy time	10 ms
Input current	
Current consumption, max.	700 mA
Inrush current, max.	4.5 A
I^2t	0.25 $A^2 \cdot s$
Power loss	
Power loss, typ.	2.4 W
Address area	
Address space per module	
● Address space per module, max.	288 byte; For input and output data respectively
Address space per station	
● Address space per station, max.	1 440 byte
Hardware configuration	
Rack	
● Quantity of operable ET 200SP modules, max.	64
● Quantity of operable ET 200AL modules, max.	16
Submodules	

● Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
● RJ 45 (Ethernet)	Yes; with BusAdapter
● Number of ports	2; with BusAdapter
● integrated switch	Yes
● BusAdapter (PROFINET)	Yes; BA 2x RJ45, BA 2x FC, BA 2x SCRJ, BA SCRJ/RJ45, BA SCRJ/FC, BA 2x LC, BA LC/RJ45, BA LC/FC
Protocols	
● PROFINET IO Device	Yes
● Open IE communication	Yes
● Media redundancy	Yes; PROFINET MRP client
PROFINET IO Device	
Services	
— IRT	Yes; 250 µs to 4 ms in 125 µs frame
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Interface types	
RJ 45 (Ethernet)	
● Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
● 100 Mbps	Yes
● Autonegotiation	Yes
● Autocrossing	Yes
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	Yes
PROFIBUS	No
EtherNet/IP	No
Modbus TCP	No
Number of connections	
● Number of MtM communication relationships/connections, max.	16
Redundancy mode	
● PROFINET system redundancy (S2)	Yes; NAP S2
● H-Sync forwarding	Yes
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
● TCP/IP	Yes
● SNMP	Yes
● LLDP	Yes
Isochronous mode	
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
● RUN LED	Yes; green LED
● ERROR LED	Yes; red LED
● MAINT LED	Yes; Yellow LED
● Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED

● Connection display LINK TX/RX	Yes; 2x green link LEDs on BusAdapter
Potential separation	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes; 1500 V AC (type test)
between supply and all other circuits	No
Permissible potential difference	
between different circuits	Safety extra low voltage SELV
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Network loading class	3
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	105 kg
— global warming potential, (during production) [CO2 eq]	13.7 kg
— global warming potential, (during operation) [CO2 eq]	91.9 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.617 kg
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C; No condensation
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C; No condensation
● vertical installation, max.	50 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
connection method	
ET-Connection	
● via BU/BA Send	Yes; + 16 ET 200AL modules
Mechanics/material	
Strain relief	Yes; Optional
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	120 g; without BusAdapter

Classifications

	Version	Classification
eClass	14	27-24-26-08
eClass	12	27-24-26-08
eClass	9.1	27-24-26-08
eClass	9	27-24-26-08
eClass	8	27-24-26-08
eClass	7.1	27-24-26-08
eClass	6	27-24-26-08
ETIM	10	EC001604
ETIM	9	EC001604
ETIM	8	EC001604
ETIM	7	EC001604
IDEA	4	3564
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous | Manufacturer Declaration | PROFINET

General Product Approval			For use in hazardous locations		
KC			FM	CCC-Ex	

For use in hazardous locations			Maritime application		
	Miscellaneous	Type Examination Certificate			

Maritime application					
	NK / Nippon Kaiji Kyokai			CCS (China Classification Society)	

Environment	Industrial Communication
	PROFINET

last modified: 10/23/2025

SIEMENS

Data sheet 6ES7193-6AR00-0AA0

SIMATIC ET 200SP, BusAdapter BA 2xRJ45, 2 RJ45 sockets

General information	
Product type designation	BA 2x RJ45
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch) 2x RJ45
Supports protocol for PROFINET IO	
● Number of RJ45 ports	2
Cable length	
— Cu conductors	100 m
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C
● vertical installation, max.	50 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200SP system manual
Dimensions	
Width	20 mm
Height	69.5 mm
Depth	59 mm
Weights	
Weight, approx.	46 g
Classifications	

	Version	Classification
eClass	14	27-24-26-92
eClass	12	27-24-26-92
eClass	9.1	27-24-26-92
eClass	9	27-24-26-92
eClass	8	27-24-26-92
eClass	7.1	27-24-26-92
eClass	6	27-24-26-92
ETIM	10	EC002584
ETIM	9	EC002584
ETIM	8	EC002584
ETIM	7	EC002584
IDEA	4	3552

	UNSPSC	15	32-15-17-03

Approvals / Certificates

General Product Approval

Manufacturer Declaration

Miscellaneous

KC

General Product Approval | For use in hazardous locations

FM

CCC-Ex

For use in hazardous locations | Maritime application

Miscellaneous

Type Examination Certificate

Maritime application | Environment

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

last modified: 10/9/2024

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE23-3UL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	39.90 A	
Rated current (HO)	36.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	15.00 kW	20.00 hp
Rated power (HO)	11.00 kW	15.00 hp
Rated current (LO)	32.00 A	
Rated current (HO)	26.00 A	
Max. output current	52.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	

Overload capability

Low Overload (LO)

1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

General tech. specifications

Power factor λ	0.85
Offset factor cos φ	0.95
Efficiency η	0.97
Sound pressure level (1m)	72 dB
Power loss	0.37 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.018 m³/s (0.653 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-10 ... 40 °C (14 ... 104 °F)
Operation HO	-10 ... 50 °C (14 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	Plug-in screw terminals
Conductor cross-section	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
Motor end	
Version	Plug-in screw terminals
Conductor cross-section	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
Max. motor cable length	
Shielded	50 m (164.04 ft)
Unshielded	100 m (328.08 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSC
Net weight	4.80 kg (10.58 lb)
Dimensions	
Width	140 mm (5.51 in)
Height	355 mm (13.98 in)
Depth	165 mm (6.50 in)

Standards

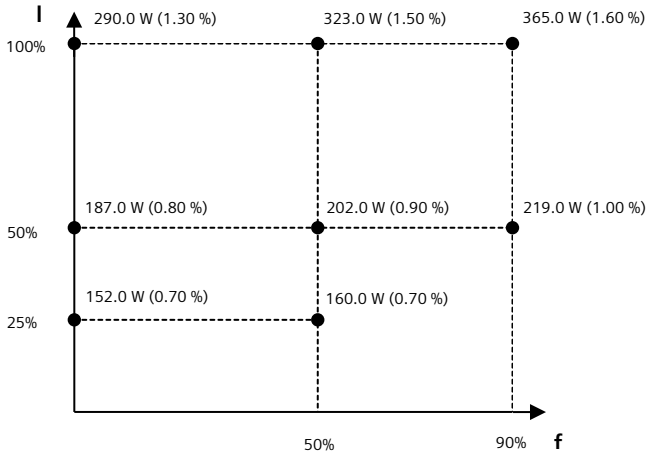
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE23-3UL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	32.60 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE26-0UL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	57.00 A	
Rated current (HO)	47.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	30.00 kW	40.00 hp
Rated power (HO)	22.00 kW	30.00 hp
Rated current (LO)	60.00 A	
Rated current (HO)	45.00 A	
Max. output current	90.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	

Overload capability

Low Overload (LO)

1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

General tech. specifications

Power factor λ	0.95
Offset factor cos φ	0.99
Efficiency η	0.98
Sound pressure level (1m)	72 dB
Power loss	0.77 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.055 m³/s (1.942 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	screw-type terminal
Conductor cross-section	10.00 ... 35.00 mm² (AWG 8 ... AWG 2)
Motor end	
Version	Screw-type terminals
Conductor cross-section	10.00 ... 35.00 mm² (AWG 8 ... AWG 2)
DC link (for braking resistor)	
Version	Screw-type terminals
Conductor cross-section	2.50 ... 16.00 mm² (AWG 14 ... AWG 6)
Cable length	10 m (32.81 ft)
PE connection	Screw-type terminals
Max. motor cable length	
Shielded	200 m (656.17 ft)
Unshielded	300 m (984.25 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSD
Net weight	17.00 kg (37.48 lb)
Dimensions	
Width	200 mm (7.87 in)
Height	472 mm (18.58 in)
Depth	237 mm (9.33 in)

Standards

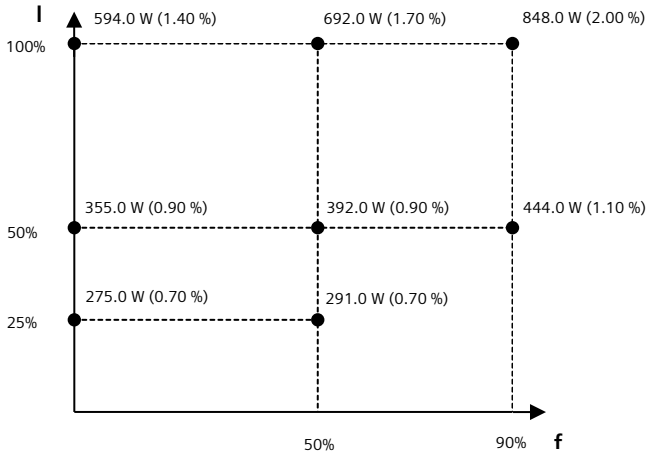
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE26-0UL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	42.60 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE27-5AL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	70.00 A	
Rated current (HO)	62.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	37.00 kW	50.00 hp
Rated power (HO)	30.00 kW	40.00 hp
Rated current (LO)	75.00 A	
Rated current (HO)	60.00 A	
Max. output current	120.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		
Low Overload (LO) 1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s		
High Overload (HO) 1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s		

General tech. specifications

Power factor λ	0.95
Offset factor cos φ	0.99
Efficiency η	0.98
Sound pressure level (1m)	72 dB
Power loss	1.02 kW
Filter class (integrated)	Class A

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.055 m³/s (1.942 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	screw-type terminal
Conductor cross-section	10.00 ... 35.00 mm² (AWG 8 ... AWG 2)
Motor end	
Version	Screw-type terminals
Conductor cross-section	10.00 ... 35.00 mm² (AWG 8 ... AWG 2)
DC link (for braking resistor)	
Version	Screw-type terminals
Conductor cross-section	2.50 ... 16.00 mm² (AWG 14 ... AWG 6)
Cable length	10 m (32.81 ft)
PE connection	Screw-type terminals
Max. motor cable length	
Shielded	200 m (656.17 ft)
Unshielded	300 m (984.25 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSD
Net weight	18.50 kg (40.79 lb)
Dimensions	
Width	200 mm (7.87 in)
Height	472 mm (18.58 in)
Depth	237 mm (9.33 in)

Standards

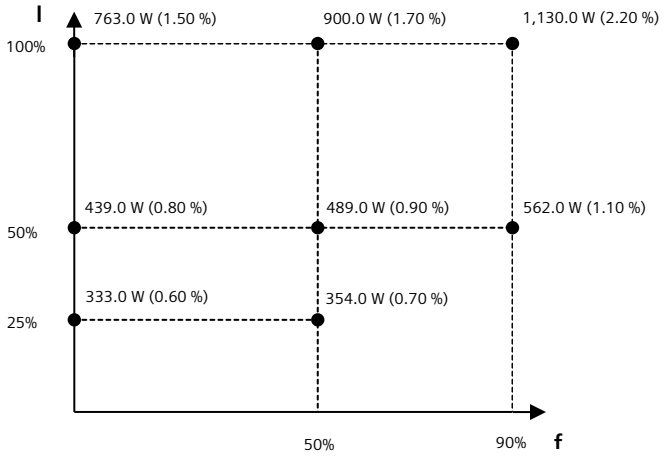
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE27-5AL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	45.70 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE31-8UL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	172.00 A	
Rated current (HO)	154.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	90.00 kW	125.00 hp
Rated power (HO)	75.00 kW	100.00 hp
Rated current (LO)	178.00 A	
Rated current (HO)	145.00 A	
Max. output current	290.00 A	
Pulse frequency	2 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	

Overload capability

Low Overload (LO)

1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

General tech. specifications

Power factor λ	0.95
Offset factor cos φ	0.99
Efficiency η	0.98
Sound pressure level (1m)	68 dB
Power loss	2.31 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.153 m³/s (5.403 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm² (AWG 2 ... AWG -3)
Motor end	
Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm² (AWG 2 ... AWG -3)
DC link (for braking resistor)	
Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm² (AWG 4 ... AWG -1)
Cable length	10 m (32.81 ft)
PE connection	M10 screw studs
Max. motor cable length	
Shielded	300 m (984.25 ft)
Unshielded	450 m (1,476.38 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSF
Net weight	57.00 kg (125.66 lb)
Dimensions	
Width	305 mm (12.01 in)
Height	708 mm (27.87 in)
Depth	357 mm (14.06 in)

Standards

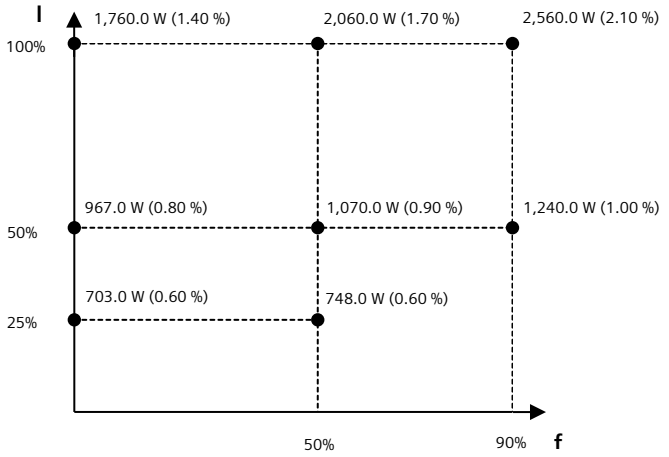
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE31-8UL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	50.60 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE32-1UL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	198.00 A	
Rated current (HO)	189.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	110.00 kW	150.00 hp
Rated power (HO)	90.00 kW	125.00 hp
Rated current (LO)	205.00 A	
Rated current (HO)	178.00 A	
Max. output current	356.00 A	
Pulse frequency	2 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		
Low Overload (LO)		
1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s		
High Overload (HO)		
1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s		

General tech. specifications

Power factor λ	0.95
Offset factor cos φ	0.99
Efficiency η	0.99
Sound pressure level (1m)	68 dB
Power loss	2.15 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.153 m³/s (5.403 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm² (AWG 2 ... AWG -3)
Motor end	
Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm² (AWG 2 ... AWG -3)
DC link (for braking resistor)	
Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm² (AWG 4 ... AWG -1)
Cable length	10 m (32.81 ft)
PE connection	M10 screw studs
Max. motor cable length	
Shielded	300 m (984.25 ft)
Unshielded	450 m (1,476.38 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSF
Net weight	61.00 kg (134.48 lb)
Dimensions	
Width	305 mm (12.01 in)
Height	708 mm (27.87 in)
Depth	357 mm (14.06 in)

Standards

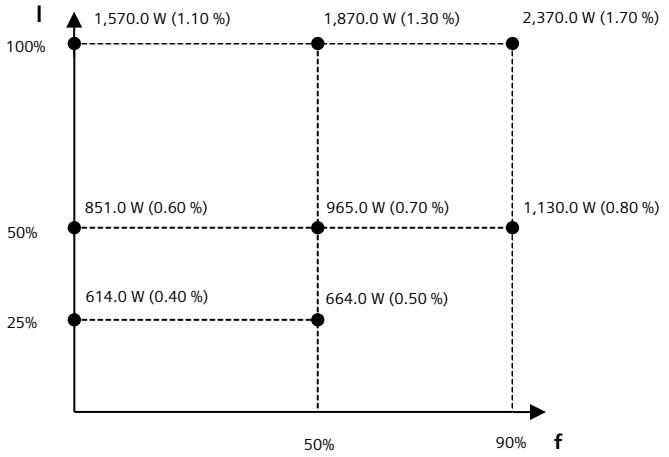
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE32-1UL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	40.60 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE32-5UL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	242.00 A	
Rated current (HO)	218.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	132.00 kW	200.00 hp
Rated power (HO)	110.00 kW	150.00 hp
Rated current (LO)	250.00 A	
Rated current (HO)	205.00 A	
Max. output current	410.00 A	
Pulse frequency	2 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		
Low Overload (LO)		
1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s		
High Overload (HO)		
1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s		

General tech. specifications

Power factor λ	0.95
Offset factor cos φ	0.99
Efficiency η	0.98
Sound pressure level (1m)	68 dB
Power loss	2.81 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.153 m³/s (5.403 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm² (AWG 2 ... AWG -3)
Motor end	
Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm² (AWG 2 ... AWG -3)
DC link (for braking resistor)	
Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm² (AWG 4 ... AWG -1)
Cable length	10 m (32.81 ft)
PE connection	M10 screw studs
Max. motor cable length	
Shielded	300 m (984.25 ft)
Unshielded	450 m (1,476.38 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSF
Net weight	61.00 kg (134.48 lb)
Dimensions	
Width	305 mm (12.01 in)
Height	708 mm (27.87 in)
Depth	357 mm (14.06 in)

Standards

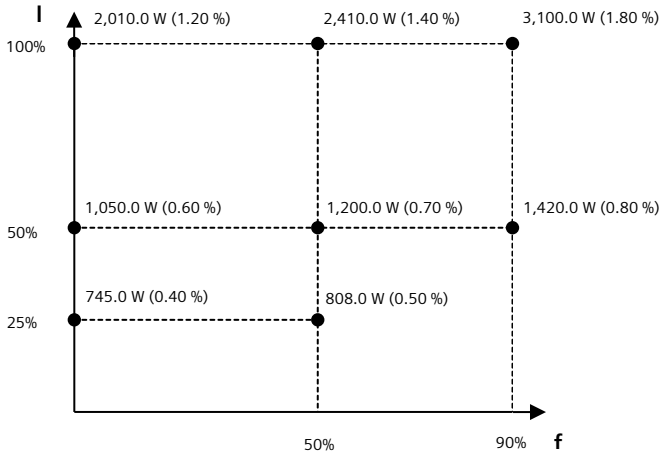
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE32-5UL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	43.80 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE33-0CL0**

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V ±10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	300.00 A	
Rated current (HO)	275.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	160.00 kW	250.00 hp
Rated power (HO)	132.00 kW	200.00 hp
Rated current (LO)	302.00 A	
Rated current (HO)	250.00 A	
Max. output current	500.00 A	
Pulse frequency	2 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		
Low Overload (LO)		
1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s		
High Overload (HO)		
1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s		

General tech. specifications

Power factor λ	0.90
Offset factor cos φ	0.98
Efficiency η	0.98
Sound pressure level (1m)	75 dB
Power loss	3.66 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.210 m³/s (7.416 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	M10 bolt
Conductor cross-section	35.00 ... 2 x 185.00 mm² (AWG 2 ... AWG -5)
Motor end	
Version	M10 bolt
Conductor cross-section	35.00 ... 2 x 185.00 mm² (AWG 2 ... AWG -5)
DC link (for braking resistor)	
Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm² (AWG 4 ... AWG -1)
Cable length	10 m (32.81 ft)
PE connection	M10 screw studs
Max. motor cable length	
Shielded	300 m (984.25 ft)
Unshielded	450 m (1,476.38 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSG
Net weight	106.10 kg (233.91 lb)
Dimensions	
Width	305 mm (12.01 in)
Height	1,000 mm (39.37 in)
Depth	357 mm (14.06 in)

Standards

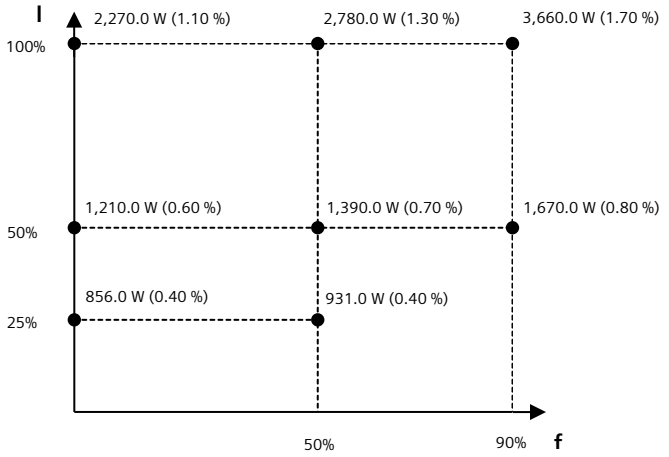
Compliance with standards	UL, cUL, CE, C-Tick (RCM), EAC, SEMI F47
CE marking	Low-voltage directive 2006/95/EC

SIEMENS

Data sheet for SINAMICS Power module PM240-2

Article No. : **6SL3210-1PE33-0CL0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	43.00 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIEMENS

Data sheet for SINAMICS Control unit CU240E-2 PN

Article No. : 6SL3244-0BB12-1FA0

Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Electrical data

Operating voltage via	
The Power Module	DC 24 V
External power supply	DC 20 ... 29 V
Max. power consumption	0.50 A
Power loss	5.50 W

Communication

Communication	PROFINET, EtherNet/IP

Inputs / outputs

Standard digital inputs	
Number	6
Switching level: 0→1	11 V
Switching level: 1→0	5 V
Fail-safe digital inputs	
Number	1 (Use of 2 × DI Standard)
Digital outputs	
as relay changer	
Number	2
Analog / digital inputs	
Number	2 (Differential input)
Analog outputs	
Number	2 (Non-isolated output)

Closed-loop control techniques

V/f linear / square-law / parameterizable	Yes
V/f with flux current control (FCC)	Yes
V/f ECO linear / square-law	Yes
Sensorless vector control	Yes
Vector control, with sensor	No
Encoderless torque control	Yes
Torque control, with encoder	No

Ambient conditions

Ambient temperature	
Operation	-10 ... 55 °C (14 ... 131 °F)
Storage	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	
Max. operation	95 %

Connections

Signal cable	
Conductor cross-section	0.05 ... 1.50 mm² (AWG 28 ... AWG 16)

Mechanical data

Degree of protection	IP20 / UL open type
Net weight	0.49 kg (1.08 lb)
Dimensions	
Width	73.0 mm (2.87 in)
Height	199.0 mm (7.83 in)
Depth	46.0 mm (1.81 in)

Standards

Compliance with standards	CE, UL, cUL, RCM, SEMI F47
CE marking	Low-voltage directive 2014/35/EC

YASKAWA

GA800

Inversor de Frequência para aplicações industriais

O inversor GA800 da Yaskawa combina potência, facilidade de uso, flexibilidade e desempenho.

Além da geração de torque excepcional e controles precisos, também conta com setup simplificado e tela de alta resolução, contando também, como opcional, Filtro EMC integrado.

Detalhes

Especificações	Detalhes
Capacidade de sobrecarga	150% por 60 segundos (HD) 110% por 60 segundos (ND)
Frequência de saída	0 até 590 Hz
Metodos de controle	Vetorial de corrente em malha aberta ou fechada
	V/F de malha aberta e fechada
Tipo de motor	Indução
	Imã Permanente de Superfície
	Imã Permanente Interno
	Sincrono de relutância
Grau de proteção	IP20 (Kit NEMA 1 disponível)
	Com flange (Tipo 12 na parte traseira)
Temperatura ambiente para trabalho	-10 até +50°C (modelos IP20 e flange)
	De -10 até 40°C (com kit NEMA 1)
	Até 60°C (com redução de potência)
Certificações globais	UL, CSA, CE, RCM, RoHS
Segurança funcional	Safe Torque Off, SIL3 conforme norma IEC 62061, PLe conforme norma ISO 13849-1
I/O Padrão	(8) Entradas Digitias Multifuncionais (24Vcc) NPN / PNP
	(3) Entradas Analógicas Multifuncionais (0 +/- 10 VDC, 4-20 mA)
	(1) Entrada de Pulsos Multifuncionais
	(1) Saída de Pulsos Multifuncionais
	(1) Saída a Relé exclusiva para falha (forma C)
	(3) Saída a Relés Multifuncionais (forma A)
	(2) Saídas Analógicas Multifuncionais (0 +/- 10 VDC, 4-20mA)
	(2) Entradas Safe Torque Off
Expanções I/O	(3) Entradas Analógicas -10 à +10V, 13 bits mais sinal, 4 to 20mA
	(16) Entradas Digitais
	(2) Saídas Analógicas (-10 à +10V, 11 bits de magnitude)
	(8) Saídas Digitais (6 transistores, 2 relês)
Feedback (opcional)	Encoder incremental
	Encoder absoluto (Stegmann, Heidenhain, Resolver)
Comunicação de rede	Padrão: Modbus RTU, RS-485, 115 kbps
	Opcional: EtherNet/IP, DeviceNet, Modbus TCP/IP, PROFINET, PROFIBUS-DP, CanOpen, EtherCat, Mechatrolink II e III
Controle de variação de velocidade	1500:1 Vetorial de malha fechada (Motores de Indução e Imã)
	200:1 Vetorial de malha aberta (Motores de Indução)
	100:1 Vetorial de malha aberta (Motores de Imã)
Controle de precisão de velocidade	≤ 0,02%: Vetorial de malha fechada ≤ 0,2%: Vetorial de malha aberta
Velocidade de resposta	≥ 50 Hz: Vetorial de malha fechada (Motores de Indução) ≥ 250 Hz: Vetorial de malha fechada (Motores de Imã) ≥ 20 Hz: Vetorial de malha aberta (Motores de Indução) ≥ 40 Hz: Vetorial de malha aberta (Motores de Imã)
Diagramas de função em bloco	Até 200 conexões, tempo de escaneamento do programa: 500µs

Acesso Remoto através do DriveWizard Mobile

- Teclado opcional Bluetooth® permite conexão wireless ao seu smartphone ou tablet, para acesso e controle em telas coloridas e ricas em informação;
- Conexão alternativa, via USB, permite acesso mesmo quando o GA800 não estiver energizado.

Função Osciloscópio

Possibilitando ajustes sem necessidade de instrumentos externos.

Placa de Circuito Envernizada

Para utilização em ambientes agressivos.
Conforme norma IEC 60721-3-3: níveis 3C2 e 3S3.

E Mais...

- Relógio tempo real integrado;
- Backup automático;
- Slot para cartão de memória;
- Montagem lado a lado e horizontal
- Transistor de frenagem incorporado até 50CV (220 V) e até 125CV (380 /440 V)

GA800

Sistema de Conexão em Rede

O GA800 é capaz de controlar até 5 drives com um único cartão de comunicação de rede de qualquer protocolo convertendo a rede industrial em RS-485.

Funções avançadas sem Encoder

Usando um motor de imã permanente é possível produzir 200% de torque de partida, à velocidade zero, sem uso de encoders. Em motores de indução é possível controle de torque sem encoder, diminuindo os custos de tais aplicações

Também temos um catálogo digital completo para você.
Acesse-o através do Código QR ao lado.

Especificações

Classe 200 Vca GA80U-□□□□	Aplicação Normal (ND)		Aplicação Pesada (HD)		Dimensões				Reator LinkCC	Transistor de Frenagem
	Potência (CV)	Corrente (A)	Potência (CV)	Corrente (A)	Altura (mm)	Largura (mm)	Profundidade (mm)	Peso (kg)		
2004ABM	1	4,2	1	3,5	260	140	176	3,5	Opcional Externo	Incorporado
2006ABM	1,5	6	1,5	5	260	140	176	3,5		
2008ABM	2	8	2	6,9	260	140	176	3,5		
2010ABM	3	9,6	2	8	260	140	176	3,5		
2012ABM	4	12,2	3	11	260	140	176	3,5		
2018ABM	6	17,5	4	14	260	140	211	3,9		
2021ABM	7,5	21	6	17,5	260	140	211	3,9		
2030ABM	10	30	7,5	25	260	140	211	4,2		
2042ABM	15	42	12,5	33	260	140	211	4,2		
2056ABM	20	56	15	47	300	180	202	6		
2070ABM	25	70	20	60	350	220	227	8,5		
2082ABM	30	82	25	75	350	220	227	9		
2110ABM	40	110	30	88	400	240	280	22	Incorporado	Opcional Externo
2138ABM	50	138	40	115	450	255	280	24		
2169ABM	60	169	50	145	543	264	335	39		
2211ABM	75	211	60	180	543	264	335	40		
2257ABM	100	257	75	215	700	312	420	67		
2313ABM	125	313	100	283	700	312	420	67		
2360ABM	150	360	125	346	800	440	472	104		
2415ABM	150	415	150	415	800	440	472	119		

Classe 400 Vca GA80U-□□□□	Aplicação Normal (ND)			Aplicação Pesada (HD)			Dimensões				Reator LinkCC	Transistor de Frenagem
	Potência (CV)		Corrente (A)	Potência (CV)		Corrente (A)	Altura (mm)	Largura (mm)	Profundidade (mm)	Peso (kg)		
	380V	440V		380V	440V							
4002ABM	1	1	2,1	1	1	1,8	260	140	176	3,5	Opcional Externo	Incorporado
4004ABM	2	2	4,1	1,5	2	3,4	260	140	176	3,5		
4005ABM	3	3	5,4	2	3	4,8	260	140	176	3,5		
4007ABM	4	5	7,1	3	4	5,5	260	140	211	3,9		
4009ABM	5	6	8,9	4	5	7,2	260	140	211	3,9		
4012ABM	7,5	7,5	11,9	5	6	9,2	260	140	211	3,9		
4018ABM	10	12,5	17,5	7,5	10	14,8	260	140	211	4,2		
4023ABM	15	15	23,4	10	12,5	18	260	140	211	4,2		
4031ABM	20	20	31	15	15	24	300	180	202	6		
4038ABM	25	30	38	20	20	31	300	180	202	6		
4044ABM	30	30	44	25	30	39	350	220	227	7,5		
4060ABM	40	40	59,6	30	30	45	350	220	246	12	Incorporado	Opcional Externo
4075ABM	50	60	74,9	40	40	60	400	240	280	17		
4089ABM	60	75	89,2	50	60	75	450	255	280	22		
4103ABM	75	75	103	60	75	91	450	255	280	25		
4140ABM	75	100	140	75	75	112	543	264	335	38		
4168ABM	100	125	168	100	125	150	543	264	335	39		
4208ABM	150	150	208	125	150	180	700	312	420	71		
4250ABM	175	200	250	150	175	216	700	312	420	71		
4302ABM	200	250	302	175	200	260	700	312	420	71		
4371ABM	250	300	371	200	250	304	800	440	472	122		
4414ABM	300	350	414	250	300	371	800	440	472	126		
4477ABM	350	400	477	300	350	414	1136	510	480	198		
4568ABM	400	450	568	350	400	477	1136	510	480	198		
4605ABM	450	500	675	450	500	605	1136	510	480	207		
4720ABM	500	600	720	450	500	605	1136	510	480	207		

As informações dimensionais dispostas acima representam gabinetes do tipo IP20. As potências indicadas são relacionadas a motores de 4 polos - Alto rendimento. Consultar corrente para outras partidas

Especificações sujeitas a alterações.

Yaskawa Elétrico do Brasil LTDA.
Av. Piraporinha, 777 - Diadema, SP
CEP: 09950-000
yaskawa.com.br

Telefone: +55 11 3585-1100
Email: comercial@yaskawa.com.br

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